D2.4

National reports on collated information following the template

The Netherlands

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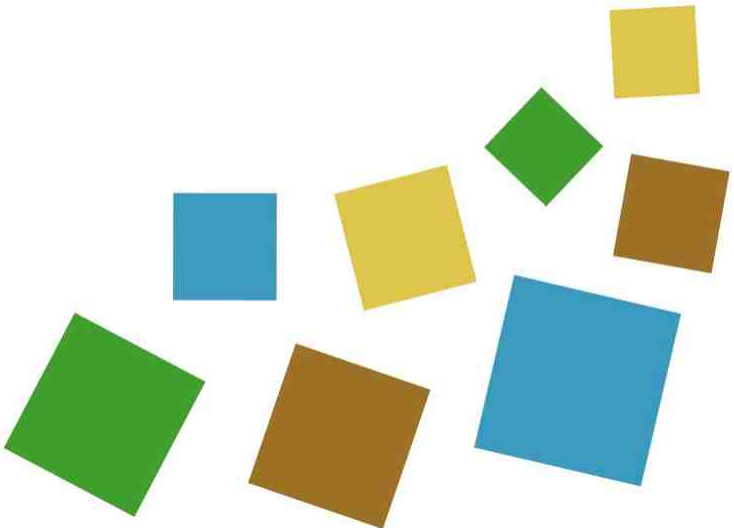

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Content

List of abbreviations

AMS(-Institute)	(Amsterdam Institute for) Advanced Metropolitan Solutions
ATES	Aquifer Thermal Energy Storage
BOA	BeleidsOndersteunend Advies (Policy supporting research)
BSW(-systeem)	Bodem-Sediment-Water(systeem) (Soil-Water-Sediment(-system))
CCS	Carbon capture and storage
COP	Community Of Practice
DoA	Description of Action
ERANET	European Research Area Network
IAB	International Advisory Board
JPI	Joint Programming Initiatives
KIBO	Kennis en Innovatieprogramma Bodem en Ondergrond (knowledge and Innovation programma Soil and Subsurface)
NFP	National Focal Point
NGO	Non-Governmental Organization
NKS	National Key Stakeholder
NOBIS	Nederlands Onderzoeksprogramma Biotechnologische In-Situ Saneringen (Dutch research programme biotechnical in-situ remediation)
NWO	Nederlandse Organisatie voor Wetenschappelijk Onderzoek (Dutch Organisation for Scientific Research)
R&I	Research & Innovation
RWS	RijksWaterStaat
SKB	Stichting Kennisontwikkeling en Kennisoverdracht Bodem
SME	Small and medium-sized enterprises
SPI	Science Policy Interface
SRA	Strategic Research Agenda
SSW(-system)	Soil-Sediment-Water(-system)
STOWA	Stichting Toegepast Onderzoek Waterbeheer (Foundation for Applied Water Research)
TKI	Topconsortia voor Kennis en Innovatie (Top consortia for Knowledge and Innovation)
Wbb	Wet bodembescherming (Soil Protection Act)
WFD	Water Framework Directive
WP	Work Package

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, science, citizens and society) and the variety of relevant funders. The vehicle to engage with all relevant stakeholders across the Member States is a National Focal Point (NFP) in 17 countries. The NFP's will interview national key stakeholders (NKS), perform a desk study and organize workshops with national stakeholders of funders, end-users and researchers across the various soil and land management disciplines. The goal of these exercises is to gather information and support the main objectives as stated above.

The results will be taken up, 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) 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-country 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**

1.2. This deliverable

Deliverable 2.4 - National reports on collated information following the template - consist of 17 national reports for participating countries Austria, Belgium, Czech, Finland, France, Germany, Italy, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK.

It describes the results of the NKS interviews and the desk exercise as performed in participating countries. This deliverable relates to INSPIRATION Work Package (WP) 2

"Demands of research from industry, end-users and funders (State-of-the-art at national levels)", task 2.4 "***Collate information at national levels***". In the WP2 description this task is described in the following way

"*The NFPs will use the template developed under task 2.3*[1] *to:*

- *Interview NKSs of industry, end-users and funding agencies to identify their demands related to the scope of INSPIRATION. The template contains suggestions for whom to interview and for the questions to be posed (i.e. the questionnaire). Where needed, the questionnaire will be translated in national languages by the NFPs;*
- *Subsequently, information that is publicly available at national levels regarding topic a-d*[2] *as mentioned under the WP2 objectives will be via a desk exercise collated and reported (in English) and further tailored towards the 'demand side' based.*

The national reports (in English) resulting from the two steps above will be the start/background document for execution of task 2.5[3]*."* (INSPIRATION Grant Agreement - Description of Action - DoA)."

This national report is INSPIRATION deliverable 2.4 - The Netherlands. In the Netherlands, 16 interviews have been performed (NKS that were interviewed are taken up in Annex I). The desk study was based on documents as suggested by NKS (Annex II).

The next chapters give a synthesis of the main results of the topics as mentioned under the WP2 objectives.

- **Chapter 2 Research and Innovation (R&I) needs** (topic a[2])
- **Chapter 3 Experiences regarding connecting science to policy/practice** (topic b[2])
- **Chapter 4 National and transnational funding schemes** (topic c-d[2])

[1] Task 2.3.: Prepare a harmonized template for information collation

[2] Topics a-d:

a) Demand-driven suggestions for the Strategic Research Agenda (SRA), i.e. suggestions from the perspective of industry, end-users and funders;

b) Experiences regarding the exploitation of scientific knowledge to improve business opportunities and/or tackle other societal challenges.

c) Predominantly used as well as promising alternative funding schemes / mechanisms / programs for knowledge production and dissemination.

d) Experiences regarding the use of any transnational, common budget for scientific knowledge production related to the scope of INSPIRATION.

