

The Economy of Cluj

City of Cluj-Napoca and Cluj Metropolitan Area

Statistical overview of the development of the local economy in the 2008-2018 decade

THE CLUJ METROPOLITAN AREA

A GLOBALIZED ECONOMY

Over the last decade, globalization processes have intensified, and as such, global organizations relocated their secondary processes to new spaces specialized in operations. Most of the processes that are being externalized are Business Process Outsourcing (BPO) and Information Technology Outsourcing (ITO).

The global outsourcing hotspots are India, China and the Philippines, that concentrate over 80% of outsourced processes. At European level, Central and Eastern Europe has capitalized most of the outsourcing in the West, particularly for German capital. Almost half (45.4%) of the total foreign investments of German companies are outsourced to Central and Eastern Europe. In Romania 63.7% of the German foreign investments are processes that were outsourced to our country.

The logic behind the process is finding the cheapest labor force pools. Initially, outsourcing was focused on industrialized labor, however, now it is mostly skilled and highly skilled workforce that is being outsourced. Even if it is work performed by white collars, it has a high level of repetitiveness; however, in sectors such as IT there are also R&D operations.

Cluj is an example of a city whose local economy and workforce composition changed dramatically after the 2008-2010 financial crisis. The city is one of the Central and Eastern European hubs that benefited from the globalization of outsourcing operations. In particular, Cluj-Napoca excels in four transnational fields: Information & Communications Technology, Business Support Services, Engineering, Research & Development and Financial Services.

23800
active organizations
in The Cluj Metropolitan
Area

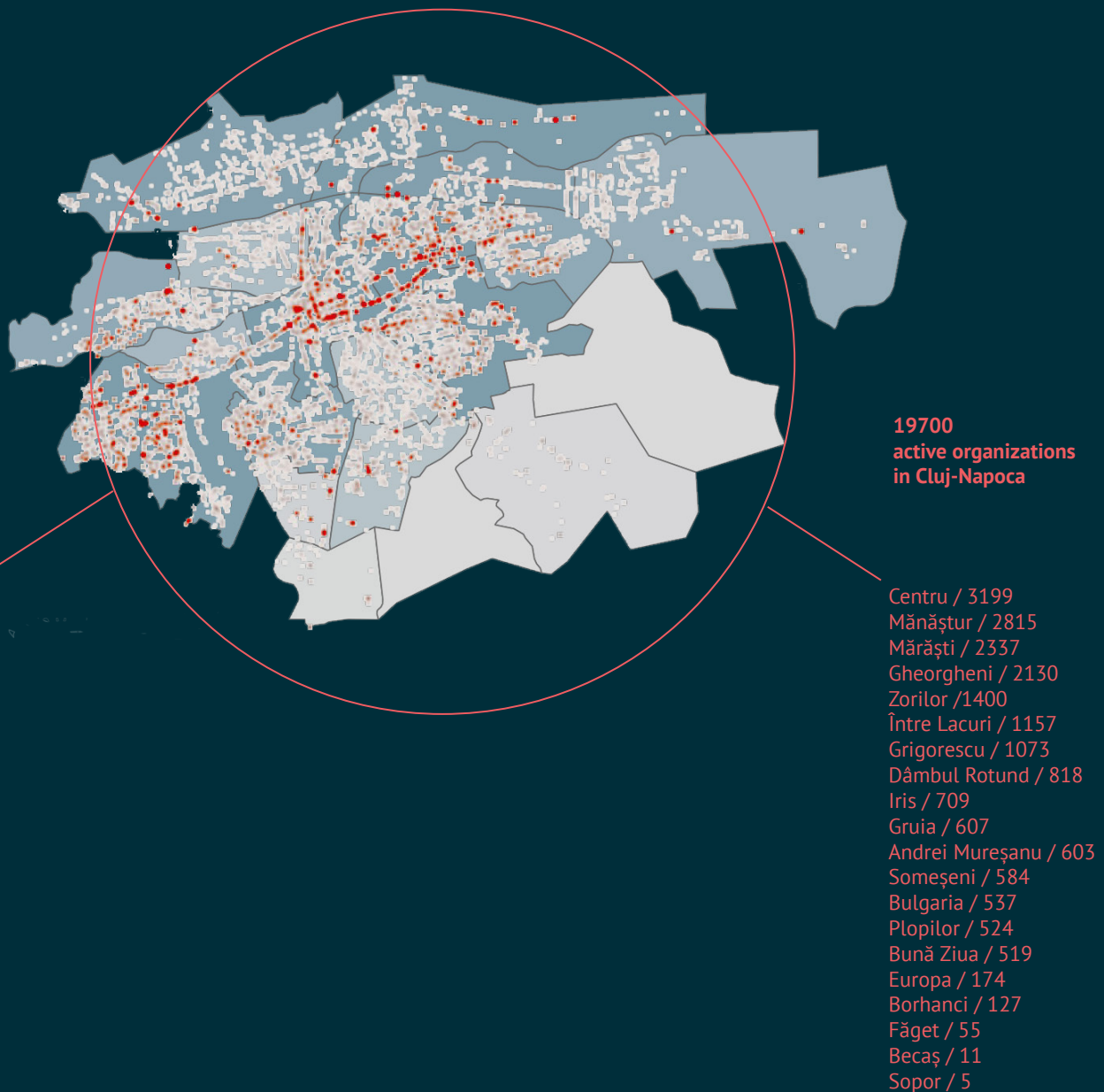


In 2018, Cluj-Napoca was one of the most developed cities in the European Union in the GDP per capita group 19.000 – 27.000 at Purchasing Power Parity, cities that made a credible commitment at European level to promote knowledge, culture and creativity. In particular, participation in global production chains has generated the emergence of two types of internal markets:

An internal market for the well-paid labor force employed in internationalized sectors that consumes a series of dedicated products and services: hospitality (restaurants, cafes, bars), food (meat products, pastries, premium alcoholic products), lifestyle services (hair salons , spas, gyms), cultural services (festivals, theatres, operas), location services (real estate services, interior design services, furniture manufacturing services).

A set of markets that serve the global capital in reproducing their location (cleaning services, security, construction of type A office buildings, human resources).

Both domestic and internationalized markets are responsible for the impressive development of the city between 2008 and 2018. The GDP of the Cluj Metropolitan Area and the private revenues of companies have doubled in the last decade.

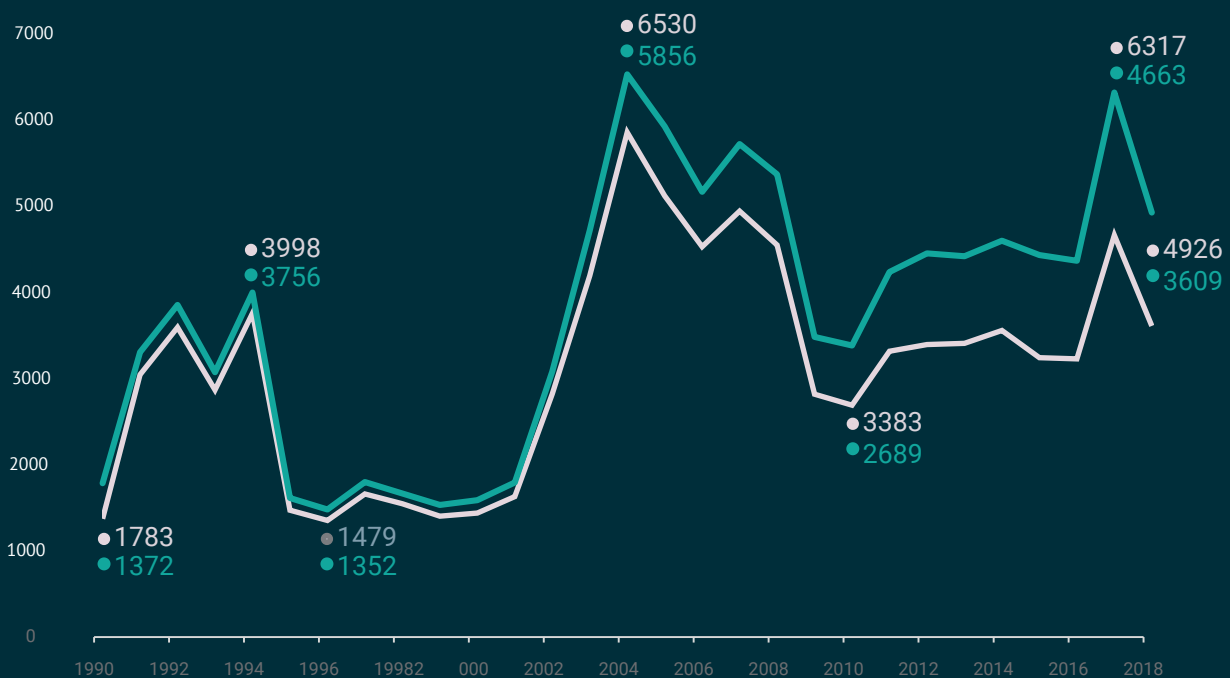


Number of new companies in Cluj-Napoca and the Cluj Metropolitan Area 1990-2018

- Cluj Metropolitan Area
- The city of Cluj-Napoca

In the last decade, the annual average was 4.5 thousand new companies in the Cluj Metropolitan Areas. On average, 77% of these new companies were registered in Cluj-Napoca.

