

# From Brain Drain to Brain Gain in the E.U.

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Member of the European Committee of the Regions

for the Education Committee - January 23, 2020

on: **Brain drain – a driving force for the European Education Area**

# Brain drain: old or new issue?

**No solutions?**



# Short History and Solutions Across Time

## An Age-Old Problem:

>> around 300 B.C.

brain drain from

**Athens to Alexandria**

>> people from all over the Empire migrated to Rome



Europeans, Asians, and Africans migrated to Rome.  
Map by National Geographic

# Short History and Solutions Across Time

## >> Middle Age: Death Penalty for Emigrants

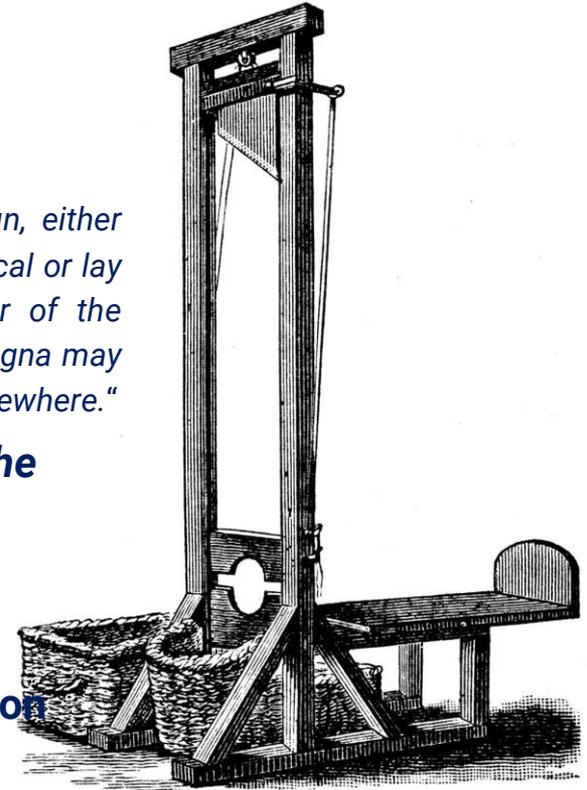
**In 1274, an edict published in Bologna stated:**

*"By this edict, we solemnly forbid any ecclesiastical or lay person, Bolognese or foreign, either personally or by messenger, letter or other means, to attempt to negotiate with ecclesiastical or lay persons, colleges, universities, regions, communes, or communal entities, the transfer of the studium of the city of Bologna to another place. No citizen or inhabitant of the city of Bologna may attempt to take students away from the city with the intention of continuing the studium elsewhere."*

**Later, the Bolognese authorities strengthened their laws against "the thieves of universities" (including death penalty). (Dedijer, 1969)**

## >> Beginning of the 1970s: Bhagwati tax

**(a tax on the income earned by the skilled migrants in the destination country, to the benefit of the source country)**



TODAY: "Brain **drain**" vs.

"Brain **gain**" vs.

"Brain **circulation**"

...and networks of cooperation





**Freedom of movement - a fundamental value of the EU**

**Everyone is free to move voluntarily  
inside the European Union,  
but no one should be forced  
to leave the country due to poverty  
and other economical reasons.**

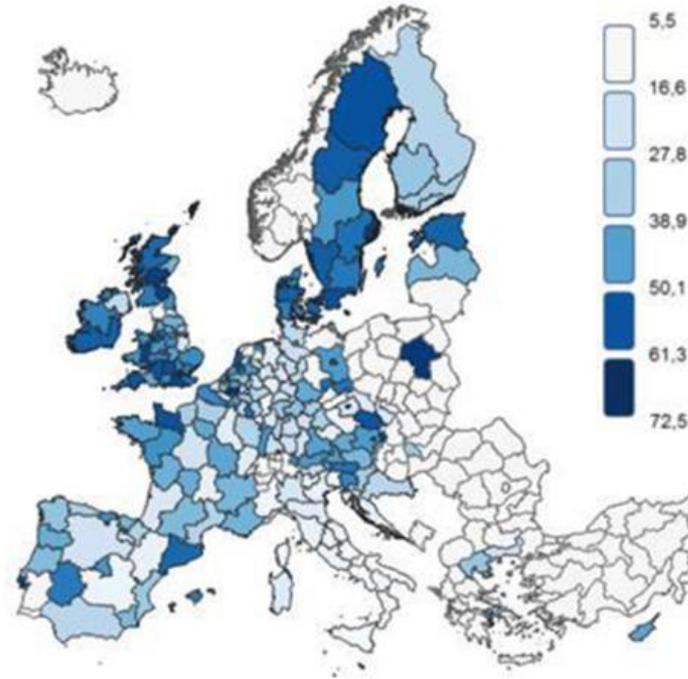
# The Regional Perspective of Brain Drain

Intra-EU mobility:  
**receiving** and **sending** regions



Source: extracted from ESPON (2017).

Share of **highly educated**  
EU28 movers



Source: map elaborated by the authors,  
based on Eurostat data accessed in July 2018.

