

D2.5

National reports with a review and synthesis of the collated information

Poland





Document information

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D2.5: National reports with a review and synthesis of the collated information – Poland

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1. Introduction

1.1 About INSPIRATION

The aim of INSPIRATION is to establish and promote the adoption of a strategic research agenda for land use, land-use changes and soil management in the light of current and future societal challenges. Main objectives are:

- **Formulate, consult on and revise an end-user oriented strategic research agenda (SRA);**
- **Scope out models for implementing the SRA;**
- **Prepare a network of public and private funding institutions willing to commonly fund the SRA.**

The proposed methodology is based on a multi-stakeholder, multi-national and interdisciplinary approach that covers the variety of stakeholders (public bodies, business, scientific community citizens and society) and the variety of relevant funders. The vehicle to engage with relevant stakeholders across the Member States is a National Focal Point (NFP) in 17 countries¹. Between March 2015 and March 2016 The NFP's interviewed National Key Stakeholders (NKS), performed a desk study and organized workshops with national stakeholders of funders, end-users and researchers across the various soil and land management disciplines. The goal of these exercises was to gather information and support the main objectives as stated above.

The collated results will be structured along four integrative themes: 1) resources demand and efficiency; 2) natural capital stewardship; 3) land management; 4) net impact on global, EU and local scale (see section 1.3) and merging into thematic knowledge needs to satisfy the as yet unmet societal challenges and to ensure that knowledge contributes primarily to enable meeting these challenges. Based on these results, a cross-border and cross-discipline dialogue will subsequently be organized among the relevant user communities, funding bodies and scientific communities in Europe in order to reach a trans-national, prioritized SRA as well as a model for execution of this SRA. Thus a SRA will be produced which will give national funders confidence that for each Euro they spend, they will get multiple Euros worth of knowledge in return in order to address their national societal challenges.

Learn more about the INSPIRATION coordination and support action on the project's website: www.inspiration-h2020.eu and follow us on twitter: [@inspiration4eu](https://twitter.com/inspiration4eu).

¹ The Swedish Geotechnical Institute (SGI) with support of Formas is currently mirroring the INSPIRATION approach in Sweden. SGI has proposed to act as Swedish National Focal Point and to become a full member of the INSPIRATION consortium. This has been welcomed by the consortium. Currently formal negotiations are in place between SGI, the consortium and the EC to effectively implement this collaboration. This report furthermore contains some information for Denmark and Luxemburg – representatives of both countries joined the Belgium workshop – and for the Republic of Ireland – representatives joined the UK workshop – see below.)

1.2 This report

This country report is an excerpt from the INSPIRATION Deliverable 2.5 “National reports with a review and synthesis of the collated information”, which integrates 17 national reports. These 17 countries, in alphabetical order, and respective report authors are:

1. **Austria**,
Pia Minixhofer, Sophie Zechmeister-Boltenstern, Rosemarie Stangl, Andreas Baumgarten, Martin Weigl, Peter Tramberend,
2. **Belgium** (including some information for **Denmark** and **Luxemburg**),
Nele Bal, Bavo Peeters,
3. **Czech Republic**,
Petr Klusáček, Stanislav Martinát, Bohumil Frantál,
4. **Finland**,
Antti Rehunen, Teija Haavisto, Ritva Britschgi, Outi Pyy, Jari Rintala, Petri Shemeikka,
5. **France**,
Marie-Christine Dictor, Samuel Coussy, Valérie Guerin, Corinne Merly,
6. **Germany**,
Uwe Ferber, Stephan Bartke, Detlef Grimski,
7. **Italy**,
Matteo Tabasso, Sarah Chiodi, Giulia Melis,
8. **Poland**,
Anna Starzewska-Sikorska,
9. **Portugal**,
Thomas Panagopoulos, Vera Ferreira, Dulce Antunes
10. **Romania**,
Mihail Dumitru, Sorin Liviu Stefanescu, Andrei Vranceanu, Valentina Voicu, Nicoleta Vranceanu,
11. **Slovakia**,
Maros Finka, Maria Kozova, Zita Izakovicova, Lubomir Jamecny, Vladimir Ondrejicka,
12. **Slovenia**,
Boštjan Cotič, Barbara Mušič, Ina Šuklje Erjavec, Matej Nikšič,
13. **Spain**,
Pierre Menger, Gemma Garcia-Blanco, Efren Feliu,
14. **Sweden**,
Yvonne Ohlsson, Lisa van Well, Kerstin Konitzer,
15. **Switzerland**,
Regula Brassel, Marco Pütz,
16. **The Netherlands**,
Linda Maring, Jos Brils
17. **The United Kingdom** (including some information on **the Republic of Ireland**),
Paul Nathanail, Matt Ashmore.



Deliverable D2.5 concludes the activities of INSPIRATION Work Package (WP) 2 “**Demands of research from industry, end-users and funders (State-of-the-art at national levels)**”, task 2.5 “**Review and synthesis of the collated information**”.

The WP2 activities were executed in the 1st year of the INSPIRATION project (month 1 – 12), i.e. in the period from March 2015 to February 2016. In the WP2 project description, the final task executed in this period is described in the following way:

“The NFPs will organize at national level a 2-day workshop, where the collated information (task 2.4) will be reviewed and synthesized and prioritized under guidance of the NFP by the NKSs. The WP-leader will prepare – in consultation with the INSPIRATION core group – a generic outline for the agenda of the 2-day national workshops. That outline will then be tailored to specific national situations by the NFPs. The results of the workshop – i.e. reviewed and synthesised information regarding topic a-d as mentioned under the WP2 objectives² – will be described in a national report (in English) by the NFPs. Before finalizing these reports, the NKSs as well as the International Advisory Board (IAB) will be given the opportunity to review the draft report. In these cases where English is not the native language, the national reports will also contain an executive summary (policy brief) of the report in the native language.” (INSPIRATION Grant Agreement - Description of Action - DoA).

Deliverable D2.5 describes the results of NKS interviews and of the desk-exercise as performed in participating countries aimed at collecting national research demands, science-policy-interface experiences and funding options. This report builds up on the interim results presented in Deliverable 2.4.³ The methodologies followed for the information collation and synthesis are presented in more detail for each country below. In general, the following approach was applied (see also Figure 1):

1. In each country, national key stakeholders (NKS) have been identified (in a way to ensure broad representation of soil and land-use/management topics and affiliations in research funding / end-use / science or policy making);
2. Interviews (structured according to a common template: see Annex I and II) with circa 20 NKS per country have been conducted in order to collect national research needs as well as information on science-policy-interface and financing options (with interim result presented as D2.4);
3. In each country, a national workshop with NKS was conducted. Basis for the workshops was the input provided in the NKS interviews before the workshop. It was presented in order to synthesize the collated info, discuss and review the key national research topics. The workshop thus aimed to check, verify and enrich, and in some cases also already prioritize the suggestions provided by the NKS;⁴

² See section 1.5 for a description of topic a-d.

³ Brils, J. et al. (2015): National report on collated information following the template. Final version as of 01.12.2015 of deliverable 2.4 of the HORIZON 2020 project INSPIRATION. EC Grant agreement no: 642372, UBA: Dessau-Roßlau, Germany.

⁴ In several countries besides the NKS interviewed also more stakeholders were invited (i.e. it were open events), and participated and contributed to the workshops.

4. The results of the interviewing plus workshop process were documented in a report to become the respective final national reports. A draft version was to be send nationally to the NKS for review;
5. The national reports were aggregated in a combined document, on which the International Advisory Board (IAB) of INSPIRATION was asked to give feedback, too;
6. The D2.5 report has been finalised taking into account the IAB recommendations.

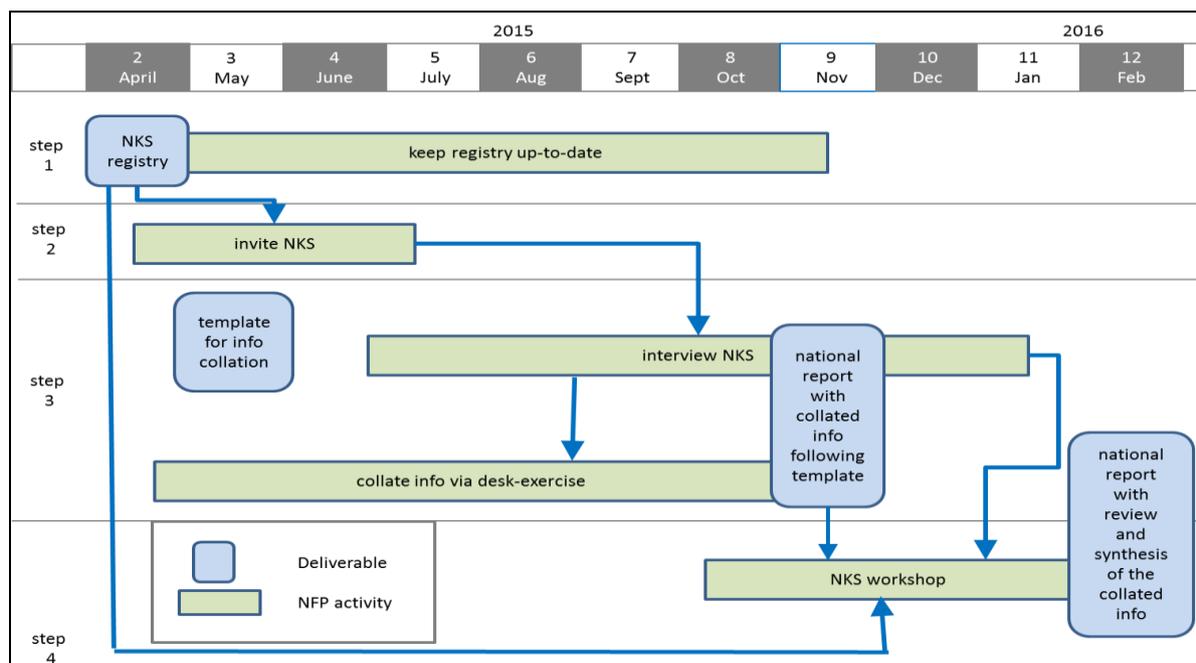


Figure 1: INSPIRATION’s WP2 workflow.

The information collated in this report feeds into WP3 “Transnational commons aggregated under integrated themes”. According to the INSPIRATION DoA, the main objectives of WP3 will be to:

1. Achieve an overview of the transnational shared demands and experiences grouped under common themes based on the national state-of-the-art reports as produced by WP2,
2. Prioritise and elaborate the topics that could be included in the SRA (to be developed by WP4) under specific themes,
3. Elucidate the opportunity to match (to be done under WP4) individual stakeholders (as funders) to specific SRA topics that could be shared transnationally.” (INSPIRATION Grant Agreement - Description of Action - DoA).

Visit the INSPIRATION website for the up-coming deliverables of the network!

1.3 The INSPIRATION conceptual model and its themes

In order to identify cross-country and cross-sectorial knowledge gaps and research questions, the national Research and Innovation (R&I) needs will be analysed along four overarching themes identified in the INSPIRATION conceptual model. This model is presented in figure 2. It has been used to structure the information presented in this report on R&I needs following these guiding key-questions for each theme:

- **Demand:**
What does society demand from natural capital and ecosystem services including the SSW-system?
- **Natural capital:**
What has nature, including the Soil-Sediment-Water (SSW)-system, to offer and which determinants sustain the system?
- **Land management:**
What are options for an integrated, cross-sectorial land management to balance societal demands and natural capital?
- **Net-impacts:**
What are the impacts of different options of managing natural capital, including the SSW-system on global, regional and local as well as temporal scales?

