Case Study Report: Tallinn Area and its Regional Hinterland

Imre Mürk

GRINCOH WP 6 Task 6

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Introduction

This technical report has been prepared as a part of a study on the metropolisation process in different capital city regions in Central and Eastern European countries, which was co-ordinated by Maciej Smętkowski, Centre for European Regional and Local Studies, University of Warsaw.

Part 1: Metropolitan Region and its Constituents

1.1. What is the spatial range of the metropolitan centre’s (city’s) influence on its surrounding area?

Administrative unit of Tallinn metropolitan area in Estonia is Harju County. Harju county is the biggest of the 15 counties of Estonia, situated in Northern Estonia, on the southern coast of the Gulf of Finland and consist of 6 town and 19 rural municipalities in the Harju County. The major city Tallinn is most important for the county as well as rest of the Estonia. Besides the tourists and holidaymakers it brings together most of the business activity, higher standards of living compared to other regions of Estonia and gives jobs to many people in Harju County. Tallinn, the capital and largest city of Estonia, constitutes about 71% of the Harju County’s population. According to municipal register, Tallinn has 430 290 inhabitants.

The primary spatial range of the city of Tallinn is Harju County (4333,13 km²). Harju County has 555,566 inhabitants, constituting 43.2% of the total population and generating 60% of GDP of Estonia (Statistical Office of Estonia).

However there are several geo-positioning surveys done recently in Estonia (based on everyday mobility of the people. The main criteria to determine suburban zone and functional urban area in those studies is that at least 15 percent of inhabitants are daily working in the city of Tallinn. Based on that definition it can be concluded that wider spatial range of influence of Tallinn metropolitan area is stretching almost all over the country (NUTS 2 region). This can be illustrated through daily mobility of people during daily working time from the place of residence to work (Figure 1).

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1 Statistical Office of Estonia, 2013
2 http://www.tallinn.ee/est/Tallinna-elanike-arv
3 Day to day commuting survey - pendelrände kordusuuring (Siseministeerium 2013). University of Tartu, Department of Geography, http://mobilitylab.ut.ee
4 Ahas, R. 2006. Tallinna tagamaa uusasunike elanike käitumise analüüs.
Figure 1. Main regional centres as destinations of biggest relative importance of spatial mobility during daily working time from residence to the place of work in Estonia.

1.2. Is there a commonly accepted delimitation of the city’s metropolitan area and what are its criteria?

Delimitation of the metropolitan area (city & suburban zone – functional urban area) is not officially defined, although recognition of the necessity for definition and agreement between city of Tallinn and surrounding municipalities for delimitation of city’s metropolitan area is growing with time (Vitsut, T.).

However, taking into consideration the labour market daily mobility area and the ½ h range and daily capacity of the commuting transport system, the metropolitan area includes County of Harju and partly County of Rapla.

Since 1991 there are many new mono-functional private residence dwellings built in suburbs close to the city of Tallinn. As administrative units they remain, however, under the local administrative districts. There are 6 towns and 19 rural municipalities in the Harju County and the main metropolitan spatial area is informally formed by municipalities inside of 20 km perimeter city of Tallinn (Figure 2).

Source: Day to day commuting survey - pendelrände kordusuuring⁵ (Siseministeerium 2013). University of Tartu, Department of Geography, http://mobilitylab.ut.ee

⁵ https://www.siseministeerium.ee/public/Pendelrnde_kordusuuring.pdf
Political weakness is that Estonia has too many local institution of local governing (in year 2013 there 
was 215 local governing units). Half of them have less than 2000 inhabitants. At the same time local 
municipalities are highly dependent on centrally governed EU structural fund investments and they 
have weak management and investment capability.

The Ministry of Interior of Estonia has taken an initiative to define local gravity centers\(^6\) to stimulate 
merger of local municipalities the Union of Harju County Municipalities\(^7\) has in addition to Tallinn 
defined 16 regional centers of gravity \(^8\) \(^9\). Main aim of this initiative is to prepare the regional 
governance reform which is planned to diminish the number of local municipalities through the 
merger process.

According to the survey\(^10\) a delimitation of the metropolitan area of Tallinn (Harju County) includes 
four distinctive levels: 1) city of Tallinn (urban area), 2) sub-urban areas (9 regional centres of gravity 
in the county of Harju county)\(^11\), 3) Historical hinterland\(^12\), 4) Hinterland with significant 
development gap\(^13\). It is based on criteria of regional centres of gravity, defined by Ministry of Interior\(^14\) (Table 1).

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\(^6\) Centre of gravity is defined as urban area which is the main object of everyday commuting of the people 

\(^7\) www.hol.ee

\(^8\) Jüri, Kehra, Keila, Kiili, Kose, Kuusalu, Loksa, Loo, Maardu, Padise-Rummu-Vasalemma; Paldiski, Riisipere-

Turba, Saku, Saue, Tabasalu, Tallinn, Viimsi-Haabneeme.

\(^9\) based on survey of Hendriksen&Ko 2013

\(^10\) Description of Harju county Gravity Centers, Harju maakonna tömbekeskuste määratlemine, Hendricson&co, 2013

\(^11\) Tabasalu alevik, Keila linn, Saue linn, Sakala alevik, Kiili alevik, Jüri alevik, Loo alevik, Maardu linn,Viimsi/Haabneeme, (total number of units -9)

\(^12\) Loksa linn, Kiiu ja Kuusalu (koos), Kehra linn, Kose alevik ning Paldiski linn (kokku 5)

\(^13\) Padise-Rummu-Vasalemma ning Turba-Riisipere
### Table 1: Main criteria for regional centres of gravity (Ministry of Interior, 2013)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of inhabitants in the regional centre</td>
<td>1000 inhabitants as minimum</td>
</tr>
<tr>
<td>Number of inhabitants of hinterland (daily activity space)</td>
<td>5000 inhabitants as minimum</td>
</tr>
<tr>
<td>Range of daily activity space of the main destination</td>
<td>30 minutes of car drive</td>
</tr>
<tr>
<td>Functionality of the regional centre</td>
<td>Main location of workplaces; main location of educational establishment and other public services (libraries, social, health, security, leisure, sports)</td>
</tr>
</tbody>
</table>

Source: Instruction to define regional centre of gravity for local municipalities (Ministry of Interior, 2013)

1.3. Does the dominant city have an administrative or statistical counterpart reflecting the area of its influences (metropolitan macro-region)?

Tallinn is a municipality in its own right, but it is no corresponding NUTS 3 region. Statistics Estonia does not publish normally statistical data specifically on Tallinn. Some data is still available certain areas of interest.

1.4. Does the existing administrative division on the regional level (NUTS2) and sub-regional level (NUTS3) correspond to the city’s influence areas, i.e.: a) the metropolitan area, b) the metropolitan region?

Whole territory of Estonia corresponds both to NUTS 1 and NUTS 2 and can be considered to some extent to be a regional hinterland of Tallinn (macro region with dominant impact of the capital city). Metropolitan area of Tallinn corresponds roughly to NUTS 3 and matches with administrative territory of Harju County.

### Part 2: Strengths and Weaknesses of the Metropolis and the Region

2.1. What are the most important strengths and weaknesses of the metropolitan area?

**Strengths**

*Location*

Tallinn is geographically well located to be a gateway harbour on east-west transit. It is one of the shortest transit corridors between European Union and Russia. There is regular passenger traffic between Tallinn and Helsinki, Stockholm, and Kiel. Goods are mainly transported through Muuga Harbour near Tallinn, which is also important as a transit point to and from Russia.