# The Regional Perspective of Brain Drain

**Top destinations** for the 17 million EU28 working movers:

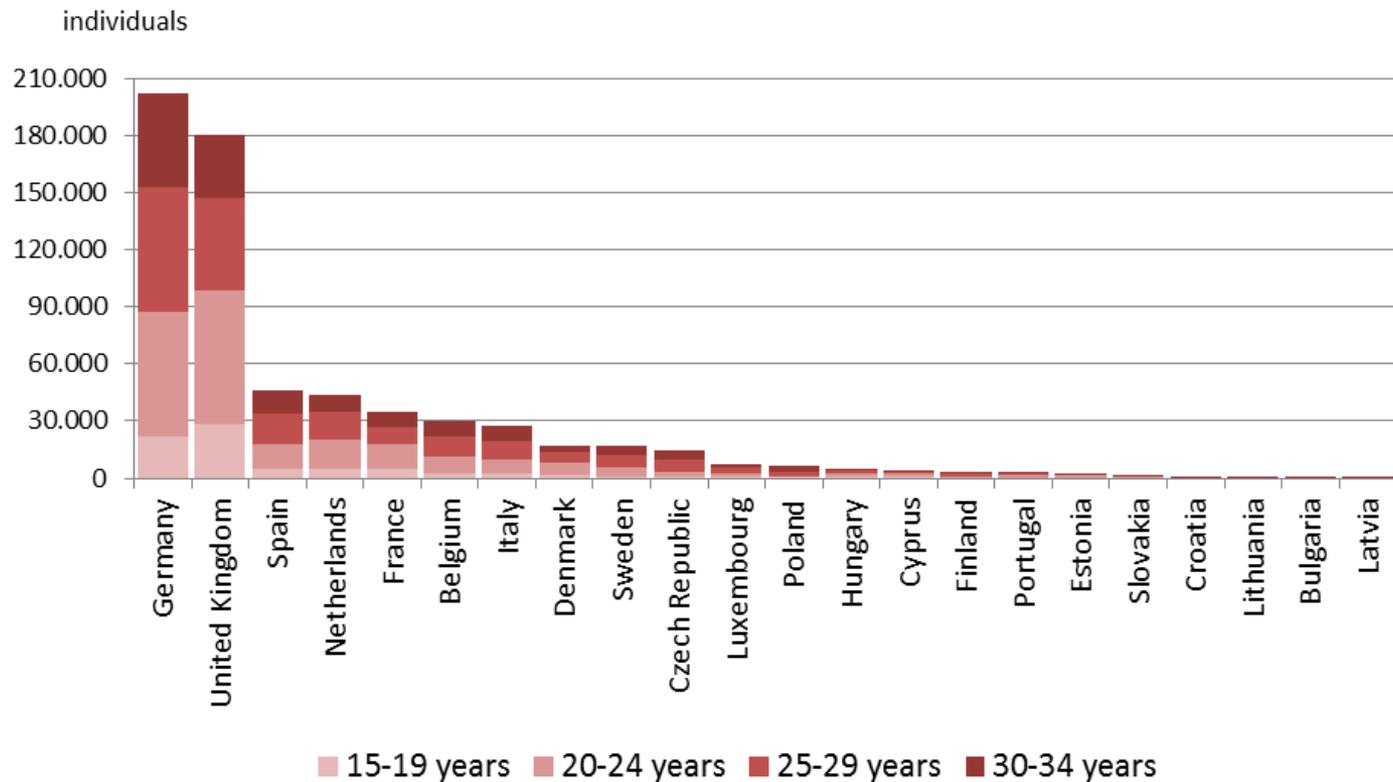
- >> **Germany (33%) - 3 million people**
- >> **UK (20%) - approx. 2 million people**
- >> **Spain (9%) - >1 million people**
- >> **France (7%) - <1 million people**
- >> **Italy, Austria, the Netherlands, Belgium (5%)**

**Top countries of origin** of EU28 movers were:

- >> **Romania, Poland, Italy and Portugal**

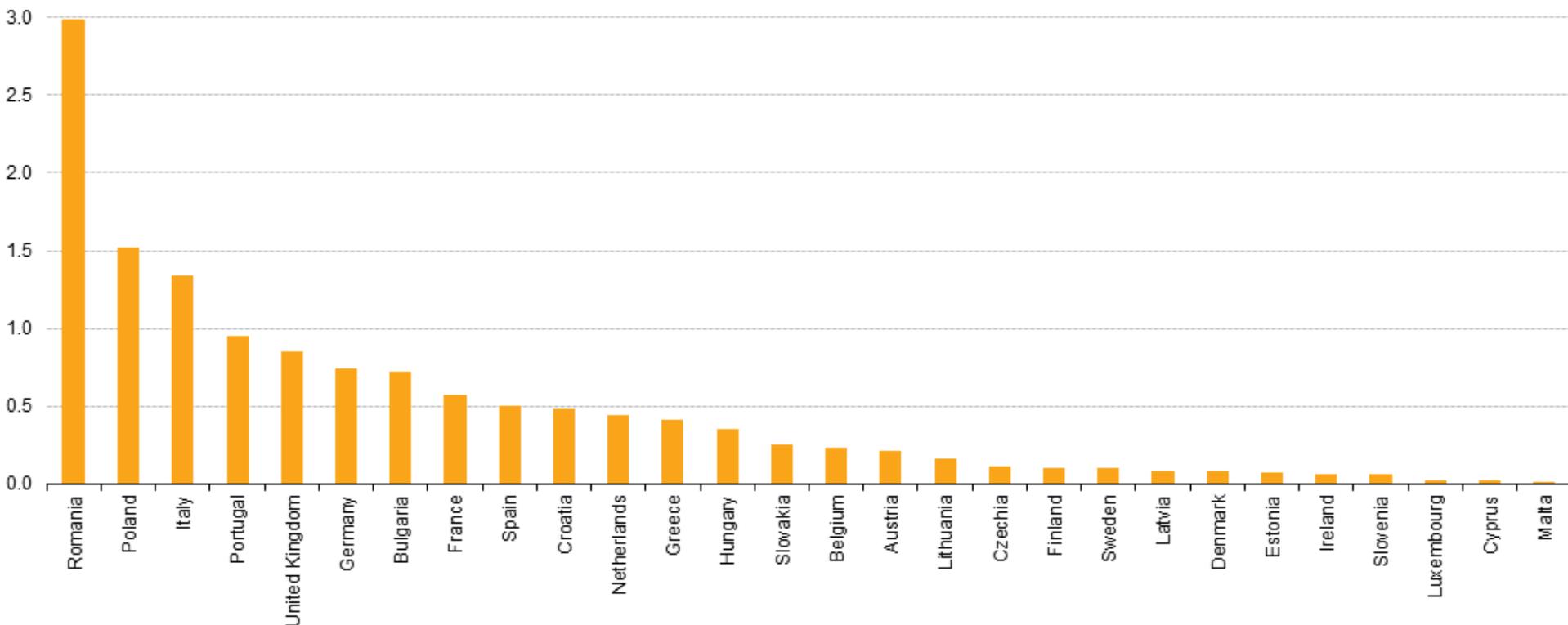
*(ECR, 2018)*

# Destination countries for EU28 movers, age 15-34, approx. 5.5 mil. people



Source: European Committee of the Regions, 2018, *Addressing Brain Drain: the Local and Regional Dimension*, Commission for Social Policy, Education, Employment, Research and Culture, p. 11