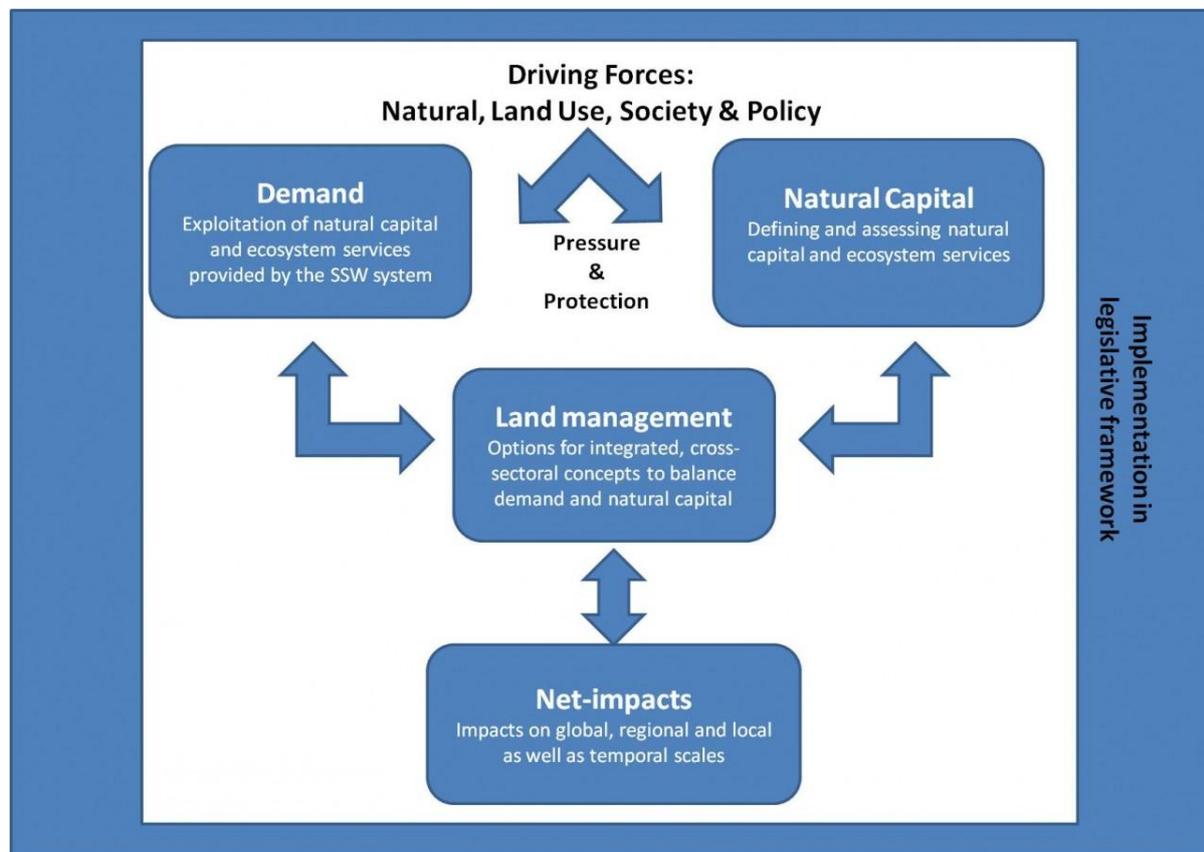


Figure 2: INSPIRATION's conceptual model.

1.4 Guide to the reader: outline of the country chapters

Each country chapter in Deliverable D2.5 follows a comparable outline:

Section X.1- Executive summary

This section provides an executive summary in English (X.1.1) as well as in the national language (X.1.2).

Section X.2 - Methodology followed

This section describes the methodology followed in the respective country including information on the stakeholder engagement (see also section 1.4).

The subsequent sections give a review and synthesis of the main results of the topics as mentioned under the WP2 objectives (see section 1.2).

Section X.3 Research and Innovation (R&I) needs

➤ **Topic a: Demand-driven*** suggestions for the Strategic Research Agenda (SRA), i.e. suggestions from the perspective of industry, end-users and funders.
Related key question to be answered: What (new) knowledge do these parties need to tackle societal challenges including the increase of job opportunities)?

* **Demand-driven** in INSPIRATION means focusing on the demands of those who are responsible or feel committed to tackle the societal challenges related to the INSPIRATION scope and themes, i.e. industry, end-users and funders. These parties could improve their business opportunities and/or take better informed decisions on what measures to take and execute in order to tackle other societal challenges if they would (be enabled to) use the knowledge as resulting from execution of the INSPIRATION SRA.

This section is divided in the sub-sections:

- Societal challenges and needs (X.3.1);
- Topics / research needs to include in the SRA (X.3.2).

The research questions under the topics in the X.3.2 sub-sections are divided by themes of the INSPIRATION conceptual model as described in section 1.3 of this chapter.

Section X.4 - Experiences regarding connecting science to policy/practice

➤ **Topic b:** Experiences regarding the exploitation of scientific knowledge to improve business opportunities and/or tackle other societal challenges.
Related key question to be answered: Where to improve the science-policy interface so that (new) knowledge can and will be more effectively exploited by the demand side?

This section is divided in the sub-sections:

- Use of knowledge (X.4.1);
- Possibilities to set the agenda (X.4.2);
- Science – policy – practice (X.4.3).



Section X.5 National and transnational funding schemes

- **Topic c:** *Predominant, current as well as promising alternative funding schemes / mechanisms / programs for knowledge production and dissemination.*
*Related key question to be answered: **How to get with one Euro of national/regional funding a multitude of Euro's (from all sources) worth of knowledge in return contributing to EU and national demands? Or even how to get with one euro of EU funding a multitude of euro's (from national, regional, local, and private sector) worth of knowledge in return contributing to the R&I demands on Land and the Soil-Sediment-Water systems.***
- **Topic d:** *Experiences regarding the use of any trans-national, common budget for scientific knowledge production related to the scope of INSPIRATION.*
*Related key question to be answered: **How to set up/govern the appropriate funding option(s) resulting from INSPIRATION – based on previous learning experiences – so that: (1)the above demands will be fulfilled, (2) knowledge resulting from implementation of the SRA will be taken up and used and (3) funders experience that their invested, national Euros are indeed multiplied?"***

This section is divided in the sub-sections:

- Funding schemes and possibilities for research funding (X.5.1);
- Gaps in financial resources for research (X.5.2).

Section X.6 - Other remarks made by interviewees

This section is optional and is not taken up in all national reports. It contains remarks, points of attention and recommendations for INSPIRATION as given by the NKS.



1.5 Annexes

Annex I: NKS questionnaire template

This is the updated version of the questionnaire - reflecting inputs from the IAB and discussions at the NFP training in Vienna on 22nd – 23rd June 2015.

Note: this questionnaire template is meant to help National Focal Points (NFPs) to facilitate the interview/conversation with the National Key Stakeholders (NKS). Some questions are relevant to one NKS, other questions to another NKS. Hence, not all questions are relevant to each single NKS. The NFPs are required to adapt the template accordingly – keeping in it as many as possible of the issues to be addressed. If needed, the NFPs also translate the questionnaire into their national language.

The questionnaire (see next pages) has the following outline:

- A. **Interview information:**
To be filled out by the interviewer
- B. **Introduction:**
That the interviewer can use to start the NKS interview
- C. **Background information of the NKS interviewed:**
Mostly 'tick-boxes'
- D. **Strategic Research Agenda (SRA):**
NKS preferred topics, overarching themes and scope for the SRA and national state-of-the-art on research agendas that the NKS is aware of
- E. **Science-Policy-Interface:**
NKS experiences regarding the exploitation of scientific knowledge to: improve business opportunities; tackle other societal challenges; assist policy-implementation and/or policy revision
- F. **Funding:**
Predominantly used as well as promising alternative funding schemes / mechanisms / programs for knowledge production and dissemination that the NKS is aware of
- G. **Other:**
At the end there is some time advised to let the NKS give us their advice, some nice quotes (that we can use anonymously in our communications), examples etc.
- H. **Ending the interview:**
Explain follow up and if/how NKSs will be involved in the next steps of INSPIRATION

Questionnaire template

A. Interview information

Country:

Name of INSPIRATION researcher:

Date of Interview:

How does the NKS wish to be referred to: *[Anonymous, personal opinions, company's opinion. Choose when it is a good time to discuss this. In the beginning or later on.*

SHOW the interviewed NKS the ENGAGEMENT CONSENT FORM and ask him/her to fill it out. Please introduce the engagement consent form (available in 'D2.1 MoU' and editable by yourself) and hand a copy to the interviewee to read and fill in – make sure that you take this away with you and keep for your own records]

B. Introductions

[Please introduce your selves, the project and the purpose of the interview. You can use the handout as provided at the end of this template. This can also be sent beforehand to the NKS. Agree on a time span: approximately one and a half hour.]

C. Background information on the interviewee

1. Name of NKS interviewed:

2. Institution:

3. Role:

4. Are you a (multiple answers possible):

- National-regional-local authority
- University/research institute
- Small or Medium sized Enterprise (SME, i.e. < 500 employees) / consultant
- Business and industry
- Non-Governmental Organisation (NGO)
- Network representative / leader
- Other, specify: ...

5. Fields of expertise (multiple answers possible): *[Ask to specify background regarding the selected item(s) in order to understand expertise background of interviewee]*

- Soil
- Water
- Sediment
- Urban / spatial planning
- Landscape design
- Land management
- Other, specify:

6. Does your organisation provide external research funding?

- Yes. Please specify: ...
[e.g. as programme holder, public, private, ...]
- No

D. SRA

7. Which societal challenges do you regard as important?

[If needed, you can use the European Commissions (EC) list of societal challenges here. These EC themes are:]

- Contribute to food security and food safety;
- Ensure secure supplies of safe drinking water;
- Secure energy supply and distribution;
- Reduce raw material and resource consumption, Ensure efficient use of natural resources;
- Contribute to climate change mitigation and societal adaptation;
- Contribute to a healthy living environment;
- Ensure secure infrastructure

[Explain that these challenges may be used as bases for defining of the overarching themes for aggregating the research topics of our SRA.]

- a. If applicable, what additional, other or alternative challenges would you suggest/prefer?

[When needed, you can mention challenges as nature conservation, sustainable use of ecosystem services, halting the loss of biodiversity]

8. Starting with your own experience: which specific topics (research needs) should be included in the SRA?

[For each single topic mentioned by the NKS, use the following follow-up questions. The a, b and c sub-questions are mandatory. The other sub-questions are optional]:

- a. Explain – elaborate the topic

- *Who will be affected?*
- *Who is responsible?*
- *Is it a topic of concern of your organisation / department*
- *Is it only a national topic, or a shared topic by multiple countries?*
- *Where are we now, where do we want to be in x years (point on the horizon)?*
- *How can the newly gained knowledge be effectively used?*

- b. Priority:

1. *High priority*
 2. *Some priority*
 3. *Neutral priority*
 4. *Low priority*
 5. *No priority*
- What is the urgency, i.e. what goes wrong if we do nothing?

c. Who wants to/should fund this kind of research?

[Optionally: check the following WP3 key-words for relevance, i.e. if they raise any additional topics by the NKS. The key-words can be used as support / check list

Be sensible as interviewer if this is needed.]

