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INSTITUTE
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Comparative analysis of BIOCLUS Regions

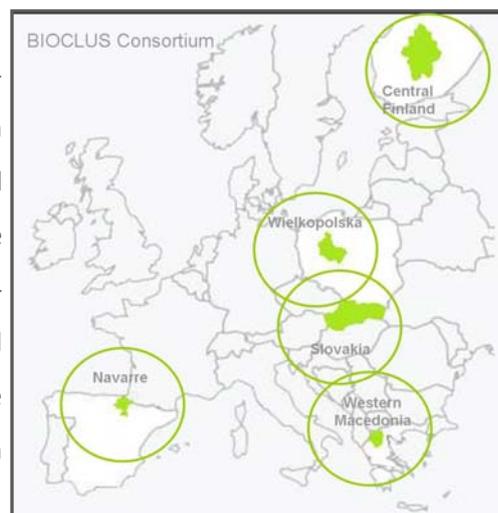
Introduction and method of description

The BIOCLUS consortium consists of five Regions: Central Finland, Navarre (Spain), Western Macedonia (Greece), Slovakia and Wielkopolska (Poland). Each Region has its own geographical and local properties which are strongly linked with the biomass type available and the biomass potential. Strategic Research Directions in the Regions depend on biomass type and biomass potential.

Regions can be compared by: their total surface, total population, urban and rural population, biomass type and amount. Biomass sustainable use in these Regions depends on these factors.

Results

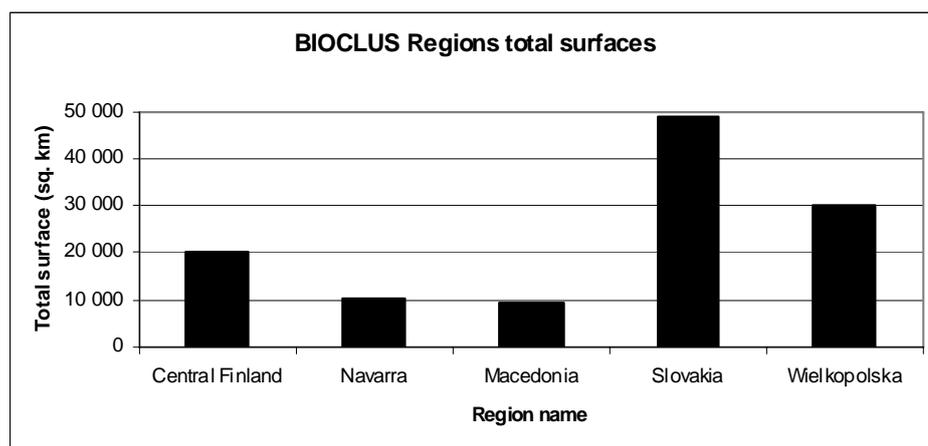
The main data available regarding statistical figures (surface, population, etc.) in comparison to each Region is presented in Table 1. The data's source is the "Comparative Analysis of regional Strategic Research Agendas (SRAs)" prepared by Marek Hryniewicz from the Institute of Technology and Life Sciences, in Wielkopolska.



The BIOCLUS Consortium

	Central Finland	Navarra	W. Macedonia	Slovakia	Wielkopolska
Total surface	20.000 km ² (2.000.000 ha)	10.392 km ² (1.039.203 ha)	9.451 km ² (954.100 ha)	49.035 km ² (4.903.500 ha)	29.827 km ² (2.982.700 ha)
Forestry, woodland	1.340.000 ha (67,0%)	586.513 ha (56,0%)	243.661 ha (25,9%)	2.010.435 ha (41,0%)	782.600 ha (26,2%)
Shrubland	-	-	88.567 ha (9,4%)	-	-
Pastures	100.000 ha (5%)	82.438 ha (7,9%)	301.464 ha (32,1%)	532.600 ha (10,9%)	107.700 ha (3,6%)
Arable land	-	368.770 ha (35,5%)	249.521 ha (26,6%)	1.333.800 ha (27,2%)	1.481.500 ha (49,7%)
Total population	274.000	605.876	302.892	5.379.500	3.816.700
Urban population	210.980 (77,0%)	493.789 (81,5%)	169.620 (56,0%)	3.066.300 (57,0%)	2.327.800 (61,0%)
Rural population	63.020 (23,0%)	112.087 (18,5%)	133.272 (44,0%)	2.313.200 (43,0%)	1.488.900 (39,0%)

Table 1: Regions comparison by their total surface, total population, inhabitants amount who live in towns, inhabitants amount who live in rural areas, biomass type and amount



Slovakia has the largest surface and W. Macedonia the smallest one.

