



**PERIF**

Higher Education in the Socio-Economic  
Development of Peripheral Regions



MINISTRY OF EDUCATION,  
YOUTH AND SPORTS



**Final conference of the project**  
**‘Contributions of Higher Education Institutions to Socio-Economic  
Development of Peripheral regions in Norway and the Czech Republic’ (PERIF)**

The Project (Project Contract MSMT-5397/2015) was funded from Norwegian Financial Mechanism 2005-2014 and the Ministry of Education, Youth and Sports.

**Prague 2 March 2017**

Dear readers,

In this proceedings you can find the original versions of the papers presented at the Final conference of the project “Contributions of Higher Education Institutions to Socio-Economic Development of Peripheral regions in Norway and the Czech Republic” (PERIF). The project (Project Contract MSMT-5397/2015) was funded from Norwegian Financial Mechanism 2005-2014 with the contribution of the Czech Ministry of Education, Youth and Sports.

The conference was designed as three day event and it was organized by the Centre for Higher Education Studies in Prague. It was held in National Library of Technology, unique modern building which symbolizes the interconnection of technological and social worlds, as well as the links between theories and practices. In accordance with this symbol, we investigated in the PERIF project how the world of advance knowledge of higher education institutions has been or could be interlinked with the world of everyday life in the peripheral regions.

The most visible part of the conference was its second day (Thursday, 2nd March 2017) when the PERIF project teams’ members presented the achieved results. However, no less important were the pre- and post- conference workshops, where we discussed the tasks and problems connected to work on the final project both research and practical results. The main research results will be summarized in the form of research papers in the special issue of the Higher Education Policy journal devoted exclusively to the PERIF project. Further, the two research books on peripheral regions in both countries and on universities operating in these regions were prepared to be published by Routledge and Palgrave. The practical results completed in the methodical guide Tool Kit in both English and Czech languages were preliminary completed and discussed jointly with the idea to make this publication helpful for regional authorities as well as for the higher education decision makers.

The significant role of the workshops was to strengthen the already established and developed relationships of all project teams and to support this good basis for the future collaboration.

The basic part of the proceedings is devoted to the papers presented to almost 50 conference participants who came from higher education institutions, research institutions, and regional offices. It was highly appreciated that the conference could host also the students, representatives of the Ministry of Education, Youth and Sports and even wider public.

The conference was opened by foreword presented by Helena Šebková, the director of the Centre for Higher Education Studies. Jan Kohoutek and Rómulo Pinheiro presented the project’s conceptual basis, methodology, key findings and general reflections.

The Norwegian colleagues followed with the illustration of the cases from their peripheral regions. Rómulo Pinheiro spoke about the Agder region together with the positive impact of the University of Agder in the regional development which consist namely in providing qualified staff for public and private sectors, attracting professionals, and infrastructure investments. However, it has had a limited effect (sub-optimal role), when it comes to knowledge production and, most importantly, the abortive/innovative capacity of the region as a whole. There is also the need for a better strategic alignment between regional aspirations (diversification, employability, etc.) and the assets and capabilities of the University of Agder on the one hand and its future aspirations (strategy) and key challenges on the other. James Karlssen presented the Finnmark case, very interesting by the fact that Finnmark is northernmost region in Norway. The influence and impact of the small regional Finnmark University College in the complex Finnmark region have been still rather limited. However, the effect on the education level in the sense to supply especially the public sector with well-educated graduates is not negligible. The cross-boarded collaboration with Russia is motivating activity for other regions which can benefit from the location next to the boarder with foreign country. Nina Kyllingstad presented the Telemark case. She explained that both parties, the region and Telemark University College have entrepreneurship as a focus area in their policy documents: the region in its strategies and Telemark University College by working on entrepreneur camps, study programs and commercialization of research. There should however be an even stronger alignment between the two actors on e.g. entrepreneurship and innovation in order to meet the needs in the region.

After the lunch break the Czech team presented the Czech cases. Helena Šebková, Inna Čábelková, and Vladimír Roskovec showed the Ústí case. The major findings summarized the successful examples of the Jan Evangelista Purkyně University contribution to the regional development like the establishment of Science and Technology Park, network of secondary schools collaborating with the university, activities of the Faculty of Health Studies etc. In contrary, the negative influence of political cycles of regional top management and also of changes of university leadership on systematic and long term collaboration between the university and the region was emphasized. Vysočina case was introduced by Michaela Šmídová and Libor Prudký. The conclusion of their presentation was that Vysočina region should become „a laboratory“ of coming in to 4th modernization phase (directly from 2nd modernization phase). Role of College of Polytechnics Jihlava should be one of the main engines and bearer of this change. Olomouc case was presented by Olga Šmídová and Karel Šima. Also in this case some positive features of the regional development were shown while one of the major finding was that Palacky University should bring the education to the northern underdeveloped part of the Olomouc region.

The last part of the conference opened the space for general discussion on Norwegian and Czech regions and universities.

We hope that you will find the proceedings inspiring and useful in theory as well as in practice.

PERIF team

All presentations are available on the PERIF project website <http://www.perifproject.eu>

## PERIF project Partners

### *Centre for Higher Education Studies (CHES)*



[Centre for Higher Education Studies \(CHES\)](#) is the public research institution dealing with research about higher education (HE) in the Czech Republic. It has 20 employees. The main domains of current research are: implementation of Bologna process priorities, quality assurance, massification of HE and its impacts, programme and institutional diversification, issues of HE staff and students, collaboration of higher education institutions (HEIs) with external partners, third mission of HEIs, and new methods of teaching and learning. CHES collaborates with HEIs and provides them with consultation and information services. In the period 2004-2008, CHES coordinated the OECD project “Thematic Review of Tertiary Education” at the national level, in 2011-2013 coordinated the international LLP project “Identifying Barriers in Promoting the European Standards and Guidelines for Quality Assurance at Institutional Level”. The academic research at CHES is complemented with applied research that has been conducted within various projects: “Collaboration of HEIs with firms and other partners”, “Support of science and technology oriented higher education studies in the Ústecký region”, “Collaboration of HEIs with secondary schools”. From 2014 CHES co-ordinated the project “Science for life and life for science”, which promoted and strengthen the collaboration between various types of educational institutions and industry in Ústecký and Karlovarský regions. CHES also sustains broad international collaboration; its employees are the members of associations such as The European Higher Education Society and Consortium of Higher Education Researchers and they use these international contacts in their research work.

**Team:** Helena Šebková, principal investigator, Jan Kohoutek, Jan Beseda, Josef Beneš, Karel Šima, Michaela Šmídová, Vladimír Roskovec – reseachers.

## ***Charles University, Faculty of Humanities (CU FH)***



The Czech PERIF project partner was the [Charles University, Faculty of Humanities \(CU FH\)](#). The faculty has 200 members of its staff and approximately 2 800 students. The chief areas of its academic research are philosophy (phenomenology and semiotics), cultural, social and historical anthropology, and the applied social sciences. To this project, CU FH brings a uniquely wide spectrum of fields and issue-oriented interdisciplinary specializations: the sociology of knowledge, of institutions and of organizations, economy, gender studies, studies of civil society and the civil sector, studies of management and supervision in care providing organizations. The research of the faculty is focused on e.g. new forms of active citizenship, collective action, social innovation and social economics. Among the 19 research projects and grants undertaken in 2013, one of particular pertinence is “Developing long-term socio-ecological monitoring in the Czech Republic” the results of which were used in the PERIF project. The issue of the cultural anthropology for special regions in the Czech Republic was also important for the project.

**Team:** Inna Čabelková, Libor Prudký, Olga Šmídová

## ***Agderforskning AS (AF)***



[Agderforskning AS \(AF\)](#) is a regional research institution located in Kristiansand. It is owned by the University of Agder and the Agder Research Foundation. It undertakes social science research and development projects regionally, nationally and internationally, taking into consideration the needs and expectations of external stakeholders and by adopting innovative-driven approaches that involve user perspectives and direct involvement (“action research”) at various stages of the research process. AF consists of two research groups: innovation and welfare, in addition to an umbrella unit – Centre for Advanced Studies in Regional Innovation Strategies (RIS) – which draws scholars from various institutional affiliations in Norway and overseas. The Innovation Group is mainly focusing on innovation processes within organizations, the governance of larger innovation systems (national and regional levels), and the role of key social institutions like universities and firms in leveraging innovation processes in society.

**Team:** Rómulo Pinheiro, Roger Normann, Barbara Zyzak, Bram Timmermans, Christine Svarstad , Nina Killingstad, Paul Benneworth





**PERIF**  
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Development of Peripheral Regions



**Final conference of the project**  
**'Contributions of Higher Education Institutions to Socio-Economic**  
**Development of**  
**Peripheral regions in Norway and the Czech Republic' (PERIF)**

Day: 2 March 2017

Venue: National Library of Technology 1/, room number: 2, 3rd floor

Conference language: English

*Programme*

- |              |  |
|--------------|--|
| 9,00-9,30    | Registration   |
| 9,30-10,00   | Welcome and introduction to PERIF project (Helena Šebková)   |
| 10,00-10,40  | PERIF project: rationale, conceptualisations and overall findings<br>(Jan Kohoutek, Romulo Pinheiro)   |
| 10,40-11,00  | Coffee break   |
| 11,00-12,30  | Norwegian regions and universities: summary of case findings<br><i>Moderator: Karel Šima</i>   |
| 11,00-11,30: | Agder case (Romulo Pinheiro)   |
| 11,30-12,00: | Finmark case (James Karlsen)   |
| 12,00-12,30: | Telemark case (Nina Kyllingstad)   |
| 12,30-13,30  | Lunch  |
| 13,30-15,00  | Czech regions and universities: summary of case findings<br><i>Moderator: Roger Normann</i>  |
| 13,30-14,00  | Ústí case (Helena Šebková, Inna Čábelková)   |
| 14,00-14,30  | Vysočina case (Michaela Šmídová, Libor Prudký)   |
| 14,30-15,00  | Olomouc case (Karel Šima, Olga Šmídová)  |
| 15,00-15,15  | Coffee break   |
| 15,15-16,30  | Follow-up on case presentations: general discussion on Norwegian and<br>Czech regions and universities<br><i>Moderator: Inna Čábelková</i>               |
| 16,30-17,15  | Roundtable talks on PERIF project results: Norway and the Czech<br>Republic (separate talks in two rooms*). * Czech roundtable in Czech if<br>necessary. |
| 17,15        | Conference close   |

1/ Getting around available at: <<https://www.techlib.cz/en/2753-contacts>>.



**Contributions of Higher Education Institutions to Socio-Economic Development of Peripheral regions in Norway and the Czech Republic' (PERIF)**

Date: **2 March 2017**

Venue: **National Library of Technology** (Národní technická knihovna)  
Technická 6/2710, Prague 6, 3rd floor

***List of participants***

Name	Institution
Beneš Josef	CSVŠ, v.v.i.
Beseda Jan	CSVŠ, v.v.i.
Čábelková Inna	UK
Čechák Vladimír	VŠFS
Hán Jan	VŠH
Hlaváček Petr	UJEP
Holečková Marcela	Ústecký kraj - Ústí
Hrstka Dušan	MŠMT
Hruška Vladan	UJEP
Hündlová Lucie	CSVŠ, v.v.i.
Chvátalová Alena	UJEP
Illner Michal	Sociologický ústav AV
Ježková Jana	MPSV, ÚP ČR (Ústí n. L.)
Kadlec Vojtěch	UK
Karlsen James	Agderforskning AS
Kohoutek Jan	CSVŠ, v.v.i.
Kostelecký Tomáš	Sociologický ústav AV
Kuncová Martina	VŠPJ
Kyllingstad Nina	Agderforskning AS
Macková Veronika	MŠMT
Netolický Václav	VŠFS
Normann Roger	Agderforskning AS
Pinheiro Romulo	Agderforskning AS
Prudký Libor	UK
Roskovec Vladimír	CSVŠ, v.v.i.

Škovajsa Marek	UK
Staněk Jan	VŠCHT
Šafářová Marie	Olomoucký kraj
Šafr Jiří	Sociologický ústav AV
Šafránková Jana Marie	VŠ regionálního rozvoje
Šebková Helena	CSVŠ, v.v.i.
Šima Karel	CSVŠ, v.v.i.
Šmídová Michaela	CSVŠ, v.v.i.
Šmídová Olga	UK
Štěrbová Alena	VŠPJ
Veselý Jiří	UK
Vinš Václav	VŠH
Young Mitchell	UK







## Introductory presentation

Helena Šebková, Centre for Higher Education Studies

**Project: The contribution of higher education institutions to strengthen socio-economic development of peripheral regions in Norway and the Czech Republic (PERIF)**

### **Czech-Norwegian Research Programme**

#### **Project partners**

- Centre for Higher Education Studies, Prague, Czech Republic
- Charles University, Faculty of Humanities Prague, Czech Republic
- Agderforskning, AF      Kristiansand, Norway

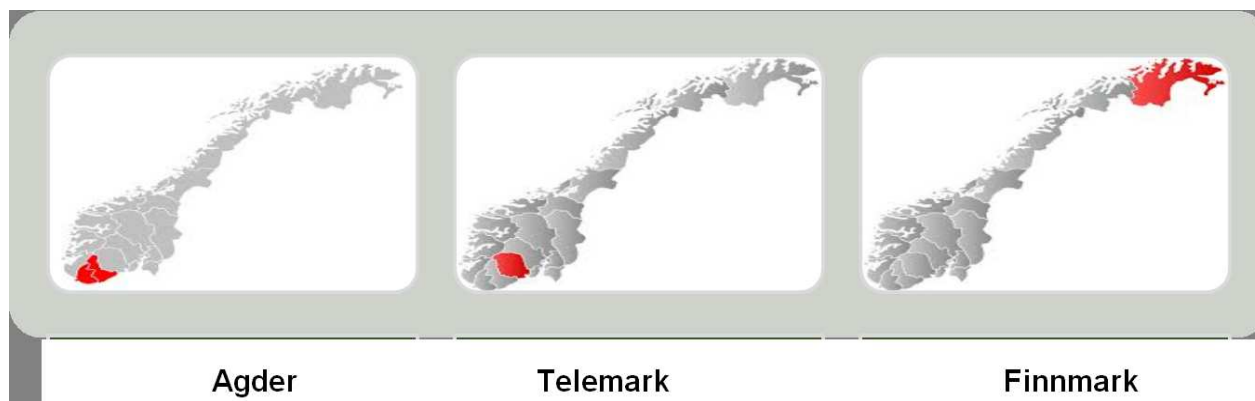


#### **Main project objectives**

- To analyse the roles/missions of higher education institutions as critical actors in the regional economic and social development of underdeveloped/less developed regions in the Czech Republic and Norway.
- To connect real long-term needs/demands of regions with education, research and other capacities (third missions) of the HEIs operating directly in those regions
- To develop national frames of reference in form of „a matrix“ of regional needs and HEIs possible responses/contributions; to find commonalities and differences in both countries
- To elaborate and publish both research and practical project results
- To compose national teams well balanced in gender representation, involving both experienced as well as young doctoral researchers (doctoral students)
- **To strengthen base already existing collaboration of researchers** of involved institution from both countries



### Case regions





## Case universities

### Norway

- University of Agder
- Telemark University College
- Arctic University of Norway



### Czech Republic

- University J. E. Purkyně in Ústí n./L.
- Palacky University Olomouc
- College of Polytechnics Jihlava



## Project deliverables

### Research results

#### University and Peripheral Regions: *Special issue of Higher Education Policy journal*

- Higher education institutions in peripheral regions: A literature review and framework of analysis
- Universities' third mission: Global discourses and national imperatives
- The role of higher education institutions in fostering industry clusters in peripheral regions: Strategies, actors and outcomes
- Regional development: Lifelong learning as priority in Norway and the Czech Republic?
- Between rigour and regional relevance?