*Tourism*

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14 Guidelines for defining regional centres of gravity for local municipalities (Ministry of Interior, 2013) - Juhend tömbeskeskuste määratlemiseks, SiM
Tallinn is very attractive tourism destination in Baltic Sea region, hosting ca. 1.5 million overnight visits per year, mostly because of the well preserved medieval time old town and excellent access from sea.

**Business services**

Tallinn is main financial services center of Baltic States, whereas Nordic banks dominate Estonian as well as Latvian and Lithuanian banking systems. Main elements of infrastructure such like harbours, shipping terminals, airport, industrial areas, railway and main city lanes are quite well developed. Tallinn is the center of Estonian business activity (60% of GDP) and has received biggest share of foreign direct investments (proximately 80%) after the re-establishing independence of Estonia since the beginning of nineties. High quality of math and science education is one of Estonia’s strengths.

**ICT**

Important feature of economic development of Tallinn has been ICT based productivity growth. Within the Soviet bloc, Estonia was assigned the task of conducting advanced electronic and software research (which was applied mainly in military weapon development and manufacturing). This technological heritage is a key factor in explaining the Estonians receptiveness to advances technology. For example 54% of Estonians use their mobile telephones for other purposes than calling, such as for Internet, m-payment or parking. 78% of Estonian residents aged 16–74 used the computer and the Internet in the 2012.

Estonia has a well-developed Internet infrastructure. However Estonia has no lead market advantage in terms of access to Internet. The percentage of households who have Internet access at home remains in Estonia lower than Finland or Sweden (Figure 3).

**Figure 3:** Percentage of households who have Internet access at home. All forms of Internet use are included. The population considered is aged 16 to 74.


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15 Statistics Estonia, 2013
18 Statistics Estonia 2014. website
Weaknesses

The most dominant weaknesses of metropolitan area are: relatively small labour pool and lack of skilled labour, diminishing attractiveness to foreign investors, relatively high rate of crime compared to Helsinki (especially rate of physical abuse crimes), underdeveloped seashore area in the city if Tallinn as a legacy of soviet time and lack of control over the premises near harbour area (harbour territories are state property), underdeveloped housing stock in terms of new living space, high estate prices compared to the hinterland because of fast inflow of foreign capital and relatively high number of people belong to social risk groups.

There is significant human resources gap in creating knowledge and science based economy. For example, compared to Finland, the number of Estonia’s HRST (Human Resources in Science and Technology – occupation) is smaller by five times. In year 2012 total number of HRST in Estonia was 205 000 compared 972 000 in Finland.

Insufficient quality of management and business schools is remarkable (48th place in WEF’s 2012/2013 ranking). Poor business sophistication is linked to weak local co-operation networks and entrepreneurship clusters; foreign enterprises prefer innovation co-operation within the corporation.

2.2. What factors have been the most important in development of metropolitan area in recent years?

Demographics

Urbanization and internal migration of people from rural hinterland areas to suburban areas of two largest cities (Tallinn and Tartu) is a trend in Estonia during last two decades.

However, it has not significantly influenced total number of inhabitants in Tallinn but rather (because of fast growth of suburban area) the population of metropolitan area around the city of Tallinn. During period 2004-2009 the population of metropolitan area Harju County has increased ca 6%. During the same period population other 14 counties of Estonia diminished on average 5%.

Metropolitan area is influenced by strong trend of emigration (mainly to Finland), which increased after the 2008 crisis. Almost 0,9% on total population (10,746 persons) emigrated from Estonia in 2013 and net migration was –6,661.

Policies

Partly because of public transport solidarity reform since 2012 by Tallinn city government, which covers total expenses of public transport form city budget and offers free transport service for all citizens of Tallinn, the registered official number of inhabitants of Tallinn has increased significantly. In 2012 Tallinn had 394 311 residents and in January 2013 already 430 290 inhabitants, according to Tallinn municipal register.

19 SWOT analysis. City of Tallinn web http://www.tallinn.ee/est/g739s1671
20 Eurostat 2013, webpage, Human Resources in Science and Technology – Occupation 2012
22 Statistics Estonia
24 http://www.tallinn.ee/est/Tallinna-elanike-arv
**Structural funds**

In the period of 2007-2013 more than 3.40 billion euros were allocated for Estonia from the structural assistance. There resources have been channelled to a number of different fields including energy efficiency, entrepreneurship, administrative capability, education, information society, environment protection, regional and local development, research and development activities, healthcare and welfare, transportation and labour market.

Structural assistance has had strong impact on infrastructure development if city of Tallinn. Total amount of projects funded by city government during the period 2007-2013 through external sources is 26625.

Tallinn and its regional area Harju County received biggest total sum of structural funds compared to other regions of Estonia. However divided per capita the figure is rather modest compared to other regions in Estonia. Biggest infrastructure investments of Tallinn city were reconstruction of tramlines and main traffic junction Ülemiste.

**Export**

One in ten enterprises in Estonia is engaged in the export of goods. Export enterprises are highly important development factor of Estonia, mainly because of small home market. Export provides jobs for every fourth person in the working-age population of Estonia and the export turnover of Harju County accounted for approximately two thirds of Estonian total exports. Table 2 gives an overview of export enterprises among economically active companies by counties.

**Table 2**: The distribution of Estonian export enterprises by counties

<table>
<thead>
<tr>
<th>County</th>
<th>Number of persons employed in export enterprises</th>
<th>Number of working-age population (15–64-year-olds), 1.01.2013</th>
<th>Share of employees of export enterprises in the working-age population, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kogu Eastli</td>
<td>231 527</td>
<td>852 768</td>
<td>27.2</td>
</tr>
<tr>
<td>Whole country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harju</td>
<td>147 901</td>
<td>376 781</td>
<td>39.3</td>
</tr>
<tr>
<td>Hiilu</td>
<td>704</td>
<td>5 558</td>
<td>12.7</td>
</tr>
<tr>
<td>Ida-Viru</td>
<td>11 047</td>
<td>96 955</td>
<td>11.4</td>
</tr>
<tr>
<td>Järva</td>
<td>3 600</td>
<td>19 169</td>
<td>18.8</td>
</tr>
<tr>
<td>Jõgeva</td>
<td>1 735</td>
<td>19 392</td>
<td>8.9</td>
</tr>
<tr>
<td>Lääne</td>
<td>2 119</td>
<td>15 336</td>
<td>13.8</td>
</tr>
<tr>
<td>Lääne-Viru</td>
<td>6 729</td>
<td>38 055</td>
<td>17.7</td>
</tr>
<tr>
<td>Pärnu</td>
<td>8 613</td>
<td>51 826</td>
<td>16.6</td>
</tr>
<tr>
<td>Põlva</td>
<td>1 779</td>
<td>17 282</td>
<td>10.3</td>
</tr>
<tr>
<td>Rapla</td>
<td>2 336</td>
<td>22 366</td>
<td>10.4</td>
</tr>
<tr>
<td>Saare</td>
<td>3 694</td>
<td>19 944</td>
<td>18.5</td>
</tr>
<tr>
<td>Tartu</td>
<td>21 475</td>
<td>100 919</td>
<td>21.3</td>
</tr>
<tr>
<td>Vaigla</td>
<td>3 178</td>
<td>18 392</td>
<td>17.3</td>
</tr>
<tr>
<td>Viljandi</td>
<td>8 078</td>
<td>29 817</td>
<td>17.0</td>
</tr>
<tr>
<td>Võru</td>
<td>2 887</td>
<td>20 976</td>
<td>13.8</td>
</tr>
</tbody>
</table>


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25 List of finished project in city of Tallinn, funded by external funds, http://vpa.tallinn.ee/index.php?sort_tulp_index=3&sort_suund_index=0&SESSION_TALLINNA_VPA=5b45670e7b6db6075bb45f71a54d7676#
2.3. What are the most important strengths and weaknesses of the regional hinterland?

