Prototypical Policy Impacts on Multifunctional Activities in rural municipalities

A collaborative project under the EU Seventh Framework Programme

RURAL DEVELOPMENT IN ISTRIA – PRIMA PROJECT BASED PRELIMINARY

CASEE - Conference

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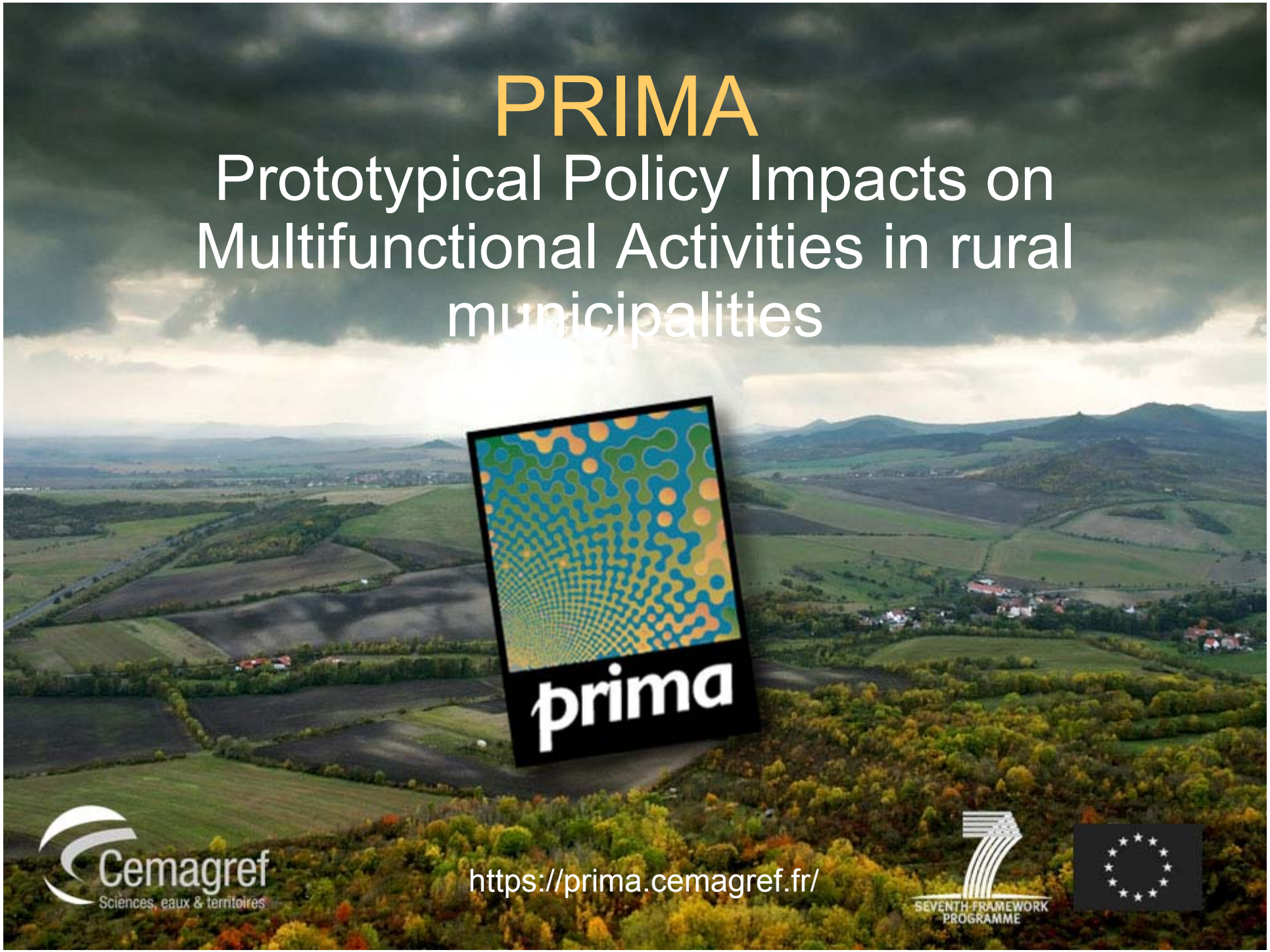
Overview