- *Assessment of land resources*
- *Potential productivity of land and soils*
- *Demand for soil/land resources, imports and exports*
- *Competition between land uses (land-use conflicts)*
- *Concepts to identify and quantify relevant impacts*
- *Instruments to avoid / minimize impacts (feedback to decision-making process)*
- *Opportunities of innovative land-use technologies*
- *Resource-oriented land management systems]*
- *Soil regeneration*
- *Soil and groundwater remediation*

9. Linked to topics mentioned by the NKS:

- a. What are the important / relevant documents, research agendas, research programmes underpinning these topics? (state-of-the-art)
- b. Related to these agendas and programmes: what are timelines of programming and windows-of-opportunities to influence agendas / programmes?

[Note: question 9b is input for work package 5]

E. Science-Policy-Interfacing (SPI)

10. How would you define 'scientific knowledge'?

11. For what do you use scientific knowledge in your job?

12. Which sources of (scientific) knowledge do you use for doing your job?

[Open question and you can mention some of the sources underneath as examples]

- | | |
|--|---|
| ○ <i>scientific paper</i> | ○ <i>newspapers</i> |
| ○ <i>consultants</i> | ○ <i>television</i> |
| ○ <i>reports</i> | ○ <i>conferences Involvement in research projects</i> |
| ○ <i>colleagues</i> | ○ <i>data (bases)</i> |
| ○ <i>experiences /examples within my own country</i> | ○ <i>websites, such as:</i> |
| ○ <i>experiences /examples abroad</i> | ○ <i>other, specify:</i> |

13. To what extent do you use most recent/new scientific knowledge (i.e. state-of-the-art scientific insights/findings) for doing your job?

14. To what extent are you able to influence (and how) the setting of scientific research policies/agendas in our country?

15. To which extent do our national policies/agendas reflect your specific needs and priorities?

16. To what extent has been made use of the state-of-the art in scientific research for the formulation of existing policies in our country?

[Questions only for NKS from the non-science sector (business and policy):]

17. Have you ever been involved in:

- a. the formulation of scientific research questions?
- b. doing scientific research (i.e. knowledge co-creation)?
- c. synthesizing/wrapping-up of scientific knowledge, e.g. to feed into policy making or to increase business opportunities?

[When yes: Follow-up questions]

- How successful/satisfying was this, on a scale of 1-5?
 1. *Very successful/satisfying*
 2. *Successful /satisfying*
 3. *Neutral*
 4. *Unsuccessful/unsatisfying*
 5. *Very unsuccessful/unsatisfying*
- What went well
- What could be improved?
- What to avoid/not to do?
- Additional remarks?

[Question only to NKS who are likely to have insights here (e.g. research funders)]

18. (How) is the societal impact of scientific research related to the scope of INSPIRATION being assessed in our country?

[If they know: Follow-up questions:]

- How successful/satisfying is this, on a scale of 1-5?
 1. *Very successful/satisfying*
 2. *Successful/satisfying*
 3. *Neutral*
 4. *Unsuccessful/unsatisfying*
 5. *Very unsuccessful/unsatisfying*
- What indicators are used?
- What goes well?
- What can be improved?
- What to avoid/not to do?
- Additional remarks?

19. Which national Science-Policy-Interface documents do you know of / can you recommend?

F. Funding



20. Which experiences and expectations in funding schemes (public / private) do you have in your own field that could offer opportunities for future research on land-use and -management and related impacts to Soil-/Sediment-/Water-systems:

- Sub-nationally/regionally?
- Nationally?
- European? [e.g. H2020, Interreg, multi-lateral such as the Joint Programming Initiatives]
- International? [e.g. Belmont Forum, Foundations.]

[For all R&I questions aiming at achieving policy targets in the Land & SSW related system (like e.g. Sustainable Development Goals on soils, existing EU directives such as the Environmental Liability Directive, etc.) consider all Public and Private funding sources. Please ask to provide details and give most important references (documents, website) that could be relevant for explaining the answer]

21. How to increase the added value of different financial resources (i.e. achieve a multiplier) for doing research that contributes to EU and national demands, in particular to the R&I demands on Land and the SSW-system?

[CONSTRUCTIONS that (could) work. PP, PPI, etc. Just ask for, as open as possible for suggestions, ideas, experiences, good examples]

22. Are there areas of research and innovation (R&I) that you are aware of that are not (yet) covered by current funding mechanisms and which would need new/different funding schemes / infrastructures?

23. Integrated approaches (necessary for addressing particular societal challenges related to the use and management of land and related impacts to SSW systems) are usually difficult to fund / get recognized by the research funding communities. What would be necessary to improve this?

24. Based on previous learning experiences that you are aware of: how to best set up / govern funding option(s), so that societal demands will be fulfilled, knowledge resulting from execution of the SRA will be taken up and used; and funders experience that their invested, national Euros are indeed multiplied? *[if they know: follow-up questions]*

- How successful/satisfying was this, on a scale of 1-5?
 1. *Very successful/satisfying*
 2. *Successful/satisfying*
 3. *Neutral*
 4. *Unsuccessful/unsatisfying*
 5. *Very unsuccessful/unsatisfying*
- What went well?
- What could be improved?
- What to avoid/not to do?
- Additional remarks?

G. Other (remarks, suggestions, examples):

H. Ending the interview

Thank you for taking the time to participate in this interview:

- Would you like us to keep you updated about INSPIRATION progress?
- Would you suggest anyone else who we should be interviewed by us?
- Do you have further questions arising from this interview, or would you like to add anything else?
- What information are you interested in, and willing to give feedback on?

[Discuss the feedback mechanism and if they have expressed their opinions as a person or as a representative of their organisation/network. Checklist:]

a. Information to exchange / willingness to give feedback on:

- (complete interview, not recommended)
- summary of main conclusions
- national report, national contribution to D2.4
- complete D2.4, all countries

b. Preferred level of feedback:

- no feedback
- informal feedback
- formal feedback (e.g. on behalf of represented organisation)

[Check: have you discussed consent form / how to refer to interviewee]

INSPIRATION acknowledges the received funding from the
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Annex II: NKS hand-out: INSPIRATION interview at a glance

INSPIRATION interview at a glance

Aim of INSPIRATION:

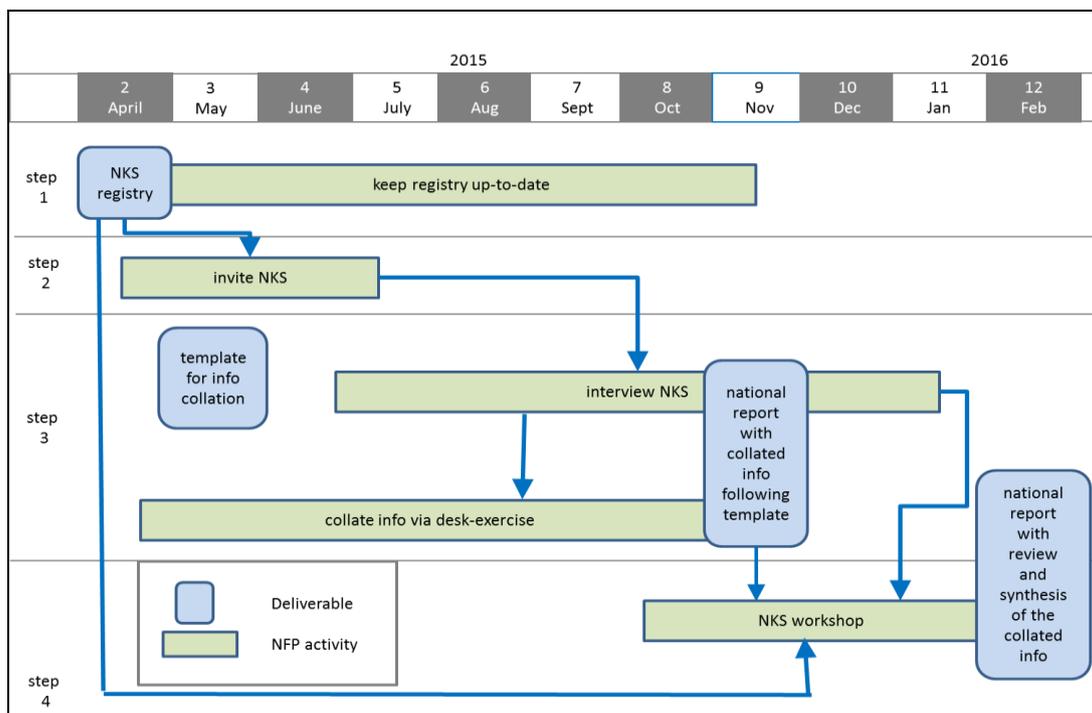
The main purpose of the EC-funded INSPIRATION project is to formulate an end-user driven strategic research agenda (SRA) for land-use, land-use changes and the related, impacted compartments of the Soil-Sediment-Water (SSW) system in order to meet current and future societal challenges and needs. Next to that, the project aims to scope out models of implementing the SRA and to prepare a network of public and private funding institutions willing to commonly fund the execution of the SRA.

National Key Stakeholders (NKS):

In a series of NKS interviews across EU nations the “National Focal Points (NFP) gather for nations individually information related to the INSPIRATION scope (land and SSW-system use and management) on:

- Research and Innovation (R&I) needs
- Experiences regarding connecting science to policy/practice
- National and transnational funding schemes

In the interviews we focus at NKS – like you – positioned at a strategic level, i.e. leading persons in their field of profession; with a good overview on opportunities; a clear vision on, and insight in knowledge demands (short, middle and long-term). Furthermore, these NKS are well positioned and participate in relevant professional network(s) and may also have potential to become an ambassador for INSPIRATION. We selected NKS to represent different disciplines and institutional backgrounds including: land-use planners; managers; soil, sediment and water experts; researchers, funders and regulators/policy makers.



Workflow in the first year of INSPIRATION



This interview:

Collecting input from you – an expert in your field – is crucial for the project in order to help us describing the state-of-the-art in our country as input into the European research agenda. In the interview we will go through a series of topics and questions: The interviews of NKS (ca. 20 per nation), together with a desk study on research needs and funding possibilities will be synthesized to a 'national report'. This synthesis will be reviewed in a national workshop, to prioritize the topics for the suggested Strategic Research Agenda (SRA) from our country's point of view. The national reports will finally be used as input for elaborating the European SRA and cross-nation matchmaking (matching research needs to possible funding).

Example questions:

Research and Innovation (R&I) needs

- Which societal challenges do you regard as important?
- Starting with your own experience: which specific topics (research needs) should be included in the SRA?

Experiences regarding connecting science to policy/practice

- How would you define 'scientific knowledge'?
- To what extent has been made use of the state-of-the art in scientific research for the formulation of existing policies in our country?

National and transnational funding schemes

- Does your organisation provide external research funding?
- Which experiences and expectations in funding schemes (public / private) do you have in your own field that could offer opportunities for future research on land-use and -management and related impacts to Soil-/Sediment-/Water-systems

Your benefits from participating:

- A chance to influence the European SRA on land and SSW management in the light of societal challenges and needs;
- Being able to make use of the results of the project: overview of research need and of existing and promising funding schemes on different levels (sub-national, national, European, international) and opportunities for a better connection between science and policy/practice;
- Use the matchmaking opportunity to get in contact with other networks in- and outside our country, and countries learn which shared challenges can be taken up jointly.

Contact and further information:

For general information on the INSPIRATION project visit our website: www.inspiration-h2020.eu

Contact the National Focal Point:	Contact the general project coordination:
See the INSPIRATION website for contacts	Stephan Bartke stephan.bartke@uba.de



2. Poland

Report by Anna Starzewska-Sikorska

2.1 Executive summary

2.1.1 English version

In the framework of the Polish NFP work the main social challenges and needs have been identified.