**Strengths**

One of the strengths of regional hinterland is living quality (“green aspect”). There are many people who value the Estonia’s natural and dispersed living environment very highly. Regional hinterland is attractive living area for elderly people who are leaving labour market and looking for peaceful aging (Raagmaa, G.).

Education. The quality of secondary education is relatively equal and quite high in regional hinterland. According to OECD Pisa test\(^{26}\) results Estonian pupils rank eleventh in the world in math and reading skills, and tie for fourth to seventh place in natural sciences.

Large investments into vocational training centers in regional hinterland since 2008 (96 447 865 EUR) has improved attractiveness of vocational training among young population\(^ {27} \).

Natural resources. One of the strengths of regional hinterland is access to wood as renewable natural resource; proximately 60% of Estonia is covered with forest. The forest and wood cluster is an important part of the Estonian economy. Wood, paper and furniture industry together provide more than 20% of the total production and value added of manufacturing industry in Estonia\(^ {28} \).

The main source of electricity production and therefore important natural resource for whole Estonia, especially for North-East Estonia is oil share (Figure 4).

**Figure 4:** Extraction of mineral resources, 2010

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\(^{27}\) https://www.riigiteataja.ee/aktilisa/3140/2201/1004/VV_10022011_k49_lisa.pdf

\(^{28}\) Eesti metsa- ja puidutööstuse uuring, 2012
Weaknesses

Hinterlands main economic weaknesses are: lack of entrepreneurial leadership, lack of new jobs and lack of critical mass of qualified labour force. „People with ambitions just don’t see perspective and are leaving hinterland“ (Valner, S).

During last two decades economic structural change has diminished the number of jobs in plant-/stockbreeding and supporting services in rural areas almost tenfold. At the same time most of the new jobs created in services and industries were located in metropolitan area (Tallinn) and in second largest city (Tartu).

2.4. What factors have been the most important in development of regional hinterland in recent years?

In recent years the most important factor of development in regional hinterland has been state infrastructure investments into water treatment, roads, environment, communications, public services (schools, cultural centers) funded by EU structural funds (Table 6). However the amount of investments and its impact on increase of living standards remains rather low. For example it has not stopped the emigration of labour force from hinterland. „There is stagnation effect in hinterland rather than development, even slow degeneration“ (Valner, S).

Fast technological improvements in forestry and farming has increased productivity and competitiveness of entrepreneurs in rural area of hinterland but at the same time adaption of new technologies and better management diminished employment on those sectors almost 50%. (Figure 5).

Figure 5: Employment, revenue and turnover of agricultural-, forestry and hunting sectors in Estonia 1995-2995.


2.5. Whether the example of successful local development regional hinterland may be indicated?

Case study of Emmaste

One of the outstanding cases of significant development in a hinterland region after the 2008 crisis is Emmaste Township, located on the peripheral isle of Hiiumaa. Despite the fact that Emmaste with its 1046 residents is defined as peripheral risk area, it is has achieved recently top ranking in category “Under 2000 residents” measured by local governance capacity index behalf of Ministry of Interior.

One of the strengths of Emmaste is well functioning local community life. For example, despite its smallness there are eight local NGO-s located in Emmaste. Including: museums, brass band, local yacht club, social work center etc. For example, after the ministry of interior affairs has closed local fire-rescue unit, voluntary fire-brigade team was established based on local community initiative and local rescue appliance is handled voluntary bases.

A small scale industrial production and export is a key driver of local development. Emmaste has experienced significant entrepreneurial sophistication through the developing of small scale production cluster of plastic products (subcontracting, lamps, plastic cards, plastic bags, HME Filters for use during general anaesthesia and respiratory care). Emmaste is also known for its green- and fish farming, maritime services and tourism.

Most significant achievement is the context of hinterland development trends is the increase of salaries in local labour market. Average monthly income before tax of people on age of 50-62 has increased from 900 EUR in 2008 to 950 EUR in year 2012. This is even slightly higher than Estonian average monthly income, which was 887 EUR in year 2012.

At the same time the average township budget has been 1.4-1.6 million EUR per year, whole public governance staff consists of 8 people and governance expenditures are around 5% of local public budget.

The main priority of Emmaste Township has been good management and administration of EU structural fund projects available for local governments. During last four years Emmaste absorbed 2, 7 million EUR of structural fund regional development investments. Main objects of investments have been: local youth club, Centre of elderly and social care, sewage treatment system, heating systems and renovation of kindergarten and local elementary school together with sport hall.

It can be concluded that important elements of regional hinterland development is well functioning local community, visionary and ambitious head of local Township, public management capacity and locally thinking and producing but regionally selling SME-s.

2.6. Are there large differences between the metropolitan area and regional hinterland regarding the following aspects: a) economic, a) social?

One of the main differences between the metropolitan area and regional hinterland is the gap of business activity. County of Harju County surpasses regional hinterland in terms on total number and the pace of increase of active businesses (Figure 6).

31 Statistica Estonia, 2013 website
32 Article, Tit Peedu, Hiiuelu, sept, 2013
33 Statistics, Estonia, 2013 website
There is quite big gap in average income between hinterland and metropolitan area. For example, the monthly income of employed in Harju County is on average 1001 EUR, but in Võru County which is located proximately 250 km from metropolis, average monthly gross salary is 654 EUR (Tabe 7).
Larger social differences can be found if to compare the share of people living in relative poverty (according to the World Bank methodology). There is an almost sevenfold difference between the at-risk-of-poverty rates of local governments in Estonia. In metropolitan area only 6% of residents lived in relative poverty in 2011, while the share of the relatively poor was over 40% in regional hinterland: for example in Kallaste city and in Alatskivi and Peipsiääre rural municipalities. Among local governments, at-risk-of-poverty rate was the highest in remote areas near the border and the lowest in the local governments of Harju County. The ten areas with the lowest poverty rate are all located in Harju County (at-risk-of-poverty rate below 9.5%). However, Harju County also includes Vasalemma rural municipality (prison area) where the poverty rate (34.7%) is one of the highest in Estonia. The remaining local governments with a very high poverty rate are located in areas by the border in Eastern and Southern Estonia (at-risk-of-poverty rate over 30%).  

**Figure 8:** At-risk-of-poverty rate (%) in local governments, 2011

Estonian economy is very open and therefore vulnerable to external economic shocks. From that perspective hinterland has an important stabilizing function because it is economically more resilient to global shocks. Housing and construction boom in urban areas lifted up real estate prices together with debt burdens and expectations of increasing incomes. Therefore fast adaptation of economy meant in many cases fast decrease of jobs in urban area. It is interesting to notice that rural area has been more stable in terms of fluctuations in number of jobs and unemployment rate. During the crisis, since 2008 the metropolitan urban area had significantly faster increase of unemployment in absolute numbers (Figure 9).