## Number of EU citizens that are usual residents in the rest of the EU as of 1 January 2018, EU-28 (million)



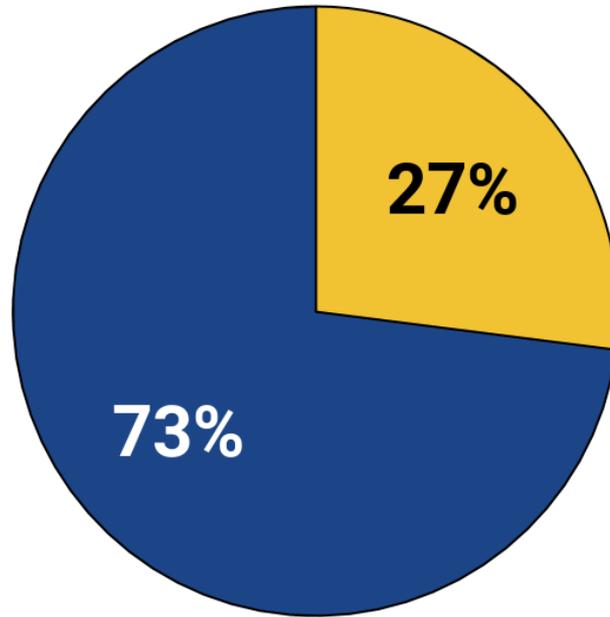
Note: Detailed data by individual EU citizenship have been provided by neither Cyprus nor Malta nor the United Kingdom.

Only detailed data by individual EU citizenship for the most numerous ones have been provided by Spain.

Source: Eurostat (online data code: migr\_pop1ctz)

# Highly-skilled workers in Romania experienced the highest emigration rate, with 27 % living abroad in 2017

## Highly-skilled workers



● Abroad ● In Romania

**This process led to labor supply shortages, especially in science and technology fields.**

**- Bulgaria, Croatia, and Romania report high levels of out-migration for all health workers**

(Migration and Brain Drain, World Bank, 2019, pp. 63-65)

# **Negative impact** for Sending / Receiving regions

**For sending regions:**

- >> reduction of the stock of human capital,**
- >> reduced economic growth,**
- >> reduced productivity, reduction of tax income,**
- >> labour market changes (e.g. reduction of wages),**
- >> limited capacity to innovate.**

**For **the entire system**:**

- >> "brain waste"**

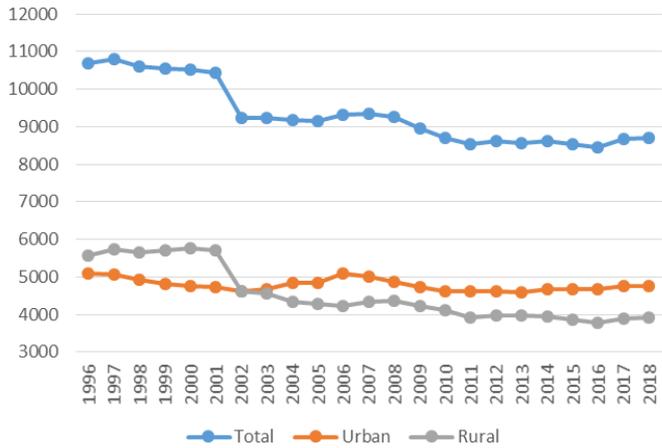
**Highly skilled workers end up in being unemployed or employed in a job not requiring their high skills.**

*(Cavallini, S. et al., 2018)*

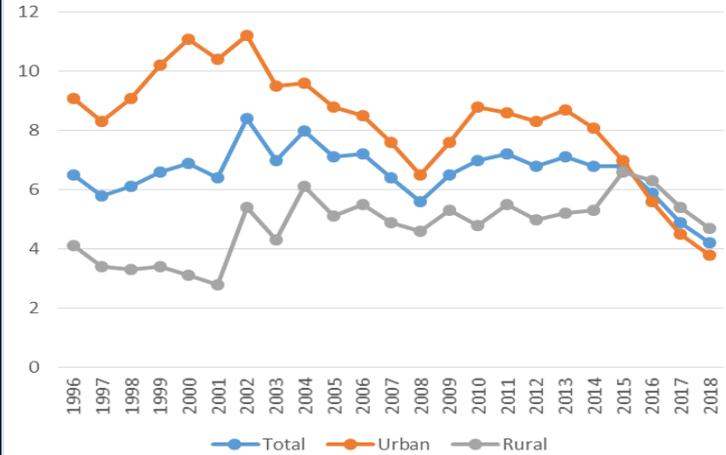


# Workforce in Romania: Evolution in time

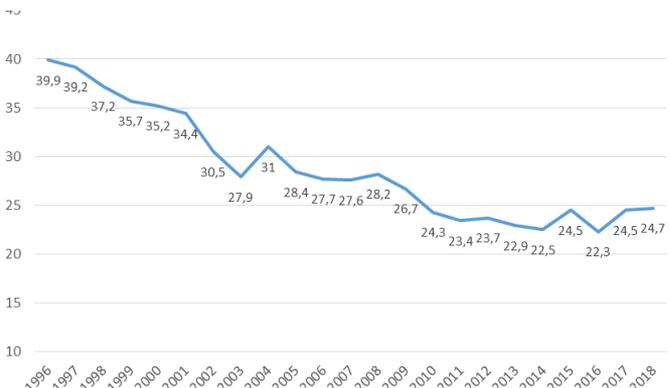
## Evolution of the working population



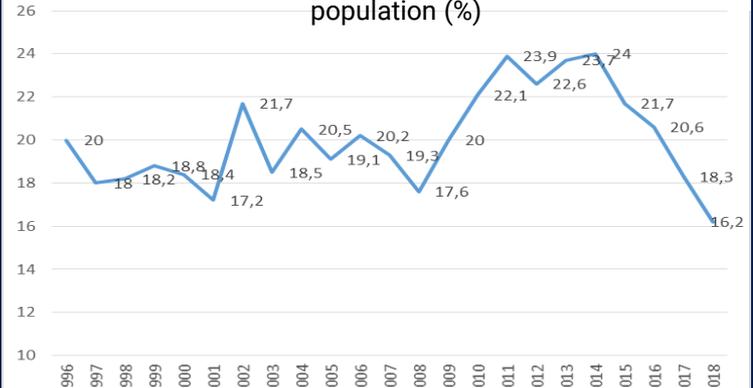
## Evolution of the unemployment rate (%)