- Outsiders or leaders? The role of higher education institutions in the development of peripheral regions
- What are the cultural preconditions of universities regional engagement? Towards a multi-dimensional model of university-region interfaces

### Edited book on PERIF-EU regional economic development (Routledge)

#### Overarching aims:

- to highlight the ways that universities engage with their regions towards stimulating their economic development
- to consider the complexity of universities that can affect these ways and
- to find the universities' contribution to developing a more "high road" of regional development

### Edited book on higher education and regional development in Norway and the Czech Republic (Palgrave)

- to find interconnection of universities "offer" and regional needs
- to analyse the (miss)alignment with respect to actors, structures, processes...
- to discuss implications and possibilities



### Applicable results

- **Book on regions** of both countries – electronic publication
- **National frames of reference** in form of „a matrices“ for both countries with detailed description of region-HEI collaboration, interconnections and problems – electronic publication
- **Tool Kit** (methodological guide) on how to meet the various needs of peripheral regions with assistance/support of HEIs including examples of exploitable practice - publically available for long-term exploitation (possibly more broadly than only in the Czech Republic and Norway).



### Dissemination and sustainability of project results

#### Dissemination activities

##### various meetings

- Periferní regiony v ČR a norská inspirace, FHS UK, June 2016
- Breakfast seminar with stakeholders, Kristiansand, September 2016
- 2nd Czech-Norwegian Research conference – Prague 2016
- Meeting with representatives of Norwegian embassy, FHS UK, January 2017

##### articles for public

- Právo, Učitel'ské noviny
- AULA journal

#### Sustainability

- All published project results - books, articles in journals
- Other results publically available at project website ([www.perifproject.eu](http://www.perifproject.eu))
- Czech – Norwegian research team





## PERIF project: Conceptualisation, methodology, key findings & general reflections

Jan Kohoutek, Senior Researcher, Centre for Higher Education Studies  
Rómulo Pinheiro, Senior Researcher, Agderforskning

### **Contents**

1. Conceptualisation
2. Methodologies
3. Overall findings Czech Republic
4. Overall findings Norway
5. General reflections

### **Conceptualizing Universities' Regional Mission: the state of the art knowledge**

#### **Regional Mission (Definition)**

- The purposive efforts - both formal and informal - by universities (and the academic communities composing them) to address dimensions of relevance to various regional actors and the surrounding region as a whole
- How does such university regional (third) mission help in advancing development of peripheral regions?
- → exploration of the university-region interface within surroundings of a peripheral status

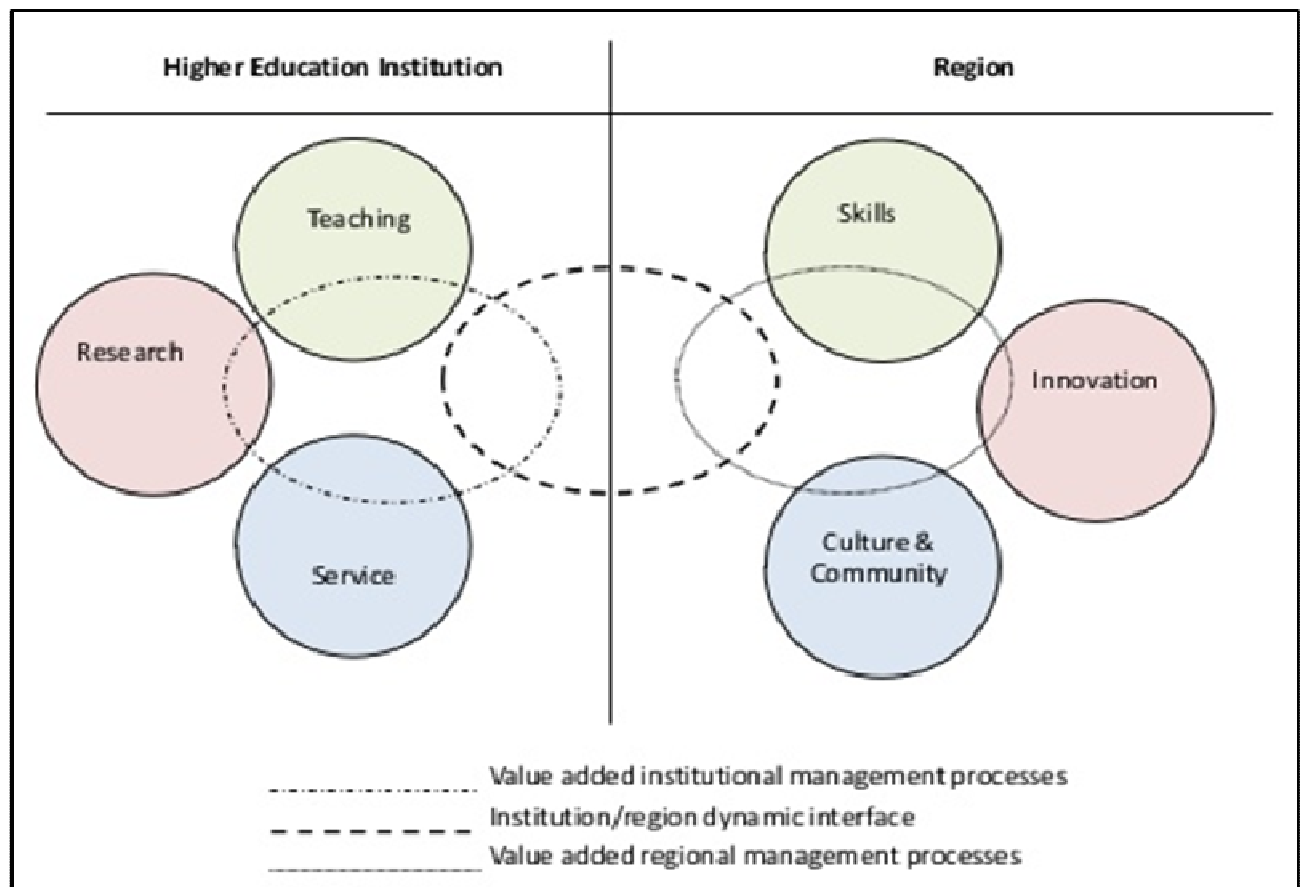
#### **University Functions**

**Universities articulate differently their (3) missions depending on the functions they fulfil:**

- **Mass tertiary education**
  - with the bachelor degree as a central feature);
- **Professional specialised higher education and research**
  - with the professional master as a central diploma, and “problem solving research” as a central activity;
- **Academic training and research**
  - with the PhD as the central diploma and articles as the central output

Laredo (2007)

## Strategic management interface



Source: Goddard & Chatterton (2000)

# Entrepreneurial architectures

Entrepreneurial element	Defined as
Structures	Entrepreneurial infrastructure including TTOs, incubators, technology parks, business portals, etc.
Systems	Networks of communication and the configuration of linkages between structures and departments, administration, etc.
Strategies	Institutional goals elaborated in planning documents; includes internally determined formal incentive structures
Leadership	Qualification and orientation of key leaders (administration, board, of directors, department heads, star 'scientists') towards the Third Mission
Culture	Institutional, departmental and individual attitudes and norms towards the third stream



Vorley & Nelles (2008)

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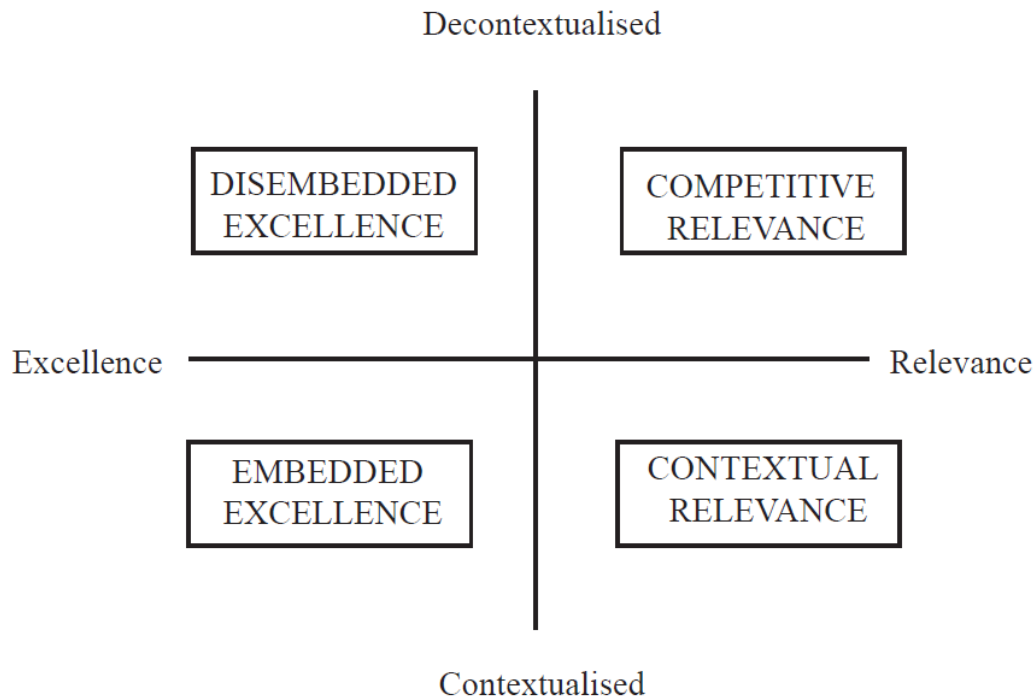
## Generative vs. Developmental Roles

Key element of regional innovation system	Generative role	Developmental role
Regional agglomeration, or clustering, of industry	<ul style="list-style-type: none"> <li>Knowledge capitalisation and capital formation projects, centred on firm formation and co-location of new and existing firms near the university</li> </ul>	<ul style="list-style-type: none"> <li>Entrepreneurial activities, as well as regionally focused teaching and research, not necessarily linked to capital formation projects</li> </ul>
Human capital formation	<ul style="list-style-type: none"> <li>Integration of education and knowledge capitalisation activities, specifically, firm formation, through teaching incubators</li> <li>Development of generic, advanced training programs to support firm formation and cross-institutional mobility by organisations and people</li> </ul>	<ul style="list-style-type: none"> <li>Stronger regional focus on student recruitment and graduate retention</li> <li>Education programs developed/adapted to meet regional skills needs</li> <li>Learning processes regionally informed</li> </ul>
Associative governance	<ul style="list-style-type: none"> <li>Driver of regional innovation strategy, centred on knowledge capitalisation and capital formation projects; by analysing strengths and weaknesses and bringing together industry and government to forge innovation strategy</li> </ul>	<ul style="list-style-type: none"> <li>Shaping regional networking and institutional capacity, through staff participation on external bodies; provision of information and analysis to support decision-making and brokering networking between national and international contacts and key regional actors</li> </ul>
Regional cultural norms	<ul style="list-style-type: none"> <li>Tradition of university/industry linkages, involving knowledge capitalisation</li> </ul>	<ul style="list-style-type: none"> <li>Tradition of university/industry linkages, involving knowledge capitalisation and other research collaborations</li> </ul>

Gunasekara (2006)

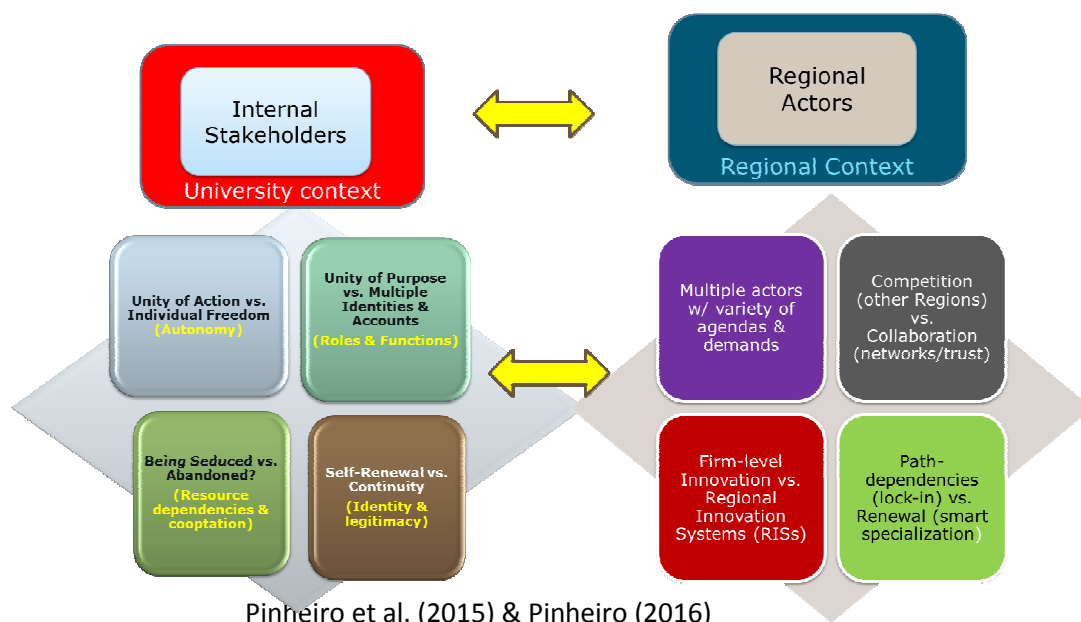
Perry & May (2006)

**Figure 1: The Contextualisation of Excellence and Relevance**



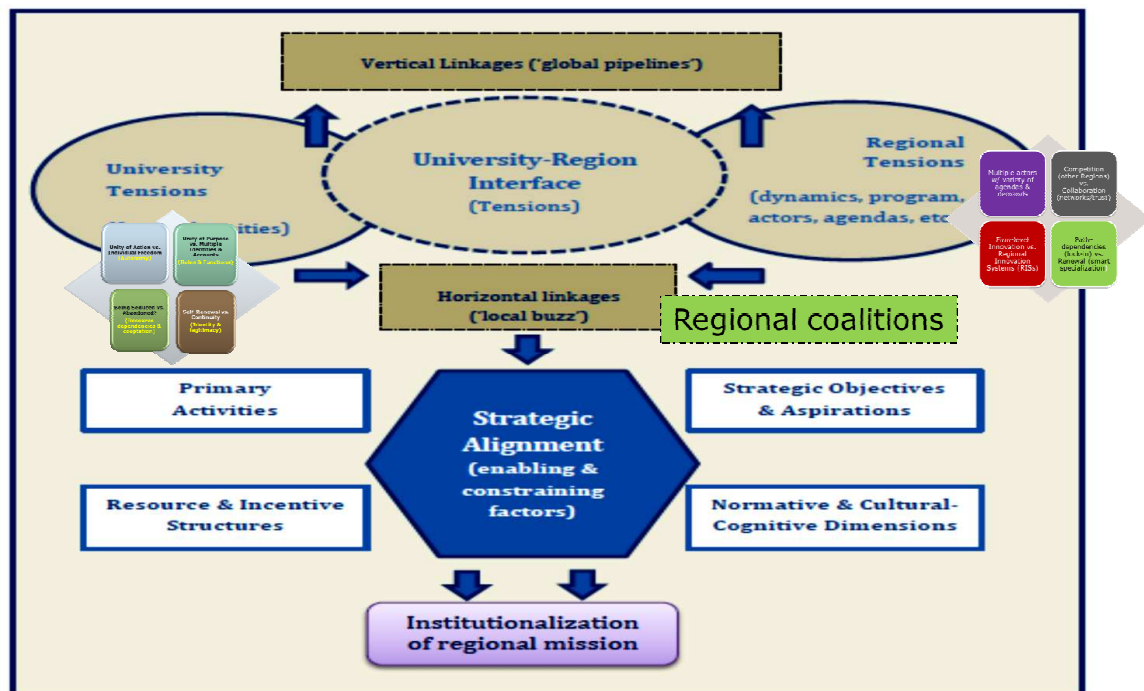
Perry & May (2006)

### University & Region Tensions



Pinheiro et al. (2015) & Pinheiro (2016)

## From internal tensions to external strategic alignment



Pinheiro et al. (2015)

## Place-based leadership & RIS

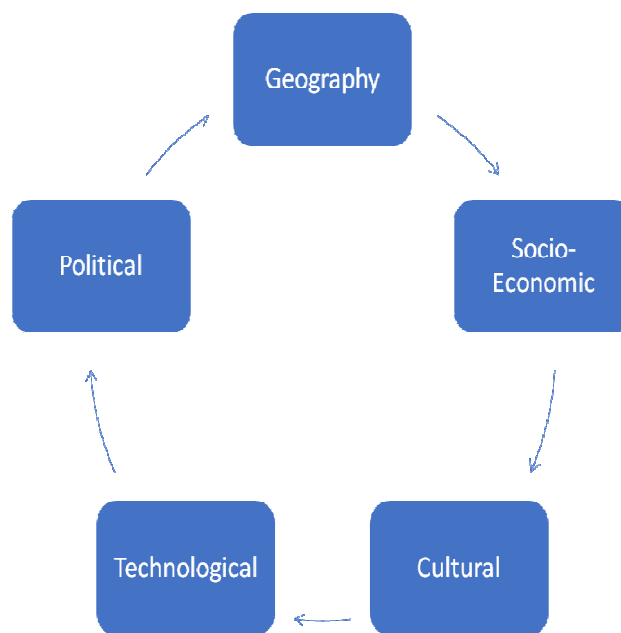
### Enabling the role of emerging regional coalitions

Table 2. Spaces for and resistance to university institutional entrepreneurs supporting RIS development.

