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Academic Mobilities and Spatial Capital:
Is There a Link Between Regional Airports and Universities?
(The Case of North East and Tees Valley, UK)

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ABSTRACT

The universities are being challenged by two main streams of pressures in the last decades. On the one hand, they are expected to engage with local and regional actors and communities more intensively, to integrate in the local and regional development in particular, and stimulate the knowledge-based economy in general. On the other hand, due to the processes of globalization of the higher education, universities invest more resources in expanding their internationalization agendas and development. The impact is seen by universities' offshore expansion, as well as increasing international flows of students, academics, staff. Therefore, the production of mobilities has expanded and became a feature of a modern university.

While the research on universities' local and regional and international engagement, as well as on academic mobilities, is constantly growing, the gap lies in the understanding of balancing both integration agendas and its facilitation and the ways it can underpin mobilities. This combination of fixity and mobility, or 'place plus mobility' (Levy, 1994), is in the focus of the theoretical framework of spatial capital. At the same time, in the context of international integration, the role of transport infrastructure, and airports in particularly, which provide accessibility and connectivity and produce mobilities, has changed. The presented research follows a new path in developing the framework of spatial capital by the inclusion of transport infrastructure, e.g. (regional) airports.

The research's aim is to investigate an existence of a link between regional airports and universities and its role in underpinning academic mobilities and spatial capital. It acquires a (single) case study methodology, which is constituted by the expert interviews, survey (with university students), observation, and is supported by the additional universities' enquiry via email. The responses from universities across England introduce the cases of a collaboration or link between higher education institution and its local airport, as well as highlight the challenges in investigating those cases. While in the context of North East and Tees Valley a link between these regional actors has generally an occasional character, the research analyses the benefits and challenges of a potential collaboration and its impact on academic mobilities. The benefits are mostly represented by advantages of joint research and teaching activities, spatial capital accumulation and the

overall better interconnected regional development. The challenges include the ways to connect the actors and exchange data, which plays a significant role in the establishment of a prospective link. Thus, the research allows to reveal the effects of the link, which has a potential to underpin mobilities and spatial capital accumulation, in particular – of the university students.

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INTRODUCTION

The contemporary world is characterized by the processes of globalization, which affect all social spheres and levels of the society's constitution. One of the spheres experiencing and changing due to the global impacts is higher education. The phenomenon has already been titled 'globalization of higher education', and a growing number of universities worldwide are attracted by the image of a 'global university'. Globalization does not only pose new requirements on sectors, it accelerates the existing factors and conditions. In the sphere of higher education, it increases 'three of the most important higher education trends of the last half century – mass access, growing reliance on the merit principle, and significantly greater use of technology' (Wildavsky, 2012, p. 8). Moreover, globalization processes have intensified competition in higher education and the mobilities of all academic groups (ibid, p. 4). While the incorporation of competition and mobility in the university's nature is not the new trend, what is new is the scope of its realization and involvement. In this context, the research focuses on one of the ways of academic mobilities' facilitation on an international scope – through a link between universities and an airport embedded in the hosting region.

The globalization processes in the sphere of higher education are present worldwide, including the United Kingdom (UK), where universities broaden their internationalization agendas and inclusion into global networks. Nowadays, the higher education sector in the UK is a fast-growing industry with an increasing numbers of both national and international staff and students along with incomes and funding, and collaborations. There were more than 2 million students and almost 420,000 staff at the British higher education institutions in 2016-17 (Patterns and Trends in UK Higher Education, 2018, p. 4). According to the report by HM Government 'International Education strategy' (2019), based on data from Higher Education Statistics Agency (HESA), 'the UK hosted almost 460,000 international students in 2017/18, the highest level on record; in 2016/17, over 700,000 students were studying for UK degrees outside the UK' (p. 8). The latter represents one of the forms of universities internationalization – degree provision outside the UK at their own offshore campuses or by international higher education providers in collaboration with the British institutions. Moreover, in the global competition and collaboration are being involved more and more universities, including the new ones or former polytechnics (post-1992), which were originally established to focus on the regional needs.

The international engagement for universities takes a variety of forms; and while academic and student mobilities are one of the main manifestations, it is not limited to them. The internationalization of educational content, curriculum and pedagogy, as well as the academic culture in general reflects the changes universities are facing. Along with the academic mobilities of students, all these trends in complex influence both home and international students' educational experience, cultural practices, and social relations. Thus, the international character and mobilities are embedded in the university's structure, and represent a feature of a modern university.

At the same time, the UK universities are challenged by a dualism of development and engagement, which involves, on the one hand, widening internationalization, and on the other hand, a need to broaden the regional inclusion. In the context of the recent national and regional policies in the UK, for example, place-based approach within the Industrial strategy, universities mobilize their inner resources to allocate part of them to the regional agenda. In a broader way, universities' regional engagement can be conceptualized as a 'third mission', along with the primarily two – teaching and research. Regional engagement and agenda take different forms, such as applying functions of an anchor institution, or positioning itself as a civic university with a focus on the civic function, or serving the society. The third mission is an intentional set of activities, developed at universities with a purpose to establish closer and stronger ties with their place and local communities. Another significant task to fulfill is to act as 'key knowledge infrastructures in regional innovation systems' and as 'integrators of forms of knowledge' (Charles, 2006, p. 128). Moreover, universities generate impact on local and regional economies and development by their operations, including regeneration programmes, land ownership, acting as a significant employer and other.

The combination and balance between these two forms of engagement, which incorporate their own tensions, including a 'vision of the academy (as a more or less global thought community) and the university (as an institution in place)' (Meusburger et al, 2018, p. 605), is a challenging task for many universities. Cities and places have expectations of their universities' local contributions and 'increasingly view universities as an essential infrastructural prerequisite to compete both locally and globally'

(Addie et al, 2015, p. 43). However, to be a prosperous regional contributor, not only in economic sense, universities have to be successful globally and be able to attract international students and staff, including ‘start scientists’ and top managers or leaders but not only, as well as resources, to develop the knowledge production and transfer and invest in regional development. The region, in turn, plays a role in universities’ performance on the international arena by supporting it through regional policies, factors and infrastructures.

Universities facilitate global engagement through different forms, and one of the most important one is mobility, including student and academic mobilities, or mobilities of students, academic and non-academic staff (conceptualization depends on the approach). Moreover, it lies at the heart of other international developments, such as campus or joint programmes establishment, since it previously facilitates the social networks and connections. Mobility, for its part, requires transport infrastructure and connectivity, which is a material form of their realization. While mobilities have different scopes, such as regional, national and international or global, they are facilitated by different transport means, and the movements on the international scope (mostly) rely on transport, which provides long-distance and fast connections – air transport and airports. While it is a general tendency, it is particularly relevant to the UK due to its geographical factors.

The international engagement of many UK universities has been facilitated by their regional airports. Due to the operation of the national airports’ network, it consists of a limited amount of hub airports with larger connectivity options and catchment area, while the rest of the country is covered by the operation of regional airports. Most of them provide national and international connectivity for their hosting region, and are regional in terms of the location (not London area) or/ and capacity (not hubs). The promotion of regional airports along with the focus on the national hubs (Heathrow, Gatwick, Manchester airports and others) contributes to the even socio-economic development of the country. Furthermore, both universities and airports are parts of a regional system and are linked not only by the demand for flows (for the airport) and the need for the connectivity (for universities). Firstly, both regional universities and airports are understood as key actors in economic growth and regional development, particularly by being large-scale employers and land owners/ users. Secondly, both are generating significant physical movements and are perceived through the production of mobilities, what is, in turn, connected to the socio-economic development, on the one hand, and sustainability issues, on the other hand. Moreover, airports and universities’ operations on the local and global scopes are equally advantageous for organizations themselves and regional system in general. Overall, airport(s) and universities in a region are linked on both regional and global scales.

However, traditional theoretical approaches do not settle an explicit link between universities and their mobilities production, on the one hand, and (air) transport infrastructure, on the other hand. One of the main fields of knowledge to study universities is geography of higher education, which has a long history. Its modern fields, introduced in 2000s, investigate universities' regional engagement and mission (P. Benneworth, D. Charles, J. Goddard, J. Harrison, L. Kempton, P. Vallance and others), as well as internationalization and its broad forms (P. Altbach, P. Case, J. Knight, P. Meusburger, U. Teichler an others), but it does not exploit the potential of transport geography. This branch of geography, tracing back to 1960s, (for example, P. Doherty, A. Goetz, P. Hall, J. Shaw, to mention a few), in turn, is one of the theoretical strands of the mobilities paradigm founded in the 2000s (P. Adey, D. Bissell, T. Creswell, S. Graham, S. Kesselring, M. Sheller, J. Urry and others).

At the intersection of geography of higher education and mobilities paradigm arose the research in academic and student mobilities (R. Brooks, A. Findlay, R. King, E. Neumayer, E. Murphy-Lejeune, J. Waters and many more). Another theoretical intersection – between transport geography and mobilities paradigm – initiated the appearance of the even newer concept of 'aeromobilities' (P. Adey, P. Cidell, S. Cwerner, S. Kesselring, J. Urry and others, mostly researchers within the mobilities paradigm). Aeromobilities can be understood as a supplementary instrument to investigate interrelations between mobility and transport, which facilitates connectivity. Additionally, the comparable objects connected, on the one hand, academic (and student) mobilities and, on the other hand, aeromobilities, for the concept of 'academic aeromobilities' to be introduced. This concept presents the mutual influences of the components of broader fields of knowledge, such as geography of higher education, transport geography and the mobilities paradigm.

These theoretical branches and concepts are the basis to formulate the main research question: is there a link between universities and regional airports and how can it facilitate academic mobilities and spatial capital accumulation of university students? In order to investigate the existence of this link and its nature in a regional context, the research aims to uncover several issues. Firstly, the way universities combine or balance their regional mission and international engagement, and which factors determine these processes, is a key to understand the context of the UK higher education.

Secondly, the dissertation incorporates academic mobility into the study of the functioning of the higher education system, investigating gaps in its perception by students as social group and a university as an institution. Thirdly, the role of air transport infrastructure, and regional airports in particular, in facilitating academic mobilities is examined. In fact, whereas mobilities are a part of universities' internationalization strategy and global engagement, they require local transport infrastructures and accessibility to connect globally. To conclude, through these objectives, the research investigates the existence and nature of the link, the challenges it faces and its potential benefits for both universities and regional airports within regional development and its capability to facilitate academic mobilities and broader – spatial capital accumulation of students.

The framework of spatial capital embraces these research stands and objectives, since it analyses place and mobility together and as being interconnected. In this way, it takes into account not only flows and mobilities, but also their embeddedness in the places they originate from and their properties. The framework is rooted in the theory developed by P. Bourdieu (1986), which claimed the existence, apart from the economic capital, also other forms of capital, such as cultural, social and symbolic. The concept of spatial capital, in turn, incorporates space as a resource, which provides with ability to accumulate other forms of capital. In the words of J. Levy, who introduces the concept in 1994, its 'specificity is made up of advantages brought by control over a series of geographic layouts in which scale is determining element' (Levy, 2014, p. 48). While accumulation of spatial capital enables to pursue control over space in general, transport technologies, by providing speed and reducing the proximity, allow expanding this control over greater spaces (ibid). This, in turn, invests in accumulation of other forms of capital and their possible exchange. Thus, the conceptual framework of spatial capital is applied to investigate the research aims and their interrelations.

To research the existence of a link and its nature between universities and regional airports, the case study methodology was applied, which is constituted by such methods as expert interviews, survey (with university students), observation(s), and supported by the additional universities' enquiry via email. The methodology focused on a single case – the North East and Tees Valley, England (UK), presented as a bounded system, with incorporated and interrelated 'events, relationships, experiences and processes occurring in that particular instance' (Denscombe, 2010, p. 52). The survey investigated in students' academic mobilities, and the related travel practices and patterns, while interviews with experts were aimed at understanding, on the one hand, the internationalization of universities, including academic mobilities and their role, and on the other hand, local engagement in the context of regional development. The observations and participation in several events, including those organized by universities and the Newcastle International Airport, allowed to develop the context of the case. These methods provided with a possibility to analyze the existence of the link and place it in the regional context. To add, the enquiry via email across universities in England examined the existence and conditions of such a link among other universities and airports.

While in the context of the North East and Tees Valley a link between these regional actors has generally an occasional character, the research analyses the benefits and challenges of a potential collaboration and its impact on the academic mobilities. The benefits are mostly represented by advantages of joint research and teaching activities, spatial capital accumulation and the overall better interconnected regional development. The challenges include the ways to connect the actors and exchange data, which plays a significant role in the establishment of a link and its sustain. Thus, the research allows to reveal the effects of the link, which has a potential to underpin mobilities and spatial capital accumulation of the university students.

The body of the thesis consists of three main chapters – theoretical framework, methodology, and findings and discussion chapter – along with the introduction and conclusion. The theoretical framework chapter presents the major theories and their components applied in the research. It is structured in a way to present, firstly, one of the main fields of knowledge – geography of higher education and its different perspectives, including both regional and international engagement. It continues with introducing another major theory – the mobilities paradigm – and incorporates student mobilities into the discourse. The shift from mobilities to spatial capital is elaborated in the next sub-chapter, which presents the framework in general as well the concept and its specificity. The framework of spatial capital is central for the work and it is an analytical framework to analyze the data and investigate the main research question. Further, the chapter connects mobilities to transport geography - and transport infrastructure and airports in particular, which constitute the supportive theoretical strand of the study. The chapter closes with a conclusion, which presents a few studies incorporating both actors – airports and universities - and present the main research question and its objectives.

The methodology chapter describes the applied research design of a single case study by presenting the background of the methodology, justification of case selection, details of field research and data collection. Further on, each method, which constitutes the methodology, is presented along with its limitations, and the general limitations of the study conclude the part.

The next chapter incorporates findings and theoretical framework into the discussion. It starts with the analysis of universities combination of regional and international agendas, and shifts to elaboration on students' mobilities and their understandings by students themselves and universities as institutions. The role of air transport infrastructure in facilitating student mobilities is connected to the discussion of spatial capital and its accumulation. The next sub-chapter presents the challenges and benefits of a link between regional airports and universities, with the concluding remarks at the end of the chapter.

The thesis closes with a conclusion, which presents the value of the theoretical framework, and the analytical framework of spatial capital in particular, main results of the study and directions for the future research. In the appendix is a section 'The context of the case: North East and Tees Valley, England, UK', which aims at introducing major components of the case's context – economic and political context, transport infrastructure and regional airports, and higher education sector – for the broader understanding of the case. Moreover, it includes the list of questions of the survey for the students, the template of the email enquiry to the (English) universities, an example of a guideline for an expert interview, and it closes with a table of the list of experts, who kindly agreed to contribute to this study.

CHAPTER 1

Theoretical Framework

The theoretical framework chapter presents the major theories and their concepts applied in the research and how they are interconnected. Its structure incorporates a logical shift from one of the main branches of geography – geography of higher education and its current debates about scopes of universities engagement - to another major theory, the mobilities paradigm, which incorporates students' mobilities into the discourse. Through the notion of 'mobility capital' (introduced by E. Murphy-Lejeune (2002)) and the benefits of (academic) mobility, the concept of spatial capital is introduced. The framework of spatial capital is central for the work and it is an analytical framework to analyze the data and investigate the main research question. Further, the chapter connects mobilities to transport geography - and transport infrastructure and airports in particular, which constitute the supportive theoretical strand of the study.

The chapter consists of three main sub-sections and closes with a conclusion. The first part presents the subject of the geography of higher education – universities – and their search for the balance or combination of the regional commitment, on the one hand, and the international agenda, on the other hand. It starts with the presentation of the recent history and differentiation (the introduction of the binary system) of the higher education in the UK, followed by the explanation of the university-led development and regeneration, as well as the tensions between a university and city, or 'town and gown'. The role of universities in the knowledge economy has been elaborated prior to presenting them as regional and international actors through the incorporated prospective and tensions. The sub-section closes with a discussion about universities through their mobilities' production.

To understand the phenomenon of mobility within universities as institutions, it is important to present its roots in the mobilities paradigm (Sheller and Urry, 2006) in the first place. The second sub-chapter moves from the paradigm to a particular type of mobilities – academic mobilities and movements of (university) students. It engages with the discussion about different approaches to classify mobilities of different university groups, e.g., students and academics. All the variety of mobilities and their simultaneous embeddedness in a place can be embraced by the spatial capital framework, which is rooted in the theory of P. Bourdieu, to which is dedicated the next part.

The last sub-chapter highlights the role of the air transport infrastructure in facilitating mobilities (and spatial capital accumulation). Its starts from a larger scope of the knowledge – transport geography, which incorporates interrelated key concepts of mobility, accessibility and connectivity. One part of the transport infrastructure is airports, which are presented by hub and regional or local airports (in the context of the UK). The further section unlocks the importance of mobilities' production at airports and introduces a concept of 'aeromobilities' (Cwerner at al., 2009), which connects individual mobilities and airports as a transport mean to facilitate them. The chapter closes with a conclusion, which presents a few studies incorporating both actors – airports and universities - and present the main research question and its objectives.

Universities in the search for a balance/ combination of their regional and international engagement

The recent history and differentiation of the higher education in UK

The higher education in the UK has a particularly long history dating back to the one of the first universities in the world in Oxford (1096) and Cambridge (1209), with the following establishment of a few universities in Scotland in the XV century. These world-famous institutions, among others, later played a significant role in spreading the vision of university's Humboldtian model (appeared in Germany) in the UK in which research is the primary function and objective. At the same time, their history holds the roots of the 'ivory tower' (both architecturally and metaphorically) image of universities as places of intellectual pursuits, privileges, and exclusion. The whole education system in general has an impact of a powerful Oxbridge model based on 'the tradition of university autonomy and donnish domination of the affairs of the university' (Tapper and Salter, 1992, p. vi). According to Middlehurst (2004), the Oxbridge ideal 'was concerned with the pursuit of knowledge for its own sake, including the production and transmission of knowledge' (p. 210).

The major expansion of universities has happened after the World War II when the demand for higher education was rapidly growing. A number of new universities were established while former university colleges received a status of an independent university. In this time, higher education had experienced the spread of economic ideology, which 'saw education as an economic resource to be deployed to support country's industrial development' (Middlehurst, 2004, p. 260). One of the important stepping stones within the development of the higher education sector was the Robbins Report of the Committee on Higher Education (1963), which primarily introduced expansion and creation of a system of higher education. The report stated the 'Robbins principle': 'university places should be available to all who were qualified for them by ability and attainment' (Anderson, 2010). In this way, it called for the expansion as well as widening participation of the sector, what was the beginning of its turn into a mass system. The committee appealed for 'the need for a "system" of higher education, inevitably under the overall direction of the state and embodying "public" values' in the historic context of 'social solidarity as a result of experiences of depression and world war' (Scott, 2014, p. 161).

The next step, in a way opposite to Robbins' ideas, was the establishment of the binary system by the government, announced by MP Anthony Crosland in the Woolwich Polytechnic speech on the 27th April 1965. During the speech it was announced that 'the new Labour government would <instead> create polytechnics by merging colleges of technology, commerce and art (and later colleges of education were also included in the polytechnics)' (Scott, 2014, p. 154). In a nutshell, this period can be described as 'when the British Government explicitly decided to have two sectors of higher education and to treat them differently: the era of the "binary divide" (Ratcliffe, 2017). While traditional universities have been (relatively) independent from the government and its interventions, the 'new' universities were planned as publicly controlled and locally oriented.

One of the most important following transformations in universities development was the abolition of the binary higher education system by the Further and Higher Education Act in 1992. The Act's changes applied to higher education systems of England and Wales with effects in Scotland. The

Act ‘abolished binary line, created national unitary funding councils, removed colleges of further education from local government control, created quality assessment arrangements' (Richards, 1997). Apart from that, The Higher Education Funding Council for England (HEFCE) was created as the main funding and regulatory body for higher education (was replaced by two new bodies – Office for Students and Research England - in April 2018). Thus, it was a step towards creating a ‘system’ of higher education, without a strict division and through consolidation, as it was highlighted in the Robbins report earlier.

After the Act’s implementation, thirty-five former polytechnics became universities, with following change of status, the role and place in the regional and national education system and also focus on regional integration, as well as the financial and funding opportunities. The shift evoked rise in student numbers and their flows across the country but also intra-regional. Although, the division between ‘old’ universities, especially prestigious ones like Russell group members, and post-1992 ones have been present till nowadays. One of the most important impacts of this difference is character of involvement with regional business community and local authorities, or regional development process in general. While pre-1992 universities define themselves mostly as research-incentive, the former polytechnics traditionally have teaching orientation, closer ties with regional industries, and dominated research with direct business and industry impact, or applied knowledge. The new universities, ‘legally constituted as higher education corporations, adopted management structures that were closer to the corporate sector’ (Middlehurst, 2004, p. 265).

In the other words, while traditional universities are being associated with elite (and consequently privileged ones and with limited accessibility for others) education and world-class research and excellence, the ‘new’ universities have delivered the mass higher education, especially for the students from ‘middle-England’ (Scott, 2012). According to Peter Scott, the former pro-vice chancellor of Kingston University, the government sees ‘the post-1992 universities' main role is as “business-facing” institutions producing graduates in vocational disciplines and applied research’ (Ibid). To add, the university’s prestige, which presents the accumulated history and achievements in particular spheres of knowledge and research, is an important factor and resource to be exchanged by future opportunities. As Ratcliffe (2017) puts it, ‘“prestige” is less easy to establish, however good the reputation of a university can be, and it’s clear that some markers will take longer to firmly establish', compared to teaching and research and their assessments, or 'control reputation range'.

Although, recently the boundary becomes blurred: research-oriented universities develop the third mission (or regional engagement) and turn into anchor institutions for their regions, while post-1992 institutions focus more on world-class research and seek for research excellence. Thus, to a certain extent, 'for all the talk of academic drift, over the past 20 years, the pre-1992 universities have become as much like the former polytechnics as the other way round' (Scott, 2012). And both types of universities prefer to attract more academic and research staff and students, including those coming from abroad, as a part of a growing internationalization strategy. At the same time, Chatterton (2010) believes that 'there is a continuing homogenisation of student populations within particular older and elite universities', which 'will continue to serve a mobile and wealthy middle-class student population' (p. 513). In this way, he connects a feature of being mobile to particular class of students and relates it to primarily financial opportunities. While this approach is grounded in analysis, it requires more data on student mobilities, both social and spatial and their interconnection, to compare trends at old, red bricks and 'new' universities owing to the fact that the mobility policies at universities vary and have been changing within globalization processes of higher education.

Following the argumentation on widening participation in higher education since 1990s reforms, some research suggests that 'new universities can offer these non-traditional students the opportunity to belong and establish their "sense of place" by virtue of being placed within environments whereby difference is more visible and institutional habitus can be minimised or overcome' (Holton and Riley, 2013, p. 72). In this context, non-traditional students are those who got an opportunity to enter the field of higher education due to the reforms and its targets for more balanced proportion of students from different backgrounds. At the same time, their (spatial) choices of university and living (or not) at home during studies are related to their background and 'patterns of working, studying, and commuting' (Christie, 2007, p. 2445). The facilitation of this equilibration is majorly the task of new universities – post-1992 – which provide wider access to local students. To put it in other words, young people whose social and cultural background has not been previously related to higher education (especially among family members and peers), got opportunities to enter universities. At the same time, these universities are different from those representing and reproducing elitism, prestige and distinction, and are connected to their location by stronger and closer ties.

However, the classification according to the date of receiving degree-awarding powers of HEIs in the UK is broader that the above separation. It includes ancient foundations (the very first universities established), red brick universities (opened their doors in the nineteenth century), civic institutions (established in the twentieth century to serve the education demand in the industrial centres), and the 1960s plate glass ones. This stratification, or also historical perspective of HEIs growth, is 'indicated by their architectural periodization (red bricks, plate grass) or function (those serving a particular town)' (Bathmaker et al, 2016, p. 35). The alternative but interrelated classification is based on the 'membership of one of the self-defining mission groups, established by universities with perceived common cause', and involves difference upon perceived status, prestige and merits (i.e., polarization between the Russell Group and the University Alliance) (Ibid, p. 35). While Russell Group includes research-oriented universities with high level of accumulated prestige, the Alliance consists of mainly post-1992 ones with proclaimed integration of research, teaching, and enterprise, innovation and orientation towards regional priorities.

The period of the binary division, and its beginning in particular, was aptly phrased by Mike Ratcliffe (2017): 'the polytechnics embraced their new status, confident about a vocational mission just as the universities grappled with the question of "relevance". Decades later, a modified vocational mission – third mission or regional engagement agenda – became a reality also for traditional universities, which have not focused enough on their regions' needs in the views of the government and public. At the same time, 'new' universities had to focus on research and internationalization as well in the conditions of growing marketization and globalization in the HE sector. And, noteworthy, all of them as the sector as a whole are challenged with the 'relevance' issue nowadays and are called to prove not 'what <they> are good at but what they are good for' (see: Robinson, 2018) or 'what are universities for' in general (Collini, 2012).

The importance of university's history and consequent association with a particular institutional type within the sector's division has a significant impact on its development and strategy, which represents current progress, future goals and ways of achieving them. Along with a broad international agenda, more and more attention has been paid to a variety of ways to be locally and regionally engaged. Broadly speaking, regional impact of universities can be understood as intentional (structured and planned activities) and unintentional, or incorporated in its functioning (e.g., economic impacts). While the intentional activities are discussed later in the chapter, the next sub-section presents the part of universities' operation and engagement, which combines both intentional and unintentional effects – physical development and regeneration, which change urban fabrics and influences social dynamics.

University-led development and regeneration: 'town and gown'

Universities in the UK have been playing an increasing role not only in the social and economic development of a city or town they are located in, but also, they are important actors in local and regional development. Higher education institutions create a complex impact on the urban life and fabric taking into consideration a variety of their activities and engagements as well as its social and institutional structure. A commonly used expression in the literature is 'town and gown', which refers to a place (and its residents) and academics respectively, including students, and incorporated tensions in this co-existence in the shared locality or place (for example, see: Addie et al, 2015). This co-existence happens on different scopes: firstly, on individual levels in the forms of interactions, not without tensions at times, between local residents and academics and students. Secondly, on the institutional scale, when cities have expectations of their universities' local contributions and 'increasingly view universities as an essential infrastructural prerequisite to compete both locally and globally' (Addie et al, 2015, p. 43).

One of the main social groups to constitute a university are students, both undergraduate and postgraduate, coming from home or abroad, with particular lifestyles, practices and space consumption. Students' involvement in the urban life transforms it both in physical and contextual or social ways, especially in student towns (e.g., Chatterton, 1999, 2010; Clayton, et al, 2016). Student partying, for example, is infamously known in a city and beyond, despite it is not the main or most significant way they transform and engage with their cities.

Students create economic impacts by spending money at local business and participating in a variety of activities and projects, as well as starting their own businesses and projects. Moreover, student towns (with students constituting ten per cent or more of the rest of the area's population) tend to have higher percentage of graduates staying and also starting a business or enterprise, but it should be highlighted that they also have higher amounts of graduate students compared with other towns. The study of the Belgium context by Imeraj et al (2018) expressed doubts that ‘locally produced knowledge will remain in the city merely because of a strong economy’, but an important role is played by so-called ‘location-specific capital’ (Davanzo in Imeraj, 2018, pp. 1086-87). They argue that since ‘psychological costs of migration are reduced through knowledge of local facilities, proximity of relatives and availability of information’, the ‘location-specific capital’ is ‘built up as social networks and knowledge of local facilities and amenities through residential experience during HE study’ (Ibid, p. 1087).

The familiarity with local economic and financial environment, support from a university, social networks or social capital, are reasons for graduates to remain, to name a few. In this way, universities produce human capital and the local institutional environment manages to ‘anchor’ them (see: Hermannsson et al, 2014a). Faggian and McCann (2009b), by examining the geography of graduate human capital, come to the conclusion that ‘university graduates educated in Great Britain are highly mobile geographically’ (on the national level) (p. 221). To add, they claim that ‘the strength of the university-region labour market spillovers appears to be largely determined by the strength of the local economy as a whole, irrespective of the quality of the university, except where the university already has a strong local orientation’ (Ibid, p. 221). In this way, securing close links with local industries and business sector can invest in the retention of graduates.

To continue, universities create expenditure impacts (traditionally includes students' expenditures) on the region, which can be studied and evaluated by a variety of approaches, e.g. regional impact analysis, regional input-output (IO) analysis, and other. While the economic impact of HEIs' expenditures has been recognised, the income from students is a rather complicated measurement. One of the reasons for the complexity of the analysis is the distinction among student groups - foreign or national, along with the source of the wages (earned locally, nationally or outside the country) to cover the local expenditure (Hermannsson et al, 2014b).

Another important economic impact of universities on their cities and regions is a complex process of regeneration, sometimes specified as university-led regeneration, and gentrification, as ‘universities and their students are also now central players in urban gentrification’ (Chatterton, 2010, p. 515). University-led regeneration involves a variety of activities and actors, and assumes universities’ ‘proactive role as landowners and developers, generators of employment, and investors in roads and local government in the course of promoting their own spatial development projects’ (Melhuish, 2015, p. 8). Indeed, owing to their size and structure, a number of universities are one of the major employers in the town or region, as well as land and buildings ownership generates profits. Although these are significant economic impacts created by a university, they are incorporated in its existence and operation in the place and are not generated intentionally as a form of engagement.

The coexisting process of university-led regeneration is studentification. It is driven by students' to 'establish a "student experience" across a range of geographical sites (Holton and Riley, 2013, p. 65). The studentification is an 'influx of students within privately-rented accommodation in particular neighbourhoods' (Smith in Jones and Evans, 2013, p. 125). It is more a form of a gentrification (with the driving social group of students and researchers), which drives communities out of these areas, and in such a way becomes a social problem. The process is visible on both national and regional levels. According to Chatterton (2010), studentification 'relocates a particular class of young people from certain (mainly southern) parts of the country <the UK> to large (mainly northern) urban centres and then feeds them back to different places, mainly London and South East' and therefore it 'is not just a set of cultural practices' (p. 510). Therefore, this process affects many spheres of economic and social life of a city, including markets, 'built environment and community relations' and the creation and growth of the 'student urban service sector' (usually near large universities and campuses) (Ibid, pp. 511 - 512). In such a way, students play an important role in cities by making up 'a significant, and indeed powerful, body consumers shaping what has been termed "studentland" (Holton and Riley, 2013, p. 66). This term incorporates the positive impacts of students' presence in a place, for example, the economic benefits, along with the negative ones. And the recent research in the field of geography of higher education tend to focus more on issues of gentrification and its incorporated social and economic consequences. Overall, the economic impacts of students' presence bring also socio-cultural changes in their locations.

At the same time, student cities attract private real estate developers to build new student halls and amenities, usually in the upper price segment. The expansion of this 'purpose-built' student accommodation influenced the appearance and development of the so-called 'de-studentification', which 'leads to the depopulation and decline of some classical studentified neighbourhoods' (Kinton et al, 2016). The case study of Loughborough (UK) conducted by Kinton et al (2016) shows that this process 'occurs when an oversupply of student accommodation results in the depopulation of student residents' in particular districts, and is a 'potential aftermath of studentification' (p. 15). The main forces behind the 'new student geographies', which include studentification and de-studentification processes, are 'the deepening neoliberalisation and commodification of higher education' (Ibid, p. 1). At the same time, the researchers underline that this process is not necessarily a feature of other student cities in the UK since it has been directly related to the local house market trends and demand.

To compare with, in 2008 the amount of UK students living in shared housing in private rented sector was fifty-one per cent against only nine per cent - in commercial halls of residence and new build developments (Jones and Evans, 2013, p. 124). To note, the students' population has dropped slightly, from around 2.5 million to 2.32 million, according to the data of 2008 (HESA, 2017), while the amount of new commercial halls shows a growth steadily. The universities themselves 'have long been key actors in real estate development, expanding campuses and constructing student accommodation', including university-maintained accommodation (Smith in Jones and Evans, 2013, p. 124). While the commercial companies are not part of universities structures, the negative consequences of their land development projects are also ascribed to universities' presence.

To conclude, universities create a significant impact on their locations and the surrounding environment in the shape of physical development and consequent socio-economic changes. Regeneration, gentrification and studentification change the urban landscape and service sector, as well the residential and mobility flows within a town and the region. The differences between academic and local population has a long historic track of tension and conflicts, which are intensified with the growing impact of university on the place, expressed in the dualism of 'town and gown'. And even if originally a university and its population were independent (to a certain extent) from its town and the local governance, nowadays the influence and pressures from the place and the authorities have a greater impact on the 'gown'.

At the same time, the locality itself had influenced the original university's establishment and mission, and is still incorporated in its operation. The development of university as a part of the place or its hosting region is influenced by the a synthesis of such factors as 'the historically formed industrial characteristics of the region, the extent to which higher education is incorporated into regional development policies, and the institutional make-up of the national higher education system' (Pike et al, 2011, pp. 425-26). The place is a part of university's image and brand, the challenges university faces, and the possibilities and resources it can allocate. To add, many of British universities have a reference to their location in the name (e.g., Durham university, Newcastle university, University of Sheffield and so on). To put in other words, the physical location and embeddedness of universities have always had impact on the socio-economic and policy context in which they function (Goddard et al., 2016), on both national and regional scopes, as well as on institution's relations with other regional actors and general involvement in processes. Moreover, these factors and place's properties also affect the inclusiveness in networks and processes on the global level.

Thus, universities are significant economic actors, which generated ninety-five billion pounds in gross output for the UK economy and supported 940,000 jobs in 2014-15 (Universities UK). The universities' presence in a city is comprehensive and embracing: they are expanding across towns (and region) by land and buildings occupations; engaging with regional organizations, businesses and enterprises, local communities and local authorities; are presented in a socio-cultural sphere by running and organizing institutions, activities, events. To add, academia-related people, including academic and non-academic staff, students and researchers, reside in the area and consume its services and spaces. In this context, universities 'to be included in the analysis, as part of the non-firm institutional structure of a territory that supports economic development' (Pike et al, 2011, p. 425).

Universities and knowledge economy: innovation and research

Universities are centres of knowledge production and exchange, which can be beneficial not only for the research on the national or global level but also on regional scope. The new technologies, innovations, and approaches developed in the colleges' rooms and laboratories can be applied to improve or change the production and exchange in the local industries and to address local problems, as well as it can invest in solving global challenges. So, one of the objectives of the university's third mission is to build a bridge between academics and industry, research and its practical/ direct impact, and embedded the whole university structure into region's development.

One of the ways the overcome the challenges, which were left in the regions in the post-industrial era and to stimulate regional growth and activities in the current conditions was a vision to build knowledge-based economy on the national level. The first call from the central government for the knowledge economy in the UK was made by the former Prime Minister Tony Blair in his (infamous) speech 'Education, Education, Education'

(1996). The new economy was perceived as an urgent need for the country to be competitive in the global world, with its key component of highly skilled and educated workforce, which, in turn, is trained by universities.

The 'knowledge economy' can be understood as 'that part of economy in which highly specialized knowledge and skill are strategically combined from different parts of the value chain in order to create innovations and sustain competitive advantage' (Luthi in Conventz and Thierstein, 2015, p. 135). This approach explains the relational character of knowledge economy, which 'establishes strategic links between firms and other organizations' to accumulate knowledge (Ibid, p. 136). The study of Conventz and Theirstein (2015) builds upon this approach by defining its three interdependent pillars: Advanced-Producer Services (APS) ('it provides expertise, knowledge-based services, and process-specialized information'); High-Tech sector ('is defined by highly skilled employees, … in addition to a fast rate of growth'); universities (along with other research institutions) as knowledge generators (p. 136).

Universities are key actors in the regional innovation systems: they 'provide' students and graduates as labour force (human capital) to regional and national economy, act as central institutions to cluster or attract resources (location or agglomeration effects), and are significant centres for knowledge infrastructure, and knowledge production, exchange and retention. One of the forms to collaborate with regional partners is through knowledge flows and exchange, which, in turn, depends, on the one side, on university's institutional characteristics, policy, incentive systems and functioning of technology transfer offices and incubators. On the other side, it depends on specific mechanisms of academic entrepreneurship (e.g., Crescenzi and Percoco, 2013).

Charles (2006) puts forward the view that the innovation systems, to be successful and beneficial for their hosting regions, require 'the integration of research with labour markets, a connection between the research priorities and governance and public debate, and a focus on knowledge that goes beyond narrow technological priorities to include culture and creative activities, management knowledge and support for the public policies and infrastructures that underpin economic development' (p. 128). It is a complex system, that also relies on regional institutional cohesion and social capital, which act as channels for knowledge exchange.

The expectations placed upon universities by a variety of actors, national and regional, have 'shifted from a more indirect contribution to economic development and innovation via spill-over effects, to a more formal, institutionalized and proactive role', which can be performed through 'territorially embedded knowledge networks and multi-level relations intended to capture and adapt knowledge to regional needs' (Uyarra, 2010, pp. 1240-41). One of the established ways university provide other actors access to the knowledge they produce is through institutionalized Knowledge Transfer Partnerships (KTPs), which are usually facilitated by specific teams. At the same time, the necessity to adapt the produced knowledge to the regional needs, which can be relatively temporary and locally specific, brings to the foreground an issue of mismatch between regional development and university's orientation, which are discussed also in the next sub-section. Much of the current debate revolves around the 'commodification of knowledge' (e.g., Charles, 2006) and its profit, universities' orientation towards regional context and actors and inclusion in the development, means to engage local actors and communities to produce knowledge and others. However, the debate pays less attention to possibilities within regional industrial and business sectors to adapt for the research and knowledge, produced at universities due to the established and accumulated portfolio.

While the knowledge and innovation processes within universities are covered in the literature, the localization effects of these processes and its transfer to regional enterprises is a more complex issue, which requires different mechanisms to investigate it. The study by D'Este and Iammarino (2010) on one of the most typical forms of partnership between university and business – joint research partnership – shows that the most influential factors are geographical proximity and research quality, as well as the relevance of the regional location and adaptive learning processes. In the line with the above mentioned research, 'the higher the quality of the department the more likely it is to attract distance business partners, … <and> beyond a certain threshold of research excellence collaborations with industry turn out to be geographically closer' (Ibid, pp. 347 – 48). To add, not only a distinctive department or research institute is capable of attracting more potential partners, but it is also appeared to have power to choose the most suitable partnership.