## Evolution of employment % within the youth population

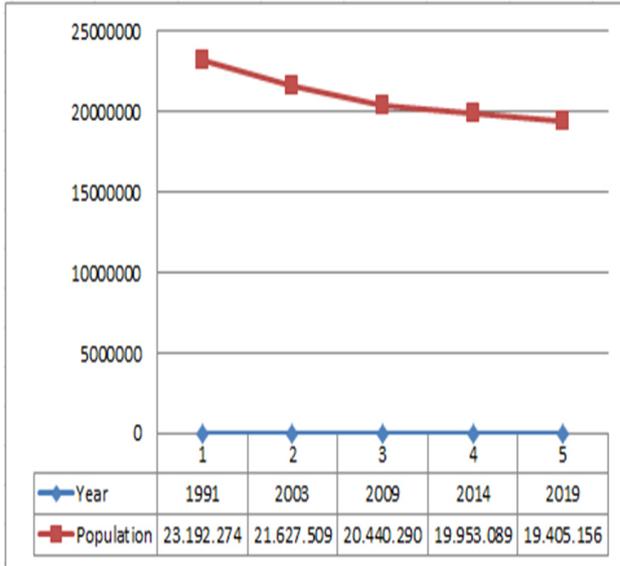


## Evolution of the unemployment rate within the youth population (%)

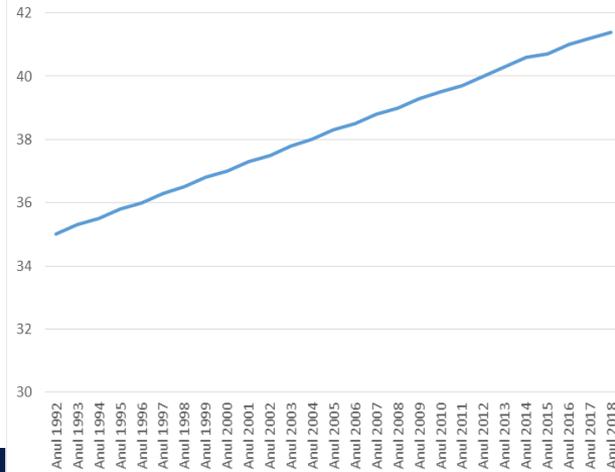


# Population of Romania: Evolution in time

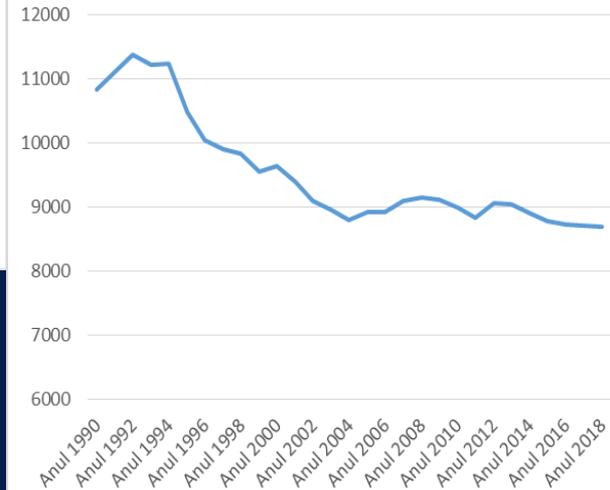
## Population of Romania: Evolution 1992-2018



## Age average in Romania 1992-2018



## Active population of Romania: Evolution 1992-2018



# Positive impact for Sending/Receiving regions

## For **sending regions**:

- >> dissemination of knowledge,
- >> remittances etc.

## For **receiving regions**:

- >> increase in innovation potential,
- >> economic growth,
- >> competitive advantage a.s.o.