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Figure 9: Unemployed persons in urban and rural area

Source: Statistics Estonia, 2013, authors calculations.

Big diversity of social groups (deprived social groups together with successful ones) in rural hinterland can be viewed as the consequence of fast liberal free market reforms in Estonia since beginning of nineties (privatization, free enterprise, opening to foreign capital, market base economy). Many people just did not acclimatized but continued to live in the same areas despite the fact that most of the jobs where gone from rural areas together with old soviet economic system (collective farming etc). More active and entrepreneurial people at the same time were more agile and mobile and adjusted their location according to economic development.

“More entrepreneurial and younger people just followed the jobs; older and more conservative natives stayed and waited, what will happen”, (Valner, S).

2.7. Have the metropolis and its surrounding region become homogenous in respect of: a) economic structure b) social structure?

There seems to appear no trend which would indicate homogenous development aspects of metropolis and its surrounding region in Estonia in respect of economic or social structure. Quite convincing indicator of rather asymmetrical development is the figures of industrial production. Harju County is performing by far better than any other region during last decade (Figure 10).
Asymmetry of development can be indicated through the comparison of unemployment rates by counties. Differences in unemployment rate are more than twofold compared to metropolitan area and its hinterland. See Figure 11.

**Figure 10:** Industrial production by county, million euros, 1995-2007

**Figure 11:** Registered unemployment rate, 2011 %.
2.8. Is it possible to show a relationship between strengths and weaknesses of the metropolitan area and the metropolitan region?

Spatial segregation of population by age can be viewed as strengths or weaknesses in terms of economic competitiveness of the regions. Emigration of younger population from hinterland to metropolitan area is making Tallinn more attractive to employers and it is clear strength for metropolitan area.

There is trend that older people are moving out from metropolitan area to small urban regions. It is reflecting the differences of people`s needs during different phases of their lives. There are many elderly people who evaluate highly natural and dispersed living environment. As there are young people who are attracted by city lights, which is beneficial to economically more active metropolitan area because of instant inflow of labour force. Metropolitan region attracts more young people who are looking for career opportunities and intensive cultural life.

However, regional hinterland is for different reasons quite attractive living area for many elderly people who are left labour market and looking for peaceful aging. It can be illustrated by segregation of population by age groups (Figure 12).

**Figure 12:** Share of elderly population by local government units, 2012

![Map showing share of elderly population by local government units, 1.01.2012](image)

Source: Statistics Estonia, 2013 website

PART 3. Relationship between the metropolis and the region

3.1. What are the most important examples of links between the metropolis and its surrounding region? What are the most important examples of the positive influence of the metropolis on its surrounding region? What are the most important examples of the negative impact of the metropolis on its surrounding region?

Main links between the metropolis and its surrounding region are created through daily and weekly commuting to work. It is interesting to notice that commuting of men between metropolis and surrounding region is more extensive (Figure 10).
3.2. What are the changes in regional settlement system and its drivers?

Main trend in regional settlement system in recent years is urban sprawling and increase of suburban dwellings near metropolis city of Tallinn and second largest city of Tartu. Main driver behind it has been improved quality of life and better incomes of the people working in the cities, which has allowed them to look for more convenient living environment to raise family. This can be illustrated by change of population 2006-2010 when suburban areas have been winners (Figure 13).
3.3. What are the changes in regional production system and its drivers?

Industrial and service sector businesses in Tallinn and Harju County are the main drivers or regional production system and it is likely that they will increase their share in the future (See Figure 15 and Figure 16).

The GDP per capita is one of the main indicators in this field as it describes a country’s level of economic development and level of revenues earned by private sector. The large variability of this indicator between regions is a major problem for Estonia. Regional policy and development of smaller counties and regions are often the topic of discussion in Estonia, but no good results are detectable in statistics. The distribution of GDP between the counties, as shown in Figure 11, indicates that only Harju (2.2 percentage points), Tartu (1.6 percentage points) and Saare (0.2 percentage points) counties have increased their share in the Estonian GDP over the past ten years. All other counties have lost out, especially to Harju County. It is possible that the share of Tallinn continues to increase, but it is more likely that it will be overtaken by Harju County as both people and enterprises move to the vicinity of Tallinn. This is also evident in the change of 2009–2010 when the share of Tallinn decreased while that of the rest of Harju County increased. In 2010, Harju County contributed 59.7% of the Estonian GDP, which is a very large share and poses major challenges for regional policy.
Concentration of business activity and growth of GDP of Harju county has significant impact on creation of new jobs. In recent years the metropolitan region has been main source of new jobs as can be seen in Figure 16.
“There is a trend that industrial production facilities are moving from city to metropolitan areas and old facilities in the cities are rebuilt as housing and business services,” (Leetmaa, K.)

3.4. What are the labour commuting pattern at regional level and its drivers?

During Soviet time Estonia enjoyed development of rural area because of large scale state investments and subsidizing rural areas. Many new jobs were created in agricultural sector in the country side (Leetmaa, K). After regaining independence economic structure changed significantly. Share of primary and secondary sector diminished and service sector increased rapidly in urban areas. The labour commuting pattern at regional level has shaped after this significantly. Many people became more mobile, distances between homes and work in increased. Nowadays 1/3 of people are daily commuting outside of their home municipality because of work or study (Figure 17).

**Figure 17:** Share of commuters between residence and place of work during working time, % of the population in the region.

Source: Regionaalse pendelände kordusuuring, Ahas, R. 2013

**Internal "Guest" workers**

One of the reasons why the inhabitants of the rural municipality or city do not work in their home rural municipality or city is a good opportunity to work in the neighbourhood where the choice of jobs is bigger and conditions better. Most jobs to "guest" workers are offered by Tallinn. 24% of the total number of persons employed or 45,000 employees do not live in Tallinn. In the second largest city Tartu proximately 27% of employees or 12,000 live outside Tartu\(^\text{35}\).

Working abroad

The labor migration inside Estonia has been quite numerous according to the data of the two last Population Censuses. A new trend compared to the previous Census is, the much larger number of persons working abroad (especially in Finland). Their share grew from 0.5% to 4.4%. About 25,000 persons employed living in Estonia work abroad, i.e. move more or less regularly between Estonia and abroad\textsuperscript{36}.

Students

Students are another group that boost the number of commuters. About 27,000 students of general education schools attend a school outside of their home city or municipality – they should mostly be able to study close to home. The main destinations for study commuting are Tartu and Tallinn\textsuperscript{37}.

3.5. Are there examples of cooperation / competition of public administration actors within the metropolitan region? Which one dominates?

Local municipalities, especially around metropolitan area are highly competitive to increase the official number of residents in the municipality because the main source of income for local municipalities comes from personal income tax, declared by residents of municipality.

For example Jõelähtme local municipality is since 2006 organizing the lottery game between the people who are willing to register their residence to Jõelähtme municipality. Prize is a premise worth proximately 14 00 EUR. This is proximately the average amount of tax revenue, brought to municipal budget by one working resident during one year\textsuperscript{38}.

Lion share of EU structural funding, aimed to enhance regional development, is distributed through open call for tenders. This situation has increased competitive atmosphere between local authorities. It might be that competition has partly increased because of diminishing young population in regions local municipalities together with central government educational reform, which cuts down the number of schools. Local authorities have intense period because of preparation of administrative reform with aim to diminish the number of local authorities by Ministry of Interior. Ministry is ranking local authorities each year based on their viability index and quality of public services.