- Prototypical Policy Impacts on Multifunctional Activities in rural municipalities" (PRIMA)- quick facts
- Istria case study
- Expected outcomes


PRIMA
Prototypical Policy Impacts on Multifunctional Activities in rural municipalities
prima
Cemagref
Sciences, eaux & territoires
https://prima.cemagref.fr/
SEVENTH FRAMEWORK PROGRAMME

PRIMA, a collaborative project

Call: Environment (including climate change)

Topic: ENV.2007.4.2.1.1- *Methodologies for scaling down to the regional and local level the analysis of policy impacts on multifunctional land uses and the economic activity*

Applied research objectives...

… in need of scientific breakthroughs

PRIMA: Eleven partners

technische universität dortmund
Technical University of Dortmund,
Faculty of Spatial Planning
[DE]

IAMO
Leibniz Institute of Agricultural Development
in Central and Eastern Europe - IAMO
[DE]

University of National
& World Economy
[BG]

rijksuniversiteit groningen
University of Groningen
Faculty of Economics & Business
[NL]

LEI WAGENINGEN UR
For quality of life
Agricultural Economics
Research Institute - LEI
[NL]

Netherlands Environmental Assessment Agency
Netherlands Environmental
Assessment Agency -PBL
[NL]

Norwegian University of Life Sciences - UMB
Dept. of Economics & Resources Management
[NO]

ÚZEI
Institute of Agricultural Economics
and Information
[CZ]

Newcastle University
Newcastle University
Centre for Rural Economy
[UK]

Poljoprivredni fakultet Zagreb
Faculty of Agriculture
University of Zagreb
[HR]

The stakes of downscaling

The *ex-ante* analysis of public policies has gone mainstream,...

…with an increased use of models (general equilibrium, integrated assessment methods),…

…which are not always helpful for the analysis of local-scale processes

PRIMA's objectives

The aim: To develop downscaling methods for the *ex-ante* analysis of the impact of public policies on the multifunctionality of rural areas, and economic activities

The focus: agriculture, forestry, tourism, and ecosystem services.

The object: European policies based on structural funds

→Cohesion (ERDF, ESF, CF)

Enlargement (IPA)

Rural development (EAFRD)