Unlike in the 'ivory towers' times, nowadays the function of (pure) knowledge production and exchange is not enough for universities to be involved in the society and its economy. The knowledge produced at universities has to be applied and target at solving a particular problem, existing in the locality, where university is embedded. One of the main manifestations of engagement with the region is through the knowledge transfer or joint research partnerships within regional innovation systems.

Apart from the knowledge and innovation processes, there are other forms of universities' involvement in the regional processes to create impact and influence social dynamics on the local scale, although the importance of economic contribution to the regional development is in the foreground.

Universities as regional and as international players: incorporated prospective and tensions

In a special literature review commissioned by the UK Commission for Employment and Skills (UKCES), an anchor institution is 'one that, alongside its main function, plays a significant and recognized role in a locality by making a strategic contribution to the local economy' (Smallbone et al., 2015, p. 33). The three key characteristics of an anchor institution are its spatial immobility, size and non-profit character. The first one is understood as the prime feature for this kind of institution 'for their practices, they "root" or otherwise "moor" the people of the urban in place' but being dynamic and 'fluid' at the same time (Birch et al, 2013, p. 8), what is applicable to universities. Moreover, an anchor institution is a 'trusted institution' with a 'lasting "civil infrastructure" and, ultimately, a "social infrastructure" of place or community', which includes a time parameter along with a spatial one (Ibid, p. 10). The rootedness in place, on the one hand, stimulates an institution to invest resources in local activities, and on the other hand, makes the institution attractive itself to donors. Due to the following features, an anchor institution is capable to provide a strong place-based leadership (Birch et al, 2013; Hambleton, 2018). Moreover, universities' activities such as regeneration, including cultural regeneration by taking over cultural institutions (e.g., art and exhibition galleries), stimulation of local economy and participation in local and regional development are not their 'primary missions', but are expanded by the anchor institution mission (Goddard et al, 2014).

The concept itself had originated in the US in the 1990s, where universities could not ignore the surrounding urban conditions any longer and took active position in their transformation. And while in the US a number of different non-profit organizations are recognized as anchor institutions (e.g., hospitals, libraries, etc.), in the UK the concept has mostly been applied to the universities. At the same time, other institutions can create this impact, e.g. Local Enterprise Partnerships (LEPs), Chambers of Commerce, and further education colleges.

The perception of higher education institutions as anchor institutions is related to the promoted 'third mission', which goes beyond traditional missions such as research and teaching, and associated activities, e.g. knowledge transfer, and assume a responsibility for facilitating economic growth (Goddard et al, 2014). The third mission agenda itself is rooted in the place-based approach and broader localism trend, which is presented in the Industrial Strategy of the UK, as well as in the agenda of knowledge-based economy and innovation infrastructure with universities at its heart. The Industrial Strategy claims the formation and growth of 'innovation clusters' 'around our universities and research organizations, bringing together world-class research, business enterprise and entrepreneurial drive' (HM Government, 2017). Universities as large organizations and institutions not only generally contribute to local and national economies by the production of human capital and innovations, but also 'make important contributions across the five foundations <people, ideas, place, business environment, and infrastructure> that underpin the Government's Industrial Strategy White Paper' (Azmat et al, 2018, p. 2). The recent research by Valero and Van Reenen (in Azmat et al, 2018), based on the international data, shows the (robust) correlation between the increase in number of universities in a region and an increase in regional GDP (p. 21). For the UK context, the research claims 'that growth in universities (in terms of their size) generates start-up activity in their nearby areas, including in the innovative high-tech sectors' (Ibid, p. 22). Admitting the role and contributions of universities' sector in the inclusive growth, the Strategy appeals to the crucial importance of close links between them and business sector to drive the knowledge and innovation based economic growth.

The relations between universities and communities are facing tensions also due to the investments and funding, which universities receive from private sector and investors, as well as from the government. While some universities are growing and increasing the urban landscape presence, by interrelated processes of development and studentification, the local public services more and more often receive austerity cuts. Although, the higher education sector receives a high amount of cuts itself. Nevertheless, in this context, the activities of universities can lose local public support because they will be seen as 'increasingly well-resourced and remote by those outside of it who do not share the benefits' (Sperlinger et al, 2018, pp. 42 – 43). One of the ways for a university to gain support is to broaden public and community engagement and anchor institution's functions. To add, universities can support local communities by providing public access to (some of) its services and facilities (Ibid).

The growing push and attention to the third mission, both from public and central government, has benefits the same way as possible drawbacks and concerns. One of them is a potential decrease of time and resources dedicated to the core missions, which create a university the institution it has been valued for centuries (Birch et al., 2013; also, see: Collini, 2012). The regional engagement requires a wide programme of activities, and therefore, resources, both financial and labour and 'this must be registered in the institution's fiscal and structural investment in the process' (Ibid, p. 10). Apart from the theoretical explanation and guidance of local and regional engagement, it requires a full-length strategic plan with adequate correlation between objectives and available resources. The lack of it might lead to 'university efforts at civic engagement and community collaboration … fragmented and chaotic' (Hambleton, 2018, p. 5) and less efficient allocation of resources, what, in turn, can affect university's operations and consequent image and trust. At the same time, the efforts to focus the university research on the public engagement, while still 'the public is remaining outside the university', can be understood as 'driven initially by fear that key scientific advances had failed to gain public trust' (Sperlinger et al, 2018, p. 15).

Therefore, one of the recent attempts to evaluate the university's dualism of scopes of engagement and the dimension of civic, or related to society, is a Civic University Commission launched by the University Partnerships Programme (UPP) Foundation in England in 2018 (Hambleton, 2018, p. 3). The Civic University commission published progress (2018) and final (2019) reports on the civic university as a normative model, its composition ('measuring the civic university'), role and practice, along with the promotion of a Civic University Agreement. A true civic university, according to the report (2019), is more than civic engagement since it has 'a clear strategy, rooted in the analysis, which explains what, why and how its activity adds up to a civic role', along with being 'clear about what their "local" is' (p. 8). Although different ways of universities' local and regional engagement are not a trait of recent times, only nowadays it has been taken a shape of a planned, strategic activity and a proclaimed mission (Goddard et al, 2016). One of the solutions to balance core missions and the third pillar, local and global performance is the model of civic university. It focuses on university's purpose to respond to the global challenges, what goes in line with the idea that 'the teaching and learning project of the academy … reaches its zenith through engagement in solving social problems' (Birch et al., 2013, p. 13).

The model overlaps with the concept of an anchor institution, although the latter one underlines the importance of immobility rather than mobility. And while the tension between national and local levels and structural changes in the labour market remain the same, in the historical perspective of civic university, there are a few new trends. Among them are: the growing tension between local and global; a recent decline in the mature students; a ‘growing view by universities that they are “anchor institutions”’, and ‘an increasing homogenisation towards a redbrick model’ (UPP Foundation, 2019, pp. 28-29).

To define itself as a civic university is a growing trend in higher education in the UK. It can be characterized by wide engagement with its locality by providing opportunities for the local society, engaging as a whole with its locality, by partnerships with other local educational institutions, and being managed in a particular way to facilitate this engagement (Goddard et al, 2016). Both scopes of universities’ operation are taken into account and interrelated since it operates on a global scale but the source of developing the institutional identity and its presentation is the place or locality, where university is embedded (Ibid). Thus, a civic university model combines the university's active engagement and performance on both regional, and national, and international/ global levels. Both directions for the development and performance objectives are highlighted in universities' strategies, also presentations and promotions.

The approach to a civic university by Goddard et al. (2016) perceives it more a process than a defined notion and therefore does not sick for a strict definition. Moreover, the civic engagement has taken an all-encompassing character in the UK, where all HE institutions are (strongly) advised to be locally engaged. The proclaim of being a civic university is just the beginning of a long track of activities and programmes, which are developed with orientation towards particular regional needs, resources, and actors or partners. But firstly, university has to define the civic mission internally and afterwards communicate it to the local community.

One of the concerns about the role of an anchor institution and its bargain for a university is expressed by Goddard et al. (2014) in their study of universities in cities in a turbulent funding environment across the UK. They argue for the need of ‘the protection of certain institutions in particular places on the grounds of their role as vehicles for local economic, social and cultural development, a role that is more important given the reduced capacity of other public institutions, particularly local authorities, to perform such functions’ (p. 322). Indeed, the turbulent environment often presupposes fragmented institutional functions, and in case of one institution's lack of ability to perform its functions, those functions can be delegated to other institutions. However, they require adequate institutional capacity to perform them, as well as to take responsibility for a new function or operations.

The universities' third mission, or regional role, has been broadly investigated in the academic literature, as well as in the public discourse. The discussion incorporates the general understanding of the concept of regional engagement and its forms, possible boundaries and barriers, motivation behind involvement, sources of funding and other issues. One of the central topics is the analysis of tensions, incorporated in the third mission, and the ways to overcome them. Chatterton (2000) comes to a conclusion that behind the greater regional engagement of many universities are pressures such as 'the changing nature of staff and student populations and the changing administrative and funding regimes of universities' or 'the localization and/or regionalization of territorial governance and the organization and funding of cultural activity' (p. 178). Indeed, student and academic populations have been affecting the social and urban landscapes of places where they reside (e.g., regeneration, studentification), what invested in the long-standing tensions between universities and their communities. In this context, Chatterton (2000) sees the possibility for universities to 'engage more fully with the cultural management, vibrancy, and stewardship of their communities' (p. 178).

While these pushes towards regional engagement have been taken place across the country, one of the main pressures on universities is the call to actively participate in the knowledge-based economy. In the late 1990s, the national and regional authorities and their policies were framed within the 'new claims as to the significance of knowledge of particular sorts in shaping success in the contemporary economy' (Hudson, 2011, p. 1008). In such a way, knowledge sector, including universities, appeared in the centre of policies to create (or build) knowledge-based economy also on regional level. The aim of these policies is 'to facilitate the production of new commodities … and/ or enhance the knowledge intensity and move up the value chain in producing existing commodities via capitalizing (on) knowledge produced in the region's universities and translated through new intermediary organizations' (Ibid, p. 1008). Such policy constrains have not only put extra pressures on universities and their regional involvement strategies, but also transferred (partly) the responsibilities for economic growth. To put in other words, if the knowledge-based economy model in a region does not improve the socio-economic parameters, the responsibility for this lies, to a certain extent, on the knowledge producer. In such an indirect way, universities' economic impact on the hosting region shifted from both intentional and non-intentional to a more structured and targeted one.

To produce knowledge valuable for the regional needs, Chatterton (2000) accounts for the engagement framework 'to move beyond simply regarding the university as a source of knowledge and expertise which can be conferred onto the community' towards 'a mutual and partnership basis for engagement in which universities are involved in the co-creation, co-ownership, and co-use of research knowledge with the partners who co-habit its learning region' (p. 178). This vision of knowledge creation in the region for the region is shared by Sperlinger et al. (2018), who advocate for active community engagement in the knowledge production processes promoted by the universities.

The contribution to the discussion is made by Benneworth and Ritjar (2019) by suggesting four ways to deal with the existing tensions and pressures, posed by overlap of scopes of agendas and 'ensuring that their globally focused knowledge creation activities supports local innovation' (p. 331). The university's contributions can be to 'the labour market upskilling', 'world-class academics may contribute to host regions' innovation networks' (although it is subject for limitations posed by desire of academics to participate), 'universities can steer and support academics towards regional engagement', and they 'can raise the quality of regional innovation strategy processes and create collective innovation assets' (Ibid, p. 331). However, all of these activities have important limitations and challenges.

Thus, it is not crystal clear how to solve a dilemma of maintenance of both local and global involvement in practice. A model of civic university tries to put the two dimensions together in both theoretical and practical - managerial - planes. Although, if glocalization is theoretically a solution for the dualism of global and local (an approach by a sociologist R. Robertson), it is rather complicated to apply it to particular institutions and their connections. On the one hand, universities are fixed in their places, what 'means that they always have a relationship with their regions, even if that is not what frames universities strategies' (Meusburger, 2018, p. 614). On the other hand, the absence of the broad inclusion in the international processes, networks, and exchanges could leave universities behind in the global competition, what, in turn, will affect its regional performance. The combination of both scopes of universities' interests and ambitions and its strength is highlighted by Bender (in Chatterton, 2000) that 'no other institution has such rich connections at once to a local intellectual, political and social milieu and to a global network of ideas, structures, and powers' (p. 178).

Moreover, a broader localism of university's activities and involvement can affect its international engagement, which is an essential part of academic knowledge production and exchange. One of the solutions to the dilemma between local and global dimensions for a university is understood to be the phenomenon of mobility or mobilities, or movements of people and knowledge both physically and virtually. Academic mobility, appeared at the intersection of the field of higher education and the mobilities paradigm, perceived as incorporating the features of both dimensions. It presupposes the local level, which is constituted by individual's affiliation to a university and its locality (where the institution is physically located), therefore it has social, economic and academic connections to the place[1]. At the same time, it has a global level, which referred to the international knowledge exchange and inclusion in research networks, collaborations, and partnerships.

Academia on the move: the universities and mobilities' production

Together with being regionally engaged and act as 'anchor' for the communities and investments, universities tend to be more international. It is reflected in the internationalization strategy of many universities across the UK. The internationalization agenda and the growing globalization of higher education have a variety of dimensions: international recruitment of students and staff, development of branches and campuses abroad, rankings of leading universities in the world and other (for example, Wildavsky, 2012, pp. 4 – 5). Moreover, it involves changes not only in physical development and human capital increase, but also in the content of research and teaching. It is manifested in the 'international dimension of the curriculum', which incorporates 'the integration of international, global, intercultural and comparative perspectives into the teaching and learning process and program content (Knight, 2012, p. 20). At the same time, De Vita and Case (2010) doubt the (full) application of internationalization dimension to the teaching and argue for the need of 'culturally inclusive pedagogies'. To put in other words, they advocate for the development of a 'challenging hybrid culture where the multifarious cultural perspectives and experiences of those who

[1] In this context, only institutional mobilities are discussed, i.e. movements of people who are registered with a particular higher education institution.

make up the faculty are themselves seen as the material, which inspires the creation of new learning practices and change' (Ibid, p. 394).

Wildavsky (2012), who advocates for the global higher education and the 'global movement of talent' (p.12), discusses several reasons behind the expanding phenomenon of globalization of universities, including 'the quest to build knowledge-based economies', 'the notion that a well-educated person today must be exposed to ideas and people without regard to national boundaries', and the growing demand for higher education, especially foreign one (p. 5). At the same time, Enders (2014) argues that, while in the medieval era the model of a Western university has 'always been perceived as a highly international institution compared to other major institutions of society', the contemporary university has different origins (p. 364). These origins are directly related to nation-building, in which a university has an important historic role along with a dependency o n the nation state. As Enders (2014) underlines, 'it was only in the nineteenth and twentieth centuries, following the establishment of clear national interests, that universities acquired their identification with science and technology', as well as with regulatory and funding (largely) context being national (pp. 364-5). Therefore, he states that in many aspects, including role in contributions to national development, universities are national institutions, which are being challenged by the internalization forces, which, in turn, are relatively new trends.

However, Peter Scott (1998; 2000) argues that globalization and internationalization are not simply two different words to describe one phenomenon and they should be distinguished. While internationalization 'reflects a world-order dominated by nation states' and strategic relations and partnerships, globalization as a process 'involves intensified collaboration, as a global division of labour has developed' (Scott, 2000, p. 4). In his vision, universities have been challenged by globalization in three major ways: firstly, it is related to university's 'identification with the promulgation of national cultures' (Ibid, p. 5). Secondly, 'the standardisation of teaching through the impact of communication and information technology' changes the academic and student environment, also by the 'emergence of global research cultures and networks' (Ibid, pp. 5-6). Thirdly, universities depend to a greater extent on the global markets.

This vision has been shared by Teichler (2004), who separates the processes of internationalization, globalization, and Europeanization (the regional version of the other two). The phenomenon of internationalization is described as 'the totality of substantial changes in the context and inner life of higher education relative to an increasing frequency of border-crossing activities amidst a persistence of national systems, even though some signs of "denationalization" might be observed' and is characterized by 'increasing knowledge transfer, physical mobility, cooperation and international education and research' (Ibid, pp. 22 – 23). To compare with, Teichler (2004) defines globalization also as 'substantial changes' but those are related to 'growing interrelationships between different parts of the world whereby national borders are blurred or even seem to vanish' (p. 23). Thus, similar to Scott (2000), Teichler distinguishes two phenomena through the understanding of nation states and borders and underlines the prevalence of the use of 'globalization' nowadays in the debates on higher education. He connects this trend to the dominance of 'issues of managerialism and resource acquisition' in the debates (p. 23).

Internationalization can be understood as 'a specific set of strategies' and 'the process of integrating an international and intercultural dimension into the teaching, research, and service functions of the institution' (Knight in Larsen, 2016, p. 3). This approach was broadened by De Witt et al. (in Larsen, 2016) by defining it as an intentional process 'in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society' (p. 4). Thus, the main aim is to increase the quality of research and teaching activities at a university, make them responsive to the modern needs, both locally and globally, and this may consequently influence the institutional prestige.

To continue, Knight (2011) does also separate the two phenomena that they 'while fundamentally different, are closely connected', and admits that 'internationalization of higher education has been positively and negatively influenced by globalization'. At the same time, the researcher defines internationalization as 'a process of integrating an international, intercultural, and global dimension into the goals, functions, and delivery of higher education' (ibid). In such a way, university graduates are going to be prepared to 'live and work in a more interconnected world' (Ibid). In this context, delivery includes not only the process of knowledge and skills transfer, but also branding and positioning of a university on national and international arenas. In turn, the globalizing higher education arena or market, where universities have to act, collaborate and compete, involves 'a growth of specific, clearly visible international cooperation, including activities such as student and staff mobility schemes, co-operative research activities and foreign language teaching to support them' (Enders, 2004, p. 363).

This approach to understand universities' internationalization and separate it (to a certain extent) from globalization has been widely accepted by researchers and practical workers; nevertheless, it has a few ambiguous standpoints. Larsen (2016) points out the taken external nature of being international, manifested in broad universities' international strategies and debates, and the need to incorporate this dimension in the HEIs' structure. Another issue is the lack of division among concepts of international, intercultural and global, which can be related to different processes and scopes. The last but not the least one is perception of globalization as the context of higher education: it is also external and brings risks and challenges to localities. This way, 'internationalization is considered a counter-strategy to globalization', and puts universities to the frontiers to confront global forces (Larsen, 2016, p. 5). The risks brought by internationalization to universities and the sector in general involves 'brain drain from international academic mobility is one example of an adverse effect', 'the rise of accreditation mills certifying rogue operations' to increase investments and international qualification, 'an overreliance on income from international students', and the 'increased commodification and commercialization of cross-border franchising and twinning programmes' (Knight, 2011).

One of the most important criticisms of globalization studies is its binary logic to separate local and global, domestic and foreign, and put them in the opposition. This is reflected to a certain extent in the internationalization of higher education as a concept and its practical implication. A more comprehensive approach would combine the characteristics of both scopes and their interconnections. Therefore, internationalization can be positioned as 'the expansion of the spatiality of the university beyond borders through mobilities of students, scholars, knowledge, programs and providers', where spatiality is 'a transnational space of flux and flows' (Larsen, 2016). Moreover, internationalization is 'intended to complement, harmonize, and extend the local dimension – not to dominate it' (Knight, 2011). In this research we adopt this particular approach and the significance given to the mobilities as a source to expand the space, which interconnected with the mobilities' element in the spatial capital concept. The academic mobility is an integral part of new approach of universities to their strategies and functioning: to expand the academic borders of a particular spatiality – a university, individual is encouraged to be mobile.

Moreover, the approach to the internationalization of higher education by Larsen (2016) includes a broad definition of (transnational) mobilities, which shape 'the spatial landscape of the internationalized university' (p. 9).

Academic mobilities as a phenomenon incorporates students (both abroad and short-term programmes and internships), faculty (involved in teaching and research abroad), the movement of knowledge and programmes. To add, it also includes the movement of providers, what is university's presence overseas in the form of branch and franchise campuses (Larsen, 2016, p. 9) and country-based teams, the practice adopted widely by a number of UK universities.

The notion of academic mobility is well presented in the relevant theoretical research, nevertheless, there are a few vague points. First of all, the term 'academic mobility' itself presupposes different social groups on the move: one thread of theory uses this term to describe movements only by academics, or academic staff at higher education provider (i.e., not non-academic and administrative workers) (e.g., Maadad and Tight, 2014). The other one applies the term more broadly and includes students and non-academic staff. However, the latter one is less operationalized due to a possible confusion of 'academic mobility' with a particular social group – academics – and their movements. Although students' movements are generally entitled 'student mobility(ies)', and have a particular trend on international scope, this research applies the concept of 'academic mobility' to students as well (it can be also academic and non-academic staff) by specifying that its academic mobility of students. It is understood more beneficial for the research since it aims at broadening the notion of mobility by adapting the conceptual framework of spatial capital. In the vision of this research, since academic mobility incorporates movements related to academic purposes and their benefits for an individual, it will associate movements of students more with academic purposes. They, in turn, influence student's accumulation of several capitals, what will be presented in greater detail in the next section.

Secondly, as the phenomenon (and its definition) of 'mobility' is complicated and ambitious to a certain extent, the same is true for the moves of academic types of social groups, especially students. One of the reasons behind the lack of clearness in defining student mobility is the challenge of its registration and consequent data collection: only a small part of all academic-related activities on the move are organized and tracked by the host or receiving university. While the mobility of academic staff is registered in most of the cases (mostly due to its institutional funding), it has been larger and manifold datasets[2].

[2] Although, the data on staff movements is not presented in the open access.

There are a few research attempts to classify student mobility with an objective of its simpler and systematic registration, record the impact and its analysis. One of the classification by J. Knight (2012, p. 25) suggests six types of mobility experience: full degree programme in foreign country; short-time study abroad experience (as part of degree programme at home institution; cross-border collaborative degree programmes between two or more institutions; research and fieldwork; internships and practical experience; study tours and workshops. In contrast to this approach, most of the universities in the UK track the data only on short-time study abroad experience (mostly Erasmus programmes) and partly cross-border collaborative degree programmes. Thus, shorter mobility experiences like research or workshop (including schools, conferences, etc.) trips are so-to-call invisible mobilities for universities. The academic mobility patterns of the last decades have peculiarities compared to previous ones, what is ‘the simultaneity of interlocking relations of the spontaneity of mobile individuals, national and supra-national policy frameworks and institutional networks of universities in the global cyberspace of knowledge flows' (Kim and Locke, 2010, p. 32).

According to the Times Higher Education (THE) international university global survey, there are three major indicators of the university’s internationalization, or international outlook: ‘proportion of international students, proportion of international faculty, and international collaboration’ (Larsen, 2016, p. 1). Indeed, the internationalisation trends in the higher education are noticeable among all social groups: non-academic and (top) managerial staff (Kim and Locke, 2010, p. 32), as well as students and academics. Many researches do not distinguish academic teaching and research staff, mostly because in the UK most of the positions presuppose involvement in both of these activities. Therefore, here the term ‘academics' describe both teaching staff and researchers, although a deeper investigation in differences of their mobility practices and experiences is understood important, for a start to map the geographies of teaching and research collaborations.

According to HESA data, almost a one-third of full-time academic staff at the British universities came outside the UK (2007 - 08), with the leading sending region being the EU (all levels of academic staff) (Universities UK, 2018). And the main social group for recruitment is university graduates. It is underlined by the Universities UK, an organisation representing 137 universities across Great Britain, that ‘non-UK nationals have played an important role in supporting the growth of staff over the period, accounting for 58.7% of the increase in academic staff numbers at UK universities since 2007' (Ibid, p. 24). At the same time, in the European context, Musselin (2004) questions the existence of so-called 'European academic labour market' due to the fact that academic markets in different European countries remain national to a great extent and 'many obstacles hinder the development of European careers and the Europeanization/ internationalization of academic recruitments' (p. 55). The study (contexts of France, Germany and the UK) shows that, while (some) top academics gain international careers (this conclusion goes in line with the study by Tripp (2001) on star scientists), young scientists remain within national boundaries. Moreover, Musselin points out that 'post-docs perceive mobility as a difficult but necessary step on the road to a career in their native country', even when the national research centres 'do not see academic mobility as a tool for recruitment' (p. 72).

What is missing in the analysis of this data and, therefore, an opportunity for a future research is an investigation of a (possible) link between university appointments and the previous academic mobility of the candidates (including place - university, city, region). It could bring a deeper understanding of whether academic mobility does help to create closer connections and becomes a part of human capital or not in reality. On the one hand, there is a significant amount of research and literature promoting the importance and impact of mobility for students and academics. On the other hand, the evidence to support this statement is lacking, not the least due to a number of accompanying factors and challenges to establish a correlation.

Still, one of the studies, which attempts to address this matter, is a research of the elite 'star scientists' and scientific mobility by M. Trippl (2013). The research concludes that there is a relation between the movements of so-called 'star scientists' and the generated knowledge flows (in the form of knowledge transfer), as one of the ways to embed themselves in the chosen region. According to Trippl (2013), 'mobile scientists can give rise to a substantial knowledge transfer, both at the interregional level (i.e. between the sending and receiving regions of star scientists) as well as the intraregional level (I.e. in the receiving regions of stars)' (p. 20). More than half of the sampled stars had an experience of the international mobility, however, it was found that it 'does not suggest significant impact, i.e. mobile stars do not differ in their regional knowledge transfer activities from non-mobile stars' (Ibid, p. 22). This finding is important but requires a deeper investigation of whether the status of 'star scientist' is correlated to the international mobility background or not. It is crucial to underline that the study's focus is on a particular type of mobility – scientific one, and not on academic mobility in general. While this effect is significant for universities themselves and their regions, not each university can afford to employ or attract top researchers.

Another manifestation of universities' engagement with businesses and industry are knowledge flows and their geographies. A large-scale quantitative study by Abreu and Grinevich (in Cresenzi and Percoco, 2013) investigated a variety of academic entrepreneurship's forms and activities and the geography of university knowledge flows on different scales. Besides analysing a broad number of academic activities of academic entrepreneurs[3] on local, regional, national and overseas levels, it recorded some particular trends in knowledge spill-overs. For example, academics at research-incentive universities 'are more likely to engage in activities at greater distances <including overseas>, with the effect at its strongest for more informal activities' (Crescenzi and Percoco, 2013, p. 202). Thus, universities with focus on the research are expected to host academic staff with higher mobility (as many activities of knowledge transfer involve physical participation). Moreover, an important role in innovation and knowledge production belongs to social networks of academics (Ibid, p. 204), which are often international.

More and more students, as well as professionals taking the academic positions at universities, are foreigners, in such a way they are mobile and travel for different purposes, including academic-related, family/ personal, tourism. Only academic trips include a variety of options: workshops, conferences, studying/ teaching abroad for short or longer period, practical experience, participation/ attendance in (research) networks and collaborations and more. And despite the mostly formal nature of these trips (acknowledged by the hosting or receiving institution), only some forms of these mobilities are being incorporated in the general 'academic mobility' picture of universities.

Further, to analyse the multifarious and disperse phenomenon of academic mobility and its place in modern universities' development, it is necessary to clarify the foundations of mobility in general and its pillars. Moreover, it is an attempt to highlight a crucial role of mobility for universities and higher

[3] Audretsch and Lehmann (in Cresenzi and Percoco, 2013) define academic entrepreneur as 'an individual who makes knowledge transfer possible by generating value for his/her research outside of academia' but also involves informal activities (pp. 187-188).

education sector as a whole. At the heart of research - one of the main original two pillars, or missions, of the university - is knowledge production and its exchange, and consequently its mobility.

And by no means this research tends to follow the widespread myths, for example, that (academic) mobility is a 'peculiarly modern phenomenon', that it 'is limited to the West' or that it 'is neutral, that there are no substantial cultural, economic and political dimensions'; it acknowledges the wider roots and geography of the phenomenon (Byram and Dervin, 2008, pp. 292-98). However, the most interesting of the myths is that 'mobility is always a matter of choice' (Ibid, p. 295). Although movements of academics are related to political, socio-economic and ecological conditions of their home countries, it is also the matter of mobility's nature. In other words, it becomes incorporated into academia and university in general and in job positions there in particular to an extent when not being mobile (the condition of immobility, due to internal or external factors) is a challenge.

In the perspective presented in this chapter, academic mobility and the internationalization of higher education are closely related and are in mutual dependency. On the one hand, the importance of accounting for components of university's international outlook, which have been mentioned above, is related to increasing mobility. In the other words, international students and staff do travel, first of all, to their sending or home countries. Moreover, due to the previous mobility experience, they are perceived as more prepared for higher volumes of travelling. To add, international collaboration presupposes flows and exchanges of people and knowledge. On the other hand, the growing scope of mobility and flows across the globe incite or push universities to be more international and connected. Generally speaking, according to Enders (2004), 'universities are thus objects as well as subjects of "internationalization" or "globalization"; they are affected by and at the same time influence these processes' (p. 365).

Nevertheless, it is important to underline a key role of universities' structure, management and leadership in the character of regional and global engagement. While these differences are rooted in the division between traditional and former polytechnics in the UK higher education context, much impact has other factors such as regional specificity, institution's size, history and orientation, policies on academic and student mobilities, and others. In the sphere of universities' internationalization agenda, one of the important missions of the top leadership or management is to apply and conduct it in a wise and holistic way, which is based on the essence of internationalization: it is 'a process or means of enhancing or achieving goals' and not 'not an end unto itself' or not a postulated outcome (Knight, 2011). In this way, a university can aim at an increase in international student numbers or academics, enlargement of their international networks and mobilities and so on, but not at internationalization itself.

To conclude, a university as an institution widely engaged with both regional and global contexts, processes and stakeholders. In general, they have 'a significant impact as businesses in their own right, both through their property strategies and as big employers of technical and professional staff (including but not only knowledge professionals)' (Meusburger, 2018, p. 612). Moreover, the social groups constituting a university – academics, students, and non-academic staff – collaborate in a variety of ways with, firstly, other institutions in academia (other universities, research centres, education organizations, etc.). Secondly, they are involved with third, or public, sector organisations, and thirdly, with businesses and enterprise. This university's engagement profile requires individuals (and the knowledge they bring) to be mobile and agile regardless of time and distance, what, in turn, demands expanded digital and transport infrastructure to support those spatial ambitions.

From mobilities to spatial capital

The (new) mobilities paradigm

Modern social transformations evoked the rapid increase on local and global scopes of mobilities and movements, which is facilitated by widespread of technologies including air transportation. The discussion of mobilities in the contemporary world, their impacts on a single individual in particular and on urban life in general is framed by, firstly, 'mobility turn' and the new mobilities paradigm introduced by John Urry and Mimi Sheller (2006; also Urry, 2000); secondly, transport geography (Knowles et al, 2008; also Creswell and Merriman, 2010). Both theoretical strands overlap on several positions and are in mutual dependency. While mobility is facilitated by transport infrastructure, transport and its properties and characteristics lead to increase or decrease in mobility. One of the important advances of the mobilities paradigm is that it 'has begun to alert <geographers> to the potential overlaps between transport geographies and socio-cultural research'

(Adey, 2007, p. 774). It is also reflected in the diffusion of methods applied to study topics and issues related to mobilities and use of transport.

To investigate the mobilities in general and their particular manifestations, Urry and Sheller (2006) proposed ‘mobilities methodologies’, which are constituted of seven main methods, which are rooted in socio-cultural research, anthropology and ethnography. This methodology aims at investigating and understanding experiences and practices, individual or group, therefore, the traditional methodology used in geography was perceived as not suitable enough. The use of ethnography and experiments as ‘methodologies of mobility’, or ‘methods on the move’ is also proposed in the edited collection by Elliot, Norum and Salazar (2017).

The mobilities paradigm appeals that the social theory must be shifted to study of networks, mobilities and geographical (spatial) movements, and become more attentive to space-time relations. The mobilities paradigm highlights the importance of focusing not only (physical or spatial) movements of people and capital, but also ‘social practices, objects, information, signs, ideas’ (Byram and Dervin, 2008, p. 14). Therefore, mobility becomes not just a feature, but a lifestyle in itself and the driving force for the societies (Urry, 2000). Urry (2000) appeals to mobility in plural – mobilities – and the ‘complex interdependences between, and social consequences of, such diverse mobilities’ (p. 1). In this context, the primary concern about an expression of social inequality in a ‘right to mobility’ has been raised (e.g., Marzloff in Byram and Dervin, 2008, pp. 15 – 16).

The focus on mobilities in this research is mostly concentrated on visible movements, with a direction in differentiation of mobilities. On the one hand, mobilities are one of driving forces in differentiation of society (Cresswell, p. 220), on the other hand, the status and individual`s position in stratification impacts movements and opportunities. The conditions of limitation of mobilities[4] are in the focus of mobile paradigm, nevertheless, the experiencing of these limitations requires broader investigation.

The British sociologist and pioneer of mobilities paradigm is John Urry has also examined in the new sociology the importance of transport mobility and travel, with underlying the leading role of air travel. He stated that it is crucial for cities and their inhabitants to have and to access transport hubs (especially airports), through which they are connected to the rest of the world. The impact of such nodes in transport networks is seen on places with access, as well as on the spaces without easy and fast access to mobility hubs

[4] In this research, limitation of mobilities should not be confused with disability issues.

(Urry, 2001, p. 63). In this way, places with transport hubs may be perceived as more desired for residency because the level of people`s and objects` mobility there is higher. This vision is related to a study by Rerat and Lees (2011), which argued about the importance of connectivity, provided by transport infrastructure, for choice of residency by gentrifiers.

One of the approaches to mobility is to understand it as a source, to frame and understand the urban processes, as well as to accumulate spatial capital[5] (Piscitelli, 2018, p. 70; Pucci and Colleoni, 2016). In this context, the spatial capital of mobility is a ‘potential in space linked to material qualities and social practices turning mobility into a resource’ (Ibid, p. 69). Kaufmann (2014) shares the vision and claims mobility as a tool for sociology. Thus, mobility can be both the phenomenon itself and an ‘analytical lens’ to study social objects and other phenomena.

While the mobilities paradigm states the embracing nature and presence of mobilities in everyday life processes, on individual, collective or institutional scales, some of its postulates require deeper understanding. Salazar (2018) identifies three assumptions: ‘(1) there is (increasing) mobility; (2) mobility is self-evident phenomenon; and (3) movement generates positive change, often conceived of as an important for oneself and one’s kin or for the nonrelated others’ (p. 154). All of these positions are embedded in a way into the paradigm and, therefore, lack comprehensive evidence. While being mobile is understood as beneficial, being immobile is seen as limitation, although it can be a personal choice. Moreover, the paradigm requires broader study of different forms and kinds of mobility, which ‘depends on what makes people mobile, their relations with the places they come from and those to which or through which move as well as the reasons they move’ (Ibid, p. 162). In turn, through the reasons to move (or not) can be explained the existing personal mobility accumulation, and the hyper-mobility of ones will not over-shadow the immobility of others. This can be elaborated by comparing universities students with different backgrounds and mobility practices, when traditional students are perceived as ones to have higher mobility and non-traditional students are less mobile, in both social and spatial dimension.

To put it in a nutshell, the new paradigm sees mobility ‘to be the norm, not the exception’, and ‘extraordinary levels of mobility – or hypermobility –

[5] This publication was produced as a result of Feltrinelli Camp ‘8 Research Paths for the City’ (an international workshop for young European researchers in the field of Urban Studies, February 2018), where the researcher participated in the working thematic group/ table ‘Framing mobility as spatial capital’.

which characterize the contemporary world’ (Adey et al, 2007, p. 774). The spatial mobility has become more widespread and geographically broad since a variety of resources and opportunities globally became accessible, not least owing to the air transport networks. One of the social groups with high level of mobility, both spatial and social, is (university) students. They travel locally, nationally and internationally, to obtain skills and knowledge, expand social and professional networks, and accumulate social, economic, cultural capitals. Student and academic mobility, in particular international flows, becomes a feature of a modern university, despite its historic development path and nowadays focus.

Academic mobilities: the student experience of mobility

Student mobility as a phenomenon has been widely addressed by academic research since it ‘is commonly regarded as the most visible part of the internationalization if territory education’ (Byram and Dervin, 2008, p. 16). Moreover, international mobility for home students has been actively promoted by the UK Government ‘with emphasis placed on the cultural benefits of UK students spending time abroad’ (Holton and Riley, 2013, p. 68). While some research and data (e.g., HESA data on international student mobility) accounts for relatively high academic mobility of UK students during studies (in Erasmus+ and other programmes, for example), Lindberg (2009) states that graduate mobility is higher than degree mobility (especially compared to Germany and Finland).

Student mobility, especially international flows, ‘both during the studies and upon entrance into the labour market is significantly influenced by the social origin <of individuals>’, including social background, previous mobility experience and parents’ mobilities (Kratz, 2011). The study by Kratz (2011) finds out that students and graduates are more likely to be mobile if they have already had mobility experience (during the studies, for example), as well as the geographical or spatial mobility on labour market increases the human capital (Faggian and McCann, 2009). Therefore, Kratz (2011) distinguishes five main mechanisms ‘predicting higher migration propensities by students and graduates with favourable social background’: financial support, psychological costs, migration experience, human capital (knowledge of foreign languages), and social capital (or networks). The research of transnational educational programmes by Waters and Leung (2013) concluded that the social capital accumulated within the field of higher education ’(both within university and subsequently through alumni networks and resources) can have a direct and substantive impact upon employment experiences, and consequently, opportunities for social mobility' (p. 164). It is an important study, which connects social capital to other forms of capitals by combining individual and institutional social capital available to students.

Moreover, a number of studies on migration found the positive correlation between previous experience of mobility and psychological costs and social capital (e.g., see: Faggian et al, 2007). The study conducted by Gerard and Sanna (2017) develop the already existing research on links between student mobility and further graduate mobility, following up with a conclusion that 'therefore to incentivize students' mobility makes sense' (p. 65).

Therefore, it appears feasible to state that mobility during student experience is likely to increase the social and human capital of graduates and invest in their advantage on the labour market. Apart from being their advantage as an employee, this experience can also lead to a job search overseas. These findings seem as a part of constitution of a call for broader mobility experience at universities, both research-incentive and post-1992 ones. Since (international) student mobility contributes to social inequalities reproduction (for example, see: Katz, 2011), the broader access to it by students from different social backgrounds might positively affect back the inequality[6]. But the academic mobilities of students is a complex phenomenon, which for a start requires clearer definitions within universities' strategies. It involves comprehensive rationale and explanation of its benefits and returns for students as well as structuration and classification.