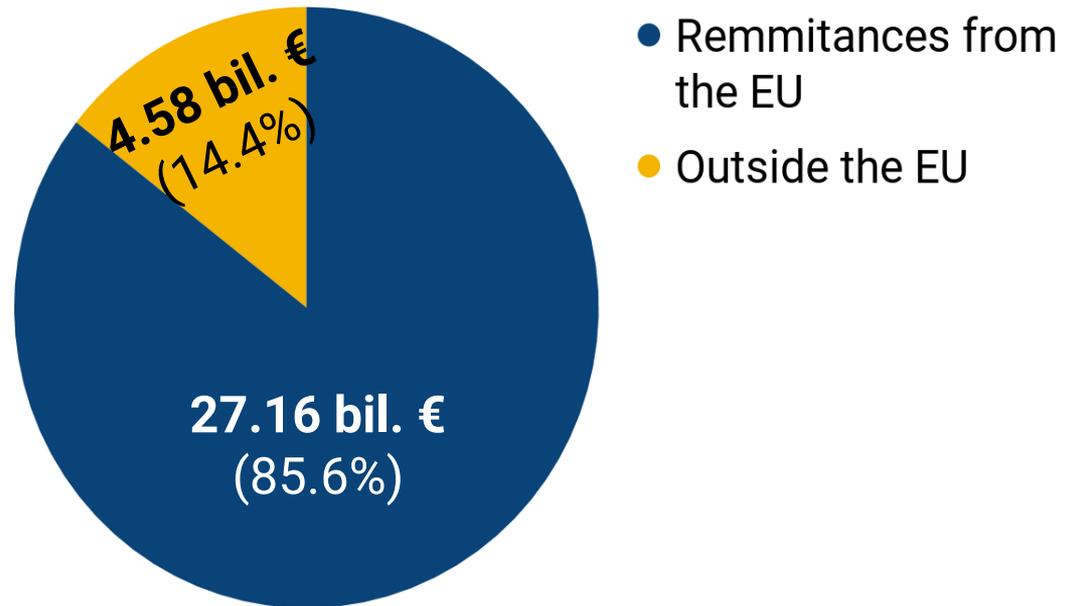


# Remittances of Romanian workers from abroad during the 2007-2017 period (EUR)

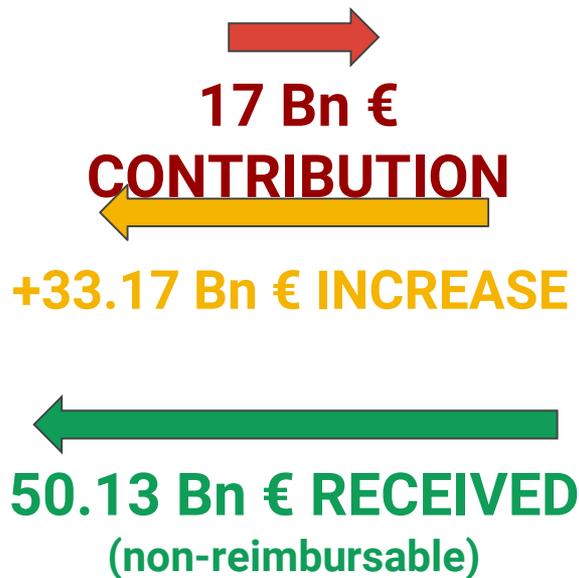
Year	Abroad Remittances (total) mil. EUR	Remittances from the EU mil. EUR
2007	4988.9	4638.5
2008	5156.4	4792.0
2009	3020.8	2661.6
2010	2448.8	2003.7
2011	2295.5	1844.0
2012	2286.7	1801.6
2013	2098.4	1634.3
2014	2001.7	1548.9
2015	2176.0	1637.4
2016	2449.0	2141.0
2017	2820.3	2458.0
<b>Total</b>	<b>31742.5</b>	<b>27161.0</b>

## Remittances of Romanian workers from abroad

Total Remittances 31.742 bil. €



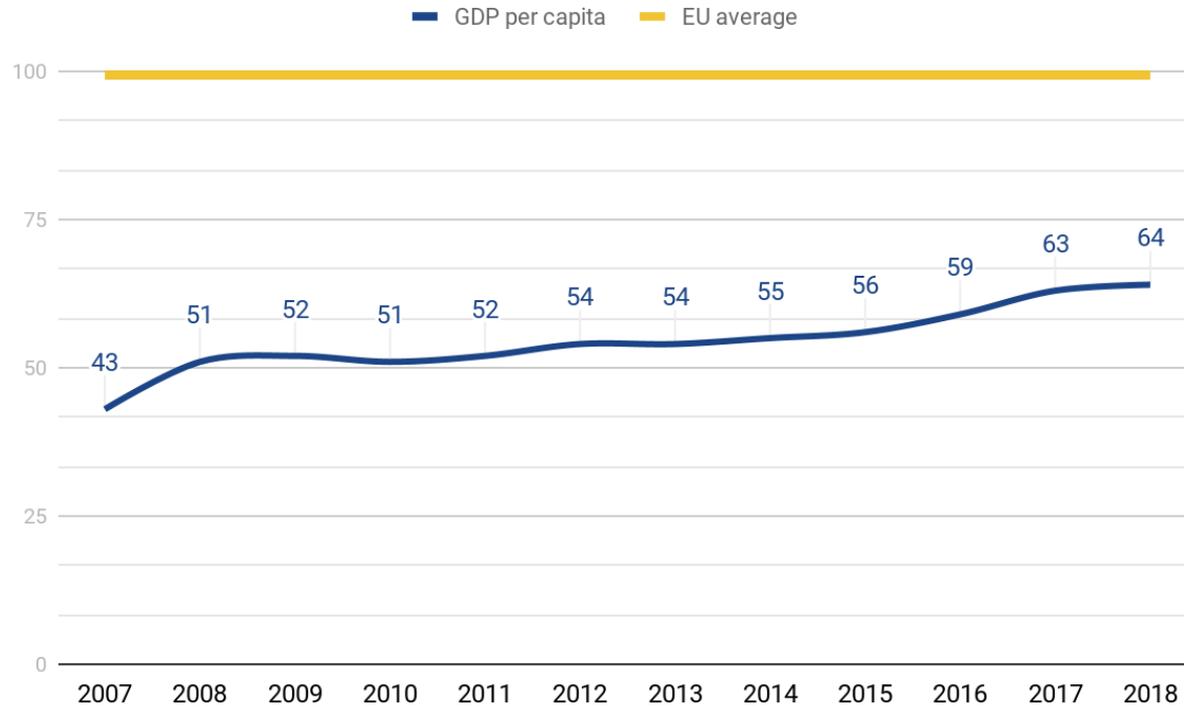
# EU Funding for Romania (2007-2018)



## Absorbed:

- >> funds allocated during the **pre-accession** period, transferred after Romania joined the EU
- >> **European post-accession funds** - programming periods 2007-2013 & 2014-2020

# GDP per capita in PPS (Romania)



Goods and services produced less the value of any goods or services used in their creation. The volume index of GDP per capita in Purchasing Power Standards (PPS) is expressed in relation to the European Union (EU28) average set to equal 100. Source: Eurostat, 01.08.2019

# Push and Pull Factors

overall  
**quality of life**  
in the region

## Socio-economic conditions

- >> job opportunities & higher wages
- >> higher per capita wealth
- >> economic growth
- >> robust social security
- >> easier access to labour market
- >> higher employment rates
- >> affordability and availability of housing
- >> decent cost of living
- >> quality education system
- >> availability of infrastructure
- >> good healthcare system
- >> leisure activities, social life
- >> good marketing of these regions -  
availability of information on the job market

# Brain drain: **risks** at the European Union Level

I. **In 2007 approx. 25% of the population** of the European Union lived in regions with an income per capita below 75% of the EU average - in **2017** we have the **same percentage of 25%**

II. **Regarding the population at risk of poverty or social exclusion:**

116 million in 2007 - **112 million in 2017**

The proposed target for **2020: 96 million**

III. **83 million Europeans** (one in six EU residents)

live in low-income and low-growth regions (*Widuto, 2019*)

The phenomenon of brain drain is **directly triggered by** existing **social and economic imbalances** among the EU regions.

Although EU institutions have strived to put forward mechanisms to reduce these disparities, they have been partially effective.