[3] Task 2.5.: Review and synthesise the collated information:

2. 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.*

2.1. Societal challenges and needs

In the Netherlands, the main challenges are climate change and water supply (and safety), clean environment and smart urbanisation (including transport), food supply and the liveability of rural areas agricultural, resource efficiency and energy supply. These challenges are already seen as challenges that we have to study, but looking at the future they become even more important. Underneath they are mentioned under the challenges as the Eu has formulated.

- Climate action, environment, resource efficiency and raw materials;
  Climate change and resource efficiency are seen as serious challenges both in urban as in agricultural areas. Water safety and supply is an issue that is connected to both challenges.
- Health, demographic change and wellbeing;
  When looking at health, the care for the quality of the soil-sediment-water- (SSW-) system remains an evident aspect. Many challenges related to demographic changes ánd wellbeing are related to urbanization. The pressure on and changes in urban areas ask for a vision on smart and healthy cities. Next to contamination, a better link between the natural system and the land use functions is necessary to contribute to resilience.
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy;
  Food security and especially sustainable agriculture are important challenges in the Netherlands. The agriculture is very intensive and productive, which has repercussions on the quality of soil and water and nature. There is a need for balance between sufficient and cost-effective food production and sustainable, future proof agriculture. Liveability of rural areas, vital soils and care for landscapes are part of this discussion.
- Secure, clean and efficient energy;
  The history of natural gas winning in the Netherlands has now serious impacts in the North of the Netherlands (earth quakes). This subscribes the need for better knowledge of the system. The subsurface can play a role in the transition by supplying sustainable energy (ATES, geothermal energy).
- Smart, green and integrated transport;
  This aspect is mainly a challenge, looking at SSW- system, while looking at the many subsurface structures (tunnels, cables and pipes) in the Netherlands.

Next to these, there were some crosscutting themes addressed which are needed to solve and meet societal challenges and needs. Governance, system knowledge, knowledge base of stakeholders, valuation of the natural system, data and information and land use or spatial planning were mentioned in this respect.

2.2. Topics / research needs to include in the SRA

Many topics and research needs related to the societal challenges as mentioned in 2.1 are retrieved from the interviews and desk-study. Underneath the main topics and their research questions are summarized. The important / relevant documents, research agendas, research programmes underpinning these topics are found in Annex II.

NL-1 Climate change is seen as a serious challenge in the Netherlands in relation to urban areas. Smart planning is needed to make climate proof and resilience cities. The prevention of damage as well as making use of the natural system (green infrastructures) are important aspects. Climate change poses different threats to rural areas: such as salinization, subsidence and droughts. This asks for solutions in terms of adaptation to and mitigation of climate change.

- How to cope with and adapt to climate change (water shortage, water surplus, erosive / extreme rain events, frost free winters, changes in ground water level and flows, failing of primary dikes, etcetera).
- How to make cities resilient and climate proof?
- How to mitigate climate change in a (cost-)effective way (eg. CCS)
- How to improve our water management (continuous cycle of lowering water levels for land uses / subsidence)?

NL-2: (Drinking) water supply and safety. Sufficient water supply for drinking, irrigation and process water is, now and in the future, recognized as a serious challenge. For that reason strategic groundwater supplies are taken up in the Dutch strategy for subsurface planning. How to make decisions between different uses is still subject of discussion.

- How to deal with groundwater levels in relation to different functions in an area (avoiding other threats such as rotting foundation, droughts, wet feet, subsidence, water supply for agriculture)?
- How can different stakeholders collaborate within area-based groundwater management (quality and quantity)?
- How to make choices between different functions within the groundwater?
- How to ensure (drinking) water supply for now and the future and what effects has this for the subsurface (strategic drinking water resources)?
- How to deal with ending large scale groundwater extractions?

NL-3: Resource efficiency. The necessity for sustainable use of resources (including land) is recognized as well as the trend of increased consumption due to a changing lifestyle. Authorities on different levels focus on resource efficiency by investing in circular economy, the food, water, energy nexus and possibilities to make the re-use of (secondary) building material (soil, sediment) possible.
The challenge to become more resource efficient has a broad support. This becomes evident in different trends: 1) (small scale urban) initiatives of citizens connected mainly to food, shorter production circuits, sharing and reuse of products /waste. 2) Companies and industries investing in sustainability. Reduced use of natural resources, better links to the place of business, circular economy initiatives.

- What does circular economy mean when related to the SSW-system and land use?
- How to reuse sediments and soil in a safe and cost-effective way?
- How to lower inputs in an urban, industrial and rural setting?

NL-4: Soil remediation. Dealing with historic contamination is still on the agenda, mainly in terms of organisation and financing. At the other hand: new contaminants pose possible risks and ask for a research effort. Sustainable transformation from brownfield to productive land remains to be a complex topic. In practice it can be very difficult to comply with national and European regulation.

- How to deal with anthropogenic/ new substances?
- How can regulation for (quality) of soil / water / sediments be better matched (eg to comply with objectives such as WFD)
- How do the soil, water and sediment interact within the system?
- How to ensure a good link between land use and soil-water quality (related to “the end” of the Dutch remediation operation, aftercare, more open soil, recreation in new places such as city canals)?
- What new (innovative, sustainable and (cost-)effective) remediation techniques and analysis methods can be developed?
- What strategies are effective for management and removal of contamination in relation to land use (eg area-based groundwater management, brownfield regeneration)?

NL-5: Smart and healthy cities. Many challenges related to demographic changes ánd wellbeing are related to urbanization. The pressure on and changes in urban areas ask for a vision on smart and healthy cities, to ensure liveability in the future and avoid damage and unnecessary costs.

- How to deal with changing demographics in existing cities (more freelancers, empty offices and shops, demand for housing (smaller households), brownfield regeneration)
- How to make cities resilient and climate proof?
- What strategies and techniques are available to avoid soil sealing?
- How to manage the cities assets above and under the ground in such a way that functions are maintained?
- How to deal with threats from the SSW-system such as rot on wooden poles (foundations) and subsidence?