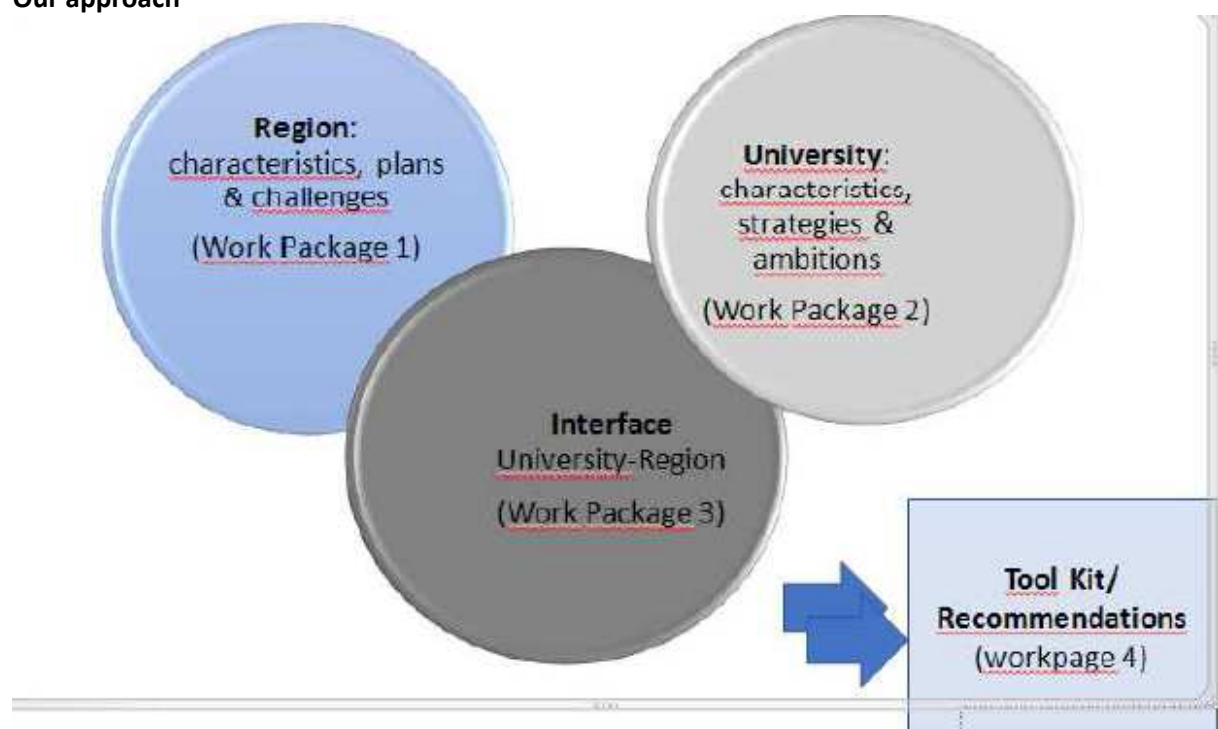
	Potential regional innovation system (RIS) contribution	Role of institutional entrepreneurs	Potential resistance to institutional entrepreneurs
Leaders	Interacting with regional actors in regional engagement platform or collective activity offering university contributions to regional collective innovation assets	Advocating the idea of strategic regional engagement thereby legitimizing the process from an organizational perspective	Unwilling to allow the university to profile itself as a relevant/regional university rather than excellent/rigorous, world-class university
Support agents	Providing assets and infrastructure that facilitate new knowledge combinations and support new regional knowledge opportunities	Developing a university strategy, deepening and formalizing routings associated with regional engagement activities	Unwilling to allow the university or unit to bear the risk of uncertain activities to generate financial risk/loss or reputational damage
Knowledge agents	Active scanning of the regional environment by enthusiastic academics to create new opportunities (path creation/path switching)	Identification by individual academics or groups with the institutional regional engagement goals and hence being willing to engage and promote regional engagement ethos	Unwilling to legitimate and recognize engaged teaching or research behaviour as valid; unwilling to allow own knowledge to be used in regional engagement activities
Interaction assemblies	Formal mechanisms for bridging structures and activities across the academic core to the outside world (strategic regional partners and place-based initiatives)	Embedding particular practical examples of regional partners enriching core university activities into university's working norms, practices and policies	Unwilling to equate and acknowledge engaged behaviour with other kinds of desirable activity, rejecting it becoming part of the mainstream

Benneworth, Pinheiro & Karlsen (2017)

## Peripheral regions



## Our approach





## PERIF project Methodology

### Design & Data

- Multiple case study design: 6 regions + 6 HEIs
- Explorative study (not casuistic)
- Multiple methods (data collection)
  - Review of the existing literature (third mission, peripherality, RISs, etc.)
  - Desktop analysis of key policy documents
  - Gathering of official public datasets
  - Interviews with key stakeholders: university leaders & regional actors
  - Seminars & workshops with regional actors

### Czech Republic:

### Overall findings & Implications

#### Overall findings

- Isolation of decision-makers and co-participants: sectoral (horizontal) and organisational (vertical: local, regional, state)
- A lot of strategizing (many policy documents) vs. real outcomes (mid-term, long-term)
- Capacity issues: demand overload (e.g. research for practical utility or RIV points? What gets funded, gets done ...)
- Funding issues: projects as short-term fixes, but follow-ups and sustainability?
- Coordination bodies (boards) ok, but the real outcome of coordination, real accountability?
- Issue of mandate cycles (state government, region + municipalities, university, private businesses ...)
- MEYS and the third mission problematics: goal layering and repetition
- “Third mission perennial goals”: *development of counselling, internships, expert consultations, enhancement of capacities for R&D commercialization, joint (R&D) projects, effective research transfer, involvement of a wide range of external partners in quality evaluation, joint cooperation in study curricular designs ...*
- very limited (if any) cross-cutting/ sectoral analytical takes on the roles of universities in regional development
- Missing specificity of jointly operated goals and their implementation
- Little specification of indicators, instruments, evaluations, follow-ups ...)
- But effective regional developments *needs* cross-cutting, stable *cooperation of several kinds of stakeholders* (administration, employers, industries ..., university, unions, NGOs ...)
- Sustainability of funding crucial
- How to realistically deal with Education 4.0, Industry 4.0 ...? (or buzzwords again?)

#### Recommendations

- Stop planning strategies, act strategically
- Devise joint (three/four-party) funding schemes sustainable mid-term and longer
- Do impact evaluation: mid-term, long-term and follow up on its results! Some prevention of repeated pioneering of dead-ends
- Validate statistical data that are collected
- Concentrate capacities: one/two analysts as analytical „jack-of-all trades“ seated e.g. in the regional administration office (funded from the joint scheme ...)
- Tax deductions, write-offs also for SMES in the most stricken regional areas

- → **Incremental change bottom-up**: local (joint cross-party activities), regional (coordination, impact assessment), and the state (sustainability: joint funding scheme, amendment to allow targeted tax deductions, forging cross-sectoral cooperation ...)
- Financial support through the EU ESI funds (2014-2020) as a window of opportunity
- Example: Integrated ROP: 4,6 billion EUR, increasing quality of education and quality of public administration among thematic areas

## **Norway:**

### **Overall findings & Implications**

#### **Case Regions**

- Peripherality manifests itself in different ways
  - Sub-regions within regions; core within peripheries
- Key challenges
  - Urbanization
  - Skills & competencies (low absorptive/innovative capacity)
  - Economic diversification (beyond resource intensive)
  - Growing unemployment, including skilled labor
  - Aging population
  - Brain drain

## Case Universities

- Ambiguity surrounding regional role
- Third Mission undertaken in adhoc & un-coordinative manner (low institutionalisation)
- Lack of internal policies & incentive systems
- National funding system prioritises students & publications – not external engagement
- Mergers/competition/external funding (field dynamics) rank high in the internal strategic agenda
- Complexity of organizational arrangements – multiple campuses – constrains regional role

## Implications – so what?

- **Government Policy**
  - Revise funding arrangements & academic career structures (combine excellence & relevance)
  - Regional policy affects universities' regional role
- **Regional policy**
  - Need to articulate regional development plans with university goals and ambitions – a shared vision & coordinative framework (clear roles & responsibilities, e.g. Oulu case in Finland)
- **University strategies**
  - Make TM as a core element of T & R rather than a third leg
  - Develop campus-based strategies for co-generation of knowledge (& articulate strategically across a joint central platform)
  - Educate regional actors on what the university: «is for», what «it aspires to», and «how it operates internally»

## Conclusion: General Reflections

### General reflections: Value-added

- Peripherality more important than national context (?)
  - Case regions face similar changes despite contrasting policy & institutional contexts
  - Issue of peripheries within peripheral regions as a whole
- Nested policy layers or spheres
  - National economic policy, regionalisation policy, higher education policy, research and innovation policy --- need to take holistic approach (adopt a multi-level & multi-stakeholder governance perspective)
- Temporal dimension of issue framing (problem, policy, politics ...)
- Mutual interdependency
  - Strong HEIs located in strong regions & vice-versa
  - How to address lock-in effects? (move from lagging to vibrant region)

### General reflections: Limitations

- Sample size (6 HEIs in 6 regions)
- Some actors hard to reach (third mission as third in significance, disinterest?)
- Little time to interview/address national policy-makers (but peripheral regions typically need national assistance)
- Convenient to follow up **also** with Large-N studies (Europe-wide, quantitative ... application of mixed methodologies) (Horizon 2020?)

## Agder region and University of Agder

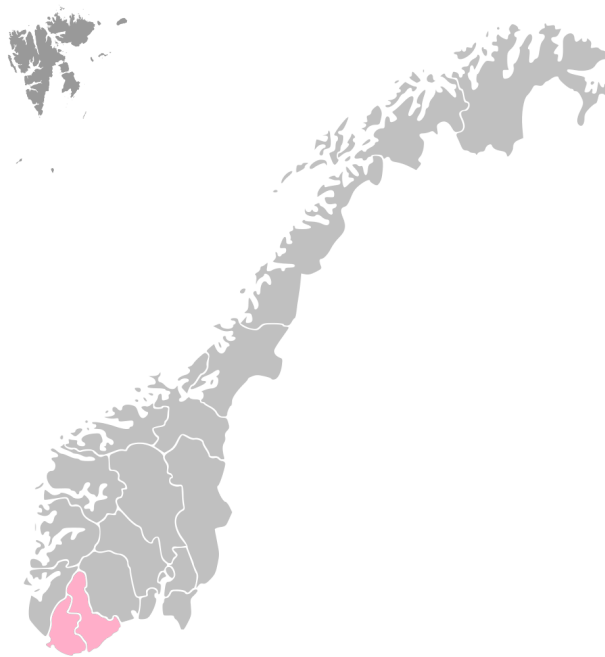
Rómulo Pinheiro

Senior Researcher, Agder Research

### Agder region



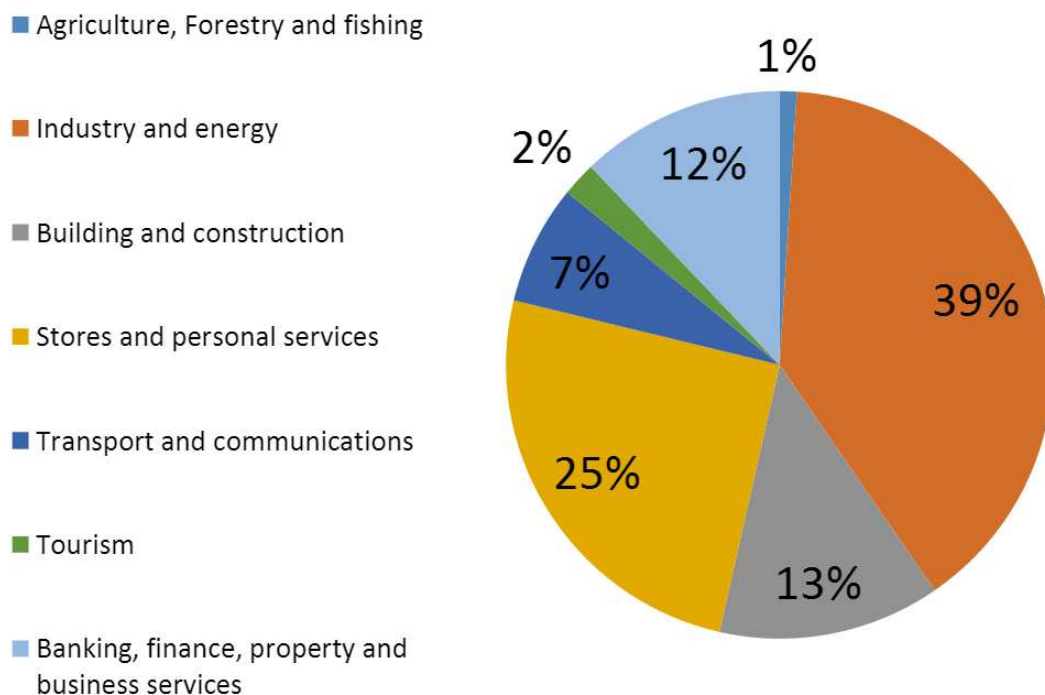
- Agder is the southernmost region in Norway
- Consist of two counties and 30 municipalities
- Vest-Agder & Aust-Agder counties, have a combined area of 16,500 km<sup>2</sup>, and a population of 290,000 inhabitants (5.8% pop.)
- The two largest cities in the region are the county capitals Kristiansand and Arendal with 86,000 and 44,000 inhabitants, respectively.



### Agder: Industry structure

- The Majority of businesses are concentrated along the coastline.
- Agder is the leading export region in Norway; processed goods.
- Local industry is largely based on energy intensive raw materials processing (e.g aluminium, nickel, and silicium).
- Low knowledge intensity (9% vs. 21% in Oslo); innovative capacity based on DUI (doing-using-interacting) not STI (science-technology-innovation)
- The region is host to world leading producers of off-shore equipment (drilling and mooring), and has also strong maritime clusters.
- Growing potential for the production and distribution of clean energy in to Europe (Norway's biggest producers of hydroelectric power).