The average age of active companies in the Cluj Metropolitan Area increased significantly (statistically) in the last decade, with 3.4 years on average. Not only are there more new companies, but they also remain active for much longer.

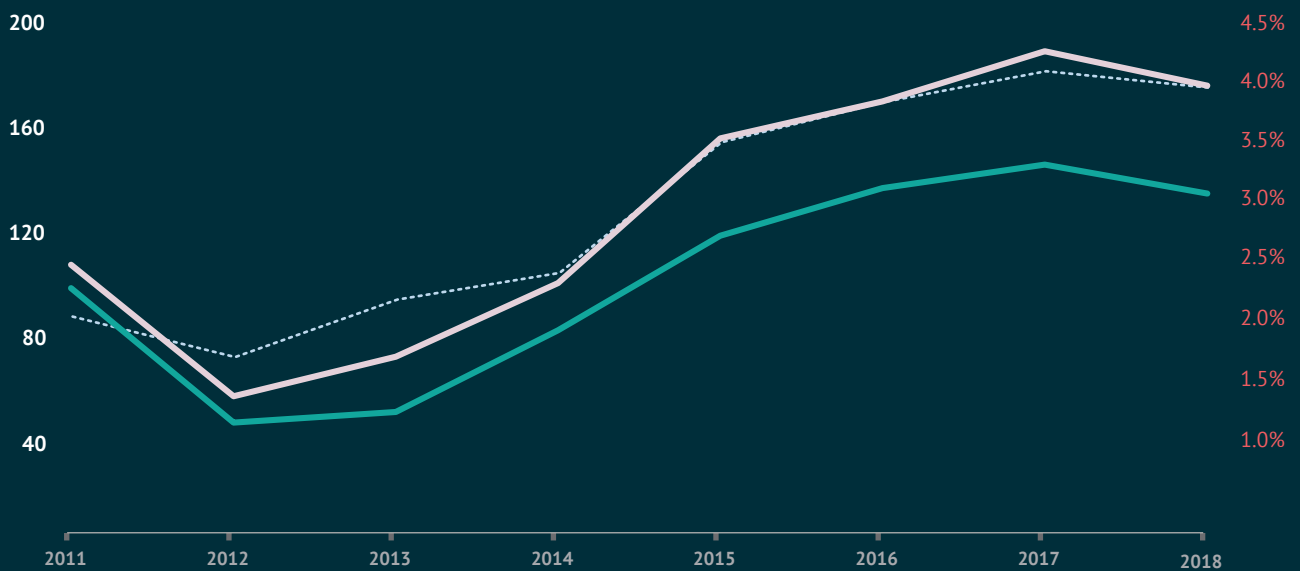


The volume of start-ups in the Cluj Metropolitan Area and Cluj-Napoca

- Zona Metropolitană Cluj
- Cluj-Napoca
- The annual share of start-ups from the total number of new companies

A 'start-up' is a company whose annual revenue in the first three successive years since its start date is at least 20%.

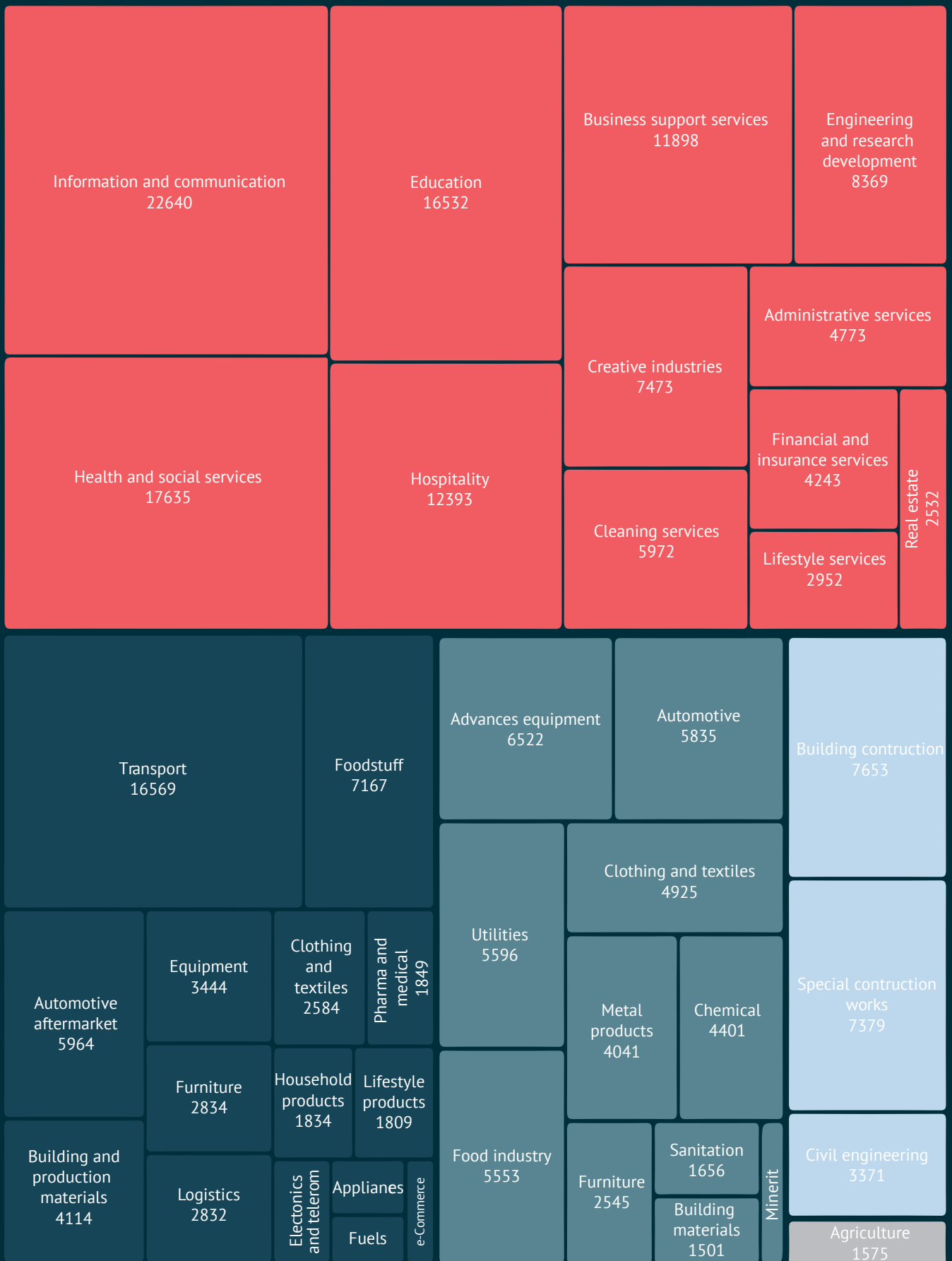
In the last eight years, in the Cluj Metropolitan Area, the annual average was 129 new start-ups. Of the cohort of newly established companies, 3% managed to become start-up companies. The rates of new companies and start-ups suggest that the region has become a favourable economic environment as a business ecosystem.