NL-6: Sustainable agriculture. The agriculture is very intensive and productive, which has repercussions on the quality of soil and water and nature. This contributes to the difficulties to comply with the Water Framework Directive (WFD). A divide is seen in the agricultural sector: 1) More intensive up-scaled farms in rural areas and 2) Local initiatives (urban agriculture) around city borders.

- How can we make intensive agriculture more sustainable (to lower impacts on ecology and be able to comply with WFD)?
- What is our vision on the future of agriculture (trend: on the one hand more intensive up-scaled agriculture, the other hand multifunctional border of urban areas with small scale food production. What was in-between is disappearing: the traditional medium size family businesses)?
- How can we improve the match between suitable agricultural use and suitable soils?
- How to deal with threats such as soil subsidence, salinization in relation to agriculture?

NL-7: Liveability of rural areas. There is a need for balance between sufficient and cost-effective food production and sustainable, future proof agriculture. Liveability of rural areas, vital soils and care for landscapes are part of this discussion.

- How to change nature development (link with soil suitability, involvement of public)?
- How to safeguard landscapes in the Netherlands?
- How can we match economic scenarios and our vision to have attractive, liveable landscapes?
- How to ensure spatial quality in large scale projects (as is done in “space for the river”)?

NL-8: Secure, clean and efficient energy The history of natural gas winning in the Netherlands has now serious impacts in the North of the Netherlands (earth quakes). This subscribes the need for better knowledge of the system and also influences the opinion of the public on (future) subsurface functions such as Carbon Capture and Storage (CCS) or unconventional gas winning. The energy transition has spatial impacts, both aboveground and in the subsurface, that need to be considered when making choices. The subsurface can play a role in the transition by supplying sustainable energy (ATES, geothermal energy).

- What spatial impacts has the energy transition?
- How to (improve the) use of the SSW-system for sustainable energy?
- How to better store and transport energy (and use the subsurface for this)?
- What are effects of interventions in the subsurface related to energy functions (natural / unconventional gas winning, ATES, etc)

NL-9: Smart, green and integrated transport This aspect is mainly a challenge, looking at SSW- system, while looking at the many subsurface structures (tunnels, cables and pipes), in terms of of asset management and spatial planning. Many parties are involved here, which also has a governance aspect. Further the carrying capacity of the subsurface (knowledge of the system) can be mentioned related to transport.

- What innovations are possible for (maintenance on) underground infrastructure?

NL-10: Governance Asking more integrated questions asks for understanding of, and in some cases, changes in the governance system. Policies and, regulation need to become less sectorial. This asks for other arrangements and collaboration. Dealing with insecurities when working with the SSW-system also poses challenges in terms of “governance”. Risk-based and adaptive practices are valuable here.

- How to transform governance from a control model to an adaptive model?
- How can we work on integrated issues, in an effective way (T-shaped knowledge)?
- How can we translate regulation to a location to avoid mismatches between regulation and practical situations?
- How can we shape effective processes to solve integrated challenges (how to collaborate, who is involved, who leads)?

NL-11:System knowledge. Knowledge of the natural system (and man-made system) “system knowledge” is needed to make decisions. In this way effects and risks can be taken into decisions. Also when designing innovative solutions in terms of geo- or eco-engineering, knowing the system and its responses is necessary.

- What can geo-engineering and eco-engineering contribute to societal challenges?
- What are the 4D (horizontally and vertically in space and in time) effects of interventions in the SSW-system and land use?
- What (autonomous or human induced) threats and changes can we expect the coming 50 years (soil subsidence, changes in water levels and flows, chemical state etc)?

NL-12: Knowledge base The level of knowledge (eg by authorities, and also the value of schooling) and exchange of knowledge were mentioned in this respect. To make decisions, formulate research questions and use research results in practice, a sufficient level of knowledge is needed.

- How to keep the knowledge base on the SSW-system and land use on a sufficient level within organisations and authorities (knowledge management, schooling, exchange, collaboration)
- How to deal with integrated challenges? (multidisciplinary work, right processes)

NL-13: Valuation of the SSW-system (ecosystem services)
To use the natural system we need to know what it is worth in terms of benefits and economic value: valuation of the SSW-system (ecosystem services). When this made more explicit, it can be part of making (spatial) choices.

- How to make use of the ecosystem in a sustainable way (from “knowing what it has to offer” to ending the use of a service)?
- In what ways can industries contribute with its (sub)surface to deliver services to the surrounding area?

NL-14: Data and information. The role of (big, open) data and information becomes more and more important. Possibilities grow, while at the other side aspects as reliability and privacy need attention.

- How to supply participants in “bottom-up” initiatives with the right information to make save and sound plans (eg. related to urban agriculture)?
- What means big data for the field of the SSW-system and land use, for different stakeholders?
- How can we improve monitoring and modelling?
- How can we improve recording and exchange of subsurface information (and thus the actual use in spatial designs and (re)development projects)?

NL-15: Land use. There is a need for a vision on the use of space in the Netherlands that goes beyond urban areas. This vision should address vision the future of the agricultural sector, the role of landscapes, the place of subsurface functions (and ecosystem services) in relation to land. To make such a vision, the role of the Netherlands within Europe and the world is of importance.

- What is our vision on the use of space in the Netherlands (This vision needs to address sustainable urbanization, the future of the agricultural sector, the role of landscapes and the place of subsurface functions (and ecosystem services) in relation to land)?
- How can we give content to discussions around sustainable land use, looking over sectorial boundaries and with consideration for the future?
- How to deal with land ownership in relation to our vision on sustainable land use?
- How to improve the match between land use and suitability of the SSW-system and thereby resilience of land uses (aboveground and subsurface functions and qualities)?