1. Safe environment is a serious social challenge. People still in some regions are exposed to environmental risk connected with polluted soil. There is food production on areas with increased level of pollution. There is no policy, no risk management. There should be a system connected with financial analysis but also with education of producers and consumers.

2. The problem of water protection against impact of agricultural activities on surface waters. Farmers should be educated how to limit this impact by using less fertilizers (especially nitrogen).

There is also a serious threat to soils by using them for non-agricultural purposes. There is a loss of the best soil. 30% of soil in Poland is the best quality soil. It is connected with the food safety and effective use of soil resources.

3. Education is necessary of general public. Especially concerning pro-ecological solutions in cities, long-term consequences of decisions, e.g. concerning new solutions of transport. Education should be conducted on all levels. From small children to adults. People have to be confirmed about advantages and threats of selected solutions, they should have this knowledge to be aware of the results of certain decisions they are participating in.

There is also a need for collecting information on EU reports concerning soil. Reports presenting shortly and in simple language the results and conclusions and also recommendations which would support national policies.

The main topics proposed after interviews and workshop as well as desk research are:

PL-1: Climate change mitigation and adaptation

Climate change is considered as more and more serious problem in Poland. Particularly floods (especially so called urban floods) and extreme temperatures as well as droughts are phenomena which require activities both in the sphere of mitigation and adaptation. Land management can be a strong instrument supporting development and implementation of counteracting negative phenomena resulting from climate change in urban areas.

How to adapt to climate change by an appropriate urban land planning and management?

PL-2: Threats to soil

In Poland a number of threats to soil have been identified. Among them erosion is perceived as a serious problem as 40% of soil is exposed to erosion.



Questions arise: How to protect arable land in urban areas? How to value a demand for various functions? There is also a need for new criteria of soil assessment regarding bio-availability as it is a significant factor of a real exposure to heavy metals in soil.

PL-3: Soil in urban areas

A multi-functional role of soil in urban areas becomes more and more important especially in the climate change conditions and the need for adaptation to this change. Also agricultural valuable soil is threatened in urban areas. In Poland 30% of agricultural land is within urban areas. On urban areas an ecosystem should be kept, better soils should be protected on these areas to keep the habitat, to provide ecosystem functioning. There is a need for raising awareness among administration and land use planning professionals on the role of soil in urban areas. Therefore there is a need for better identification and evaluation of the role of soil in urban areas.

PL-4: Planning in urban areas

A new paradigm is necessary that that nature is a superior value that should constitute a basis for all further decisions and actions in the space. These values should indicate the most appropriate functions and ways of the use of a particular land as it used to be practiced in the past.

PL-5: Platform for public policy to protect land and soil

Rules should be developed how to support decision making processes in the field of land and soil management. It can be based on public choice theory. Each decision is taken with the awareness what we achieve and what we lose. The reports concerning the field concerning land and soil should also present how social challenges are met or what is lost. It should be clearly expressed to the decision makers. And even better if the report is presenting what can be achieved – in a positive way.

PL-6: Degraded land in urban areas

A new methodology is necessary of risk management connected with degraded areas in the context of urban revitalization programs. It should constitute a model of analysis of various alternatives including a number of scenarios of remediation technologies (if necessary), possible functions, sites potential and needs of a city development.

Science-policy interface issues in Poland

The problem is that research has an initiative, researchers identify the problem and search for solution. Then policy is using the results if they are coherent with the policy aims and objectives. These aims and objectives of the policy programs are answering to social challenges but the policy is using only these research results which are necessary to implement their programs. Therefore policy is not putting questions – it is only using ready solutions.

It is important how researchers contribute to their project implementation. This implementation should be regarded from the very beginning of the project and should be developed parallel to the research itself. Also the project authors should formulate conclusions in a practical form to show what consequences concerning social challenges will take place after the project implementation.



The main gaps in financing research in Poland

There used to be a system of national programs concerning selected thematic blocks most important for the national economy and development. It has been expressed that there is a need for continuation of such a system, but now it is difficult to indicate who could initiate it.

National Fund for Environmental Protection and Water Management declares supporting various research initiatives. Now there are organized national meetings devoted to selected fields of environmental research, which can be a kind of platform for exchanging ideas of further research agenda.

There is a wide research area that is not covered by any funding mechanisms – economic aspects in ecological projects.

2.1.2 Polish version

W ramach prac Krajowego Punktu Kontaktowego projektu INSPIRATION zidentyfikowane zostały następujące problemy i potrzeby społeczne.

1. Poważnym problemem społecznym jest bezpieczne środowisko. Ciągłe jeszcze istnieje zagrożenie związane ze skażeniem gleb. Odbывается produkcja żywności na terenach o podwyższonej zawartości zanieczyszczeń. Nie ma odpowiedniej polityki, nie ma zarządzania ryzykiem. Należy wprowadzić system zarządzania ryzykiem a także szerzej prowadzić edukację producentów i konsumentów.

2. Jest problem związany z zagrożeniem wód powierzchniowych działalnością rolniczą. Należy szerzej podnosić świadomość rolników o tych zagrożeniach i informować o konieczności redukcji stosowania nawozów (szczególnie azotu). Istnieje też poważne zagrożenie gleb przez użytkowanie najbardziej wartościowych klas pod inne funkcje. Około 30% gleb w Polsce to gleby najwyższej klasy. Ochrona tych gleb wiąże się z bezpieczeństwem żywności i efektywnym wykorzystywaniem zasobów glebowych.

3. Edukacja społeczeństwa jest konieczna. W szczególności w dziedzinie rozwiązań pro-ekologicznych i ich długoterminowych skutków, np. w przypadku transportu w miastach. Edukację należy prowadzić we wszystkich grupach: od dzieci po dorosłych. Społeczeństwo powinno być uświadamiane o korzyściach i zagrożeniach wybranych rozwiązań, szczególnie, kiedy ma możliwość uczestniczyć w podejmowaniu decyzji.

Istnieje także potrzeba szerszego udostępniania wyników badań w formie przyswajalnej dla przeciętnego obywatela.

W czasie przeprowadzonych wywiadów i warsztatów sformułowane zostały następujące propozycje kierunków badawczych:

PL-1: Mitygacja i adaptacja do zmian klimatu

Zmiany klimatu są w Polsce postrzegane jako poważny problem. W szczególności zjawiska powodzi (tzw. miejskich powodzi) oraz ekstremalnych temperatur a także suszy wymagają podjęcia działań w zakresie mitygacji i adaptacji. Gospodarowanie przestrzenią może stać się bardzo silnym i efektywnym narzędziem wspierającym przeciwdziałanie negatywnym zjawiskom wynikającym ze zmian klimatu w obszarach miejskich.



W jaki sposób wykorzystać planowanie i zarządzanie przestrzenią w adaptacji do zmian klimatu?

PL-2: Zagrożenia gleb

Wskazano na główne zagrożenia gleb w Polsce. Wśród szczególnie podkreślono erozję jako poważny problem zagrażający 40% gleb.

Powstają pytania: w jaki sposób chronić gleby na terenach miejskich? Ważną kwestią jest również wypracowanie kryteriów oceny gleb uwzględniających biodostępność, jako że jest to istotny czynnik decydujący od faktycznym narażeniu na zanieczyszczenie gleb metalami ciężkimi.

PL-3: Gleby na terenach miejskich

Wielorakie funkcje gleb w obszarach miejskich stają się coraz bardziej doceniane, szczególnie w kontekście zmian klimatu i potrzeby adaptacji do tych zmian. Gleby wysokiej klasy na terenach miejskich są zagrożone, w Polsce 30% tych gleb znajduje się na terenach miejskich. Istnieje potrzeba ochrony funkcjonowania ekosystemów, należy ten wymóg uwzględniać w planach zagospodarowania przestrzennego, stąd potrzeba uświadamiania wagi tych problemów profesjonalistom.

PL-4: Planowanie terenów miejskich

Konieczny jest nowy paradygmat głoszący nadrzędność przyrody i procesów przyrodniczych, które powinny być podstawą decyzji rozwojowych szczególnie w kontekście gospodarowania przestrzenią. Te wartości powinny wskazywać najbardziej odpowiednie funkcje i sposoby wykorzystywania terenów jak to miało miejsce w przeszłości.

PL-5: Platforma polityki publicznej dla ochrony gleb i terenów

Należy wypracować zasady, w jaki sposób powinny być przez naukę wspierane decyzje w zakresie zarządzania terenami i glebą. Każda decyzja powinna być oparta na analizie, co zysujemy a co tracimy. Wyniki badań dotyczących tematyki terenów i gleb powinny wskazywać, w jaki sposób zostaną spełnione cele społeczne lub co zostanie utracone. To powinno być jasno przedstawiane decydentom.

PL-6: Tereny zdegradowane w obszarach miejskich

Niezbędna jest nowa metodologia zarządzania ryzykiem związanym z terenami zdegradowanymi w kontekście programów rewitalizacji. Potrzebny jest model analizy różnych wariantów obejmujących scenariusze włączające technologie remediacji, możliwe funkcje wykorzystania terenu, potencjał terenów oraz potrzeby rozwojowe miasta.

Powiązanie nauka-polityka w Polsce

Politykę się prowadzi, żeby osiągnąć pewne cele. W związku z tym politycy, władza publiczna wykorzystują te wyniki badań, które są zgodne z ich celami. Partie polityczne określają cele na podstawie wiedzy o wyzwaniach ale potem korzystają tylko z tej wiedzy, która jest potrzebna do realizacji tych programów. A więc nie sięgają po badania z tych wyzwań, polityka nie napędza tych badań, nie formułuje potrzeby tych badań. Nie zwraca się do nauki żeby coś zbadać. Badania są w dużej części inicjowane na podstawie rozeznania samych naukowców, widzą problem, stwierdzają, że trzeba podjąć badania, żeby go rozwiązać.



Implementacja badań powinna być elementem tych badań. Powinna być uwzględniana od początku każdego projektu. To jest zaniedbanie metodologiczne. Argumenty naukowe muszą być odpowiednio formułowane, żeby przekonać polityków do zastosowania wyników badań.

Główne luki w finansowaniu badań w Polsce

W ubiegłych latach były w Polsce realizowane programy rządowe dotyczące wybranych kluczowych zagadnień najważniejszych dla gospodarki i rozwoju kraju. Istnieje potrzeba kontynuacji tego rodzaju finansowania nauki.

Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej deklaruje wspieranie różnych inicjatyw naukowych. Organizuje spotkania w skali kraju poświęcone wybranym zagadnieniom z zakresu ochrony środowiska. SA to platformy wymiany informacji o potrzebach a także ofercie NFOŚiGW finansowania badań.

Należy podkreślić silną potrzebę szerokich badań w zakresie aspektów ekonomicznych w zagadnieniach środowiskowych.



2.2 Methodology followed

This national report (i.e. INSPIRATION deliverable 2.5) reports the information collated for Poland. The information was collated in accordance with INSPIRATION D2.3 “Template for national information collation”. In Poland, 17 NKS were interviewed. Details on these NKS are provided in Annex Ia. The desk study was based on documents as suggested by NKS.

The national workshop took place on 5-6 November 2015. 18 participants have worked for two half-days in a “World Café” system.

First they have been introduced to the concept of INSPIRATION and the purpose of the workshop. Then there was a theoretical presentation on ecosystem services approach.

The “World Café” method has been used and the participants were working at following three tables:

- **Table 1**
RESOURCES – LAND, SOIL
Social challenges
- **Table 2**
NATURAL CAPITAL
Ecosystem services, natural potential
- **Table 3**
LAND MANAGEMENT
Integration of demand and natural capital

The groups have been formed in order to provide representatives of all fields: research, business, administration and finances.