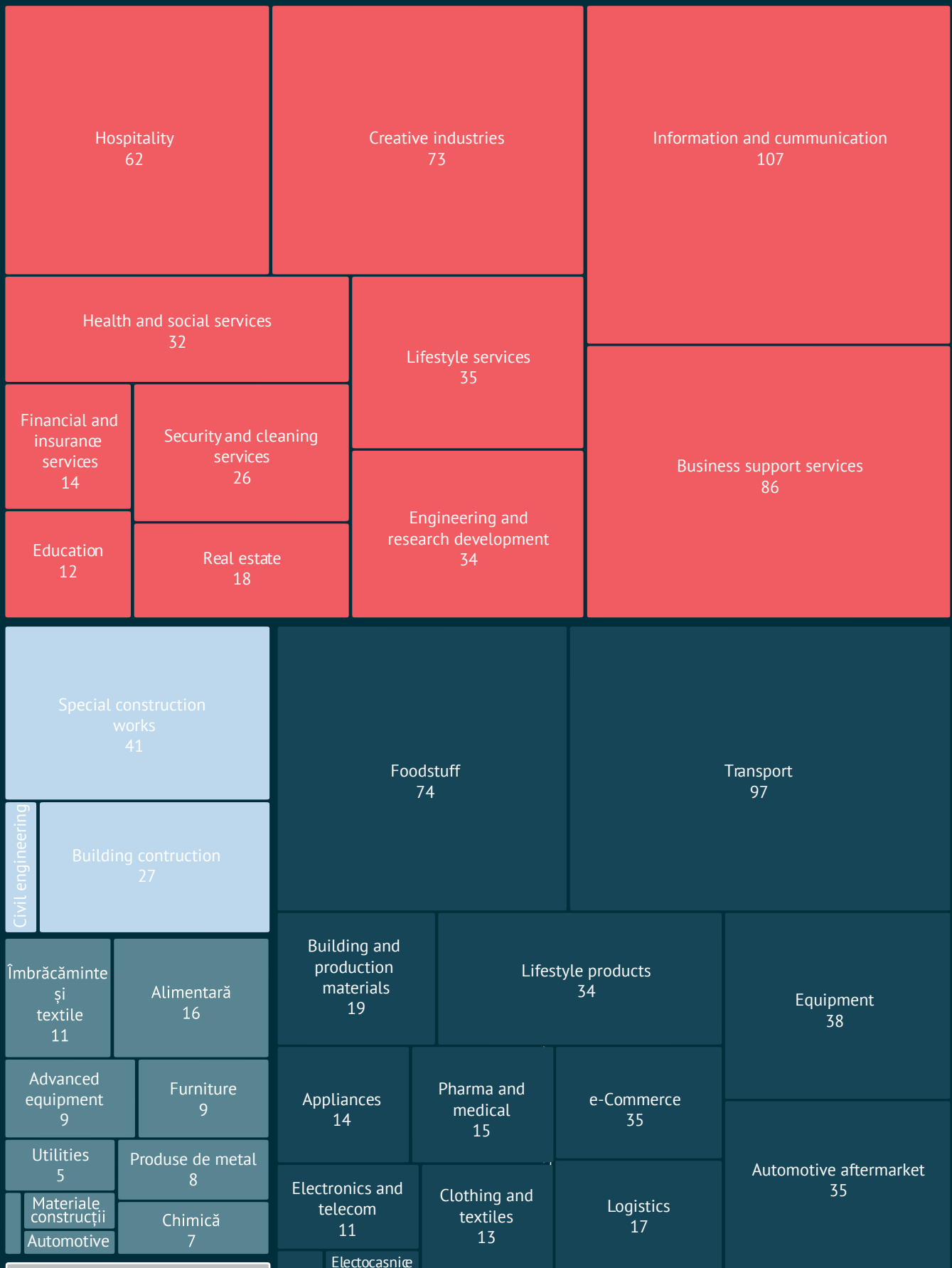
Structure of the workforce by activity categories in the local economy, 2018

services/ commerce/ industry/ construction/ agriculture/

In just 10 years, the number of employees in the private sector has quadrupled in the service sub-sectors connected to global outsourcing flows: Information & Communication Technology, Business Support Services, Engineering and Research and Development, Creative Industries.

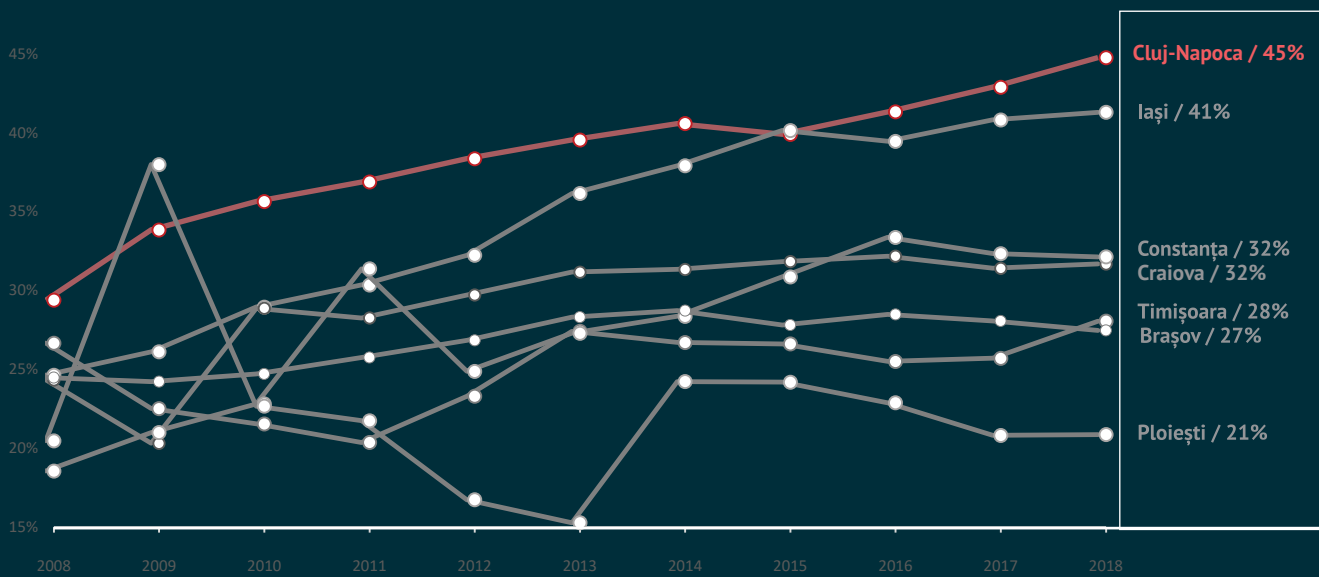


One in ten start-up companies has been active in the field of information technology, respectively in transportation.

