

# GeoPLASMA-CE

*Kick-Off Meeting*

*September 21<sup>st</sup> 2016*

*EGC 2016 Strasbourg*



# Shallow Geothermal Use in (Central) Europe

*Why talk about shallow geothermal use?*

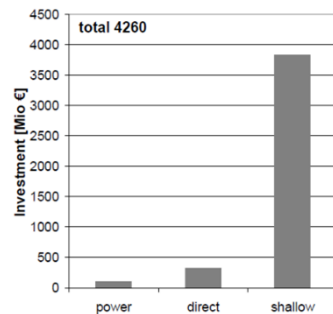


Figure 13: Investment in the different fields of the geothermal sector (only 19 of 32 countries reporting)

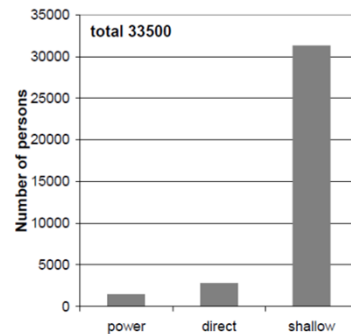


Figure 14: Number of persons working in the different fields of the geothermal sector (only 19 of 32 countries reporting)



Source: [www.t-online.de](http://www.t-online.de)



Source: [www.heizungsfinder.de](http://www.heizungsfinder.de)

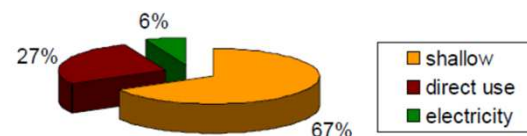


Figure 10: Share of installed capacity in the three geothermal sub-sectors in Europe as of 2015

1. *It has a significant market relevance*
  - Capital market & job market!
2. *It has a significant share on the energy market (among geothermal use)*
3. *It may play a future game changer role in reduction of air pollution by individual heating*

European Geothermal Congress 2016  
Strasbourg, France, 19-24 Sept 2016



## Summary of EGC 2016 Country Update Reports on Geothermal Energy in Europe

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# Shallow Geothermal Use in (Central) Europe

*What are the territorial challenges in Central Europe?*

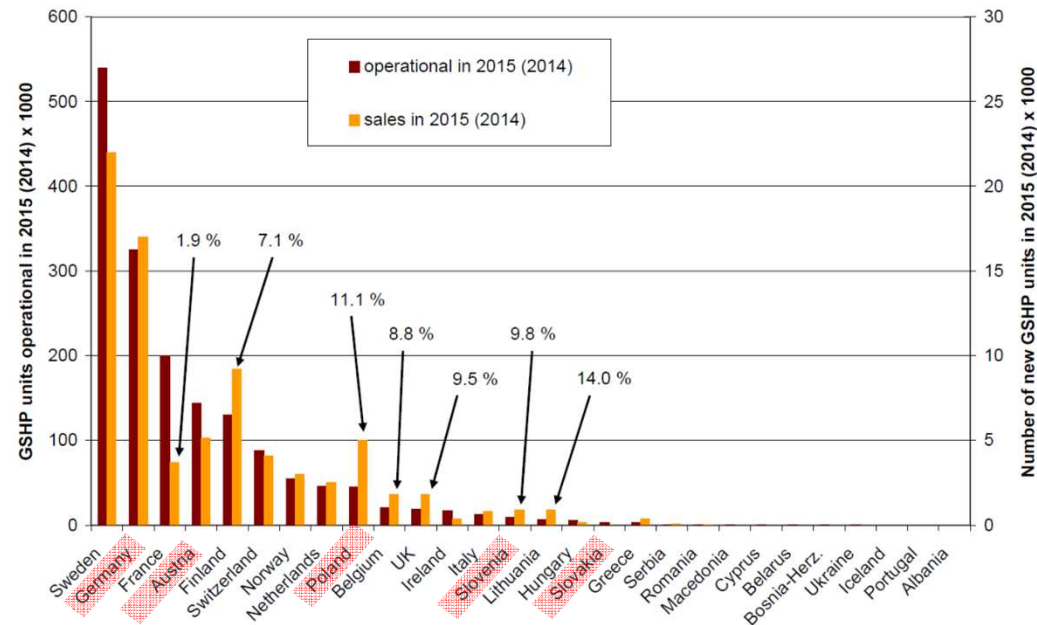


Figure 11: Total number of GSHP and sales in 2015 (some countries 2014) as stated in EGC 2016 country update reports; the ratio of sales in relation to existing installations is highlighted for some countries

## Leading countries



- Developed markets (individual use)
- Conflict of use
- New utilization strategies