Figure 1: BIOCLUS Regions' total surface

67% of the total surface of C. Finland is covered by forests.

50% of the total surface of Wielkopolska is arable land.

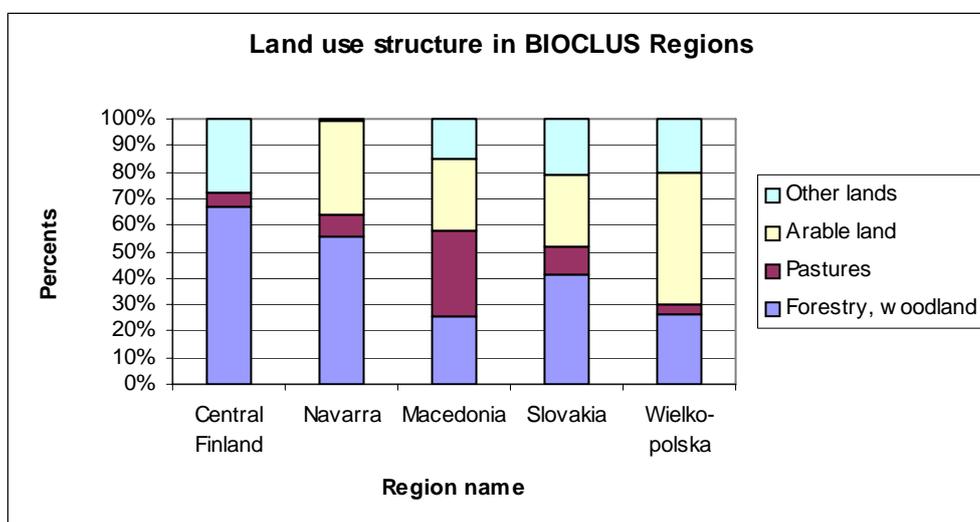


Figure 2: Land use structure in BIOCLUS Regions

Typical forestry region is Central Finland (67% of its surface are forests). On the other hand W. Macedonia has the smallest forest share. The highest share of arable land is in Wielkopolska (about 50%). There is no data available about arable land in Central Finland. Proportions between arable land, pastures and forestry are usually related to the available biomass type and supply in each Region. However, there are many other factors (as animal production, existing biomass processing, etc.) which influence the available biomass supply in each Region.

Different Regions have different natural conditions. It reflects on biomass type and potential available in each Region as well as on their utilisation.

Furthermore, the population of the BIOCLUS countries is examined. It is graphically presented in Figure 3. The biggest inhabitants' amount is in Slovakia and Wielkopolska.