### Agder: Sectors of the Economy



## Agder: Social dimensions

- **Income:** proportion of children living in low-income households is lower than in Norway as a whole. Good conditions for single parents, favourable tax rules
- **Health:** Psychiatric symptoms and disorders (15-29 years) higher than in country as a whole
- **Education:** High drop-out rates (secondary levels). Lags behind in HE attainments, particularly 4 years+ (long HE: 6% Agder vs. 9,2% in Norway as a whole)
- **Unemployment:** Higher than in country as a whole (3.85% vs. 3,4% NO) particularly amongst HE graduates/engineers (due to decline in oil prices since 2014)

## Regional challenges

- Urbanisation; peripheral/innerland struggling
- Industry specialization, hindering diversification
- Low levels of entrepreneurship/new firms
- High unemployment, amongst engineers (outward migration to big cities, local youth)
- Gender inequality ('conservative region')
- Regional development plan 'Agder 2020'
  - Climate, communication, culture, education & the good life

## University of Agder (UiA)



## UiA Profile

- Established in mid-90s (forced merger) as university college
- Became fully fledged university in 2007
- 6 faculties + teaching education unit (matrix)
  - Across two campuses; Ksand (71%) & Grimstad (29%)
- 12,000 students; 61% rise since 2007
- 1,180 staff; 64% are academics
  - 43% rise since 2007
- 2014: Decided not to merge with Telemark college

## Activities @ UiA

- **Teaching:**
  - Focus on professional/vocational fields
  - Tight collaborations w/ schools, hospitals, etc.
- **Research:**
  - Mostly mode-2 (applied, problem-oriented)
  - Some emerging patches of excellence (Mechatronics, Wind energy, Maths Education, Emergency/Crisis management)
  - Publications points; 300% rise since 2004 (72% are journal articles, 13% as level 2; below average for university sector, 22%)
- **Third Mission:**
  - Low degree of institutionalization (central & unit level)
  - Lack of coordinating framework & incentives
  - Yet, many units engaged; formally & informally (ad-hoc)
  - Students play a key role in bridging UiA w/ Agder region

## Key challenges facing UiA

- Develop a distinct institutional profile
  - What type of university and for whom?
  - Co-creation as a way forward ? (new strategy)
- Be able to compete w/ new, larger domestic & international players (due to mergers)
  - Possible future merger w/ Stavanger University (?)
- External funding (ranks lowest)
  - Very competitive to get NFR and EU funds
  - No major benefactors in region, including firms
- Research excellence (government strategy 2015-2025)
  - Weak research profile & limited funds create constraints to recruitment & retention of top talent
  - Mix between mode-1 (basic) & mode-2 (applied) research

## Major finding: Agder Region

Highly specialised regions like Agder face challenges as regards industry diversification, which is partly a function of their historical trajectories, resource dependencies and peripherality

## Major finding: UiA's role

- Overall, UiA has had a positive impact on the Agder region, e.g. providing qualified labour for public & private sectors, attracting professionals, infrastructure investments, etc.
- ...but it has had a limited effect (sub-optimal role) when it comes to knowledge production and, most importantly, the absorptive/innovative capacity of the region as a whole (which remains low for Nordic/EU standards)



### **Key insight**

- UiA's ability to help solving the challenges facing Agder is, to a large degree, a function of it being able to address its own internal challenges ('nested challenges')
- Hence, there is a symbiosis between UiA and its surrounding region

### **Policy implications**

- Governmental policy
  - Funding structures & resource incentives in HE need to take into account regional characteristics & challenges ('one size' policies are counterproductive)
- Regional development/university strategy
  - There is the need for a better strategic alignment between regional aspirations (diversification, employability, etc.) and the assets & capabilities of UiA on the one hand & its future aspirations (strategy) & key challenges on the other
- External actors
  - Need to be educated about what UiA is and is not able to deliver in terms of skills, knowledge, partnerships, etc.
  - Likewise UiA needs to have a better understanding of the multiple needs of regional stakeholders.
  - Co-creation can potentially help in both respects

## Finnmark and Finnmark University College

James Karlsen  
Senior Researcher, Agder Research

### Finnmark



Finnmark is the most northern region in Norway

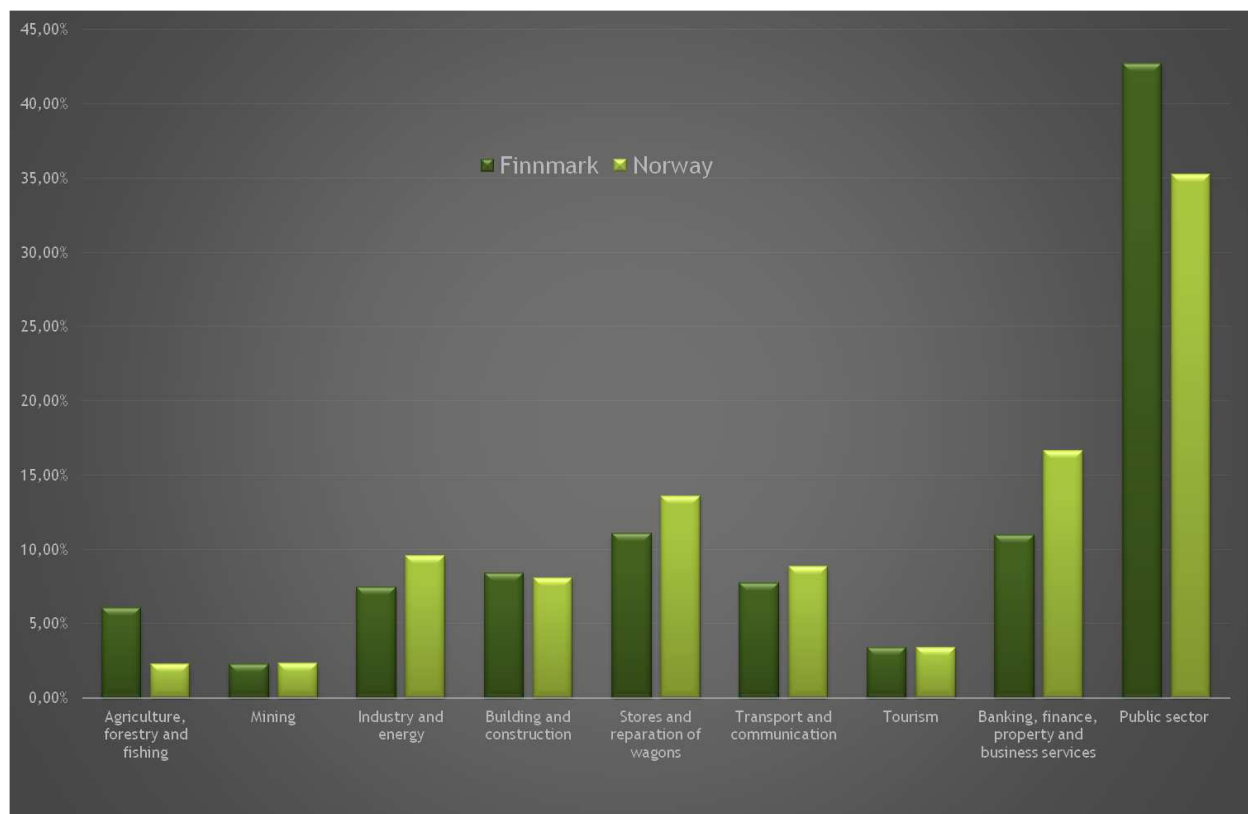
- Consist of 19 municipalities
- Finnmark covers a area of 45,700 km<sup>2</sup>, and has a population of 75,800 inhabitants, which gives less than 2 inhabitants per km<sup>2</sup>
- The largest city is Alta with 20,000 inhabitants. Vadsø, the county capital has 6,100 inhabitants



## Finnmark a peripheral region

- Finnmark has all the characteristics of a peripheral region
  - Low population growth,
  - High unemployment,
  - An aging population,
  - Low level of the population has higher education
  - More dropouts of secondary school than any other region in Norway

## Employment in Finnmark og Norway, 2015



### **Finnmark a complex region**

- The county borders to Russia and Finland
- There are rich natural resources both on shore and off-shore (fish and oil)
- Norway and Russia governs the fish resources in the Barents Sea together
- Finnmark is one region but with sub-regional challenges

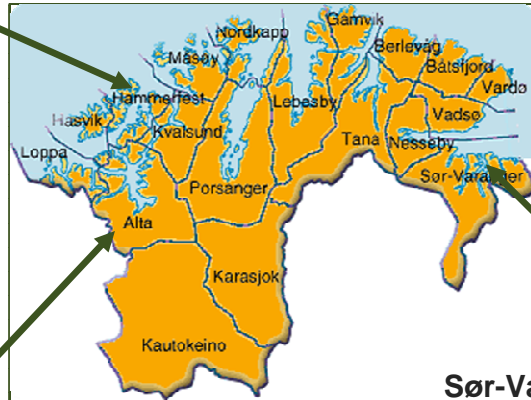
### **Finnmark: a complex region**

<b>Vadsø</b>	Stagnation in population. Vadsø, which is an administrative centre in Finnmark has the least years lost many jobs of its former centre functions. The challenge is how to develop new industries and service functions that can compensate for the loss of jobs.
<b>Alta</b>	Growth center in Finnmark where the main campus of HiF is located. Even if Alta is a growth center, Alta needs to handle the growth on the one hand and on the other hand secure further growth.
<b>Hammerfest</b>	Growth center in Finnmark. Snøhvit gas field. Small campus located here
<b>Sør-Varanger</b>	A former mining town, now a center for the commerce with North Russia. HiF has a small campus located in Kirkenes.
<b>Inner Finnmark</b>	The core area of the Sami people in Norway. Many new Sami institutions has been located to the region but there is a lack of new industries.
<b>Coast Finnmark</b>	Path destruction of the fishing industry and no new paths have been developed to compensate of the loss of employment in the fishing industry. The effects of path destruction have been outmigration, high rate of unemployment and dropouts from secondary school.



**Hammerfest**

## Finnmark University College



**Alta**



**Sør-Varanger**

### Finnmark University College

- Established in 1976 as a district college,
- 1993 merged with teacher and nursery college to Finnmark University College
- A small regional college
  - Three campuses
  - 2,000 students
  - 240 staff
- **Teaching:**
  - Focus on professional/vocational fields
- **Research:**
  - Little research, has first and foremost been an education institution
- **Third Mission:**
  - Not an issue

### Major finding: Finnmark

- The impact of a small regional college like Finnmark University College in a complex region like Finnmark is quite limited

- However, it has had an effect on the education level in the region and for supplying especially the public sector with well educated candidates
- The local effect of establishing a campus in a relatively small place like Alta with 20,000 inhabitants have been considerable

### **Policy initiatives**

- During the years there have been used a lot of different policy instruments with the aim of preserving the population structure in Finnmark
- In 1990 there were established an action zone with a mix of policy instruments both for industry development and population development

### **Key insight**

- The possibility that a small university college can solve complex, regional challenges, are rather limited
- On the local level (campus) level the contribution can be considerable

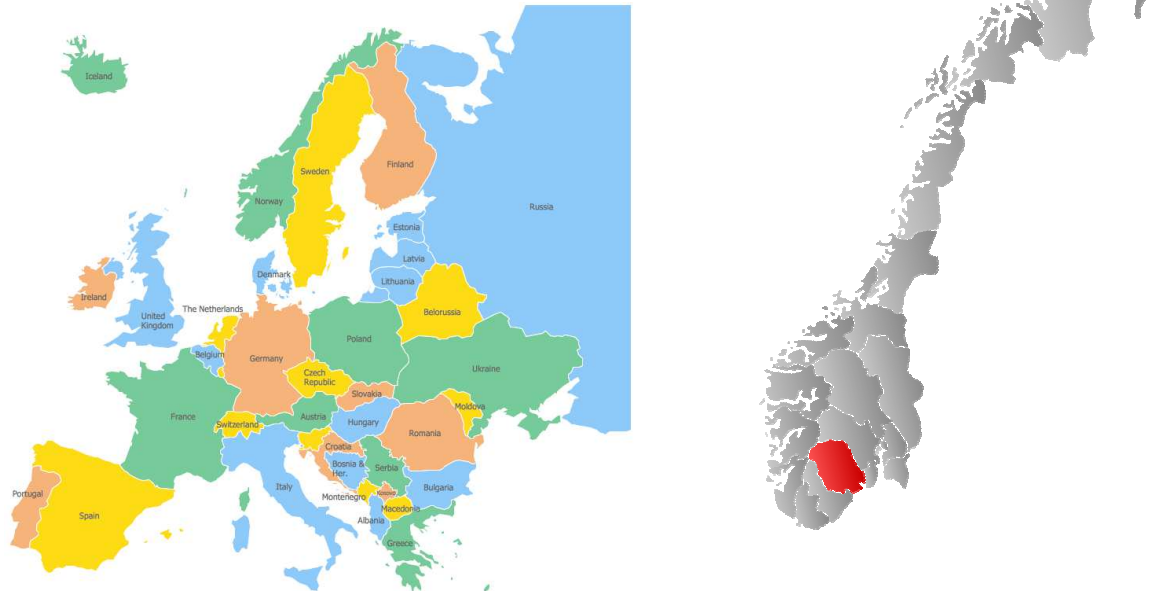
### **Policy implications**

- Develop a distinct institutional profile
  - What type of HEI and for whom?
- Develop a strategy for the campus for co-generation of knowledge with local actors.
  - Sør-Varanger; collaboration and initiatives with Russia and for local development on the coast ??
  - Hammerfest; develop new future paths together with the municipality ??
  - Alta; develop new future paths together with the municipality ??

## Telemark region and Telemark University College

Nina Kyllingstad  
Researcher, Agder Research

### Telemark region



- Telemark is a county located in the east of southern Norway
- It consists of 18 municipalities. The two largest are Porsgrunn with 53,745 and Skien with 35,755 inhabitants
- 12 out of the 18 municipalities have less than 6000 inhabitants
- The total land area is approximately 15,000 km<sup>2</sup> and a population of 170,000 inhabitants

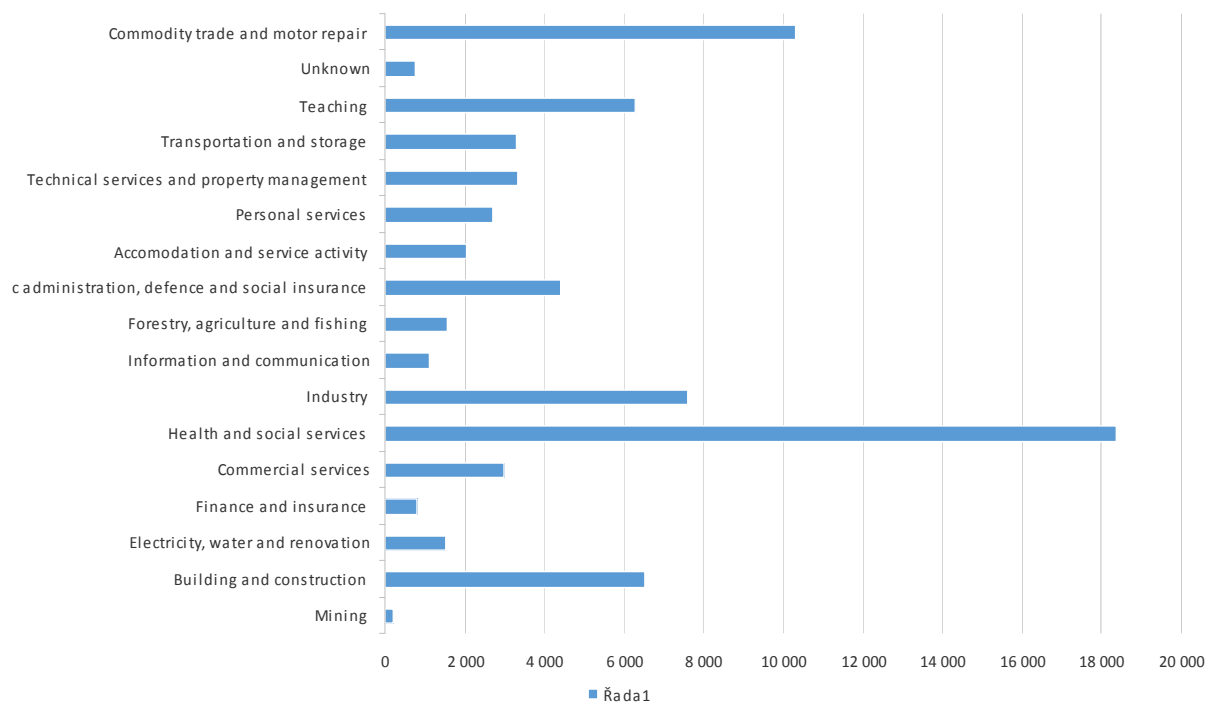
### Telemark: Industry structure

- Traditionally a mining county (metals and minerals)
- Telemark remains one of the country's main industrial counties (approximately 500 companies)
- Since 2008 and the financial crisis, the region has lost over 3000 jobs
- Looking at Norway as a whole, we see that the oil- and gas industry, technical – and scientific services, telecom and ICT have grown, but Telemark has little of these industries.