The **risk** posed by this phenomenon to the **long term sustainability of the European Project**



**MORE  
INTEGRATION  
NOT NEW  
BARRIERS.**

# Tackling brain drain: interconnected levels

- > **Local, regional, national and supranational (EU)**
- > Brain drain and the other connected phenomena (brain gain, brain circulation, etc.) need to be understood and assessed in the EU in the context of **multilevel governance (MLG)**



# Tackling the brain drain: political commitment for cohesion

>> EU'S cohesion policy 2021 - 2027 to be a long-term investment policy for all regions, focused on overcoming the economic, social and territorial divides better coordinated with other EU policies on a level playing field ([#CohesionAlliance](#))

>> At EU level, improve the vertical coordination of different funding sources in the governance of post-2020 Cohesion Policy and programmes to guarantee more coherence of the agendas at different governance and planning levels in the short to medium term

# Tackling brain drain: **policy recommendations**

- 1. Good Governance and Effective Democracy**
- 2. Building Knowledge Economy**
- 3. Improving Attractiveness of Regions**
- 4. Developing Diaspora Strategies**
- 5. Quality of Life**



## Tackling the brain drain:

### **Education, Education, Education**

>> Lack of **well-performing education systems** is one of the problems associated with brain drain.

**Education** is clearly an area where improvements can help to mitigate the negative effects of brain drain.

>> **Stronger cooperation between European research institutions**



>> Development of the **European University Consortium**

>> Public authorities need to develop **partnerships with universities**. Partnerships between private firms (interested in R&D), local authorities and universities are **engines for local growth and development**.

# Tackling the brain drain: Education, Education, Education

>> **The importance of Erasmus+ program and similar ones** in connection with brain drain, in terms of creating academic and professional opportunities for talented individuals and creating opportunities for international networking and partnerships.

**The new Commissions support for increasing the budget** (Ursula von der Leyen - *A Union that strives for more. My agenda for Europe*, p. 14) **of the Erasmus+ program** is a step in the right direction.



>> The objective of the new EU Commission for a **European Education Area by 2025** "in which **learning, studying and doing research would not be hampered by borders**" (Ursula von der Leyen - *A Union that strives for more. My agenda for Europe*, p. 14) needs to carefully consider the potential effects of increasing the brain drain phenomenon if **mechanisms are not put into place to foster brain circulation and brain re-migration** instead of drain.

# Responsibilities and Recommendations for local, regional and state level

- R1. "Investigate and understand the needs of talent"**
- R2. "Coordinate players and synergies resources for talent-based growth"**
- R3. "Identify and support key driving sectors for retaining/attracting talent"**
- R4. "Stimulate the absorption of outside talent"**
- R5. "Mitigate/remove structural impediments/barriers to attracting international talents"**
- R6. "Cooperate with other authorities facing the same challenges with regards to highly skilled workers" (Cavallini, S. et al., 2018)**

## Conclusions:

Everyone is free to move voluntarily  
inside the European Union,  
**but no one should be forced  
to leave the country due to poverty  
and other economical reasons.**

# Conclusions

- >> Brain drain is directly triggered by existing social and economic imbalances between the EU regions. The European Commission should step up its efforts **to reduce regional disparities;**
- >> The instruments offered by **the cohesion policy** as well as the synergies with the centrally managed programmed **should be fully exploited to limit brain drain;**
- >> **Improve the coordination** of different funding sources in the governance post-2020 Cohesion Policy and programmes.

# Conclusions

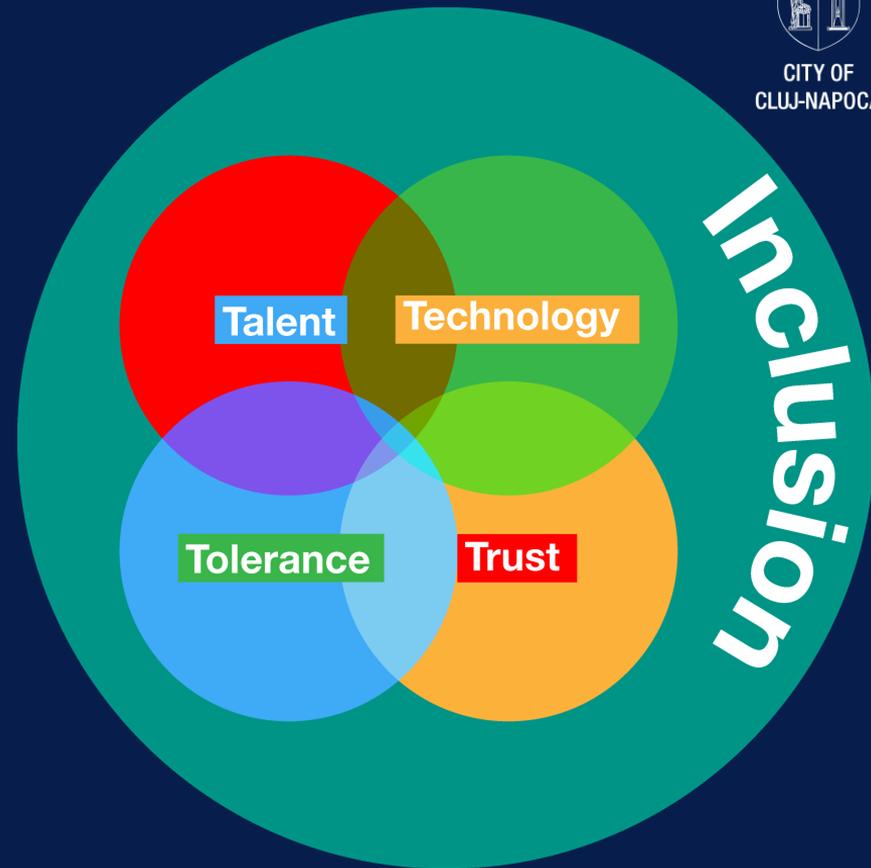
>> The European Commission should **actively support** - in close cooperation with the European Committee of the Regions, the European Parliament and the EU Council of Ministers - **the efforts of local and regional public bodies in addressing brain drain.**

The Union is a complex political and administrative entity, and careful analysis of its responsibilities and capabilities is needed with respect to brain drain. Discussion of the Union's role will entail both determining its responsibilities and identifying the best tools available at EU level.



