



**LUXEMBOURG:  
the optimal  
EU testbed!**





# **POLICY BRIEF**

## **BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY**

**Part of the EMMIA Policy Learning Platform, funded by the European Union**

**Author: Micael Gustafsson, Clusterland Sweden**

*Disclaimer: This document is authored by Micael Gustafsson, Clusterland Sweden, in the context of the European Mobile and Mobility Industries Industries Alliance (EMMIA). The Grand Duchy of Luxembourg was selected for an innovation partnership with EMMIA where Luxinnovation acts as “facilitator”. Luxinnovation is the National Agency for Innovation and Research in Luxembourg.*



This work is supported by the European Union within the European Mobile and Mobility Industries Alliance.

The initiative is partly financed by the Competitiveness and Innovation Programme (CIP) of the European Union supporting small and medium-sized enterprises.

## **Content:**

<b>Background</b>	<b>5</b>
<b>EMMIA PLP</b>	<b>6</b>
<b>SWOT - analysis</b>	<b>7</b>
<b>Policy recommendations</b>	<b>8</b>

### Background

During 2013 the EMMIA Policy Learning Platform performed a study – Mobilise Europe – in order to see what the drivers are behind the most successful regions in Europe when it comes to mobile service development and mobile industry. The study showed that there are actions for policy makers to take in order to improve the start up environment and that some of those actions could be easily implemented.

During the work with the study we also found out that regions on different levels need different types of policy actions and recommendations. These recommendations have been divided into three different levels and can be individually adapted to different regions that have the ambition to develop excellency within the field of mobile technology and mobile services.

In 2014 three European regions decided to become innovation partners with the EMMIA PLP project and one of them is Luxembourg. Luxembourg represents one of those regions that, with the right policy actions, could achieve excellence within specific areas and develop new fast growing companies in order to make Europe become the leader within mobile technology and services again.

This report has been made in collaboration with Luxinnovation in Luxembourg. The methodology behind is an empiric study consisting of workshops with relevant representatives for the mobile industry in Luxembourg, but also start ups, public officials and persons with an outside view. The results are mainly based on crowd sourced knowledge around how to improve the conditions for start ups in the mobile field in Luxembourg combined with statistical data on for instance mobile readiness.

### EMMIA PLP



The EMMIA Policy Learning Platform is an EU funded project in order to spread knowledge about policies behind excellence in the field of mobile industry and mobile services. The project has studied excellent regions in Europe, found what policies lie behind their success and translated that into concrete policy recommendations on regional level.

During 2012 and 2013 the project performed a number of workshops, discussions and interviews with leading experts in the field of mobile industry, mobile service and mobility in order to understand what type of policies create fast growing companies in regions in Europe.

The project has the following founding members:

- Bavaria, Munich, Germany
- Provincia di Roma
- Grace, Nottingham University
- ENCADRE, Nice
- BIC R & D, Brno, Czech Republic
- Clusterland Sweden, Malmo

*More information about the EMMIA PLP could be found on:  
[www.mobilise-europe.eu](http://www.mobilise-europe.eu)*



### SWOT - analysis

A simple SWOT-analysis around the conditions for start ups in the field of mobile and mobile services in Luxembourg gives some indications on what is needed when it comes to policy actions:

#### Strengths

- A strong and stable access point to Europe for non-European SME's
- Rapid growth of qualitative and quantitative research
- Service sector conversion
- New support instruments implemented since 2009
- Few players in the innovation system, that know each other

#### Weaknesses

- Weak R & D efforts by SME:s in the field of mobile
- Not enough facilities for hosting start ups in combination with research
- Low number of spin offs from public research
- Relatively young science base
- Low attractiveness for entrepreneurs within mobile
- Lack of targeted funding towards mobile for service innovation
- No public seed fund such as Hightech Gründerfonds
- Decline of non-R&D innovation expenses
- Non-or very low access to data

#### Opportunities

- Cross field innovation growth
- New financial systems and services
- Immigration of talent from outside Europe
- More digitalised world
- Expanded R&D base in Europe
- Small countries are more flexible and fast moving
- Collaboration is a future key issue, small innovation systems gain from this

#### Threats

- Changes in the financial system
- Entrepreneurial spirit not well developed
- Demographic challenges
- "Old" educational system gets too much impact on innovation climate
- Legislation changes competitive advantages
- Taxation system changes due to EU regulations

*(source for strengths and weaknesses: Luxembourg – Transforming the Healthcare Sector and becoming one of the Healthiest Nations on Earth by ESIC)*

### Policy recommendations

When working with the specific recommendations for Luxembourg we have taken our standing point from the general recommendations in the Mobilise Europe report and during workshops discussed what to do specifically in Luxembourg. The recommendations should be seen as a mix between small simple things that could be easily implemented and larger policies that should be discussed on a high political level.

The recommendations have been divided into different areas, where some of them overlap.