Student mobility is broadly differentiated into outbound and inbound mobility (depending on the sending and receiving country's perspective). This approach accounts for importance of reasons both to go aboard (that is potentially a 'brain-drain') and to choose a particular country for mobility for students. According to the Global Education Digest 2006, the outgoing flows of African, Chinese and Arab students are 'the driving force behind the internationalization of higher education' with the top receiving countries being the US, the UK, Germany and France (Byram and Dervin, 2008, pp. 17 - 18). Notably, this differentiation accounts for student mobility in the form of programme recruitment (not short-term academic-related trips, for example, or short-term internships).

[6] Important to note that the correlation between student mobility and social inequality is not the focus of the current research (mostly due to lack of data and complexity of both phenomena), therefore the statements of positive effects will not be elaborated further.

One of the largest manifestations of academic mobility, both of students and academic staff, is The Erasmus+ mobility programme (within Europe). According to the International Exchange Erasmus Student Network, the main reasons to study abroad are: development of cultural competency; learning foreign languages and improving communication skills; being mobile; personality development ("Why Study Abroad? | ESN.org", n.d.) To put in other words, academic mobility for exchange programmes plays a role in social and cultural capital accumulation. Moreover, it prepares an individual to be mobile as a future employee, therefore invests in mobilities' reproduction. This competence turns into an advantage on the labour market, where resources and capitals become more globalized.

At the same time, several studies account for mobility in academia is not being a fully pervasive and inclusive phenomenon. While its scope is growing, 'mobile students represent but a minority among student populations. In most European countries, their number is considerably less than the ten per cent' (Byram and Dervin, 2008, p. 12). To contrast, since most of the studies on student mobility tend to focus on Erasmus and other exchange programmes and their statistics (often available to researchers and universities), the above argument is perceived questionable. Although, Chatterton (2010) also claims that 'student mobility and "leaving home" remain strongly embedded elite practices in English HE' (p. 511). To follow this line, university in general, with a certain difference between old and 'new' ones, carries a mark of elitism and prestige, which is rooted in its origin as an 'ivory tower' and elite access. In this way, an affiliation with a university and its prestige is a channel to transfer this institutional symbolic capital (see: Bourdieu, 1986) into individual capital.

Overall, the tertiary or higher education studies establish connections between, on the one hand, receiving (higher) education and, on the other hand, human and social capital formation. In this context, academic mobility, both long and short term, as a part of educational process, is consequently understood as one of the elements of social capital accumulation. To add, the experience of mobility incorporates a development of personal traits and skills, including communication, language, social networking and others (e.g., Murphy-Lejeune, 2002). Hence, an experience of student mobility becomes a significant element in the body of social and cultural capitals, in Bourdieu's terms (1986).

While this research focuses mostly on international mobilities of students, a broader phenomenon of 'student geographies' incorporates 'student (im)mobilities on national and local levels along with the international scope

(Holton and Riley, 2013). According to their broad literature review, the major reforms of higher education in 1990s 'resulted in widening participation targets and the emerge of what has been termed "new student", which, in turn, complicates 'the picture of student geographies in relation to themes of identity, experience, mobility and equitable access to HE' (Ibid, p. 63). Therefore, the more traditional vision of higher education sector has been changing, what, in turn, requires more investigation to understand different types of students receiving higher education, their backgrounds and academic practices and experiences.

To conclude, the evidence presented in this section suggests a crucial need for broader data and research on mobilities differentiation. This need is partly rooted in the understanding of mobility differently in a variety of spheres and by different institutions. To specify, for transport infrastructure mobilities are mostly spatial or physical since the main domain has been the space. In contrast, education institutions usually focus on social mobility and its mechanisms. Nevertheless, both social and spatial mobilities presuppose accessibility to resources and advantages. The interdependency of social and spatial mobility demonstrates the importance of the continuation character of mobility in general, and therefore, the inclusiveness of academic mobility. To put it other words, the academic mobility loses its benefits when it is not related to also mobilities outside academia and the accumulation of different types of individual capital.

Constructing spatial capital

The ability of some individuals and social groups to be highly mobile, and therefore access resources over vast spaces, compared to others with lower levels of mobility, has drawn attention of the researchers from different fields. One of the ways to understand the differences and reasons behind these differences is approach, which links spatial to social mobility and highlights their interrelations, has a long tradition (Savage, 1988). One of the first investigations by Savage (1988) linked the personal ability to move geographically with (possible) increase of social intra-generation mobility. And while the study by Savage (1988) considered spatial mobility across the country (the UK), more recent studies focus on national level as well as regional (e.g., Bork and Wrede, 2018) and even neighbourhood levels (for instance, Clark et al, 2014). Their study investigates into the mixed form of mobility – socio-spatial mobility – and defines 'upward socio-spatial mobility as moving to neighbourhoods with greater levels of advantage (lower levels of deprivation)' (p. 699).

The next step was to claim mobility as capital, what admitted its value as a resource, which provides advantages through accessibility, or mobility opportunities. It was followed by the introduction of the term of 'mobility capital'. Murphy-Lejeune (2002), within investigating student mobility, defined it as a 'sub-component of human capital, enabling individuals to enhance their skills because of the richness of the international experience gained by living abroad'. Moreover, according to Murphy-Lejeune (2002), mobility capital is constituted by four main elements: family and involved personal history; previous mobilities experiences; personal traits; and the first experience of another culture. These factors, though, has a potential to be conceptualized in the different forms of capital, derived from the theory of Bourdieu (1986) and will be explained in greater detail later on.

Brooks and Waters (2010) develop this approach by establishing connections between the possessed or accumulated 'mobility capital' by students and their access to different types of capital, and social capital or networks in particular. To put in other words, the research argues that social capital strongly influences decisions of students to study abroad or not, or their transnational mobility. To specify, in this approach, as well as in others presented in this research, the notion of social capital is derived from the theory of Bourdieu, not the concept developed by Loury or Coleman. It is important to underline that not any social relations or networks are social capital per se; they should lead to particular social consequences and access, or influence accumulation of other forms of capital. And since social relations and networks have spatial dimension, so the associated with them social capital does (Rutten et al, 2010).

According to Brooks and Waters (2010), the concept of 'mobility capital' provides with 'considerable analytical purchase on the ways in which an overseas education can advantage an individual in later life', its lacks of 'interactions with other forms of capital' (p. 154) developed in the theory of habitus by Bourdieu. Therefore, the analytical approach, which embraces all forms of capital and their interrelations, as well as mobility and its role in their accumulations, becomes the spatial capital.

The French geographer Jacques Levy introduced the concept in the work 'The legal space. About the geographical dimension of political function' (1994, in French). Spatial capital is a relatively new concept and theory for the interdisciplinary studies, which is rooted in the sociological tradition and mainly focuses on the analysis of the spatiality of urban forms and related social practices. The idea of space valued and exchanged as capital, among other forms of capital, in the field originates from the Bourdieu's theory. The French sociologist Pierre Bourdieu developed a theory, which involves several types of capital – along with already existing economic one, there are also cultural, social and symbolic capitals. Economic capital, 'which is immediately and directly convertible into money and may be institutionalized in the forms of property rights' is traditionally linked to accumulation of material goods, while cultural capital 'is convertible, on certain conditions, into economic capital and may be institutionalized in the forms of educational qualifications'; and social capital is 'made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the forms of a title of nobility' (Bourdieu, 1986, p. 243). Cultural capital, in turn, exists mainly as educational qualifications in three forms: embodied, objectified, and institutionalized (Ibid). Symbolic capital appears at intersection of status and class and refers to resources, which can be possessed on the basis of honour, for example, and refer to attributed cultural features.

The role of social capital in individual mobility level and access to other capitals, which was investigated by Brooks and Waters (2010), consists of it possible access provision to economic resources, also actors 'can increase their cultural capital through contacts with experts or individuals of refinement (i.e. embodied cultural capital); or, alternatively, they can affiliate with institutions that confer valued credentials (i.e. institutionalized cultural capital)' (Portes, 1998, p. 2). Capitals can be accumulated, exchanged or transformed into each other in the symbolic field. To add, 'mobility is believed to be an indicator of the variable access to and accumulation of various types of capital' (Salazar, 2018, p. 154).

In his most recent work on spatial capital (in English), Levy (2014) defines it as a 'form of capital that can be accumulated and used to produce other social goods', and its 'specificity is made up by advantages brought by control over a series of geographic layouts in which scale is determining element' (p. 48). Transport infrastructure owing to the development of technologies allowed to provide individuals with greater speeds and connectivity, what, in turn, means a possibility to control and exploit spaces at vast proximities. Levy (2014) extends the discourse of spatial capital by focusing on the concept 'inhabiting' as 'an encounter between space and spatiality', between moving and becoming, and represents a form of acquiring control over the place of belonging (p. 51). Moreover, Levy expands the attribution of spatial capital from individuals to also 'collective or societal actors, including places'

(Ibid, p. 47). Edward Soja highlighted the significance of the concept of spatial capital, which gives ‘urban spatial causality and the socio-spatial dialectic their long-deserved recognition (Warf and Arias, 2008, p. 31).

Since a number of scholars have adopted the theory to investigate a variety of social themes, including urban challenges, a commonly shared vision is the lack of spatial dimension or sufficient attention to a place or space in the theory of Bourdieu (see: Mace, 2015; Bridge and Watson, 2011). While the approach of Levy has expanded Bourdieu’s theory in the first place, by adding the spatial dimension, the more recent studies apply the concept to different social phenomena and even transform it. The common feature of research introducing and operationalizing the new concept is ‘to emphasize the use of place or “place plus mobility” as an asset in its own right, which creates powerful social advantage through the command over place and/ or place plus mobility’ (Mace, 2015, p. 2). Therefore, it appeals to a combination of features of being fixed in a place and being mobile at the same time. Due to a new perspective on space, ‘we can think of habitus as spatially contingent field of meaning, working through a range of spatial boundaries, making it part of both subjectivities and physical locations’, which become ‘critical to the shaping of everyday life spatial practices and hence engagements with other spatial formations (such as the home, family, urban or nation) at other scales’ (Brickell and Dotta, 2011, p.12). In this light, spatial capital is defined as ‘mastery or command over space, the ability to make profit from the spatial dimension of society, to make spatial choices in terms of both fixed location and mobilities, to organize one’s life according to aspirations and constraints’ (Levy in Rerat, 2018, p. 115).

The recent theoretical strand investigating (individual) spatial capital is constituted by several studies. First of all, the study by Centner (2008) of the spatialized consumption practices of the dot-com workers in San Francisco (USA). The focus is on the ‘personalized deployment practices of uneven social power in situations where space is at stake’, which in the situation of the “misrecognition” of economic, social and cultural capitals permits the legitimisation of claims on place (Centner, 2008, p. 193; 203). By inter-connecting concepts of privilege and habitus with space, the ‘spatial capital, then, is a form of symbolic capital in a field where material space is at stake’ (Centner, 2008, p. 197). Another important achievement of this research is taking into account the ‘spatial consequences’, which appear after employing different forms of capitals. To put in other words, habitus is spatially expressed. The study accounts for the importance of symbolic capital – privilege – in consuming and pursuing (urban) space, in the case – through gentrification, nevertheless, for the dot-com workers (knowledge sector) symbolic capital is closely tied to economic capital and resources.

The next research is a study by Barthon and Monfroy (2010) of schooling strategies of households, which engage with dualism of fixity and mobility, in Lille (France). The research comes to a conclusion that for the families,

'control over their relationship with the urban space, including their capacity to strategically choose their residential neighbourhood and/or their mobility capacity, which allows them to benefit from a better school provision, may consequently be considered as a resource in its own right, turning the spatial dimension into a specific, autonomous capital compared with other types of capital, that is, a sort of spatial capital' (p. 181).

This research deploys two levels of spatial capital: position (inclusion in a particular place) and situation, which is related 'to a space that the individual appropriates globally via a complete range of mobilities' (in Barthon and Monfroy, p. 178). In this way, spatial capital presents a combination of space and mobility. This vision presupposes that the range of mobilities originates from a particular place, where they are embedded and where they might return. Thus, the spatial capital 'could be the basis of the accumulation of more social capital, or enable access to sites of production leading to greater economic capital, or also the creation of a locus for the inculcation of valuable cultural capital' (Centner, 2008, p. 198).

The last study exploring individual spatial is the one by Rerat and Lees (2011), which focused on the interconnections among spatial capital, gentrification and mobility on the neighborhood level and their advantages (in core cities in Switzerland). The research underlines the necessity to focus on both mobility and rootedness, 'by looking at the mobility experiences of individuals and the fixity of place of residence' and 'choices that allow them to increase <their> "spatial capital" (Rerat and Lees, 2011, p. 127). Although the concept of spatial capital has been exploiting, it is understood more as a synonym to the concept of 'motility' (Kaufmann et al, 2004; Flamm and Kaufmann, 2006).

'Motility' in a broad sense is constituted by the synergies between spatial and social mobility, which are: 'concerns with structural change and social transformation'; 'concerns with preconditions and consequences of movement'; and 'the emphasize on the importance of space (social vs. geographic) and time (temporal effects on social position and structure vs. speed of displacement of goods, information and people)' (Kaufmann et al, 2004, p. 748). Motility includes three interdependent elements: access, competence and appropriation (Ibid, p. 750). While the notion of access is shared with mobilities paradigm and transport geographies (and will be presented later on), other two elements require explanation. Competence includes physical ability, acquired skills and organizational skills, which may 'directly or indirectly relate to access and appropriation', and appropriation, in turn, is 'how agents… interpret and act upon perceived or real access and skills' (Ibid, p. 750).

Despite the fact that this research project adopts the approach to individual spatial capital as both theoretical and analytical framework, it is worth elaborating on a few other studies, which investigate spatial capital of collective subjects or places (in Levy's terminology). To start with, Marsoyo (2012) uses the notion of spatial capital to investigate home-based enterprises, and approaches it as a part of physical capital/ assets, which, along with human and financial assets, 'are accumulated to provide the social and economic infrastructure essential in urban households' (p. 289).

To contrast, another study by Frenkel and Porat (2017) applies the concept of spatial capital, which 'is based on the accumulated assets and capabilities of a region, to the field of strategic local planning in Israeli case (p. 171). This study expands the concept by applying it, on the one hand, to capital assets, and on the other hand, by placing it on regional level and regional capacities (represented by indices). Thereby, the integrative model includes eight forms of capital assets: 'economic, human and cultural, social, municipal (public economic), political, environmental, accessibility and infrastructural, and planning and development' (Ibid, p. 175). A complex system – regional strategy, which is based on these capital assets, along with development engines and proactive actions, is expected to boost the regional growth. These assets represent regional capacities, or its spatial capital in general. While this application of the concept has no research analogues yet, the given importance to accessibility and infrastructure, which constitute mobility through integrated indicator – transport (p. 178), is important for the concept's expansion.

The last but not the least is the recent report by UN Habitat 'Spatial Capital of Ethiopian Cities. Street connectivity study for the City Prosperity Initiative' (2016), which applies the concept to the scope of a city. The analysis includes connectivity and accessibility as spatial variables. Although, they are separated from each other, and accessibility is understood 'in terms of proximity of the population to those public spaces' (Ibid, p. 15). Thus, the spatial capital of a city is 'illustrated by the properties of density, measured as the weighted average of built-up densities, or plot density, and connectivity, measured as the ratio of intersection density (ID) and street density (SD)'

(Ibid, p. 14). Moreover, such variables as measurements of public open space and land use can be used to describe spatial capital (of a city), nevertheless, density and connectivity are the main ones used. Although, it is analyzed in the context of street connectivity, the spatial capital is ‘an important basis to create successful and prosperous cities’ (UN-Habitat, 2016, p. 14).

To conclude, one of the main advantages of the concept of spatial capital is ‘offering a new means for interpreting and communicating the combined effects of a range of individual events’ by ‘focusing on the interplay of social positioning within place’ (Ibid, p. 1). It provides with a concept, which is applied as the analytical framework in this research, broad enough to embrace place and the individual positioning and mobility, and the influence of accumulation of other forms of capital. As it was presented in the previous sub-chapter, diverse studies of academic and student mobilities investigate them and accompanying effects and benefits, but they do it within particular frameworks. To put in other words, there is research on universities’ image and brand, prestige and status, which can be read as symbolic capital; extensive research on social networks and capital developed due to broad academic and student connections and inclusion in a variety of networks, what represents social capital. Moreover, there are works on skills and extra education programmes, related to personal development, as well as intercultural communication and exchange, which accompany multi-scalar internationalization of universities, and contribute to cultural capital accumulation. The last but not the least, multi-disciplinary studies develop the concept of human capital and its economic implications, which is interrelated with economic and social capitals. Therefore, while these dimensions have already been investigated, with or without application of Bourdieu’s theory and concepts of capital and habitus, they are not interconnected in one system of coordinates, or capitals. The conceptual framework of spatial capital embraces these categories in the form of different capitals and places them in the context of place specificity (position) and mobility (situation). Thus, it builds a system of interrelated parameters or values.

This sub-chapter investigated in detail the theories, which apply the concept to the research, although it did not analyze the transport infrastructure as a component of spatial capital (Levy, 2014) and a dimension of the concept of motility (Flamm and Kaufmann, 2006). The next section investigates the role of transport in facilitating mobilities through a combination of fields of knowledge of geography of higher education and mobilities paradigm with a focus on regional airports.

The role of (air)transport infrastructure in facilitating mobilities

Transport geography: interrelations among mobility, accessibility, and connectivity

The transport, or transportation, geography as a field of knowledge and branch of geography has a broad focus on connections and mobilities of people, material and non-material goods, such as resources, information, cargo and other, between places and destinations, which are facilitated by transport infrastructures. It overlaps with studies of transport infrastructure (e.g., transport planning, modelling, etc.) but presents a broader theoretical strand. Traditionally, transport geography often 'ignores the social dimensions of travel and the broader issues of how travel and transport help to produce modern societies' (Larsen et al, 2006, p. 3). To put it in other words, they account to spatial movements without directly relating it to social mobility. The approach developed by the 'new' mobilities paradigm proclaims to study the production of social networks and their spatial distribution through 'networking practices of travel, communication and meetings in apparently mobile societies' (Ibid, p. 5).

The interest in the fast development and intensification of transportation technologies and infrastructures, along with development of intelligent systems and internet technologies has been noted in the transport geography since the 1990s. The approach defines the structure of transport infrastructure that it 'consists of all the facilities that are used to provide transport services and includes, among other things, highways, streets, and roads; railroad tracks and trestles; runways, terminals, and transit facilities' (Black, 2003, p. 8).

The intensification of mobilities, especially spatial/ geographical movements within regions, countries and worldwide is largely dependent on transport, its accessibility and connectivity. In the context, the issue of sustainability of travel, and the correlation between increase in transport modes and networks and environmental issues, come to the frontier. The 'sustainability approaches' to transport and mobility (for example, 'sustainable mobility paradigm') are largely opposed to the 'neoclassical approaches', which perceive transport as one of the catalyst for economic growth: 'better transport infrastructure supposedly leads to reduced transaction costs, as it leads to increased overall speeds, smoother traffic flows, and consequently to decrease travel times that are monetized and deemed “unproductive” (Keblowski, Bassens, 2017, p. 6).

One of the directions of studies within transport geography is air transport geography, which focuses on such major themes as the industry, airport, aircraft, (specific) airline and combination (Vowles, 2006, p. 15). To specify, an airport as subject involves such dimensions as policy, airports within a region, development at and around airports, and specific airport (Ibid, p. 15). Thus, they represent national, regional and local levels respectively. The international level of airport’s operation is represented by airlines and their connectivity (also on national level). In this way, airport is a complex system, which is, on the one hand, connected nationally and internationally and, on the other hand, embedded locally and regionally. The examination of the air transport geography by Vowles (2006) showed that the majority of research focuses on the industry, with airport as the second one (half of the amount of studies), with other topics under-represented. Indeed, the field lacks broader understanding not only of other objects such as aircraft or airline, but of their combinations in particular.

In this way, the airport is considered to be a node in a network, and it functions primarily as part of something more complex as a structure. On the one hand, airports historically first appeared only as a landing site to connect through other landing sites of different cities and countries. And yet on the other hand, it is not only a site to connect material realities because it operates on both global and local, material and immaterial, scales (Fuller, 2003).

The parameters of connectivity and accessibility are key to evaluate the transport infrastructure, and airports as its part. One of the most prevalent analysis of airport connectivity is conducted by the Airports Council International (ACI), an organization to represent airports across Europe. The organization focuses on connectivity as part of policy and has been realizing Airport Industry Connectivity Report since 2004. According to their approach, airport connectivity can be defined and measured in four ways: airport and hub connectivity, direct and indirect connectivity ("Connectivity | ACI EUROPE", 2018). While direct connectivity is direct services (measured in terms of destinations and frequency), indirect one measures connections to hub airports. The airport and hub connectivity present both direct and indirect connectivity for a type of airport respectively. The ACI correlates airport connectivity to regional and national economy and growth, although it also includes other factors.

The growing research on the importance of airport's accessibility provides evidence that it impacts not only economic but also social development in the host region. For example, Beyevik et al. (2002) show that in some regions in Norway the residents rated access to an airport as one of the top quality of life factors. Moreover, according to the ACI's vision, aviation provide communities with 'social benefits, such as tourism, access to remote communities, and the quality of life improvements associated with being able to remain connected to those who have moved far away from us' ("About profile | ACI EUROPE", n.d.). According to McDonald and Grieco (2007), 'the point of attending to mobility and connectivity is that it affects and determines the shape of social networks – and not just their shape, but the kinds and natures of goods they deliver'; social networks, in turn, 'affect and determine our patterns of mobility and connectivity (the places we can go; the people we can meet)' (p. 1).

The concepts of connectivity and accessibility are highly interrelated and are one of the essential for transport geographies as well as mobilities paradigm. Accessibility can be broadly understood as an ease to access or reach opportunities and activities, or resources. Within transport geography, the focus is on the access using transport system and different modes of transportation. To contrast, connectivity is a relative location, both in space and time, of a place or node in the network. Therefore, it functions on a variety of levels: regional and sub-regional, national, international or global. For airports, for example, the amount and frequency of flights represents connectivity, while the (transport) access to the airport itself is the level of accessibility.

Kaufman et al developed a conceptual understanding of accessibility' concept, which incorporates together 'both material and social aspects of different scales of social organization' by recognizing 'the influence of both the individual and structural factors on people's mobility patterns' (in Rau and Vega, 2012, p. 674). The concept combines contextual ('proximity to key mobility infrastructure) and individual accessibility ('car ownership, Internet access') with mobility competency and willingness to move (Ibid, p. 674).

The significance of 'mobility and connectivity is that it affects and determines the shape of social networks – not just the shape, but the kinds and natures of goods they can deliver', and, at the same time, the other way round (MacDonald and Grieco, 2007, p. 1). In turn, it affects social capital of individuals, the opportunities and resources they get access to and how they possess them.

To conclude, the field of transport geography stands on the three pillars - concepts of accessibility, connectivity and mobility, and interrelations among them. In the context of transport infrastructure, not only connectivity of hubs or nodes affects mobility of individuals, but also the access to the infrastructure, or its physical embeddedness in the space.

Airport-led development and regional airports (in the UK context)

Globalization brought to the frontiers the need for faster accessibility and broader connectivity in all social spheres, and air transport is one of the means to facilitate the mobility, through the compression of space and time (the R. Robertson's definition of globalization). The recent growth and development of airports across the world is a respond to these needs. At the same time, in the recent years there has been an increasing interest in airport-led development: the new theories and concepts of aerotropolis, airport city, aviopolis and others have occurred. All of these concepts represent development, which places an airport at the centre and perceives it as highly connected and easily accessible hub. Hollis (2013) argues that sole involvement in an air network and connections with other nodes define the airport`s existence and functioning as a 'super-connected place' (p. 339). These airport models aim at 'a dominant role as transactional spaces in the global economy' and at facilitating 'global production and enterprise systems demanding speed, agility, and accessibility' (Freestone, 2009, p. 164).

In this way, the approaches presuppose that an airport aspires to become a (new) centre for urban development and seeks for broader connectivity. Nevertheless, not all airports have capacities to become global hubs or transfer points. A complex system of conditions and contexts, such as political, economic, socio-cultural, impact the development model that airport adopts.

Anyway, any kind of these airports, both one and many economic impact characteristics, creates impact on the existing city and region. It is signified in, firstly, increase in flows of people and cargo localized in the area/ region. Secondly, in connection to global economy and processes, where 'we will no longer judge the city just on its internal strengths but, like Dubai Airport, on the power of its connections' (Hollis, 2013, p. 340). International airports, especially hubs, rise city/region's global image and can, for example, affect its position in urban hierarchies (e.g., Globalization and World Cities Research Network's evaluation) (Matsumoto and Domae, 2018).

Thus, the increasing independence of an airport from the government, as well as from airlines, provided an airport with "the ability to plan for an expanded range of facilities and revenue-earning opportunities is reflected in the increasingly multi-purpose activities of the landside" (Williams, 2006, p.16). If before an airport was dependent on airlines because they were the main - and for some airports, the only one - consumer of its space, the increasing importance of an airport as a node to connect to global processes started to attract also a variety of other firms which value speed in response to customers' demands. This, in turn, affected the 'status-quo' of airlines for airport's development. Surely, airlines still play a significant role for many airports, as well as they are one of a few purely airport-related companies and main stakeholders.

At the same time, "the true economic and metropolitan significance of the airport is best appreciated within its regional context" (Freestone, Baker, 2011, p. 267). In other words, to assess the success and efficiency of any airport, it is necessary firstly to analyse it within region's objectives, and then compare it to other airports and its forms. This approach lies in the broader analysis of airport's economic impact, which has been in the focus of researchers far more than other impacts created, although sustainability and environmental issues are coming to the forefront of analysis (see: Doherty and Shaw, 2008). To name a few studies, the research of the development effects of Manchester Airport (UK) by Twomey and Tomkins (in Banister et al, 1995) analysed airport's income and employment effects and concluded that 'transport infrastructure is a major determinant of choice, especially to potential inward investments' (p. 208). At the same time, the study also appeals for better methodology since it is complicated analysis. A study by Florida et al (2012) examines the role of airports in regional economic development and state that not only the sole existence of an airport that matters for the region but also its size and scale of activities. Hakfoort and Rietveld (2001) investigated the regional economic impact of Amsterdam Schiphol airport (the Netherlands) through the lens of 'a dual function <of airports>: they act both as transport nodes and as 'growth poles' in the regional economy' (p. 603). The last but not the least, Button (in Postorino, 2010) analysed economic aspects of regional airport development and stated that the analysis is challenging to carry, mainly due to the problem of inclusion airport investment evaluations.

In the past airport's development was more or less depending on a city, and it is correct for any type of airport structure and type. Airport is tied to a city by infrastructure and - mainly - transportation, also shared stake holding, businesses, and later by incorporating the features and attributes of a locality into its space. So, it is possible to say that a city's development (rise or decrease) was influencing an airport's evolution.

However, to build or redevelop an airport into a new complex multifunctional urban centre with air function at the core requires extensive resources. These include national and regional policies, planning and transport practices, financial investments and available surrounding land, to mention a few. Thus, not every airport has a capacity to function as an airport city or hub. This is also the case for many regional airports in the UK, which have a relatively small catchment area, limited capacity to increase passenger and cargo turnover, and restricted incomes and resources available. At the same time, they function as significant economic assets and gateway for their regions.

In this context, regional airports still have a number of possibilities to develop their potential and, in turn, facilitate the local and regional development and its global engagement. First of all, a regional airport's task is to improve its local accessibility for all social groups. It includes wide access by public and private transport and its multimodality, i.e. the more modes of transport intersect at the airport, the higher its accessibility level (Cheng and Chen, 2015; Rau and Vega, 2012).

Moreover, one of the main priorities for an airport is its connectivity, or connection to a higher number of other nodes in the air network. Due the limited capacity of an increase in the direct flights, an airport can connect to hubs, which provide more flights globally. This connectivity can be translated into both more frequent flights and higher amount of hubs.

In a nutshell, the rise of regional airports' attractiveness for various actors – commercial services, airlines and passengers – is a long-term complicated process, which should include actions from different sides. On the one hand, while the major air hub is in London with its four main airports have been passing through 63 per cent of all traffic (Humphreys and Francis, 2002, p. 253), it is a struggle for regional airports to gain more traffic and, therefore, more economic benefits to develop.

According to the research on regional airports, 'for the majority of scheduled service carries (not the low-cost carries) airlines select airports based on the size of potential market available and its prosperity to fly' (Humphreys and Francis, 2002, p. 254). On the other hand, the implementation of regulations and limitations on the major national airports should not be the only policy to transform the existing situation. While this is national aviation policy, or top-down approach, airports can adapt a bottomup approach to influence their position on the airport market. One of the possible approaches is to develop services and quality of airport's space according to the needs and interests of its consumers, or passengers.

With taking into account the importance of economic opulence, it is also perspective to include in the analysis the overall mobility level of the potential market. For example, university and academia people is a potential consumers' target group with traditionally high levels of mobility. Furthermore, it had been demonstrated by a number of studies that airport's engagement with local business environment is beneficial for the participating actors as well as for the region in general (Banister, 1995; Florida et al, 2012; Hakfoort and Rietveld, 2001; Postorino, 2010 and others). Due to their organizational size, airports tend to be one of the major employers in the region.

Airports can affect regional economy and development in several ways. The York Aviation (in Halpern and Brathen, 2011, p. 1145) defines four types of impacts generated by airports:

'(1) direct impacts relating to the operation of the airport itself; (2) indirect impacts relating to the operations of the suppliers in the area; (3) induced impacts relating to the activity generated by the direct and indirect operations; (4) catalytic effects relating to a wider role of the airport on regional development'.

While economic benefits of airport's operation and the activities of generated airport-related businesses are easier to study and therefore have already attracted a significant amount of research, the catalytic effects are more complicated. These effects, in turn, are of two types:

'(1) impacts relating to regional economic competitiveness as a result of an airports ability to promote export activities including tourism, enhance business operations and productivity, and influence company location and investment decisions; (2) impacts relating to regional accessibility and social development as a result of airports ability to secure access for regions, provide residents with opportunities to travel (e.g., for work or leisure, to maintain contacts with friends or relatives or to access services such as health and education), and influence resident location and retention' (Halpern and Brathen, 2011, pp. 1145-46).

The impacts relating to social development and regional accessibility are of the most interest for this research. Although it is a complex task to evaluate them and correlate airport's operations and social development properly, it highlights the importance of airport, especially a regional one, not only as an economic asset but also as a key provider of a broader access to resources and capitals. To put in other words, to underpin the existing capitals of residents, such as social, cultural, economic.

A number of researchers admit the integration of ‘national and local identities’ (Simmons and Caruana in Adey, 2009, p. 778) in the airport’s space in general and its representation in particular; and it is notably can be seen in regional airports. It can be the airports name related to the locality or city (e.g., Newcastle Airport, Liverpool John Lennon airport and so on) or particular branding ‘in an attempt to emphasize their “localness” (Adey, 2009, p. 778).

Above all, airports have negative impacts on societies and the environment. It has conclusively been shown that airports’ growth and expansion increase the environmental issues and ecological damage, such as climate change, air pollution, sustainable farming, etc. (for example, Upham et al, 2003; Stettler et al, 2011; Yim et al., 2013). As Graham (2014) puts it, ‘environmental issues must be seen as one of the greatest challenges to, and possible constraints on, the future activities of the air transport industry’ (p. 286). Main characteristics of airports’ functioning, such as noise, traffic congestion, security and others, lead to tension with local communities and neighbourhoods (see, for example, Doherty and Saw, 2008). To solve the arising issues, air transport searches for suitable responses. While the issues in the (transport) planning sphere can be targeted in collaboration with local authorities and bodies (due to shared responsibilities), the sustainability of air traffic is a crucial problem for the society. In this context, a collaboration with other stakeholders is perceived as game changing in general (see: Upham and Mills, 2005), as well as in the master planning process (Rawson and Hooper, 2012). Moreover, among other solutions are, as proposed by Upham et al (2003), ‘inter-modal and other forms of diversification, together with on-going acquisition of other airports, will stand among the possible strategies for further business development’ (p. 150).

To conclude, the process of becoming more sustainable for the communities in particular and for the environment in general is a key task for airports and air transport industry, nevertheless, it is the most challenging and lasting one. In the meantime, a wider engagement with local and regional actors and institutions, or stakeholders, in different operational processes and stages of development (e.g., master planning consultation) can positively affect airports’ image and functioning. In this way, the stakeholders’ participation can bring a valuable input in the model of regional engagement of an airport and decrease the tensions, which are incorporated in airports' functioning. It potentially can improve the image of an airport and its perception of it by local communities and residents, as well as create opportunities for regional businesses.

Airports and mobilities' production: aeromobilities

The new mobilities paradigm included transport as a mean to facilitate and underpin mobilities; and due to the global scale of connections and relations, air transport's role has changed. As Kesselring (in Cwerner et al, 2009) states it, 'airports are essential elements of the mobility potential of the society' (p. 39). According to Adey (2007), in the framework of broader understanding of mobilities, the mobilities paradigm takes into account 'the complex networks linking the immobile and mobile (e.g., the connections between air travel and the infrastructure of airports, navigation beacons and air traffic control)', or is a 'relationship between mobility and the environment' (p. 776; p. 787).

The condition of 'the dominance of flying as the normal international mode of travelling' (Adey, 2007, p. 774) is termed 'aeromobility'. The notion was introduced by researchers in mobilities Saulo Cwerner, Sven Kesselring and John Urry (2009) and is embedded in the new mobilities paradigm. The necessity of outlining a specific type of mobilities is an increasing influence of air transportation on spheres of social life: the geographically dispersed resources, relations, opportunities require a broader geography of travelling. Air travel creates new opportunities, which 'can be less discretionary once they have been pursued and turned into established activity – for example, second home abroad, personal relationships that transcend national boundaries' (Lyons and Loo, 2008, p. 220). In turn,

'the desire to connect to <this> network figuratively as well as literally drives economic development in not only large hub airport cities such as Frankfurt or Singapore, but many smaller cities' (Cidell, 2016, p. 3).

These economic, social and cultural opportunities influence, in turn, individual`s life, which becomes dependent not only on air transportation to maintain those relations, but also on airports as centres of flows and movements. To put in other words, passengers rely not simply on airport's connectivity on national and international scopes but also on the level of its accessibility. This, in turn, is expressed in the travelling time to the airport, variety of transport options and their intermodality (or intersection). Thus, airports develop into one of the most important places for frequent travellers.

The aeromobility can be described as 'the dominance of flying as the normal international mode of travelling (in much the same way that automobility refers to the dominance of the motor car as a means of personal transport)' (Adey et al, 2007, p. 774). In this way, according to researchers, aeromobility is not the unique form of mobility dependency on a particular mode of transport; at the same time, the dominant transport mode is strongly related to the socio-cultural context. In the context of the North America, the importance of air transport is high, but the dominance is owned by (personal) car mode (or automobility). Cidell (2016) extends the field by exploring hybrid forms of mobility and particularly aero-automobility, when aeromobility is highly dependent on the access to the airport, and car is the main transport mean to facilitate it (in the context of US).

The study of aeromobilities is rooted in socio-cultural and political nature of airports and air travel in general, which impacts lifestyles and social conditions for not only passengers but also broader populations. The major theoretical strands of the concept of aeromobility are, firstly, the experience of air travelling, which involves several spaces and embedded body and mind experiences and emotions, such as a vision of airports s embodiments of international mobility (see: Cwerner et al., 2009). It is a personal trip through an airport as a space of control and surveillance (Adey, 2004). Moreover, experiences of airports of departure and arrival are different, due to personal perceptions, sometimes also previous memories and experience, as well as airport's politics and organization. The variety of procedures and controls that are reproduced in the space of the airport, such as security, border control, data collection and check, impact not only the experience of a space but also the personal identity (see: Salter, 2008). To add, the space of airline, aircraft and a flight creates another sort of experience (Budd, 2011). Second theoretical strand is 'the role of air travel in the identity of people and places, including the relationship between aeromobility and work as well as the larger meanings of air travel in today's globalizing world' (Cidell, 2016, p. 3). The approach investigates aeromobilities, in the context of the new mobilities paradigm,

'in their relations with various social networks and systems, therefore grounding or embedding them in the processes whereby these mobilities, and their own distinctive spaces, networks, systems and environments, are effectively produced, reproduced, performed and regulated' (Crewner et al, 2009, pp. 3-4). Thus, aeromobilities are included in the broader socio-cultural, economic and political context of the fields of its realization.

Thus, aeromobility as a phenomenon ‘refers to long-distance connections and the forging of identities with another set of cultural consequences’ (Cidell, 2016, pp. 11 – 12). It takes into account the impact of ‘being on the move’ on a new – global – scope along with acknowledging the influence of destinations’ specificities on travellers and the needs to travel in the first place. Aeromobile individuals travel due to the needs of work or social networks and connections, as well as for socio-cultural reasons, and therefore, develop particular practices and competencies (see: Adey, 2010). For example, the aeromobility ‘in relation to work travels is linked to patterns of meaning that exceed the traditional working sphere’ (Lassen, 2006, p. 305), or is not represented by traditional understanding of work and related practices. In the sphere of knowledge production, including higher education and high-tech, workers ‘might not have a choice about frequency travelling as part of their job, the choices they do make about how to travel matter’ (Frandberg and Vihelmson in Cidell, 2016, p. 3).

It is important to underline that this approach does not apply aeromobility to all passengers or societies in general since it mainly focuses on frequent travellers. In this context, the main feature is not the amount of trips or their length, it is the incorporation and combination of influences created by, on the one hand, the usage of air transport and airports and, on the other hand, by the presence in destination places. Moreover, as it was showed previously, to be highly mobile can be posed externally on an individual by different conditions, such as work requirements or family obligations, as well as it can manifest personal choices.

One of the recent directions of research in the field of aeromobilities focuses on its impacts on societies in broader sense than socio-cultural and economic contributions by including sustainability discourse. The transport geography in general has been challenged by the discourse and growing importance of the ecological risks, climate change to be in the foreground, owing to the emissions and pollution issues (see: Doherty and Shaw, 2008). Since air transport’s emissions contribute to the decrease of ecological and environmental conditions, the concept aeromobilities as a lifestyle facilitated by air transport incorporates discourse of its environmental impact. Lassen et al (2009), through the research of municipalities in Denmark and Sweden, warn cities and places, which aim at developing economy based on aeromobilities (or vast global connectivity), to ‘consider whether this is compatible with environmental responsibility and being “a green city” (p. 901).