## Telemark: Sectors of the Economy



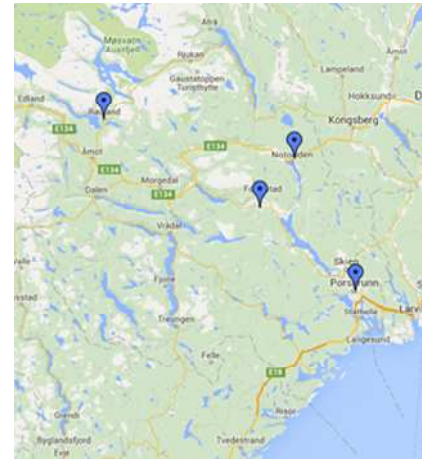
## Telemark: The social dimension

- Income: 325 506 NOK was the **GDP** per capita in Telemark (2013). That is the 8<sup>th</sup> lowest (out of 19 counties) in Norway. In Oslo, the GDP per inhabitant was 728 605 NOK. Telemark has the third highest number of kids in low-income households.
- Health: the share of persons between the age of 15-29 with psychological symptoms and diagnoses is higher than the country as a whole.  
- Ageing is a concern (doubling of people over 67 years by 2040).
- Education: relatively low with 29,7 % only having primary school. Lags behind in HE attainments, particularly 4 years plus (5,3 % in Telemark and 9,2 % in Norway as a whole).
- Unemployment in may 2016: 3,2% in Telemark and 2,9 % in Norway

## Regional challenges

- Unemployment rate
- Low levels of higher education
- Low birth rate and low population growth
- Decline in traditional industry (which is what Telemark is known for)
- Ageing
- Health issues

## Telemark University College (HiT)



The different campuses

### HiT Profile

- Established as a university college in 1994 (forced merger)
- 4 campuses (5 faculties, but some located more than one place)
- 50 first-cycle bachelor level programs (usually 3 years) spread over all 4 campuses
  - 16 (2-year) master-degree programs
  - 3 doctoral programs (3-4 years)
- 6891 (2015) students (18 % increase since 2008)
- In 2014, HiT employed a total of 607 full-time equivalent staff (62% were involved with teaching and research activities)
- Initially created to train professionals in the region, meaning that research has long been less prioritised
- Part of a merger in 2016 – new direction?
- (still not complete gender equality)

### Activities at HiT

- Teaching
  - The academic profile shall be based on two mutually reinforcing elements:
    - a) the establishment of doctoral programs in/around existing programs of study;
    - b) the further development of professional studies and other professionally oriented educational activities.
- Research
  - Increase in grant financed activity, decrease in commissioned funding
  - No EU grants between 2011-2013
  - HiT applies for different funding schemes, but struggles to receive any which makes increased external funding a priority. Research is mostly conducted at the three research centres at HiT, or the 21 research groups.

-2014 data show that HiT staff produced a total of 226,5 points, with HiT ranking third highest amongst the 18 public university colleges.

- Third mission
  - Low degree of institutionalisation. It is mentioned in the strategies, but still concept of confusion.
  - Employees should also contribute to project acquisition and application writing with a regional focus

### **Key Challenges facing HiT**

- Need increased funding
- The process of becoming a fully fledged university and the next step
- The work that is needed to coordinate 8 campuses (after the latest merger)
- Good research might be side-lined because it lacks regional focus

### **Major findings in the region**

- Two areas in the strategy plan that is of great importance is innovation and business development and childhood and competence
  - The first emphasizing increased innovation, entrepreneurship and increase the regions attractiveness as a place to live and visit. There has been a renewed focus on this, in order to e.g. create more workplaces
  - The latter refers to long term planning and initiatives to deal with low population growth, low levels of education, low employment, high unemployment, child poverty, and many (young) disabled

### **Major findings at HiT**

- HiT views themselves as an important participant in the regional arenas and for regional development. And the strategy of being decentralised is to stay relevant to all areas of the region (now with 8 campuses)
- The merger with a university college opens up for more research areas that may benefit the region
- Working towards a fully-fledged university status, but they still need more funding
- Internationalisation will be an important activity at HiT (both student and employee recruitment)

### **Policy implications**

- Governmental policy
  - Funding structures and resource incentives in HE need to take into account regional characteristics & challenges ('one size' policies are counterproductive)
- Regional development/HE strategy
  - Both parties have entrepreneurship as a focus area: the region in its strategies and HiT by working on entrepreneur camps, study programs and commercialisation of research. There should however be an even stronger alignment between the two actors on e.g. entrepreneurship and innovation in order to meet the needs in the region (e.g. workplaces)
- External actors
  - There should be a stronger focus on the needs in the region and what sort of competence is

needed when developing study programs

- More involvement from the region in terms of funding projects, interest etc.

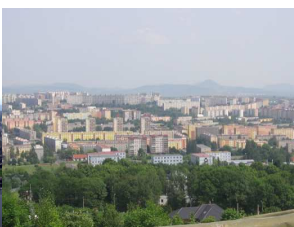
## Ústi Region and University of Jan Evangelista Purkyně

Inna Čábelková, Charles University

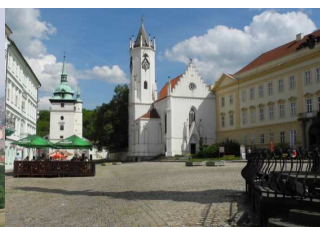
Helena Šebková, Vladimír Roskovec, Centre for Higher Education Studies



Ústí nad Labem



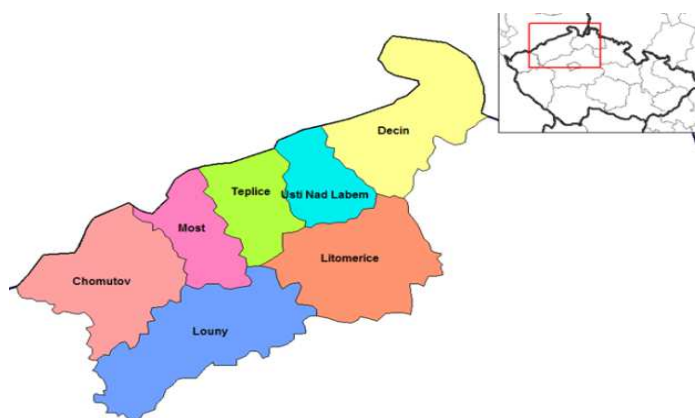
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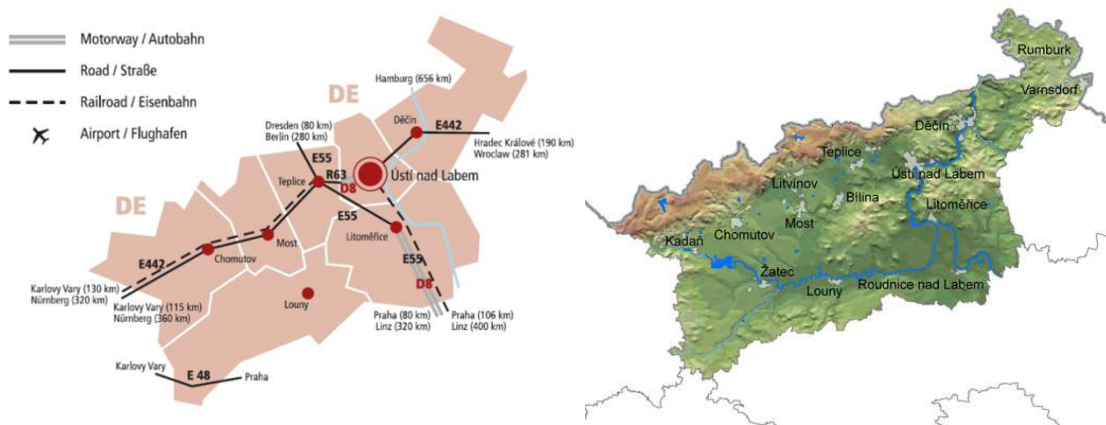


Krušné hory



## Ústí region, potential

- The advantageous geographical position on the axis between Prague and Saxony
- Abundant natural conditions, potential for tourism
- The high level of urbanization (80% of the population lives in cities), polycentric settlement structure
- Industry (energy, coal mining, engineering, chemical and glass industries)
- Industrial zones and development areas



## Economy

Historical heritage: socialist industrialization

- Unfinished restructuring of the economy
- Low value added production
- Small number of long-term prosperous small and medium enterprises, little diversification of products
- Underdeveloped research and development
- High unemployment rate - 7.9%, Czech Republic 3.6% (end of 2016)
- Low average wages - hampering the development of services and infrastructure
- Low economic activity

## Social

Historical heritage: the expulsion of the Germans, followed by migration from other regions.

Un-rootedness of the population in the region. Low social cohesion.

- Unresolved social problems
- The deterioration in the health status of the population (the highest mortality rate)
- Inadequate health care
- The high number of people receiving social benefits
- Social exclusion (closing groups of people into economic inactivity)
- Insufficient integration of minority groups (Roma, ...)
- Above-average incidence of a growing trend of socio-pathological phenomena (crime, drug use ...)

## Education and Culture

- A high proportion of people with primary education or no education (27.2% )
- Low share of university educated population
- Low education equilibrium
- The outflow of highly skilled workforce
- Little identification with a region, place attachment
- Political orientation tends toward extreme positions (and alternating)
- Poor technical condition and improper use of a range of cultural and technical monuments and sights

## Environment

- Large areas heavily damaged by mining and quarrying
- The decline of the area cultivated agricultural land
- Areas with poor air quality (emissions from power plants ...)
- High production of waste (the largest share in energy producing sector)
- Poor quality of surface and groundwater

## Univerzity of Jan Evangelista Purkyně v Ústí nad Labem (UJEP)

Public university, established in 1991

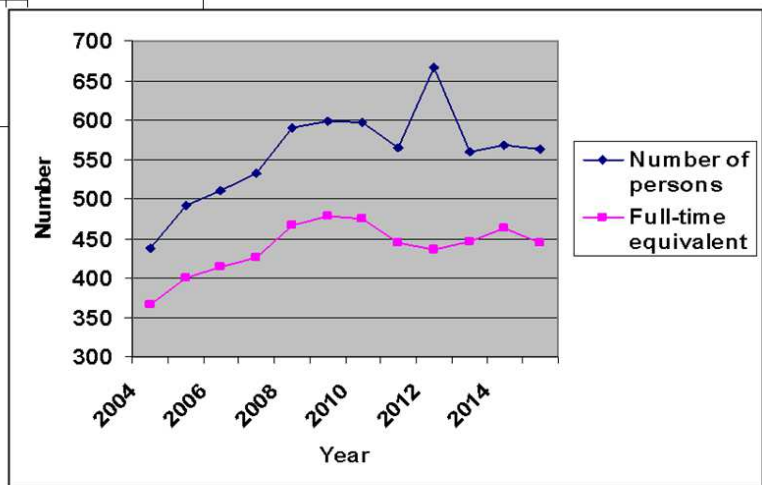
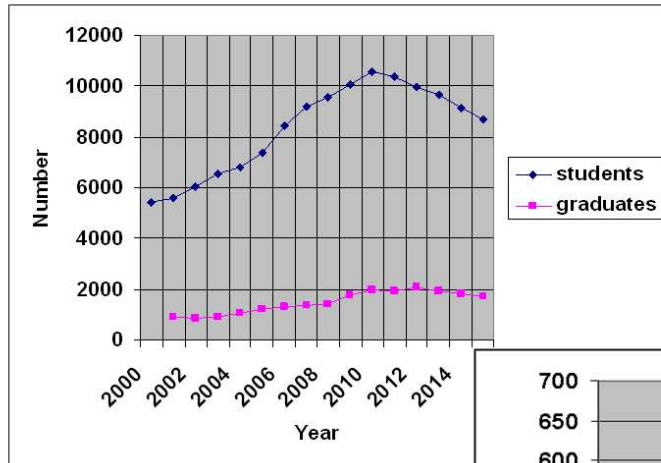
The UJEP educates more than 11,000 students and employees 950 members of staff.

Structure:

- Faculty of Education (1964)
- Faculty of Environment (1991)
- Faculty of Social and Economic Studies (1991)
- Faculty of Art and Design (2000)
- Faculty of Science (2005)
- Faculty of Philosophy (2006)
- Faculty of Production Technology and Management (2006)
- Faculty of Health Studies (2012)



## UJEP human capacity



## UJEP contribution to regional development

- Humans resources development
- Economy area
- Social matters
- Environment improvement
- Culture for region

Important examples of UJEP contribution:

### Human resources development

- Graduates of all UJEP faculties
- Gradual improvement of education level of regional inhabitants (share of HE graduates in 1993 – 4,1%, in 2000 – 9,4%, in 2015- 14,2%)
- However, the number below the country average of 12%
  - Qualified sources for education institutions, industry, local administration, services, healthcare, social work
- However, brain drain, low willingness to work in some professions due to low wage (social workers)
  - „Faculty schools“ networks Þ intensive cooperation between individual faculties and secondary schools, motivation for HE studies
- However, not all schools can be covered



## Economy

- Technology and science oriented graduates  
(Faculty of Production Technologies and Management, Faculty of Environment, Faculty of Science – FPTM, FE, FS)
- *However, the faculties are young, the number of graduates insufficient, brain drain, low willingness (interest) to study at technology focused faculties*
  - Science and Technology Park (established in 2010) based on close and long-term cooperation with industry in R&D and lifelong learning (FPTM)
  - Technology transfer example: new nanomaterials for application in biomedicine, in environmental protection and surface modification of materials),
  - Material centre example (2010): focusing on analytical service, contracting research
- *However, overall R&D measured by the number of patents is well below the state average, the financing the university receives from firm-level research activities and firms are negligible*





## Social and Health area

### A) Faculty of Social and Economic Studies (FSE)

- Degree programme „Economics and management“ – training for entrepreneurship
- Professional degree programme „Social work“ - focus on close cooperation with practice already during the studies
- VYCERRO network of experts across science areas (focus on regions and institutions)

### B) Faculty of Healthcare Studies (FHS)

- Degree programmes in occupational therapy, physiotherapy, midwife, general nurse
- Establishment of 6 clinics - network of FHS and Regional Hospital



## Environment

Faculty of Environment (FE)

- Education of professionals for public administration, enterprises, services (FE)

Main aims: re-cultivation and revitalisation of locations damaged by the mining, rectification of the decrease of farming land, prevention of further wasting.