#### Financial sector involvement

*Arrange meeting places between the financial institutes (investors) and start ups in order to make them aware of the possibility also to invest in companies in Luxembourg*

- a very concrete action is to start up regular breakfast meetings with the advisors working for the capital funds (even though there are some initiatives that could be de-veloped) or in the bank sector and new start ups. Interesting meeting places are one way of getting more knowledge about Luxembourg start ups and SME's to the finan-cial sector. The cross over field between IT and Finance is one of the fastest growing fields in mobile and IT. In for instance Copenhagen the CFIR initiave could be one to study and copy those parts that are relevant for Luxembourg.

*Involve the financial sector in building a start up scene in Luxembourg more actively*

- this could include several different actions and one could be that the financial insti-tutes let start ups use parts of their office space. (like the Luxfuturelab) during some days in the week in order to create more collaboration between the traditional finan-cial sector and new mobile services especially since the actors like PWC and KPMG more and more supports start ups.

*Help creating more meeting places between financial sector, mobile start ups and new areas (like health)*

- see above. The financial sector could also be more present in the incubators, like they are in for instance Ideon where many financial actors have a dedicated office in order to be close to the entrepreneurs

*Start "Bank Innovation Day" where entrepreneurs meet the financial sector in order to improve financial service*

- a yearly event, also attracting international visitors, is a good way to build the buzz around new financial services going mobile. The event could take advantage of exist-ing infrastructure such as Accenture BeLux awards.



## BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY

### Access to talent:

*Look over regulations for opening hours, restaurant availability etc.*

- the new talents demand quality of life, companies nowadays move to where the talent is. In order to attract talent some basic needs must be fulfilled such as the possibility to go shopping outside working hours (and also on Sundays), a vibrant club and restaurant life etc. The trend now in for instance the US is that people move to city centres and don't want to stay in suburbs.

*Support cultural life*

- asking the talented people many of them mention culture as one factor when they decide where to start up a company. Culture today is many things. Policy makers should improve possibilities for companies and talents in the cultural sector to establish themselves in Luxembourg through for instance tax incentives.

*Benchmark towards cities like London, Malmo in order to understand what attracts young talented people*

- especially Malmo has gone from a boring city in the 70's to a vibrant city with the highest number of mobile app companies in Europe. A simple study visit for policy makers in order to find out what the city did could bring light on new ways of attracting talent.

*Improve service structure in Luxembourg*

- Luxembourg is an international hub with people coming from all over the world. The level of service is high, but the delivery is sometimes very poor. The region should take initiative to start a branding activity where everybody – from bus drivers to people in the airport security – learns how to be a living positive trademark for Luxembourg.

*Streamline the VISA process for people outside EU*

- Europe doesn't have enough talented people; that also includes Luxembourg. Today the VISA process is too complicated for those coming from outside EU, a simplified digital process should be implemented.

*Build collaboration with construction companies in order to find innovative ways of reducing cost of living in Luxembourg*

- cost of living in Luxembourg is high and there is a lack of both affordable office space and living space. New creative solutions could include more collaboration with construction companies in order to build more suitable spaces for start ups and also for their employees.

## BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY

### Start up support

*Lower the financial stake that you have to pay in order to start up a company*

- the cost for starting a company is too high, compare with the UK in order to make it cheaper and more accessible. The initiative CF 111 should be taken into consideration.

*Gather all information about how to start a company and put the information in one place (website) with links. Make all information also available in English. Get inspiration from for example <https://www.verksamt.se/en/web/international/home> the Swedish webpage for start ups*

- this is essential for attracting start-ups. Since it is very easy in other countries, people tend to prefer starting up in for instance London instead of Luxembourg.

*Educate civil servants in how to help those who want to start up their own company*

- start up a “help line” for those who want to start a company and combine it with business centres where entrepreneurs could get hands on help with practical things like how to register for tax declaration etc.

*Include entrepreneurship/how to start a company in all public education from high school*

- also in practical schools entrepreneurship should be something that is compulsory. Studies show that countries who teach young people how to start a company get more start-ups and higher quality on SME's.

*Introduce ways for start-ups to get public seed funding*

- for instance innovation vouchers

### Test bed opportunities

*Develop models for PPP collaboration in order to test out new technologies*

- the region can play a role as a test bed using new technologies. Public policies should include implementing new mobile technologies especially in cross field areas such as m-health, mobile payments, e-commerce and logistics.

*Improve infrastructure in order to attract new test beds*

- create systems and models for user involvement connected to test beds. Look at successful Living Labs, companies like Proctor & Gamble that have been very successful with user involvement product development

## BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY

*Focus on existing industry (like financial sector, logistics) to build up test beds around new technologies*

- Luxembourg should create a smart specialization strategy connected to focus areas based on existing strong industry but also on where the biggest opportunities are. A deeper study on existing strengths and how they could be combined with mobile technology in order to reach excellence should be conducted.

*Identify those mobile actors that could be interested in the Large Scale Demonstrators (LSD) and do strategic market activities towards them*

- do targeted marketing towards a few actors, preferably those that can relate to already existing actors in Luxembourg for instance Amazon.