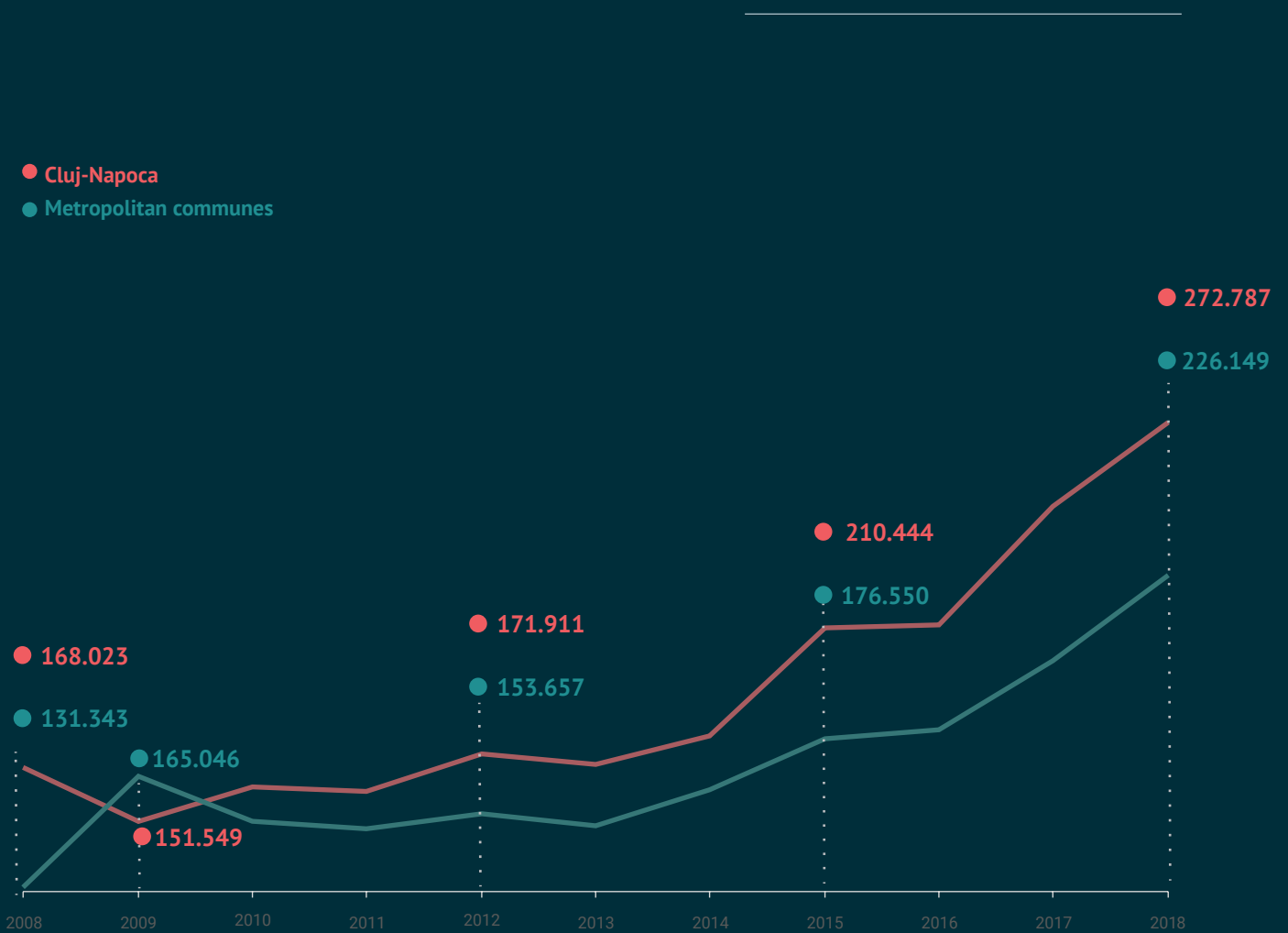


Employment in services of total employment in the growth poles, 2018

After Bucharest, **Cluj-Napoca** has the highest number of employees in the service sector from the total employees. Moreover, in the last decade this sector registered a constant growth.



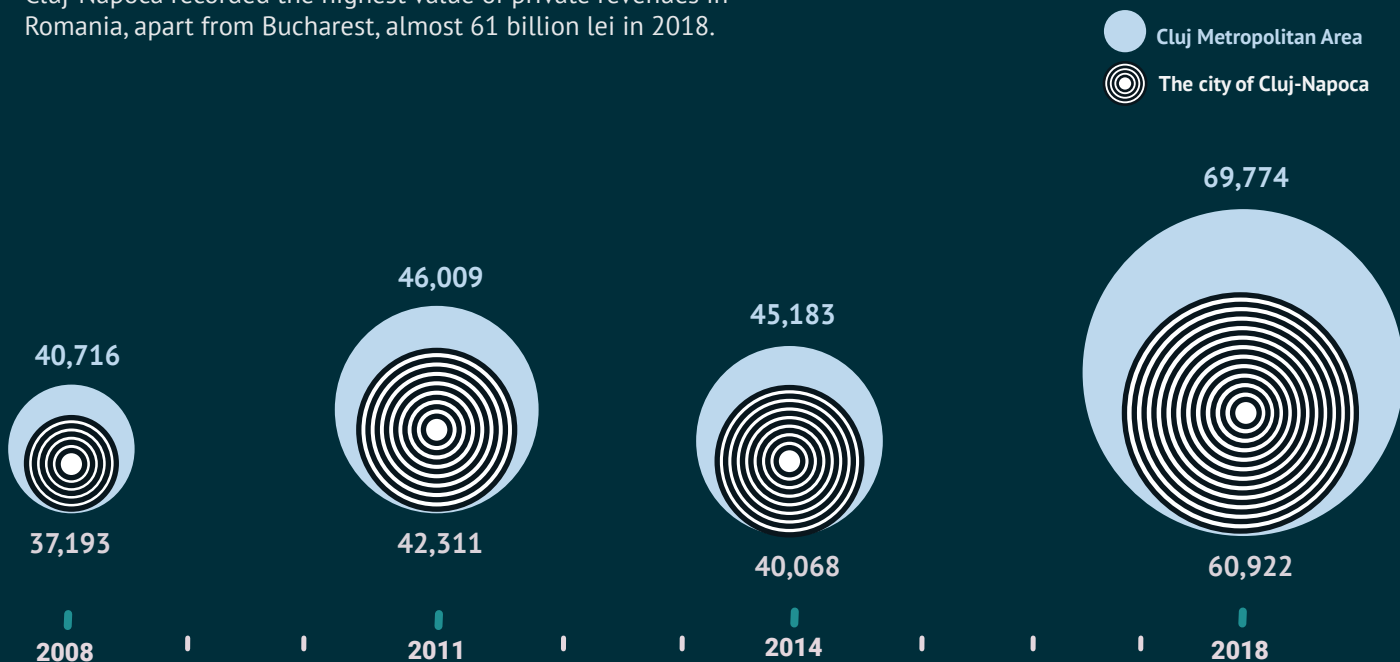
Labour productivity evolution 2008-2018 in Cluj-Napoca and metropolitan communes (lei)



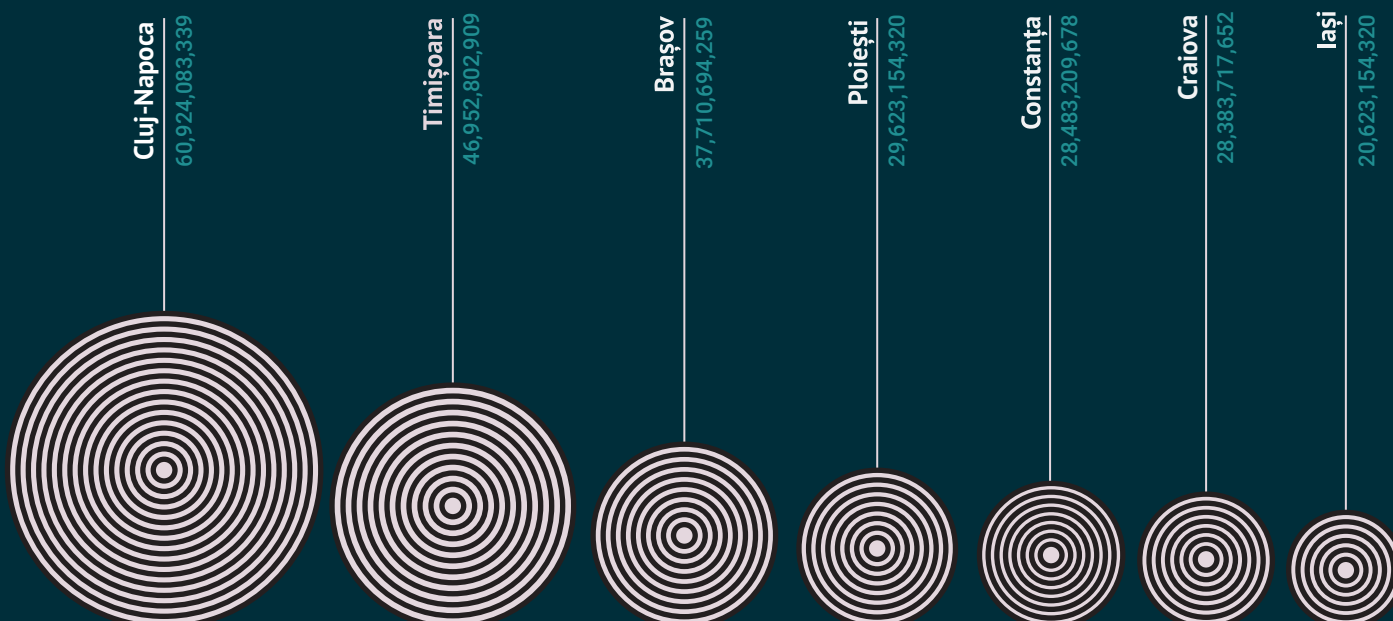
The labour market in the Cluj Metropolitan Area and in Cluj-Napoca had a positive evolution. The economic growth highlighted above was -due to both the intensification and the economic activity in certain sectors and the global significant increase in labour productivity in the period analysed-by over 60%.