## Developing countries



- Developing markets
- Lack of regulation and management strategies
- Low visibility of technology

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### Summary of EGC 2016 Country Update Reports on Geothermal Energy in Europe

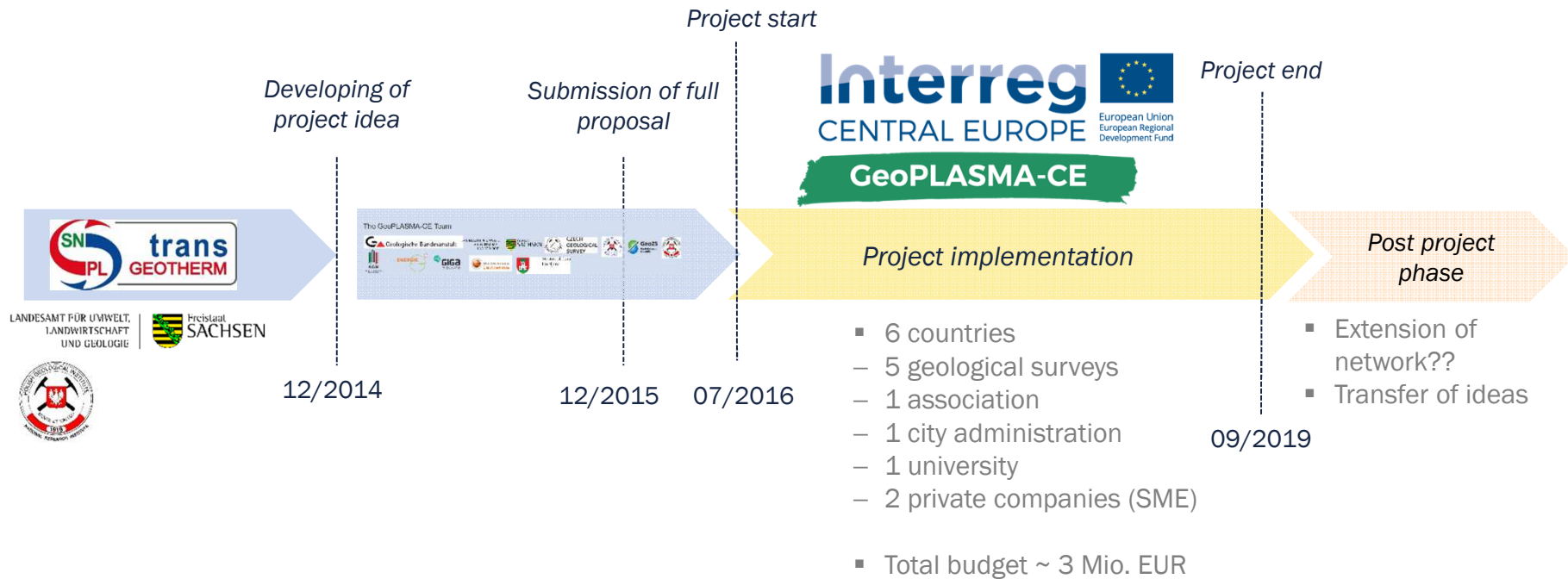
Miklos Antics<sup>1</sup>, Ruggero Bertani<sup>2</sup>, Burkhard Sanner<sup>3</sup>

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[m.antics@geoproduction.fr](mailto:m.antics@geoproduction.fr), [ruggero.bertani@enel.it](mailto:ruggero.bertani@enel.it), [b.sanner@egec.org](mailto:b.sanner@egec.org)

## How the idea developed – the roadmap



# GeoPLASMA-CE

*Our vision and trans-territorial objectives*



Foster share of shallow geothermal use in heating and cooling strategies in Central Europe

