



# LESSONS LEARNED FROM THE LÜNEBURG INNOVATION INCUBATOR

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Executive Summary



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## **Executive Summary**

Supported by the European Union and the state of Lower Saxony, the Lüneburg Innovation Incubator has successfully triggered the formation of a nascent regional innovation system in an economically-lagging region with the emergence of new innovation players in various industry sectors mainly related to digital media, health, and sustainable energy. It has done this by supporting innovative business start-ups, attracting inward investors, bringing in active and regionally-engaged university researchers, increasing the innovation capacities of existing local firms, creating new networks and infrastructure for knowledge sharing, and improving the reputation of Leuphana University as an 'engine' of innovation-led regional development amongst researchers and companies.

The EU Major Project, which started in 2009 and will end in July 2015, has put in place – with a total investment volume of EUR 98 million and approximately 100 activities which spun off from the 45 projects – the basis for a self-sustaining, vibrant regional innovation system in the region in and around Lüneburg.

The Lüneburg Innovation Incubator experience has already inspired various regional development strategies across Europe, as exemplified by certain cases in Malta and Tuscany. It has been in this regard that Leuphana and the Organisation for Economic Co-operation and Development have had a shared interest in assessing certain achievements to date which can serve as lessons for Leuphana and other universities.

In summary, it can be said that the combined approach of investing in people, social capital, and infrastructure has triggered a 'transformational' change process. The Lüneburg Innovation Incubator provides a pioneering and very good practice case study for managing agents of European funds, as well as for regional authorities and universities (especially those in peripheral areas) when designing projects to stimulate innovation and smart specialisation. These experiences demonstrate that public intervention to support regional innovation through investment in university research and knowledge-sharing activities is capable of stimulating regional economic growth and diversification given a sufficient scale and flexibility of support. The further strengthening of the nascent innovation system could be accelerated by targeting follow-up investments – both by policy makers (e.g., through ERDF) as well as regional stakeholders – in the Incubator's key achievements to date.

## **Key achievements**

### ***1. Building knowledge capacity through the introduction of new innovation actors***

Institutional 'thinness', declining industries and the proximity to the economic agglomerations of Hamburg, Bremen and Hannover presented key development challenges at the Incubator's start. In defining a strategic roadmap for the project, Leuphana looked to its own strengths, notably in the area of sustainability studies, and responded to the region's aim to grow its digital and creative industries, to provide cleaner and more sustainable energy, and to meet the demands of an ageing population. The approach of building new niches instead of dwelling upon extant assets was a brave move which set the Incubator's agenda on a path of creation instead of one of dependency.

Through vibrant innovation and transfer networks, which span regional and sectorial borders, and tailored support for the establishment of more than 50 innovative business start-ups, Leuphana successfully introduced new actors in the regional innovation system. Examples are the "User Research Lab", a collaboration of a Leuphana spin-off with the British Broadcasting Corporation (BBC), the "Celler Netzwerk Gesunde Arbeit", which brings together key employers, insurance companies and health care providers in the region, and the Thermal Battery, a compact heat storage tank for unused waste heat in private households, for which a patent was filed and follow-up collaborative research is underway.

## ***2. Fostering absorptive capacity through knowledge transfer and capacity building***

Through knowledge transfer and various capacity building activities, the Incubator has fostered the absorptive capacity of firms in the region. Central to this have been twelve competence tandems, with teams of 10-30 scientists, each led by a local (Leuphana) professor and an international scientist, as well as nineteen R&D projects which involved around 600 firms through partnership agreements. In addition, scientists acted as expert facilitators in more than 80 thematic events, which applied highly innovative methods such as design thinking and involved more than 8 300 entrepreneurs, employees and local development actors.

Through direct contacts with scientists and the development of background knowledge, these activities can be expected to have significantly raised the absorptive capacity of regional enterprises, and to have lowered the commonly present distance of small and traditional firms and other organisations in reverting to universities as providers of external knowledge for their innovation activities. Increasing numbers of joint applications for third-party funding, support services for regional firms, and collaborations with (high-)tech firms, who traditionally often seek collaborations with technical universities, are indicators for this.

The Incubator involved an intensive collaboration of all key innovation actors in the region, such as the chambers, development agencies and others. The Lüneburg region has also become one of Germany's model regions of the Federal Employment Agency when it comes to monitoring regional labour market dynamics in light of innovation and industry development.