Evolution of private sector revenue in Cluj-Napoca and the Cluj Metropolitan Area, 2009-2018 (in million lei)

Cluj-Napoca recorded the highest value of private revenues in Romania, apart from Bucharest, almost 61 billion lei in 2018.



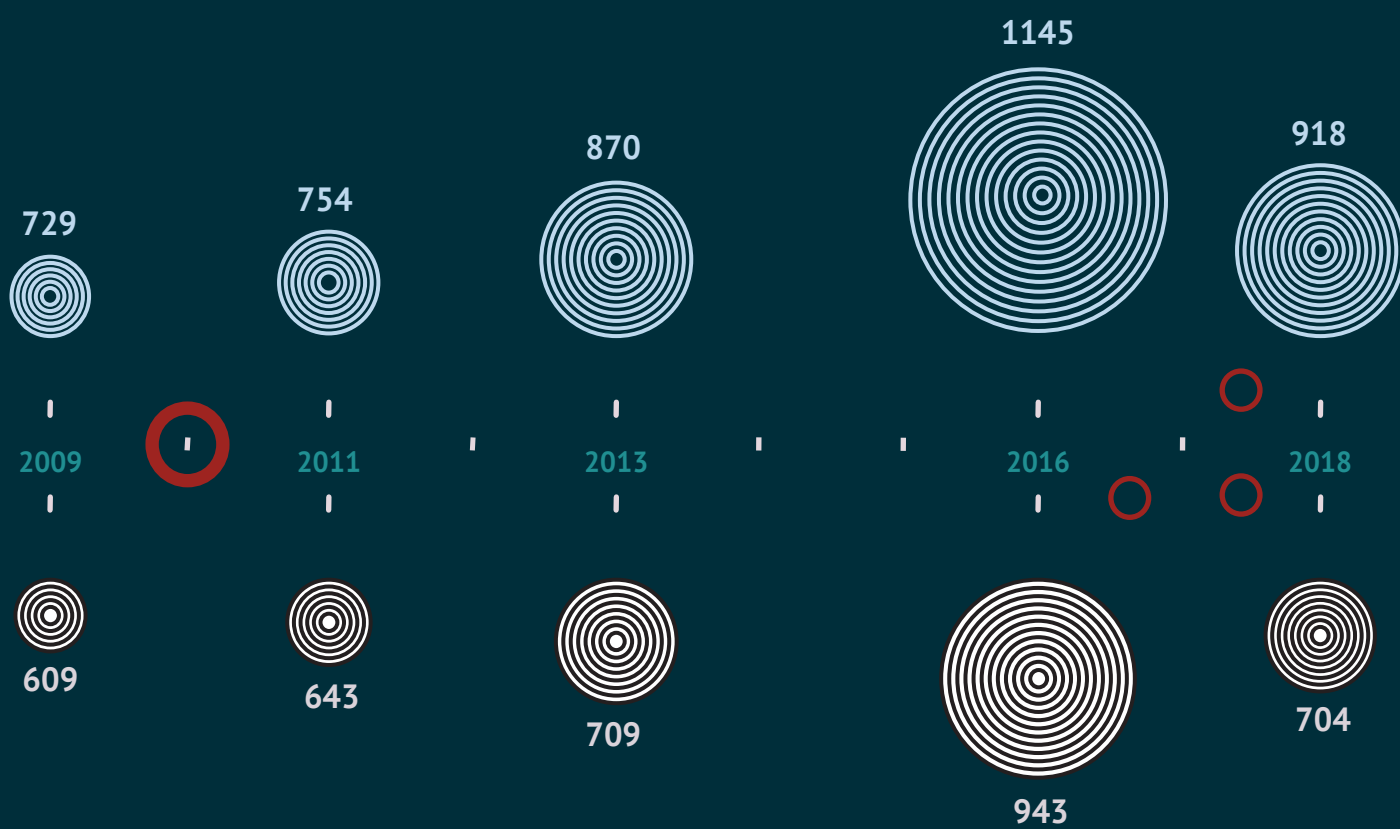
Private revenues in Cluj-Napoca and in the growth poles, 2018 (lei)



Total revenues of municipalities in the Cluj Metropolitan Area and in Cluj-Napoca 2009-2018 (million lei)

The local government revenues are the amounts that the mayor's office has and can use in the environment it manages. Cluj County ranked second, after Bucharest, in terms of budgetary expenditures in 2018.

The decrease of local budgets countywide is due to some changes in the national legislation with regards to the allocation of public revenues starting with 2017.



● Cluj Metropolitan Area (million lei/inhabitant)

◎ The city of Cluj-Napoca (million lei/inhabitant)

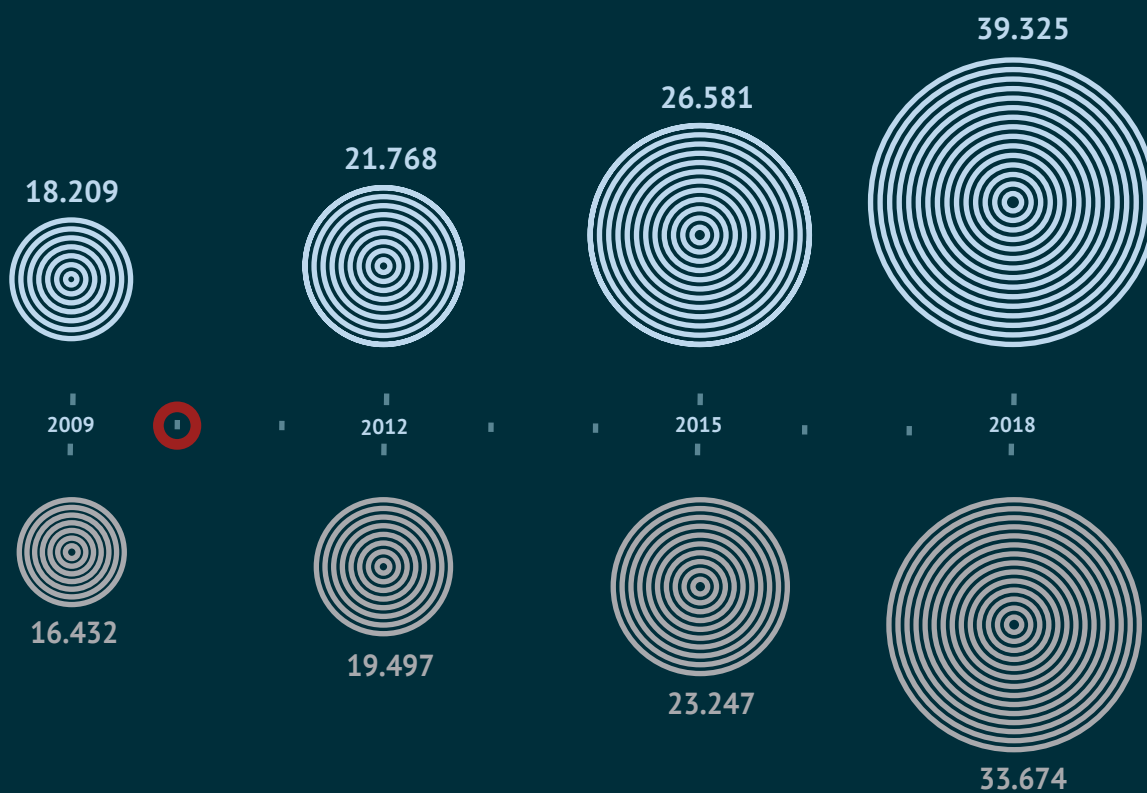
◉ decrease for both the Metropolitan Area and the city of Cluj-Napoca, due to changes in legislation




○ decrease only for the Metropolitan Area or the city of Cluj-Napoca, due to changes in legislation

Estimated GDP in the Cluj Metropolitan Area and in Cluj-Napoca (million lei)

The metropolitan economy grew significantly in the last decade, both in million lei and per capita.