The complex dilemma of balancing between aeromobilities and environmental responsibility has recently drawn attention of scholars in the broader field of geography, including geography of higher education. Hoer and Naess (2001) admitted that professional trips, including conferences, seminars and other, are a significant part of knowledge society in general and work of employees in knowledge industries, for example, universities, in particular. Sectors, such as knowledge-based economy, which incorporates mobility and related global connectivity, invest in environmental impacts created on both regional and international scopes. Academic and student mobilities as one of the main manifestations of internationalization of universities draw more and more research and public attention to its sustainability (Glover et al, 2017; Shields, 2019). Although, the research on aeromobilities and their environmental impacts elaborates on the unsustainable side of it and calls for further actions, it also takes into account the importance of (international) academic mobility, and aeromobility as its form. Moreover, Glover et al. (2017) noted that, in the Australian context, 'university-sustainability policies to seek to reduce air-travel emissions are isolated from the broader strategic directions of the institution' (p. 2). In the UK context, there is a lack of research to evaluate universities' policies towards air-travel emissions and academic aeromobilities, although a number of institutions position themselves as sustainable and develops policies in other spheres, along with research directions, to contribute to solving the global issue. The research by Shields (2019) questions the sustainability of students mobilities, although the call is not to focus on reducing it but 'rather that the higher education sector needs to more seriously engage in discussions regarding its role in global climate change' (p. 16), and incorporate it in the agenda, also in research.

In general, the discourse of two sides of one phenomenon – global connectivity and the incorporated risks – is the field, which brings scopes of air transport's operation together. It analyses impacts and consequences of connectivity, mobility reliance and even dependency on air transport, what presents the international scope, on locally based communities and their environments. In this way, it articulates the interrelation of global and local processes and highlights the importance of coherent approach to mobilities and air transport. In the theoretical approaches to mobility, and aeromobility as its part, there is a certain lack of theoretical ground and field research in identifying interdependencies between scopes of its realization. This research expands these ideas to understand the way airport is connected to global networks and regional actors at the same time, but outside the broader discourse on sustainability and environmental risks.

To conclude, airports, both major international hubs and regional airports, operate on regional, national and international scope and are regulated by national air policies. While this theoretical framework does not primarily focus on the national level and national connectivity, the combination of regional performance and inclusion in international networks is analysed. This combination is mainly conceptualized through accessibility, which provides access to the airport in the catchment area, and connectivity, which serves the access of the hosting region to the international destinations and resources. Accessibility and connectivity, in turn, are interconnected by mobility, which conceptualizes movements to the airport as site and further outside the region, so they are 'linking the immobile and mobile' (Adey, 2007, p. 776).

On the one hand, international mobility and connectivity is the primarily function of airports, which allows passengers to benefit from global processes and creates social impacts. On the other hand, the airport is embedded in the regional infrastructure in several ways. Firstly, it is a part of transport infrastructure system, and its performance and level of connectivity effects airport's functioning. Secondly, it creates economic impact on local economy and acts as a part of the business sector and one of the major employers in the region[7]. Thirdly, airports create economic and social impacts on their communities by the development of their own premises (for example, by building business parks and extra facilities) and by generating land development of the nearby neighbourhoods (so-called airport-led development). Moreover, the negative impacts created in the first place by the airlines, such as noise, emissions and pollution and other, are being prescribed to airports by local communities, mostly because they are local infrastructures. Hence, airports – or their managerial representatives – have to face public reaction and find solutions to be a part of the region's sustainable development. To put in other words, they 'as global transfer points are inevitably local, especially with increasing controversies over noise and pollution that have the potential to feed back into the system' (Faburel in Cidell, 2016, p. 3). Therefore, the ability to be both regionally embedded (not only through surface transport accessibility) and connected internationally (or provide connectivity to the local communities) is a

[7] This function is related to airport's size, passenger turnover and generated income; therefore, not every regional airport is a significant regional employer.

complex task which airports face across the world in general and in the UK in particular.

Conclusion: is there a link between universities and regional airports?

The extensive research branches on air transport and airport-led development, on the one hand, and the changing nature of higher education sector, on the other hand, have a few important points in common. Firstly, both regional universities and airports are understood as key actors in economic growth and regional development, particularly by being large-scale employers and land owners/ users. Secondly, both are generating significant physical movements and are perceived through the production of mobilities, what is, in turn, connected to economic development, on the one hand, and sustainability issues, on the other hand. Moreover, airports' and universities' operations on local and global scopes is equally advantageous for organizations themselves and regional system in general. While universities engage with partners and networks across region, country and internationally, airports generate land development and a 'new airport-linked office property landscape' in the region (Conventz, Thierstein, 2015, p. 85). Nevertheless, the discussion of linking them to consider mutual benefits and perspectives for organizational operation and local and regional development is under-evolved.

The research identified three recent studies, which have similar interest in exploring the intersections between, on the one hand, universities and their mobilities production and, on the other hand, airports and (international) connectivity. One of the studies on airport development conducted by Conventz and Thierstein (2015) explores the connection between airports and the knowledge economy (by the example of German airports) through the role of international hubs within the knowledge production processes. The treatment of airports by their cities has shifted from perceiving them as a gate to their area to provision of 'a competitive advantage within the global competition for future-oriented enterprises and highly skilled employees, especially of the knowledge economy' (Conventz, Thierstein, 2012, p. 8). However, their research focuses on the knowledge economy (mostly knowledge-intensive firms) in general and not on universities specifically, so it is problematic to separate the role of airports on only one sector – universities. Moreover, their focus is on the international hubs, which operation and generated effects, as well as regional engagement, is different from regional airports.

Another study is presented by a joint research of academics from University of Warwick and the Alan Turing University (Guo et al, 2017). Since ‘the performance of many aspects of a university is closely related to its ability to interact at an international level’, the research accounts for a correlation between air transport connectivity and global university ranking performance (p. 12). However, the universities’ rankings and their impact on trends in HE can be perceived twofold: a high position manifests the prestige and, thus, attracts students and stuff along with the resources. To specify, the connection to airports does not place the university at the rating’s top itself but tend to rise up its position. At the same time, not any airport with any amount of flights (connectivity) has this effect on its local university, but those having higher connectivity compared to other hubs.

However, this research is limited to the observation of the correlation and takes into account only the (international) airport’s presence and connectivity, while the link between universities’ and airports’ local and global engagement is undiscovered. Moreover, the indicator of the position in ranking(s) is a very limited factor to present the complexity of airport’s performance. To add, the research questions the possibility of universities change their location (to be closer to the global transfer point or hub) as well as seriously changing or influencing the patterns of airline operation. Being correct to a certain extent, this conclusion does not broadly take into account the raising practices of universities and airlines’ cooperation to facilitate particular routes, as well as it diminishes the complexity of moving for such a structure as a university. To add, the location of universities is defined by a history and regional engagement with local partners and communities, which has its own value.

The last but not the least is an investigation into the correlation between air transport availability and (academic) research collaboration (Ploszaj et al., 2018). Although their research focuses on several US universities and takes into account the possibility of different role of air transport in other countries, it reveals ‘both air connectivity (direct and indirect air connections between airports) and accessibility (distance to the nearest airport) are important correlates of scientific collaboration’ (Ibid, p. 19). The work by Ploszaj and others (2018) connects to the research mentioned above, and they both prove, through statistical analysis, the existing correlation between universities, their research and performance (e.g., in the form of collaborations) and air transport as a facilitator for fastest and longest distances, since distance does still matter and proximity to each other influences collaborations' perspectives for partners and actors.

Moreover, as it was presented earlier, at the junction of the mobilities paradigm and (air) transport geography appeared the concept of aeromobilities, which, in turn, incorporates a particular type of aeromobilities of university students and staff – academic aeromobilities. The new concept is investigated by a small size of research, which mainly focuses on environmental impacts of this type of mobilities. It does not investigate the individual benefits or disadvantages by incorporating it in the discourse of academic mobilities. This science section elaborates on specificity of mobility related to academic purposes, although do not provide a full systematic perspective over its broader nature. Therefore, this research accounts to apply the conceptual framework of spatial capital to academic mobilities: it embraces different types of capital and its accumulation and incorporates their interdependences through the lens of place, where flows are embedded. Also, it interconnects place (position capital) and mobility (situation capital) with other forms of capital – economic, cultural, social and symbolic. Therefore, it provides with a framework, which allows to investigate academic mobilities as a system of interrelated values, which enhance each other's accumulation and exchange, and, in turn, provides an individual with broader and stronger control over space, its connectivity and accessibility.

In this context, the central research question of the thesis is to identify a link between universities and regional airports and find out how it can facilitate academic mobilities and spatial capital accumulation of university students. In order to investigate the existence of this link and its nature in the regional context, the research aims to uncover several issues.

Firstly, the way universities combine or balance their regional mission and international engagement, and which factors determine these processes, is a key to understand the context of the UK higher education. Secondly, the dissertation incorporates academic mobilities into the study of the functioning of the higher education system, investigating gaps in its perception by students as social group and a university as an institution. Thirdly, the role of air transport infrastructure, and regional airports in particular, in facilitating academic mobilities is examined. In fact, whereas mobilities are a part of universities' internationalization strategy and global engagement, they require local transport infrastructures and accessibility to connect globally. To conclude, through these objectives, the research investigates the existence and nature of the link, the challenges it faces and its potential benefits for both universities and regional airports within regional development and its capability to facilitate academic mobilities and broader – spatial capital accumulation of students.

CHAPTER 2

Methodology

THE CASE STUDY METHODOLOGY

Broadly speaking, the case study methodology is applied to investigate the main research question and its aims of the thesis, which involves the usage of multiple methods within this strategy to approach the particular topic or puzzle. The case study methodology applied for this research is constituted by such methods as expert interviews, survey and observation, with a use of secondary data, as well as the supplementary method of the email enquiry (across universities). The methodology is perceived as highly suitable since it 'focuses on one (or just a few) instances of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences and processes occurring in that particular instance' (Denscombe, 2010, p. 52). The analysis usually includes not only data and information on relations or objects under investigation, but also the broader context of their existence and functioning. This methodology appears as the most relevant to explore the research question due to, firstly, an approach to a case as a single system with interconnected elements, and secondly, due to the usage and combination of different methods of data collection. One of the fundamental principles of using multiple methods in general is that the researchers should 'collect multiple data using different strategies, approaches, and methods in such a way that the resulting mixture or combination is likely to result in complementary strengths and non-overlapping weaknesses' (Johnson and Onwuegbuzie, 2004).

The advantages of the case study design is a possibility to 'to illuminate the general by looking at the particular', along with the depth of the study and holistic view of relationships and process (instead of outcomes and end-products) in natural settings by using multiple sources (Denscombe, 2010, pp. 53 - 54). Indeed, this research uses the processual approach and focuses not at an end-product – for example, an established link between airports and universities, but on the process, potential effects, benefits and challenges, of its implication. Thus, the method investigates in-depth one case as a unit (or system) with interconnected relations and processes instead of separating them and detracting the context's role. Indeed, the context – economic, political, cultural, etc., – in which relations and processes are taking place and under which influence have been developing, should not be underestimated and excluded from the complex analysis.

At the same time, the collaboration and initiation of multiple methods within a case study methodology can not only reveal constructive contradictions and paradoxes, which move the research forward and beyond the original assumptions, but lead it to a confusion and possible deadlock in the end. In this situation, it is a high possibility that the research methodology had been chosen in a wrong way. To avoid this conflict situation, the methodology requires an important preliminary stage of analysing a variety of possible research strategies and their relativeness to the research question: will this or either method help to unpack the question and provide with necessary data. It also requires understanding of different methods of data collection, their advantages and possible drawbacks.

For this research, the methodology was carefully considered and chosen in accordance to an aim to investigate a region and the processes and relations embedded in the regional context. Then, the methods to compose the research design were contemplated to facilitate the collection of particular data and its amounts (for example, taking into account the possibilities of limited access to sites, participants, documents and databases). To investigate the context of the case, analysis of secondary data (mostly, open-access reports, strategies of universities and airports' master plans) and observation were chosen. Observation in a form of visits to universities' and airports' sites, attendance of events related to the local and regional development, airport's master plan consultation and other, along with participation in workshops and a conference, was perceived important also for the developing of survey and interview guides. The method of expert interviewing was understood as the crucial to get access to expert knowledge and evaluation of the issues under the investigation. A survey of students (in qualitative form) provides with the insights into the mobilities practices and experiences of actual travellers, as well as their choices within higher education sector, and the interconnections between these two spheres. However, the survey method does not exactly fit into the mobilities methodologies (proposed by Sheller and Urry, 2006). These methodologies overlap with ethnographic and anthropological approaches, which require a particular level of preparation and involvement. The supplementary method of the email enquiry was chosen to place the case in national (English scope) context to elaborate, from one side, on the peculiarities of the case and, from the other side, on identified similarities.

THE CASE SELECTION AND JUSTIFICATION

The case of the North East and Tees Valley in England, the UK, was chosen as a single case study to unpack the main research question: how a link between universities and regional airports can facilitate academic mobilities and spatial capital accumulation of university students? Despite the fact that nowadays they are two separate regions with different Combined Authorities and Local Enterprise Partnerships (LEPs), both areas used to be a single region until 2011 (the establishment of Tees Valley LEP). The assumption of investigating them as one case is that historically it had been one region, which was under the operation of the One North East Regional Development Agency (RDA). Apart from the RDA's legacy, regions share a cultural background and - to a certain extent - higher education sector, which used to be united by Universities for the North East (Universities4NE) organisation and the association named Knowledge House. Moreover, the purpose of the research is not to compare or contrast relations and process in both but to track the changes in different social spheres, e.g., political, cultural, economic, and their impact on the current context of the case. Within this context, a region as a 'bounded system' (Merriam, 2009) is under investigation. A bounded system can be understood as limited by time, space and activity, and embraces a system of connections and relations (see: Merriam, 2009; Yin, 2014).

To select the case, several reasons played the crucial role. To start with, the region consists of a number of characteristics that are relevant for the research investigation. On the one hand, the case has typical features common among regions in England: (two) regional airports of different passenger turnover, as well as several local universities of different types (research or teaching oriented) with the orientation towards both regional and global engagement. The location of the region in the North decreases the effect of London as an air transport hub on regional air transport. At the same time, both regional airports are not hubs and have different master plans' scope and development perspectives. To put in other words, Durham Tees Valley airport is business oriented (although with very limited connectivity), while Newcastle airport has a strong focus on touristic flows, what is similar to many other regional airports in the country. To add, the local universities, as most of them in the UK, have international students, based both in the UK and offshore, and specified internationalisation agenda including development abroad. This context allows generalization of the research outcomes and some of the conclusions.

To continue, the case was selected due to the language matter and the relatively high level of transparency of institutions and procedures, and therefore, their accessibility for the external research. Moreover, the accessibility of a number of experts from different institutions was under a question, therefore a fieldwork in the region with affiliated university (Newcastle university) was perceived reasonable. In the UK, universities are usually recognised by other institutions in the region, sometimes they are even involved in joint projects or activities, and it might provide researchers with easier access to other local organizations or actors. To add, to access university students (directly and indirectly) for the survey is also less challenging while having an affiliation from one of the local universities as well as inclusion in student networks, formal and informal. In particular, to spread survey printouts on campuses, a student status of a (local) university allowed a wider access, e.g., in student dormitories.

On the other hand, there are several specific features that are important for the study. Firstly, it is the ownership structure of the airports. While the stakes in Durham Tees Valley Airport are mostly owned by a private company[8], the larger part (fifty-one per cent) in Newcastle International Airport is owned by the local authorities. Both cases illustrate different trends in privatisation of large infrastructure projects and their development, including expertise, which are interrelated with the local and regional development trends. The case of Newcastle airport is particularly interesting due to its privatisation history (which is briefly presented in the context chapter). The ownership of airports has also influenced (to a certain extent) the researcher's access to their representatives and events for data collection. Since the airport is owned by a complex structure of stakeholders, it also constitutes a larger variety of possible experts to recruit for interviewing.

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[8] The fieldwork and study took place between June 2017 and December 2018, when the airport was still owned by the Peel Airports Group. Nevertheless, the agreement of selling the airport to the local authorities in Tees Valley was announced for March 2019.

Secondly, the higher education sector consists of five universities of different sizes (for example, amount of students and academic and non-academic staff), as well as levels of local engagement, international and regional development, internal structure, etc. A difference in universities' orientation and engagement agenda takes place in other English regions as well, although the HE sector in the North East has a few specific features or projects. To begin with, it was in the North East where the first English organization of access to universities for businesses was established. While an organization uniting all regional universities – in this case, Universities for the North East – existed in every region in England, its Knowledge House was the very first one to connect universities and regional business and enterprise sector. More details about Knowledge House will be provided in other chapters to highlight its importance for the national experience in general and the establishment of closer ties among regional actors in particular.

Moreover, the region hosted a project – a collaborative platform - called Newcastle City futures, led by Newcastle university with such partners as Northumbria university, North East LEP, Newcastle and Gateshead City Councils. In the UK, it is a particular case of bringing together universities, businesses (including Newcastle airport), local authorities, North East LEP and the private sector to communicate and arrange collaborations and partnerships[9]. To add, among main 'pressing themes' is identified 'sustainability' and environmental challenges, which are faced by variety of regional actors, including universities and airport. The limitations of the platform are discussed later in the thesis, although it is important to highlight its focus on Newcastle (it is even stated in the title) and Gateshead instead of the region.

Thirdly, the peculiar features of the local and regional development in the case are, on the one hand, strong networks and business ties, or social capital. Most of the people working at different organizations and institutions in the North East are either from the region or have been staying and working here for years. Therefore, many experts from different sectors are connected through formal or informal networks. This social capital, in turn, is advantageous for prospective local and regional development. This is one of the reasons why the current and previous (if relevant) affiliations of experts were incorporated into the analysis and are also presented in the list in Annex. On the one hand, due to the long-term tensions among local authorities and complicated devolution process, the political context is rather

[9] For more details, see the platform's website: http://www.newcastlecityfutures.org/about-us/

fragmented and challenging for local institutions. The longstanding tensions brought the region to the final political separation and agreement on the North of Tyne devolution deal and no deal for the rest of local authorities.

DESCRIPTION OF THE FIELD RESEARCH AND METHOD OF THE CASE STUDY

To investigate the research question and its aims, several methods were chosen, which composed the case study strategy: expert interviews, analysis of secondary data, observation, the survey with university students and supplementary method – the enquiry via email across universities. To underline, each sub-question or aim of the research was investigated by one or more methods (i.e. there is no correlation between one question – one method). In that way, all the methods are interrelated within a single strategy. To specify, visits and observation at airports' site contributed to the design of the questionnaire, while the secondary data analysis played an important role in the development of both the interview guides and the questionnaire.

The field research consisted of three stages, or visiting periods, and was based in the North East of England region. Although the informants are coming from different institutions and parts of the North East and Tees Valley, most of the fieldwork (e.g., interviews, attendance of events) was conducted in Newcastle. It was locally based there partly because it is the major city of the region, where two universities and an airport are located (and also where the events organized by these organizations took place), as well as a number of experts preferred Newcastle as a meeting point for interviews. Moreover, several organizations in the focus of the research are located in Newcastle (the offices of North East England Chamber of Commerce, North East LEP, Regional Trade Union and other). The researcher was based and affiliated with the Centre for Urban and Regional Development Studies (CURDS) at Newcastle University. The decision to have several visits was defined mostly by the specificity of preparatory and organizational issues, as well as most of the arrangements for the expert interviews took longer time than expected.

Generally, the first visit was crucially important for the study as a whole because the case study methodology requires a careful preparation and planning and consequent systematic implementation. The first visit to the region lasted for two months (from the 10th of June to the 10th of August 2017) and the consisted fieldwork was a desk research, collection of the (accessible) secondary data and consultations with experts from universities. To underline, those were consultations and therefore are not listed or integrated into the analysis as expert interviews. This preliminary stage was important to understand the context of the case and perceive it as a bounded system or unit of analysis with a variety of organizations, which compose it. During this visit, an in-depth desk research and consultations were conducted in order to compose a list of the most suitable experts and representatives, a few visits to the airport for the observation were made, collection and analysis of secondary data took place. Moreover, several visits to both regional airports were made, mostly to understand their location and features, including accessibility and connectivity but not only, what helped later to compose a questionnaire to conduct survey with students. The work at CURDS with their staff and materials significantly invested in the context development since the centre has done a large work on local and regional development in the North East and Tees Valley, among other regional and national development.

The second visit also lasted for two months and took place between the 24th of September and 25th of November in 2017. This stage was mostly dedicated to expert interviews collection and finalizing of the questionnaire and its distribution via different channels. Prior to this, it had a pilot stage, when a few students did the survey and provide their comments. To add, during this period the current stage of research was presented at the internal seminar at CURDS and received valuable comments for modification of both research questions and fieldwork.

The last period took place for three months from mid-April to mid-July in 2018. Therefore, the visiting period at Newcastle university and in the field lasted for seven months in total. This last stage consisted of expert interviewing, prolongation of survey, and participant observation, which involved several events. One of the main activities was participation in a number of events, which are significant for the region's development and understanding its changing context and actors. In the end, the email survey or enquiry across English universities was spread. Since a few expert interviews were postponed due to experts' schedule, they were conducted via phone and Skype till February 2019.

Methods: Expert interviews

The phenomenon under investigation – an existence of a link between a regional airport and local universities - is not established as an agenda or practice in the local and regional development yet. Nevertheless, an assumption of the study is a potential advantage of the link for both sides as well as for a bounded system under investigation (the region), what was one of the interview topics with the experts. Expert interviews with a variety of actors are the main source of information to unpack the research question mainly because of the novelty of the topic, deep investigation of the possible ways of its development and application to the case in the future.

First of all, the research focuses on experts from both the airport and universities sides: these professionals have knowledge, information and expertise on the subject – possible link or partnership with the other organization – as well as the power access to investigate the topic further and make a decision to apply any changes or not. Secondly, it collects expert opinions from representatives of organizations to create the context to the case: third parties and important regional actors, who can frame and influence relations between two main actors in the context of local and regional development. The context is highly important, on the one hand, because most of the actors in the region are interconnected to a certain extent, through formal or informal professional or social networks; secondly, due to the influence of the local authorities and particular organizations (e.g., the North East and Tees Valley LEPs, the former RDA One North East, Regional Chamber of Commerce and other) on airport's and universities' activities and integration.

And, as it involves several actors' participation in the (possible) establishment of that relation (mainly, the airport and universities though), it is perceived crucial to collect and analyse their opinions and understandings of the topic and the related problems. The method allows to attract more target-oriented and specific knowledge, based on the expertise, to reflect and ground both theoretical assumptions and practical recommendations of the research. In the other words, experts are 'responsible for the planning, implementation or controlling of a solution (to a problem); they have privileged access to decision-making processes and people' (Littig, 2013).

Expert interviews were semi-structured, lasted between half an hour (the shortest interviews) to around two hours (the longest interviews); and forty-two interviews in total were collected. The overwhelming majority of interviews lasted for about an hour and were located at experts' office or place of work. Interviews were recorded with the use of a recorder (due to the higher quality of recordings), with the prior approval of that by the experts, and none of them expressed any concerns against it after the researcher's request to use it. Along with the recorder, the author took notes during the interview. It was done for several reasons: to specify straight away the important parts (for the future analysis); to address later during the interview the introduced information; and in some cases the participants gave suggestions about relevant events, contacts, information. Experts were informed prior to the interview about the purpose of the research and its use for the PhD thesis. Informants were also asked to confirm the usage of any information they provided at the end of the interview, and are aware they can see parts of the final version of findings and discussion chapter with their expertise in it (namely, their quotes or references to their statements). The decision to acquaint them with parts of the final version on request was made in an attempt to avoid the non-acceptance of results being involved in this project (Back, 2007, p. 98). All of the interviews were fully or partly transcribed after taking notes on the full length of each interview. To put in other words, firstly the author listened to the entire interview and took notes of the parts, which might be not relevant or are challenging (and corresponding time frames). In the latter case, some information was double-checked with the experts later. Not all parts of each interview were (fully) relevant for the final analysis, although they were informative for the research and context in general; therefore, the selected parts were transcribed and therefore coded. Some parts were not transcribed but noted because they were informative, for example, the part present in each interview guideline about expert's current and previous affiliation and projects/ responsibilities.

One of the important ethical issues of the method is the anonymity of the informants and their opinions in the research. Although all experts agreed for their names (and affiliations) to be disclosed in the study, their identities are presented in the form of expert numbers from the list, both in the discussion chapter and in the list of experts in appendix. The aim of this procedure is twofold: to keep the anonymity of the experts, but also to avoid placing too much attention on their personalities instead of their expert opinions and knowledge. The way experts are presented in the text (Findings and Discussion chapter) is the following: the expert's number (corresponding to the list in Annex); a general role or/ and its level (e.g., top management, or representative of mobility team, etc.); an organization; year of the interview.

Due to the importance of the (current) affiliation with a university (or other regional organizations), they were specified. At the same time, for the local authorities the specification was less significant, on the one hand, and more sensitive, on the other hand. A full date, length and way of conducting an interview (skype, phone or in person) can still be found in the list, as well as the previous affiliations (if relevant) are also in the list. The author conducted all interviews; so this fact was not specified through the text.

In the context of the research, the range of experts is relatively wide[10]:

- representatives of the airport's team (one key informant – a planner) and airport's consultative committee;
- councillors of local authorities (represent both the position of authorities and co-owners of the airport on the research questions);
- positions of local universities were represented by top management, managers of mobility and international teams/ offices, as well as business and enterprise teams, and other academic and non-academic staff with relevant knowledge and expertise;
- representatives of several third parties in the context of region's development (to name the main: North East and Tees Valley Local Enterprise Partnerships (LEPs), North East England Chamber of Commerce, former Regional Development Agency (ONE North East), platforms Newcastle City Futures and City Futures Catapult, Northern Trade Unions Congress (NTUC), Newcastle Gateshead Initiative, N8 Research Partnership (collaboration of eight universities in the North), National Centre for Universities and Business).

However, due to the restricted access to the power and associated rights and responsibilities, the amount of experts on the topic is limited in general, so the research attempted to collect as many expert interviews as possible. The estimated number of the interviews for the first stage of field research was correlated to the size of the experts' group. Thus, the power relations, high social positions and some difficulties in access framed the context of interviews' organisation and conduction (for example, see Bogner, at al, 2009). One of the major factors on all the stages of expert interviewing, starting from the choice of the method, is the fact that usually group members (of experts and elite) are 'the influential, the prominent, and the well informed' (Dexter in Bogner et al., 2009). The influence, or power, is

[10] The full list of involved experts can be found in the appendix.

usually related to restricted access and more issues for the researcher to have enough opportunities (especially in terms of topics for discussion and time frame). Nevertheless, in the context of the case - the UK - transparency and accessibility of different organisations and institutions, including political actors, is an important part of interaction with local communities and interest groups. In that way, many of the experts were accessible (to a certain extent) or redirected the researcher to another expert or representative, but (in the overwhelming majority of cases) did not leave the inquiry for interview without a response.

For this research, the assumption that experts are 'well informed' was originally understood as both positive and negative. On the one hand, it is positive in the sense that their knowledge and information, as well as expert opinions on it, are actually the target of the research. It is taken as granted that they dispose of more information on the subject than the researcher. On the other hand, it could be negative because not all the information is in the open access, what puts the researcher in the situation of less control over the conversation and its possible turns. One of the issues was the knowledge about previous affiliations and job responsibilities of experts. Usually, this information was traced online prior to an interview, from organizations' websites or LinkedIn source, but it was still a limited amount. Nevertheless, this challenge is incorporated in the research design by the definition of expert interviews. Overall, due to general transparency of the issues related to the research question and most of the secondary data, interviews were mainly kept to its guideline and the subject. To add, the interview structure incorporated extra (free) time to address the new information, which was discovered during the interview. Moreover, most of the interviewees provided the researcher with recommendations about other organizations and experts whom they perceive as related to the theme and did even assist in establishing a contact.

To add, the individuals defined as experts for this investigation have access to one or several of the regional actors - airport, universities, local authorities or third parties. And, due to the specificity of local and regional development and the context of the case, a number of experts are or were affiliated with more than one actor/ institution/ organization in this system of relations. This overlapping of representations might potentially cause contradictions in the expert opinion, although it does not appear as an issue in the research. To put it in other words, the overlapping affiliations were not affecting the research's results, or at least not to a significant level. At the same time, they were considered by the research and incorporated into the discussion of the findings.

Expert interviews were conducted during the all three field research periods in the North East and Tees Valley, and the total amount of interviews used for the analysis is composed by forty-two expert interviews. Each interview required a new interview guide with specific questions to be prepared prior to each interview and related to each expert, with preliminary analysis of secondary data: on informant's area of responsibilities and expertise, affiliated organization, recent activities related to the subject and other. An example of expert interview guide can be found in Annex.

The preparation (questions for the interview guides) and analysis of interviews was made by using major themes, which correspond to the main research question and sub-questions, which, in turn, are related to the theoretical framework, the description of the case context, and secondary data (e.g., reports). While themes are more general and are usually developed before the actual field research, codes are generated after data collection to organise it for the analysis (see: Clifford and Valentine, 2003). Moreover, Strauss (in Clifford and Valentine, 2003) distinguished four types of themes in the data, such as conditions; interactions among the actors; strategies and tactics; and consequences. This approach was highly useful to apply for a case study, since the methodology analyses conditions, interactions, strategies, etc. within a case or a bounded system.

To proceed with the coding, which is aimed at identifying categories, patterns, connections and themes within the data, two main levels of codes were used: descriptive and analytic (Ibid). The main theoretical framework for the analysis is spatial capital and (academic) mobilities; they both are the major analytic themes. The notion of spatial capital is more complex and conceptual, it is an analytical category derived from theory and was not used directly in the interviews or survey. It was, on the one hand, operationalized for the survey questions (and to a lesser extent – interview questions) by analysing other forms of capitals it is related to – economic, social, and cultural. Moreover, using the existing research on spatial capital, transport infrastructure and its features (e.g., accessibility, connectivity) was added to the framework. On the other hand, it was used as an analytical framework to analyse the collected data. At the same time, 'mobilities' is both conceptual and operational category or theme, which means that it is used by institutions and organizations to frame and analyse particular phenomenon. It consists of a variety of mobility forms in academia (were used as codes), which is developed in theory and used by universities and organizations to collect the data.

The analytical framework consisted of four major themes: spatial capital; universities; transport infrastructure and regional airport; (academic) mobilities; and a link between universities and airport. Each theme, in turn, has several categories or sub-themes, which unpack their main theme. For example, the theme ‘universities’ is composed of such sub-themes (or codes) as ‘internal structure’, internationalization’, ‘regional engagement: its form, with which actor, duration, purposes’ and other. The theme ‘transport infrastructure’ included ‘accessibility’, ‘connectivity’, ‘mobilities’, ‘collaboration with a university’, ‘planning and (airport’s) master plan’, etc. The theme of a link between regional actors is closely related to the other themes as well as consisted of ‘needs and ways of establishment or communication’, ‘forms of a link’, ‘benefits’, and ‘challenges’. The themes or categories played an important role in analysing the materials of interviews: they provided with a system to approach each interview and connect it to the others. It allowed, on the one hand, to generalize the results and identify similar patterns, and, on the other hand, to specify peculiar information or experience. To add, it is important to remember that ‘codes do not stand alone but are part of a web of interconnected themes and categories’ (Clifford and Valentine, 2003, p. 448). Therefore, since codes are closely related to the information provided and discussed by the participants, it is necessary to check if there is anything absent in the coding system or data. To put in the other words, the information that is not articulated by experts (something they do not talk about or being silent) but is present in the theory should also be noted by the research, for example, by its inclusion into themes and sub-themes.

Practically, the transcripts of interviews were coded in two main steps. Firstly, a full or partial transcript was divided into bigger parts according to the themes. It was necessary since experts interconnected, repeated or compared information and knowledge throughout the interview. There are different reasons behind it, including complex of current and previous affiliations, re-call of previously discussed topics in the light of new themes/ questions, researcher’s request to elaborate on some matters (during the main part or extra time). Moreover, the parts, which were not correlated to any of the themes, were analysed as less relevant for the research or specified according their content. The second step involved coding within themes by using codes themselves. Mostly, sentences or paragraphs were coded, since they presented a particular statement or information. Again, the same codes were present not only within their themes but also in other parts of an interview. In these cases, they were still connected back to their themes, but the context – the other themes, within which they have appeared – were taken into account, and the connections among codes and themes were (re)considered. Afterwards, the results were (partly) aggregated to be presented and analysed within the theoretical and analytical frameworks. To put in other words, not all statements, positions, answers were presented in quotes in the discussion chapter. There are a few reasons behind it, to name: the amount of interviews did not allow including a representative quote from each expert, although it was significant to refer to expertise provided by the most of them. Also, the interviewing is not the only method applied, and to keep the balance of collected data representation and inclusion, only a few (long) quotes were incorporated, as well as several shorter ones.

Methods: Survey

Another method applied within the case study strategy is the survey of students, who are currently enrolled or recent graduates from local universities. The process of designing the survey was guided by the methodology in qualitative research, which appeal for the qualitative approach to the collected data (for example, Denzin and Lincoln, 2011; Creswell, 2007). Moreover, another starting point in both designing and analysing the survey was a statement about the 'mobile methods' (Sheller and Urry, 2006), suggesting to approach mobility practices, experiences and behaviours from the qualitative, even ethnographic, perspective. One of the main aims of applying the survey was to investigate a variety of travelling practices and preferences, along with mobilities, of a particular social group – university students. And one of the transport means to facilitate these travel practices and mobilities is an airport, which is an 'iconic space of the new world order' (Sheller and Urry, p. 219). Moreover, one of the methods for mobilities research calls for a study of 'multiple "transfer points", "places of in-between-ness" involved in being mobile but immobilized in lounges, waiting rooms, cafë s, amusement arcades, parks, hotels, airports, stations, motels, harbors; these transfer points necessitate a significant immobile network so that others can be on the move' (Ibid, p. 219). This study does examine one of such transfer points – regional airport(s), although, it applies a case study methodology with several methods, and survey is one of them. It is used, mainly to collect opinions from different students or recent graduates in their variety and, while some results are aggregated, it also informed the study, with the open questions, about students' opinions and suggestions.

The survey design took into consideration the five types of question content for the surveys, introduced by Dillman (in De Vaus, 2013). These types are the following: behaviour, beliefs, knowledge, attitudes and attributes. And, therefore, to investigate each type of these social items, different types of questions should be employed. Important to remember for a researcher, that the behaviour measures should not be extrapolated to other types, fro example attitudes, 'since people are neither very consistent nor rational and may not have the luxury of behaving as they might like, any conclusions we draw beliefs or attitudes from behaviour are very limited' (De Vaus, 2013 p. 95). In the analysis of the collected data, the attempt was to separate these types of answers and understand the differences among them. The beliefs and knowledge questions are similar in a way, but differs in their construction, and they aim at establishing 'what people think is true' or 'the accuracy of their beliefs' (Ibid, p. 95). To compare, the attitudes questions attempt to uncover what is desirable in respondents' view. The last but not the least, attributes questions are investigating the information about personal features (or demographics). Applying this approach, the survey involves all five type of question content to collect complex understanding about the social practices of students.

In total, 200 questionnaires from students of all five universities were collected. The survey includes both open-ended and multiple-choice questions, which reflect the sub-questions of the research and related theoretical framework. The survey is designed in a following way. It starts with an introduction with a brief description of the research and its purposes, its affiliation, as well as provides researcher's email to contact. The introductory part of the survey investigates the personal characteristics (e.g., citizenship, age, gender, etc.) and recent education (university, course, mode and so on). The main section consists of, firstly, questions about student's mobilities, travelling practices and preferences, for example, frequency and reasons to travel. Secondly, it asks about their opinion on transport options in general, in the region and Newcastle airport (and Durham Tees Valley airport) in particular. Mainly, it investigates their visions about transport's and airport's connectivity and accessibility, as well as facilities and services available at the airport. The survey is anonymous, although the last question suggests leaving contact details in case respondents are interested in any further participation. In total, the survey consisted of thirty-four questions, both multiple choice and open-ended ones. To specify, fourteen questions are open (not counting the last one, asking to leave the contact details). Some of them are related to self-representation and affiliation (country of origin, current residency place, etc.), the rest ask for the explanation of (previous) evaluations or for an opinion. The survey had a pilot stage which included three steps: question development, questionnaire development, and polishing pilot test (followed the guidance from De Vaus, 2013). The pilot included fifteen students from Northumbria and Newcastle university, who passed the survey and provided their feedback. This was done during the second research visit to Newcastle. After applying most of their comments, the final version of the survey was open for other students.

The survey was spread across all five universities in both digital (online form) and hard copy formats, all information and questions provided in English, in total thirty-four questions. The digital version was created on the free survey portal Survey planet[11]. Each question is displayed on a separate page; and each question had such answer options as essay, scoring, rating, and multiple choice. The links to the digital version were spread in universities' various social groups in social media, as well as through other students. Although, since a number of those groups have only authorized access, it required to find a contact person to spread the link or to get the approval from groups' administrators. Therefore, the role of contact people – usually, other students – impacted the coverage of the survey in social media and, in turn, the amount of participants from each university. For example, the widest coverage was in the groups of Newcastle university, which is the researcher's affiliated university, and widest social networks are related to this particular institution. On contrary, a limited access to contact people at Teesside university, not the least due to the geographical distance, resulted in a very low number of participants from that university. Therefore, while the sampling is generally representative in gender, country of origin (UK and non-UK), subject of study and other respects, it is less balanced in terms of university affiliation.

The printed versions were placed in a few places across campuses, for example, student unions, university dorms, postgraduate students' offices. To admit, the widest access to students was provided by Newcastle University, especially in the offices and other inner spaces, mostly because of the affiliation with this institution and provided access to places on campus. And the smallest amount of hard copies was placed in Durham and Teesside universities due to geographical remoteness and less possibilities to check

[11] The website: https://surveyplanet.com

and collect them often. This issue could have influenced the level of representation of each university in the study. For example, a high percentage of students at Teesside university are coming from the region, therefore, the assumption is that they (might) live at home (e.g., parental house). Nevertheless, the research does not define its objective to investigate in detail the differences among students of universities in the region, also due to specified difficulties of the fieldwork. The main focus is on local universities as education sector, which can act as a potentially partner for the airport. At the same time, the occurring differences among practices or preferences related to the university are going to be fixed and analysed.