Most common form of cooperation for small municipalities is joint call for tender to compile development plan for the region. Those small authorities who don’t have their own high school, nursing home, garbage disposal and waste management or public transport are quite often buying those services from neighbouring local authority. However, counties activity in cooperating is assessed as significantly lower compared to Nordic countries\textsuperscript{39}.

In each county of Estonia there is 1 regional association of local authorities (Total 15). Main activities of regional association of local authorities are: drafting of regional development documents, funding of joint county level cultural events, funding of County Development Centers and coordination and communication with neighbouring authorities.

Local municipalities have state level cooperation platforms - Association of Municipalities of Estonia and The Association of Estonian Cities. They are voluntary unions established for representing the

common interests and arranging co-operation of cities and rural municipalities. Together these two assignations have formed joint platform of cooperation “Omavalitsuste Koostöökogu”.

However, the relationship and cooperation between associations and central government is rather weak. “Central government is continuously ignoring the proposals of Association of Municipalities of Estonia”, (Vitsut, T.).

PART 4. Governance and local/regional development policies

4.1. Whether local/regional policies have significant impact on metropolis-region relationship? If, yes which one? Please indicate the most effective and efficient policies.

Policy making is in Estonia quite centralized. For example 80% of income of local authorities is regulated and coming through central tax system. There seems to be insignificant or very weak impact of local/regional policies on metropolis-region relationship in Estonia.

However, after the public transport solidarity reform since 2012 by Tallinn city government, which covers total expenses of public transport form city budget and offers free transport service for all citizens of Tallinn, the registered official number of inhabitants of Tallinn has increased significantly. It has negative impact on local authorities in regions; they are losing their residents.

4.2. What actions are taken in order to increase the positive influence of the metropolitan centre on its surrounding region?

There is no political program or government action plan which is directly aiming positive influence of the metropolitan center on its surrounding region. However, most influential investments which probably increased positive influence of metropolitan center on its surrounding region are central government large infrastructure investments like reconstruction of main highways, roads, railway and acquisition of new trains.

Government investments into regional tourism objects is also emphasizing strategic link with metropolitan area and its surrounding region through the aim to provide extra value and convince tourists who are visiting Tallinn to spend time in surrounding region.

4.3. What actions are taken in order to limit the negative impact of the metropolitan area on its surrounding region?

Biggest negative impact of metropolitan area on its surrounding region is draining of working age population from other regions to metropolitan area.

The regional policy measures to limit negative impact of metropolitan area are supporting the increase of quality of public services in regions. Mainly through funding projects like: renovation of schools, kindergartens, improving safety of traffic, quality if street lights, business infrastructure like industrial parks, improving economy of heating and communal systems. (Sepp, E.).

4.4. Are the actions of various actors coordinated within: a) the metropolitan area b) the metropolitan macro region?

The main coordinating body of various actors (alliance of 24 Harju County local authority units) is Union of Harju County Municipalities\textsuperscript{40}, which main aim of coordination is: partnership, lobby and communication of the interest of members inside and outside of Estonia.

\textsuperscript{40} http://www.hol.ee/
In order to coordinate the regional policies planning and implementing and to get feedback from the local level, the regional development unit of Ministry of Interior has established a roundtable of city and rural municipality’s development experts (20 members), who are appointed by local authorities, (Sepp, E.)

To steer the regional urban development program (one of the main themes of regional development strategy), Ministry of Interior founded the steering board which consist the representatives of five larger cities of Estonia.

4.5. What is the role of authorities at regional level in co-ordination of development process in metropolitan region? Whether existing public authorities at this level are effective?

The role of authorities at regional level in co-ordination of development process in metropolitan region is rather symbolic. There is no evidence of coordinated policymaking together with regional authorities with aim to mould development process of metropolitan region. In many cases existing public authorities at regional level are not effective because of their smallness, lack of strategic development competence and human resources. Associations of regional authorities are legally private sector NGO-s and therefore weakly linked to public sector regional planning scheme. Central government institutions are not bounded with the ideas and proposals coming from regional authority’s associations (Tamm, V).

PART 5. External interventions: national and EU policies

5.1. Which type of external interventions have had the most significant impact on metropolis-region relationship?

“It is hard to mention any external intervention with that specific impact. Perhaps the European Union structural funds, allocated for regional development and subsidies for agricultural sector has modest impact on metropolis-region relationship by improving life quality in regions and soften emigration from rural areas”, (Sepp, E.).

However, the impact of structural fund on metropolis-region relationship can hardly be significant pointer of balance because in 2007-2013, only 388 million euros have been allocated with specific aim for regional development from the European Regional Development Fund. It is accounting for 11 % of the total structural assistance allocated for Estonia. Total amount of structural funds for period 2007-2013 was 3.4 billion EUR and has distributed quite evenly between the metropolitan area and regions.

Structural funds are important part (proximately 18%) on state annual budget. Therefore EU structural funds have rather low impact on changes in region-metropolis relationship. Regions have no direct access to the structural funds, they can apply to measures, planned by central government and distributed by government agencies.

However, because its magnitude the inflow of foreign direct investments has far more significant impact on development of Estonia and metropolis area has benefited from that the most. The stock of foreign direct investments in Estonia has increased since 2004 more than twofold. In 2004 it was 7 billion euros, by year 2012 it reached already 14, 6 billion euros

Current regional policy in Estonia is mainly derived from European Union regional policy (Structural Funds). In general, Estonian regional policy is aimed at strengthening competitiveness in the regions

and has project-based approach. The policy has mainly focused on developing tourism in regions and localities. In regions some development agencies have joined with international projects and are planning some initiatives in this field. Nevertheless it is quite unsystematic and not an outstanding part of regional development\textsuperscript{42}.

**Operational program for living environment**

Total amount of regional development programming during the period 2007-2013 and managed by Ministry of the Interior under the operational program for living environment is 388 million EUR. Programming consists of six main measures: development of local public services, development of urban regions, competitiveness of regions, development of Cultural- and tourism objects, regional competence centers and Improving of internet connection.

Regional Competence Centers

“Development of six regional competence centers is probably one of the most influential regional policy measure to stimulate jobs creation”, (Sepp, E).

The measure for setting up competence centre is funded by the European Regional Development Fund. The budget in the EU budgeting period 2007-2013 is 19 million EUR plus the applicant’s own funding. The objective of the measure is to consolidate competence and resource related to research and development institutions in specific fields outside the counties of Harju and Tartu and, by setting up competence centers, to use it for developing knowledge industries.

Applicants are: research and development institutions (in particular, university colleges, research institutes), educational establishments (applied higher education institutions, vocational schools), local business associations and business representative organizations.

Government agency Enterprise Estonia approved following six projects: “Small Graft Engineering Competence Centre” and "Competence Centre for Knowledge-based Health Goods and Natural Products”. “Centre of Competence on Wood Processing and Furniture Manufacturing”, "Rakvere Smart House Competence Centre", "Centre of Excellence in Health Promotion and Rehabilitation" and "Oil Shale Competence Centre”\textsuperscript{43}.

**Human resource operational program**

Under the operational program of human resources the main target group is training and consulting of regionally active NGO-s. In 2012 total amount of support funded by EU structural funds was 490 000 EUR.