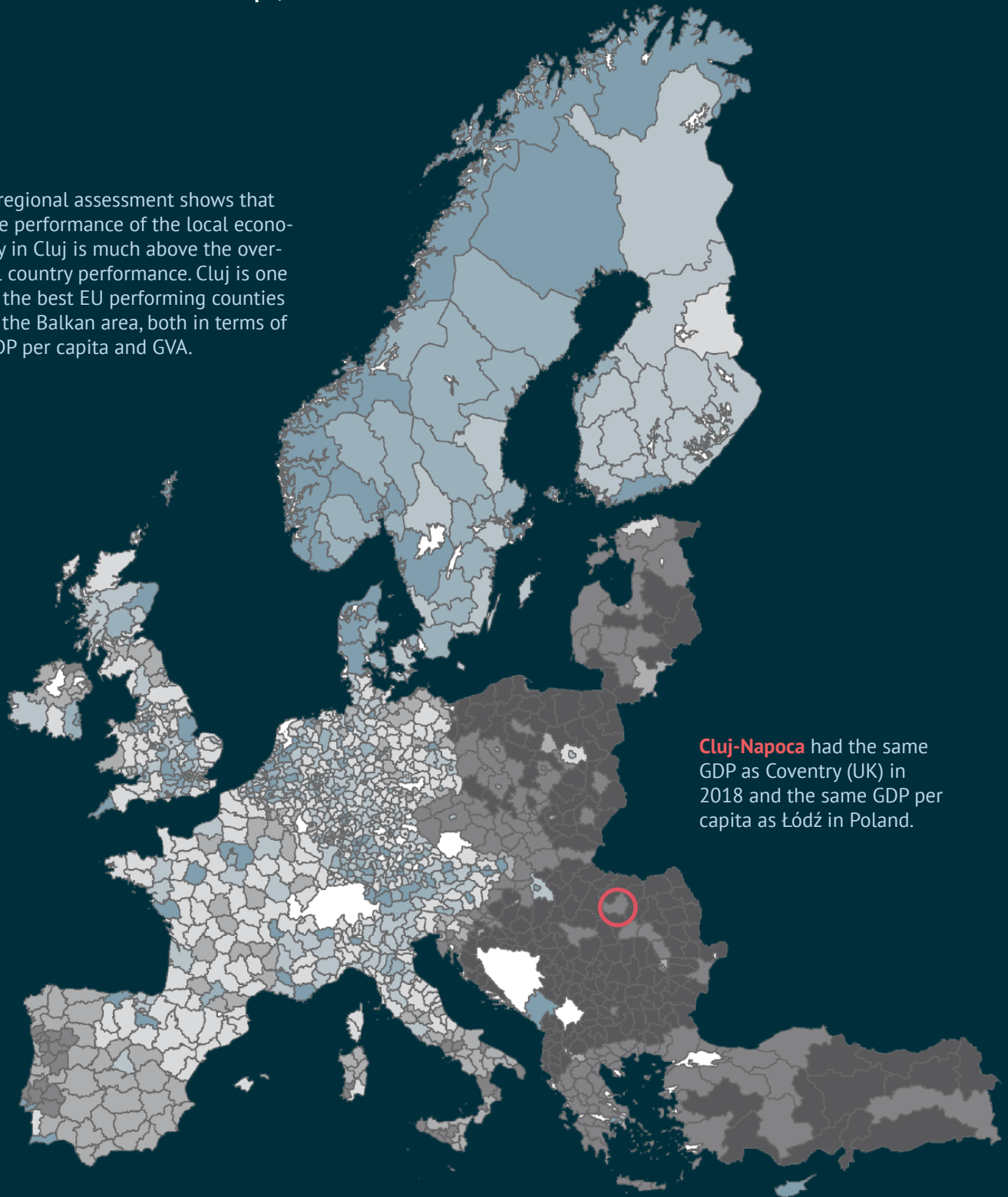
At city level the GDP doubled, and its value was 7.3 billion Euros (33,674 million lei) in 2018.



-  Cluj Metropolitan Area
-  Cluj-Napoca
-  decrease (< 1,1%)

Distribution of the Gross Domestic Product at the NUTS3 level in Europe, 2016

A regional assessment shows that the performance of the local economy in Cluj is much above the overall country performance. Cluj is one of the best EU performing counties in the Balkan area, both in terms of GDP per capita and GVA.



Cluj-Napoca had the same GDP as Coventry (UK) in 2018 and the same GDP per capita as Łódź in Poland.

Data source: Eurostat

The quintile with the highest Gross Domestic Product value (20%)

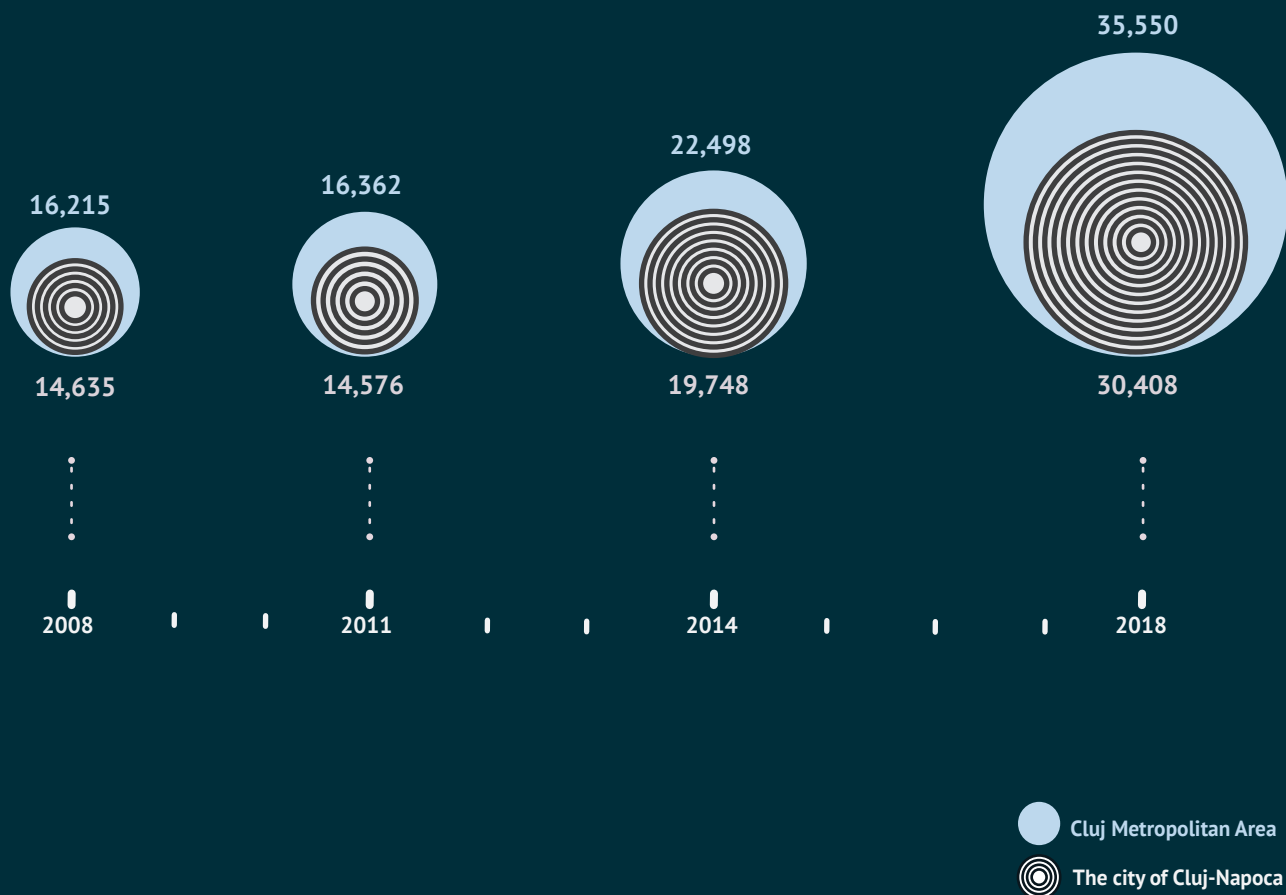


The quintile with the lowest Gross Domestic Product value (20%)

Gross value added in the Cluj Metropolitan Area and in Cluj-Napoca (million lei) 2008-2018