The whole discussion at three tables was recorded. During the final session – in plenary – the proposed research agenda has been agreed basing on the summarized results of discussions.

The present report has been sent to stakeholders for possible comments and final approval.



2.3 Research and Innovation (R&I) needs

2.3.1. Societal challenges and needs

Below there are comments on social challenges in reference to the project subject. These comments have been cited from interviews with National Key Stakeholders.

1. Fees for water. They are very low but they cannot be increased - it is a problem of social sensitivity. But there is a question: what percentage in the fee for water is taken by the costs of water supplying company functioning and how much is used for environmental costs? It is one of the economic aspects. There is a need for including of economic aspects in environmental management.
2. Safe environment is a serious social challenge. People still in some regions are exposed to environmental risk connected with polluted soil. There is food production on areas with increased level of pollution. There is no policy, no risk management. There should be a system connected with financial analysis but also with education of producers and consumers.
3. The problem of water protection against impact of agricultural activities on surface waters. Farmers should be educated how to limit this impact by using less fertilizers (especially nitrogen).
There is also a serious threat to soils by using them for non-agricultural purposes. There is a loss of the best soil. 30% of soil in Poland is the best quality soil. It is connected with the food safety and effective use of soil resources.
4. Education is necessary of general public. Especially concerning pro-ecological solutions in cities, long-term consequences of decisions, e.g. concerning new solutions of transport. Education should be conducted on all levels. From small children to adults. People have to be confirmed about advantages and threats of selected solutions, they should have this knowledge to be aware of the results of certain decisions they are participating in.
There is also a need for collecting information on EU reports concerning soil. Reports presenting shortly and in simple language the results and conclusions and also recommendations which would support national policies.



2.3.2. Topics / research needs to include in the SRA

Different topics and research needs related to the societal challenges are retrieved from the interviews, desk-study and the national workshop. Underneath the main topics are introduced and for each topic the main research questions are summarized under INSPIRATION themes “demand”, “natural capital”, land management” and “impact”.

PL-1: Climate change mitigation and adaptation

Climate change is considered as more and more serious problem in Poland. Particularly floods (especially so called urban floods) and extreme temperatures as well as droughts are phenomena which require activities both in the sphere of mitigation and adaptation. For 30 big Polish cities (above 100 thous. inhabitants) climate change adaptation plans will be worked out in the next 1-2 years basing on general guidelines presented by the Polish Ministry of Environment. But there is also a need for looking at the problem in the country scale. It should be underlined that the registered losses connected with the climate changes during 2001 – 2010 years had amount of 54 billions Polish new zlotys. In case of doing-nothing the possible in future costs of losses are estimated on about 86 billions Polish new zlotys until 2020 and additional 119 billions Polish new zlotys during 2021-2030.

Methods of climate change mitigation include i.a. increase of forest/green areas. In Poland there is a problem of CO₂ emission and it is considered to use the technology of loading CO₂ into underground post-mining excavations. There is a need of research on the efficiency of various technologies and solutions aiming at climate change mitigation in the country scale. It can show up that e.g. planting trees/ increasing forests area would be more effective and could bring additional positive effects such as better living conditions (decreasing of heat waves in urban areas, keeping humidity etc. contributing to climate change adaptation).

Land management can be a strong instrument supporting development and implementation of counteracting negative phenomena in urban areas. Space is a limited resource. It should be used rationally, the land management should avoid extensive use of land. It results in urban sprawl. We should also use the land in coherence with climate change adaptation. For instance in Poland there are plans for housing areas exceeding significantly the needs. It has been estimated that we have housing areas in plans for about 130 mln and for the nearest 300 years.

Specific research questions:



Demand:

Balancing between demand and use of the resources is weak. The demand is not estimated, therefore too much resources is used (networks, infrastructure, significant fragmentation). Such a balance would be a basis for new policies. How much land do we need?

Natural capital

Climate change adaptation solutions use ecosystems approach in urban planning. The ecosystem approach acknowledges the equal importance of both environmental and anthropogenic components in urban areas. These components are integrated into the circulation of water, air and other elements necessary for the city to function and they also provide equally important services for the city's inhabitants.

How to use ecosystem services approach in urban planning aiming at climate change adaptation?

Land management

There is a need to work out land management instruments supporting climate change adaptation in urban areas.

How to adapt to climate change by an appropriate urban land planning and management ?

What kind of legal and economic instruments would support land management efficiency? (e.g. possibilities of use of frozen areas inside the city – in order to counteract extensive use of land inside the city).

There is a need for new methods of land use planning. Land use planning theory is necessary. The land use plan should look different than it used to look. Today there is a play of interests and the local self-government is just one of the players. Investors dictate conditions, otherwise they go somewhere else.

Impact

How climate change adaptation measures will contribute to decreasing negative effects of climate change?



PL-2: Threats to soil

In Poland a number of threats to soil have been identified. The consequences of these threats are directly to soil productive values but also they generate impact on other natural resources and on human health. Among them the most important are: soil erosion, soil acidification, impact of pigs inbreeding (excessive amount of nitrogen in soil), dusting from industrial wastes dumping sites.

Erosion is a significant factor, which has to be taken into consideration in soil threat assessment. In Poland 40% of soil is exposed to erosion. Erosion is a physical process which has significant chemical consequences connected with secondary dusting, threatening the environment including water and sediments.

Therefore there is a need for answer to the question what part of pollution is transferred to water and sediments, estimation is needed to what extend erosion is contributing to this pollution. It is also important to investigate the impact of climate change on erosion. In this case both heavy rains and long-term droughts have to be taken into account.

Specific research questions:

Demand:

How to protect arable land in urban areas? How to value a demand for various functions?

Development of new standards of soil examinations.

Natural capital

There is a problem of bio-availability of pollution in soil. It is important to know, how high the level of bio-availability is. It happens that there is low level of pollution but the bio-availability is high and another way round.

How to involve bioavailability factor in soil quality assessment criteria?

There is a need for monitoring of soil and changes in the soil. It should be a multi-year program of soil changes observation including new methods of soil protection against climate change, protection of biodiversity (plants, birds, mammals).

To this end a common policy of ministries of agriculture and environment is necessary in order to counteract factors threatening soil.

New instruments for assessment of changes in soil – identification of synergies, risk mechanisms, acidification, loss of organic matter cumulated mechanisms. There is a need for assessment of these mechanisms.

Land management

How can land management counteract soil erosion?

Impact

Estimation of pollution caused by emission from soil erosion and its impact on water and sediments.

How to measure climate change impact on soil erosion?

PL-3: Soil in urban areas

Soils in urban areas are threatened with using them under various functions. In case of agricultural soil it is a serious threat. In Poland 30% of agricultural land is within urban areas.

On urban areas an ecosystem should be kept, better soils should be protected on these areas to keep the habitat, to provide ecosystem functioning. E.g. soil is functioning as a water reservoir (40% of soil is porosity). In order to provide a cooling effect better soils have better “water” efficiency.

This important function and other services offered by soil in urban areas are not perceived by land management and urban administration. Soil is only treated as a set of parameters.

There is a need for raising awareness among administration and land use planning professionals on the role of soil in urban areas. It is a long process but it should be started in order to achieve the situation when soil values and role will be regarded as important factor in decision making. Similarly as in case of conservation of monuments it is not negotiated in planning decisions we should achieve the situation when conservation of valuable soil will not be negotiated in planning documents. Specific research questions:

Demand

What is a loss of soil habitat quality resulting from changing functions of urban areas?

Need for methodology of multi-criteria analysis and assessment.

Natural capital

How to use valorization of natural areas including their ecological services for sustainable use of land in urban space?

Land management

Problem of soil in urban areas. There is a need of joining the soils management and land use management in urban areas. The urban soil is not protected in Poland, where 30% of agricultural soil is in urban areas. There is no an appropriate approach to soil management in land use planning. It is also connected with changing the agricultural function into different one (e.g. housing) therefore in a consequence we have a significant fragmentation of the landscape in urban areas. Soil is not protected in urban areas. Soil is perceived only as a resource for agricultural purposes. Other ecological services of soil especially in urban areas are not appreciated.

How to ensure soil protection in urban planning and management?

Impact

The role of soil in urban areas seems to be more and more important especially in a present threats coming from climate change impact. In a global scale this threat is visible in all urban areas. Therefore there is a need of scientific argumentation to what extent ecosystem services in urban areas can contribute to decrease the climate change negative impact. It would be particularly useful in urban climate change adaptation plans. It would also be an argument supporting decision making processes for the authorities.

To what extent ecosystem services in urban areas can contribute to decrease the climate change negative impact?



PL-4: Planning in urban areas

In Poland the process of planning in urban areas is not meeting the requirements of an appropriate sustainable land use. There are lacks of instruments and also the role of planning is not appreciated by the urban authorities and other actors of the urban development process. Planning has lost its character of long-term vision supported by recognition of the social challenges and natural values.

Plans are often following the results of ad hoc economic decisions dictated by market criteria and not regarding a wider social, environmental and spatial consequences of these decisions.

There are barriers in a legal system but also the awareness is lacking of the need of good modern planning.

Planning should use the results of research in other fields such as law, biology, sociology, environmental engineering. And at the same time planning should work out its own new paradigm, which would fit to the present relations.

In this paradigm it should be proclaimed that nature is a superior value that should constitute a basis for all further decisions and actions in the space. These values should indicate the most appropriate functions and ways of the use of a particular land as it used to be practiced in the past. Then people started to neglect these values and rules and now we have the consequences in a number of negative effects in local and global scale.

Nowadays planning does not have efficient instruments which would support counteracting extensive use of land. There are abandoned areas inside cities which cannot be touched for years due to various barriers.

Specific research questions:

Demand

Geochemical and biochemical atlas of areas in a scale useful for local land use planning

There is a need for better identification of soil quality and state by construction of maps of a large scale to be used for local (municipal) land use plans. It is also important in the context of the impact of brownfields - especially these polluted with heavy metals and hydrocarbons - on underground water resources. The lack of information on brownfields soil and ground quality (pollution level) is also a barrier for further planning of new functions on an area. Such atlas could be based on geochemical and biochemical investigations and give the picture on the potential of the land resources in urban areas, also in the aspect of risk connected with this pollution.

What kind of maps and data bases are needed for local land use planning especially in the case of degraded areas?



Natural capital

Development of the system of monitoring changes in urban area which would be a basis for long-term strategic vision of urban development. It would include natural, social and economic parameters.

Valorization of natural features of the urban area as a basis for planning decisions.

Maps of soil in urban areas as a basis for decisions on new functions. The maps would value usability of an area for a certain function. Then scenarios would show what will be lost or what will be gained. But the decision would be taken in a full awareness of the consequences.

What kind of a monitoring system should be developed for long-term strategic urban development planning including natural, social and economic aspects?

Land management

Land management will be closely connected with the new planning. It will be implementing the land use plan.

Development of methods for economic analysis of alternatives of infrastructure solutions (water supply, sewage networks, energy supply etc.) in remote settlements resulting from urban sprawl. It may show that local solutions in small scale can be more economically effective (in costs of construction and maintenance) than integration with distant urban networks. It is a long-term perspective but in face of a further trend of urban sprawl it might be a solution decreasing at least some negative effects.

How to involve economic analysis of the urban sprawl consequences as a basis for land management and planning?

Impact

What methods should be developed for analysis of social, natural and economic consequences of plan implementation?