The difference in printed and online version appeared in the responses to obligatory questions. While in the online version it was possible to specify a number of questions as obligatory to answer (to be able to continue), the hard copy did not have this opportunity. Therefore, while all the online forms were filled almost completely, what allowed to use them all for the data analysis, not all of the hard copy forms appeared to be proceeded for the analysis due to the lack of information, especially on key questions.

The majority of information, collected through the survey, was used in the final analysis and is presented in the empirical and analytical chapter. The demographics part was used to balance the representation, as well as to present the background of respondents in the aggregated way (also to keep the anonymity). And the main questions are analysed and presented in the connection with secondary data, theoretical and analytical framework and, where necessary, with the other data collected. One of the main ideas behind the analysis is to present the students' mobilities and travel behaviours in their own perception, as well as to compare them to universities' perception (mostly, by international and mobility offices) of their mobilities.

The full list of questions can be found in the appendix. Since the data was shared by participants only for the purposes of this research (and related presentations and publications) and was anonymous, it is presented in a generalised way in the findings and discussion chapter but the access to the survey responses base is available only for the researcher(s).

Methods: Observation

Observation is the method of 'the systematic description of events, behaviours, and artefacts in the social setting chosen for study' (Marshall and Rossman, 1989, p.79). According to Adler and Adler (1994), one of the first sociologists A. Comte included observation in the 'four core research methods' (p. 377). The main advantages of using observation method are several: 'getting a handle on the relatively unknown, obtaining an understanding of how others experience life, studying quickly changing situations, studying behaviour, saving money' (Adler and Clark, 2008, p. 325). Thus, it provides with an opportunity to get a complex understanding of a phenomenon, as well as investigate the less understood parts of it or it as a whole, or to gain an 'in-depth understanding of a natural situation or social context' (Ibid, p. 325). Moreover, observation has an important advantage, which is less presented in other methods, - flexibility. It is provided by the fact that, firstly, 'a researcher can, and often does, shift the focus of research as events unfold'; secondly, 'the primary use of observation does not preclude, and is often assisted by, the use of other methods of data gathering' (Adler and Clark, 2008, p. 326).

According to Adler and Adler (1994), observation is the 'fundamental base of all research methods' in social sciences (p. 389), although its generalizability and validity is often questioned or criticised. The main issue with validity is the degree of subjective interpretation by a researcher and possibility to be biased (Ibid). Although, this degree can be moderated by a researcher by using different techniques, which can also be applied in other methods, such as interviews and surveys (which are as well threatened to a certain degree by the same problem) (Adler and Clark, 2008). Regarding generalizability, two main issues arise – 'reliability, or dependability, of observations and measurements' and 'a direct result of the non-random sampling procedures used by most observers' (Ibid, p. 326). The last significant limitation of the method is 'the bias caused by demand characteristics', or in other words, a change in people's behaviour or practices in cases they know or think that they are under observation (Ibid, p. 327). This limitation is particularly hard to avoid due to the presence of researcher(s) and ethical issues.

In this research design, the observation is used to supplement the other methods, mostly to develop the rich and complex context of the case. On the one hand, this method played a secondary role in the whole research strategy due to the scope of the case (a region) and a number of limitations to observe and capture processes and connections. On the other hand, observation was crucial to develop the understanding of places and organizations under investigation and their place in the context of local and regional development. During observation, the researcher did not use the diary but took notes and photos, although the settings varied depending on the event. Almost in all cases of participation in the events, it did not seem appropriate and ethical to use the voice recorder, partly due to the lack of agreement from organisers and participants. In this way, observation was used as well as 'a data collection technique' (Williamson in Baker, 2006, p. 172). Although, '(participant) observation does not have human subjects because the people with home the researcher interacts are not subject to any experiment' (Baker, 2006, p. 184). The design and ethics of the research's observation followed this approach and did not analyse participants in the observed events as research subjects. Nevertheless, as it was mentioned, due to the ethical reasons, the means to collect data at these events were limited.

This research attempts to deal with the limitations of the method mostly within the framework of the methodology in general – case study. Firstly, the method is accompanied by other methods within a research strategy, which increases validity and generalizability. One of the ways to get a broader understanding of practices and events observed is to ask the opinion of the participants (who are involved) about them. Therefore, a number of observed events and practices got a reflection in interview guides, as well as in the survey (e.g., the space and facilities of the airport). In such a way, the understanding of them by the researcher could be compared with the visions of (survey and interview) participants. Moreover, the case of the 'bias caused by demand characteristics' is not present to a significant extent since, firstly, the research and its results are not solely based on the observations. Secondly, the observations were made more to develop the context of the study and enrich other methods, i.e. interviews and survey, rather than to document and analyse particular events, behaviour patterns or practices in isolation from other data and results.

One of the major sites for the research and observation is Newcastle International airport, which is the main airport in the North East of England, although observation at Durham Tees Valley International airport was conducted as well. External geography, or outer spaces, is of interest to the research as (transport) accessibility, surrounding infrastructure and the development of the airport's site[12] (according to the announced master plan). The internal, or inner, geography is presented by different places within the space of airport's main building. First visits for observation to the airport were made prior to the start of interviews and completion of the questionnaire: the purpose was to understand the territory and its context, as well as available services and facilities. To add, the researcher took flights a

[12] The land under development is not accessible for passengers or visitors, nevertheless it is possible to observe the site from different places in the airport's building.

few times from and to Newcastle airport but have not used Durham Tees Valley airport. The presence at the airport also gave a broader understanding of its characteristics discussed by the informants, for example, the ratio of business flights and passengers to the tourist routes, and a variety of services and spaces provided at the airport, as well as lacking some. To add, a meeting with key informant at the airport provided with opportunity to go inside the territories with restricted access, to understand the geography of the airport in its complexity. The arrange of territories and spaces in the airport, as well as the diversification of services is one of topics of both interviews and surveys, so the occurring visits and observations at the airport supplemented the picture of the research.

One of the important events, both for the Newcastle airport itself and the region in general, which the researcher has attended, were the consultation events of the airport's master plan. One of them was held at the airport's site (landside, free to access), the rest were organised at various locations in and around Newcastle. They were held in the areas, which border or are close to the airport's site, thus, experience the most of its impact (e.g., road traffic, noise, etc.). The events were mostly targeting local residential communities but were open to attend. The main purpose of being at these events was a possibility to get familiar with the questions and comments residents and participants made on airport's operations, master plan, overall development, etc. To add, the responses by the key representative were important for the research. Almost all the events were organised and led by one of the airport's planners, who contributed the most to the master plan. Due to the ethical reasons, the events and meetings were not digitally recorded, and (mostly) notes were not taken, since it could impact the behaviour of visitors and participants.

Another series of events, which are important for the region and, therefore, related to the context development, are activities of the Northern Powerhouse Business Summit, which was held in Newcastle on 4-6 of July 2018. A mega-event, which framed the summit, was The Great Exhibition of the North in Newcastle, which lasted from the 22 of June to the 9th of September 2018. Most of the events did not produce transcripts or recordings of the events (available for external users), such as a variety of panels, workshops, presentations, therefore the researcher took notes during the events. The great exhibition in general and the business summit in particular are significant events for the region and Newcastle due to its scale, funding and coverage of topics.

Moreover, the researcher visited all universities' campuses and regeneration and development projects to understand the context of physical expansion and change of urban landscape. To mention the main sites of visit, they are Newcastle Helix (Newcastle university and Newcastle City Council joint project, previously involved One North East as well); National Glass Centre (University of Sunderland); Queen's Campus and International Study Centre in Stockton-on-Tees (Durham university), and other.

To add, the researcher attended a Westminster Energy, Environment and Transport Forum's event on 'Regional Airports in the UK: Priorities for Connectivity, Capacity and Investment' held in Manchester in April 2018. This was the biggest national event, open for broader public, dedicated to the development of regional airports that year, with a range of experts from different spheres. The last but not the least, the researcher attended the Three Rivers conference on the 6th of July 2018, held at Newcastle University. The Three Rivers is the North East Universities academic consortium, held each year at one of the regional HE providers, attracts more and more staff from offshore campuses and teams.

Supplementary method: Email enquiry across English universities

The main aim of this complimentary method was to investigate the broader picture of links between universities and regional airports across England. It is important to mention that the emails were send only to universities in England, not the UK, due to the scope of the research as well as a number of specificities of higher education systems in the different parts of the country. The purpose was to develop a broader understanding of any links between these regional actors on the scale of England and the nature of existing connections.

The enquiry was in a form of an email (see in appendix an example) with a brief introduction of research, researcher's affiliation and the main question. The question referred to the existence (or not) of any kind of links or collaborations with the university's regional airport(s). Originally, the London air hub (with its five airports) was planned to be excluded from the analysis due to the effects and flows it creates. However, the research revealed that the majority of collaborations exist between capital hubs and local universities, therefore, all responses were included in the analysis.

The email was sent to all 106 universities and five university colleges in England; several departments, teams or staff members at each university. The main recipients were: business (or enterprise) teams and their senior staff;

research teams and senior staff; press office; international office; freedom of information (FOI) teams; and members of Pro Vice-Chancellor team or senior management staff. In a number of cases, the researcher was recommended to contact other academic or non-academic staff from the university for more information. The emails were sent (and re-sent in some cases) in the period between August 2018 and March 2019. In the cases, where links or collaborations existed and were confirmed by recipients, an enquiry for more details was sent as well.

The response rate was significantly high – around 100 universities and colleges in total send at least one response (from one of the recipients), although more often two or three recipients from one university replied. The broader amount of responses from each institute was important to confirm already received responses. Moreover, the highest amount of responses was from FOI teams, which confirmed the official state of linkage with an airport.

The example of the email enquiry can be found in the appendix. It presents researcher's affiliation, aim of the project and the main question (about the existence or not of any kind of link).

To add, one of the assumptions of the research, rooted in the theoretical gaps, was the lack of a link between airports and universities in regions across the country. Therefore, to check the existence of a link and general nature or forms of connections among airports and universities in other regions in England, universities were e-mailed about the existing forms of connection to their local/ regional airports. The decision to make an enquiry via email into the universities instead of airports was mainly based on their higher accessibility and transparency as public institutions, researcher's familiarity with internal structure and which departments to access, as well as on the freedom of information regulations. The results of the email survey or inquiry provided, on the one hand, a bigger picture of the connections due to a high response rate, and on the other hand, a few examples of links or collaborations between airports and universities. In these cases, a further exchange of emails allowed to collect more information about the projects and their role for universities. However, in some of these cases of the established link, the more detailed information could not have been enclosed due to the confidentiality issues (mainly because these are business or entrepreneurial links). In such a way, these cases demonstrate the challenges of a (future) study of existing links or connections between these regional actors.

LIMITATIONS OF THE RESEARCH

The case study methodology in general and this research in particular have a number of limitations, which arose prior the field research as well as in the process of data collection. Some limitations are related to the methodology of the case study, some are a part of each method's specificity. First of all, it was expected to have restricted access to the selected experts because of the specificity of their positions (for example, local authorities' councillors) or corporate politics and ethics. Indeed, the researcher failed to access any representative of AMP Capital Group, which shares the ownership of Newcastle airport with the local authorities. The team of the airport and its position on the discussed topics was represented by the only one expert – an airport's planner.

Also, the initial plan for expert interviews presupposed meetings with councillors from all seven local authorities in the region. It was necessary for the research because of several reasons: firstly, to investigate in-depth the context of local and regional development in the North East. Secondly, to build the wider expertise on airport's functioning and development (due to the ownership structure). Thirdly, to have a more complete representation of the North East combined authority and airport's co-owners to understand their perceptions of airport's development and embeddedness in the region. The researcher managed to interview councillors of Newcastle, Gateshead, Sunderland, and South Tyneside, while the assistance to North Tyneside authority redirected to the airport's representative. The interviews with representatives of County of Durham and Northumberland councils were not able to secure.

The main limitation of conducting a survey was access to participants, what, in turn, influenced the total amount of informants in the end. On the one hand, the expectations of a total number were higher due to the researcher's status – a university student at a local university – and related access to formal and informal social networks. On the other hand, due to geographical spread of universities and their campuses in the region, the access to some universities and their students, for example, University of Sunderland and Teesside university, was very limited, even through students' social networks. The total number of participants and its relation to the total number of students in the regions, as well as percentage of participants from different universities, impacted the study and general and the analysis of data.

The research faces a typical problem for the case study methodology: the limitation of the expansion of results on other cases or examples. This problem is understood to be minimised by the initial objectives and research positioning: it is the investigation of a specific region in the country with the unique context; there is no absolutely similar case in the country or elsewhere. At the same time, it investigates the subject, which can potentially be relevant to other regions in the UK: all of them have regional airports and local universities, and the relation between them can positively influence the local and regional development. Moreover, this discourse played a role in a decision on research methodology: the case study design employs usually several methods instead of only one and collection of data from different sources, as well as their mutual supplement to each other.

Another difficulty associated with the stage of analysis of data, especially expert interviews, is the validity, and its three types - descriptive, interpretative, and theoretical (Maxwell in Tashakkori and Teddlie, 2003, p. 300). The first type is related to the precise amount and factual accuracy of collected data. To avoid this problem, all data was carefully collected, digitally labelled and stored. Interpretative validity ‘refers to the degree to which the researcher accurately portrays the participants’ meanings about what is being studied’ (Ibid., p. 300). On the one hand, with expert interviews the degree of this risk is lower compared to general interviews or storytelling due to the specificity of participants’ level of knowledge, access and influence. On the other hand, expert opinions can be influenced by informant’s affiliation or status, or speculated within specific framework, and the objective of the analysis was to avoid it. One of the ways to reach validity is the use and analysis of secondary data: it participated in the design of questions and themes but also in the analysis of interviews. To add, the cross-check and review of all expert interviews using tags for coding help to minimise the risk of speculated opinion. Thus, the overwhelming majority of data collected is described as relevant to the subject or its sub-topics, original and valid.

The third type is the validity of theoretical explanations for the collected data. To make the research valid, the main research question and sub-questions were constructed with strong relation to the theoretical framework; and research methods, their choice and design, were constantly referring to the research question and its aims. At the same time, some expert opinions were challenging existing theoretical assumptions, so this debate of opinions in absence is presented in the Discussion section of the thesis and is perceived as a development of the theory. Thus, this research design combines several methods, such as expert interviews, survey, participant observation and email inquiry across universities, to create a coherent approach to the subject in particular and the case in general. Moreover, the design allows adapting the research according to new data and information collected and accessed, especially in cases it differs from the original assumptions.

CHAPTER 3

Findings and discussion

This chapter presents the findings of the case study from a variety of applied methods to investigate a bounded system – a case of North East and Tees Valley regions – and incorporates them in the discussion with the framework of applied theoretical concepts and approaches, as well as secondary data materials. The research attempts to identify a link between regional airports and universities by analysing academic mobilities and spatial capital. It creates a conceptual bridge between a framework of academic mobilities, or approach to mobility(ies) as a capital, and theory of spatial capital, which perceives places' special features as a resource to accumulate other forms of capital. While the broad frameworks of academic and student mobilities take into account an important role of accessibility and connectivity, it neglects the impact of a place's properties for (outbound and inbound) flows, and one of the important ones is its transport infrastructure.

The chapter consists of five main sections, which in a way correspond to the outlined aims of this research and the existing research and theoretical gaps. The first one analyzes the way universities balance between regional commitment and international engagement or combine these agendas, with highlighting prospective and tensions incorporated in the processes, including the accent on (international) mobilities. The second section continues with incorporation of academic mobility in the study of universities and explores academic mobilities of students, their practices and experience, from both students' and universities' perspectives. The third part presents the underestimated role of air transport infrastructure – regional airports – in facilitating academic mobilities by interconnecting mobility, accessibility and connectivity. While airports facilitate national and international mobilities, at the same time they are embedded in the locality and manifest an important feature of a place. Therefore, the fourth section focuses particularly on the framework of spatial capital and its combination of mobility, on the one hand, and specificity of a place, on the other hand, by the study of university students. The last section evolves the previous parts to answer the main question if there is a link between airports and universities. In turn, the link has several potential benefits for involved regional actors in particular and regional development in general, as well as a few significant challenges, which are explored in a greater detail. The chapter closes with concluding remarks, which present the logical path of the developed arguments.

Universities: a balance between or a combination of regional and international engagement?

The role of universities' (internal) structure: history, relations, and leadership

The universities' performance, orientation towards closer regional ties or wider global engagement and representation, as well as a model of combination a variety of tasks and missions (e.g., community engagement, external access to knowledge and innovations, etc.) depend on a number of different reasons and conditions, including institutional factors. Internal organizational structure is of the main ones to be named. Traditional and new universities have different management structures, based on historic path and orientation; and the former polytechnics 'adopted management structures that are closer to the corporate sector' (Middlehurst, 2004, p. 265). Indeed, at both Newcastle and Durham universities - research-intensive, Russell group and N8 Research Partnership members – decentralization is incorporated in the very own nature of the university's functioning. It is also connected to their historic rise and development from several colleges, which became united by one structure but with a relative autonomy within it.

One of the outcomes of such decentralization is the scattered character of information flows and their frequency within the overall university's structure and between departments, colleges and research institutions, academic and administrative divisions. It can be observed by the ways how both Russell group universities collect, classify and analyze the data on academic mobilities, as well as their communications and links with regional partners, including the airport (in this case - Newcastle International). At the same time, for Sunderland and Teesside universities it is more common to have a well-structured and accessible institution with an organized central department or office for university – business links. It is related to their former structure of a polytechnic along with the focus on teaching and linkages to regional businesses, for example, a link to Nissan for University of Sunderland.

The research shows that several informants admitted the limited freedom of regional engagement for particular departments and their members, for example, at Newcastle University. It is partly related to the disperse nature of enterprise teams at the university, which only recently have been organized into one structure with the central management. At the same time, Teesside and Northumbria universities provide their Business and Enterprise departments with a high degree of freedom to connect and establish partnerships with regional actors. Taking into account the idea of broader regional engagement and strong links with local industries, which was at the heart of polytechnics when they had been created, the accumulated experience of cooperation was translated into the new institutional form. In this context, Teesside university's The Forge (the business team) develops a link, among other partners, with their regional airport, Durham Tees Valley International airport (interview with the Expert 34, the Forge's (business team) representative, Teesside university, 2018)[13]. To add, one of the lines of cooperation is use of the airport's facilities for the university's BA in Airline and Airport Management course. At the time when the interview was held, in June 2018, the communication between the two actors was perspective, but it is not particularly clear how the airport is going to develop after the shift in the ownership (sold to the local authority in 2019).

In this way, the importance of the university's original orientation (i.e., research- or teaching-incentive) and historic path has been broadly investigated by the previous research and theoretical framework, which strongly connects these factors with internal structural organization and also regional and internationalization agendas of universities. To put in other words, former polytechnics are traditionally focused on their region, while research-incentive ones, like Newcastle and Durham universities, orient towards global connections and international prestige. Nevertheless, nowadays this sharp division becomes blurred, and universities' missions have changed. For instance, Newcastle university, which historically has been defined as a civic university (which was established in a large city to serve the community), brings back this image, with certain transformations, to the

[13] From here on and through this chapter, the expert interviews were conducted by the author (if other is not specified). The year stands for the time when the interview was taken.

forefront. Moreover, Durham university, which has not been associated with civic university's origins or its recent model of it, makes steps towards this definition and implementation (see: Robinson, 2018). Indeed, interviews with experts put a certain accent on the university's history and orientation as one of the main guidelines, as well as to present their changing natures.

In this framework, a role of institutional leadership seems downplayed by broader factors. While the theoretical framework of universities (in the UK) leaves a little space for leadership, both in broader and narrow definitions, the current research, and especially the interviewed experts, highlights its significance. According to Birch (2013), 'top-level leadership matters when establishing a university's approach to place-based engagement, especially in a research university, where decentralization at the disciplinary, college or academic unit level is the norm' (p. 9). Indeed, in some cases a new leader can change the university's internal structure, orientation and/ or engagement with the place. In the North East, a significant example is Durham university. In 2015, the university appointed a new Vice-Chancellor Prof. Stuart Corbridge – a geographer and specialist in geopolitics and development studies – and as the Chief Operating Officer the former Chief Executive of Gateshead Council Jane Robinson, who are both 'understanding the importance of place' (interview with the Expert 38, Business and Enterprise, Northumbria university, 2018). These leaders made the university, previously with 'no real interest in engaging with local and regional partners', to 'take a real leadership role' and establish links with local business scene (Ibid). It is important to highlight though that both leaders were appointed by the university, so clearly their previous affiliations and work achievements were taken into account. To put in other words, the university as on organization chose the leaders who are capable to modernize it according to the new national and regional conditions and requirements, such as place-based approach. At the same, in 2018 Prof. Claire O'Malley has been appointed as the first Durham university's Pro Vice-Chancellor (Global), to facilitate the expanding international presence and the global strategy along with the management of the new International Study centre (in Stockton-on-Tees, Tees Valley). In this context, Durham university is a significant example: with no particular focus on the international orientation and interest in regional engagement previously, nowadays both strategies have been taken off almost simultaneously and equally intensively.

While previously it was not characteristically for research-oriented universities to engage intensively with their locality in general and business scene in particular, it has become more spread across the universities to adopt new regional policies to foster engagement. One of the main incentives behind this, among others, is governmental proposition for universities to get embedded as a part of larger place-based approach. Therefore, Durham university is adopting in a way its policies to the new national approach and strategy. At the same time, in the first place one of the main reasons behind universities' limited ties to regional businesses has been the lack of matching between research and knowledge production at universities, their niche of expertise, and the needs of local industries.

Another regional example is Northumbria university: it is in the process of changing the orientation from teaching oriented former polytechnic to a research university, which is lead by the top management, as presented by the Expert 38 (Northumbria university, 2018) in the interview. As it is stated in the university's strategy for 2018 – 2023, the vision is to become by 2025 a 'research-rich, business-focused professional university with a global reputation for academic excellence', with 'the academic excellence at the core of <our> vision' (University Strategy, 2018, p. 5). The strategy outlines that university's ambitions to make changes and transformations both nationally and globally. More specifically, it states that 'by 2023, Northumbria university will be in the UK's top quartile for research' (Ibid, p. 7); a prominent statement for a former teaching-oriented university. In the Corporate strategy 2013 – 2018 (2013), which presented 'the first step in achieving this step change', among four major goals for the period between 2013 and 2018 are to 'build global reputation, market position and revenue streams' and to 'grow high quality research and use it to drive excellence in all of the University's activities'. In this way, the university aims to become more of a traditional research-incentive university with global impact.

Compared to Durham university, it is a transformation of another nature: it is a complex shift to a different orientation, which requires a variety of resources and capacities. Universities' regional engagement is a two-sides process, which involves, along with a university, also regional players, including local authorities and LEPs, with their interests and resources. On the one hand, they are interested in university's contribution to local development and economy, closer links with businesses and knowledge transfers, inclusion of local communities in learning process and activities, and provision of socio-cultural services and facilities (e.g., running of galleries and museums). On the other hand, local authorities need to ensure that university's operations correspond to local and regional needs and interests (interview with the Expert 1 (Councillor, Local authorities, 2017)). To compare, an institutional orientation shift (from teaching to research intensive) is a process, which requires not only mobilization of existing resources but also attraction of new ones.

Generally, universities' strategies are commonly perceived as highly ambitious, in terms of language, estimated goals and their achievements. The documents are influenced by top management guidance to a certain extend, and, in turn, leaders tend to present their universities in a similar manner. The interviews with (accessible) top managers involved their positioning of affiliated universities in a way close to official statements on institutions' websites and strategies, although with a pinch of a critical vision. Therefore, to have a clearer and deeper understanding of practical implementations of outlined ambitious goals, in particular for international and regional agendas, academic mobilities stimulation and facilitation, it was crucial to interview experts from various administrative departments and different (lower) levels of management.

In the context of mobilities, academic and student, there are gaps between promoted goals, current academic policies and individual practices. Moreover, the approach to collect and analyze data, for example, to understand the increase in particular forms of mobilities, differs across universities and does not necessarily present the full picture, what will be discussed in detail in special sub-section later. For example, in its most recent strategy, Durham university plans to reach the mark of twenty-five percent for 'the proportion of students working or studying abroad as a part of their degree' (University Strategy, 2018). It is a relatively high percentage for a university, where degree mobility has been spread only among a few specializations, language and linguistics in particular, until recently. Moreover, according to a representative of the mobility team the Expert 27 (International Office, Durham University, 2017), the previous structure of programmes have allowed degree mobility only for a year period (in some cases – half-of year), what had a significant impact on students' desire and ability to travel, and, in turn, reflected in quite low numbers of participants in mobility programmes. In this context, it is not clear through which institutional instruments the university is going to reach such high numbers.

Moreover, top leadership impacts the establishments of a variety of connections and potential partnerships – regionally, nationally, internationally – in different spheres and activities. Many international contracts and collaborations' participation is secured through personal contacts among PVCs or executive management teams, and the appointments of PVCs for international strategy is one of the evidences. To specify, an existence of a separate PVC for international or global issues is a sign of a serious approach to internationalization agenda. At the same time, research suggests that senior leadership matters also in the sphere of national research and education networking (Harrison et al, 2016). In the cases of transregional university alliances across the UK, personal and professional relations and embedded trust among senior university leaders impacted participation since they ‘are the glue that holds university consortia together’ (Harrison et al, 2016, p. 929).

In the context of regional and local engagement for universities, the issues of moderation of the level and scope of the engagement are under-investigated. First of all, prior to establishing partnerships in particular and manifest engagement with the locality in general, a particular approach has to be developed. As the Expert 38 (2018) from Northumbria university puts it, ‘you have to define a scope of activity you want to focus on’. Otherwise, the universities’ efforts are going to be ‘fragmented and chaotic’ (Hambleton, 2018, p. 5) and the allocation of resources will not be rational. Secondly, it is not clear for potential partners which side is supposed to initiate the communication, which could become a partnership. Especially in the situation when both regional actors are the significant players – a regional airport as a key economic asset and a university as an anchor institution or key stakeholder. While the representative of the Newcastle airport the Expert 11 (Planner, 2017), obviously admits the importance of the airport for the region, also all of the interviewed experts share this vision about the airport’s regional role.

To put in other words, it is expected that experts from universities state the importance of their institutions, but what is common for all of them is a vision about the airport as a key regional stakeholder and partner. Along with the case region, a number of other universities across England have admitted the importance of their local airports, not only in general terms, but also for their own specific operations, according to the email enquiry across universities. Almost all of the universities confirmed the role of airport and strong links with it to facilitate the flows of (incoming) international students in particular. For example, the Research and Business Engagement Services at the University of Manchester stated that ‘the university and airport both recognize how their activities effect on another and liaise accordingly’ (reply to the email enquiry). At the same time, the Manchester airport is an important player in its region by promoting ‘tourism and inward investment in Greater Manchester’ and cooperating ‘with national and metropolitan transport providers to improve public transport access to the airport’ (Boddy and Parkinson, 2004, p. 41). Thus, the cooperation is influenced not only by one side, for example, universities' interest in the mobilities facilitation or joint projects, but by mutual recognition of each other and own role in the region.

Nevertheless, the fact of understanding and admitting this importance does not necessarily mean or lead to an established link or partnership. And a vision about a perspective link with an airport, ranging from the need for it in general to the practical ways to facilitate it, vary even among experts within a university. For example, within Northumbria university both the enterprise team's representative - the Expert 38 (2018) - and the Expert 9 (Top management, 2017) do see the benefits of cooperation, while the Expert 14 (Top management, 2017) does question the necessity of linking their institution with an airport. For Newcastle university[14], regional airport is seen as a perspective partner in general, but the Expert 17 (Top management, 2017) is also doubtful about this partnership and its benefits for the university. At the Teesside university, both the Expert 29 (Top management, 2017) and the Expert 34 (The Forge, 2018) agree on the key role of Durham Tees Valley airport for the region and their university and advocate the link. It is not correct though to make the comparison to University of Sunderland and Durham university due to a lack of interviews with their top management.

These examples with different or even opposite opinions of experts within (some) universities demonstrate, on the one hand, their personal visions about the airport, on the other hand, can be connected to the organizational structure challenges and lack of intense information exchange. As Birch (2013) put it, the research-oriented universities have more scattered structures and therefore need a strong leadership. Along with efficient management, the structure requires more and wider communication channels to inform each, both academic and administrative, department about the work and vision of others (e.g., priorities for knowledge transfer, collaborations, etc.). This point will be discussed more in the context of the work of mobility teams. Nevertheless, the leadership should organize and mobilize but not pose limitations, especially for institutional social capital. Most of the interviewed experts admitted the use and advantage of their formal (and less often – informal) networks at a current position, what allows them to maintain a connection with a potential of suitable collaboration. While several experts from universities' business team have a previous work experience and contacts at other universities, they also keep accumulated

[14] It is important to underline that Newcastle university has the highest number of experts interviewed compared to other universities.

business connections. To add, many of interviewed experts have been working in the region for years. Therefore, the higher level of accumulated social capital of employees is understood as an institutional resource and, in turn, increases institution's social capital (in the form of network inclusion and connectivity). In other words, paraphrasing Coleman's approach to territorial context (in Pike et al, 2015), an institution 'is more or less rich with social capital depending on the extent to which the individual or collective subjects <of the same area> are involved in more or less widespread networks of relations' (p. 225).

The last but not the least, the role played in the image of a university and its relations with its locality or region is the positioning, for example, as an anchor institution. While a number of universities take on this role to support their places and engage with them broader, it is a significantly large and complicated task. The university of Sunderland is perceived as an anchor institution for the city of Sunderland and nearby: along with being an important employer, it also engages with locality by social and cultural projects and activities. Nevertheless, since both the university itself and the city have a certain level of vulnerability, Goddard et al. (2014) argue that such university needs 'the protection … on the grounds of their role as vehicles for local economic, social and cultural development' (p. 322).

At the same time, universities such as Newcastle and Northumbria prefer the model of a civic university, as the Expert 38 (Northumbria university, 2018) defined them both in the interview. First of all, it is related to their historic appearance, especially for the Newcastle university, since it was historically established to serve its large industrial city and its population. One of the recent Vice-Chancellors at Newcastle University, Prof. Chris Brink, seems an idea of a civic university as the most perspective one to engage with local communities and be 'the most durable and successful constructs of civil society' (2018, p. 333). And while a civic university is getting more attention as a model and branding of a university, a term 'anchor institution' is used more to define the place of a university in its locality and functions it takes over for the purposes of joint development and also refers to the economic contributions.

The way how each university balance between regional and global orientation or combine engagements on different geographical scopes are influenced by a set of reasons and conditions, including not only institution's historical path, emphasis on teaching or research, and consequent institutional structure, but also leadership and management patterns. Although, the understanding of leadership and its achievements, in particular within a university's structure, has to include the influence of other factors, such as selection procedures and bodies (e.g., board of governors). The balance between the role of leadership and institutional structure and its impact on university's agenda in general and strategy in particular requires a deeper investigation in future. Historical path involves the evolution in time of the institution itself along with the development of a place where it is located, for example, industrial and post-industrial development of cities and regions. These comprise the position of a university in the local and regional development and the ties within this system.

Universities' contributions to local and regional development

The local and regional development involves a number of actors or institutions, and universities are one of the key players. Although they have been involved to a certain extent in the local processes and economic activities from the time of the establishment, regional agenda has reached a new scope and become institutionalized in the last decades. The traditional two missions of a university – teaching and research – have been expanded by a so-called 'third mission'. While two missions are responsible for qualifying human capital and producing new knowledge, the third one postulates inclusion of university's activities in its socio-economic context, or its locality. Broadly speaking, the third mission is related to knowledge and innovation transfer from universities to non-academic sphere for the purposes of solving societal problems on global and local levels. This stream of pressures on universities incorporates many tensions and contradictions (see: Harrison and Turok, 2017).

Universities play an important role in the regional innovation systems, by supporting and contributing both science- and engineering-based knowledge (Coenen, 2007), as well as in the knowledge-based economy in general. Nevertheless, the general contribution to the region and ties with local businesses in particular are highly influenced by university's areas of expertise and knowledge production. While University of Sunderland has research, which is more oriented towards regional manufacturing (to mention, Nissan plant) rather than R&D, Newcastle university's niche of expertise - for example, one of the best medical schools in the country generally is not matching the regional sector. Northumbria university, which is shifting from teaching towards research orientation, 'need to start doing a bit better in clarifying what <our> the capabilities and expertise are', to put in words of the Expert 38 from Northumbria university (Business and Enterprise, 2018), what lies at the heart of the orientation towards R&D.

The concept of a learning region is a part of a broader paradigm of the learning economy, based on the systems of innovation (e.g., Lundwall in Chatterton and Goddard, 2000, p. 479), which are supported, among others, by the higher education institutions. The crucial feature for the functioning of a learning region is network knowledge, which depends upon interpersonal relations and a transfer of knowledge from one group to another (Ibid, p. 479). Therefore, relations are transformed into network capital (Urry, 2007), or social capital 'to be considered in terms of social relations and social networks' (Pike et al, 2015, p. 222). The interpersonal relations should include a number of features to lead to collaborations or partnerships' establishments, which serve the transfer of knowledge, and become a capital in that way, or a collective good. Among the crucial features is 'the circulation of information and trust, leading to economic consequences for development' (in Pike et al, 2015, p. 224).

Therefore, the local and regional development is based on social networks, which unite individuals and lead to the exchange of information and trust. One of the sources of social capital in the North East and Tees Valley in England is overlapping of affiliations, present and former ones, of individuals who are involved in relations among universities and the local business environment. The variety of affiliations influenced the creation of networks, and their duration and experience lead to high level of trust. For example, a number of experts used to work for the RDA One North East, where they have met and established connections. Moreover, most of the participants either are coming from the North East or Tees Valley or have been working in the region for a number of years in different organizations. The former workers of the RDA are spread across universities (often in Business and enterprise departments or administrative positions) or various organizations. The research participant, the Expert 3 (2017), who used to work at the One North East and now is in the top management at Newcastle university, describes the main advantages of the region: 'in the main, we have the cooperation between agencies; we are compact so we can bring people together; people often have not moved away so there is a lot of shared, to say, institutional memory, a big history of working together'.

In the Expert's 3 vision, this is an important part of region's distinctive identity and is a sort of regional advantage. Since the region is small (the smallest in England), the proximity between organizations is lower, what influences their cooperation. To add, the region has its own distinctive identity, which is largely based on its past history and economic development (Tomaney and Ward, 2001). At the same time, the main region's airport – Newcastle International – has had one key person, who among other tasks also facilitates regional connections and who has been working there for more than ten years, what had been admitted by few experts. Therefore, most of the experts have known each other for years, and some of them have experience of working together. These conditions in general describe the accumulation of social capital.

Despite the significant importance of the networks for the local and regional development, the information channels among actors and institutions may not be functioning properly or effectively. To put in other words, these interpersonal relations of universities' staff do not necessarily lead to knowledge exchange within a regional network and possible consequent collaborations or links. Due to the complexity of social capital in general, it is challenging to identify its gaps and causality between influencing factors. Indeed, gaps in network knowledge can be an obstacle in the way of its spreading and establishment of solid links, which, in turn, have a capacity to be transformed into partnerships.

According to Pemberton (2000), who applied institutional thickness framework to study the transport policy in Tyne and Wear, institutional presence is as important as 'networking and interaction between institutions' and 'common agenda to develop upon' (p. 297). And even about twenty years ago, there was 'a high degree of institutional cohesion in the North East, but that there is also a distinct shortfall in the networks and arenas existing to facilitate interaction between those responsible for governing of different policy sectors' (Hudson in Pemberton, 2000, p. 300). Although it refers more to formal connections than informal ones, another issue in the region was, and still is, a need to widen the participation of different stakeholders in policy discussions along with creating some arenas and platforms for the communication.

There are different ways to bring regional stakeholders together, and one of them is a creation of common space or arena for communication. One of the attempts to create such a platform nowadays has been the establishment of Newcastle City Futures, which was led by Newcastle university in partnership with Newcastle City Council and Northumbria university. The representative of the platform the Expert 4 (Academic, Newcastle university, 2017) referred to intense and frequent communication but less efficient outcomes among partners within Newcastle City Futures. In more detail, although participants of the platform established contacts and actively participated in the exhibition in 2013, which was used as ‘an innovative city-wide participatory method’, the amount of further partnerships was not too high (Newcastle City Futures, n.d.). One of the main partners, both for the exhibition and the platform in general, was Newcastle airport, which did not find a partner for the project of renovation of the airport’s watching tower (interview with the Expert 4). The space was occupied by Newcastle City Futures with the platforms’ attempt to connect partners, but due to lack of funding the project is over now. One of its disadvantages for regional development was focus mainly on Newcastle (and Gateshead) instead of inclusion of other places in the region.

However, the format was appealing to many local institutions and business actors, including universities and Newcastle airport. As a platform to unite people, re-create networks and exchange communication and information it had horizontal structure. According to the Expert 17 (Top management, Newcastle university, 2017), a space that can put different regional stakeholders together, such as university and airport, should not be led by authorities and should not have a top-down approach. His position can be understood within a general perception of an independency of a university as an institute and its desire to avoid governance frames posed by authorities. In the last decades, central government has already tightened the approach towards higher education by cutting funds and pushing forward the favourable policies (for example, see: Sperlinger et al, 2018). One of the promoted agendas is the third mission or regional engagement, which along with benefits for both university and community brings a number of challenges and tensions. Therefore, Newcastle university as a strong regional actor as well as internationally recognized institution has a privilege of choosing or outlining the conditions of its partnerships, including those with the local authorities (e.g., a jointly led redevelopment project Newcastle Helix).

Moreover, the region has already had its Local Enterprise Partnership (LEP), which is being (relatively) successful in bringing actors, mostly businesses, together, but it has a hierarchy, and represents and implements (mostly) the policies from the central government. At the same time, it is important to highlight that the One North East used to have similar features to a North East LEP, and had generally a more expressed organizational hierarchy and representation of government’s policies. One of the main advantages of the former RDA was its large budget and funding opportunities, according to a number of interviewed experts, and, in contrast, the lack of those at North East LEP as its disadvantage. At the same time, most of the RDA's project had the focus on the physical regeneration. A number of regional actors, who benefited from RDA investments, cannot secure equivalent or even similar funding from the North East LEP. Thus, the vast funds available for a region (e.g., the case of One North East) can stimulate its economic development, rise of partnerships, and even institutional cohesion, but is not directly connected to the circulation of information and trust.