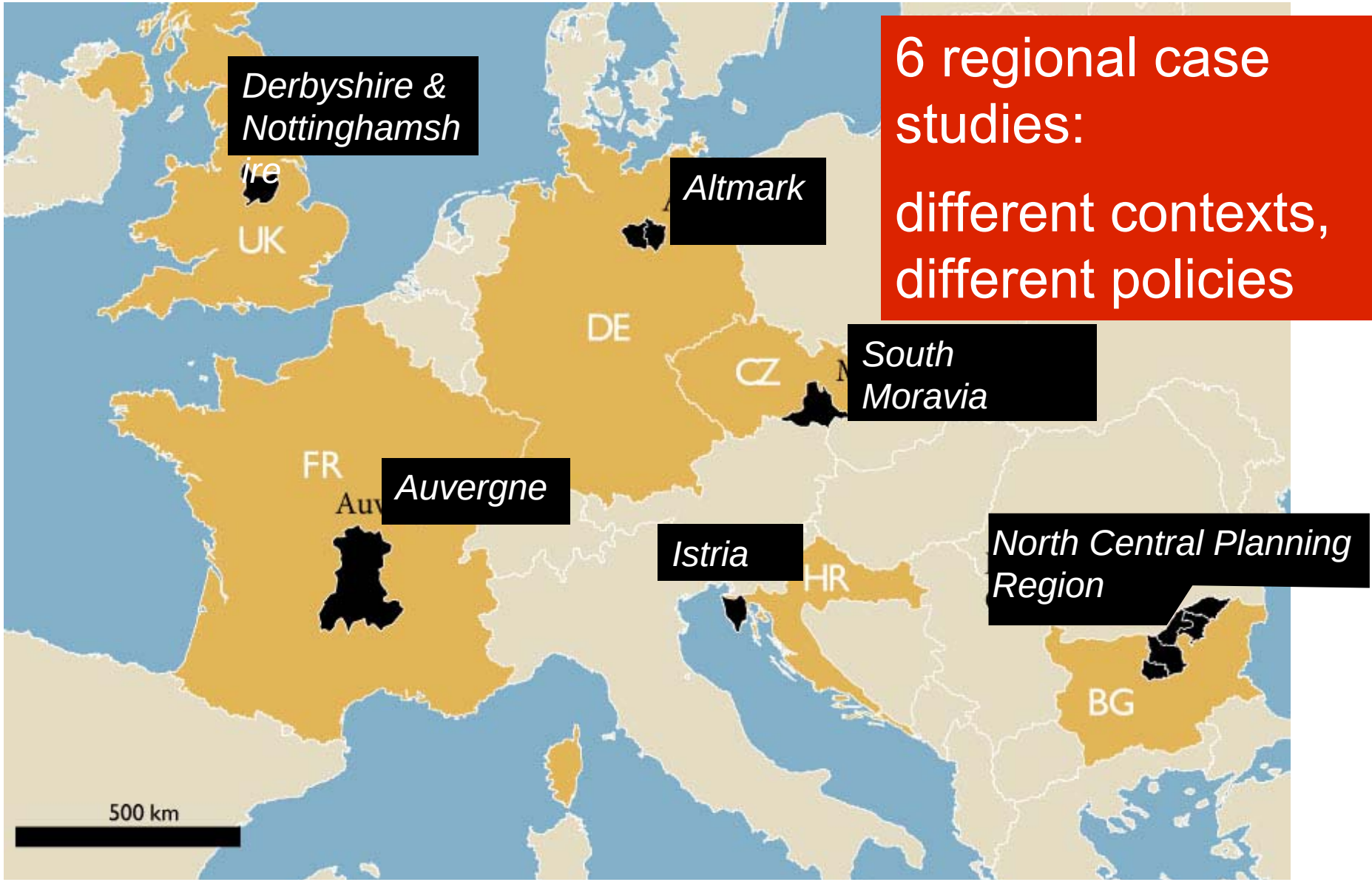
PRIMA's approach

To rely on micro-simulation and multi-agents models, designed and validated at municipality level, using input from stakeholders.

To address the structural evolution (appearance, disappearance and change of agents) of the populations depending on the local conditions for applying the structural policies, on a set of municipality case studies.