PL-5: Platform for public policy to protect land and soil

The project relates to science – policy interface. It is a general problem of implementation of projects results. Usually scientific projects present conclusions without taking care of the further life of the project. There are no ideas how to implement these results. If the project should serve as a basis for certain policy, it should be performed with the clear idea of its implementation from the very beginning. It can be a general rule for all kinds of projects. But in case of land and soil protection and sustainable use it is particularly important to involve policy makers from the very beginning. They should be informed about short-term and long-term consequences of the project implementation. Sometimes the consequences appear very long after some decisions or activities. We should know long before what happens after for instance we will clean a certain area.

The platform would provide documents for policies to give evidence for certain decisions. It is evidence based policies. Documents should include scenarios of future development models with e.g. ecological criteria to show what can happen in a consequence (economic, social and environmental) of such scenario implementation.

Specific research questions:

Demand

Development of rules how to support decision making processes in the field of land and soil management. It can be based on public choice theory. Each decision is taken with the awareness what we achieve and what we lose. The reports concerning the field concerning land and soil should also present how social challenges are met or what is lost. It should be clearly expressed to the decision makers. And even better if the report is presenting what can be achieved – in a positive way.

Social challenges should be the objectives of activities in protection of soil or protection of land. Consequences of any activity should be shown in the context of social challenges. Then it is understood better by the politicians and decision makers.

It is difficult to convince authorities that construction of an object on valuable soil is threatening to this soil. Much easier is to say that it is dangerous to the inhabitants, because it is against social challenges.

What kind of roles should be developed supporting decision making processes in the field of land and soil management and planning?

Land management

Examples of good practice – reports, guidelines based on good practice. Examples of projects serving for evidence based policies.

Guidebook of good practices could present examples of good planning regarding soil management. It would show modern planning which takes into account other spheres of life.

What kind of a guidebook should be worked out of good practices presenting examples of good planning regarding soil management?



PL-6: Degraded land in urban areas

In Poland degraded areas still occupy a significant part of urban spaces. They include post-industrial areas but also more and more abandoned buildings and other sites not used for any function.

According to the new act on revitalization (from June 2015) towns have to provide urban revitalization programs. It is a requirement if a city is going to apply for funds for revitalization. The act imposes a number of requirements concerning also definition of revitalization. It has to include both social and technical revitalization of so-called “crisis areas”.

Therefore cities have started with the work on revitalization programs. Despite this work it is still a need for further methodology of management of these degraded areas in the scale of the whole city. Specific research questions:

Demand

Methodology of risk management connected with degraded areas in the context of urban revitalization programs. It should constitute a model of analysis of various alternatives including a number of scenarios of remediation technologies (if necessary), possible functions, sites potential and needs of a city development. It also should regard short and long-term horizon and the scale of the whole city.

Methods of forestation of degraded areas according to site condition and needs of a city. The project would also support a system of compensation planting of trees in urban areas.

How to develop methodology of risk management connected with degraded areas for comprehensive revitalization programs?

What kind of soil treatment technologies should be further developed to support urban revitalization programs?

Natural capital

Analysis of the natural potential of areas needed for a city sustainable development. It should be necessary for estimation of the areas of the regenerated sites which would release natural areas necessary for improving city natural condition.

How to involve analysis of the natural potential of areas needed for a city sustainable development?

Land management

Valorization of the city space using scenario analysis. It is particularly important in the context of degraded areas which also should be taken into account in the analysis after their remediation or regeneration.

What kind of scenario analysis methods should be used for valorization of a city space in various alternatives of land remediation or regeneration?

Impact

How to estimate level of ecosystem services of urban areas achieved after implementation of scenarios including recycling of degraded areas?



2.4 Experiences regarding connecting science to policy/practice

2.4.1 Use of knowledge

It is important how researchers contribute to their project implementation. This implementation should be regarded from the very beginning of the project and should be developed parallel to the research itself. Also the project authors should formulate conclusions in a practical form to show what consequences concerning social challenges will take place after the project implementation. It is a task of the researchers. It is not a project proposal but it should be taken into consideration by all researchers. It is a question of the science-policy interface.

Education is needed of local and regional public authorities concerning risk management to protect human health connected with food production on polluted soil.

The results of projects should be published in a synthesized form also with the non-technical summary.

2.4.2 Possibilities to set the agenda

According to the statements in the interviews in this subject there is an opinion, that the present national agendas do not reflect the specific needs and priorities expressed in the discussions.

2.4.3 Science – policy – practice

The problem is that research has an initiative, researchers identify the problem and search for solution. Then policy is using the results if they are coherent with the policy aims and objectives. These aims and objectives of the policy programs are answering to social challenges but the policy is using only these research results which are necessary to implement their programs. Therefore policy is not putting questions – it is only using ready solutions.

The research projects are initiated by the researchers. They see the problem and undertake research to solve it. In most cases they the results are not communicated in a right way to the policy makers. So there is a lack of communication from both sides: policy makers do not express their needs for research and researchers do not present the results of their work. Unless policy makers find the project as useful for their policy objectives.

It seems that new forms of organization of co-operation are needed in the relation science-policy. They should be focused on common searching innovative solutions and based on mutual benefits.

2.5 National and transnational funding schemes



2.5.1 Funding schemes and possibilities for research funding

	R&I funding options collated for country:	Poland	(Fill out your country name in this box)	
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	Name*	Research and Innovation funder**	What and/or whom do they fund?***	More info****
Regional				
1	Public-private partnership	Public-private partnership	case specific / depending on topic / parties involved	www.uzp.gov.pl
2	Voivodship Fund for Environmental Protection and Water Economy	Voivodship Fund for Environmental Protection and Water Economy in each voivodship	according to priorities defined for each year	www.wfosigw.pl
National				
1	Applied research of research institutes	Most of this research is financed by the National Centre for Research and Development (public money)	Research institutes Back bone for knowledge development: needed to maintain knowledge base	http://www.ncbir.pl/
2	Basic and applied research	Subsidies for R & D programmes of national importance commissioned by enterprises, state administrative bodies or local authorities. The financial means are allocated for the implementation of projects and the utilization of research findings	Research and scientific units/ institutes, universities	http://www.nauka.gov.pl/
3	Money related to national tasks	The ministries have their own obligations (Ministry of Agriculture and Rural Development - Common Agricultural Policy, monitoring of soils etc.)	case specific / depending on topic	http://www.minrol.gov.pl/

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4	Research supporting national environmental obligations	The National Fund for Environmental Protection and Water Management provides financial support mostly for projects which implement environmental obligations of Poland transpiring from the membership in the European Union. It also supports the Minister of Environment in meeting Polish obligations under inter alia: the Climate Convention, the Convention on Biodiversity, the NATURA 2000 Programme	case specific / depending on topic	www.nfosigw.gov.pl
5	R&D activities by clusters	public funds coordinated by Polish Agency for Enterprise Development	The development of key clusters is implemented with the support directed to cluster actors, i.e. enterprises and business support institutions such as universities, research institutes, schools, specialized business support institutions etc.;	http://www.pi.gov.pl/ http://www.parp.gov.pl/
6	Fundamental research of universities	Most of this research is financed by National Science Centre (public money) 10 types of funding schemes	Universities. Back bone for knowledge development: needed to maintain knowledge base	www.ncn.gov.pl



European				
1	Horizon 2020 (and before EU Framework Programmes).	EU and private investments	EU Research and Innovation programme (2014 to 2020). Open for consortia, with different parties on different topics (eg societal challenges)	https://ec.europa.eu/programmes/horizon2020/
2	JPI - Joint Programming Initiatives	Member States commit to Joint Programming Initiatives (JPIs)	open for consortia of the contributing member states	http://ec.europa.eu/research/era/joint-programming_en.html
3	Interreg	financed by the European Regional Development Fund	helps regions of Europe share knowledge and transfer experience to improve regional policy	http://www.interreg4c.eu/
4	ERANET - European Research Area Network	instrument under Horizon 2020	instrument to support public-public partnerships in their preparation, establishment of networking structures, design, implementation and coordination of joint activities as well as topping up of single joint calls and of actions of a transnational nature	http://ec.europa.eu/research/era/era-net-in-horizon-2020_en.html
5	LIFE +	instrument under Horizon 2021	EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU	http://ec.europa.eu/environment/life/
6	European structural funds	EU	Structural Funds play a substantial role to help all regions build research and innovation capacities corresponding to their situation and priorities.	http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=structural_funds

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7	Revolving funds	different funds. Examples: 1* some European structural funds, e.g. JESSICA (Joint European Support for Sustainable Investment in City Areas)	Labeled money. The investment should give revenues. The difference with an investment fund is that it should serve a public goal.	1* http://ec.europa.eu/regional_policy/index.cfm/en/funding/special-support-instruments/jessica/
8	European subsidies	Eu	Eg. for agricultural sector, European rural development programs	
International				

- * Include full name and (if available) acronym of the R&I funding option
- ** Include name of the R&I funder/funding institute or authority
Detail which type of programme, projects, partners or infrastructures they are funding
- *** are funding
- **** Include weblink and/or other reference for more information on this R&I funding option



2.5.2 Gaps in financial resources for research

There used to be a system of national programs concerning selected thematic blocks most important for the national economy and development. It has been expressed that there is a need for continuation of such a system, but now it is difficult to indicate who could initiate it.

National Fund for Environmental Protection and Water Management declares supporting various research initiatives. Now there are organized national meetings devoted to selected fields of environmental research, which can be a kind of platform for exchanging ideas of further research agenda.

There is a wide research area that is not covered by any funding mechanisms – economic aspects in ecological projects.

There is also a need for wider approach to revitalization in Poland. It is still a problem although many areas have been already rehabilitated but at the same time the so far results show weak points in the process. The conclusions are presenting a wrong approach to the whole process. The social and economic aspects have to be involved in the revitalization process. Before starting with rehabilitation/revitalization projects the economy of a municipality/town/city has to be strengthened. First the city has to have a concept of its development and people need to have a stable economic situation. Then the ideas and demand for regenerated sites can show up. Revitalization process should be an effect of a social and economic development, because not before it this demand for locations for service and production can appear.



2.6 Other remarks made by interviewees

New paradigm of planning of land use. According to opinions of professionals there is a need for new land use planning approach. Nowadays this instrument has lost its significance in new conditions of market play, when investors very often dictate their requirements threatening that otherwise they will choose another partner and another city. Land use planning should refer to the achievements of other fields such as knowledge on soils, water and their role in urban areas. But the message should be sent in a way which would show the consequences of decisions to the health and conditions of life of the inhabitants.

To this end education and communication is necessary from children in primary schools till adults who are voters.

But first land use planners should be convinced to their role which they can and should play addressing questions to other scientists and professionals.

Integration of various professionals in necessary in form of platforms or committees where they could build and then apply this new paradigm.

If **dangerous substances** are identified in a brownfield ground or an object located on it, there is a problem of **profitability of remediation activities** which bring costs prevailing benefits resulting from re-use of an area after remediation. There is no mechanism which would make an investor cover costs of pollution removal. In most cases investors give up if it is a condition of using the area.

In a conclusion it should be stated that brownfields remediation constitutes a barrier for re-using these areas. There is a lack of efficient mechanism of financing activities aiming at rehabilitation of these areas which cannot be re-used in the present state.

It should be stressed that if remediation is to be an own task of a municipality, it is a wrong solution as local municipality has no means to cover high costs of remediation. Such tasks should be financed by other sources.