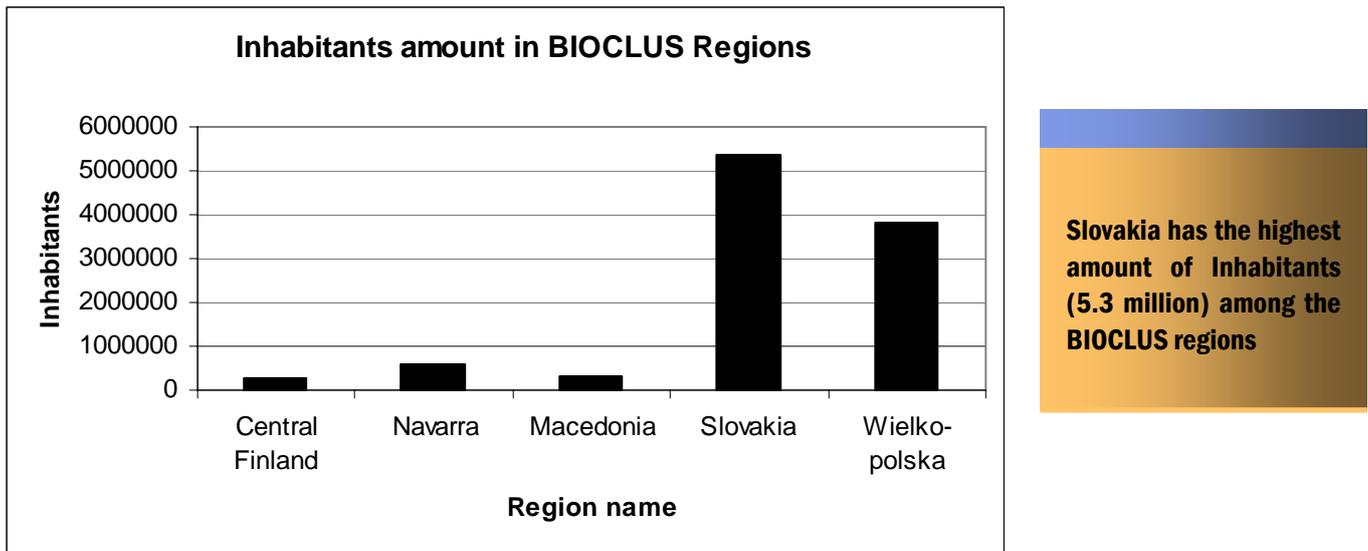


Figure 3: Inhabitants' amount comparison between BIOCLUS Regions

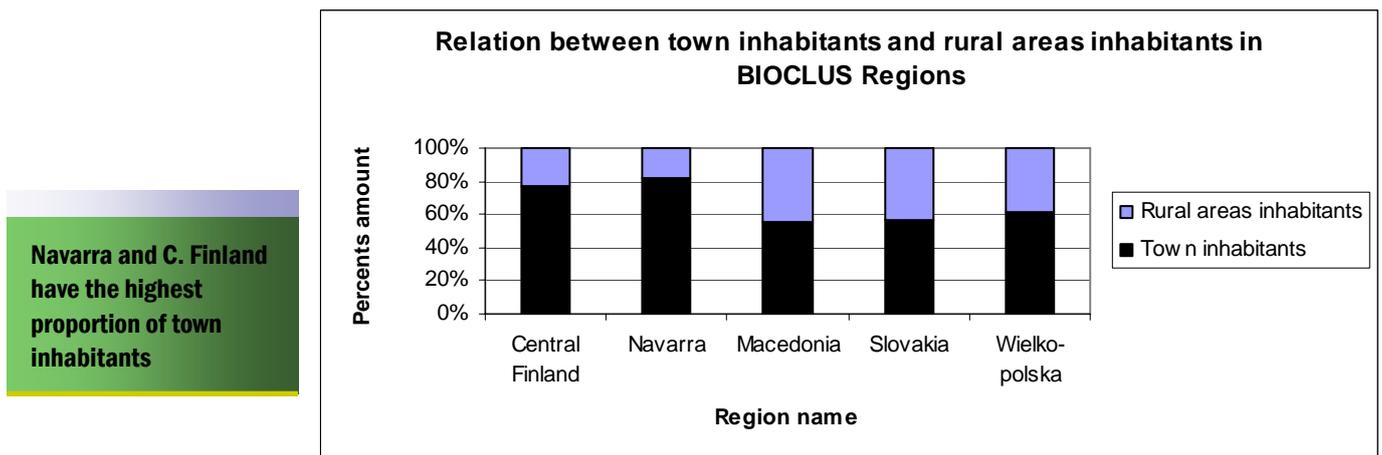


Figure 4: Relation between town inhabitants and rural inhabitants in BIOCLUS Regions

Usually towns are equipped with central heating systems with one or more boilers. These boilers have relatively big power in comparison to boilers implemented in rural areas. Biomass supply to towns requires rather sophisticated supply chain with intermediate storage capacities. Boilers in rural areas do not need such supply chain.

The biggest share of town inhabitants is in Navarra and Central Finland (about 80%). However, other Regions show quite high share of town inhabitants (about 60%) as well.

Comparative analysis of Regions' vision

Central Finland

Central Finland is an internationally recognized region of knowledge in sustainable use, research and development of biomass, especially in the fields of bioenergy and forest industry supply chains, enhancing a new biomass-based business.

Navarra

Navarra is an international leader in the sector of renewable energy and intends to maintain this position in all its fields, including that of Bioenergy. This sector is growing and becoming more dynamic on a world scale, which means that Navarra must not lose its leading position in specific areas of the renewable energy sector, such as wind and photovoltaic solar energy. Moreover, it must also **include within this leadership the energy exploitation of biomass**. For this to occur it is necessary to draw up and follow strategies to maintain this position and to achieve presence on new international markets.

Western Macedonia

Among the key challenges that Western Macedonia has to face are:

1. Creating proper conditions for diversification of the regional production infrastructure, which today is connected to energy production, and for its adjustment to international open market requirements
2. Enhancement of the major cities status in order to promote the development of social cohesion, the improvement of living standards and the arrangement of a functional communication grid with the rural and mountainous areas of the Region
3. Improvement of the attractiveness of man-made results and of the environmental quality
4. Support of the regional organisation and of the extraversion, especially towards the neighbouring Balkan countries, through the improvement of accessibility and the development of multi-conceptual collaborations.