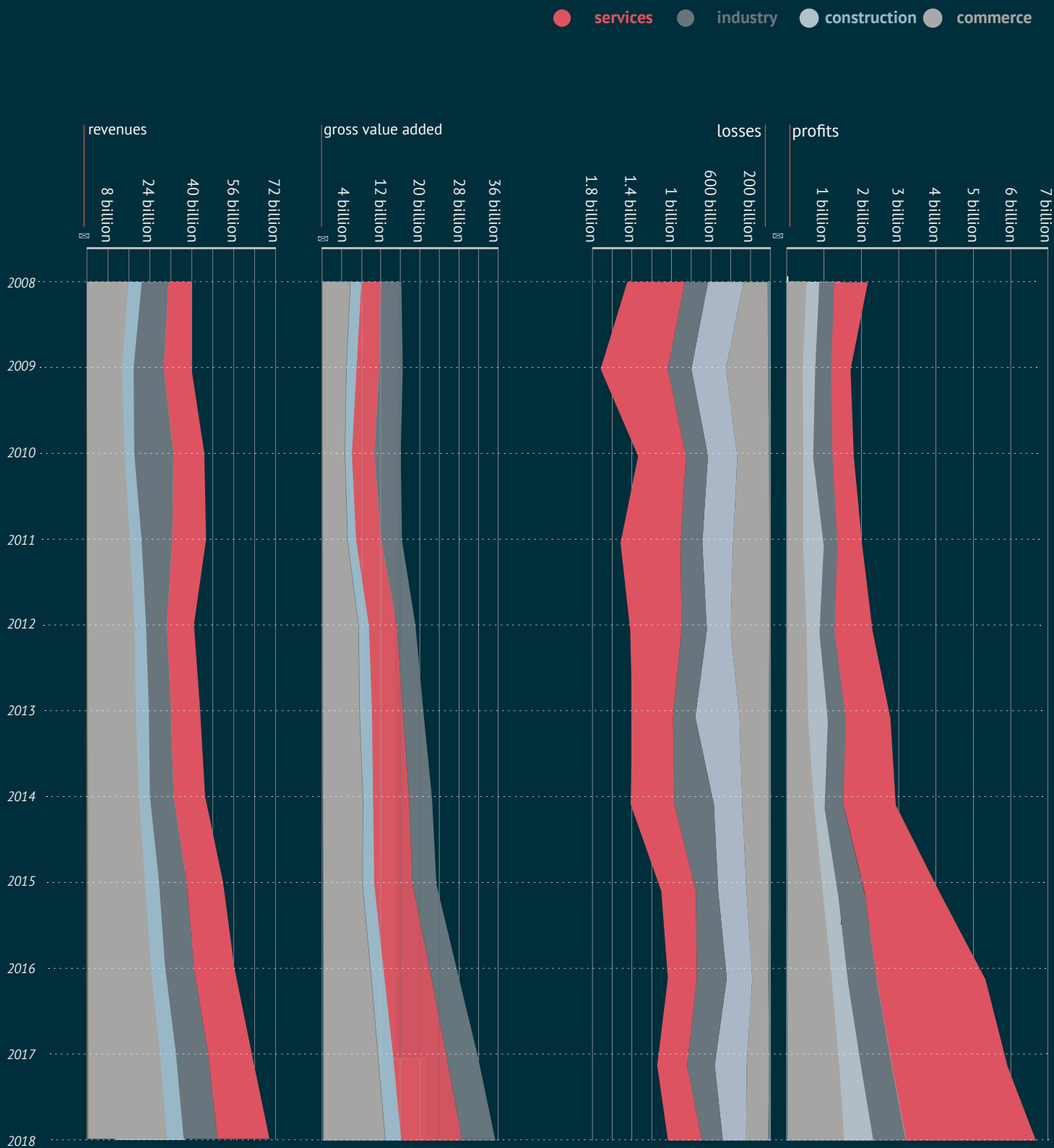
The evolution of the gross value added in the local economy follows the same trend as the GDP at the Metropolitan Area level, namely there was a significant upward trend during the period analysed.

The Gross Domestic Product and the Gross Value Added confirm the strong upward trend of the local economy in the period analysed. In addition, all three measures indicate the growing importance of metropolitan localities and their intense economic activities. Cluj-Napoca continues to be the engine of the Metropolitan Area and county.



The dynamic of revenues, gross value added, profit and loss by economic sectors in the Cluj Metropolitan Area, 2008-2018

Over 70% of the newly created value in the local economy is generated by trade and services. Private revenues in services have had an average annual increase of 12.1%, and in ten years they doubled. The aggregate debts of the companies have halved.



Distribution of profit per employee by economic subsectors in the Cluj Metropolitan Area, 2018


In their business model, companies in the Cluj Metropolitan Area can opt for a balanced ratio between invested capital and human resources or they can choose to substitute one element with the other. This decision generates a series of substitution curves.

At one extreme, there are construction and real estate companies, with few employees and high profits. At the other end of the curve, there are automotive companies that employ a lot of people.

The most profitable companies operate in the three key globalized service sectors: information & communications technology, business support services and engineering & research-development and they employ high-skilled workers. The companies that do not enter the substitution curve and have different business models are: financial sectors, utilities and fuels.

Data sources: Balance Sheets of Economic Operators, 2008-2019, Ministry of Public Finances, Data.Gov.Ro;



 In terms of employees 50% of companies are within this interval [Q1, Q3]
 Curves representing the substitution of capital with labour

● services ● construction
 ● industry ● commerce

Economic sectors with the most important dynamic of the number of employees in the metropolitan area, compared with the national level, between 2008 and 2018.

In the Cluj Metropolitan Area, the number of employees has increased:

- in Health & social assistance services, Business support services, as well as Information & Communication Technology (ICT), more than in the rest of Romania, even if these sectors also expanded countrywide.
- in Hospitality and Transportation, while in Romania the number of places has remained constant.
- in The Creative Industries, Financial Services & Insurance and Education, while the number of employees in these fields decreased countrywide.

Data sources: Balance Sheets of Economic Operators, 2008-2018, Ministry of Public Finance, Data.Gov.Ro; National Institute of Statistics, TEMPO, Table SAN104B, SCL104D, CDP103E, ART121A, ART122A, ART123A; List of employers in Cluj County with active employees, 2008, Cluj County Statistics Directorate.



- The size of the circles represents the number of employees in 2018
- The horizontal axis represents the regional competitiveness
- The vertical axis represents the industrial mix

Employees commuting between localities in the Cluj Metropolitan Area, 2011

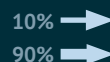
Data sources: Data aggregated at folder level, Population and Housing Census, 2011, National Institute of Statistics, TEMPO, Table POP107D, 2011.



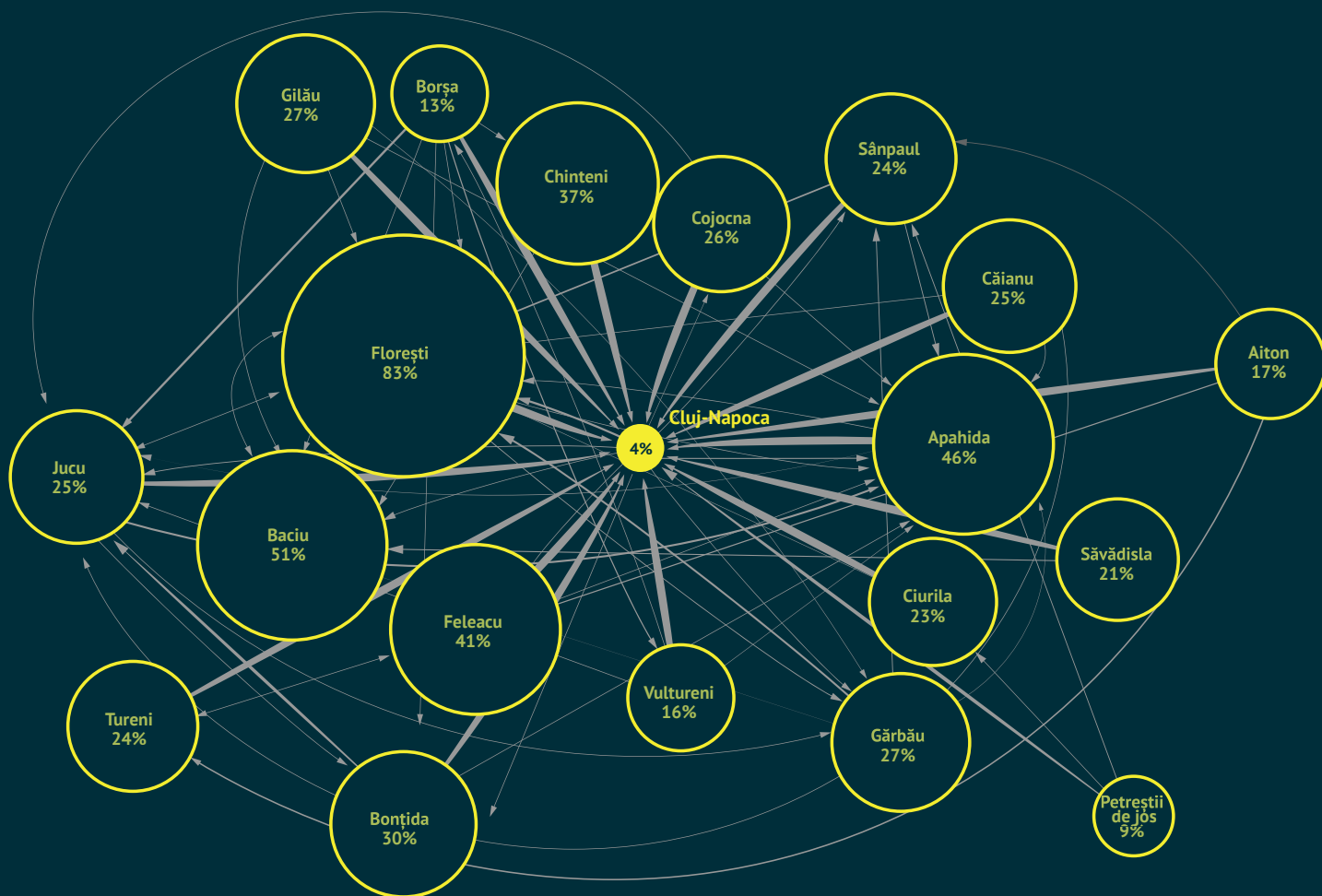
The size of the circle indicates the number of employees commuting from the locality in relation to the number of working age population (aged 18-62) in the locality.