3. 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?***

3.1 Use of scientific knowledge

'Scientific knowledge' is defined in different ways by the NKS:
"K*nowledge that contributes to understand "how things work", "Facts, numbers, statistics, process descriptions and experiences*"; "*Knowledge that is developed on scientific principles, and fundamentally or experimentally determined*"; "*Knowledge to solve problems*" or "*Factual knowledge*".
The difference between fundamental, strategic and applied research is broadly known and used in the Netherlands. The trend is that the focus of research shifts towards applied research, which can cause a gap on the side of fundamental research, which is expressed as a concern.

Many sources for scientific knowledge are used. Especially the more 'personal' ways to get knowledge are mentioned more frequent: own experience in research projects, colleagues, national and international experiences/examples. Knowledge "in people" is very valuable. Also more traditional ways for knowledge dissemination such as scientific articles and conferences, and reports and websites (www.soilpedia.nl, www.natuurlijkealliantie.nl, www.EUGRIS.org, EU portals, websites of research institutes) are mentioned.
It was stressed that knowledge exchange by reports is in some cases out-of-date. Serious gaming is mentioned as an alternative. We can learn here from universities that have knowledge transfer as core business.

Most NKS use (in higher or lower extent) scientific knowledge. They value knowledge to make well-founded choices in practical situation and for policy. Scientific knowledge is in the Netherlands certainly used for policy making. Co-creation between scientists and policy makers is mentioned as an effective method. However, in many cases the link between science and policy can be improved. As obstacles are mentioned:

- The value or credibility that is attributed to research
- Time span of programming. Urgent questions (short-term) get the research money
- "*Knowledge gives the policy maker what a lamppost gives the drunk: no light but support*"
- Difficulty to formulate the right questions. The dialogue between science and policy needs to be improved
- Research attitude is missing "*Policy makers search for answers and not for questions*"

3.2 Possibilities to set the agenda

The ability to influence research agendas differs per party. Many parties are involved or have the ability to join the conversation in the Netherlands. But as mentioned: "*To get something on an agenda is easier that to get something under the attention*." The latter is more important. A research program should be well designed, facilitating coherent, long term research. Linking research questions to societal challenges works well to get it on under the attention. For industries it is harder to set the research agenda, because they could be suspected to influence results.

The Dutch national policies/agendas reflect to a reasonable extent specific needs and priorities of different national parties. Sometimes it needs some time. Good examples and a good story work very well: "*show & tell*". However, there are more agendas than there is funding for research.

3.3 Science – policy – practice

Many of the NKS have been involved in doing scientific research, the formulation of scientific research questions and synthesizing/wrapping-up of scientific knowledge eg. for policy making. The lessons learned are:

- Practice When science needs to be used in practice, it is advisable to use the practical situation as a starting point, otherwise the scope of research will be too broad.
- Time Also it is important to have sufficient time. It needs investments in terms of time and effort to get knowledge to practice. The time scale between research (long term) and government (short term) is different and should be matched better.
- People The right people need to be involved: experts, visionaries, managers. People are the backbone of the knowledge field. The role of researchers and policy makers in the science-policy interface can be improved. The researchers also need to translate the results of the research to an interpretation that is valuable for policy. They can also help formulating the right question. Policymakers must look beyond the answers they need to do their job. They should adopt a helicopter view, looking over the boundaries of their field and to the problems and challenges behind the "now and here" questions. This enables them to ask the right questions to research.
- Trust To get research in practice, all parties must trust the outcomes of the research

Apart from the above discussion, many NKS emphasize the attention for fundamental research. In the Netherlands the trend is to focus on more short term results, applied research for direct questions. "*There are two knowledge cycles. One to go from nothing to something and one to go from something to something better*." The first cycle gets not enough attention. This has as a result that no new knowledge will be developed.

The Science-Policy-Interface documents that were recommended are listed in annex II.

4. National and transnational funding schemes

Topic c: *Predominantly used 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 system.***

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?"

4.1 Funding schemes and possibilities for research funding

International

No examples of international funding schemes were mentioned in the interviews, although some international collaboration was mentioned.

European

programme	comments
H2020 (and before EU Framework Programmes).	+European projects can be effective when stakeholders are involved, it is not fundamental research, but can show new possibilities -The bureaucracy is a constriction to involve some stakeholders. It is difficult to find ways to improve this.
Joint Programming Initiatives - JPI's	+By collaborating in a smart way, you can multiply national euros -Difficult to translate to practice -In the Netherlands the financing for this has decreased
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/
ERANET (European Research Area Network)	Instrument for research and innovation +Good constructions
LIFE +	Financial instrument supporting environmental and nature conservation projects throughout the EU http://ec.europa.eu/environment/life/ -Complicated procedure
SNOWMAN	+good example for international collaboration +involvement of end-users (demand driven) -too much acquisition needed

European structural funds	Used to lower economic deprivation. Works within Wetsus (see national schemes)
European subsidies	Eg. for agricultural sector, European rural development programs

Overall comments:
Europe is complicated. There are too many procedures and bureaucracy to submit proposals. Large and experienced parties are most successful. A solution can be to make more 2-stage procedures. 1: Simple project idea and a more complex second stage for a full proposal. The evaluation of proposals should match better with the call text. At the moment, the questions are more integrated, multidisciplinary, but the assessment of proposals is still very sectorial.