CITY OF  
CLUJ-NAPOCA

# Cluj-Napoca:



**ECO**  
system

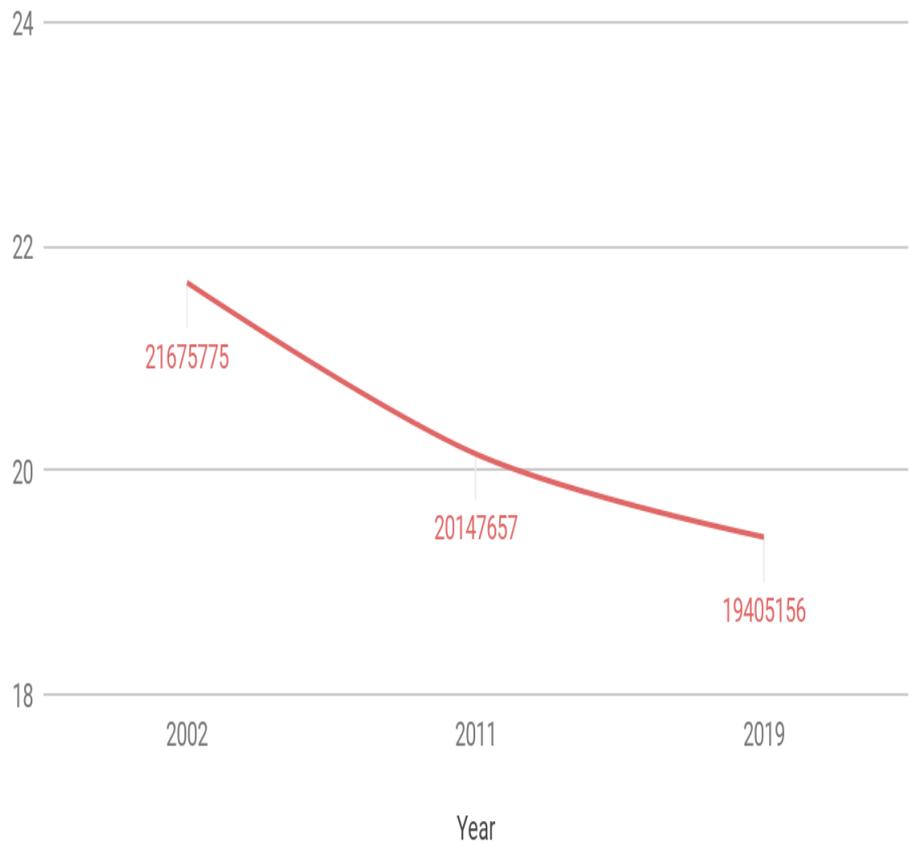
not

**EGO**  
system

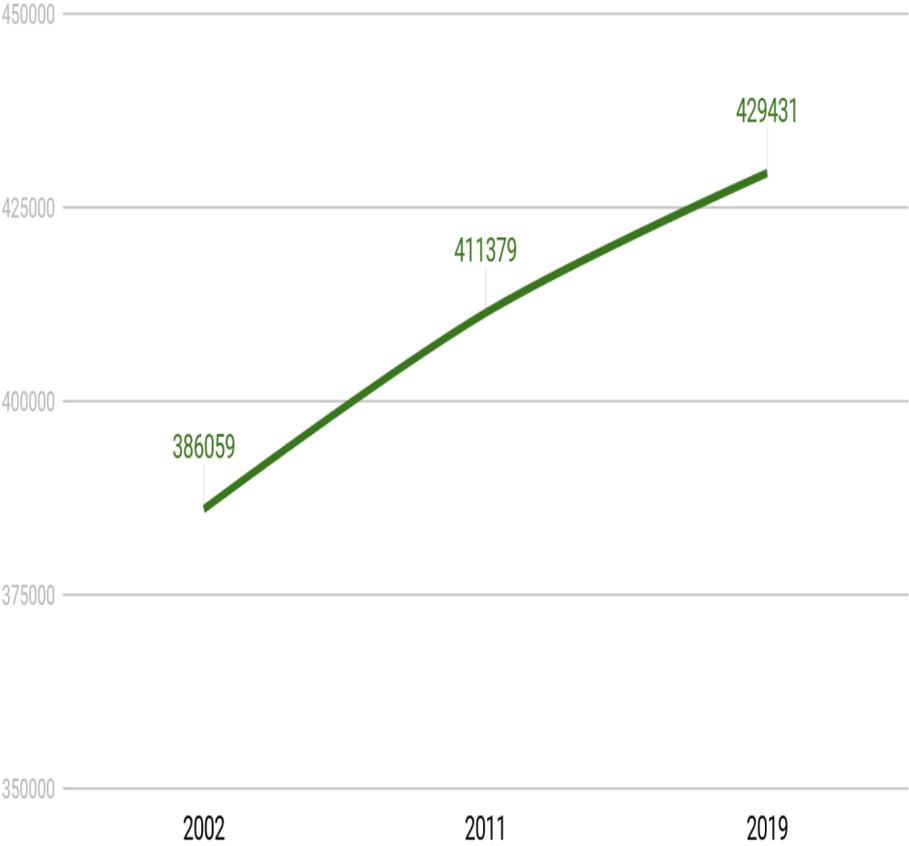


CITY OF  
CLUJ-NAPOCA

## Population of Romania: Evolution in time



## Population of Cluj Metropolitan Area: Evolution in time



# Public Policies and Good Practices in Cluj-Napoca

## A. Good governance

### >> Participatory governance

Multiple Helix model: universities, private sector, NGOs, citizens and public administration

- > Participatory budgeting processes
- > Civic Creativity and Innovation Center
- > Advisory Council for Entrepreneurship and Innovation in IT
- > **Drafting the City's Strategy together with the specialists from the "Babeş-Bolyai" University and with the broad participation of civil society structures**
- > Open minded public administration, citizens-oriented: supports innovation and digitalization in



# Cooperation between the City administration and the local Universities



- Collaboration protocol with "**Babeş-Bolyai**" University to ensure the **correlation between the local/regional labor market and the university curricula**
- Collaboration with the **Interdisciplinary Center for Data Science** of "Babeş-Bolyai" University for studies related to the **economy** of the Cluj Metropolitan Area and to the City of Cluj-Napoca, targeting **urban mobility** and the **sustainable development of the city**.
- **The Department of Social and Medical Assistance** is a partner of "Babeş-Bolyai" University in projects related to **inclusive housing** and **gender equality**.