*- However, the market for these professions is rather limited, and in some specializations is already full (interview data)*

Project (example):

*Sustainable forms of management*

*In the countryside anthropogenic burdened*



## Culture, Third Role, Proudness and Rootedness in the Region: examples

- Systematic lecturing for public including international guests
- Institute of Slavonic & Germanic Studies (since 1990): improving the Czech-German relations (Faculty of Philosophy)
- Society „Collegium Bohemicum“ (2006), network : UJEP, Museum of Ústí nad Labem, Society for the history of German in Bohemia, Ministry of Culture (Faculty of Philosophy)
- Cultivation of public space (Faculty of Arts and Design): exhibition areas (integral part of education activities), Gallery Armaturka (reconstructed by UJEP for public purposes), sculptures for public space



## Culture, examples

### University campus

- \* Transferred property from Ústí city
- \* Big culture potential for future

### University Library for all

- provides comprehensive librarian and information and book lending services, document copying and scanning, access to electronic databases (full text, bibliography), research service etc.
- European Documentation Centre, Austrian Library
- Access to library: UJEP students and academics (free of charge, public (for negligible fee)





## Problems

- Systematic and long term collaboration is negatively influenced by political changes of regional top management and also by changes of university leadership (*current situation: both UJEP and region administration work on mutual agreement of collaboration*)
- Too many conceptual and strategy documents, too vague regional documents
- Low numbers of applicants for technology studies
  - \* not effectively used possibilities of technology and science studies' support
  - \* low interest to study science and technologies in general (visible clearly at FPTM and FE)
- Still not systematic surveys related out-migration of graduates
- Non- sufficient support of regional universities from the state level (state long term strategy)
- \* too strict push from the state level (policy of research activities' evaluation) to produce academically oriented research and relevant publications
- \* conditions of academic career strongly prefer academic competencies at the expense of professional experience from practice
- \* problems with design of needed professionally oriented degree programmes (flexibility, qualification enhancement programmes, one year programmes)
- \* certain difficulties with practitioners teaching at the university without higher university degrees

## Unexploited (still) possibilities

- Tourism and travel services support with good and suitable geographical location (axis Prague-Saxony) and beauties of nature
- Health resort/spa development (first steps already done by FHS)
  - Cross boarder collaboration with German universities







## Vysočina Region and Vysoká škola polytechnická v Jihlavě

Libor Prudký, Michaela Šmídová, Inna Čábelková, Olga Šmídová, Jan Beseda  
Charles University and Centre for Higher Education Studies

### Vysočina region - introduction

- focus on specificities and opportunities for regional development
- summary from descriptive and analytical studies done within PERIF project. The highest priority was: current and possible cooperation region ↔ VŠPJ
- primary sources (studies) are available at [WWW. Perif-project.eu](http://WWW.Perif-project.eu)

### Vysočina region is:

„inner periphery“ (no national borders)

„historical periphery“: still unfinished second phase of modernization

Difficult living conditions

(altitude, nature)

Rural lifestyle

Stable demography (!)

Health indicators are above Czech average

High life satisfaction of population

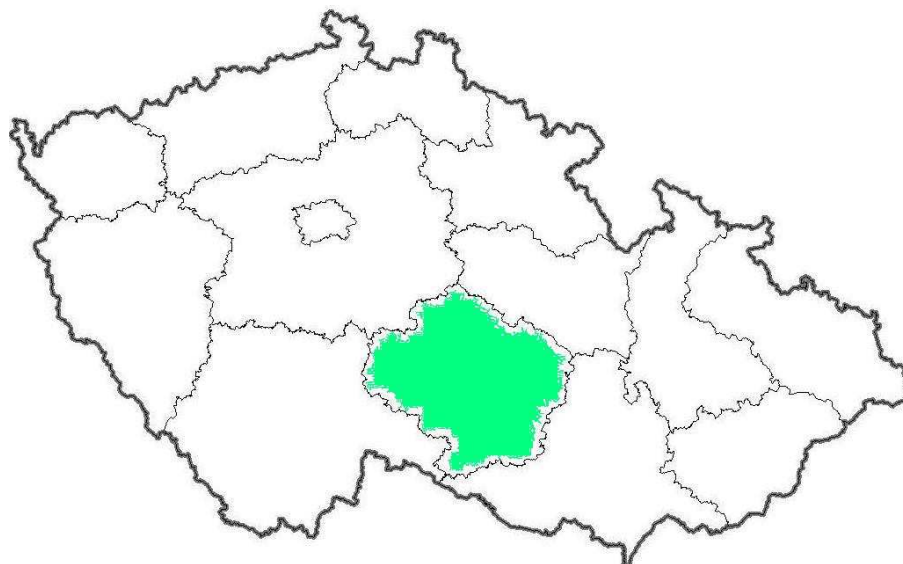
High social cohesion (+low share of population

dependent on social benefits +

Low criminality and drug consumption etc.)

BUT also closeness to changes!

Many cultural and historical monuments



## Vysočina region: regional challenges

- Little existing capacities in R&D
- No good job opportunities for graduates of HEIs
- Relatively slow increase of educational attainment
- Problematic and fragile employment
- Relatively unilateral investment (automotive industry)
- Demographic aging (share of population above 65 years of age)
- Worse public transport infrastructure (people depend on their own)
- Underused potential for tourism (and lack of touristic services)
- Rugged beautiful landscape (in contradiction with „the Czech loveliness landscape“)

**quality of life (pillars: social and environmental) in Vysočina is maybe the highest in the Czech Republic BUT economic pillar is weak(er).**

## The College of Polytechnics Jihlava (VSPJ)

Young, non-university type and the only public HEI

-Educates about 10 % of all university students who have residency in Vysočina region

-Regionally and professionally focused HEI, i.e. third mission as natural part of HEI.

### Barriers:

- 1) National regulations Source: <https://en.vspj.cz/school/welcome>
- 2) Third mission is „voluntary“ (no much sources, systematic support)
- 3) Tools for regional support (financial, long term) of VSPJ are not developed
- 4) Sectoral approach/ different levels of competencies: cooperation is not „natural“

### Opportunities:

Personal networks: regional representatives and employees of VŠPJ in close relationships. (BUT question what are real consequences ?)

VSPJ has been established on demand of region!



## Regional needs and reactions of VŠPJ (examples)

- 1) educational orientation on **direct graduate's employability** BUT the graduate un-employability within region is one of core problem
- 2) more attention on MA programs should conclude into bigger number of positions in R&D
- 3) spatial settlement fragmentation (one of the main feature of the region): U3A is provided not only in Jihlava but in other bigger cities, there are also future plans to have lectures and courses in other cities (smaller and more peripheral). **"U3A is closer" to local people (LLL)**
- 4) Lifelong Learning - rich spectrum of educational courses BUT competition with many other educational providers.
- 5) recruitment of students: traditional students BUT different groups of students are needed as well
- 6) VSPJ is regionally focused HEI, nevertheless the ratio of regional students have decreased from 70 % to 52 % between 2005 – 2014.
- 7) **openness for public**: activities of VSPJ could support cohesion and participation

## How to promote support/promote Vysočina development Region

**STRATEGY: to jump from the modernization phase 2. directly to phase 4. (generally + in relation between region and VSPJ)**

To use inner layout/disposition actively (what Vysočina has)

To change approach (try not to prioritize mainly economic development). higher responsibility in decision making! (subsidiarity)

Generally:

-Higher financial and economic independency of municipalities (taxes directly to municipalities + foundations + coordination and more effective searching of developmental projects)

- Lifelong learning of population (**preparation for future**) (focus not only to information technologies BUT openness to changes)

## How to promote support/promote Vysočina development - cont.

- Closer cooperation between municipalities
- Development of social economics
- People's direct participation in decision making and active citizenship and responsibility: citizens must know they are „taken seriously“(to ask on public opinions and to use these opinions in decision making)
- Principle of subsidiarity in management of region, individual communities, NGOs

**Specifically ( VŠPJ ↔ region): from „ad hoc partnership“ to „close partnership“**

Cooperation between VŠPJ and region (incl. public or private entities) in coordinated searching of sources for development

Focus of VSPJ on research and analysis related to Vysočina

Teaching and research should focus on areas connected with Industry 4.0

## Concrete examples/ideas

### 1)Active participation in discussion about Industry/Business and Society 4.0

### 2)Education (all levels) and Research

Support of learning which is relevant for 4th modernization phase (focus on future not for today!, children)

Support of VŠPJ in focusing on Society and Business 4.0 (study program, courses)

VŠPJ could cooperate with MUNI or Brno or Southern Moravia Region = Silicon Valley“

Active searching experts in IT (to advertise quality of life in Vysočina)

### 3)Economic development

- Looking for investors focused on information technologies and establishing of suitable conditions for them
- Looking for establishing of technological firm's branches in Vysočina
- Deeper cooperation with currently existing firms (Bosch).
- Looking for international cooperation in this „technological“ area(s): the role of VŠPJ in cooperation with foreign research and education institutions
- „Slow“ tourism (VŠPJ has strong Department of Tourism, own travel agency)



## Conclusion: We have a dream....

Vysočina region is/become „a laboratory“ of coming into 4th modernization phase (directly from 2nd modernization phase)

Role of VŠPJ as one of the main engines and bearer of change ( because crossing own limits is needed)

It may not succeed, but it needs to be established.

## Olomouc Region and Palacký University

Karel Šima, Charles University

Olga Šmídová-Matoušová, Centre for Higher Education Studies

### The region map



## The region in context

- **Total area:** 5,267 km<sup>2</sup> (6.7 % of the area of the ČR)
- **Population:** 635,711 people (6.1 % of the country)
- **Population density:** 120.7 inhabitants per sq. km (average)
- **Neighbours:** Poland, Lower Silesia and Opole

- 
- Divided region („North“ „South“), Moravia. Silesia
  - Discontinuity and difference of history
  - Differences:
    - geography (landscape, soil fertility, climate), demography (density, migration) North: under/mountain (Jesenik and Šumperk) South: flat and slightly hilly south-lying Prostějov, Přerov and Olomouc city
    - economic and social development level (employment rate, human capital, living standard)
  - transport connections, accessibility

## Economic and social dimension

**2 key characteristics of the underdevelopment of the region as whole:**

- I. **Divided** region - lack of territorial and social cohesion (internal periphery within region)
- II. **Weak labour market** (high unemployment, low wages...)

### Evidences:

- chronic lagging behind in growth and output (HDP per capita 77% CR average),
- unemployment (5<sup>th</sup> highest)
- low wages (3<sup>rd</sup> lowest) and pensions (the lowest of all), low disposable income (3<sup>rd</sup> lowest)
- but high human capital 4<sup>th</sup> highest proportion of college graduates 3<sup>rd</sup> of secondary school graduates, 3<sup>rd</sup> highest proportion of research workers (esp. academic)

## Weak labour market

- problems are associated with economic (employment) structure:
  1. **Industry – key machine industry** (subcontractors, low value added, minimal innovation minimal original business research, demand for technicians...)
  2. **Strong services** - public services: social, health care, education, administration (quality infrastructure, qualified labour force, collaboration with UP, rich social innovation - home care, community services, social enterprises, de-institutionalization)

## Table Employment structure, % of labour force, 2013

Region		Agriculture, forestry and fishing	Manufacturing	Mining and quarrying and other industry (not manufacturing)	Construction	Trade, transportation, accomodation and food service	Information and communication	Financial and insurance activities	Real estate activities	Professional, scientific, technical and administrative activities	Public administration, education, health and social work	Other service activities
Czech Republic	27,8	2,8	6,5	23,7	2,5	1,8	1,5	7,5	20,2	2,7		
Olomouc region	3,9	31,2	2,1	6,3	21,9	1,3	1,2	0,9	5,4	23,6	2,2	

### Social dimension

**Social challenges related to the weaknesses of labour market** and demographic trend - unemployment, low wages, pensions (lowest in ČR), low living standard, risk of poverty, social exclusion.

- Socio-demographical **problems**: depopulating (natural decrease and out-migration, ageing (the second oldest region)
- **Strengthness**: human capital (education), environmental quality, wellbeing, identification...

**Evidences**: Decrease negative balance 0,9 per 1000, Age index 118 (65 plus+ per aged 1-14)



## University and labour market orientation (compatibility?)

- **1. The orientation of industry sectors is mostly divergent** with:
  - a. Regional needs
  - b. Orientation of UP (all 3 roles)...

**Potentials:** there are also compatible and promising nano, opto, pharma, chemical and „mixed“ industries

vs.

- **2. The orientation of public services is in line with:**
  - a. Regional needs (ageing, depopulation, low living standard...)
  - b. Orientation of UP and higher vocational schools

## Lack of territorial cohesion, internal periphery within region

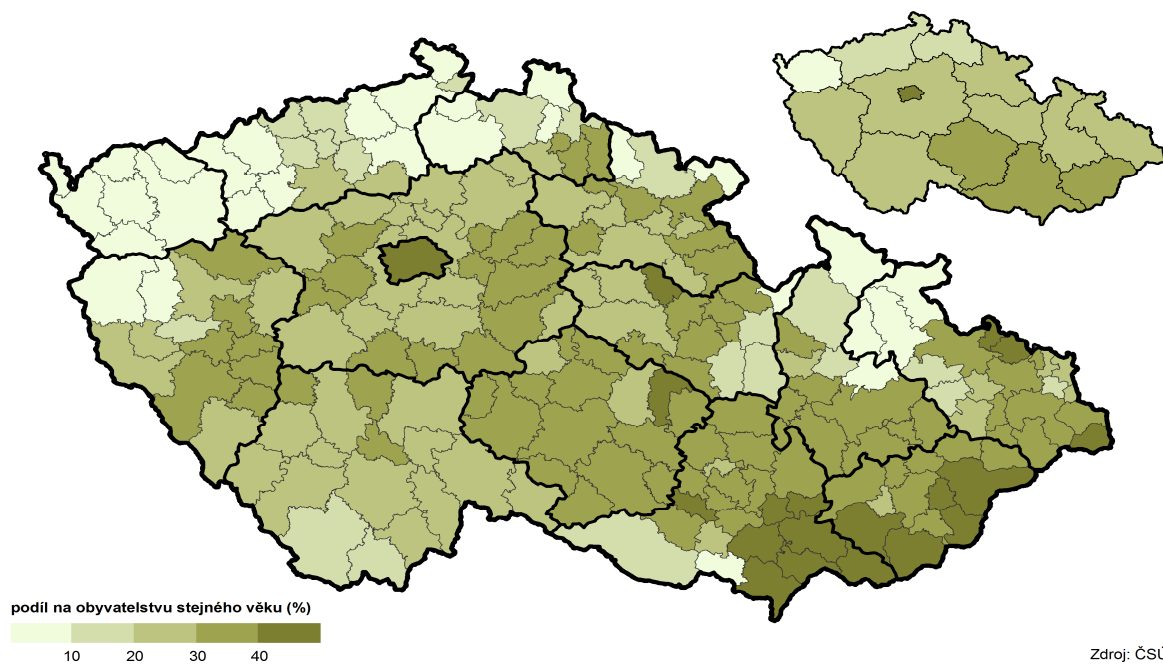
- extremely discontinuous historic development, population exchange, (expulsion of Germans, several waves of resettlement from diverse part of CR (Moravia, Czech Silesia, „North“ and „south“ - Haná)
- developmental disparity (intraregional)
- depopulation since WWII (see chart below)
- Inaccessibility, lack of transportation and communication links
- uprooted region, weak identity“