Overall, an issue raised by Pemberton (2000) of a need for a platform to connect regional actors and institutions and widen the networks is still highly relevant. The institutional spaces are weak to a certain extent due to a number of reasons, including lack of cooperation among local authorities (for example, see: Pemberton, 2000), abolishment of some institutions and, consequently, their funding (regional development agency, Universities4NorthEast and others), devolution, and the focus (in economic, transport, education[15] and other governmental policies) on the Northern Powerhouse pan-region. These processes impact not only the functioning of institutions and the institutional environment, but also their networks and embedded trust. These, in turn, challenge the third mission of a university, which is based on closer and stronger ties with regional businesses and communities. In this way, universities have to invest resources and efforts into engagements on local and regional level (place or city and region/ area), as well as national and international, along with another scope – pan-regional (e.g., the Northern Powerhouse).

To step away from the issue of social capital accumulation, the regional engagement of universities happens in different forms, and one of the main and significant ones is being a vehicle for the economic development. First of all, it takes place in the form of physical development. Most common, due to land use and regulations, universities have to secure the support or stake of the local council in their regeneration projects (for example, see: Jones and Evans, 2013). Large built projects, for example, ventures for regeneration such as Newcastle Helix or Trinity Square block in Gateshead, are 'physical manifestation of the strategic partnerships' with local authorities, according to the Expert 14 (Top management, Northumbria university, 2017). At the same time, the fact that Northumbria university's development project is located not in Newcastle illustrates a gap in 'strategic partnership' with

[15] For example, Northern Powerhouse Higher Education Summit, held for the first time in 2018, at the University of Liverpool.

Newcastle City Council, which gives the preference to Newcastle university. Indeed, the Expert 1 (Cllr, Local authorities, 2017), who has been working at this local authorities' office for years, in his interview mostly referred to only one university and its projects as the main partner[16].

At the same time, physical development and regeneration led or stimulated by universities requires a comprehensive analysis, since it creates both positive and negative effects on communities. One of the disadvantages for the urban form is studentification, related to students' housing practices, as well as spread of commercial housing for students. The contribution to local economy, generated by a university through, in no little measure, due to physical development, is closely associated with its image as an anchor institution. Thanks to its size and 'significant purchasing power', as well as 'invested capital mission' (Smallbone, 2015), a university invests in local economic growth and in a way 'anchors' it. At the same time, this allows university to facilitate its own interests in the locality.

To continue, universities create economic impact by the expenditures of their constituent social groups, namely students and academic and administrative staff. A Newcastle university's representative the Expert 3 (Top management, 2017) describes the situation as follow: 'the region benefits from the activities of university; fundamentally, the more successful the university is, the better it is for the location; the economic impact, the expenditure of students and staff is enormous'. Students change the towns where they study by the concentration of their lifestyles and expenditures in particular areas (see: Chatterton, 2010), while the staff, both academic and non-academic, is being more scattered around the place or even region. They have families, partners and friends to come visit and contribute to the city or region's wellbeing. To add, universities attract flows of international students, researchers and academics, visiting short or long term, who contribute also to the tourism income (for example, by staying at hotels, taking excursions). Therefore, the economic impact of university's functioning and accumulating human flows should not be under-estimated as a part of their local and regional embededdness (but not the third mission). Nevertheless, much of this is related to general residential economic impact and not to the ideas of wider regional engagement, the third mission or civic university model.

Thereby, universities' contributions to local and regional development are complex and require a multi-dimensional analysis. On the one hand, there

[16] It is important to take into account that the Expert 1 used to work at that university previously (the one he referred to as the authorities' strategic partner).

are general economic impacts that are related to university's functioning as a locally based organization. It includes a variety of economic values, such as expenditures of students and staff, land properties and rents, regeneration of areas and other. On the other hand, there are activities and responsibilities, which a university takes over as a part of the third mission, positioning itself as a Civic university or acting as an anchor institution. These activities generally require a closer linking to the place or region, including accumulation of resources. However, these impacts are interrelated.

The third mission is a complicated agenda, or function, since it requires universities to share the main resource they hold – knowledge and innovation. Moreover, the agenda of the 'other mission' accounts for not simply the knowledge, or science for science, but an applied knowledge and innovation to be used to solve actual challenges, as was underlined by the Expert 33 (Research Support, Newcastle university, 2018). While it is crucial to develop insights into challenges, both local and global, the practical approach to frame knowledge denigrated the whole knowledge production and retention process, as well as the notion of academic freedom. The last but not the least, an imbalance of the scale of university's engagement towards region, especially in a perception as a bounded system, overshadows the importance of knowledge exchange and development not only on local level, but also on the global scope. In that way, taking into account ambitious goals of universities' strategies and senior management, particularly in the sphere of developing ground breaking world-class research, and broadening of national agenda of knowledge-based economy, it is challenging to imagine these processes without substantial access to international knowledge production and exchange networks.

The regional engagement of universities, which is constituted by economic, cultural and social activities and impacts, has to be combined with the international agenda. English universities are called to focus more on their local communities and business landscape, while they also aim at increasing the numbers of international students and attracting 'star scientists' and top academics, as well as to underpin mobilities, expand presence and development abroad. The international engagement constitutes of a variety of activities, which involve high level of mobility, what is discussed in the following sub-chapter. Generally speaking, while the institution's operation within a region is important, its connectivity and related exchange – of people, resources, and information - with the rest of the world is equally crucial for the development and performance.

International engagement of universities

The universities underline the importance of the international and global engagement in their strategic plans, presentations, branding (for example, in international rankings). In the context of globalization of higher education, not only ‘spatial practices’ such as international mobility, ‘it has also been responsible for the changing cultural representation of university education’ (Findlay et al, 2012, p. 120). The internationalization of British universities is developed in several ways. They tend to broaden participation in international networks and collaborations, especially the research-oriented universities. The internationalization takes place both on campus, or ‘at home’ (the location of a university’s buildings in their city or region in the UK) and abroad (or cross-border) (Knight, 2012). There is also a national level of development, when the universities open new campuses within the country, first of all, in London. Nowadays, Northumbria, Newcastle, and Sunderland universities are present also in the capital. In some cases, the London campuses have established connections in the forms of physical and digital mobilities with the main university. The University of Sunderland, according to the representative of the International Development office the Expert 40 (2018), organizes academic trips for students between campuses to stay and explore in another city, meet local (university) students and academics.

Many English universities established campuses or have country-based teams abroad, mostly in Asia (it has the highest demand for the UK education among other countries). While the movements of students and academic staff from the abroad campuses to the North East is not significant (so far), the expansion of campuses in the university’s structure and geography is growing. To mention, the Three Rivers - the North East Universities consortium, held each year at one of the regional HE providers, attracts more and more staff from offshore campuses and teams. The Expert 35 (Academic Development, University of Sunderland, 2018) explained that the conference[17] brings together academics to exchange experience in teaching and learning from all five regional universities and their broader teams.

To continue, universities do recognize the growing amount of international students entering study programmes as well as the value of input by foreign

[17] Thanks to the invitation by the Expert 35, I was able to attend the conference myself. Indeed, there was a number of staff from offshore campuses of universities, although, this statement is based on personal experience and not statistical data.

staff members. A number of universities have recruited international top management members and Vice-Chancellors, who has a broad experience in working or governing universities around the world, as well as those who are foreign. According to Kim and Locke (2010), 'twenty-seven per cent of full-time academic staff appointed in 2007/08 came from outside the UK'. The increasing scope and nature of international mobility of students and academics involve more HEIs in the UK every year.

The international agenda, both at the university and within its structure and activities and the presence abroad, is related to the branding of university and its position in international rankings. These factors affect the prestige of a university for students and staff, especially researchers and academics. The importance of university's prestige and reputation for students, which has already been analysed and interpreted by other researchers (e.g., Bathmaker et al., 2016), is recorded in this study as well. A few experts, including the Expert 3 from Newcastle university (Top management, 2017) and the Expert 18 (Board of Governors, University of Sunderland, 2017), referred to the importance of international mobility to boost the promotion and prestige of the university, and its place in ranking. The factor of the 'prestige', 'place in rankings' or 'status' of university is in the top three reasons for the survey participants to choose a particular institution (together with its location and a particular course/research/professor). This evidence is recorded for national as well as foreign students[18]. The Teesside university is a stand-alone example, partly due to a low number of participants to observe broader correlations.

First of all, while the importance of a special programme or education content, either research or teaching, is expected to be significant for students, the factor of location is more complex. Some recent research suggests that location – or a city – matters for students, but in the context of the particular type of student mobility - Erasmus mobility (Van Mol and Ekamper, 2016), which clearly differs from degree mobility. Moreover, the term of 'location' can be twofold in this context: on the one hand, it refers to a place in North East with its particular features. For example, it can be Newcastle and its image of a student city with a vibrant nightlife and facilities. On the other hand, it stands for 'their locality' for local students, for whom it matters to stay in the same area. In the survey, the factor of location is significant for both foreign and home students, and a number of them specified Newcastle

[18] This division is questionable in the study as it refers as 'foreign' to those students who have non-UK citizenship, and it does not reflect on the years and experience in the UK prior to the period under the investigation.

as a locality or location (to choose a university). At the same time, regional universities have high numbers of local students, which is presented in greater detail in the next section. If we elaborate on this information, then the explanation might be that for a place with a significant image, like Newcastle, both meaning for location as a factor are reasonable, while other places suggest more an interest or necessity by locals to stay at home. Anyway, the analysis lacks substantial data on students' mobilities and participation in mobility programmes at North East universities to make a step further and correlate type of mobility with factors to choose a university.

Nevertheless, the interesting evidence is that the prestige factor appears for four universities[19], and only two of them belong to the most prestigious Russell Group, or are red brick universities. At the same time, students who named status or reputation of other universities (post-1992) as a significant factor are mostly coming from outside the UK. As our study does not involve quantitative analysis and statistical correlation, it is important to keep in mind a variety of reasons behind this behaviour of participants. It contrasts to the study by Bathmaker et al. (2016), which gives broad insight into relations between higher education, social class and social mobility, stating the 'clear reputational difference between the Russell Group and the rest of HE provision' and the students' awareness of it (p. 150). The research by Findlay et al (2011) follows the argument that (international) spatial mobilities of students are related to well-recognized universities. Our study places the prestige or reputational factor in the framework of social capital, and understands a selection of a prestigious university to purchase a degree as accumulation of symbolic capital, which can be exchanged or enhance other forms of capital (see: Bourdieu, 1986).

Thus, despite the broad and complex nature of universities' international engagement, including wide spatial movements of students and staff, a key role of its facilitation by the transport infrastructure is not a postulate. In other words, the connection between local higher education sector and regional transport is not widely recognized. Nevertheless, the facilitation of international networks' participation and cross-border development requires international transport connectivity, otherwise the accessibility to the global knowledge networks and flows is limited. The international connectivity, for the country in general and regions in particular, is mostly presented by air transport in the UK.

[19] Only fifteen students from Teesside university took place in the survey, and only two of them named prestige as the reason to choose this institution.

In the meantime, air industry has a blurred and incomplete vision of its importance for the higher education sector and its research activities. The airports' role as significant assets for the regional economic growth as a whole has been assessed, both in theory and practice, while their potential for development of particular anchor institutions and regional players is addressed less. One of the reasons behind this incomplete vision is the underestimated attention to accessibility and connectivity. Both concepts (or features) are related to resources, which are key factors for local and regional development. In that way, there is a gap in interrelating regional connectivity, accessibility and mobility, both generally and for particular institutions, which is discussed in greater details in the following sub-chapters.

To put in a nutshell, universities do see the importance of both, regional and international, engagements and partnerships. And while the institutional history still defines a lot in present orientation and functioning, the shift has been taking place. For example, University of Sunderland, presented by a strong historical relation with its region and its businesses and manufacturing, is now positioning itself as a global university with the highest number of offshore students in the region. At the same time, Durham university is currently developing stronger links with regional stakeholders after centuries of its orientation outside the place (both in socio-economic and spatial understandings). While regional embeddedness and international engagement with incorporated mobilities might be seen as two different poles or even a conflict of interests and resources, the solution universities can take is combining them, since, according to the Expert 3 from Newcastle university (Top management, 2017), they are interconnected. Her quote illustrates this:

'The more our academics go away and promote the university and their research, the better it is for the ranking; our league table position will rise if we are more active and more international. That will impact on our ability to recruit students. And the more students come here, the better it is for the economy of the North East because they spend <money> here. So I do not see it as a conflict'.

Therefore, academic and student mobilities, especially international, are an essential part of university's operation and competition for students and staff.

To put in a nutshell, the nature and effective ways of relating itself to a region is not crystal clear in general and for each university in particular, although each of them finds its way to develop the third mission. While universities promote more a combination of regional and international involvement, the research understands it as a balance of the scales within the institutional model, which each university has to search and develop for itself. One of the reasons behind an ambiguous vision of combining the agendas, both in theory and practice, is the sort of fundamental dilemma between global and local, or regional. On the one hand, regional engagement is specified as a ‘third mission’, or something that was not been present as a part of university and has been added recently. While two missions - both research and teaching are at the core of university’s essence, with a specific orientation towards one or another, the third one becomes important. On the other hand, international dimension can be understood as incorporated originally in the university’s nature since it has always had foreign students and academics, as well as in social life and exchange of a university (Larsen 2016). And, in this case, regional and international dimensions and agendas supplement and develop each other. The last but not the least, the understanding of the ways how these agendas are interrelated in general and for the institution’s performance by the university’s top management should not be neglected but research and in practice.

Academic mobilities: perspectives from students and universities

Mobilities practices and experiences of students

The globalization/ internationalization of higher education has significant impact not only on the sector in general, changing many spheres ranging from research and teaching, academic mobilities and everyday life practices of students to urban landscapes and development of cities. The internationalization of higher education embraces almost all aspects of students’ lives, including mobilities and their purposes and scopes, travel practices and experiences.

The student survey across all five regional universities provides with some insights into their traveling behaviour, choices and evaluations of the regional transport infrastructure. Although, the percentage of participants from Teesside university was significantly low (only fifteen people from two hundred participants), the data is still considered for the analysis. The main objective of the survey was not to identify differences in student mobilities and practices across universities since a number of predictions can be derived from the existing analysis of universities' structure, history (post-1992 or not), ratio of international students and other. The survey was focused on collecting data on student practices in general within the case region. That is, since Teesside university has the lowest amount of international (Non-UK) students – only six per cent in 2017/18 (HESA, 2018a) – and high percentage of students coming from the region[20], it is predicted that the amount of students traveling and their trips will be lower compared to other universities. Indeed, the university's website informs that the amount of students coming from the North East was around sixty-nine percent in 2017/2018 (University Statistics, 2018). Moreover, the probability is high that their travelling would be mostly regional or national and less international, because they have fewer international contacts and relations, also developed during university time.

Therefore, the data on travelling practices was not (strongly) correlated to a university, although the institution's affiliation certainly influenced the results, mostly as predicted. All the participants were residing in North East and Tees Valley at the time of research, while their previous place of residence and also citizenship varied including UK, European and Non-EU. While home students constituted the largest sample (95 participants), non-EU and European students' share was 68 and 37 respectively. Most of the non-EU students are coming from Latin America (8 participants) and China (32 students). It represents, in smaller numbers, a high amount of students coming from China in the UK in general and in the North East region in particular. According to HESA, 'thirty-one percent of first year non-UK domiciled students come from China' in 2017/18 (HESA, 2018a). Overall, the amount of overseas HE student enrolments in England in 2017/18 constitutes of around 68,000 coming from EU against 555,645 students from outside the EU (Ibid.).

In the context of the North East of England and Tees Valley, most of the students are coming from the region: three in top five of domiciles are regional – Tyne and Wear, County Durham and Stockton-on-Tees – and constitute almost 30,000 out of 103,895 students in 2017/18 (HESA, 2018b). Other two main domiciles are Greater London and China, with 6,050 and 5,185 students respectively (Ibid). Despite the region has been the smallest in

[20] North East and Tees Valley regions

the student numbers (and also in population numbers), it had almost nineteen per cent of international, or non-UK, students in 2017/18. And while this number is not outstandingly high compared to other regions, it still has an important impact on region's development, economy, building environment, city life, etc. For example, the analysis of universities' impact on the UK economy conducted by Universities UK (2014), shows that in 2011-2012 'nearly half of a full-time UK job is generated for every non-EU student studying in the UK', and that 'for every non-EU student, output of £46,071 is generated in UK industries, resulting in a contribution to UK GDP of £24,028' (p. 28).

At the same time, the corresponding statistics on students on each university's website or database may differ from HESA data, depending on the way data is collected and which data is included. For example, University of Sunderland claims to have 19,090 students recruited in the 2017/18 academic year (all students in total), with only around eleven thousand students to be British. Therefore, the percentage of international students (excluding students from the EU) at the university is thirty-seven (University of Sunderland, n.d.). Clearly, this percentage is relatively high, even compared to other regional universities.

One of the features of international student recruitment (and, from their side, enrolment on courses abroad) is their lifestyle and travel practices. To put in other words, international students have more connections, formal and informal, outside the region and country, and are expected to travel more to maintain their networks. Even if their lives are not completely organized following the aeromobilities lifestyle (Cwerner et al., 2009), the studies on mobilities of international students prove that they travel more than home students. They usually have families and friends abroad, sometimes also former colleagues, partners, classmates or course mates, as well as other relations and networks. While students travel themselves, also their relatives, friends and partners travel to visit them in the UK, which represents the growing inbound flows correlated to growing international student numbers.

Due to the relatively narrow understanding of (international) student mobility(ies) in theoretical approaches, labelling their movements only with this concept will limit its diversity of purposes, practices, and experiences. Clearly not all trips made by students are related to academic purposes, and therefore are not in universities' competence to record them. But the further investigation in its diversity can shed a light on relations between academic life and its mobility (for degree, exchange programme, conference, research visit, etc.) and their social life and its mobility (trips to visit friends, visit place of study for exchange or internship programme and other). This research can help to understand deeper the impact of academia and university on student's life, geographies of movements, motives behind decision making processes, and capital accumulation.

Another important part of universities internationalization is providing degrees, fully independently or in partnerships, outside the UK. According to HESA's definition, the aggregate offshore record represents 'data about all students studying (to date) wholly outside the UK, who either registered with a reporting UK higher education provider (HEP) or who are studying for an award of the reporting HEP' (HESA, n.d.). In 2017/18 academic year, the total number of offshore records by HE provider was almost 694,000 and 624,000 students for the UK and England respectively. In total, the five North East HE providers have 16,220 students studying wholly outside the UK. In the North East[21], the universities with the largest and smallest amount of offshore students are University of Sunderland and Durham university, with 7,760 and 195 students respectively (HESA, 2019). These data become clearer if considered in the frameworks of universities offshore development, which correspond to data collection period. While Durham university does not have a campus abroad and has a relatively small presence in forms of teams outside the UK, it maintains and expands participation in a variety of international networks and consortia, mostly oriented towards mobilities and exchange of students and academics. To compare, University of Sunderland has a campus in Hong Kong, as well as partnerships to deliver degrees all over the world.

Nevertheless, the politics of universities establishing campuses abroad are much more complicated and require broader analysis, as well as the reasons behind the destinations' choice and type of development. While the mobility policies between the UK-based and offshore campuses are undeveloped at many universities till now, their directions, its further implementation and representation in international agenda (or strategy documents) should draw the attention of the researchers in the sphere of higher education. This research identified only organized student mobilities between Sunderland university's main and London-based campuses and plans to develop closer and structured movements of students (the interview with the Expert 40 (International Development, University of Sunderland, 2018)). The research, in the context of its theoretical strands of geography of higher education and mobilities paradigm, highlights the importance of having institutionalized

[21] HESA includes Teesside university in the North East region.

mobility policies to facilitate not purely academic purposes and knowledge exchange, but also accumulation of social, cultural and symbolic capitals, which will be elaborated later in the chapter.

Blurred understanding of student/ academic mobilities

Although data collected and provided by HESA on student numbers is complete and highly reliable, the confusions still arise. Firstly, it is not clear if a university counts offshore students as a part of international student cohort or not. This can lead, in turn, to a confusion when comparing data from HESA's sources and university's information (e.g., strategy, website, etc.), like in the case with University of Sunderland. Moreover, it is the major source of collecting data in the sphere of higher education in the UK, which provides information to different organizations, such as Universities UK, and HM government uses it as well.

Secondly, universities are lacking comprehensive and shared understanding of what mobility as a phenomenon encompasses and all types or forms of mobility movements. While Universities UK in the report 'Gone International: Expanding Opportunities' (2017) cover major types of mobilities, including short-term, to present data on student mobilities, universities in the North East experience challenges in systematic approach to data collection. Despite the concerns of a representative of Durham University's International Office, the Expert 30 (2018), that 'it was a Durham's problem, not necessarily a wider issue', due to a high number of colleges, departments and activities at the university, the issue is actually more widespread and typical.

One of the reasons of this situation is the core of the approach of international offices at universities, which involves a contradiction between the positioning and data collection and its analysis. Although the Expert 30 states that her team works 'across all areas of mobilities' and on all levels of studies and staff mobility, later in the interview she clarifies that the office manages 'central mobility', mainly including funded programmes and university level of agreements (e.g., with foreign universities and institutes). Therefore, individual mobilities, such as 'research students spent some time at a university we don't have link with at institutional level' which can be for weeks and even months, are not recorded by the office (interview with the Expert 30). A similar situation can be observed at Newcastle university, where only certain types of student mobility are registered with the international Mobility Office, as an office's representative the Expert 26

(2017) admits. The comment by the Expert 30 (Durham university, 2018) about the uniqueness of the challenge for their university uncovers a lack of information and experience exchange or comparison between universities' offices. A higher level of sort of knowledge exchange between the experts or teams/ offices could create a positive impact on the effectiveness of data collection. Moreover, it can potentially be a road to collaboration among teams to present the volume of mobilities of the regional HE sector in general and the structured data for the partners in particular, for example, transport infrastructure management groups or local authorities.

There are different challenges related to the blurred understanding of mobilities at universities. First of all, it becomes a conceptual issue, which impacts the theoretical understanding of different kinds of movements of students, on the one hand. On the other hand, the situation is impacted by large and scattered theoretical framework analyzing mobilities of university students. This, in turn, leads to uneven presentation of different trips for students. In this way, exchange programmes (for example, Erasmus+ and so on) are being highlighted by mobility teams as prospective for students' experience and future career opportunities. It goes in line with research on the impact of Erasmus programmes on students' personal development, to give an example (see: Byram and Dervin, 2008). At the same time, short term mobilities, such as internships, research visits, attendance to conferences and workshops and others, have way less attention and presentation, both in theory and practice. No doubt, course exchange programmes for a semester or a year provide more opportunities to stay abroad and accumulate new knowledge and skills, especially language and inter-cultural ones. Nevertheless, short visits do invest in professional development and networking, and therefore, require a dedicated research of their positive (and negative) impacts. In general, this way of mobilities promotion by the universities' offices and teams contributes to the reproduction of a limited vision on student and academic (in this context – related to academic purposes) mobility.

The scope of personal mobility changes when an individual acquires a new social status – university student. The overwhelming majority of respondents claimed to travel more compared to the times prior to the enrolment (at the university in the region). Unfortunately, there is no data on their participation in Erasmus or other institutional exchange programmes, although it is doubtful that all of them had done so (with a purpose to exclude this factor). In this way, their mobilities increased by travels of different character, including trips for academic purposes, as well as social networking.

Another important disadvantage of a gap in student mobilities data collection is its usage to present the actual level of mobilities, for example, to external partners. The exchange and analysis of the scope of mobilities produced by each university in particular and the higher education sector in general, on the one hand, and its facilitation by the fastest and long-distance transport infrastructure – air transport, on the other hand, can lead to a deeper understanding of each other's role in the mobilities production. There is also another potential partner in this relation – airlines, which in fact do facilitate the movements. There are examples of collaborations between universities and airlines: for example, airline can establish a route to a place with high level of interest for a university and conjugated flows of people (interview with the Expert 40 (International Development, University of Sunderland, 2018). However, if the airline is not based at this particular airport and in that locality, it has lower interest in the rest of the community and place itself. Airports, on contrary, are nodes and organizations embedded in their places and therefore, a collaboration with them can potentially have a more established long-term character (while airline can change its politics and collaborator if the flows decrease and even shut down a flight). This crucial gap is investigated in the last sub-chapter.

In this way, the universities' approach to student and academic mobilities has been limited, due to not expansive enough vision on all types of movements. It is also reflected in the strategies and documents, which present international student mobility. This research accounts for the term 'academic mobilities' of students instead of 'student mobilities' since it is a broader category, which includes a variety of movements and purposes (not to be confused with mobilities of academics). To add, although universities do widely acknowledge the student exchange programmes and degree mobilities, they do not elaborate on the facilitation of mobilities. For example, as the Expert 26 (International Mobility, Newcastle university, 2017) explains, even if the team is aware of the mobility trips of students, they do not know how and when exactly students travel to their destinations. Moreover, their team usually do not inform students about the transport options and travel to the partner universities or institutes, mostly due to the lack of this information at the Mobility office in the first place. It includes the means of transportation to facilitate the travelling, as well as services and facilities provided by transport hubs, airlines and partner universities. Therefore, the official role of transport infrastructure in facilitating academic mobilities has been over-shadowed by the scope of mobilities, especially international student mobility, which is articulated in the official documents (for example, see: HM Government, 2019).

The role of transport infrastructure and regional airports: accessibility and connectivity

Regional airports play significant role in region's development, primarily economic growth, as well as in its social and cultural development. Airports produce different types of impact, including direct and indirect ones related to the operation of the airport itself, suppliers and activities, as well as catalytic impacts (Halpern and Brathen, 2011). The catalytic impacts, in turn, can be related to 'regional economic competitiveness' or to 'regional accessibility and social development as a result of an airport ability to secure access for regions' (Ibid, p 1145). The research of Halpern and Brathen looked at regional airports in Norway to highlight the importance of their functioning on social development of residents and higher access to external resources. Thus, an airport underpins already existing connections and raises mobility capacity. Therefore, along with an assessment of its economic benefits and jobs provision, its accessibility and connectivity and related social development require closer attention.

Accessibility is mostly presented by ground access to the airport's site, which provides easier and fast reach by public and private transport. And although traditionally airports are well connected to the city centre (of the closest and largest city) by roads, traffic congestion can create jams and delays in the access. The situation with public transport is usually even more complicated since it depends on cooperation and joint planning and operation with local authorities, not only in the sphere of initially planning and constructing from infrastructure (i.e. roads), but also services provision. Moreover, even being a part of regional transport system, airports are integrated to a lesser extent. The integrated transport systems, which base the competitiveness on the inter-modality of all means of transport, are gaining more attention by both researchers and transport planners and local authorities (for example, at the Westminster Energy, Environment and Transport Forum on Regional Airports in the UK in March 2018 in Manchester). Thus, accessibility highly depends on the level of airport's integration in the transport network.

Many of regional airports across England experience a lack in accessibility by public transport; for example, have no rail links to nearby cities and towns. The absence of rail links, including light rail, was mentioned in a number of universities' replies to email enquiries across universities, in some cases the disadvantage of no rail connections was underlined. The availability of several transport modes to access an airport has a potential of transport intermodality, which is related to the increase in mobility. This relation is presented in transport geography and also was highlighted at the Regional airports forum in Manchester in 2018 (attended by the author). However, the existence of different transport (e.g., rail and light rail, bus) does not necessarily mean the intermodality or integrated effect, since these transport links have to be interconnected by supporting infrastructure (interchange stations, for example) and simplify and accelerate the movements.

Compared to many English airports, Newcastle International has a strong accessibility advantage: light rail – Metro, which connects airport not only to Newcastle, but also Sunderland, the coast and smaller towns. Metro is perceived both by experts and students as convenient and fast way to get to the airport. The overwhelming majority of students call it the best way to travel (in surveys), while experts also rely on personal cars or taxis (in interviews). Owing to the metro, students evaluated airport's transport connectivity as satisfied overall (including somewhat and very satisfied options, 194 choices in total). The related open question, about the satisfaction rate chosen, revealed metro, 'quick and cheap', as the major source of positive evaluation. At the same time, more disadvantages of transport provision are recorded: no direct bus services from a number of areas, especially at night (first of all, for County of Durham); expensive rates for taxis; not 24h metro service and its limited geographical coverage (again, County of Durham). Indeed, the county and mainly Durham itself, where University of Durham is located, struggles with very limited transport connections to Newcastle airport. It was highlighted also by one of the experts from Durham university, the Expert 30 (International Office, 2018), who finds it a domain where the local authorities can contribute in improving the situation.

To compare, Durham Tees Valley airport has a (very) limited accessibility by public transport, which is facilitated mainly by buses. Although there is a rail station nearby, the train stops there only once per week. Since the airport was not evaluated by the survey respondents, the research relies on the official information (mostly from the airport's website) and experts' opinions, e.g. the Expert 29 (Top management, Teesside university, 2017) and the

Expert 28 (Top management, Regional LEP, 2017), who claim to reside in the area. The experts, who use the airport to travel, get there by personal car or taxi (the only mentioned travel options). At the same time, it is important to mention that the airport's connectivity is quite limited in terms of flight destinations (only two permanent and also two seasonal) and amount of flights per day.

Public transport planning and provision is the domain of the local authorities, where occasionally they can collaborate with the airport or other transport companies. The condition of the major stake in the structure of the airport owned jointly by the local authorities can be a source of broader understanding of airport's challenges. The attendance to several consultation events on Newcastle airport's master plan helped to understand the challenges of cooperation between authorities and airport's planners, for example, on the issue of extension of roads capacities. To put in short, although the airport is ready to invest in some road construction, mainly to provide an access to future business park on its site, it expects more involvement and financial participation of the authorities as well (in this case, Newcastle City Council).

Airport's connectivity is no less significant for the local communities, but also for the rest of the country and the world to access the region. For Durham Tees Valley International airport (DTVA), the previous owners the Peels Airports Group has secured and developed purely business connectivity, connecting the region to an important hub in Europe – Amsterdam Schiphol – and a few destinations to facilitate existing business links, e.g., Aberdeen. The slogan on the airports website claims to 'go global in under 80 minutes with our three daily connections to Amsterdam' (Durham Tees Valley Airport, n.d.). While the flight to Amsterdam has been facilitated by the only one company - KLM, the permanent connection to Aberdeen as an important business destination used to be operated, firstly, by Loganair (Scotland's Airline) in 2017-18, and later, along with a seasonal flight to Jersey (UK), by Flybe. The last flight in the airport's menu so far is a seasonal flight to Bourgas (according to the airport's website). The airport's connectivity has not been evaluated by students since only one from all participants has used it. To compare, a few experts did take flights from there, for example, among others is the Expert 40 (International Development, 2018) from the University of Sunderland, who can choose a flight from this airport if the offer or a flight connection is better. They admitted the use of taxi or own car to get to the airport (always to DTVA and sometimes – to Newcastle airport), what is not a widespread option for students to access an airport in general.

One of the reasons behind its vey low popularity among university students can be a limited connectivity (but also the number of participants from Teesside university is low).

And while Newcastle airport's accessibility has rather high appreciation by students, its connectivity can be understood as its disadvantage. Students rated 'flights (frequency, destinations)' option as top needed to improve their experience at the airport (172), along with 'on-site services and facilities' (112)[22]. Options such as cheaper flights, more flights to Asia/ Asian region (or particular countries there), 'more cultural destinations than popular resorts and package trips' were added. Moreover, more flights to more destinations is suggested as a kind of airport's improvement to facilitate student' mobility needs (open-ended question, 90 out of total 181 replies), what represents a popular opinion.

The top destinations where students travel from Newcastle Airport are hub airports, namely London airports and Amsterdam Schiphol, to make a flight connection there. These destinations are also expected choices since the airport operates the highest amount of flights per day (and week) to these hubs. Around seventy-two percent of students take advantage of the hub connectivity, which is also described as a strong advantage by a few experts. Another popular option there is a write-in option - such as Dubai (to make a connection) and Paris with 12 and 7 answers respectively. Paris together with Europe as destinations form the second preferred choice. On the one hand, it relates to a relatively good hub connectivity, with Dubai being one of the important global transfer points, which mainly connects the North East with Asia. On the other hand, in cases when an airport relates on connections to hubs to facilitate flows, for example, regional business connections and interests, a wider connectivity is necessary to have better transfer opportunities and choices.

A relatively low evaluation of airport's connectivity is somehow expected since holiday-destination character of connectivity is typical for a number of English airports. One of the reasons of such orientation is growing marketization of airport's organization, which requires generating higher profits. Tourism traditionally is seen as a way to 'fill the gap' for the airport, but it has a seasonal character. According to the representative of Newcastle airport the Expert 11 (2017), the airport experiences peak amounts of passengers twice a year – during winter and summer holiday times. Moreover, all representatives of local authorities, who participated in the

[22] The question provided a multiple choice.

research, agreed on its tourism-oriented character, highlighted the economic benefits of this model for the airport (e.g., generation profits for the airport in general and each local authority in particular), as well as admitted negative impacts, such as its questionable sustainability, both economically and socially. Additionally, for a number of English regions, including the North East, holiday-destination trips exceed the incoming flows in terms of passenger numbers. To put in other words, more locals travel abroad for vacations than passengers arrive to visit the region. Consequently, the outbound economic flows may exceed the inbound ones. To add, another major change on air market was brought be the entry of low-cost carries, which mainly promote trips for leisure and are less oriented towards business connection (Doherty and Shaw, 2008).

One of the solutions to re-balance the model of such operation is to attract more visitors to the region. During the One North East times, it sponsored and developed the campaign 'Passionate People. Passionate Places', which had a significant success (in the UK). It involved all seven local authorities and attempted to capitalize on the existing image with strong regional identity and a number of touristic attractions, which are known nationally and internationally, and to improve it according to the new realities at the same time. Newcastle university's representative the Expert 3 (Top management, 2017), whose role at the former RDA involved the promotion of the region, worked on the perceptions and stereotypes about the North East towards 'a place to come to work, study, visit and invest'. Nowadays, the airport deals with the challenge even more actively by appointing a new Inbound Tourism Manager and leading a new digital project to promote the region, in cooperation with the local authorities (including Tees Valley Combined Authority) and NewcastleGateshead Initiative ("Newcastle Airport promotes North East tourism with new website", 2019).

At the same time, a closer look at the business community in the region can be a potential source of passenger flows. A limited amount of airport's connectivity is facilitating a growing business and enterprise sector, according the representative of the Regional Local Enterprise Partnership (LEP) the Expert 6 (Top management, 2017). Also, regional business community has been lobbying a connection to the USA for a few years already, even back in the RDA period, when the agency was actively participating in that process (interview with the Expert 3, who used to work for RDA), but due to a complex of issues it was not secured (the Expert 1 (Cllr, Local authorities, 2017), who also participated in that discussion). At the same time, a decision to take into account the already existing market, but with different practices and geographies compared to numerically registered touristic flows, can invest in distributing airport's capacity in a more efficient way.

Framing spatial capital: 'a place plus mobility'

Since mobilities and transport infrastructure are being in close relevance to each other, the regional transport provision affects personal mobility capacity. One of a few theoretical frameworks, which puts together mobilities, place and transport, is the spatial capital concept along with the motility concept, which are interconnected. The spatial capital is applied in this study as the analytical framework to embrace academic mobilities and transport infrastructure, and in such a way bridging universities and airports.

Spatial capital accumulation includes not only increase in mobility and its capacity, but it also provides a 'control over <their> relationship with the urban space' (Levy in Barthon and Monfroy, 2010, p. 178). And one of the crucial parts of urban space, which facilitates accessibility and connectivity to (external) resources and relations, is transport. According to Barthon and Monfroy (2010), 'spatial capital constitutes a resource specific to certain <families>, which is added to other forms of capital and resources and making them even more profitable' (p. 180). In the sphere of mobilities, and academic mobilities in particular, spatial capital in a way increases the value of mobilities constituent parts, social relations and networks to be named as one of most important ones. To specify, accumulation of spatial capital enhances advantages of other forms of capital – economic, cultural, social and symbolic ones.

Economic capital represents current or future benefits, which can be monetized, and are represented for students as the funding available at the home universities or other organizations, e.g., intern or placement opportunities, (funded) exchange programmes and other. To mention, in the survey university comes as the second main source to cover travel expenses (after personal finances) for academic-related trips. A funding opportunity was next after the top three reasons to choose a particular university, along with its prestige and place/ city[23]. While a number of opportunities are placed in the region, international experience becomes more valuable by universities

[23] An open-ended question with multiple answers possible.

themselves and employers. The experience of work or/ and study abroad provides advantages in the future job or research position. At the same time, the representative of International Development team (also facilitates mobility) at University of Sunderland the Expert 40 (2018), after describing the vast benefits of academic mobility for their students, admitted that it is not widespread among employers in the region to value international academic/ student mobility yet, in contrast to its increasing appraisal among international or London-based companies and industries. In this situation, regional business sector may (continue to) lose graduates, which are provided by local universities, unless they reconsider the value of different skills and capitals acquired by candidates. Universities can be helpful for this purpose to expound the multi-scalar nature of mobilities and their consequences to potential regional employers. To add, the Expert 3 (Top management, Newcastle university, 2017) referred to a number of Newcastle university's graduates, who decided to stay in Newcastle (and less – in the region) after the studies to start business or organize start-ups. The main reasons behind this decision are mostly such as the established social ties, familiarity with the socio-economic environment and locality, access to the former university and its services, and vast opportunities to develop a project. However, while independent entrepreneurs and start-ups invest in local and regional economic development and have a potential of attracting more investments and enterprises, they do not represent graduates as employees for already exiting businesses and industries.

To continue, academic mobilities strength the advantages of students' cultural capital accumulation, what is directly related to education. Although the notion of cultural capital and broader framework of habitus (introduced by Bourdieu) have already been widely adapted to higher education (Holton and Riley, 2013), it is important to discuss it in the connection with other capitals and their spatial relations. Participation in a variety of events, such as conferences, workshops, research groups and other, increases the value of academic experience and profile. Moreover, students develop intercultural skills, for example, language, communication and representation, which they can apply and take advantage of for a variety of positions involved in global and international processes. To add, intercultural experience in a foreign country is often related to stress conditions, what invests in student's overall resilience capacities. However, the concept of cultural capital requires deeper investigation, firstly, to identify its forms and means of accumulation, and secondly, to interconnect it decently with other forms of capital. The existing research pays attention mostly to other forms of capital, e.g., social or economic capital, and overshadows the importance of cultural capital. Nonetheless, this form of capital consists of (developed) personal competencies and skills, which, in turn, affect the abilities to accumulate other capitals. Cultural capital can be translated into social and/ or economic capital (for example, as extra competitive skills or networks).