National

programme	**comments**
HABIFORUM / BASIC	+ for front runners. Enough money, gives positive impulses -programme has stopped
NOBIS / SKB	+ open tenders, open for new ideas, gives positive impulses +demand driven with involvement of end-users -programme has stopped
KIBO knowledge and innovation program soil and subsurface	Start January 2016 Works with business cases (25% KIBo, 75% research, advisors, business & industry) +Demand driven, end users involved
Money related to national tasks and dossiers	Such as Soil Protection Act: Wbb transition money, RWS Corporate Innovation Program, Policy supporting research (BOA) etc -Large projects have very large overhead because of audits
STOWA (Foundation for Applied Water Research)	Space for innovative ideas Enough flexibility. Scope is quite narrow (water) http://stowa.nl/english/
Fundamental research of universities	Part of this research is financed by society +back bone for knowledge development +maintain knowledge base -budgets are decreasing
3rd flow of funds (universities)	public, private, with industries and governments (project oriented research) +can be substantial
NWO	Universities can finance PhDs en postdocs with NWO -more difficult to get direct finance for permanent research university staff (PhDs and postdocs leave, the knowledge does not consolidate) -not all parties can participate
Applied research of research institutes	Part of this research is financed by society + important role in eg collection of data +maintain knowledge base -budgets are decreasing
Topsectors	+collaboration with business community -importance to keep objective -sectorial impuls, less space for integrated subjects 9and not all dubjects fit in: landscapes, subsurface)
TKI *(top consortia for knowledge and innovation)*	-not all parties can participate http://www.rvo.nl/subsidies-regelingen/tki-toeslag

Overall comments:
The gap between fundamental and applied research was mentioned many times. There is more money now available for applied research. The sectorial character of the top sectors is also reason for concern. For some more integrated research it is difficult to get funding.

Regional / local

programme	comments
new collaborations co-creation	Many parties have some budget and the same questions. Join forces. Trust is needed within collaboration -"ear marked" research money can hamper collaboration +delivers more than a question on an answer: networks, continued effects
Project based research	Ad hoc/ made-to-measure research
Networks / collaboration within regions / COPs / living labs	All parties contribute to the group. Together problems are tackled (Examples SBRCURnet, AMS, Kenniscentrum Healthy Urban Living, railforum, Nudge)
Public-private collaboration	public-private collaborations
Citydeals Greendeals	public-private collaborations between business and industry, governments, research partners and societal initiatives http://agendastad.nl/ https://www.rijksoverheid.nl/onderwerpen/duurzame-economie/inhoud/green-deal
Wetsus	Infrastructure is provided. Parties that want to innovate join. Also the city and region participate (stimulating economic development of the region) +bridge between research and market
Social / sustainability funds / pension funds	These funds are interested in investments that give long term revenues (Eg ABN Amro Social Impact Fund)
Crowdfunding	clear research question and contact with the crowd is needed -difficult for research projects -many eyes are focussed on the research. Failure is no option
Revolving funds	Labelled money. The investment should give revenues. The difference with an investment fund is that it should serve a public goal.
Industries	Most industries have own research funding /innovation budgets -perception on the value of the research can be negative
Decentral authorities	Have their own budgets -more tasks and less money lower the "freedom" in doing research Examples: Deltaplans, provincial development funds

Overall comments:
There is a lot of attention for business cases. This can be very difficult money and there should remain attention for flexibility, innovation, seed money for good ideas. A lot of attention exists for involvement of small and medium sized enterprises (SMEs), because a lot of money goes on within SMEs. This is a lot of money in total. Per organisation this is limited. Therefore, the flexibility for them to join a research initiative is also limited. They focus on continuity of their business and money spend should serve a direct goal.

4.2 Gaps in financial resources for resource

Topics that are not or insufficiently covered within research programs and funding possibilities, are obviously the aspects that are not directly linked to tasks or core business of organisations. If there is no direct ownership, while these subjects between sectors can give us interesting insights and impulses for innovations. We have to “brand” these aspects in a better way to get financing. Shrinking cities and soil subsidence are examples that were left alone for a long time in the Netherlands, but are now on the agenda after much effort.
Aspects that need more attention:

- Land use and monitoring
- Landscapes
- Rural development
- Illnesses related to agriculture: e.g. Q fever
- Nature policy and legislation
- How to deal with invasive species.
- Integrated approach eg. needed for eco-Engineering projects
- Landfills in rural areas eg. possibilities for landfill mining / Biomass
- Soils and subsurface
- Radioactive waste (on a European level)
- Revision standards for soil classes
- Emerging contaminants
- Hormones in (drinking) water
- Trans-border issues

Programming and financing of research and policy are in the Netherlands (and also in the EU) still quite sectorial. This obstructs integrated research and approaches. For integrated research, collaboration should be sought. Make a good analysis in terms of people planet and profit to communicate the benefits and needs of the research. Show who invests and who gets the benefits. Search for synergies. You have to involve other fields of expertise, show overall value and find ways to spend earmarked money to a broader project. This takes a lot of effort.

5. Other remarks made by interviewees

Messages for the INSPIRATION consortium:

- Pay attention to the presentation and communication of the SRA. Pitches and stories work better than a 100 page report (multimedia presentation of the agenda?)
- Show paradoxes (food supply by up-scaled industrial agricultural verses the trend of more biological and local agriculture)
- Agendas can be demand / solution driven, but also inspirational and creative
- Incite the public with the SRA and relate the questions to possibilities for the stakeholders to take action.
- Pay attention to practical solutions and examples
- It is good to spend attention to innovation. We cannot steer innovation but pay attention to creation of a positive climate for innovation
- Pay attention to the position of women in science. In the Netherlands just 17% van de professors is female
- Make sure the NKS remain involved during the project. A platform where stakeholders can meet on a regular basis and reassess progress and objectives (a lot can change in 3 years).
- How can we show on a national basis what we already can do? Match strengths of countries to questions in other countries