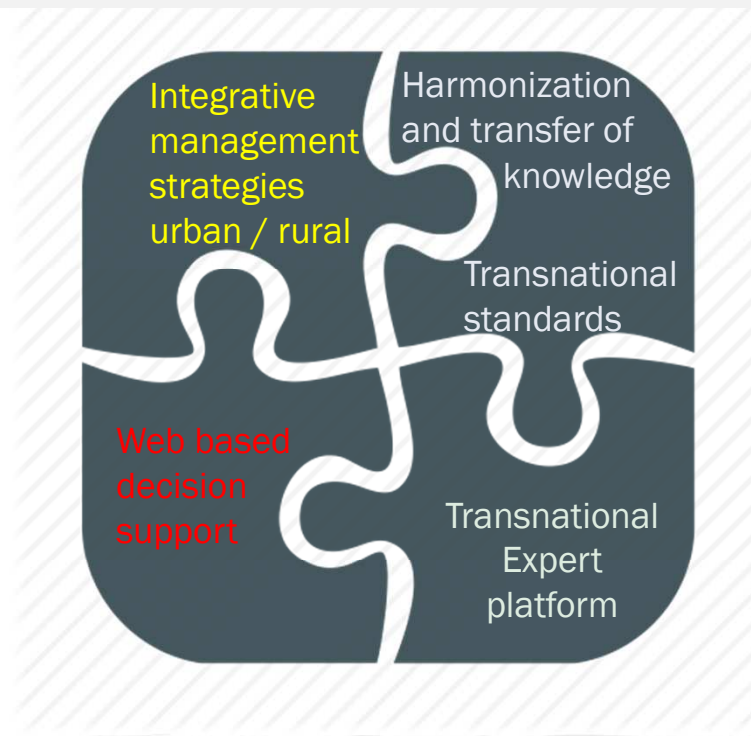
- *For mitigation of air pollution and reduction of CO2 emissions!*
- *For being independent from energy imports!*
- *For stimulating regional aggregate values added!*
- *For stimulation the market of shallow geothermal energy use!*

# GeoPLASMA-CE

*Our vision and trans-territorial objectives*



Foster share of shallow geothermal use in heating and cooling strategies in Central Europe





# GeoPLASMA-CE

## Workplan and expected outputs



*Databases of relevant key values*

*3D models*

*Thematic maps of resources and conflicts of utilizations*

*Joint workflows for TRT device calibration*



*Summary of existing planning and management strategies*

*User demands in pilot regions*

*Development of strategies in pilot regions*

*Implementation of strategies and transfer*



*Web based decision support and information*

*Web based expert platform*

[www.geoplasma-ce.eu](http://www.geoplasma-ce.eu)



*Catalogue of requirements*

*Synopses of methods and workflows*

*Knowledge exchange workshops*

*Harmonized methods, workflows and standards (criteria of success)*



LANDESAMT FÜR UMWELT,  
LANDWIRTSCHAFT  
UND GEOLOGIE



*Leaflets, newsletters, articles, presentations, press releases*

*Project website*

*Conference sessions and booths*

*Web video*

**6 pilot regions**

- Developing and testing approaches
- Supporting implementation of concepts

# GeoPLASMA-CE

*The pilot regions*





# The GeoPLASMA-CE Team



Geological Survey of Austria  
(LP)



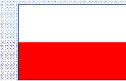
City of Ljubljana  
(PP11)



GiGa infosystems  
(PP10)



AGH University of Science and  
Technology  
(PP9)



German Geothermal Association  
(PP2)



Bundesverband  
Geothermie



geoENERGIE Konzept GmbH  
(PP3)



Interreg  
CENTRAL EUROPE



European Union  
European Regional  
Development Fund

GeoPLASMA-CE

Polish Geological Institute -  
National Research Institute  
(PP8)



Geological Survey of Slovenia  
(PP7)



Saxon Office for Environment,  
Agriculture and Geology  
(PP4)



LANDESAMT FÜR UMWELT,  
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Freistaat  
SACHSEN

Czech Geological Survey  
(PP5)



State Geological Institute of  
Dionýz Štúr  
(PP6)



# GeoPLASMA-CE

*Project environment*



External Evaluation  
and Advisory Board

International  
Stakeholders



Associated Partners

Regional Stakeholders

Complementary  
projects (-teams)



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## Thank you for listening!

## Follow our project!

[info@geoplasma-ce.eu](mailto:info@geoplasma-ce.eu)

[www.geoplasma-ce.eu](http://www.geoplasma-ce.eu)



## GeoPLASMA-CE in a nutshell



GeoPLASMA-CE – an Interreg Central Europe project:

- *Different aspects of shallow geothermal use for heating and cooling*
- *In urban and non-urban regions in Central Europe*

In cooperation with:

*Geological survey organisations, universities, non-profit organisations, administrative bodies and private expert companies*

New strategies for a reasonable and sustainable use of shallow geothermal application

*Exploration in 6 different pilot areas*

***Austria, Czech Republic, Germany, Poland, Slovakia and Slovenia***

# The GeoPLASMA-CE outputs



## State of the art planning and management tools

- A web-based portal for decision support and information systems based on 3D data models
- A web-based expert platform for transfer of knowledge and connecting stakeholders of shallow geothermal use in Central Europe
- Integrative management strategies for the use of shallow geothermal methods in the selected pilot areas
- Harmonized strategies for planning, mapping, management and monitoring of shallow geothermal use based on joint transnational standards