With the following key challenges that refer to Energy and RTD issues:

- Maintaining the Energy Production Characteristics of the Region
- Viable Transition to the Post-lignite Era
- Alternative Energy Resources Exploitation
- Establishing "Knowledge Economy"

Slovakia

The main objectives, to be addressed in order to achieve a sustainable development and also in terms of BIOCLUS' focus are:

- Developing of knowledge economy in order to increase the added value of the goods and services realized on foreign and domestic markets, increase respectively maintenance of the foreign investments flow.
- Diversification of economy structure, which is currently, focused on the engineering, metallurgical and chemical industry with a view to limit the risks that stem from movement on the global commodity markets for export, which is in focus of the present economy.
- Reducing of international economy disparities by means of support of infrastructure building for financial flow and development of economic activities related to land management (agriculture, forestry, including biomass production)
- Improving of the environment including economically effective and ecologically sustainable utilization of domestic resources.

Wielkopolska

Wielkopolska is going to be a Region with following features according to the sustainable use of biomass:

- integrated,
- competitive.

Source: Regional Development Strategy for Wielkopolska Region up to 2020

The most important effects for Wielkopolska Region development are going to be the results of the following processes results:

- integration with European Union (ideas exchange, knowledge transfer, innovative technologies transfer, works specialisation among Regions, etc.),
- economy and society globalisation (free capital and workers flow, international cooperation, free market and economy, etc.),
- eventual changes in state model functioning in the directions of decentralisation and competence limiting (decentralised energy production, sustainable biomass use in local conditions especially in rural communities).

Conclusions from effects and recommended activities directions:

- Wielkopolska should be a region with internally integrated economy according the following factors economical, infrastructural and social. It is due to fact that only integrated Region can resist against threats and can achieve the biggest benefits.
- The best integration with European Union should achieve Wielkopolskas economy, infrastructure and society. The integration is regarded as critical factor for Region competitiveness construction.

Source: Regional Development Strategy for Wielkopolska Region up to 2020

Problems

Wielkopolska is not internally integrated. Interregional disproportions are becoming deeper and deeper in many areas. There are following disproportion reasons: incoherent infrastructure, weak cooperation links in economy (especially on subregional and local level) and disintegrated public intervention system.

Region integration should be understand as multidimensional process for social integration, public bodies activities consolidation, links creation in economy which supports synergy effect.

Region competitiveness should be understand as the exploitation of advantages both strong and weak Region factors.

Latest Events

- **2nd Annual Conference of the RHC Platform (5 - 6 May 2011 in Budapest)**

The 2nd Annual Conference of the RHC-Platform (5-6 May 2011), will gather in Budapest speakers from the biomass, geothermal and solar thermal sectors, as well as high level policy and decision makers, to **plot the course toward widespread deployment of renewable heating and cooling technologies**, and discuss the challenges for accomplishing this feat.

More information available at: <http://www.rhc-platform.org/cms/index.php?id=84>

- **Towards a more innovative Europe: public consultation on the future strategy for the European Institute of Innovation and Technology (EIT)**

The European Commission is seeking your views on the future strategy of the European Institute of Innovation and Technology (EIT). Following the success of the EIT's initial phase, the results of this consultation will feed into a 'Strategic Innovation Agenda' (SIA) for the EIT which the Commission is due to propose by the end of this year. The agenda will outline the Institute's main priorities until 2020, focusing on the EIT's mission and objectives, funding and future priority themes for its Knowledge and Innovation Communities (KICs).

The consultation will remain open until 30 June 2011. The results will be analysed and summarised in a report that will be published on this website in the second semester of 2011.

All citizens and organisations are welcome to contribute to this consultation. Contributions are particularly sought from stakeholders at European, national and regional level involved in the knowledge triangle, i.e. higher education, research and business/innovation as well as public authorities.

More information available at: http://ec.europa.eu/dgs/education_culture/consult/index_en.html

- **The European Commission is organising a public hearing on 30th of May 2011 to discuss for future EU action in the field of Integrated Coastal Zone Management**

...and invites all those interested in coastal planning and management to engage in a dialogue on the best ways forward regarding EU policy on Integrated Coastal Zone Management.

The hearing offers you an opportunity to express your views, to give your opinion and to raise questions.

More information can be found on the hearing registration site:
http://ec.europa.eu/environment/consultations/iczm_hearing.htm

The hearing complements the on-line public consultation on Integrated Coastal Zone Management and Maritime Spatial Planning, which is still open until 20 May.



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