### Open Data

*Change regulations around data use in order to make it possible to Open up databases*

- legislation creates problems in opening up databases and Open data is a key factor to excellence in for instance building test beds and improving mobile use. Public data that is not connected to individuals should be made public.

*Investigate possibilities to use Open Data in order to refine datacentre products/services*

- with the development of Big Data, open databases are key in order to use data to build new services. Luxembourg should do a study on what data that can be made public and what possibilities it creates.

*National Open Data Portal - Open public databases in order to drive service innovation around for instance public transport*

- one of the easiest ways to start testing open data solutions is to open up databases around public transport allowing SME's to test new mobile services around travel, tourism and logistics.

*Benchmark towards for instance Helsinki, who has made all public data available that is possible*

- strong political leadership in combination with an active industry made Helsinki to take the step to make public data Open in 2010. There are for sure lessons to learn from this.

*Produce an open data policy as a steering document in order to drive innovation (cf PSI directive)*

## BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY

### Capacity building

*Build vocational training concepts directed towards ICT sector, in collaboration with the businesses*

- the Swedish system with vocation training performed by mostly private companies has generated a totally new knowledge base for the ICT sector especially producing developers that the industry is missing.

*Develop insight training for public officials*

- since the public sector is an important first customer for a SME, public officials needs to get insights in new technologies and how to buy innovation. (link with public procurement – PCP, PPI)

*Start investigating how the educational system can be improved when it comes for instance to language barriers*

- there are obstacles in the Luxembourg educational system, for instance the demand for skills in both French and German that creates a problem for those who are potential entrepreneurs or developers but can't get into the higher education due to language. The system needs to be revised and changed in order to find those talents that currently probably move to other countries.

### Knowledge sharing

*Create platforms for knowledge sharing, not only virtual but also physical meeting places*

- since Luxembourg is a small country the individuals working in the innovation system know each other well. But the system needs input from the outside, today it is influenced from the same group of people. In order to move forward new meeting places need to be created that improve knowledge sharing also between for instance academia and industry.

*Create a systematic approach regarding smart specialization within for instance m-health, e-commerce, financial services etc*

- a study should be made that ranks the strengths of Luxembourg and that can be a foundation for a smart specialization strategy. Topics that probably would be included in such a strategy are m-health, e-commerce and financial services.

*Build collaborations with the creative sector in order to create events where different sectors meet.*

- today there are a lot of events and things happening in Luxembourg, but most of them are concentrated to a certain sector. Luxinnovation should start working with more cross sector activities in order to improve the innovative climate (like cross cluster activities). Also the creative sector should be a part of this. The breakfast @Impactory is an initiative that could be developed further.

## BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY

### Infrastructure

*Provide free wifi in central Luxembourg in order to drive mobile service innovation*

- with the test bed ambitions that Luxembourg has, access to free public wifi is a key issue especially since many of the individuals that are moving around in Luxembourg have a Telecom operator from another country which means that they don't use different mobile services. The success of for instance Estonia is much made by free public wifi in central places in the larger cities. Moreover, a dense free wifi hotspot network could enable a high variety of Location Based Services and Intelligent Transportation Systems for moving vehicles.

*e-commerce possibilities*

- E-commerce in Luxembourg could be improved, preferably in collaboration with the already existing actors like Amazon. There should be a public policy document regarding how the public sector can act when working with e-commerce regarding for instance public tender processes.

### Technology transfer

*Engage external expertise in order to improve technology transfer between universities and business*

- Put some pressure on the academic system in order to force them to work more intensively with Technology transfer through the Tech transfer offices. The office should create a system with external experts that more actively could look for research that could be taken out of university and transferred to an SME or creating a start up / spin-off. In this sense also take more advantage of the easy access to Enterprise Europe Network and other relevant EU-funded networks.

*Build concepts around sharing research with industry, benchmark towards for in-stance Stanford in order to see how excellent tech transfer solutions work*

- create incentives for industry to take part in research studies on an earlier stage in parallel with the opportunities SME's gets from EU funding.

*Engage industry in a much earlier stage when it comes to public research in order to see commercial benefits*

- build a system with industrial mentors that gets insights in on-going research projects at the universities in order to identify commercial possibilities on an early stage. The existing partnership programmes are good, but can after a brief study be improved and more business focused.

## BUILDING A MOBILE AND MOBILE SERVICE INDUSTRY

### Collaboration

*Create policies around collaboration with neighbour states and key actors in order to improve quality of knowledge*

- start regular meetings with cities close to Luxembourg in order to collaborate around for instant access to talent in addition to the already existing regular meetings with Adem. The university collaboration that already exists with universities close to Luxembourg is good, but can be improved and extended.

*Be strategic on how to choose collaborative partners for research, for instance universities to collaborate with*

- most often university collaboration is created randomly. There should be a public policy document around what universities that are interesting to collaborate with regarding research and commercialisation. This should be a strategic discussion between organisations as Luxinnovation, FNR, the university, research centers and the public policy makers.