Acidification constitutes a basic factor of soil degradation in Poland. The scale of this phenomenon is the highest in Europe. It takes place despite multi-year practice of liming. Acid and very acid soils in Poland cover 60% of all soils used for agriculture. It causes decreasing of efficiency especially in case of using fertilizers. There is no research how in various environmental conditions mitigation of acidification will proceed – what will be liming efficiency. It is well known that acidification is also causing other negative effects not only these connected with agricultural production. There is migration of mineral compounds, e.g. aluminium is migrating to underground water. Therefore these resources especially in northern Poland are seriously threatened, which is causing negative health effects in form of increased number of large intestine cancer cases.



2.7 Annexes

Annex Ia: NKS interviews in Poland

Date of interview	Organisation	Name	funder	end user	knowledge provider	Nat.r eg.lo c. authority	Univ./resear ch inst	SME /consultant	busin ess & industry	NGO	netw ork	other	soil	sediment	water	land use-management
24-09-15	Faculty of Architecture, Silesian University of Technology	Zbigniew Kamiński			1		1									1
14-10-15	National Fund for Environment Protection and Water Economy	Jerzy Swatoń	1			1							1			
12-10-15	Society of Polish Town Planners	Maciej Borsa		1				1								1
05-11-15	Polish Ecological Club	Ewa Hajduk		1						1					1	
10-07-15	Industrial and Technological Park EkoPark Ltd	Alina Karnabał		1					1							1
11-06-15	Institute of Soil Science and Plant Cultivation	Bożena Smreczak			1		1						1			
30-06-15	Silesian University - Department of Earth Sciences	Janusz Janeczek			1		1						1			
28-04-15	Institute of Environmental Protection	Barbara Gworek			1		1						1		1	
13-05-15	SGS Ekoprojekt	Tomasz Stuczyński		1	1				1				1			1
18-09-15	Institute for Ecology of Industrial Areas	Marta Pogrzeba			1		1						1	1		
28-09-15	Committee for Spatial Economy and Regional Planning	Krzysztof Gasidło			1		1									1
02-10-15	Land Use Planning Department in the City of Sosnowiec	Barbara Knapik		1		1										1
23-10-15	Marshal's Office Silesian Voivodeship	Robert Orpych		1		1										1
26-10-15	Upper Silesian Fund	Tadeusz Adamski	1						1							1

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05-11-15	Company of Przechlebie Waste Dump Exploitation	Leszek Bartkowiak		1				1								1
05-11-15	National Fund for Environment Protection and Water Economy	Wanda Galikowska- Kopacka	1			1								1		
05-11-15	Silesian University -	Adam Rostański			1		1							1		
			3	7	8	4	7	2	3	1			8	1	2	9

Annex Ib: NKS questionnaire template

Questionnaire template in Polish

A. Informacje dot. wywiadu:

Kraj:

Nazwisko osoby ankietowanej:

Instytucja/ pozycja w instytucji:

W jaki sposób osoba ankietowana chce być cytowana:

Nazwisko osoby ankietującej ze strony projektu INSPIRATION:

Data wywiadu:

B. Preambuła: Wprowadzenie

Głównym celem projektu INSPIRATION jest sformułowanie, skonsultowanie oraz zweryfikowanie z punktu widzenia użytkownika końcowego strategicznej agendy badawczej (SAB) w zakresie gospodarowania przestrzenią, zmian w gospodarowaniu przestrzenią i w i w zarządzaniu systemem gleba-osady-woda (Soil-Sediment-Water – SSW) w świetle obecnych i przyszłych wyzwań społecznych (cywilizacyjnych).

Projekt zmierza do zbudowania modeli wdrażania SAB i przygotowania sieci publicznych i prywatnych instytucji finansujących realizację SAB.

Wywiad stanowi część serii wywiadów prowadzonych w krajach UE zbierających informacje dotyczące stanu badań dotyczących gospodarowania przestrzenią, zmian w gospodarowaniu przestrzenią i w zarządzaniu systemem gleba-osady-woda jak również ich finansowania a w szczególności poszukiwania potrzeb badawczych oraz przyszłych możliwości ich finansowania.

W wywiadach koncentrujemy się na wymiarze strategicznym ankietując osoby będące mistrzami w dziedzinie, mającymi szerokie spojrzenie i mogącymi wskazać kierunki w zakresie badań glebowych. Wywiad nie powinien przekroczyć czasu jednej do półtorej godziny.

Formularz zgody ankietowanego: należy przekazać formularz osobie ankietowanej z prośbą o wypełnienie

C. Informacje dotyczące osoby ankietowanej

1. Obecna rola i zadania związane z badaniami dotyczącymi gleb/terenów?
Czy jest Pani/Pan osobą pracującą w (możliwa więcej niż jedna odpowiedź):

- administracji krajowej/regionalnej/lokalnej,
- uniwersytecie/instytucie naukowo-badawczym,
- MSP/konsultant,
- biznes/przemysł,
- NGO,
- reprezentant/lider sieci,
- Inną, proszę podać:.....

2. Jak długo Pani/Pan działa w tej roli? *[czy pojedynczo, czy w zespole, jaka wielkość zespołu, wykształcenie etc.]*

3. Dziedzina (możliwa więcej niż jedna odpowiedź):

- gleba
- woda
- osady
- planowanie miast
- projektowanie krajobrazu
- zarządzanie przestrzenią
- Inne....

4. Czy Pani/Pana organizacja finansuje badania?

- Tak, proszę określić (jako właściciel programu, incydentalnie, jako finanse publiczne, prywatne)
- Nie

D. Strategiczna Agenda Badawcza (SAB)

5. Jakie są Pani/Pana preferencje w odniesieniu do SAB? *[Think about time span of research need, state-of-the-art description, stakeholder analysis, issues per country or cross European countries, overview of national agendas, funding opportunities, matchmaking opportunities,] [Należy wziąć pod uwagę okres realizacji potrzeb badawczych, obecny stan wiedzy, analizę grup interesariuszy, problemy w skali kraju i w skali wielu krajów europejskich, przegląd krajowych agend, możliwości finansowania, możliwości łączenia (powiązania),...]*

6. Jakie są Pani/Pana oczekiwania w odniesieniu do SAB? *[To what strategic objectives should it contribute?] [Do których celów strategicznych powinna nawiązywać agenda badawcza?]*

<p>7. Pani/Pana proponowany zakres/ tematyka w SAB? <i>[Content based: kind of areas, scales, societal challenges, needs, ...]</i> <i>[zakres merytoryczny: rodzaje terenów, skala, potrzeby społeczne, ...]</i></p>
<p>8. Obecne agendy badawcze / programy <i>[Ask for available documents, sources or desk-study including the timeline of programming and windows-of-opportunities to influence agendas / programs]</i> <i>[Dostępne dokumenty, źródła lub prace studialne dotyczące programowania i inne okazje mające wpływ na agendy / programy]</i></p>
<p>9. Czy prowadzi się ocenę efektów / oddziaływania badań w Polsce? <i>[If not: why, and if yes: how and what lessons could be learned for new research programmes? it is impact evaluation of research, not about quality of research. Info is of need for our implementation plan. WP4! What evaluations/studies have been made to measure the quality of land and SSW related research in your country? Try and obtain copies of these studies if you don't already have them. What do you consider to be the most important two or three findings of these evaluations/studies? = follow-up to question 8: existing research agenda's / programs]</i> <i>[Jeśli nie: dlaczego a jeśli tak: jak to się odbywa i jakie płyną wnioski dla nowych programów badawczych? Jest to ocena wpływu badań, a nie ich jakości. Wnioski są potrzebne dla planu wdrażania. Jakie przeprowadzono działania/ studia, aby ocenić jakość badań dotyczących terenów oraz systemu GOW w Polsce? Jak są dwa-trzech najważniejsze wnioski z tej oceny? To jest powiązane z pytaniem 8: istniejące agendy / programy badawcze]</i></p>
<p>10. Co obecnie znajduje się w krajowej agendzie badawczej w zakresie tej tematyki (zarządzanie terenami/ system GOW)?</p>
<p>11. Jakie zagadnienia mają priorytet? <i>[należy skorzystać z poniższych pytań i rozumieć zagadnienia praktyki gospodarowania przestrzenią, zmian w gospodarowaniu przestrzenią i w zarządzaniu systemem gleba-osady-woda, która może:</i></p> <ul style="list-style-type: none"> • <i>przyczyniać się do bezpieczeństwa żywności;</i> • <i>zapewnić bezpieczne dostawy wody pitnej;</i> • <i>zapewnić dostawy i dystrybucję energii;</i> • <i>obniżyć konsumpcję materiałów i surowców / zasobów;</i> • <i>zapewnić efektywne wykorzystanie zasobów naturalnych;</i> • <i>przyczyniać się do mitygacji i społecznej adaptacji do zmian klimatu;</i> • <i>przyczyniać się do zapewnienia zdrowego środowiska do życia;</i> • <i>zapewnić bezpieczną infrastrukturę]</i>

[Do każdego z powyższych pytań odnoszą się pytania poniżej:

12. Jak dalece pilne /palące jest to zagadnienie [co się stanie, jeżeli nic nie zostanie zrobione]?
13. Kto odczuje skutki?
14. Kto jest odpowiedzialny?
15. Czy jest to temat zajmujący szczególnie Pani/Pana instytucję / branżę biznesu lub jest to problem całego kraju czy może większej liczby krajów?
16. Jaka jest najważniejsza potrzeba badań dotycząca tego zagadnienia?
[Gdzie jesteście teraz, gdzie chcemy być za x lat proszę wskazać horyzont czasowy]
17. W jaki sposób mogą być wdrażane proponowane zmiany i nowa wiedza?
18. Kto powinien finansować te badania?

E. Relacja Nauka - Praktyka (SPI)

19. Jakie są Pani / Pana doświadczenia w wykorzystaniu wiedzy naukowej do:
 - poprawy sytuacji w biznesie?
 - rozwiązywania problemów społecznych?
 - wspierania wdrażania polityk i/lub zmiany polityk?*[Co działa dobrze a co należy poprawić?]*
20. Z jakich źródeł informacji (naukowej) Pani/Pan korzysta?
[Gdzie znajduje Pani/Pan informacje, co byłoby potrzebne? Czy korzysta Pani/Pan z Wise-RTD? Z innych websites? Itd.]
21. W jaki sposób sektor nie-naukowy (biznes, zarządzanie, inni interesariusze) jest włączony w kreowanie potrzeb i pytań do nauki?
[Co działa dobrze a co należy poprawić?]
22. W jaki sposób sektor nie-naukowy (biznes, zarządzanie) jest włączony w realizację nauki?
[Co działa dobrze a co należy poprawić? Czy poprzez włączenie w konsorcja naukowo-innowacyjne, włączenie we współtworzenie wiedzy itd.]
23. Czy Pani/Pan zna, może polecić dokumenty krajowe SPI?