Domestic government funding aims proximately a dozen projects per year with total value of 8-10 million EUR per year. Most influential projects under that scheme have been investments to improve connectivity between smaller towns (bicycle roads), environmental infrastructure and safety of traffic\textsuperscript{44}.


\textsuperscript{43} Enterprise Estonia 2013, website

\textsuperscript{44} Ministry of Interior, 2013 website
5.2. Does the structure of external intervention address needs of a) metropolitan area b) regional hinterland?

External intervention

The role of external intervention to support the development of regional hinterland has increased since joining European Union. It can be illustrated by change of proportions in sources of funding of regional development (Figure 18).

**Figure 18:** Distribution of regional development funding by sources, 1994-2011

![Distribution of support by sources 1994-2011](image)


Regional development as vertical subfield received approximately 11% of structural funds. However, general structure of external intervention (main source: EU structural funds) during the period 2007-2013 does not distinguish the needs of metropolitan area and regional hinterland. It is rather focusing on three themes: human resources, living environment and economic environment and aims regional needs as one of twelve supported vertical sub-fields: education, energy economy, entrepreneurship and tourism, increasing the administrative capacity, labour market, information society, environmental protection, regional development, research and development, welfare and healthcare, transportation.

5.3. Does the outcome of Cohesion Policy implementation affect more economic competitiveness or social well-being? Is the outcome similar in metropolitan area and regional hinterland?

Main instruments of cohesion policy in Estonia are structural funds. Conclusion from Interim Evaluation 2007-2013 of Estonia is that structural funds have been used purposefully and have made an important contribution to Estonia’s economic development and strengthening competitive position. Progress has been made in the direction of achieving the set objective. For example the increase of R&D expenditures, which was one of the main priorities for government, has been significant (Figure 19). The nominal amount of total R&D expenditure rose by 18%, owing mostly to the increased contribution of the business sector. The costs of the non-profit sectors increased 6%.

However, most supported measures regionally are infrastructure objects (Table 3).

45 [http://www.struktuurifondid.ee/](http://www.struktuurifondid.ee/)

46 Strategic report and evaluations, presentation of Vahtra, Miryam; Ministry of Finance, State Budget Department, 13.11.2012
Table 3: Most supported fields regionally, County level 2007-2014

<table>
<thead>
<tr>
<th>County</th>
<th>Most supported field</th>
<th>Total amount of structural funds support 2004-20013 proximate (millions EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harju</td>
<td>Transport infrastructure</td>
<td>641</td>
</tr>
<tr>
<td>Tartu</td>
<td>Transport infrastructure</td>
<td>263</td>
</tr>
<tr>
<td>Ida-Viru</td>
<td>Infrastructure (Water management)</td>
<td>229</td>
</tr>
<tr>
<td>Pärnu</td>
<td>Infrastructure (Water management)</td>
<td>115</td>
</tr>
<tr>
<td>Lääne-Viru</td>
<td>Infrastructure (Water management)</td>
<td>78</td>
</tr>
<tr>
<td>Saaremaa</td>
<td>Transport infrastructure</td>
<td>26</td>
</tr>
<tr>
<td>Järva</td>
<td>Infrastructure (Water management)</td>
<td>46</td>
</tr>
<tr>
<td>Viljandi</td>
<td>Regional public services</td>
<td>39</td>
</tr>
<tr>
<td>Jõgeva</td>
<td>Infrastructure (Water management)</td>
<td>34</td>
</tr>
<tr>
<td>Valga</td>
<td>Infrastructure (Water management)</td>
<td>28</td>
</tr>
<tr>
<td>Võru</td>
<td>Infrastructure (Water management)</td>
<td>42</td>
</tr>
<tr>
<td>Läänemaa</td>
<td>Infrastructure (Water management)</td>
<td>25</td>
</tr>
<tr>
<td>Põlva</td>
<td>Regional public services</td>
<td>22</td>
</tr>
<tr>
<td>Rapla</td>
<td>Infrastructure (Water management)</td>
<td>25</td>
</tr>
<tr>
<td>Hiiu</td>
<td>Competitiveness of the region</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Authors calculations, based on data on the homepage of structural funds in Estonia 2014

Figure 19: Expenditure on research and development as % of GDP, 2007-2012

![Expenditure on research and development as % of GDP, 2007-2012](http://www.struktuurifondid.ee/struktuuritoetuse-kasutamise-statistika-regiooniti/)

Source: Statistics Estonia, 2013, website

However, the convergence of GDP with European 27 average and volume of export got hit during the economic crisis 2008 (Figure 20 and 21). If we compare Estonia with the most competitive economy in Baltic Sea region – Sweden - then it can be concluded that GDP gap between Estonia and Sweden has not diminished significantly during the period of cohesion policy (Figure 21).

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http://www.struktuurifondid.ee/struktuuritoetuse-kasutamise-statistika-regiooniti/
**Figure 20:** Growth of export and GDP 2004-2011

![Growth of export and GDP 2004-2011](image)

Source: impact of structural funds 2004-2013, Interim evaluation report

**Figure 21:** GDP per capita PPS of EU27 average

![GDP per capita PPS of EU27 average](image)


Because of structural problems with Estonian economy (most part of the industrial production is low value added subcontracting) it is obvious that in order to increase the value added, more R&D intensive business development must be enhanced. However, total amount of researchers in private sector, which is important indicator of knowledge based and competitive economy, has increased very modestly (Figure 22).
Structural funds might have helped to mitigate the negative impact of the economic crisis. But it did not hinder fast increase of unemployment, which was significantly higher than for example in Finland in the beginning of the economic crisis in 2008 (Figure 23).

In the government strategy for Growth and Jobs 2008-2011, the objectives were: company’s productivity per employee 80% from EU average; increase of research and development investment to 2% from GDP and increase of employment rate to 70, 5%. The outcomes of Cohesion Policy implementation probably might have some effect on the productivity growth per employee in Estonia (Figure 24).
Figure 24: Company’s productivity per employee, % of EU27 average, 2005-2011

Source: Ministry of Finance of Estonia, presentation 2013

At the same time, it can be judged that outcomes of cohesion policies did not stop the increase of labour emigration from Estonia (Figure 25).

Figure 25: Workers abroad, % of labour force

Source: Ministry of Finance of Estonia, presentation 2013

The share of population at risk of poverty or social exclusion has slightly diminished in Estonia since 25.9% (in 2005) to 23.4% (in 2012). However at county level the differences of share of people at

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48 Eurostat definition: Material deprivation covers indicators relating to economic strain and durables. Severely materially deprived persons have living conditions severely constrained by a lack of resources, they experience at least 4 out of 9 following deprivations items: cannot afford i) to pay rent or utility bills,
risk of poverty are very large. In metropolitan area proximately 6% of people are at risk of poverty or social exclusion. In some areas in hinterland the figure is over 40%. In Harju county at-risk-of-poverty rate is below 9.5%. The local governments with a very high poverty rate are located in areas by the border in Eastern and Southern Estonia. Risk-of-poverty rate is there over 30% (Figure 8).

In metropolitan area, the most important impact of cohesion policy has been the increase of economic competitiveness through investments on infrastructure: airport, public transport system, traffic overpasses. Cohesion policy impact on social well-being in metropolis region is rather weak.

5.4. Does external intervention properly coordinated in metropolitan region?

The external intervention in metropolitan region is coordinated and is strategically planned centrally by ministries. The real needs of local authorities are in many cases not taken into consideration. However, during the planning process all concerned parties are heard in the roundtable discussions, organized by ministry and government agencies officials. (Tamm, V., Vitsut, T.)