Annex Ia: NKS interviews in the Netherlands

Date of interview	Organisation	Interview	funder	end user	knowledge provider	Nat.reg.loc. authority	Univ./ research inst	SME /consultant	business & industry	NGO	network	other	soil	sediment	water	land use-management
17-06-15	ProRail	Jeroen ter Meer & Paul van der Voort	1	1					1				1			1
30-07-15	KIBO	David vd Burg	1			1							1			
30-07-15	IenM	Ruud Cino	1	1		1							1			
04-08-15	Nudge	Tieneke Breemhaar			1			1							1	1
06-08-15	SBR-CURnet	Geert-Jan Verkade	1	1							1		1	1	1	1
06-08-15	Platform31	Jeroen Niemans									1					1
13-08-15	Bouwcampus	Han de Wit		1	1		1		1		1		1			1
13-08-15	Waternet	Fred de Haan	1	1		1								1	1	
20-08-15	TCB	Joke van Wensem	1		1	1							1			
26-08-15	RUG	Rien Herber			1		1						1			1
27-08-15	SEDNET / RWS	Pieter de Boer	1	1	1	1					1			1		
31-08-15	VITENS	Johan Driessen		1					1						1	
01-09-15	TUD	Fransje Hooimeijer			1		1									1
02-09-15	Nicole / TAUW	Laurent Bakker			1			1					1		1	
09-09-15	WUR	Bas Pedroli			1		1						1			1
15-09-15	Prov Brabant	Jaap Harthoorn	1	1		1							1	1	1	1

Annex Ib: NKS questionnaire template

This is the updated version of the questionnaire - reflecting inputs from the IAB and discussions at the NFP training 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 in National Language

A. Interviewinformatie
Land: Naam van INSPIRATION interviewer en organisatie: Datum Interview: Hoe kunnen we naar de stakeholder refereren (als persoon/vertegenwoordiger van netwerk/organisatie)
B. Introductie
Zie handout (Annex Ic)
C. achtergrondinformatie geïnterviewde
1. Naam van de geïnterviewde stakeholder: 2. Organisatie 3. Rol
4. Bent u (meerdere antwoorden mogelijk): o Nationale / regionale / lokale overheid o Universiteit / onderzoeksinstituut o MKB (<500 medewerkers)/consultant o Zakelijke markt / industrie o Non-Governmental Organisation (NGO) o Vertegenwoordiger netwerk o Anders, specificeer: ……..
5. Expertise (meerdere antwoorden mogelijk): o Bodem o Water o Sediment o Stedelijke / ruimtelijke planning o Landschapsarchitect o Gebiedsbeheerder o Anders, specificeer: ……..
6. Financiert uw organisatie extern onderzoek? o Ja, specificeer (als programmatrekker, incidenteel, publiek, privaat, …)…….. o Nee
D. Strategische Onderzoeksagenda
7. Welke maatschappelijke uitdagingen ziet u als leidend? [*voorbeeld EU maatschappelijke uitdagingen:]* *1. Bijdragen aan voedselzekerheid en –veiligheid;* *2. Voldoende en zekere drinkwatervoorziening;* *3. Voldoende en zekere energievoorziening en -distributie;* *4. Verminderen en efficiënt gebruik van materialen en (natuurlijke) hulpbronnen;* *5. Bijdragen aan mitigatie en adaptatie klimaatveranderingen;* *6. Bijdragen aan een gezonde leefomgeving;* 7. *Zekere en veilige infrastructuur* a) Indien van toepassing: welke aanvullende / alternatieve thema's raadt u aan? *[Als voorbeelden nodig zijn: denk aan thema's als natuurbescherming, duurzaam gebruik van ecosysteemdiensten, tegengaan afname biodiversiteit]*

8. Vanuit uw praktijk: welke onderwerpen (onderzoeksvragen) zouden in de onderzoeksagenda opgenomen moeten worden?
   [Vervolgvragen per genoemd onderwerp, a, b en c zijn vereist, de overige vragen optioneel]:
   - Leg het onderwerp svp verder uit
     - *Wie heeft daar last van?*
     - *Wie is verantwoordelijk?*
     - *Is het een belangrijk onderwerp voor uw organisatie?*
     - *Is het een nationaal probleem, of hebben andere landen er ook mee te maken?*
     - *Waar staan we nu en waar willen we over x jaar zijn, (punt op de horizon)?*
     - *Hoe kan nieuwe kennis effectief worden ingezet in de praktijk?*
   - Prioriteit*:*
     1. *Hoge prioriteit*
     2. *Enige prioriteit*
     3. *Neutraal*
     4. *Lage prioriteit*
     5. *Geen prioriteit*
     - *Wat is de urgentie, wat gaat mis als we niks doen?*
   - *Wie wil dit onderzoek financieren (of wie zou dit moeten doen)?*

   [Optioneel: check of de onderstaande onderwerpen relevant zijn]
   - o *Beoordeling voorraden / hulpbronnen*
   - o *Productiviteit van land en bodems*
   - o *Vraag naar land-bodemvoorraden, import en export*
   - o *Concurrentie tussen verschillende soorten landgebruik (conflicten)*
   - o *Concepten om impacts te identificeren en kwantificeren*
   - o *Instrumenten om impacts te vermijden / minimaliseren (feedback naar beslissingsproces)*
   - o *Kansen voor innovatieve landgebruiktechnologieën*
   - o *Op voorraden georiënteerde landbeheerssystemen*
   - o *Bodemherstel / regeneratie*
   - o *Bodem en grondwatersanering*

9. <u>Gerelateerd aan de benoemde onderzoeksvragen:</u>
   a) Welke documenten / agenda's / onderzoeksprogramma's onderbouwen de onderzoeksvraag?
   b) Welke tijdlijn hoort bij de programmering / het opstellen van deze agenda's programma's?

   [*vraag 9b is input voor werkpakket 5]*

E. relatie wetenschap-beleid (Science-Policy-Interfacing)

10. Hoe omschrijft u 'wetenschappelijke kennis'?

11. Waarvoor gebruikt u wetenschappelijke kennis in uw werk?

12. Wat zijn uw bronnen voor (wetenschappelijke) informatie?

[Open vraag gebruik onderstaande bronnen eventueel als voorbeeld]

o	wetenschappelijke artikelen	o	kranten
o	adviseurs	o	televisie
o	rapporten	o	conferenties
o	collega's	o	data (bases)
o	betrokkenheid in onderzoeksprojecten	o	websites, such as: …..
o	ervaringen/voorbeelden in eigen land	o	other, specify: …..
o	ervaringen/voorbeelden in het buitenland		

13. In hoeverre gebruikt u nieuwe / recente wetwenschappelijke kennis (state of the art wetenschappelijke inzichten) om uw werk uit te voeren?