F. Finansowanie

24. Jakie modele finansowania są Pani/Panu znane (z własnej działalności lub z doświadczenia), które mogą być przydatne w skali:

<p>a) Regionalnej?</p> <p>b) Krajowej?</p> <p>c) Europejskiej? [np. H2020, wielostronne takie jak Inicjatywy Wspólnego Programowania - Joint Programming Initiatives]</p> <p>d) Międzykontynentalne? [np. Belmont Forum]</p> <p><i>[For all R&I questions aiming at achieving policy targets in the Land & SSW related system, like e.g. Sustainable Development Goals on soils (to be adopted at UN level in September 2015, existing EU directives such as the Environmental Liability Directive, etc. Considering all Public and Private funding sources. If possible please ask to provide details and give most important references (documents, website) that could be relevant for explaining the answer] [</i></p>
<p>25. Jak uzyskać pomnożenie zainwestowanego w skali regionalnej/krajowej 1 Euro (1 PLN) (biorąc pod uwagę wszystkie źródła finansowania) jako wartości uzyskanej w efekcie nowej wiedzy odpowiadającej na europejskie i krajowe zapotrzebowanie? [CONSTRUCTIONS that (could) work??? PP, PPI, etc. Just ask for suggestions, ideas, and experiences: as open as possible!]</p>
<p>26. Lub inaczej: jak uzyskać zwielokrotnienie zainwestowanego 1 Euro (ze źródeł krajowych, regionalnych, lokalnych i prywatnych) w postaci wartości nowej wiedzy odpowiadającej na zapotrzebowanie europejskie i krajowe w dziedzinie badań i innowacji w zakresie terenów oraz systemu GOW?</p>
<p>27. Dobre przykłady współpracy w ustalaniu/wdrażaniu/finansowaniu programów badawczych (finansowanych) w zakresie projektu INSPIRATION?</p>
<p>28. Czy są dziedziny, które obecnie nie znajdują finansowania a które wymagałyby nowych systemów finansowania?</p> <p>29. Badania zintegrowane (niezbędne w przypadku szczególnych problemów społecznych związanych z systemem GOW oraz zarządzaniem terenami) są trudne do sfinansowania a także rzadko podejmowane przez gremia naukowe. Co byłoby niezbędne, aby ten problem rozwiązać?</p> <p>30. Jak planować /zarządzać odpowiednimi opcjami finansowania wynikającymi z projektu INSPIRATION – na podstawie poprzednich doświadczeń - tak aby:</p> <ul style="list-style-type: none"> • potrzeby społeczne były zaspokojone?, • wiedza wynikająca z realizacji Strategicznej Agendy Badawczej była przyjęta i wykorzystana? oraz • wykorzystać doświadczenie “fundatorów”, którzy rzeczywiście pomnożyli zainwestowane w wiedzę pieniądze w skali swoich krajów?

G. Inne (uwagi, sugestie, przykłady):

H. Zakończenie wywiadu

Dziękuję za poświęcenie czasu i uczestniczenie w tym wywiadzie:

- Czy chciałaby Pani/Pan być informowana o projekcie INSPIRATION?
- Czy może Pani/Pan zasugerować, z kim jeszcze możnaby przeprowadzić ten wywiad?
- Czy ma Pani/Pan jakieś pytania wynikające z treści tego wywiadu?

[Być może osoba ankietowana będzie miała życzenie, aby przedstawić jej treść podsumowania wywiadu i/lub wyniki badań. Jeśli tak, to należy poinformować, że nie będziemy przekazywać całych sprawozdań, natomiast możemy udostępnić zestawienie wyników projektu z chwilą ich opracowania. Należy także wspomnieć, że aspekty nie omówione w trakcie wywiadu mogą zostać dołączone do KPK]

INSPIRATION acknowledges the received funding from the
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Annex Ic: NKS hand-out: INSPIRATION interview at a glance

See Chapter 1, Annex II



Annex II: Documents used for the PL desk study

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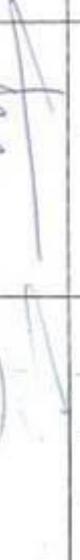
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Annex IIIa: National workshop – agenda

Polish NKS workshop in Katowice - Agenda	
5.11.2015 I day	
12.30	Lunch
13.00	Welcome, introduction to program
13.15	Introduction to the project (Anna Starzewska-Sikorska, Justyna Gorgoń, Marta Pogrzeba)
13.30	Introduction to the workshop: summarizing the results of the interviews & complementary desktop work:
	a. Strategic Research Agenda
	b. Science-Policy Interfacing
	c. Funding options
14.00	I Session: "World Café": 3 tables, 30 minutes per table, enriching, completing and suggestion prioritization:
	a. Strategic Research Agenda
	b. Science-Policy Interfacing
	c. Funding options
15.00	Coffee break
15.30	Plenary presentation of World Cafe outcome, followed by possibility for enriching, completion and suggestions for prioritization:
	a. Strategic Research Agenda
	b. Science-Policy Interfacing
	c. Funding options
16.00	II Session: „World Cafe”: priorities, programs, projects
17.30	What next & closure
18.00	Joint diner
6.11.2015 II day	
9.00	Welcome back, goal today, introduction to program
9.15	Synthesizing & finalizing the input for the national report in three parallel groups, groups formed before workshop (selected NKS for each group):
	a. Strategic Research Agenda
	b. Science-Policy Interfacing
	c. Funding options
10.30	Coffee break
11.00	Continuation parallel groups
12.00	Plenary presentation outcome synthesis, followed by final possibility by all for final comments in:
	a. SRA (30 minutes)
	b. SPI (30 minutes)
	c. Funding options (20 minutes)
12.50	Closure & farewell
13.00	Lunch

Annex IIIb: National workshop - list of participants




Polish workshop for National Key Stakeholders 5-6 November 2015, Katowice			
List of presence			
LP	Name	Institution	Signature Day I Signature Day II
1.	Tadeusz Adamski	Fundusz Górnośląski	
2.	Leszek Bartkowiak	Zakład Eksploatacji Haldy Przechlebie	
3.	Maciej Borsa	Stowarzyszenie Architektów Polskich <i>Stowarzyszenie Architektów</i>	
4.	Tomasz Flodrowski	Ekopark	
5.	Krzysztof Gasidło	Politechnika Śląska, Wydział Architektury	
6.	Wanda Gallkowska- Kopacka	NFOŚiGW	
7.	Justyna Gorgoń	IETU	



**Polish workshop for National Key Stakeholders
5-6 November 2015, Katowice**

List of presence

LP	Name	Institution	Signature Day I	Signature Day II
8.	Janusz Janeczek	Uniwersytet Śląski		
9.	Zbigniew Kamiński	P politechnika Śląska, Wydział Architektury		
10.	Alina Karnabał	Ekopark		
11.	Barbara Knapik	Urząd Miasta Sosnowiec Wydział Planowania Przestrzennego		
12.	Robert Orpych	Śląski Urząd Marszałkowski		
13.	Marta Pogrzeba	IETU		
14.	Adam Rostański	Uniwersytet Śląski		
15.	Bożena Smreczak	IUNG		



**Polish workshop for National Key Stakeholders
5-6 November 2015, Katowice**

List of presence

LP	Name	Institution	Signature Day I	Signature Day II
16.	Anna Starzewska-Sikorska	IETU		
17.	Tomasz Sluczynski	SGS Ekoprojekt		
18.	Jerzy Swatoń	NFOŚiGW		
19.	Karolina Wadowska	Ekopark		

HORIZON2020 CSA INSPIRATION

Deliverable D2.5 –
National reports with a review and synthesis
of the collated information



Organisation	Name	funder	end user	knowledge provider	Nat.re g.loc. authority	Univ./research inst	SME /consultant	business & industry	NGO	network	other	soil	sediment	water	land use-management
Faculty of Architecture, Silesian University of Technology	Zbigniew Kamiński			1		1									1
Institute for Ecology of Industrial Areas	Justyna Gorgoń			1		1									1
Society of Polish Town Planners	Maciej Borska		1				1								1
Industrial and Technological Park EkoPark Ltd	Karolina Wadowska		1					1							1
Institute of Soil Science and Plant Cultivation	Bożena Smreczak			1		1						1			
Silesian University - Department of Earth Sciences	Janusz Janeczek			1		1						1			
SGS Ekoprojekt	Tomasz Stuczyński		1	1				1				1			1
Institute for Ecology of Industrial Areas	Marta Pogrzeba			1		1						1	1		
Committee for Spatial Economy and Regional Planning	Krzysztof Gasidło			1		1									1
Land Use Planning Department in the City of Sosnowiec	Barbara Knapik		1		1										1
Marshal's Office Silesian Voivodeship	Robert Orpach		1		1										1
Industrial and Technological Park EkoPark Ltd	Tomasz Flodrowski		1		1							1			1
Company of Przechlebnie Waste Dump Exploitation	Leszek Bartkowiak		1				1								1
National Fund for Environment Protection and Water Economy	Wanda Galikowska-Kopacka	1			1							1			
Silesian University -	Adam Rostański			1		1						1			
		1	7	8	4	7	2	2				7	1		10



Annex IV: Research landscape on Soil and Land Management in Poland

Research on soil and land management in Poland are included in the framework of activities in a number of competent research organizations: universities, research units. This potential is supported by involvement of Polish research institutes in EU RT&D, Interreg and national programs. Also SME activities in soil technology development and practical application are contributing to the research landscape in this field.

The National RT&D Program is setting the following priorities concerning soil issues:

- Prevention of water erosion and soil degradation and low-cost remediation and soil protection
- Prognosis and extreme nature phenomena (floods, draughts) and interaction with natural ecosystems
- Establishing interactive, pan European database on projects carried out by scientific institutes and coordinated by governmental agencies.

Coordination actions are carried out by the Polish Platform on Environmental Technologies aiming at development of knowledge potential and solutions allowing for increase the level of soil protection and remediation at low social costs. The Polish Platform on Environmental Technologies is promoting the following priority technologies:

- Erosion preventing and agricultural applications of water-sorbing geocomposites
- Phytostabilisation of heavy metals in contaminated sites
- Bioremediation of soils contaminated with organic compounds
- Application of evapotranspiration cover as an isolating barrier for contaminants infiltration
- Use of plants for phytoremediation and as II generation biofuels (*Salix viminalis*, *Miscanthus giganteus*, *Helianthus annuus*, *Brassica juncea* etc.)
- Tools for environmental characterisation at contaminated sites (GIS, teledetection, non-invasive technologies, sensors, etc.)
- Organic sorbents for removal of organic contaminants.

The Institute of Soil Science and Plant Cultivation is the largest and the oldest research-development centre in Poland, conducting agricultural studies under the supervision of the Ministry of Agriculture and Rural Development. The broad range of activities comprises crop production, soil science and fertilisation, as well as recognition and protection of agricultural areas against various forms of degradation.

Institute of Agrophysics, Polish Academy of Sciences, Doświadczalna 4, 20-290 Lublin, Poland



Institute of Physical Geography and Environmental Planning,
Adam Mickiewicz University,
Dziegielowa 27, 61-680 Poznan, Poland

Implementation of landscape ecological knowledge in practice

University of Marie Curie Skłodowska (UMCS) in Lublin – Faculty of Earth Sciences and
Spatial Management

Soil protection meant as soil fertilization, protection of agricultural areas against various
forms of degradation,

In soil policy there is not established cycle systemic management of with precise
identification of the problems and remediation

- There are well established soil related legal mechanisms and requirements concerning environment protection including soil, waste management, water protection
- The main focus in soil protection is agricultural production, less as the basis of human life and other organisms
- Soil threats to soil are not recognized sufficiently. Spatial contamination (area) of soils is relatively well understood but information on point (facility sites) contamination is not systemic
- No complex management approaches are defined in the legal acts for soil protection and remediation

The needs

- Enhancing selectivity of remediation techniques used in practice with respect to contamination type and site characteristics
- More cost-efficient use of existing technologies and development of new approaches for specific problems
- Development and implementation of administrative soil management procedures based on knowledge and practical experiences
- Orientation on risk management (environmental, health) in flexible remediation schemes
- Building conditions for uptake of new technologies and elimination of barriers for implementation e.g. public procurement
- Strengthening use of soft tools (organisational) for optimisation of soil protection management in sustainable way on site, local, regional and country level



inspiration

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