

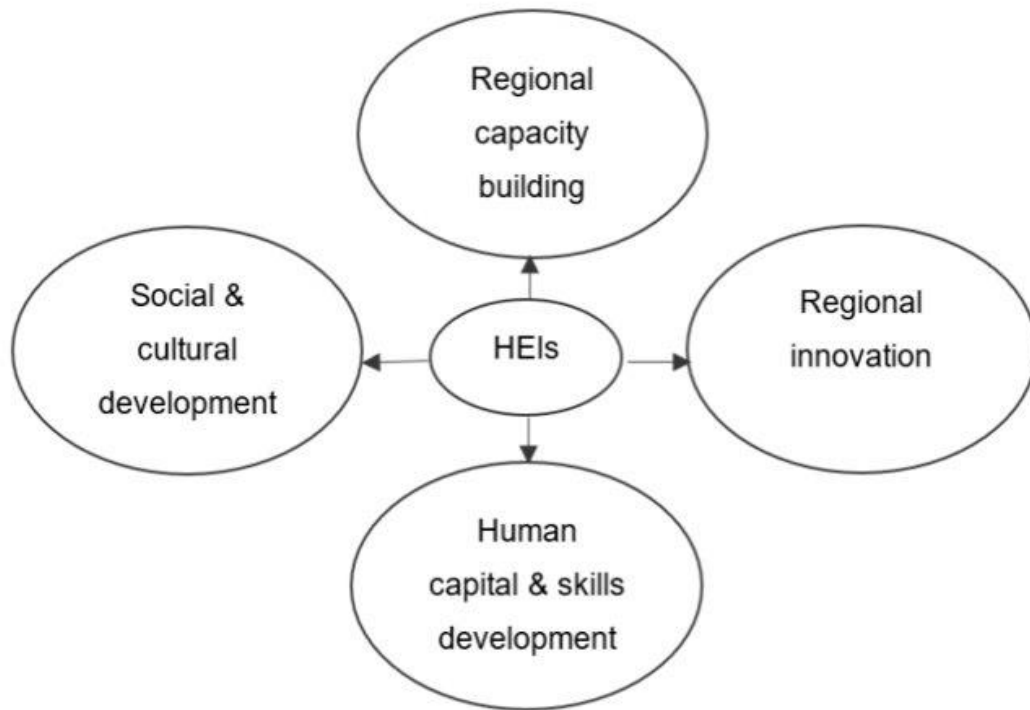
Welcome to the ENDORSE Webinar

24 November 2023

Agenda



What is the University's Role in a Region?



The Challenge

- There are several reasons that small and medium size cities could be attractive location for students and graduates:
 - Mobility and migration is higher in younger people.
 - Small and medium cities could be the new drivers of growth.
 - Cost of living and quality of life is better.
- Regions and cities, especially the small and medium-sized are trying to attract and retain young students and graduates.
- However, since this is a zero-sum problem, there are regions and cities that are net brain gainers while there are regions and cities which are net brain drainers.

How can regions make better use of universities?



- Many universities locations are net exporters of talent.
- This is a sign of insufficient regional integration of a university and difficulty in fulfilling all the potential roles.
- Universities must play a central role within regional innovation networks to make the region more attractive for graduates and create incentives to „stay“.
- Possibilities for this: mentoring, networks, job placement, and promotion of entrepreneurship.



The better the regional integration of the university, the more useful the university can be for regional growth

Can universities „form“ entrepreneurs?



Educate (create founders)	Start entrepreneurial education from an early age (school) to remove fears Create courses that are multidisciplinary and can create collaborations of learners Hands-on training
Activate (recognize founders)	Recognize founders early (applicant level) Create offers (incubators) Enable technology transfer (including employees)
Attract (retain founders)	Create financial incentives (funding, taxes, venture capital) Create infrastructure (affordable access to co-working spaces, office space, internet, etc.) Create social capital



What is ENDORSE?



Project Partners



University of
Applied Sciences
Krems



UNIVERSITY
OF LODZ



Hochschule Niederrhein
University of Applied Sciences

Defining and Classifying Brain Drain Regions



- Identify the European University Cities (city level).
 - ETER (European Tertiary Education Register)
- Calculate brain drain at NUTS-2 level
 - Conceptual issue: changes in population stock not enough, information on skills & educational level is needed
- Classify EU NUTS-3 level brain drain regions according to socio-economic characteristics
 - Eurostat & national statistical offices

Methodology I

- Step 1a: Estimate the production of human capital at each location

$$\frac{\text{Number of Graduates in region } X_1}{\text{Total Number of Graduates in EU}}$$

- Step 1a: Estimate the stock of human capital at each location

$$\frac{\text{Number of Persons aged 25 – 34 years in region } X_1 \text{ in 2021}}{\text{Total Number of Persons aged 25 – 34 years in 2021 in the EU}}$$

- Step 2: Estimate a proxy for the brain drain

$$\frac{\text{Region's share (\%) to the total number of EU persons aged 25-34 with tertiary education in 2021}}{\text{Region's Share (\%) to the Total Number of EU Graduates in 2016}}$$

- **If the ratio >1**
→ the region has more STOCK of human capital, compared to what it Produces → brain gain region.
- **If the ratio <1**
→ the region has less STOCK of human capital, compared to what it Produces → brain drain region

Methodology II

- Classification based on a composite indicator using the following socio-economic determinants

Human capital	Industry	Government
Median age	GDP per capita	Population Density
Net migration	Productivity (GVA per Employee)	Tourism Arrivals
Tertiary Education of Working Population	Gross fixed capital formation	Infant Mortality Rate
Youth Employment	Economic Diversity	Gender Employment Gap
Household Income	Persons employed in Science & Technology	Taxes on Income & Wealth
Poverty Rate	Enterprise Growth Rate	Economic Resilience

The four Types of Brain Drainers

1. The Basic

- Smaller cities in proximity of rural areas that cover local and regional demand for tertiary education
- Problems related to socioeconomic, demographic and physical factors
- Agricultural tradition with a low industry mix and low accessibility
- Education opportunities for households in proximity, but no other opportunities for graduates than to leave
- Regions do not just struggle to retain graduates but also to attract students
- Universities' contribution to the local economy is limited

The four Types of Brain Drainers

2. The Emerging

- Cities, mostly peripheric, with low population density and tradition in agriculture and /or specific areas of manufacturing
- Failure to carry out the shift from traditional manufacturing to innovation-driven industries and modern business-oriented services
- Financial bottlenecks impeding the maintenance of local infrastructure levels and deteriorating quality of life
- Challenges related to vacant and underutilized housing, uncompetitive, old local businesses, as well as a poor infrastructure
- Sometimes, universities are purposely located in these regions to contribute to urban growth

The four types of regions

3. The Advanced

- Bigger cities or smaller cities in metropolitan areas that do face structural problems and low industrial diversity
- Benefits from agglomeration effects or positive spillover effects from bigger cities in their proximity
- Lack of innovative performance and economic growth
- Suffering from the lock-in effects determined by traditional socioeconomic structure, less-speedy industrial evolution, and inefficient production practices
- Universities are an organic part of the urban infrastructure and very often one of the most important contributors to local development
- Reputation allows for the attraction of national and international students

The four types of regions

4. The Frontrunners

- Certain level of economic dynamism, sectoral heterogeneity, involvement in global production processes, R&D investment, and human capital
- Lack of certain types of important social capital such as accessibility shortcomings of firms' R&D cooperation with local research institutes and universities, missing knowledge transfers and personal exchange between firms
- Universities are well known and attract many national and international students without having a matching labor market
- Graduates are being pulled by regions with better opportunities