## Sudetenland map

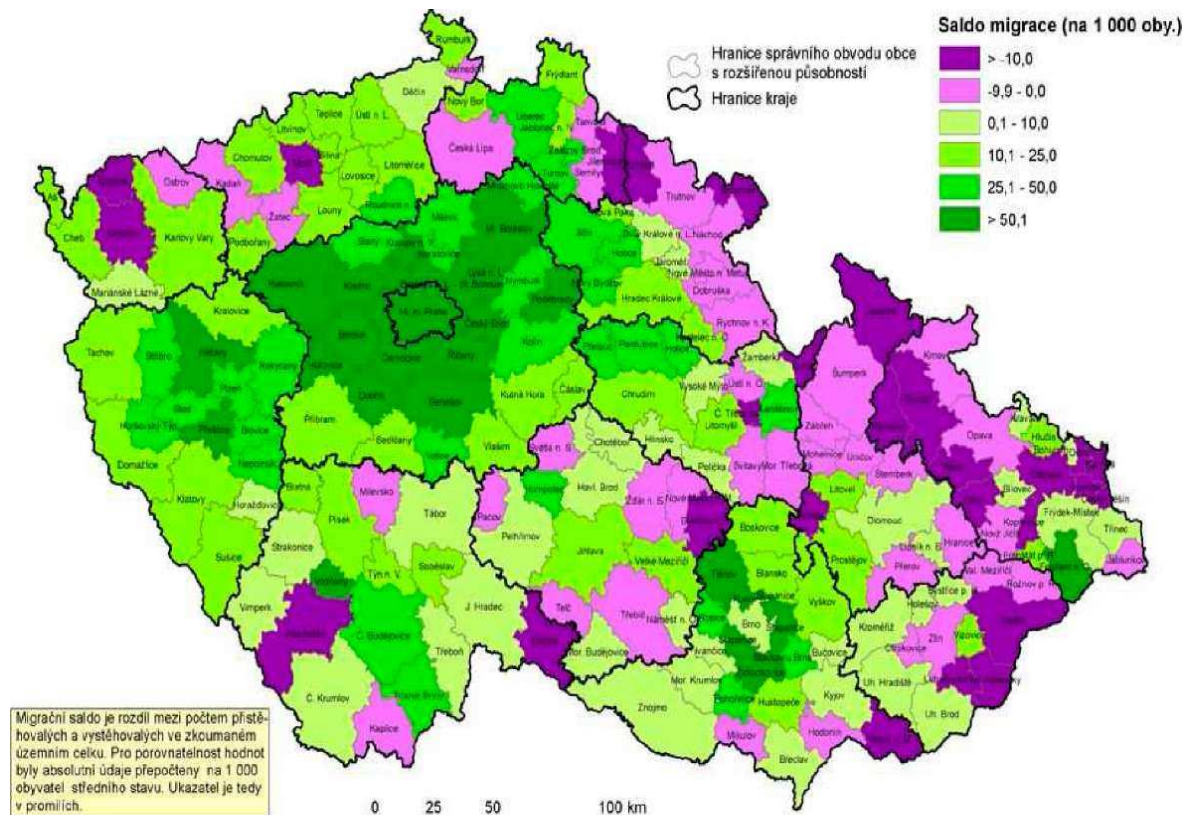


## Natives 65+

Rodáci ve věku 65 a více let podle SO ORP a krajů podle SLDB 2011  
(ze zjištěných hodnot)



**NET MIGRATION IN ADMINISTRATIVE DISTRICTS OF MUNICIPALITIES WITH EXTENDED JURISDICTION (average for 2006-2010) Source: Garep s. r. o. Brno**



**Internal periphery: Weaknesses cumulation and extremization**

**Region:** All above weakness (economical, socio-demographic) are extreme

**Lack all strengthens** of region as whole – human capital, wellbeing, identity

**University:** The orientation of HEIs is **mostly divergent** with needs of internal periphery. UP activities focus primarily on „south“ of region - Olomouc metropolitan area. But there are also positive examples: ecology and environment research and study programmes etc.

**Development potential and challenge**

environmental quality, landscape utilize for nature-friendly eco-, agro-tourism and sustainable farming (unused potential) and spa

**Challenge:** to re-build historical consciousness and empower shared identity

Threat: postponing the solution, absence of vision and political program

**Major findings - region**

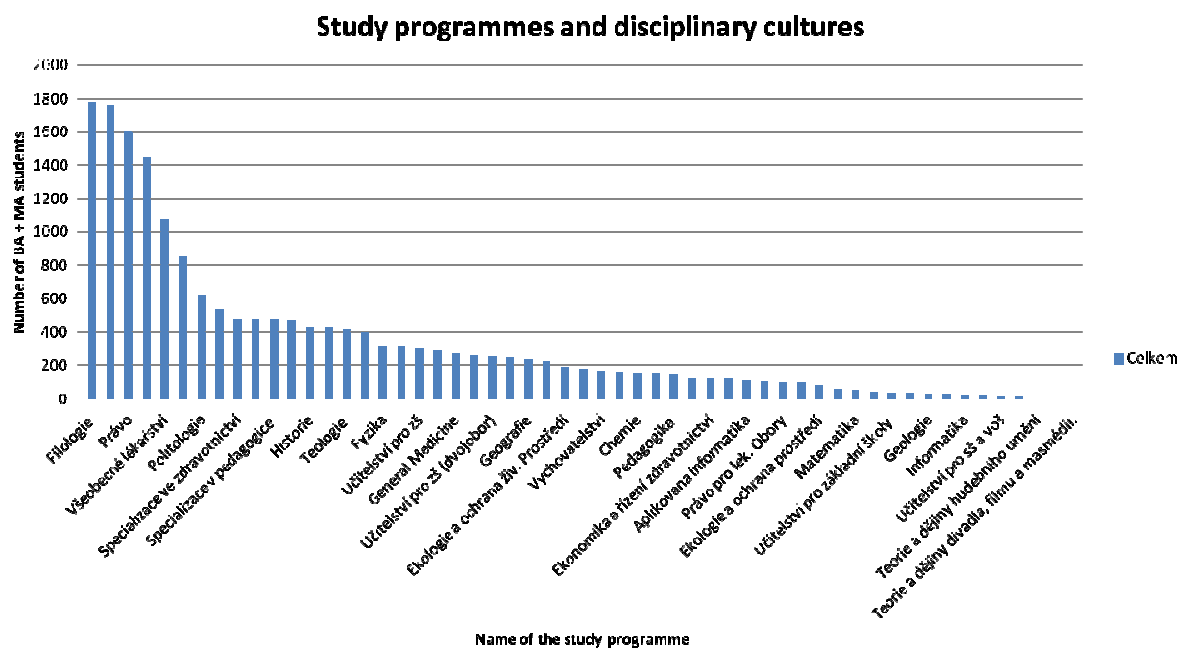
- **The orientation of UP (all 3 roles)...** is **mostly divergent** with regional industry structure.
- **The orientation of UP (all 3 roles)** is **mostly divergent** with need of internal periphery need for territorial and social cohesion.

- **The orientation of UP is very compatible** with social needs of the Olomouc region, but not with social problems of internal periphery
- **Key challenge:** territorial cohesion and identity, weak labour market (emigration, ageing)

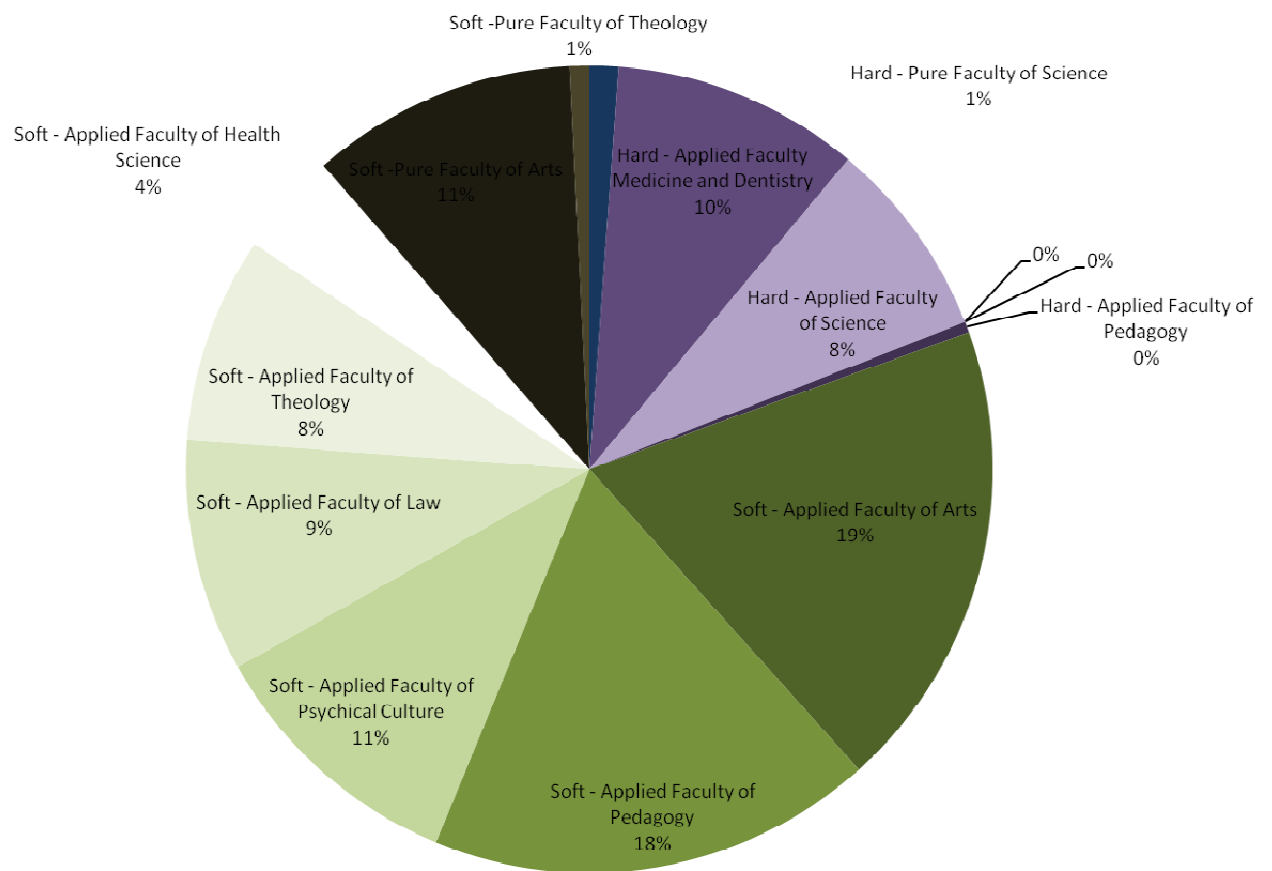
### Palacký University – structure and activities

- Second oldest university in CR
- 237 accredited study programmes:
  - 59 Bc.
  - 66 MA + „long MA“
  - 112 PhD
- main fields of study: social sciences, humanities, natural sciences, teacher training, social service, health and medicine, psychology, art and culture, law
- No technical, economic, agricultural programmes
- 8 faculties – largest: Philosophy, Sciences, Pedagogy
- 21 063 students in 2014: 8% foreign (Slovakia, post-Soviet), 31% from region, 69% female, 16% above 30 years, 19% distant,
- Wide spectrum of programmes – from vocational (health, social care, law) to academic (sciences, humanities)

### Teaching

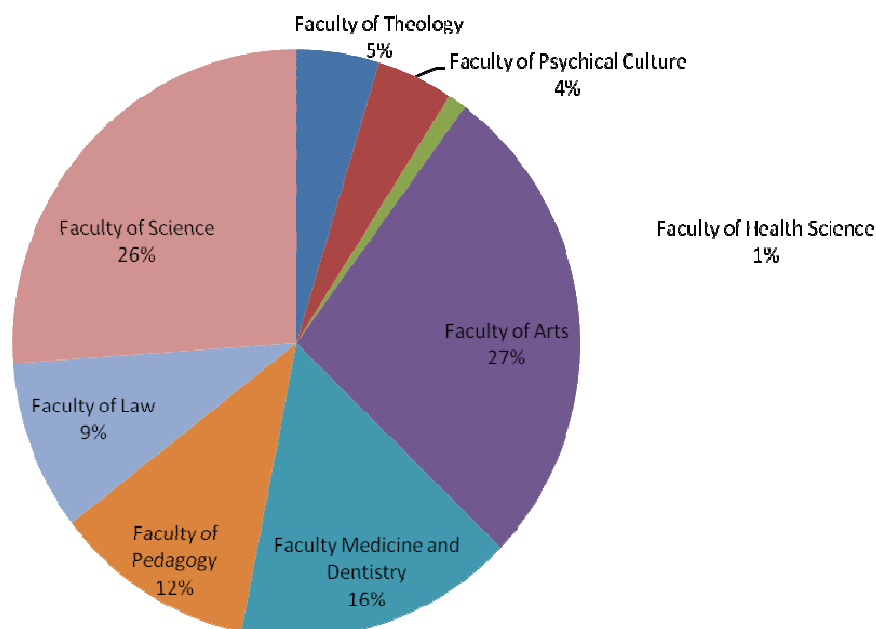


## Study programmes according the disciplinary stuctures and student enrolments - PU



## Research

### Number of academic publications (2014) according to the faculty PU



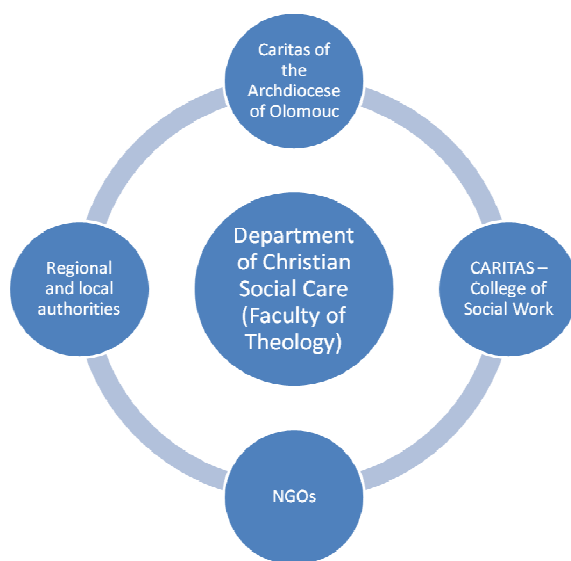
## Third mission

### Best practise in social care

### Number new national and international patents with participation of UP's academics

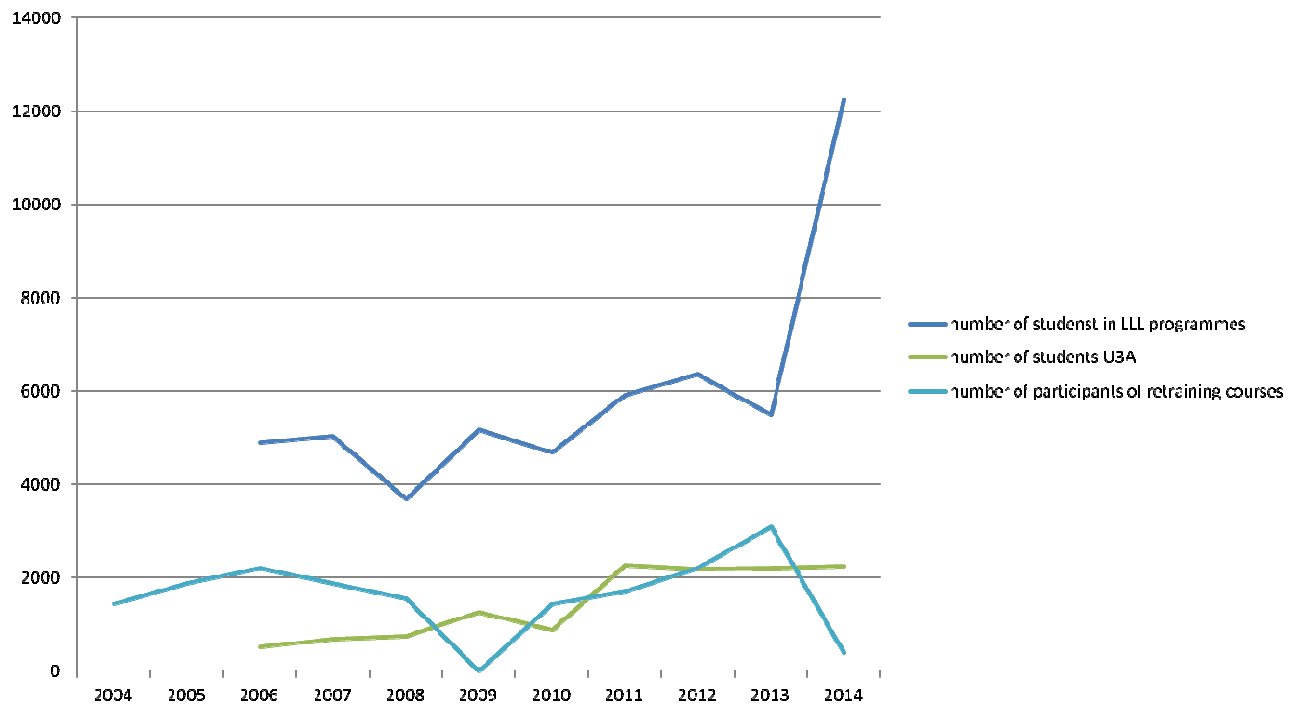
	2010	2011	2012	2013	2014	Total
Optics, laser machinery	1	1		1		3
Biophysics	1	1		2		4
Chemistry anorganic		2	4	1	1	8
Chemistry organic	12	4	10	6	2	34
Biochemistry	1	2			1	4
Physical chemistry			2	3	2	7
Electrochemistry					1	1
Genetics and molecular biology		1		1		2
Oncology, hematology		1		2	4	7
Pharmatics			3	3	5	11
Plants					1	1
Plants breeding			1		1	2
Sensors, detectors, measuring		3			1	4
<b>Total</b>	<b>15</b>	<b>15</b>	<b>20</b>	<b>19</b>	<b>19</b>	<b>88</b>