At the core of social capital are relations with others, which are characterized by expanded geographies and spatialities within the internationalization trends in higher education. The overwhelming majority of students in the research – eighty-nine percent[24] – agrees that they have been travelling more often since the beginning of the studies in the North East and Tees Valley. One of the main reasons for this increase in mobility is the purpose to travel for academic needs. Other purposes were to visit friends and family members and partners, also influenced by a high number of international students in the study. The international students do not only travel abroad (from the UK) more often than home students, but also have wider social connections globally, which they generally tend to maintain and keep up. Over the last year, they have also visited university friends more frequently compared to UK students, and business colleagues (although it is the lowest preference among other social ties). Hence, a range of relations attributed to a social status of a student expands with new social ties including academic networks and university colleagues and friends (on the topic of transnational friendship see, for example, Bilecen, 2014).

The most recent official report analyzing student international mobility (the graduating cohort 2015-16) prepared by Universities UK (with the data and support by HESA), concluded that '6,5 percent on average mobile graduates working in the UK earned more than their non-mobile peers six months after graduating' (Universities UK, 2017). This finding represents the economic outcome of mobility, by including not only long- and medium-term mobility (usually, a year and semester programmes respectively) but also short-term trips (up to four weeks)[25]. Moreover, it states that 'while disadvantaged students continue to be under-represented in mobility, there has been a marked increase in the participation rate for these groups (Ibid, p. 44).

Apart from being in close relations with local authorities for a number of reasons (including security, sustainability, transport planning, job market matters, along with the ownership), all British airports have consultative committees, which traditionally include representatives of residential

[24] Answers 'agreeable' and 'very agreeable' are counted together.
[25] It is the first report of this kind, which includes short-term mobility.

neighbourhoods, local communities and businesses. Usually, they do not include universities' representatives, and the case of Newcastle airport is not an exception[26]. While a university as an organization could more likely have a link with airport in a form of a business partnership, collaboration or a joint project, its community constitutes a relevant part of local population. Thus, it is perceived reasonable to include a representative in the committee. This change would aim mostly at informing, on the one hand, the committee itself and airport's contact person of fluctuations, practices and interests of academic groups, on the other hand, to provide the academic community with the feedback. The lack of knowledge on airport's development, policy, functioning and other is typical for a university as a whole, from the level of students to the higher level of the governance.

However, the consultative committee, in case of including a representation of universities, would do it for the (regional) sector in general and not from each university. This is a way to secure a balance of representation, in the vision of committee's representative the Expert 7 (2017). This proposition, in turn, brings back the issue of collaboration and coordination within the sector in the region. Since there is no longer a regional body unifying interests and access to all five universities (the Universities for the North East), it is understood highly problematic to have a centralized representation in the committee. It is understood as particularly challenging in the context of the growing importance (and availability of funding) of pan-regional collaborations among universities, for example, N8 Research Partnership, which involves only two – research-oriented – regional universities. The development of this research collaboration is directly related to the political and economical priority and significance given by the HM Government of the Northern Powerhouse pan-region.

The concern expressed on behalf of the committee corresponds to some doubts about the introduction of spatial capital concept in general and the social interest it represents in particular. Mace (2015) underlines that all the few existing studies on spatial capital somehow inherit an issue of Bourdieu's work 'that it emphasizes the power of the already powerful and the passive role of the weakest' (p. 12). As well as previously the claim for the right for the space for dot-com industry workers (Centner, 2008), middle-class families (Barthon and Monfroy, 2010) and others, this research attempts to demonstrate the benefits of spatial capital accumulation for higher education

[26] While the representatives of Newcastle Airport's Consultative Committee were accessible for interviews, no contact with the consultative committee of Durham Tees Valley International Airport was established.

students. Certainly, university students are more privileged social group compared to their coevals or those who cannot benefit from universities services and resources. It is especially relevant in the context of the UK, where the access to the higher education is limited, fees are increasing and the reproduction of elites is still present (see: Sperlinger et al., 2008).

Moreover, it goes along the line with a number of accusations that universities are facing nowadays, despite claims of regional and community engagement (for example, see: Sperlinger et al., 2018). However, this research aims to investigate how a link between regional universities and airports can underpin spatial capital by considering them both as organizations combining fixity and mobility, or position and situation capital. Therefore, it considers not only mobilities production by both actors, but also their regional involvements and spheres of expertise (for example, research opportunities, what will be discussed later on).

This investigation also takes into account a diversity of university students as social group, which has increased since HE reforms of 1990s and consequent widening participation and number of students who choses a university close to (family) home (Holton and Riley, 2013). Reasons to ‘stay local’ and have restricted broader mobilities can differ, ranging from economic restrictions to family circumstances, ‘meaning they cannot always take full advantage of such prospects’ (Ibid, p. 73). To add, Kratz (2011) has found out a dependency between social origin and mobility experience, while Brooks and Waters (2009) state a strong correlation between mobilities pre- and post study with overseas studying (for a degree or as a part of it), though admitting that it is more relevant for students with higher cultural and economic capitals (see also Holton and Riley, 2013).

The rise in variety of students with different social backgrounds, including financial situation, is one of the major reasons for some researchers to call for a reconsideration of student mobilities debate and student geographies. Since much of the research has been done ‘at a time when the cost of going to university was attractive to a more diverse range of entrants who were able to enrol on a degree’ (Holton and Riley, 2013, p. 76), now the situation in higher education in the UK is different and requires more updated data. Indeed, research proves that the social diversity has increased, but as the amount of international students, especially coming from China, did as well. Although due to the design of the survey conducted it is limited in providing exhaustive trends, it shows that the availability of funding at a university is relevant way more to home students and at the postgraduate level.

Thus, the appeal to facilitate academic mobilities by linking universities to airports clearly has limitations. Nevertheless, it is not an appeal to make every student mobile without analyzing their backgrounds, current interests and future plans, which requires deeper a study of students at the micro-level. Instead, it is a research design, which provides broader opportunities for students to be mobile in cases, when they search for ways to increase their mobilities and spatial capital accumulation. Since mobilities and supporting infrastructures are not simply movements across places but means to enhance their capitals – social, economic, cultural, and spatial ones. In this way, the study critically evaluates the mobilities paradigm in general and the claim for 'total mobility' and its importance for each individual in particular, and focuses on the mobility's benefits and potential opportunities, as well as its role in the accumulation of the spatial capital.

Moreover, the spatial capital framework allows considering students' 'strategic relationship with space' on two levels: position and situation, or place and mobility (Barthon and Monfroy, 2010, p. 178). The position capital is represented by their inclusion in space, i.e. in the residential space in the North East and/ or Tees Valley. One of the ways to benefit from the residency in a place for students is to move to specific areas, what, in turn, creates the phenomenon of studentification, on the neighbourhood level. On the city or town level within a region, students tend to reside in particular areas to have wider access to facilities provided or communities. For example, most of the students in the survey gave preference to Newcastle, which is the biggest and the mostly economically advanced city in the North East, where 78 per cent of participated students reside. Newcastle has also attracted students who are studying at University of Sunderland, although only those who are studying at postgraduate level or are the recent graduates.

The situation capital, in Levy's explanation, is related 'to a space that the individual appropriates globally via a complete range of mobilities' (in Barthon and Monfroy, p. 178). For students, that kind of space is a university in particular and academia, or higher education, in general. To use the space of academia, or in terms of Bourdieu's theory - field of education, and appropriate the most of its benefits, social actors use a range of mobilities, ranging from daily to occasional frequency, from neighbourhood to global scope of mobility. Moreover, the range of their mobilities changes and (usually) broadens due to a move to a new place to obtain degree, including travelling for academic reasons as well as to maintain social ties and networks. In this way, even for local students who did not move to study, their social networks expand due to a new status as well as the already existing and developing internationalization of their institution. To put it in other words, social connections and potential for mobility expand due to the inclusion of actors into a higher mobilities level, for example, foreign students or teachers. And situation capital 'has a cumulative impact, compared with position capital' (Barthon and Monfroy, 2010, p. 180). It means that space of working (if students work during studies), for example, can add to appropriation of space on different scopes, by increasing economic capital, widening networks, and developing competencies.

In this way, spatial capital is 'therefore composed of all means that allow an individual to manage problems of distance in their own interest' (Ibid, p. 178). Due to the general internationalization of higher education, as well as the expansion of social and cultural capital of students, their 'problems of distance' might increase. And one of the means to manage those problems is transport. At the same time, transport infrastructure with its accessibility and connectivity levels is one of the specific properties of a space or location. Transport can be considered as one of 'a number of possible resources/ limitations linked to the place of residence and their effects at various levels' (Barthon and Monfroy, 2010, p. 179). The importance of transport rises since 'access to the urban space requires both specific practical conditions (access to public and individual transport) and skills (physical, cultural, and social) that not all categories possess equally' (Ibid, p. 179).

Following the spatial capital approach emphasis on 'the use of place or "place plus mobility" as an asset in its own right, which creates powerful social advantage' (Mace, 2015, p. 2), research appealed to include transport infrastructure, which facilitates and even underpins mobility. Flamm and Kauffman (2006) considered transport supply and travel mode practices as one of the realms of possibility within the multiple dimensions of motility. Following the study by Rerat and Lees (2011), which takes into account railway stations, this research focuses on advantages of airports. Compared to their research, which investigated a role of the regional/ national connectivity for spatial capital accumulation of gentrifiers, we account for the importance of global connections for university in general and students in particular. In the context of this study, the global connections are provided by regional airport(s), by connecting to certain destinations or by hub connectivity. Therefore, transport and mobility are perceived as a part of place and its advantage. For the investigated region, the place itself has already had influence on students' decision to come there to obtain a degree. Being physically embedded in the place, a regional airport is already a part of it, of the urban structure, i.e. it does not exist separately from its locality.

However, a shift from a simple existence to a social and regional advantage is a feature of 'place plus mobility' and invests in accumulation of situation capital.

This approach with a focus on place has a manifestation in the policies as place-based approach in the UK. A specific attention to place is given in the frameworks of devolution, industrial strategy, local and regional development. 'Place' was mentioned numerous times at the first Northern Powerhouse Business Summit, which took place in Newcastle in July 2018, where one of the workshops was dedicated to places. Moreover, 'place' is widely used by many organizations working with businesses and universities, primarily, the National Centre for Universities and Businesses. Nevertheless, the Centre's representative, whose position involves development of innovation and place, the Expert 42 (Top management, 2019), had difficulties defining 'place' as a notion in general and how the centre operationalize it in particular. Indeed, a concept of place is very broad as well as ambitious, and to be applied in policy, it requires robust theoretical basis and clear practical understanding.

A link between regional airports and universities?

Benefits: the better-connected regional actors contribute to regional development

A link between the higher education sector and transport infrastructure within the regional system is perceived potentially beneficial and perspective for the local and regional development. It can strengthen social and economic benefits for actors on both sides of the link as well as contribute to a region as a system. The regional transport infrastructure is a complex system including different modes of transport, and part of it is being under the control of the local authorities with the other part being owned by companies (e.g., Go-Ahead Group owns Go North East bus services). At the same time, while being part of a system, regional airports operate independently to a certain extent and are being regulated by national policies rather than regional. The recent trend in national policy of air transport is to motivate a shift from authorities' ownership to private companies' entry (see: Butcher, 2016). This shift was expected to bring broader expertise in airport's operation and re-development as well as to increase the profits. Overall, this approach represents a marketization trend, which appeals for airports to function as businesses and aimed at being profitable.

One of the examples in England to illustrate this trend is the Newcastle International airport. The sell of its smaller stake (forty-nine per cent) to Copenhagen Airport group in 2001 brought investments and expertise of an experienced airport company. This collaborative ownership by the group and the seven local authorities resulted into the development of airport's facilities and expenditure of connectivity network, according to the representative of one of the local authorities, the Expert 13 (Business management, 2017), who participated in the both deals – with the Copenhagen Airports group and the AMP Capital group, when they bought the Copenhagen Airports' stake in 2012. The Expert 13 explained that the group of three local authorities out of seven, which are responsible for transport and the airport in particular in the region, considered several offers to buy the airport and gave the preference to the AMP Capital group' offer and investment capacity. While the expertise and supporting finances, which were necessary to improve the airport and its services professionally and strategically at the first stage at the development, has already been applied, the further investment came to the forefront.

One of the ways to raise profits for airports is to expand connections to tourist destinations, often facilitated by low-cost carriers. On the one hand, this strategy keeps an airport busy during holiday seasons by highest usage of airplanes capacity and expenditures at airport's facilities. On the other hand, the rest of the year airport does not function using the full capacity and, therefore, the profits go down. The touristic, or seasonal, character of Newcastle airport was specifically admitted by several experts, including the airport's planner the Expert 11, as well as the two Cllrs from Local authorities the Expert 1 and the Expert 2, and the regional LEP's representative the Expert 6 (all the interviews – 2017). A broader orientation towards regional businesses could potentially, on the one hand, provide airport with less seasonal character of passenger flows and, on the other hand, sustain business community with wider connectivity. To compare, Durham Tees Valley airport has a clear orientation towards business connections (and hub), but, as it has already been underlined, it is highly limited. Therefore, the experts who use the DTVA, take flights to holiday destinations from Newcastle airport or other airports in the nearby areas, e.g., in Edinburg and

Manchester (both have higher variety and frequency of flights and larger catchment area).

The regional business community is represented by a variety of large companies and SMEs, which interests are united under the umbrella of regional institutions, e.g., Local Partnership Enterprise and Chamber of Commerce. They, in turn, recognize the significance of regional universities in social and economic terms, also by hosting their Vice-Chancellors and PVCs on boards or expert committees. Therefore, a closer collaboration with regional institutions is also a way to understand the positioning of universities for an airport.

The advantages of joint research

An airport is a crucial asset for a number of institutions and sectors in particular and for a regional system in general, and universities can potentially benefit from linking themselves to airport in an increasingly direct way. One of the major benefits of linking airports and universities can be a development of a collaborative research and teaching activities. First of all, for the related sciences and degrees, a possibility to visit airport's site and meet the team can contribute to the overall expertise and experience. At the Buckingham New University[27], according to the expert who is looking after the aviation business engagement at the university, there is a strong relationship with the most local airport – Heathrow. Apart from being members of airport's skills partnership, university benefits from guest lectures, recruitment events for students, and airport's 'input into course development for the aviation degrees' (from a reply to an email enquiry, 2019). Some other universities, which responded to the email inquiry, provided information on current or past joint teaching activities with their local airports. Despite that the Buckinghamshire New university has a specialization in aviation, relevant teaching activities at other universities can potentially advantage from a joint work with an airport.

At the same time, the case region also has research, which is potentially benefit for an airport. For example, the Expert 1 (Cllr, Local authorities, 2017) knew students working in solar engineering at Newcastle university and recommended their project(s) directly to the key person, who connects

[27] It is important to note that the university is 'the first higher education provider to introduce airline and airport management and pilot degrees in the UK' (see the website: https://bucks.ac.uk/about-us/our-structure/schools-and-departments/school-of-aviation-and-security/aviation)

airport to regional actors, since the airport's key person was not aware of the research. This situation illustrates the power of personal relations and affiliations[28] in the region along with highlighting the gap in communication. The lack of research's promotion from universities side, on the one hand, and absence of airport's search for advanced expertise outside, on the other hand, constitute the gap. Although, Newcastle airport aims at being as energy sufficient as possible (the interview with the Expert 1, who is working closely with the airport on the behalf of the local authorities and is a member of the consultative committee) and sustainable for the communities (public consultation events). Therefore, quoting the Expert 1, 'there is a great need for a feedback between the airport and the universities'.

The Expert 1 is not the only interviewed informant to admit the advantage of joint research between regional actors. The representative of Northumbria university's enterprise team the Expert 38 (2018) strongly agreed with the research's question of a beneficial character of a link between airport and his affiliated university. Firstly, he mentioned a perspective of joint research, for example, on digital and service design for passengers. Moreover, while the expert was in a similar position at Newcastle university, 'the university talked to Newcastle airport about the service design for aging demographics'. Indeed, Newcastle university has a world-class research in aging, which potentially could be adopted at an airport's site for more convenient services. The Newcastle university's ground-breaking research in the aging as global challenge was also promoted by the Expert 33 (Research Support, 2018). The Expert underlined its innovative achievements and benefits of practical application to a number of spheres and places, such as site and services at an airport, where they can be tested and developed as well. In the lines with the Expert's 38 explanation of the importance of niche of expertise for each university, it makes sense for an airport to advantage from different branches of science and innovations, mostly developed at certain university's departments and centres.

At the same time, the Expert's 38 (2018) quote illustrates his vision that the university has to come to airport to suggest something, in this case – relevant research and expertise. The airport might be not informed about all research and knowledge produced at different universities in the region, especially since not all of these activities are fully promoted by universities themselves. Another way to cooperate with an airport, suggested by the Expert 38, is courses and trainings to airport and (based) airlines

[28] The Expert 1 used to work at Newcastle university.

management teams. Although, there is a Newcastle Aviation academy, based at/ nearby the airport, which uses the facilities.

While the importance of research for an airport in a number of spheres, including sustainable fuel, convenient services and other, has been more obvious and lasting, the attention to growing academic aeromobilities is relatively recent. Therefore, the vision should highlight the importance of collaborative research for both actors since they both produce mobilities. As Hoyer and Naess (2001) poses the question, 'perhaps the fix <between air travel and its environmental impacts> lies, therefore, in the hands and brains of the academic community and the knowledge industries and not just with the travel industry?' (p. 467). The idea of university's involvement to impact the issue has been supported by Shields (2019), whose research appeals not to reduce student mobility but to engage universities in climate change mitigation. While the major issue is to tackle carbon emissions and develop the sustainable sources of energy, universities can provide a diverse research and collaboration opportunities, as well as innovation and knowledge transfer, for airport.

Challenges: Whom to connect and how?

One of the main challenges in establishing a link between a university and local airport lies in the sphere of organizational structure. Airports are usually operated by a managerial company (e.g., Newcastle International Airport Ltd. Or Peel Airports Group till 2019), which has a division, which is responsible for business connections and partnerships, their establishment and facilitation. Whereas universities, especially the 'old' or pre-1992 ones, have complex and not necessarily interconnected structures with a number of various divisions and services. Indeed, the interviewed experts mentioned the difference in universities' performance in the region.

The complexity of a university as an organization brings to the forefront the issue of its accessibility, to mention, for local businesses and enterprises. During the RDA times, all five regional universities were united into an association Universities for the North East (Unis4NE), largely funded by the One North East. One of the initiatives of the body was the Knowledge House[29], established in 1995, which facilitated the virtual and face-to-face links between universities and the regional businesses sector. Its operation

[29] The initiative including, among all five regional universities, also the North East branch of the Open University.

targeted the purpose of increasing knowledge transfer and oriented mostly towards small and medium-size enterprises (SMEs) (OECD, 2011, p. 158). The initiative had its own headquarters, staff, website with an access (for a business inquiry) via central node or universities' nodes. In that way, the access to the universities' services, research and expertise, resources and academics was clear and relatively easy. Moreover, the organization represented all regional universities; therefore, it also provided a broader access to the regional knowledge and research production. The initiatives profile has risen significantly over the years, stimulating regional business growth, which 'has averaged 25 per cent since 2000' and 'generated GBD 4,7 million for the participating universities by delivering 364 completed projects' in 2007 (OECD, 2011, p. 159).

Nowadays, the activities and business links of HE sector have generally been uncoordinated and segmented, and each university establish connections on its own or with another partner university. For the sake of more organized and easy reach by companies and organizations to the university's research and facilities, the business and enterprise services have been inaugurated at most of the universities across England. They also serve the purpose of a broader engagement into regional development and economy. Each of the five regional universities has these kinds of services, different in names but similar in objectives and operation. These are 'Services for Business' at University of Sunderland, 'Business Development and Enterprise' at Newcastle university, 'Business and Enterprise Services' at Northumbria university, 'Business Support Services' at Durham university, and 'The Forge' – the business team at the Teesside university. All these services or teams facilitate the easier access for companies, business contacts and partnerships. They are integrated into the organizational structure, and work closely with research teams, which are mainly responsible for knowledge production.

The business teams do not only facilitate partnerships and business links but are also aware about the relevant research, expertise, resources available at the university for a particular business inquiry or problem solving. During the email survey across English universities, the inquiries were sent to several teams/divisions or their representatives at each university (business services, general enquiries, press office, research teams, international office, Vice-Chancellor's office, etc.). This has been mainly done to have the most embraced evidence of the existence or not of any links to airport(s), taking into account possible gaps in communication across university structures. So, the major amount of responses was received from business and enterprise services. While in cases of responses from other teams (if applied), the references were made to particular people at the university (e.g., researchers or academics).

These teams are responsible for university's business collaborations, including contacts with regional airport(s). The interviews with experts – representatives of their (current) universities – proved that the contacts with regional airports do exist, mainly through relations within the region. To put in other words, all the experts (from university's business services and regional third parties) know the key person at the Newcastle airport, who has been working in the company for years. Nevertheless, these relations did not convert into partnerships. At the same time, the representative of University of Sunderland's The Forge The Expert 34 (2018), confirmed the connections between Teesside university and Durham Tees Valley airport, which are based on the mutual recognition of each other as important regional stakeholders (Tees Valley region). Although, it is important to mention that the future of this link is not clear due to the change of the owner and the new airport business scheme, proposed by the Mayor Ben Houchen, who represents the new airport's owners – the local authorities.

To understand the position of Newcastle airport towards region's organizations, including universities, was more successful due to the attendance of several airport's Master plan 2035 consultation events conducted in June – September 2018[30]. The presentations at these events, together with questions and answers/ comments, contributed to the interview held with the one of the airport's planners the Expert 11 (2017). His contribution to the final version of the master plan was significant, and he was the representative (usually alone[31]) at all the consultancy events. While the interview was recorded, all the notes about the events were taken afterwards due to the ethics of research. Referring to the expert's explanation at one of the consultation events, the email invitations to attend these events were sent to about three hundred (regional) organizations, including universities. Although, since he was sending emails himself, he did not know clearly whom to address them and where to send (which email address). This situation contributes to an overall confusion from airport's side of ways to contact local universities in the first place. And while the airport organized

[30] Due to the time frames of the field research, as well as the format of consultancy, I managed to attend a few events in June-July 2018, held at the airport's site and in the residential areas surrounding or close by to the airport.

[31] Except for one of the events, which I have attended myself, held at the Kingston park (and compared to other events, the most crowded one) in July 2018. He was joined by Mr. Graham Mason, who gave the opening speech and participated in Q&As session.

several special consultation events for a number of regional businesses (closely working with airports), universities were not considered as interested or important parties.

At the same time, the representative of Business and Enterprise at Northumbria university the Expert 38 (2018) admits that ‘universities think that they are facing businesses but probably they aren’t’, meaning that ‘the front door’ of a university can be hard to reach and find relevant contacts. Taking into account his experience of working in similar roles at three local universities – Durham, Newcastle and now Northumbria, his comment that there is ‘no example where you do it <engagement with partners> absolutely right’ is highly reliable. In this context, the expert admits that it has to be not the airport but the university initiating the communication, to start with, by providing something like ‘a menu of options to choose from’ and explanation of these options.

Another way is to put light on the universities’ Pro Vice-Chancellors (PVCs) and top management, who may be less informed on the current research or business connections but maintain regional relations on higher level of power and responsibilities. The Expert 1 (Cllr, Local authorities, 2017) suggests that, since ‘there are great areas of interest between university and the airport’, a PVC’s responsibility is to explore the outside contacts. Although, none of the interviewed universities’ top managers admitted an establishment of a link being in their competence. To link it to the previous discussion, reasons behind it can be, firstly, unclear power balance and set of priorities between regional actors; secondly, blurred vision and understanding by PVCs and leaders of the necessity for a link or closer partnership with their regional airport.

The power of data: how and why to collect, access and exchange

The next complexity in establishing a partnership or collaboration between universities and airport is data collection, access and exchange. On the one hand, the airport holds important data on people’s moves and travel preferences, which can be of use to regional businesses and local authorities. One of the ways to collect it is through airport’s parking facilities, as planner the Expert 11 (2017) explained. This database informs about the catchment area but is being sufficiently limited since not all passengers take cars to access airport. To specify, most of the surveyed students do not use cars to access the airport, what represents a particular trend. Moreover, the data on passenger flows on different flights (in terms of changes, destinations, times, etc.), available to the airport itself and airlines, represents the present connectivity and its fillability by regional and external flows.

The importance of both airport's data and its exchange with other regional stakeholders is underlined, for example, in the project Driva Arts Driva (Digital Research and Innovation Value Accelerator)[32], which is run by the University of Brighton (and also involves University of Sussex). It provides access to Gatwick's airport live data, not only to business but also arts and cultural organizations. As the representative of the Department of Research, Enterprise and Social Partnerships, University of Brighton, explained one of the aims of the project is 'to unlock the value of Gatwick's data to stimulate regional economic and cultural development' (reply to the email enquiry, 2019)[33]. Although the importance of airports for the regional development and growth has already been discussed, such a collaboration between universities and airport is new and innovative. Firstly, it is significant since most of the regions do not have links among universities and airports. Secondly, compared to the existing connections and exchanges between these actors, both on formal and informal level, this project brings to the forefront the role of data.

Another important establishment between airports and universities, which was discovered through universities' email enquiries, is the Airport Benchmarking Group, facilitated by Imperial's College London and their Railway and Transport Strategy Centre. The group unites world-leading airport hubs, including Heathrow, 'to provide a platform for major hub airports around the world to learn from each other by comparing performance, sharing experiences, and identifying best practices' ("Airport Benchmarking", 2019).

These projects are not particularly in the focus of the research, mainly since they involve hub airports (Gatwick and Heathrow respectively) and not regional ones; also, these airports are located in London and generate a significant amount of the national air traffic. Although, they are mentioned here to illustrate not only the possibilities of collaboration between universities and airports, but also because they have some similar features. First of all, these partnerships are presented as a university's participation or run of a project, compared to several examples of collaborations between specific universities' departments or research groups and airports. For

[32] For more information, please visit: https://www.drivaartsdriva.com

[33] The quote comes from her email, which was a reply to an email enquiry (part of the email survey across English universities) to check if University of Brighton has any links or connections with (regional) airports.

example, Engineering Department at University of Cambridge has connections with local Cambridge International airport (the information provided by email reply to the enquiry), but since they are commercial agreements the access to the information is limited. Secondly, universities work with two hub airports, while it is perceived easier to access regional airports for other stakeholders. Thirdly, both projects unite data from airports (which is important in understanding the trends in regional development) and a complex expertise from universities.

On the other side, universities hold data on academic mobilities, international recruitment and development and other. At the same time, not all universities have structured and coordinated data collection, especially for student mobilities. While international recruitment (for both inbound foreign and outbound home student flows) and Erasmus participants are usually being recorded, mostly by mobilities teams at universities, short-term academic trips are relatively invisible in terms of data. The trips that are recorded are usually those funded by the university; nevertheless, it is also not a complete database. The university with the most structured and coordinated mobilities team is Northumbria university, which consequently has an organized database on (student) mobilities. The International Partnerships and Mobility manager at Northumbria university the Expert 37 (2018) has conducted a new policy to structure the approach to mobilities after the inauguration on the post. However, the database is not accessible (for the external research, for example) and is mostly for the internal use. While there is no exchange of data between universities and airports, The Expert 11 (Planner, 2017) on behalf of Newcastle airport, has mentioned the perspectives of its exchange and use. It would give the airport at least a visualization of flows produced by universities, their destinations and frequency.

The main question behind these challenges is the reason for the connection and the perspectives and use of data exchange. Nevertheless, not all the interviewed experts see the need for a collaboration with a regional airport, at least without a clear vision about its objectives and advantages as well as strategic plan of its implementation. As it was mentioned earlier, for example, the Expert 14 (Top management, Northumbria university, 2017) questions the benefits for the university to establish a partnership with the airport, at least without a sharp understanding of its necessity and perspectives and outcomes.

To put it in a nutshell, on the one hand, experts from university's leadership teams have not been sufficiently enthusiastic about establishing connections with regional airports. And even though some of them positively accessed the mutual importance of both actors and potential of a connection or link, the clear vision about its establishment has not been introduced yet. Although, it is important to underline that no expert from leadership team at Sunderland university was accessed and interviewed, therefore this statement cannot include this university. On the other hand, representatives of universities' business and enterprise teams, as well as research and innovation divisions, do provide the insights into the existing collaborations with airport, which constitute a link (to a certain extent). And despite the fact that the link is not institutionalized and has occasional occurrence, it does exist within a regional system of relations and is perceived potentially beneficial by several experts, including the representatives of local universities.

First to mention are agreements on meet-and-greet activities, organized by regional universities at airport(s), oriented towards (mostly) international students arriving by air. Although there is no complete data on students arriving or leaving the region by air, the meeting teams could provide the draft numbers on accommodated students. The meet-and-greets are widespread among universities in England, what is supported by the interviews as well as by the evidence from the email enquiries. It is the main activity universities organize at their regional or local airports, usually once or twice per year with the beginning of semesters. The second reason for communication between regional actors is placing universities' advertising at the airport. While the latter agreement is financed by universities, not all meet-and-greets are payable.

Thus, these two forms of activities can be understood as sort of collaborations, which maintain both actors connected. Also, they are connected through networking among representatives of airport and university(ies) within the region, or regional social capital, both informally (through personal contacts) and formally (e.g., space of Newcastle City Futures or regional LEP). While the meet-and-greets are regular and face a larger space for university's representation, networking is more occasional interactions. Despite the fact that link between actors can be characterized as weak and occasional, it does not mean that there is no (regional) necessity for the broader connections.

Concluding remarks

The research comes to a conclusion that the existing relationships and experiences of regional actors in a particular case is a basis for establishing a link, which is potentially beneficial for the actors as well as for the regional development in general. While occasional and not institutionalized sort of link already exists, in the forms of commercial activities as university's advertising at the airport and organized meet-and-greets for incoming international students, there are still ways to transform it into more organized form such as collaboration or partnership.

When talking about the actors, the research considers them twofold: on the one hand, they are seen holistically as organizations, or regional actors, with particular structures and leadership patterns. On the other hand, each organization consists of people – in this case, academic and non-academic workers and students, and employees in the non-education sector – who establish and maintain formal and informal relationships on individual level. This invests into developing a multi-scalar approach to investigate organizations, universities in particular, to highlight the importance of individual social capital in institution's internal functioning and external engagement.

In our case, while it is harder to evaluate the positions of Newcastle International and Durham Tees Valley International airports on the prospects of linkage with universities due to limited or no access to the organizations, the universities' interests have been investigated broader. On the one hand, most of the interviewed experts representing their universities agree that the regional airport is highly important for their universities in general and its connectivity in particular. Moreover, they understand the variety of potential benefits of closer link(s) between a university and airport. Quoting the Expert 3. (Top management, Newcastle University, 2017), who is responsible along other tasks to facilitate engagement with the key stakeholders, 'obviously, airport is one of them'. On the other hand, a practical implementation of these ideas – a shift from a potential to a formal collaboration or partnership - has a number of challenges, both in the vision of previous research as well as in our experts' understanding.

The context of having several motives and opportunities for universities to engage closer with an airport involves both advantages and challenges, which are two sides of one coin. Universities can develop a variety of joint research, teaching activities and knowledge transfer, based on existing expertise and knowledge production at universities, with airport's management. Airport itself can benefit from high-standard and world-class research and innovation available at close proximity to develop technologies and services, as well as improve its image and invest in solving sustainability issues. While the main interest of an airport in the sphere of innovations is expected to be achievements in the sustainable development, local universities turn out to suggest much more to select from their research strengths. Among them are the achievements in aging research as global challenge (Newcastle university), digital innovations and design (Northumbria and Teesside universities), data science (Newcastle university and University of Sunderland) and cyber security (University of Sunderland), composite and advanced materials (University of Sunderland) and other research fields (information from interviews and universities' strategies). The universities and their research teams, in turn, can get an access to airport's site and facilities to test and apply the workings.

Moreover, communication in general and data exchange in particular can influence regional airport's politics, services and facilities provision, transport accessibility and future connectivity. This, in turn, is perceived as an advantage to underpin mobilities, for example, of university students, and invest in their capital accumulation. To add, the growing importance to international development for institutions requires a wider connectivity, at least the hub connectivity. Therefore, a general collaboration with an airport, on institutional level, can influence its operation and coverage, or connectivity, by universities. In the context of universities' internationalization and global involvement, to be competitive and prosperous, international mobility and its facilitation come to the forefront. Nevertheless, general academic mobility is too abstract notion for airports, which operate as businesses and require flows to be calculated and monetized.

At the same time, the existence of several ways to develop a connection or partnership complicates the linkage establishment. It has been admitted widely throughout the research that universities have complex structures with a high number of departments, teams, and activities. The research and innovation and knowledge transfer are led by separate teams, while the engagement with local and regional business sector is organized by other teams. In addition, there are separate teams to facilitate links with international institutional partners and the other ones – to support international students and their mobilities. And while the exchange of data and information among teams and departments do take place, it has a number of barriers to cross - an institutional systematization (for mobilities, for example) is the first to mention.

Therefore, each type of joint work would require an involvement of a particular university's department or team. It has already existed in such fragmented forms at some universities across England, while in the North East and Tees Valley there are merely episodes of communication and ideas exchanges, partly due to the existing regional social capital. One of the ways to facilitate this link is a primary exchange of information on the level of individual (formal or informal) connections and networks, or the mobilization of social capital. And the next step is to develop the prospective ideas into collaborations or projects by formalizing this exchange and introducing various resources, also on the institutional level.

One of the ways to transform the fragmented connections into a link and strategic partnership is to have a broader connection between airport and university as institutions and regional actors. This can involve higher managerial levels of both institutional sides, where Pro and Vice-Chancellors and top managers (and maybe also airport owners) are involved. The role of institution's internal leadership should not be under-estimated since it can transform the whole regional engagement and agenda of a university, and Durham university is only one example among others across the country. Vice-Chancellors represent the official university's position and mission, and their social networks also affect the establishment of new contacts and future partnerships.

Taking into account the complex and dispersed structures of universities, the top management might not be fully aware of all the activities developed by departments and individuals, including research and knowledge transfer. Their ability to keep abreast about both internal capabilities and external demands and interests, along with social relations and power, can be converted into partnerships, which create regional advantages. In general, a region as a bounded system has a number of actors within it, with different institutional capacities, resources and interests, and the wider and closer their networks are, the higher is regional cohesion and the stronger are regional advantages.

CONCLUSIONS

The main aim of this research is to study the academic mobilities of students to and from a region with major universities in the UK also in connection with the close by regional airport. This requires a better understanding of the linkages between the geography of higher education and the (new) mobilities paradigm. In fact, it is at the intersection of these two branches of knowledge that the theory of academic mobilities, which is analyzed in the context of universities' regional and international engagement, can be placed. The research departs from analysing the concept of spatial capital combined with the knowledge drawn from the transport geography (and the field of air transport studies in particular) as a supportive theoretical pillar. Since the framework of spatial capital (Levy, 1994; 2014) specifies position and situation capitals as forms within the broader spatial capital concept, it focuses on 'place plus mobility', or combines the duality of fixity and movement (Mace, 2015, p. 2). Thus, the identified relations among theoretical approaches are read through the lens of spatial capital, which itself is rooted in the theory of habitus by Bourdieu (1986).

To be more specific, academic mobilities of university students and regional airport as a property of a place – a region – are one of the constituent parts of an individual spatial capital. The capital, in turn, is composed by 'the advantages brought by control over a series of geographical layouts in which scale is a determining element', with 'innovations in transport technologies enable travel across, exploitation of, or control over vast spaces' (Levy, 2014, p. 48). Therefore, transport is a characteristic of a place, which provides control over geographical proximity and also facilitates mobilities. This direction is primarily developed in the research by Rerat and Lees (2011) by adding railway stations to the study of spatial capital and mobility or a particular, socio-economically privileged group - gentrifiers. Our research expands the spatial capital concept by focusing on academic mobility and its international scope and international transport connectivity in the form of airports. In turn, academic mobility is presented by another socially (and often economically) privileged group – the university students.

This research develops the claim that one way to impact the accumulation of individual spatial capital is to understand deeper the link between universities and their regional airports. Nowadays, mobility is a fundamental component of the functioning of universities, which are increasingly international and globalized due to the processes of globalization of higher education. Air transport nodes, especially if embedded in the universities' hosting region by accessibility, closer links with other regional actors, businesses and shared projects, is key for this fast-growing international connectivity.

Thereby, a synthesis of these three main theoretical frameworks and their key components – geography of higher education, mobilities and spatial capital, along with the transport geography and air transport studies, constitutes the frame and scope of the thesis. This allows to establish a relationship between the two major objects – universities and airports; therefore, to identify a practical orientation and work of the research.

The research demonstrates that a link between transport infrastructure and mobility has already emerged in theoretical approaches and concepts, in particular such as aeromobilities and spatial capital. On the one hand, transport infrastructure consists of a variety of transport modes and their intermodality, which operates on different scales and provides connectivity and accessibility. On the other hand, mobility has been a feature of modern a university, manifested in both spatial movements and social status' changes. And if previously the debates have focused more on social mobility within the higher education sector, the recent studies involve spatial academic mobility and international student mobility as one of main university's agendas (e.g., the concept of mobility capital by Murphy-Lejeune, 2002).

The relatively new concept of aeromobilities develops the connection between transport infrastructure and a social status of a mobile individual by focussing on a particular transport mean – air transport. Aeromobilities refer not only to a technical definition of mobility, but to a range of new social practices and experiences, which are framed by the common use of airlines and airports as 'transfer points' (Kesselring in Sheller and Urry, 2006). This type of mobility becomes more and more typical for university's academy, whose connections are fast developing on the global scope. This phenomenon is characterised by the concept of 'academic aeromobilities'. This concept presents the mutual influences of the components of broader fields of knowledge, such as geography of higher education, transport geography and the mobilities paradigm. Moreover, academic mobilities uncover the problematic of sustainability, which is a feature not only of airports (as it used to be traditionally), but also universities and their promoted internationalization agendas. Among others, this research raises this issue with an aim to identify potential ways of influencing it for both of mobilities' production actors.