14. In hoeverre (en hoe) kunt u de agendering rond wetenschappelijk onderzoek / beleid beïnvloeden in uw land?

15. In hoeverre komen uw specifieke vragen en prioriteiten terug in nationale agenda's beleid?

16. In hoeverre wordt de state of the art in wetenschappelijk onderzoek gebruikt bij formulering van beleid in Nederland?

[vragen voor NKS uit de niet-wetenschappelijke sector (bedrijven en beleidsmakers:]

17. Bent u ooit betrokken geweest bij:
    a. De formulering van wetenschappelijke onderzoeksvragen?
    b. Uitvoering van wetenschappelijk onderzoek (i.e. kennis co-creatie)?
    c. Samenvatten van wetenschappelijke kennis, bijv. ten behoeve van beleid maken of om marktkansen te vergroten?

[indien ja: vervolgvragen]

- Hoe succesvol/toereikend was dit op een schaal van 1-5?
    1. *Zeer* succesvol/toereikend
    2. Succesvol/toereikend
    3. *Neutraal*
    4. *Onsuccesvol / ontoereikend*
    5. *Zeer onsuccesvol / ontoereikend*
- Wat ging goed?
- Wat kon worden verbeterd?
- Wat te vermijden?
- Aanvullende opmerkingen?

[vragen voor NKS die hier iets in te brengen hebben (bijv financiers van onderzoek)]

18. (Hoe) wordt de maatschappelijke impact van wetenschappelijk onderzoek (gerelateerd aan de INSPIRATION scope) bepaald in Nederland?

[als NKS hier weet van heeft: vervolgvragen:]

- Hoe succesvol/toereikend was dit op een schaal van 1-5?
    1. *Zeer* succesvol/toereikend
    2. Succesvol/toereikend
    3. *Neutraal*
    4. *Onsuccesvol / ontoereikend*
    5. *Zeer onsuccesvol / ontoereikend*

- Welke indicatoren werden gebruikt?
- Wat ging goed?
- Wat kon worden verbeterd?
- Wat te vermijden?
- Aanvullende opmerkingen?

19. Welke documenten over het nationale grensvlak tussen wetenschap / beleid kent u of kunt u aanraden?

F. Financiering

20. Welke ervaringen en verwachtingen tav financieringsmogelijkheden (publiek / privaat) kent u die kansen kunnen bieden voor toekomstig onderzoek op het gebied van de INSPIRATION agenda:
    a) Lokaal / Regionaal?
    b) Nationaal?
    c) Europees? *[bijv. H2020, Interreg, Joint Programming Initiatives]*
    d) Intercontinentaal? *[bijv. Belmont Forum]*

    [link aan beleidsdoelen in Land & natuurlijk systeem, zoals Sustainable Development Goals voor bodem (wordt op UN level in September 2015 vastgesteld, bestaande EU richtlijnen zoals de Environmental Liability Directive, etc. Vraag naar publieke en private financieringsbronnen en naar relevante details en bronnen (documenten, websites)]

21. Op welke manier kunnen we de toegevoegde waarde van verschillende financiële bronnen verhogen (multplier) voor het doen van onderzoek wat bijdraagt aan de EU en nationale wensen, met name tav de onderzoek en innovatiebehoeften op het gebied van land en het BWS-systeem.
    [CONSTRUCTIES die kunnen werken: Publiek-private constructies en initiatieven Vraag zo open mogelijk naar suggesties, ideeën, ervaringen, goede voorbeelden]

22. Zijn er gebieden binnen de INSPIRATION scope waarvan u weet dat daar momenteel geen financiering voor is in de huidige situatie en waar nieuwe / andere financieringsconstructies gewenst zijn?

23. De integrale aanpak (benodigd voor de maatschappelijke opgaven waar land en het BWS sediment meespelen) zijn gewoonlijk lastig om te financieren en worden niet altijd herkend door onderzoeksgemeenschap. Wat is nodig om dit op te pakken?

e) Heeft u ervaring met hoe we het beste financiering voor onderzoek kunnen opzetten en beheren zodat maatschappelijke behoeften worden vervuld, kennis die voortkomt uit wordt gebruikt in de praktijk en de financiers ervaren dat hun geïnvesteerde (nationale) euro's inderdaad nuttig zijn gebruikt en vermenigvuldigd.

[als NKS hier weet van heeft: vervolgvragen:]

- Hoe succesvol/toereikend was dit op een schaal van 1-5?
    1. *Zeer* succesvol/toereikend
    2. Succesvol/toereikend
    3. *Neutraal*
    4. *Onsuccesvol / ontoereikend*
    5. *Zeer onsuccesvol / ontoereikend*
- Welke indicatoren warden gebruikt?
- Wat ging goed?
- Wat kon worden verbeterd?

- Wat te vermijden?

Aanvullende opmerkingen?

G. Overige (opmerkingen, suggesties, voorbeelden):

H. einde van het interview

Bedankt voor deelname:

- Wilt u op de hoogte gehouden worden over INSPIRATION
- Kent u iemand die we ook zouden moeten interviewen?
- Heeft u nog andere vragen n.a.v. dit interview?
- In welke informatie bent u geïnteresseerd en hoe benaderen we u daarvoor?
  [bespreek het feedbackmechanisme en hoe de uitingen in het interview zijn gedaan, als persoon, organisatie, netwerk. Checklist:]
  a. Uit te wisselen informatie / feedback zal worden gegeven op:
     - (compleet interview, niet aangeraden)
     - Samenvatting van belangrijkste punten interview
     - Nationale rapportage, nationale contributie aan D2.4
     - Complete D2.4, alle landen

  b. Geprefereerde wijze van feedback geven:
     - geen feedback
     - informele feedback
     - formele feedback (bijv. uit naam van organisation)

[Check: heb je de 'consent form' en hoe we naar de stakeholder refereren (als persoon/vertegenwoordiger van netwerk/organisatie) besproken?]