# Cooperation between the City administration and the local Universities



- Partnership of the **Tourist Information Center** with "Babeş-Bolyai" University for **students' practice** and promoting the program of events / organizing exhibitions, festivals, etc.
- Collaboration with the **Technical University of Cluj-Napoca** for the **modernization of the public transport fleet, for autonomous electric vehicles and for energetic efficiency**

*(European Energy Service Award 2019 - Cluj-Napoca City Hall together with the Technical University of Cluj-Napoca and The Centre for Resources in Energy Efficiency & Climate Change).*



# Public Policies and Good Practices in Cluj-Napoca

## B. Knowledge economy

**>> IT and innovation hub** > number of employees working in IT: **more than 20,000**

(source: Transilvania IT estimate, 2018);

*> Cluj-Napoca - the Romanian city with the highest percent*

*of software development from the total IT employees.*

*> Cluj-Napoca - the Romanian*

*city with the highest percent of software development from*

**>> Romanian capital of clusters**

> 8 Business Clusters with: 393 member companies, 8 member universities, 5 Partner public institutions, 22 Catalyst organizations

**>> Startup City** > the number of startups doubled in the last 10 years;

> 2500 new companies registered on average in the metropolitan area;

# Public Policies and Good Practices in Cluj-Napoca

## B. Knowledge economy

- ✓ Cluj-Napoca joined Startup City Europe Partnership.
- ✓ Cluj-Napoca hosted the Startup Europe Summit 2019.



# Public Policies and Good Practices in Cluj-Napoca

## B. Knowledge economy

- The City of Cluj-Napoca and Transylvania IT Cluster are organising during **4-5 March 2020** a series of events focusing on the **EU dimension of the innovative start-ups and the business ecosystem**;



- The main event will focus on **The Startup Innovation Camp Cluj-Varna**, as the final phase of a pilot project that has been developed by the two cities for the last year. The general theme of the **2020 Innovation Camp** is build around the *Startup Strategic Partnership Initiative* and the Cluj-Napoca - Varna collaboration on **innovative verticals** (Cluj - AI and e-health; Varna - blockchain and e-tourism).

# Public Policies and Good Practices in Cluj-Napoca

## B. Knowledge economy

>> Development of the educational system at all levels (pre-school, school, university and post-university) and **child care policies**

> for every 5 lei paid by the inhabitants of Cluj Napoca on taxes, at least 1 leu goes to the City Hall's programs supporting Education.

>> Benefits for young people: scholarships, free public transport for students, dedicated transportation programs, support for disadvantaged young people, awards for outstanding results in urban public transportation a.s.o.



# Public Policies and Good Practices in Cluj-Napoca

## B. Knowledge economy

- Creative industries and “Cluj Future of Work” Project (UIA)
- Cluj Innovation City Project - Cluj Innovation Park
- Partnership with The Youth Federation of Cluj for The Youth Advisory Council and for The Youth Center.
- “Young Researchers in Science and Engineering Prize”.



# Cluj-Napoca - Ecosystem for Innovation

- **Infrastructure**
- **Connectivity**
- **Smart Technologies**
- **Affordable Housing**
- **Resilience**
- **Sustainable Urban Mobility**
- **Green mobility - addressing climate change**
- **Well-being**



# C. Strategic Goal: increasing Quality of Life

- > Promoting grassroots sports and a healthy lifestyle for everyone: the best investment in health and wellbeing;
- > The first city in Romania with electric buses in the public transport circuit;
- > The first city in Romania to implement the online participatory budgeting process;
- > The first city in Romania to issue urbanistic documentation in digital format;
- > Best practice in increasing the quality of public spaces through international solution contests (Multiple organized)
- > Financial support for cultural activities a.s.o.;
- > Hosting a series of events relevant on a global scale: Transilvania International Film Festival, UNTOLD, Electric Castle, Jazz in the Park (all winners of Best European Festival Titles) and many more;
- > Startup and digital hub.



# Public Policies and Good Practices in Cluj-Napoca

## D. Incentives for investors

- ❖ **Fiscal facilities** - regional state aid schemes and de minimis state aid schemes
- ❖ **The incentives for green buildings:** the reduction of the tax on the building in the case of buildings which have an official certification recognized worldwide (LEED, BREEAM or DGNB) as "green building" (A class)
- ❖ Innovative policy to support office buildings instead of malls or real estate (more than 334K sqm of office space)
- ❖ Business clubs: **business support**

# Public Policies and Good Practices in Cluj-Napoca

## WHY CLUJ-NAPOCA?

**The city with the highest economic growth rate in Romania in the last decade**

Forbes, 2018

**Cluj-Napoca, the best-ranked Romanian city in the global Quality of Life Index 2019**

Numbeo, 2019

**The second European city in terms of access to employment**

Eurostat, 2018

**The most attractive Romanian city**

Highest city magnetism index value, World Bank, 2017

**The Romanian city with the highest cultural vitality besides the Capital**

The Cultural Vitality of Romanian Cities, National Institute for Cultural Research and Formation, 2016

**8 economic clusters that support the innovation ecosystem**

393 companies, 8 universities, and 22 catalyst organizations

**Highly skilled workforce**

≈ 80.000 students and 100.000+ higher education graduates  
Ministry of Education, The National Institute of Statistics

**Romania ranks 6th in Europe and 16th worldwide for English Proficiency**

According to EF's Global English Proficiency Index 2018

**Cluj-Napoca: European Youth Capital 2015 & European City of Sports 2018**

**Top civically engaged city in Romania**

Highest citizen participation in choosing the cities priorities, World Bank and The Federation of Metropolitan and Urban Areas in Romania, UrbanizedHub, 2019

**Friendliest city in Europe with foreigners**

European Commission study, 2015

# Cluj-Napoca: the RIGHT mix of qualities



Quality EDUCATION

Quality WORKFORCE

Quality INFRASTRUCTURE

Quality MEDICAL CARE

Quality ENTERTAINMENT

Quality of **LIFE**

# Thank You!

**Emil Boc**

Cluj-Napoca City  
Cluj. Romania. Europe.