PART 6. Future prospects

6.1. Will the differences between the metropolis and the region increase or diminish? What is going to be the main driver of this process?

In near future, differences between the metropolis and the region will increase on the level of economic output in favour of metropolitan area. Movement of population towards metropolitan area will increase and there is no hope in near future that for example small scale mild farming and green economy would shift those trends. Main driver of growth will be technological improvements, which will diminish the need for labour (Ahas, R.).

However, disparities in incomes will diminish between the metropolis and region because the demographic structure in regions is stabilizing. The share on elderly people and social risk groups will diminish, causing average faster growth of incomes and life quality in regions compared to metropolis (Ahas, R.).

Largest risk groups, who had difficulties to adapt with fast and liberal reforms since regaining independence (such as fast privatization, restructuring of economy, land reforms etc) and did not left their historical homes, are now fast diminishing share of rural residents, mainly because of their age. Nowadays newcomers to hinterland already are adopted with new situation and can manage therefore their social and economic subsistence.

Fast change in economic structure (diminishing primary sector in rural areas and increase of tertiary sector in urban areas) caused large disproportions in job market and therefore movement of people but this process is stabilizing (Valner, S.).

Young newcomers to rural areas are bringing the rise of remote jobs with them. However it presumes earlier qualification, good education and urban network (Valner, S.).

Since 2005, the dynamics of relationship between regions and metropolitan area (Tallinn and Harju County) are stabilizing in terms of employment, mobility (because of jobs and education) and GDP per capita. However there is still significant gap.

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49 Statistics Estonia, 2014, website
“In near future, probably differences will be increasing because Tallinn has advantage of good connections globally which enables better incomes”, (Leetmaa, K.).

6.2. What are recommended future objectives (spheres) of national development policy regarding metropolis-region relationship?

Need for clear goals

There is need for more clear definition of what should be achieved regionally. There are no common long term development visions regionally. Therefore it is difficult to design and plan complex policy-measures. National development policies should consider more demographic changes and drastic gap of industrial output in the region compared to metropolis area. There should be more complex and integrated view on development of socio-economically heterogeneous metropolis area and its region.

By supporting regional development it is not enough to improve infrastructure elements without systemic development of human capital, public administration capacity to manage and invest, entrepreneurial discovery and access to new technologies, skilled labour-pool and public transport network in the region.

Future of jobs in regions

Regarding to metropolis-region relationship, the main future objectives of national development policy should be to stimulate the growth of new jobs outside of metropolitan area. Especially for younger people, because unemployment figures of young people is always higher from average.

As younger generations are more interested of “white collar” jobs, it is necessary to stimulate the supply of new jobs in regions, which presumes higher education. Job creation for women must get special attention.

Public administration cooperation and capability

If the aim is more balanced development of metropolis and the region - improvements in management of public administration towards improved cooperation and transparent co-function between central government institutions, agencies and local authorities is needed.

Secondly, the purpose is to Improve administrative and development capabilities of urban regions and their hinterland, as well as to restructure their functional and financial architecture with main focus of the county level.

Development, connecting and subsidizing of small urban areas

It the aim is more homogeneous regional development, then it is unavoidable to develop and design integrated subsidizing for local authorities of small urban areas. It will positively affect the development of hinterland. Developing new centres of gravity and improving their connectivity trough transport infrastructure will expand the options for job seekers and as well for employers.

More active local communities

Strengthening the role of local communities (NGO-s) and their capabilities to participate in discussion about local development.

Better transport network between metropolis and region

Improving connectivity (railway, roads, and public transport) with regional centres and metropolis would have probably most significant positive impact for metropolis-regions relationships.

Improving access to education

There is need to improve the access to excellent education in region despite the distance from metropolis.

One stop-shops of government public services in county level

To draw together government institution and offices, especially front desks on county level and to spread central government back-office functions in regions.

6.3. What are recommended future objectives (spheres) of the EU Cohesion policy regarding metropolis-region relationships?

“Non-labelled” funds

It is necessary to encourage central governments of member states to empower regional governments to deal with their development problems by supplying them (in the general framework of regional development strategy) with certain amount of “non-labelled funds”. To let them make their own investments decisions, considered the best, will stimulate public authority’s activity to aim development obstacles at local level. It would stimulate cooperation between local authorities and central government and increase financial muscle of local authorities. At the same time it is appropriate to keep monitoring of those activities at local level but to continue auditing process centrally.

Strategic co-operation between region-metropolis authorities and central government

More attention is needed on co-operation between regional and metropolis authorities during the process of prior analytical work and discussions over strategic plans before programming of structural funds. It is necessary because of need to avoid the situation when central government agencies are funding duplicate projects of neighbouring regional local authorities. There are warning examples such like funding projects of building simultaneously swimming-pools by two different but neighbouring local authorities, with the distance of less than 25 km from each other.

PART 7. Conclusions

7.1. How does the metropolis perform at the international scale? What are the main drivers of its success/failure? Is their nature exogenous or endogenous?

At the international scale the main competitor of Estonian metropolis city of Tallinn in the Baltic See region is Helsinki city and its area, located 60 km North from Tallinn across the bay. Helsinki city is the center of the Helsinki region, a functional urban region of about 1.3 million inhabitants (25 % of
total population of Finland) and 738,000 jobs, therefore more than twofold bigger than Tallinn and its area\textsuperscript{52}.

\textit{EU common labour market}

Enjoining EU has significant exogenous impact on metropolis development in many ways but one of the most influential factor is opening up the Helsinki labour market for Estonia. It must be noticed that Helsinki is the main destination of rapidly increased labour emigration from Estonia and therefore can \textit{a priori} be seen a more attractive and competitive region than metropolis region of Estonia. Number of Estonian immigrants in Finland has increased since 2005 more than two fold. Proximately 44 000 Estonians were in the immigration register of Finland in year 2013\textsuperscript{53}, which means that they are staying there longer that 6 months per year. However, there is no statistics about weekly job-commuters.

\textit{Demographic development}

Since year 2010\textsuperscript{54} the total number of Tallinn residents has increased from 410 050 to 430 290 inhabitants, according to Tallinn municipal register\textsuperscript{55}. At the same time population of Harju County, which covers metropolis area, increased proximately 6% per year. The main source of immigration to Tallinn has been regional hinterland. Increase of population in Harju County is caused by moving of middle-class Tallinn residents to suburban dwellings.

The share of pensioners among the total population of Tallinn is lower than the average share of the whole country, but is slightly increasing. In 2008 the share of pensioners in total population it was 25, 6% and by year 2012 was 27, 1%. It must be noticed that average old-age pension in Estonia in 2012 was 312,9 EUR per month\textsuperscript{56}.

\textit{Income}

Income, while it cannot buy happiness, is an important measure of competitiveness and living standards of a region. Because of EU regulations, similarities of languages and well commuted ferry traffic, Tallinn and Helsinki can be viewed as metropolis region, which share partly common labour-pool. However disparities in income level are twofold. In Finland, the average household net-adjusted disposable income is 25 739 USD a year, while In Estonia, the average household net-adjusted disposable income is 12 800 USD a year\textsuperscript{57}.

\textit{Economic development}

Tallinn metropolitan area competes in many ways with other capitals in Baltic Sea region, especially with Helsinki area. Main advantages of Tallinn area are: good trade location between Russia and EU, lower cost of labour and communal expenses, availability of land for industrial production and 0% corporate income tax on reinvested profits.