The position of the circles is calculated to collectively minimize the tensions between the curbs that interlock the localities, using the Kamada-Kawai algorithm: the higher the proportion of people commuting from origin to destination the more similar are the localities.



The thickness of the line arrow represents the proportion of employees commuting from the origin to the destination locality.



Commuting employees that arrive in a locality and their share in the working population domiciled in the locality, in the Cluj Metropolitan Area, 2018.

Data sources: Balance Sheets of Economic Operators, 2008-2018, Ministry of Public Finance, Data.Gov.Ro; National Institute of Statistics, TEMPO, Table POP107D and FOM104D, 2018.

In Cluj-Napoca 19,7% of the labour force commute. Most people commute from first ring localities around the city, especially from Florești. In Florești 86% of employees commute, and 89% of the migration flow is directed to Cluj-Napoca. This is due to the similar social composition of the two localities: 39% of the active population in Florești and 38% in Cluj-Napoca have university education. These employees work in the city's service economy.



The Cluj Economy

THE DYNAMIC OF THE ECONOMY

The volume of the economy in Cluj-Napoca, and the Cluj Metropolitan Area doubled between 2008 and 2018.

Key performance indicators: In the last decade all performance indicators have been on a significant upward trend. In Cluj-Napoca and the Cluj Metropolitan Area the growth rates between 2008 and 2018 were identical, namely 115% for the gross domestic product, 110% for the gross domestic product per capita, 171% for private revenues and 115% for the gross value added.

Cluj-Napoca recorded the highest value of private revenues in Romania, apart from Bucharest, almost 61 billion lei in 2018.

The municipal revenues represent almost 25% of the total amount recorded in the growth poles in 2018, apart from Bucharest. In the same year Timisoara ranked second in terms of economic performance, with revenues that represent approximately 77% of those registered in Cluj-Napoca.

Metropolitan dynamic: According to the performance indicators the importance of metropolitan localities increased throughout the decade, however, this was without affecting the performance of Cluj-Napoca. The Gross Domestic Product (GDP) and the Private Income (PI) grew both in metropolitan localities and in Cluj-Napoca.

However, for these indicators, the metropolitan localities accumulate 14% of the total Metropolitan Area. The metropolitan localities have recorded a modest 5% growth of the GDP and PI share in the last ten years, thus indicating a tendency to relocate some economic activities in these localities. The relocations concern, in particular, production, transport and logistics.

THE SIZE OF THE ECONOMY AT EUROPEAN LEVEL.

In 2018 Cluj-Napoca was one of the most developed cities in the European Union in the GDP/per capita group 19.000 – 27.000 at Purchasing Power Parity, cities that made a credible commitment at European level to promote knowledge, culture and creativity. Cluj-Napoca ranked 16th in terms of knowledge and creative economy.

However, the county is in the second decile group, at the bottom of the ranking. In 2017 the national share of the GDP per capita of the EU average was 32%, very similar to the number in Cluj-Napoca (32.2%) and the Metropolitan Area (37.2%). Even though the volume of the local economy was lower than in the rest of the European regions, the Metropolitan Area gross value added was above the regional median in 2016.

COMPANIES

In the Cluj Metropolitan Area there are 21.2 thousand commercial companies. The business density is high at country level.

Number of companies. In the Metropolitan Area there are 48.2 thousand companies per 1.000 people. In Cluj-Napoca the business density per population is identical to the European average of 53.3 companies per 1.000 people.

New companies. In the last decade the annual average was 4.5 thousand new companies in the Cluj Metropolitan Area. On average, 77% of these were registered in Cluj-Napoca. In the last ten years, the average share of newly established companies of existing companies was 16%, well above the 9% European average. These tendencies suggest that the region has become a favourable economic environment.

A start-up is a company whose annual revenue in the first three active years is at least 20%. In the last eight years, the metropolitan annual average was 129 start-ups. Only 3% of newly established companies became start-ups. One in ten start-ups has been active in the information technology sector.

The average age of active companies in the Metropolitan Area has grown significantly in the last decade. The number of companies is increasing, and they also manage to stay active for a much longer period. The average age of active companies increased from 5.7 years in 2008 to 9.2 years in 2018.

Localization of the economy. The economy of the Metropolitan area is hyper-concentrated: most organizations are registered in the city centre, namely 16%, followed by the neighbourhoods Mănăştur, Mărăşti and Gheorgheni in Cluj-Napoca.

EMPLOYEES

There were 239 thousand employees in the Metropolitan Area in 2018.

The total number of employees in 2018 in Cluj-Napoca was 203.9 thousand. These figures represent the employees reported by organizations, regardless of their legal form or ownership.

Localization of employees. One in five employees in Cluj-Napoca commutes to work: 41.4 thousand people work in Cluj-Napoca but live outside the city. Most people commute from first ring localities, especially Floreşti. A very high percentage of 86% from the total active population living in Floreşti commute to work, and 89% of the migration flow is directed towards Cluj-Napoca. Bacia ranks second with 51% of its active population commuting to work, and Ahapida third with 46%.

SECTORAL ECONOMIC STRUCTURE

Revenue in trade and services registered a significant growth, as such, in 2018 their share was 43.2%

respectively 28.4% of the aggregate metropolitan revenue. The construction sector was relatively stable in the last ten years, with variations around the average of 10.2% of total revenues. Industry decreased from 25.5% in 2008 to 18.6% in 2018.

The service sector registered the most significant increase. In the last decade the average annual growth was 12.1% and revenues in services doubled. The newly created value in the service sector increased more than three times in the period analysed from 25% to over 35%.

From the 203.9 thousand employees in Cluj-Napoca, 53.7% work in the service sector. The dominant sub-sectors in the private sector are those connected to global flows (outsourcing & offshoring):

Information and Communications Technology

*Business Process Outsourcing,
Shared Service Centres, Call Centres*

Engineering, Research & Development

In 10 years the number of employees in these sectors has increased four times, and the highest increase was registered in the Information and Communications technology sector that had 22.6 employees in 2018.

Cities like Cluj-Napoca, Iaşi and Timișoara concentrate around 1.5-1.6% of the total population in Romania, with around 330 thousand inhabitants. Each of these cities concentrates between 2.9-3.8% of the total number of managers and 3.2-3.8% of the total number of specialists in the country (double or even triple when compared to the share of inhabitants of the total population).

In Cluj-Napoca, Iaşi and Timișoara at least one in three employees is a specialist. In comparison, Cluj-Napoca concentrates the highest number of managers and specialists, after Bucharest. Most of the specialists in Cluj-Napoca work in outsourcing and offshoring.