Four privileged dimensions

A European wide issue

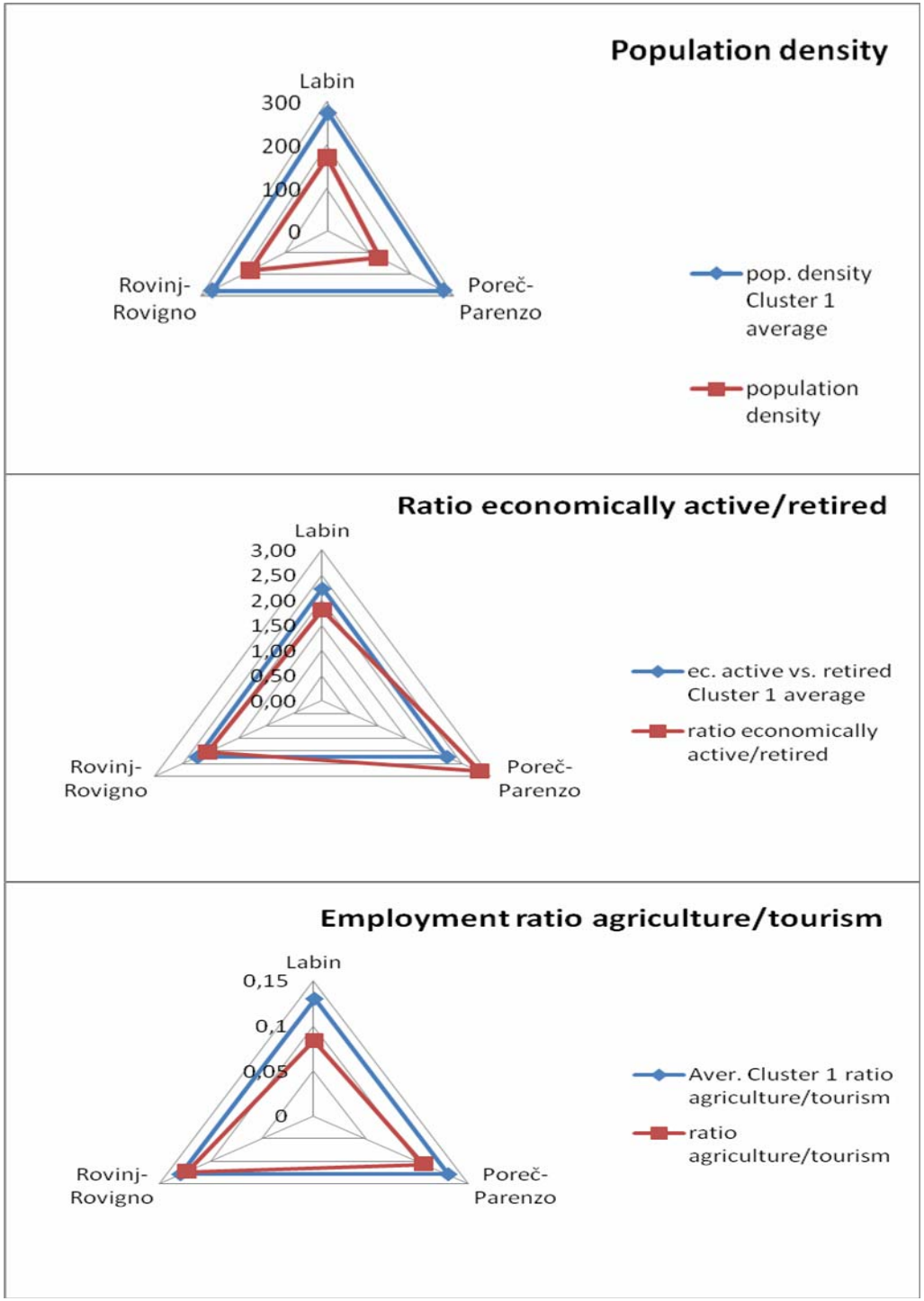


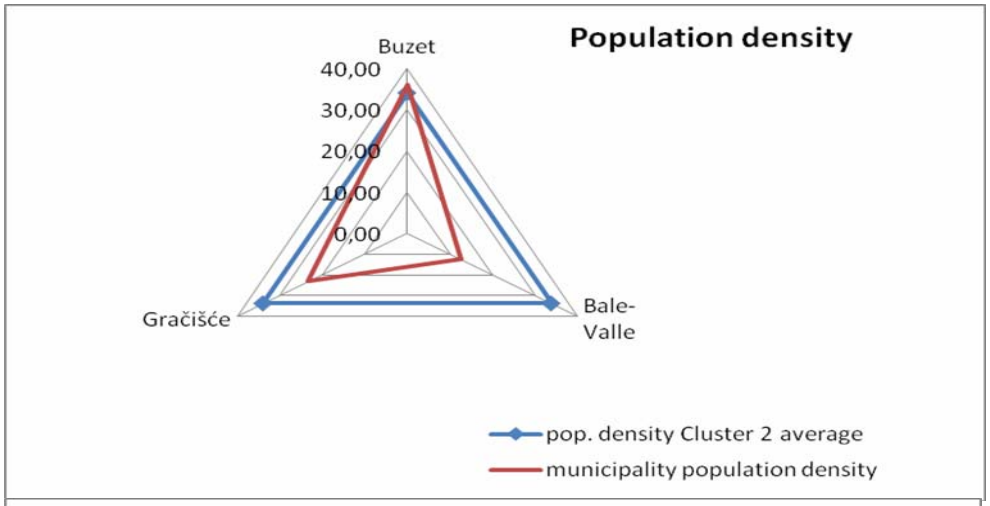
Towns and municipalities

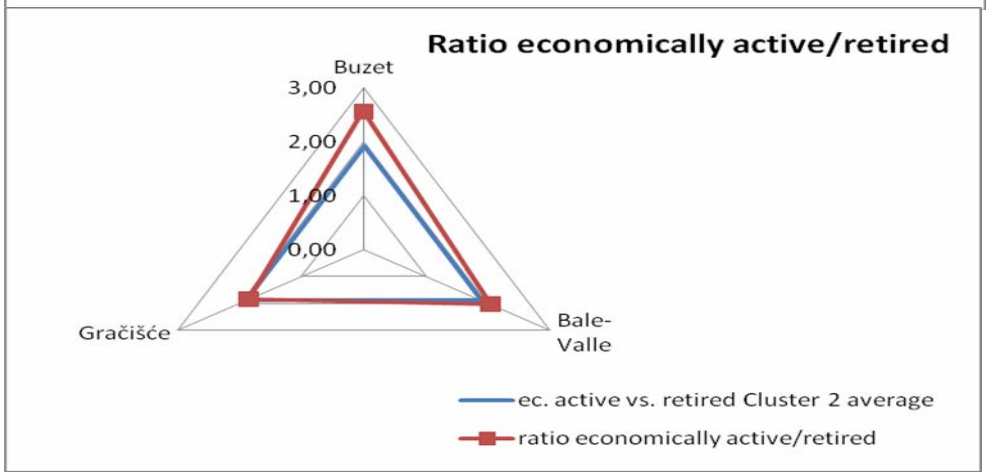
Selection of municipalities