While mobility and international participation are not new features of a university, they undoubtedly have been challenged and intensified by the global processes. And if the notion of academic mobility (of university students, academic and non-academic staff) has been associated with an image of university for ages, its international scope makes them more reliable on air transport. Academic mobility is institutionalized by the internationalization agendas of universities, and in the UK it is spread among both red brick and post-1992 institutions. At the same time, pressures are coming from the inside of hosting region to contribute to its development and take over a civic role. In such a way, universities have to balance between two agendas, or international engagement and the third mission, to be successful globally and regionally. Although, to increase the quality of regional contribution, universities have to be recognised on the international arena and attract resources, knowledge, and human capital. The two agendas are interconnected, what the research uncovers, and the way to combine them is also a source of linking universities and airport.

Since a case study methodology allows to study 'an in-depth account of events, relationships, experiences and processes occurring in that particular instance' (Denscombe, 2010, p. 52), to investigate the relationship between regional airports and universities, a (single) case study methodology was applied. The methodology was employed to investigate the case of the North East and Tees Valley in England (UK), where two regional airports (Newcastle International and Durham Tees Valley) are located, together with five universities (Durham and Newcastle are red brick, while Northumbria, Sunderland and Teesside universities are post-1992). For the data collection process, methods such as expert interviews, survey (with university students) and participant observation were employed. The case study methodology was supplemented by the method of the email enquiry across universities in England to identify any existing links and their forms in other regions, not in the case one.

The research started by questioning whether a link between universities and the regional airport(s) does exist, along with the possible benefits and challenges of this link. The study identified a link mainly based on a few purpose-oriented connections, but has a generally unstable or occasional character. The link is in forms, firstly, such as social connections, formal and informal, between individuals involved in both organizations (universities and airport), which is relatively stable. Secondly, it is also in the form of occasional commercial activities (e.g., advertising of universities at airports) and meet-and-greet events, organized by universities for their incoming international students. Although, a further investigation revealed challenges, which impact the character of the link, such as lack of understanding of whom and how to connect (including as one of the causes the complexity of university's structure but not only) and a lack of data exchange between actors. At the same time, the benefits of a relation between universities and airports within the region were highlighted. Among them are advantages of joint research, as well as the impact of broader and closer ties among regional actors on local development. To specify, joint research and teaching activities have a variety of options, as experts proved, and can tackle different matters, including sustainability. While these are supplemental benefits discovered by the research, the central advantage is a potential to underpin mobilities of students and their spatial capital and to facilitate broader inclusion of a university in global processes.

The supplementary method of email enquiry revealed that most of the universities across England did not identify them as formally connected to airports or show similar occasional kind of links (e.g., meet-and-greets, commercial deals and other). Nevertheless, several cases presented different forms of a link or collaboration with their regional airports (in this context – in terms of proximity). This data allowed to elaborate on a potential link between actors, and their mutual benefits, for example, exchange of data and expertise. At the same time, it exposed the difficulties related to a more detailed investigation of these collaborations or projects, with business and commercial confidentiality being the major issue.

Although the link is not institutionalized and has occasional occurrence (at least, in the context of the study), it does not mean that the relation between regional actors within a region is absent. The academic mobility at universities is expanding and involving more people and activities, which requires accessibility and connectivity, especially international. Increasing academic mobilities, in turn, impact the operation of regional air connectivity providers. Therefore, a relation between universities, which produce academic mobilities, and airports, which facilitate them, is in a form of mutual dependence and influence. This relation is reflected in theories, which have mutual influence on each other. Thus, despite the uncertain character of the link, the research unpacks, both theoretically and practically, the grounds for its existence along with the challenges it faces and admitted benefits for actors and region as a whole, by the example of a particular case.

The value of applying the spatial capital framework to this research is in its capacity of combining embeddedness or fixity and mobility. Spatial capital analyses the embededdness of the flows in the place where they occur. By adapting it to the study of university students, it takes into account their embeddedness and inclusion in the place – or region – through university's affiliation and also consequent residency. Therefore, while the studies of international student mobility focus more on the flows and movements themselves, the newly adopted framework addresses the importance of a place (or space) as well. That place is where the flows originated from, therefore, it impacts their nature, and also where the individual advantages of academic mobility might be applied.

Moreover, through the analysis of several forms of capital – economic, cultural, social, and symbolic (Bourdieu, 1986), which the framework of spatial capital incorporates and based on - it can extend the justification of the benefits of academic and student mobilities by specifying accumulation of different kinds of capital by being mobile within academia. In the context of a blurred understanding of mobilities, including academic mobilities, both in theory and practice – for example, within mobility teams at universities, the conceptual system to elaborate on interconnected and prospective benefits – or capital accumulation – of mobility is understood as highly valuable. Moreover, linking the capital accumulation to the phenomenon of academic aeromobilities can provide with deeper understanding of a complex nature of (air) travelling as common practice within academic environment and the accompanying benefits and disadvantages of such a lifestyle.

In this way, the research attempted to embrace and synthesize the fundamental components of the geography of higher education, the new mobilities paradigm and transport geographies through the analytical framework of spatial capital. Nevertheless, some dimensions of the study appeared to be outside the main research focus. First of all, while the email enquiry across English universities allowed to identify the cases of existing link or collaboration between universities and their (regional) airports, it has also highlighted the accompanying difficulties in studying them. Therefore, further investigation of those cases requires a different methodology, as well as additional synthesis of theoretical sources. Moreover, a further study of the links, their conditions and context, can broader the theoretical and practical understanding by distinguishing different forms of such links or relations. To add, the nature of these links can be rooted in the region's specificity and local and regional development, along with other factors.

Secondly, this research has focused on mobilities and spatial capital of students as social group, while the approach can be expanded by also including in the analysis the academic and non-academic staff of universities. The mobility practices and patterns of both faculty and administrative staff are different, although they tend to expand within the internationalization of universities and globalization processes of higher education. An analysis of both students and staff would provide with a more complete approach to a university as an organization and regional actor.

Besides, following Levy's assumption that spatial capital can be of 'individual, collective or societal actors, including places' (2014, p. 47), the analysis of a university as a collective or societal actor and its spatial capital and its accumulation is perceived prospective. The interrelations between institutional spatial capital, universities' mobility production and transport infrastructure can play a role in region's development and appear as regional advantage. The framework of spatial capital is perceived as relevant to develop a multi-scalar approach to a university primarily because it combines place and mobility, or embeddedness and movements. The lens of institutional spatial capital can be adopted to reflect on the complexity and incorporated tensions of balancing or combining university's engagements – regional 'third mission' and international agenda, which both are faced by universities nowadays. This research avenue extends the positioning of the current research that a more stable and durable link between universities and regional airport(s) is beneficial for both actors in particular, inclusive spatial capital accumulation, and for the hosting region in general.

ANNEXES

The context of the case: North East and Tees Valley, England (UK)

This map is the property of the Sunderland College and can be found on this webpage: https://sunderlandcollege.ac.uk/international/the-city-region/

The map shows the geographic location of the major cities and smaller towns in the North East and Tees Valley, as well as two regional airports and ports. The local universities are located as follow: Newcastle and

Northumbria universities – in Newcastle, Sunderland hosts University of Sunderland, Durham university is mostly located in Durham and the county of Durham (with the International Study Centre in Stockton-on-Tees, Tees Valley); and Teesside university's campuses are spread in Middlesbrough (the main city in Tees Valley) and Darlington.

Prior to presenting the case, some brief explanatory remarks on its definition and presentation are required. Nowadays, North East England and Tees Valley are two different regions, since 2014 when the North East Combined Authority was established, with the following establishment of Tees Valley Combined Authority in 2016. A complex of reasons, both on national and regional level, brought a former region to separation, firstly, on political level with further separation of functions and resources. However, two regions share a history of political, economic, cultural and education paths, along with shared regional distinctive identity (see: Tomaney and Ward, 2001). The history of being one region is longer, since it was officially created in 1994, than the newer period of division into two regions. Moreover, this historic path influenced the development of the region and establishment factors, which are in the focus of research (e.g., social relations and networks). To add, most of the sources used to develop the context in the chapter are dating back to the period when two regions were united in one single region. However, it is important to highlight that this research takes into account the division of regions and their recent history and does not aim at making any claims about the division and political decisions. By uniting them into one case the research aims at developing and understanding the regional (in geographic term) history and context, relations and factors, which influence a variety of processes. In this way, in this research a 'single region' is a (social) construct, which allows to investigate the existence of a link between regional air transports and higher education sector.

Political and Economic Context

The North East region in the UK is one of the nine regions in England (as of 2010), with a total population of 2,597,000 (according to the census of 2011). It covers County Durham, Northumberland, Tyne and Wear metropolitan area, and the area of the former county of Cleveland in North Yorkshire and includes three large conurbations: Teesside, Wearside, and Tyneside.

The region has a strong industrial past due to rich coal and salt beds, what had also boasted the development of chemical industries. Later, after the

Industrial revolution, the economy's focus had shifted towards iron and steel, coal mining and shipbuilding. The twentieth century is the period of manufactures' closures, with the major declines in mining and shipbuilding, what in turn led to the fall of private and public investments, rise of unemployment, and general stagnation in social and cultural spheres. One of the main characteristics of the region is that 'by far the most important – and pervasive – legacy of the past is industrialization' (Robinson, 2002, p. 317). It, in turn, influenced a lot the so-called regional distinctive identity throughout history, which reflects 'a complex amalgam of a "reinvented" regional history', and 'strong claims of economic injustice' (Tomaney and Ward, 2001, p. 14).

The major recent changes in the country's political and territorial organisation are connected to the election of New Labour in 1997, what in turn influenced the regional development and local political structures. The major development direction is decentralisation of the country through devolution and regionalisation, which was labelled back then as the '(new) regional economic policy'. The new changes 'have generated significant pressures for reorganisation and opportunities for participation amongst the social institutions—including trade unions—working at the national and regional levels within the economy, society and polity of the UK' (O'Brien et al., 2004, p. 59).

Moreover, a new period in regional history has started with the creation of ONE North East Regional Development Agency (RDA) for the North East region in 1999 (following the Regional Development Agencies Act 1998) with the main objective to help the North East economy to recover, and the main targets for the funding, both from the government and European Union, were regeneration projects. The role and status of the RDA was high, although, according to the review of the region made by OECD, there was 'a mismatch between its economic development remit and the broader regional capacity-building need recognised in the universities, that engages more of civil society' (Duke, 2006, p. 39). One of the main reasons for that was, despite the broad funding opportunities, is its project-based, short-term and economic task orientation character.

The abolishment of the RDA by the Coalition Government in 2010 brought a year later a new institutional body to the region – North East Local Enterprise Partnership (NELEP), which is a voluntary organization uniting local authorities and businesses, and unites County Durham, Northumberland and Tyne and Wear. Moreover, in 2011 was introduced the North East Combined Authority (NECA), which territory corresponds to LEP's coverage area. Nowadays, after the region's division, Tees Valley established its own Tess Valley LEP, which is composed of such local authorities areas as Darlington, Hartlepool, Middlesbrough, Redcar and Cleveland and Stockton-on-Tees (five in total).

In this way, since 2016 two regions have had two different Combined Authorities, which hold powers for transport, economic development and regeneration. Later in 2018, Newcastle, North Tyneside and Northumberland County councils exited the North East Combined Authority to establish North of Tyne Combined Authority. But due to several reasons, (most of) transport infrastructure is shared, therefore is going to be operated by North East Joint Transport Committee (established in the same year). Generally, the long and complex process of devolution in the region, with accompanying withdrawal of the deal previously and the separation of LA7 (seven local authorities), represents a long preceding history of regional political fragmentation. It appears that the devolution proposal has finally divided the region, and the line lies on the river Tyne, what also reflects the regional historical tradition of co-existence and tensions between the richer North of Tyne and the poorer southern part. The major reasons behind the decision of the regional leaders to proceed with the deal and receive funding from the centre are to expand investments, first of all, in the transport and skills, since 'the region is still having one of the highest unemployment rates in the country and the highest level of adults without skills' (Whitfield, 2017).

In parallel with those political and economic transformations, the region has been included in the Northern Powerhouse, a constructed pan-region, which was introduced by the Coalition Government (2010 – 2015). The major idea behind the proposal was to rebalance the UK economic development by shifting the focus from the South to the Northern part of the country. One of the important focuses of the agenda is transport improvements and development of networks, as well as knowledge economy based on science and innovation. Politically, it incorporates devolution in the form of city deals. The whole vision of the Northern Powerhouse has been artificially creating a pan-region, what in a way had complicated the existing complex regional geography and political system. It is perceived contradictory to a certain extent, partly due to producing imbalance within itself (while it was aiming at reducing the economic gap between regions) by concentrating economic and political powers at Manchester City Region.

Talking about the region's main city, Newcastle grew as an important trading centre for wool and played a significant role in the Industrial revolution. Later, the city had been an important industrial centre for British economy for coal mining, engineering and shipping during the 19th century until the massive process of decline of industries and an orientation towards deindustrialization was taken in the 1980s (Punter, 2009). Since then, tensions among different actors and partnerships have become one of the main characteristics of Newcastle's development, with opposition of collaboration and competition strategies of cooperation (Punter, 2009). Since the rise of the city in the last decades, social end economic environment is characterised by the rise of local creative industries, as well as it is an admitted national centre for universities and student life (in top 10 in the UK). Nowadays, city's economy is growing with several orientations: education, digital technology (with a major gaming sector), retail, tourism and culture.

In the last decades, Newcastle 'has become to be recognised as one of the leading exemplars of culture-led regeneration in the UK' (Goddard and Vallance, 2013, p. 130). Nevertheless, two major development projects - the Baltic Centre for Contemporary Arts and the Sage Gateshead - are located on the Gateshead's quayside and have Gateshead Council as the main local authority partner. Moreover, the Baltic Business Quarter, located on the brownfield next to The Baltic Centre is a large regeneration site in-progress. Thus, pervasive regeneration and physical infrastructure development became a sign of a post-industrial area and its attempts to adapt to the new conditions and requirements.

Regional Transport Infrastructure and Airports

The history and development of regional transport infrastructure is closely related to frequent changes in the political sphere. North East Combined Authority had inherited the functions and all complementary responsibilities of the former Tyne and Wear Integrated Transport Authority, which in turn transformed into the Tyne and Wear Passenger Transport Executive (TWPTE) under the brand name of Nexus. It owns and operates the local metro system.

On the pan-regional scope, in 2018 was established Transport for the North (TfN), a part of the Northern Powerhouse project, and is the first sub-regional transport body in the UK. It aims at providing the 'shared vision' on the region airport's performance and its main objective is to deliver accessible and interconnected transport infrastructure for the North region, which is identified in its Strategic Transport Plan. The strategy identifies a number of airports, including Newcastle, to raise the number of destinations to serve, as well as 'direct links for businesses and the public to a range of destinations' (Butcher, 2016, pp. 22). Within the combined authority, each constituent district is responsible for a range of functions, with South Tyneside Council being responsible for the Newcastle airport.

The Airports Act (1986) initiated by the Conservative Party, was presenting the major tendency of privatising of the publicly owned airports and introducing the private capital. For the first wave of privatisation, fifteen municipal airports were selected, including the one in Newcastle, according to the level of annual financial turnover. All the airports very privatised, fully or partly, ‘however there is still a ‘public interest stake’ in many of them (Butcher, 2016, p. 5). The airport’s policies and development are majorly dependent on the type of its ownership.

The case region has two airports: Newcastle International airport and Durham Tees Valley airport (International) (DTVA). DTVA originates from an airfield established in 1941, with the beginning of commercial operations in 1964 and an inauguration of its international passenger terminal in 1966. The airport is one of the smallest regional airports in the UK with a passenger turnover. The airport had been privately owned by the Peel airports group (seventy-five per cent) between 2002 and 2019. In 2013, the new master plan with the focus on schedule routes and non-passenger business activities was announced. Between 2006 (the peak year of passenger turnover) and 2018, the passenger numbers have fallen dramatically from over 900,000 to 130,911. It is one of the smallest UK airports in terms of passenger turn-over and land use.

In March 2019, the main stake in the ownership structure was purchased by the local authorities. Prior to this, the electoral programme of the recently elected (in 2017) Mayor Ben Houchen specified its focus on the local airport and its importance for the region’s development.

Another regional airport, Newcastle International, grew to an international airport from a Woolsington Aerodrome built in 1935. It used to be owned by the local authorities until 2001, when a smaller stake (forty-nine per cent) was sold to Copenhagen Airports as a respond to government’s call for shifting ownership structure towards private ownership. During this period, Copenhagen Airports invested in the site and infrastructure development, improved the passenger terminal and expanded routes map, and then sold its part to AMP Capital in 2012. Since then, the seven local authorities (Newcastle Airport Local Authority Holding Company Ltd.) continue to jointly own the larger stake (fifty-one per cent), but the airport is run by Newcastle International Airport Ltd. Compared with DTVA, Newcastle International has wider connections, including global hubs such as Amsterdam Schiphol Airport, Dubai International, Heathrow and Gatwick, as well as it is more accessible from the region (for example, by metro). Since the last drop in passenger numbers in 2011, the turnover has shown a constant growth with over five million passengers in 2018.

Higher Education Sector

Regional higher education sector is represented by five universities – Durham, Newcastle, Northumbria, Sunderland and Teesside universities – with total amount of 100,340 and 103,435 students in 2015/16 and 2017/18 respectively (HESA, 2018b). The overall student population of universities is rather stable in the last years, with a growth of students at Newcastle (the highest recorded growth), Durham and Sunderland universities, and a slight fall in numbers at other HE providers (Ibid). The universities with the highest and smallest amounts of students are Northumbria university and University of Sunderland respectively. In 2017/18, the highest amount of non-UK student numbers was recorded at Newcastle and Durham university, with about twenty-six and twenty-eight per cent respectively, while the smallest one has Teesside university – only six per cent (a growth compared to three per cent in 2016/17) (Ibid, 2018). Moreover, in 2015/16 the overall amount of staff employed by all five universities was almost 20,000, with the largest employers being Newcastle and Durham universities.

The oldest university in the region is Durham, which was established in 1832 and is one of the oldest recognized universities in England. It owns a UNESCO Heritage Site – the Durham castle, which is still in use for academic purposes. The university has a large campus in the city of Durham, as well as the Queen’s Campus in the borough of Stockton-on-Tees, which has been transformed into an International Study Centre. The university also runs libraries and Museum of Archaeology and Oriental museum, which are part of the university and campus infrastructure.

Newcastle university, the second oldest in the region, was established in the 1963 on the basis of colleges, which were formed in the nineteenth century, and is so-called red brick university (they were originally established in major industrial cities as civic universities). It has a campus in Newcastle city centre, as well as a large redevelopment project run together with Newcastle City Council called Newcastle Helix. The university operates the Great North Museum project, which includes Hancock Museum and Hatton Gallery. Apart from the city campus, it has buildings in the region, London campus (of Business school), and offshore campuses – in Singapore, which grew into Newcastle University Singapore (started in 2008) and a branch of its medical school in Malaysia (since 2011). According to the own Economic impact report (2017), Newcastle university is the third largest employer in the city (Newcastle) and the fourth - in the region of North East.

In 2014, Newcastle university established a pilot project or collaborative platform called Newcastle City Futures, which was partnered by Northumbria university, and funded by the Research Councils UK (RUCK) and Innovate UK. Among the core supporters and partners are mentioned local authorities, North East LEP, public and voluntary sectors and businesses (including Newcastle Airport). It produced a report 'Newcastle City Futures 2065', which developed the vision of 'anchoring universities in urban regions through city foresight' (Tewdwr-Jones et al, 2015). The vision focused on the economic growth of Newcastle and Gateshead and, among others, social inclusion, well-being and housing. The project's funding was over in 2017.

Newcastle hosts another university, Northumbria university, which is rooted in several community colleges, united into Newcastle Polytechnic in 1969. In 1992 it became University of Northumbria at Newcastle, which nowadays consists of two campuses in Newcastle and one in London. In Gateshead, the university participated together with the city council in the redevelopment project of the Trinity Square. The university places environmental sustainability at heart of operation and research, and incorporates Sustainable Cities Research Institute. Therefore, Newcastle is a nationally renown student centre with developed infrastructure and facilities, which city centre has been 'increasingly focused on the needs of three dominant 'cash-rich' consumer groups – students, upwardly mobile service workers, and more style-oriented young professional drinkers' (Hollands and Chatterton, 2002, p. 311).

The university of Sunderland is located in Sunderland, connected with Newcastle and Tyne and Wear metropolitan area by metro system. The university developed from its founder Sunderland Technical College, which were established in 1901, and later institutionalised into Sunderland Polytechnic in 1969. Similar to Northumbria and Teesside, it became a university in 1992. The university 'has strong links with local and regional industry; in 1990, it established the Industry Centre to coordinate the university's links with industry and commerce' (Universities UK, 2001, p. 17). It has two campuses in Sunderland (the one in the city and at St. Pete's site), as well as in London and Hong Kong since 2012 and 2017 respectively. The St. Pete's campus hosts the Media Centre and National Glass Centre.

Last but not the least, Teesside university is located in the Tees Valley with campuses in Middlesbrough and Darlington. It dates back to Mechanics' Institute in 1844, later Constantine Technical College in 1930, and afterwards Teesside Polytechnics in 1969. According to Universities UK (2001), it had a 'large number of mature students and students that come from the local area' (p. 17). In the cultural sphere, as well as other regional universities either run or partner with museums and galleries, its partner is Middlesbrough Institute of Modern Arts (MIMA). In such way, universities actively participate in urban culture-led regeneration and provide free access to cultural and arts institutions to communities. In the sector it is the only university without national (London) or international campuses.

Both Durham and Newcastle are research-incentive institutes with memberships in the Russell Group (association of public research universities in the UK) and the N8 Research Partnership. The Partnership was established in 2007 to unite the most research-oriented universities in the North, which is associated with the political and economic policies of the Northern Powerhouse pan-region, as well as the partnership and similar trans-regional university alliances represent the new trends in institutional higher education geographies (see: Harrison et al, 2016).

Dating back to RDA One North East times, the existing Higher Education Support for Industry in the North (HESIN) was transformed into Universities for the North East (Unis4NE) in 1998, which united all five universities and promoted coordinated activities among them as beneficial for institutions and region in general. The organization signed a compact with RDA to 'deliver this strand of the regional strategy', which, among other priorities, 'placed universities and colleges at the heart of the regional economy' (Universities UK, 2001, p. 19). Moreover, one of the HESIN's project adopted by the new organization was Knowledge House (established in 1995). The purpose of its creation was an aim to overcome barriers 'a range of barriers in accessing the knowledge resources of the universities, which discouraged regional university – small and medium-sized enterprise collaboration' (Universities UK, 2001, p. 24). It was the first national experience in creating an organization or platform, offering 'one door' access to regional higher education sector in general and academics in particular for local businesses and enterprises. Following the official abolishment of RDAs in 2010 across the country, consequently both the Unis4NE and Knowledge House stop operating in the situation of lack of funding and support. Nowadays, all five regional universities are members of different networks and partnerships (for example, N8 Partnership or University Alliance), but the times of regional unification have passed.

QUESTIONS (SURVEY)

SURVEY

RESEARCH ON STUDENT MOBILITY

Dear Student,
You are participating in a research project designed by Alena Myshko, enrolled in the PhD in Urban Studies and Regional Science at Gran Sasso Science Institute (Italy) and currently visiting the CURDS, University of Newcastle. The research aims to unpack the idea of local universities' participation in the regional development and cooperation with local and regional institutions, including regional airport(s) (the case of North East and Tees Valley, UK). You were selected as a possible participant in this survey as being (currently or previously) enrolled in one of the regional universities. You are the key source of information to study the patterns of students' mobilities, travelling practices, preferences and needs.
This questionnaire is anonymous. All the information you provide will be used for research purposes only and will be presented at academic conferences and in scientific publications. You can read this form and ask any questions that you may have before agreeing to take part in this survey (email: alena.myshko@gssi.it).
Answering the questions should take about 20 - 25 minutes. Please try to answer all the questions to provide the complete picture for the analysis.
The information you will share will significantly enrich the current research.
Many thanks!

QUESTIONS:

1. *Please select your gender:* (*)

a) female
b) male
c) other

2. *Your citizenship:* (*)
3. *Your residence before the most recent university enrolment (city, country):* (*)
4. *Your current residence (city, country):* (*)

5. *Your year of birth:* (*)
6. *Are you currently enrolled in the university?* (*)

a) yes
b) no

7. *The university of your current/ most recent enrolment:* (*)

a) Durham university
b) Newcastle university
c) Northumbria university
d) Teesside university
e) University of Sunderland

8. *May you please name the main reason(s) influenced your choice of this university?* (*)
9. *The date of the most recent university enrolment:* (*)
10. *Please choose your current degree level:* (*)

a) Undergraduate
b) Postgraduate (MA/ MBA, etc.)
c) PhD student
d) Visitor/ occasional student
e) Other (write-in choice)

11. *Please select the mode of the study:* (*)

a) Full-time
b) Part-time

12. *Please specify the subject you are studying:*
13. *How often do you usually travel outside the North East England/ Tees Valley?* (*)

a) several times a month
b) once a month or less
c) several times per year
d) other (write-in option)

14. *What were the purposes for leaving the North East/Tees Valley during the last academic year (please rate each type of purpose according to its frequency)?* (from 1 (not at all) to 5 (the most) - scoring) (*)

a) for research/ study purposes (e.g. conferences, research visits, etc.)

b) for family/ personal reasons
c) for tourism
d) for business/ work (if applies)
e) other

15. *When you have to travel for the university-related purposes, who is usually organizing and planning your trip (including the transport choice):*

a) yourself
b) family members or friends
c) university's staff (student union, academic and non-academic staff, etc.)
d) university's main travel partner
e) other (write-in option)

16. *Which transport means do you usually take to get to and from the North East/ Tees Valley region (multiple choice is possible)?* (*)

a) train
b) bus/ coach
c) car (personal or not)
d) airplane
e) boat/ ship
f) other (write-in option)

17. *If it is a combination of means of transport, which ones do you combine most often (multiple choice)?* (*)

a) does not apply
b) train
c) bus/ coach
d) car (personal or not)
e) airplane
f) boat/ ship
g) other (write-in option)

18. *Please explain why this transport choice is the most convenient option for you* (*)
19. *How do you usually cover your travel expenses (several options are possible)?*

a) yourself
b) family members or relatives

c) university
d) sponsor
e) other (write-in option)

20. *Would you say that since the beginning of university studies in the North East/ Tees Valley you travel more than before?* (*)

a) very disagreeable
b) disagreeable
c) somewhat agreeable
d) agreeable
e) very agreeable

21. What is the main reason for this increase/ decrease of mobility (travelling)?
22. Have you ever travelled through Durham Tees Valley International Airport? (*)

a) yes
b) no
c) do not remember

23. How many times per year do you usually fly from Newcastle airport? (*)

a) never
b) once or twice
c) several times
d) almost overtime leaving the region
e) hard to say
f) other (write-in option)

24. *Where do you most often travel from the Newcastle airport?* (*)

a) London/ Amsterdam (to make a change and continue the trip)
b) within the UK (including London)
c) Europe
d) Non-European countries
e) hard to say
f) does not apply
g) other (write-in option)

25. *How would you evaluate your satisfaction with the transport connections to Newcastle airport (including all transport options and their combination)?* (*)

a) very unsatisfied
b) unsatisfied
c) somewhat satisfied
d) satisfied
e) very satisfied
f) does not apply

26. *May you please comment on the satisfaction rate chosen:*
27. *When was the last time you travelled through the Newcastle airport?* (*)
28. *What was the purpose of your last trip via Newcastle airport?* (*)

a) for research/ study purposes (e.g., conferences, research visits, Erasmus, etc.)
b) for family/ personal reasons
c) for tourism
d) for business/ work
e) do not remember
f) does not apply
g) other (write-in option)

29. *Why do you choose Newcastle airport for your trips (please name a few main reasons)?* (*)
30. *Please rate your overall satisfaction of Newcastle International airport (compared to your previous experience at international airports)* (*)

a) very unsatisfied
b) unsatisfied
c) somewhat satisfied
d) satisfied
e) very satisfied
f) does not apply

31. *What would be needed to improve your experience at Newcastle airport (multiple choice)?* (*)

a) public transport connectivity/ accessibility
b) on-site services and facilities (variety, amount, etc.)
c) flights (frequency, destinations)
d) information provision and help desks
e) no need for improvement
f) do not know
g) does not apply
h) other (write-in option)

32. *In your opinion, what kind of airport's improvements would facilitate students' mobility needs and travelling practices:*
33. *If you know about any special services or facilities for students at the Newcastle airport, please name them:*
34. *If you would like to participate further in this research, please leave your preferred contact details:*

Thank you for taking this survey!

EMAIL ENQUIRY (TO ENGLISH UNIVERSITIES)

Subject: A request for an information for research

Dear Sirs,
I am a visiting PhD student at the Centre for Urban and Regional Development Studies (CURDS) at Newcastle University (UK). Our research focuses on a (missing) link between local universities (higher education sector) and regional airports and its (possible) impacts on university's global/ international engagement as well as local and regional development.
May you please provide an information if your university have (or used to have) any business or/and research connections or partnerships or any general communication with a regional airport? Or maybe you can advise whom at the university to contact for this information? It will significantly help the research.
I appreciate your time and attention,
Alena Myshko

PhD candidate in International Doctoral Programme 'Urban Studies and Regional Science'
Gran Sasso Science Institute (GSSI)
L'Aquila, Italy

Centre for Urban and Regional Development Studies (CURDS),
Newcastle University, Newcastle, UK

EXPERT INTERVIEW GUIDE (EXAMPLE)

Research Project

Interview Questions

Representative/ Cllr, Local authorities (Member of Newcastle airport's board)

<Starts with the agreement to use the recorder during the interview. Afterwards, the introduction of myself, affiliations with GSSI and CURDS, Newcastle University, and then the brief presentation of the research. Ethical issues: agreement on the use of information and personal affiliations>.
May you please describe in short your main duties as a Cllr <for Newcastle city council>.
What are your previous affiliations? Where you based in the North East? In a similar type of organization or not?
May we please talk about the local airport, *Newcastle International airport,* and its ownership structure. Its one of the fastest growing regional airports in the UK. Also, it had presented a new master plan 2030 very recently.

— *Airport's Board*:

- how does it work, how do they collaborate: among local authorities; and with AMP Capital

- new master plan 2030: what are the main changes? was the board participating in its creation?

- airport's strategy: who develops and how

— *Airport's Committee*:

- how were selected the members?

- what are the main issues discussed by the committee?

- collaboration between the board and committee

- how would you describe the role of the committee (for the airport's functioning; for the regional development)

- do you participate in both (committee and board)?

Ownership Structure

Joined ownership with Copenhagen airport

To start, lets get into details about the ownership structure of the airport. Prior to the shared ownership between the local authorities (LA7) and AMP capital, it had been shared with Copenhagen airport group since 2001. It was the regional airport to shift to private public ownership one of the last ones. Do you know the reason behind it?
If you are able to comment on this period of airports development, may you please describe the deal:
why this company was chosen and who made the decision;
how were the decisions about airport's management and operations made;
who provided the expertise, etc.

Previous stage - public ownership

And before the shared ownership, the airport was entirely owned by the 7 local authorities.
Was the situation the same since the very beginning of the airport's operation?
How can you describe this period?

Joined ownership with AMP Capital

And now lets get back to the current situation: joined ownership with AMP Capital. Do you know why the deal with Copenhagen airport was over?
How was the new shareholder chosen?
Also, may you please comment on the public attitude to the current situation with the ownership? Do you think Newcastle residents accept the private public ownership?

Thank you. Now lets talk generally about the airport and its role.
How would you describe the role of the airport, its impact on the development of the area, Newcastle itself, Tyne and Wear area and the North East region? Does it impact also Tees Valley region, in your opinion?
Which reasons, do you think, are behind the airport's growth?
How would you evaluate the airport's orientation: business, tourism, mixed form, etc.? What is the relation between its orientation and region's demand?
How would you evaluate airport's accessibility (ground access, including public transport)?
And its connectivity? In terms of destinations, frequency, etc.
What is the influence on both by: Newcastle city council; other authorities; regional business organizations; other organizations and institutions (if yes, please specify which)?

Now maybe we can discuss the new big platform - Newcastle City futures.

— *Newcastle City Futures*:

- does the council participate in the project? in the meetings?

- why is it important for the city

- which is its significance for the city?

- It is running since 2014. Its still early to make conclusions about its impact but maybe you can comment on its progress: has it already brought changes to the city; etc.

- do you think you can specify any drawbacks of this platform? any potential or already raised conflicts?

- the role of the Newcastle international airport in this project

As we started to talk about the initiative by Newcastle university, Lets talk now about local higher education institutions: Northumbria and Newcastle universities.

— *The role of universities in the city's development*:

- generally, the recent growth of universities (spatially, in terms of numbers of students and staff)

- are they involved in city's and region's development? And how (any projects, e.g. alike City Futures) urban changes in the city and region brought by the universities

- is there an established collaboration among universities (or any of them and Newcastle council)? If yes, in which way? For how long?

— *Possible connection between universities and the airport*

How would you evaluate the potential establishment of the connection/ link between the regional airport and local universities within the region?
What can be potential benefits – for each of them; local authorities; the city; regional development?
And what are the drawbacks of this connections? And obstacles to link them.
how do you see its possible to manage and maintain for future?
What is the role of the local authorities in this link?

Thank you a lot for your expertise and knowledge, it investigated in the development of this research project!

LIST OF EXPERTS (EXPERT INTERVIEWS)

Expert's number	Current affiliation(s)/ Type of job position	Type of organization	Previous affiliation(s)/ type of organization (if different and relevant/ available)	Interview's characteristics (date, communication type, length)
1.	Councillor (Cllr)	Local authorities; Member of Airport's Consultative Committee	Local authorities (the same)	23/06/2017, In person, 1h
2.	Cllr	Local authorities		27/06/2017, In person, 30 min
3.	Top management	Newcastle University	One North East RDA (management)	28/07/2017, In person, 1h
4.	Representative of the platform; Academic	Newcastle City Futures; Newcastle University		03/07/2017, In person, 1h
5.	Representative	Regional Airport's Consultative Committee		06/07/2017, In person, 1h
6.	Top management	Regional Local Enterprise Partnership (LEP)		10/07/2017, In person, 1h

7.	Representative	Regional Airport's Consultative Committee		14/07/2017, In person, 1h 30 min
8.	Research Fellow	Future Cities Catapult; Newcastle University		19/07/2017, In person, 1h
9.	Top management	Northumbria University	International corporation	19/07/2017, In person, 1h
10.	Cllr; Representative for Transport	Local authorities; North East Combined Authority (NECA))	Regional Officer (Trade Union)	20/07/2017, In person, 30 min
11.	Planner	Regional airport		21/07/2017, In person, 1h 30 min
12.	Representative (top management)	Local authorities	One North East RDA (top management)	27/07/2017, In person, 30 min
13.	Business management	Local authorities		27/07/2017, In person, 1h
14.	Top management	Northumbria University	North East England Chamber of Commerce; British Chambers of Commerce (top management)	03/08/2017, In person, 30 min

15.	Representative/ Management	N8 Research Partnership		06/10/2017, via Phone, 30 min
16.	Representative/ Management (Innovation and Corporate Development)	University of Sunderland		11/10/2017, In person, 1h
17.	Top management	Newcastle University	Durham University (top management)	26/10/2017, In person, 30 min
18.	Member of Board of Governors; top management	University of Sunderland; Northumbrian Water Limited	RDA One North East (top management)	30/10/2017, In person, 1h 30 min
19.	Representative/ Management	NewcastleGateshead Initiative		31/10/2017, In person, 1h 30 min
20.	Top management	Northumbria University	Northumbria University (top management); North East Chamber of Commerce (CoC) (top management); One North East RDA	07/11/2017, In person, 30 min
21.	Top management	Trade Unions Congress (TUC) Northern		07/11/2017, In person, 1h
22.	Top management	North East Chamber of Commerce (CoC)		07/11/2017, In person, 1h

23.	Representative/ Management (Research and Innovation Services)	Durham University	Durham university; One North East RDA (senior specialist); Local authorities (Business Support Management)	08/11/2017, In person, 1h
24.	Board member	Local NHS Foundation Trust	One North East RDA (top management); Local authorities (top management); Local authorities (another one) (top management)	09/11/2017, In person, 1h 30 min
25.	Research Fellow	University of Birmingham	Regional airport's Consultative committee (representative)	13/07/2017, In person, 1h 30 min
26.	Representative/ management (International mobility)	Newcastle University		21/11/2017, In person, 1h
27.	Representative/ management (International Office)	Durham University		23/11/2017, In person, 1h
28.	Top management; member of the Board of Governors	Regional LEP; Teesside university	North East Process Industry Cluster (top management)	05/12/2017, via Skype, 30 min
29.	Top management (Academic Enterprise)	Teesside university		13/11/2017, via Skype, 30 min
30.	Representative/ management (International Office)	Durham University	University of Sunderland (International Office)	19/04/2018, In person, 1h

31.	Airport Management Consultant	Airport Engineering Operations	Newcastle International Airport (Engineering Management); Leeds Bradford Airport (Engineering Management), Heathrow (Engineer)	24/04/2018, via Skype, 1 h
32.	Representative/ management (Strategic partnerships)	Newcastle University		10/05/2018, In person, 30 min
33.	Representative/ management (Research Support)	Newcastle University		22/05/2018, In person, 1h
34.	Representative/ management (The Forge)	Teesside University	Not regional university (Red brick) (representative/ management, business development); Newcastle University (representative/ management, business support)	21/06/2018, In person, 1h
35.	Representative/ management (Academic Development)	Sunderland University		22/06/2018, via Skype, 1h 30 min
36	Representative/ Management	Regional LEP		25/06/2018, In person, 1h
37	Representative/ management (International Partnerships and Mobility)	Northumbria University	Not regional university (post-1992) (representative/ management, country development)	26/06/2018, In person, 1h

38	Representative/ management (Business and Enterprise)	Northumbria University	Newcastle University (representative/ management, business development); Newcastle Science City (management); Durham University (representative/ management, business development); One North East RDA (management, investment)	12/07/2018, In person, 1h
39	Representative/ management (Enterprise)	Essex University	Essex Chamber of Commerce and Industry (top management)	06/09/2018, via Skype, 30 min
40	Representative/ management (International Development)	University of Sunderland	Not regional university (red brick) (representative, international student recruitment); Not regional university (red brick) (representative, student Recruitment)	19/12/2018, In person, 1 h
41	Representative/ management	Newcastle University	Knowledge House (representative for Newcastle University)	01/11/2017, In person, 1h
42	Top management	National Centre for Universities and Business	HM Government (Department for Business, Innovation and Skills)	08/02/2019, 30 min, via Skype

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