## ***3. Nurturing human and social capital through the creation of new, connected learning environments***

Leuphana has successfully undertaken an all-round innovative approach to teaching and learning, which gives students a very high degree of autonomy and responsibility. Study programmes are organised in three schools: a College, offering Bachelor programmes, a Graduate School for Master and Doctoral programmes, and a Professional School with degree and certificate courses that all follow a blended learning approach which provides full flexibility to combine work, private life and studies. As one of currently 33 higher education institutions in Germany, and the first one in Lower Saxony, that have accredited all of their study programmes, Leuphana is a recognised role model of the Bologna reform process.

The Incubator has significantly supported this reform process by providing a unique opportunity to build a large-scale international and transdisciplinary network around Leuphana. In the period 2009-2015, more than 550 scientists were recruited, many of whom came from the Top-100-Universities in the Times Higher Education ranking.

The Incubator was also vital for the establishment of the Digital School, a pioneering online learning environment, which applies Leuphana's educational approach to improve current trends in moderated open online courses. The result of a recent collaboration with the Goethe Institute is an online course for 17 000 participants from all around the world.

## ***4. Placemaking through infrastructure development and creating a focus on Lüneburg***

The Incubator created several opportunities for Leuphana to become a placemaker for Lüneburg and the region. Central to this – because of its magnitude and cultural relevance – is the new central building, designed by internationally-acclaimed architect Daniel Libeskind. Expected to open in 2016, it will have a total usable space of 13 000 square meters and an auditorium maximum for 1 200 visitors. The Incubator funding went into the creation of a permanent research infrastructure with more than 3 000 square meters and 220 offices and research spaces. Being close to Hamburg, Lueneburg has always been present on the international art scene. It is the result of certain projects, such as KIM, the Kunstraum Leuphana, and the Daniel Frese prize, that a new spotlight was set on Lüneburg and the wider region.

In its main research areas, Leuphana regularly hosts key international conferences. An example is the annual meeting of the global Digital Games Research Association (DiGRA), which was held in May 2015 for the first time in Germany, after Tokyo, London, Stockholm and Vancouver.

### ***5. Building Leuphana's own capacity and reputation***

Digital Media has been the focus area of the Incubator where Leuphana had no prior existing reputation or capacity, but key people in the University had contacts to star scientists and gatekeepers. Building on these contacts through competence tandems, visiting professors and scholarships for talented students, Leuphana has created a robust research capacity and a critical mass from scratch. A main result of this is the Centre for Digital Cultures (CDC), which generates international cutting-edge research which to date raised funds amounting to around EUR 11 million from the Volkswagen Foundation and the German Research Foundation.

Implementing such a complex project as the Incubator has built the University's own capacity and reputation to establish itself in the international research ecosystem. KENUP, a promising follow-up initiative, exemplifies this. It includes 70 global research and innovation leaders, who have joined forces to build an investment platform for healthcare industries in Europe. KENUP is consulting the European Parliament by implementing the Investment Plan for Europe "EFST".

### **Challenges and lessons-learned**

The EU Major Project, with a funding of this scale, has enabled Leuphana to be experimental and ambitious, to "let a thousand flowers bloom" and to identify from that process those which can grow and thrive.

However, all of these thousand flowers have raised expectations which need to be managed. It requires a succession plan to be in place when people or projects leave/close down, or when services for SMEs stop to be free. This may require shorter-term, transition funding and support the shift to new funding paradigms and ways of collaboration. This can also be in the form of training, coaching and mentoring to help teams and individual scientists to progress in their work and to look for new opportunities.

Social capital and trust in the relationships of a university with businesses and other public and civil society actors are built through individuals. It is important that at some point these relationships are institutionalised in order to avoid dependence upon specific people. This also helps to increase coordination and synergies between the different projects, and to reduce overlaps and duplications, which a project of this magnitude will inevitably have.

The Incubator had a clear focus on 'transformational' outcomes. For some of the activities, especially those that started from scratch, objectives, timescales and effects might thus be less clear at the outset. This requires both flexibility and organisational capacity to build partnerships and industry links that are required for the activity to have realistic prospects for sustainability in the long term.

Due to the nature of the region – institutional 'thinness', declining industries etc. – the Incubator had a major impact on building the capacity and reputation of the University itself. This is an important learning point especially for peripheral regions. In a fragile or inexistent regional innovation system, universities can take the lead in setting the development path. This is a long-term process. Thus, in addition to time, it requires consistency and commitment to contemporaneously build capacity at multiple levels, that is, the university's capacity to engage in a knowledge generation and exchange process, and the region's absorptive capacity.

It is still early to claim with certainty, but the achievements to date and the approaches undertaken to overcome inevitable challenges and barriers, as demonstrated by Leuphana and all actors involved in the Lüneburg Innovation Incubator, suggest that a self-sustaining, vibrant regional innovation system is in the making.