Economic development of industrial production has been significant and metropolis region is performing by far better than any other region during last decade (Figure 10). Industrial sector is by far bigger employer than any other sector in Tallinn (Figure 26).

\textsuperscript{52} Harju County has 555,566 inhabitants, constituting 43.2\% of the total population and generating 60\% of GDP of Estonia
\textsuperscript{53} \url{http://www.migri.fi/tietoa_virastosta/tilastot}
\textsuperscript{54} Total number of residents in year 2010 was 410 050 inhabitants. Website: \url{www.tallinn.ee}
\textsuperscript{55} \url{http://www.tallinn.ee/est/Tallinna-elanike-arv}
\textsuperscript{56} Statistical yearbook Tallinn in figures. Tallinn arvudes 2013. \url{http://www.tallinn.ee/est/g2677s70004}
\textsuperscript{57} OECD database 2014, webpage: Better life index. \url{http://www.oecdbetterlifeindex.org/countries/estonia/}
Besides industrial development, tourism is one of the advantage and driver of economic development of Tallinn. 6,5 nights spent by tourists per inhabitant per year makes Tallinn very competitive tourism destination in Baltic Sea region. Tallinn is third most popular destination for cruise tourists, after Copenhagen and St Petersburg. However, Helsinki leaves Tallinn far behind in terms of innovation based economic indicators. For example Helsinki is leading region in proportion of research and development costs of the region’s GDP (Figure 27 and Table 4).

Figure 27: Gross domestic expenditure on R&D (GERD) Percentage of GDP

Source: Eurostat 2014, webpage
Table 4: TOP 10 regions in EU, R&D costs, % of GDP

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Region</th>
<th>R&amp;D costs, % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Western Sweden</td>
<td>6.3</td>
</tr>
<tr>
<td>2</td>
<td>Northern Finland</td>
<td>4.9</td>
</tr>
<tr>
<td>3</td>
<td>Eastern Great Britain</td>
<td>4.6</td>
</tr>
<tr>
<td>4</td>
<td>Helsinki Region</td>
<td>4.4</td>
</tr>
<tr>
<td>5</td>
<td>Stockholm</td>
<td>4.4</td>
</tr>
<tr>
<td>6</td>
<td>East Middle Sweden</td>
<td>4.3</td>
</tr>
<tr>
<td>7</td>
<td>Southern Sweden</td>
<td>4.2</td>
</tr>
<tr>
<td>8</td>
<td>Berlin</td>
<td>4.0</td>
</tr>
<tr>
<td>9</td>
<td>Baden-Württemberg</td>
<td>3.9</td>
</tr>
<tr>
<td>10</td>
<td>Western Finland</td>
<td>3.6</td>
</tr>
<tr>
<td>..</td>
<td>Estonia</td>
<td>2.18 (2012)</td>
</tr>
</tbody>
</table>

Source: European Competitiveness Index 2006–2007, Robert Huggins Associates, Statistics Finland and authors calculations

The gap of GDP per capita in Tallinn compared to Helsinki region is more than two fold (Figure 28).

**Figure 28: GDP per capita (PPS) EUR**


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58 Helsinki city webpage 2014.  
59 http://www.helsinginseutu.fi/hki/HS/The+Region+of+Helsinki/City+information+and+statistics
Baltic Sea region will be the main region of economic integration and cooperation for Tallinn. As a city with less than half million inhabitants, economic significance in European scale is probably never achievable for Tallinn. However it does not mean that cooperation network cannot be wider.

**7.2. How does the regional hinterland perform in comparison to the metropolis? What is the role of natural resources in the development process? Does the success in regional hinterland rely on exogenous or endogenous factors?**

The strengths of regional hinterland is rather relying on endogenous factors such as local infra, public services (public transport, schools, cultural and sports facilities) and community life which are keeping a certain life quality and socio-economic the system in balance. Main changes happened during first decade after Estonia regained independence. Nowadays system is rather stabilized – public services such as schools network, communications and main roads are secured. Trends like urbanisation and low birth rate are continuous but not hasty.

The role of natural resources is quite important endogenous factor. Especially forest and oil shale in North-East of Estonia.

**7.3. What is the role of migration processes in relation between metropolis and their region? Could we observe segmentation of migration (eg. young to the core, elderly to hinterland)? How the quality of life in regional hinterland does affect this process?**

Rather it is the lack of jobs and lack of career perspective than quality of life, which make people leave the hinterland. For many people the everyday mobility is rather part of the lifestyle to reach for ambitious goals (Valner).

**7.4. How does the accessibility affect development processes in regional hinterland?**

Accessibility by road, especially bus transport network, has probably strongest effect on development processes in regional hinterland. The impact of railway transportation is rather weaker (Valner, S).

**7.5. What are the most important policies for development of regional hinterland? What is the interplay between policies supporting exogenous factors (eg. transport policy) vs. endogenous factors (eg. education policy) of development?**

Regarding to metropolis-region relationship, the main future objectives of national development policy should be to stimulate the growth of new jobs outside of metropolitan area. Especially for younger people, because unemployment figures of young people is always higher from average. As younger generations are more interested of “white collar” jobs, it is necessary to stimulate the supply of new jobs in regions, which presumes higher education. Job creation for women must get special attention.

If the aim is more balanced development of metropolis and the region - improvements in management of public administration towards improved cooperation and transparent co-function between central government institutions, agencies and local authorities is needed.

The purpose is also to improve the administrative and developmental capabilities of urban regions and their hinterland, as well as to restructure their functional and financial architecture with main focus of the county level.

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It the aim is more homogeneous regional development, then it is unavoidable to develop and design integrated subsidizing for local authorities of small urban areas. It will positively affect the development of hinterland. Developing new centres of gravity and improving their connectivity trough transport infrastructure will expand the options for job seekers and as well for employers. Strengthening the role of local communities (NGO-s) and their capabilities to participate in discussion about local development.

Improving connectivity (railway, roads, and public transport) with regional centres and metropolis would have probably most significant positive impact for metropolis-regions relationships. There is need to improve the access to excellent education in region despite the distance from metropolis.

To draw together government institution and offices, especially front desks on county level and to spread central government back-office functions in regions.

To improve regional-local bus network would have significant effect on regional development.

7.6. Are the authorities at regional level necessary from perspective of metropolis-region relationships?

There is trend that public services are consolidated to central government, main argument is that some local government cannot guarantee the quality. However, democracy and good governance presumes that local matters such as cooperation with neighbouring administrative areas should rather solved in local level (Valner, S.). For many local authorities in the hinterland it is unsuitable that county governance is not representing local administrative units but Ministry of Interior and at the same time head of county in political position (Valner, S.).

Well governed small regional authorities have achieved significant success in terms of creation of new jobs and improving the quality of public services (Leetma, K. 2014). There is better understanding of needs of local entrepreneur and community (public services, transport, planning).

7.7. Do the metropolis and its surrounding region mutually need each other? Does the metropolis need the region? Does the region need metropolis?

Estonia as integer unit has significant political and cultural value for Estonians (Valner). Economically and because of demographic changes Tallinn is vitally necessary to generate most of the jobs and GDP of Estonia. Urbanisations need hinterland to rely on.

“A strong metropolitan area nearby is the enabler of life in the hinterland”, (Leetmaa, K.).