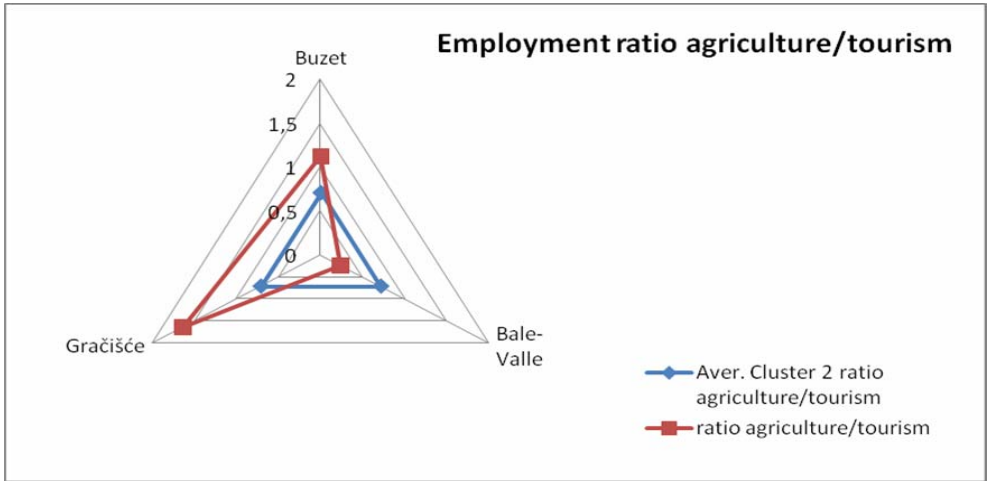
Selected research area is at NUTS3 level (HR036 Istrian County). For the research purposes, Istrian county is divided into two "sub-county levels (as LAU 1 levels) - clusters", based on following criteria:

- **population density**
- **economically active vs. retired population ratio**
- **employed in agriculture vs. employed in tourism**
- **revenue of towns and municipalities in 2008**


Population density
Labin
300
200
100
0
Rovinj-Rovigno
Poreč-Parenzo
pop. density Cluster 1 average
population density
Ratio economically active/retired
Labin
3,00
2,50
2,00
1,50
1,00
0,50
0,00
Rovinj-Rovigno
Poreč-Parenzo
ec. active vs. retired Cluster 1 average
ratio economically active/retired
Employment ratio agriculture/tourism
Labin
0,15
0,1
0,05
0
Rovinj-Rovigno
Poreč-Parenzo
Aver. Cluster 1 ratio agriculture/tourism
ratio agriculture/tourism


Population density
Buzet
40,00
30,00
20,00
10,00
0,00
Bale-Valle
Gračišće
pop. density Cluster 2 average
municipality population density


Ratio economically active/retired
Buzet
3,00
2,00
1,00
0,00
Bale-Valle
Gračišće
ec. active vs. retired Cluster 2 average
ratio economically active/retired


Employment ratio agriculture/tourism
Buzet
2
1,5
1
0,5
0
Bale-Valle
Gračišće
Aver. Cluster 2 ratio agriculture/tourism
ratio agriculture/tourism

Stakeholders

- **Group A stakeholders**, representatives from the county level:
  - representative from the Istrian County administrative office, Department for agriculture;
  - representative from the Istrian Agency for Rural Development and
  - representative of the Istrian office of the Croatian Extension Service.

- **- Group B stakeholders**
  - State office in Buzet,
  - Forestry service Poreč,
  - Institute for Agriculture and Tourism in Poreč,
  - Liburna Association Raša,
  - Ruralis Co-operative, Gračišće,
  - Nursery Longo, Rovinj,
  - Agritourism Family Farm Bažon, Gračišće and
  - Agrolaguna Poreč.

Material and methods

- Interviews were conducted in the period January-March 2010,
- "face-to-face" with all persons included
- average duration of the interview was 90 minutes.

1. Several informative questions

- **attaining independence**, with great effect in political and economic life of entire state, also of the Istrian county;
- **privatisation and transition** from centrally planed to a market system – loss of former firms and jobs forced people to change their economic activities; great number of them re-oriented themselves to agriculture and other rural activities;
- **Croatian War of Independence** – caused big economic and demographic changes; great migration processes changed the demographic picture of the county;
- **long-term deagrarization processes** – rural areas are abandoned and devastated;
- **rapid (un)sustainable building** – with mixed consequences (good when some important infrastructural capacities were built, bad in cases of uncontrolled building, especially in rural areas) etc.

The importance of **specific policy outcomes** for particular municipality (or for the entire county, in the case of Group A stakeholders, represented in this table with numbers 9-11).

Group A

Outcome/examinee	1	2	3	4	5	6	7	8	9	10	11	Avrg.	St. dev.
Ecc. 1 - higher agricultural income	3	3	3	3	5	5	4	5	4	5	5	4.1	0.943880
Ecc 2 - competitive rural economy	4	2	4	4	3	4	4	5	5	5	5	4.1	0.943880
Ecc 3 - market efficiency	5	3	4	1	5	2	4	5	4	5	5	3.9	1.375103
Env. 1 - preserved natural resources	5	4	2	5	3	5	3	4	5	5	4	4.1	1.044466
Env. 2 - sustainable development	5	3	3	5	3	3	4	4	5	5	4	4.0	0.894427
Env. 3 - biodiversity	5	3	2	5	3	1	4	4	4	5	5	3.7	1.348400
Soc. 1 - human resources development	5	4	3	2	5	5	3	5	5	5	5	4.3	1.103713
Soc. 2 - local actors' co-operation	5	3	3	4	5	1	4	2	5	5	5	3.8	1.401298
Soc. 3. - strengthening of local identity	5	4	4	5	5	5	4	2	5	5	5	4.5	0.934199