### Third mission



### Third mission

#### Lifelong learning programmes at UP



#### Key challenges at Palacký University

- oriented mainly towards excellence in research and internationalization
- important role of university within the public life in the city and in CR
- sustainability of newly established research and teaching infrastructures

#### Major findings – UP addressing the needs of Olomouc region

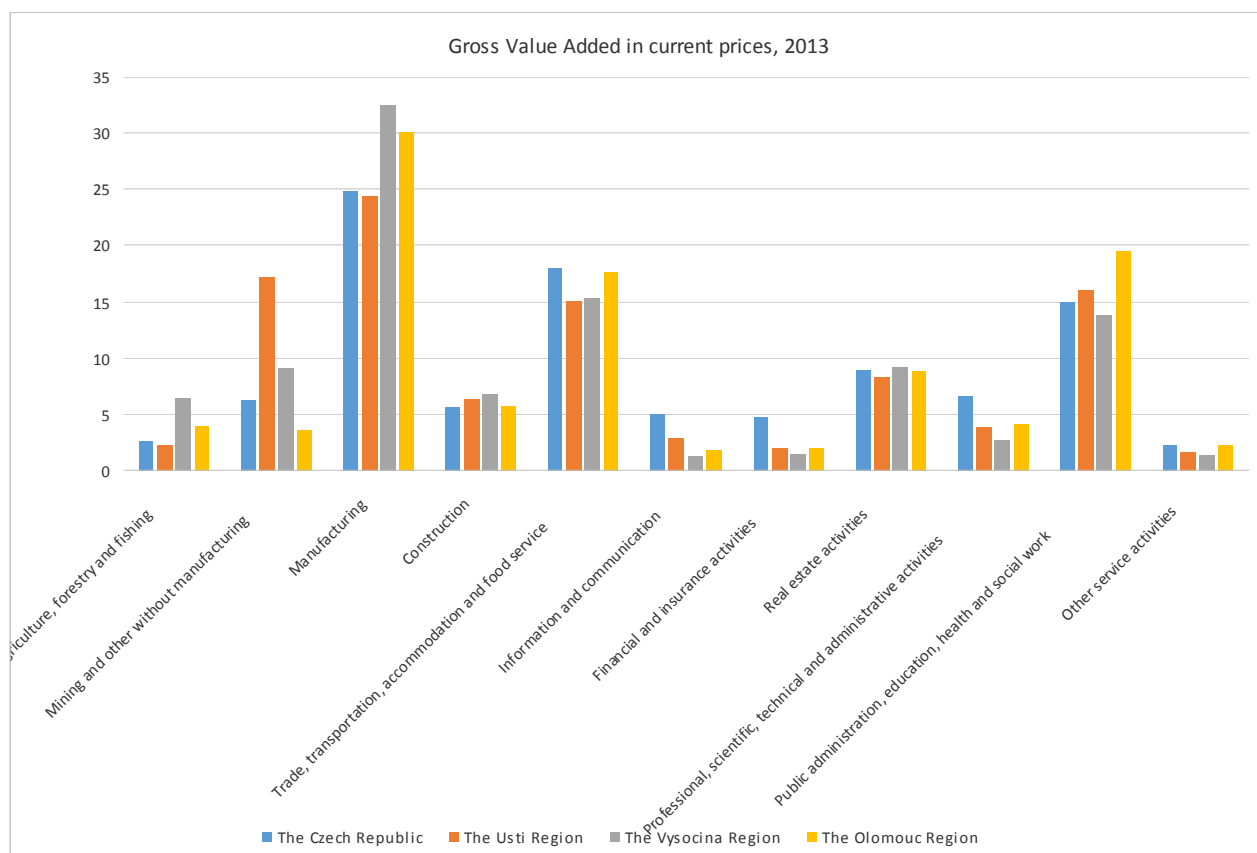
- Strengths
  - high research capacity/infrastructure in some areas (biology, optics, medicine)
  - Well-established education/innovation in health, social care, sport and leisure, teacher training
  - Very tight links with the city of Olomouc
- Weaknesses
  - Fields of education AND areas of research not linked to the structure of regional economy (private)
  - Very limited contribution of university's research for the regional industry + low-tech manufacturing industry = vicious cycle
  - Too narrow impact zone (city and surroundings)
- Opportunities
  - Growth in new study programmes
  - Contribution to the local identity empowerment and cultural heritage in the North
- Risks
  - Lock in situation – university as too dominant player in the region
  - The North as a burden not as an opportunity
  - Race for global competitiveness brings barriers for university-regional linkages
  - New regional research centres without links to regional economy



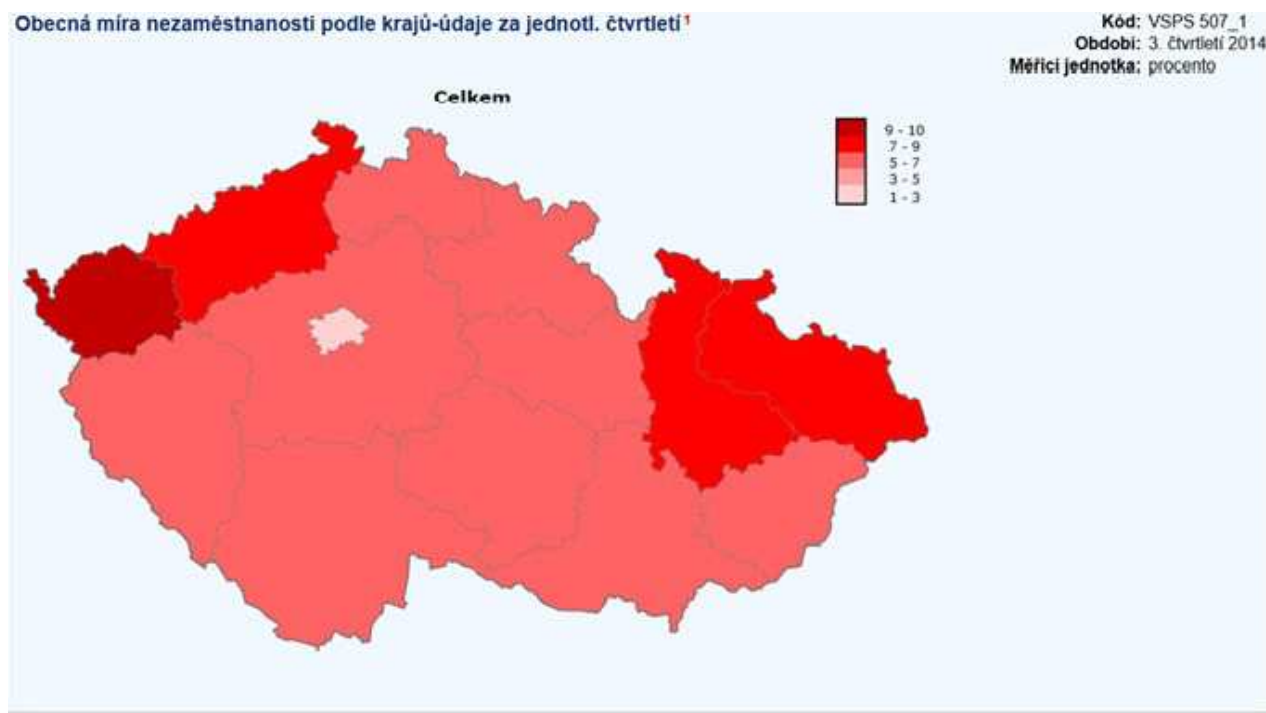
## Strategic options for UP

- Growth opportunity - expanding study programmes in business and engineering based on existing specialized areas (nanotechnology, biochemistry, optics, pumping engineering, applied mathematics for economy)
- Attracting high-tech industry investment with high added value
- Bringing the education (esp. non-traditional programmes) to the North – education centres, branches based on existing cooperation with high schools
- Re-orienting the pedagogy research, teacher training and innovation towards education in socially excluded communities

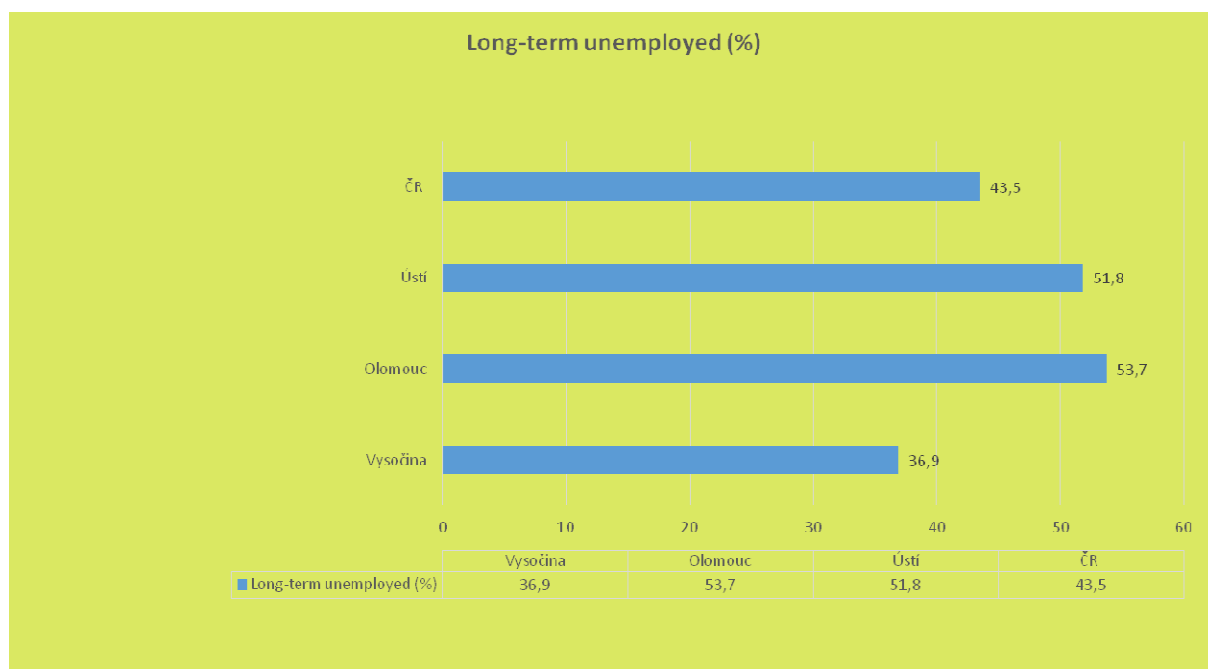
## Gross Value added 2013 by regions



## Unemployment 2014 by region

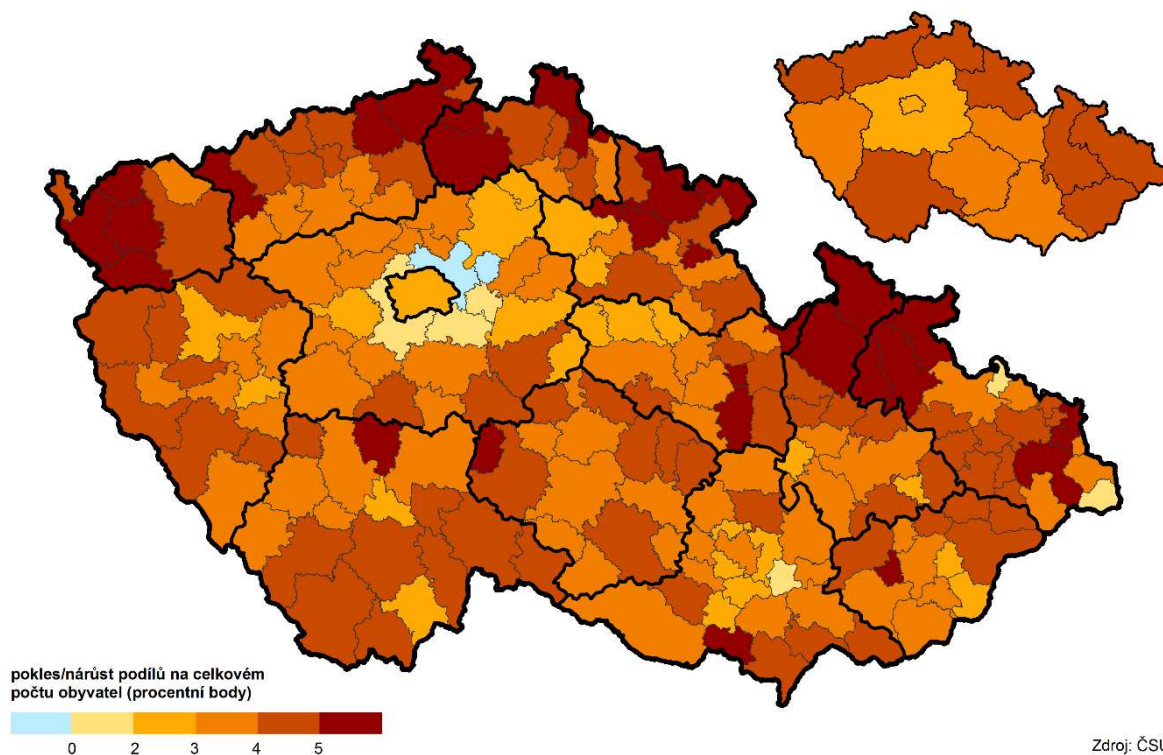


## Long term unemployment



## Ageing 2004-2014

Změna podílu osob ve věku 65 a více let podle SO ORP a krajů mezi 31. 12. 2004 a 31. 12. 2014



## Average old-age pensions in the regions in 2014 (crowns)