Policy outcomes

- rather balanced importance of all three areas of policy outcomes
- "Istrian identity" (grade 4.5)
- "biodiversity" lowest average grade
- "co-operation of local actors"

Current policy measures for delivering the most important outcomes [1]

Measure/examinee	1	2	3	4	5	6	7	8	9	10	11	Avrg.	St. dev.
Ecc. 1 - M1 - investments in agricultural production	3	2	2	3	1	2	4	3	5	5	3	3.0	1.264911
Ecc. 2 - M2 - investments in diversification	3	2	3	4	2	4	2	4	4	3	2	3.0	0.894427
Ecc. 2 - M1 - investments in farms	3	-	3	1	2	2	3	3	4	3	3	2.7	0.823273
Ecc. 2 - M2 - support to building business zones	5	-	3	5	5	1	2	3	2	4	4	3.4	1.429841
Ecc. 2 - M3 - support to implementation of new production standards	2	-	4	5	5	5	4	4	4	3	3	3.9	0.994429
Ecc. 3 - M1 - investments in processing and marketing of goods	2	3	4	-	5	-	4	3	5	3	3	3.6	1.013794

Policy measures

- low grade to the measure "investments in farms“ **-**
- "support to implementation of new production standards" **+**
- "improved monitoring and information system" in natural resource preservation, "investments in renewable energy resources"

Current policy measures for delivering the most important outcomes [cont.]

Env. 1 - M1 - improvements in monitoring and information system	4	3	-	5	5	4	3	3	4	3	4	**3.8**	0.788811
Env. 2 - M1 - investments in renewable energy resources	1	3	3	2	1	1	2	1	2	2	2	**1.8**	0.750757
Env. 3 - M1 - investments in original breeds and cultivars	2	3	-	1	3	-	4	4	5	3	3	**3.1**	1.166667
Soc. 1 - M1 - improvements in education system	2	1	2	-	5	4	3	2	5	5	3	**3.2**	1.475730
Soc. 2 - M1 - civil society development	1	2	3	4	1	-	3	-	4	4	4	**2.9**	1.269296
Soc. 3 - M1 - promotion of Istria	5	4	3	5	5	5	4	-	4	5	5	**4.5**	0.707107
Soc. 3 - M2 - investments in cultural heritage preservation and renewal	4	4	4	1	5	4	5	-	4	5	5	**4.1**	1.197219

Policy measures

- "*improved monitoring and information system*" in natural resource preservation vs. "*investments in renewable energy resources*
- *Improvements in education and training system disaccord*
- *"civil society development"* ?

Conclusions

- Stakeholders won't change their priorities rapidly when Croatia will become the member of the EU
- economic outcomes have great importance, reflecting still unsatisfactory economic situation in the region
- The promotion of Istria is seen as very successful measure not only in achieving the stronger local identity, but also as a measure of ensuring better market prospects, inter-regional and international co-operation

Expected outcomes (1)

Increased awareness among stakeholders on the potential gains of model based approaches

Agent-based models of municipality case studies for scenario analysis/identification and policy/management experiments

Sets of virtual municipality prototypes representing contrasted situations and potential evolutions

Maps of structural evolutions at municipality level in a set of regional case studies

Evaluation of robust differences between the evolutions provided by the aggregation of municipality level

Expected outcomes (2)

Micro-simulations, agent-based models and available models at regional scale

A better understanding of the regional rural response to global and national trends

New principles for the enhancement of the screening and the scoping of SEA, EIA & SIA impacts assessment methods

A database compatible with GEOSS & INSPIRE specifications

Thank you for your attention!