INSPIRATION acknowledges the received funding from the European Community's HORIZON2020 Framework Programme under grant agreement no 642372

Annex Ic: NKS hand-out: INSPIRATION interview at a glance

INSPIRATION interviews in het kort

Doel van INSPIRATION:

Hoofddoel van het EU-project INSPIRATION is om een vraaggestuurde, strategische onderzoeksagenda op te stellen om te onderzoeken hoe landgebruik(sveranderingen) en het bodem-sediment-water (BSW) systeem kunnen bijdragen aan de huidige en toekomstige maatschappelijke uitdagingen en behoeften.

Daarnaast onderzoekt het project manieren om de onderzoeksagenda te kunnen implementeren en een netwerk van publieke en private financiers te vormen, welke bereid zijn te investeren in de uitvoering van de onderzoeksagenda.

Nationale “Key Stakeholders” (NKS):

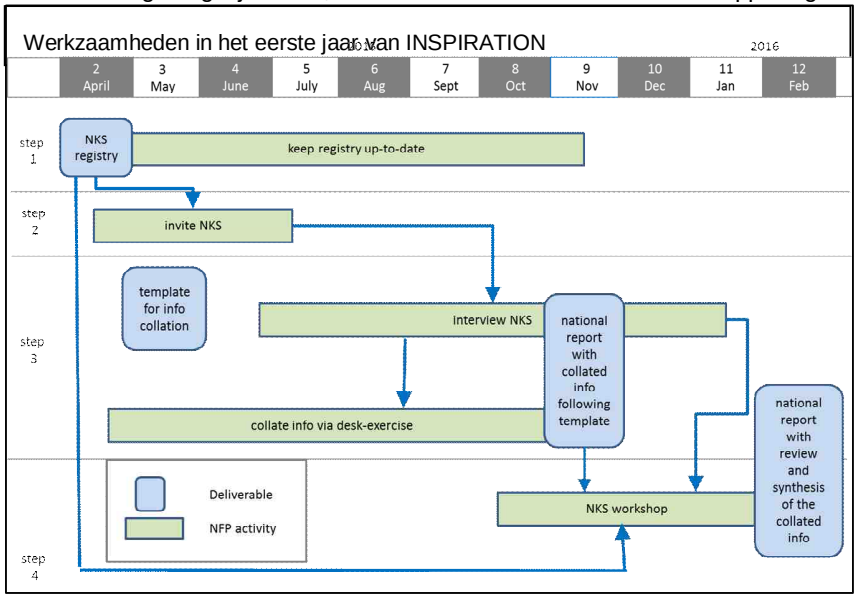
De Nationale “Focal Points” (NFP) zullen in elk deelnemend land een aantal interviews met de NKS uitvoeren met als onderwerpen:

- Onderzoek en innovatie-behoefte ten aanzien van landgebruik en het natuurlijk system in het licht van maatschappelijke opgaven
- Ervaringen ten aanzien van de connectie tussen wetenschap en beleid/praktijk
- Nationale en transnationale financieringsconstructies

In de interviews bevragen we NKS zoals u, die op strategisch niveau opereren: leidende personen binnen een expertiseveld met visie op en inzicht in de kennisbehoeften (op verschillende tijdschalen) en financierings- en samenwerkingskansen. De NKS zijn goed vertegenwoordigd in diverse (professionele) netwerken en hebben de potentie om als ambassadeur voor INSPIRATION op te treden. De NKS zijn geselecteerd zodat verschillende disciplines en rollen (zoals ruimtelijke ordenaars, managers, bodem-, sediment- en waterexperts, onderzoekers, financiers en beleidsmakers) goed vertegenwoordigd zijn in het Nederlandse NKS netwerk.

Dit interview:

Het verkrijgen van uw input is cruciaal voor het project, om zo de state-of the art in Nederland te beschrijven als input voor de Europese agenda. In het interview gaan we in op diverse onderwerpen en vragen. De NKS interviews (ca. 20 per land), tezamen met een bureaustudie naar onderzoeksbehoeften en financieringsmogelijkheden, vormen de basis voor nationale rapportages. Deze worden vervolgens getoetst in een nationale workshop waarin onderwerpen worden geprioriteerd om de Nederlandse inhoud en aandachtspunten neer te zetten. De resultaten worden gebruikt als input voor de Europese strategische onderzoeksagenda en als basis voor het leggen van verbanden tussen onderzoeksbehoeften en financieringsmogelijkheden tussen de Europese landen.



Voorbeeldvragen:

Strategische Onderzoeksagenda

- Welke maatschappelijke uitdagingen ziet u als leidend?
- Vanuit uw praktijk: welke onderwerpen (onderzoeksvragen) zouden in de onderzoeksagenda opgenomen moeten worden?

Ervaringen ten aanzien van de connectie tussen wetenschap en beleid/praktijk

- Hoe omschrijft u 'wetenschappelijke kennis'?
- In hoeverre wordt in Nederland gebruik gemaakt van de state-of-the art in wetenschappelijk onderzoek bij het formuleren van beleid?

(Trans)nationale financieringsconstructies

- Verstrekt uw organisatie externe onderzoeksfinanciering?
- Welke ervaringen en verwachtingen t.a.v. financieringsconstructies (publiek / privaat) heeft u, die kansen kunnen bieden voor toekomstig onderzoek op het gebied van landgebruik en het bodem-sediment-water system?

Wat levert deelname u op:

- Een kans om de Europese onderzoeksagenda te beïnvloeden op het gebied van management van land en het natuurlijk system in het licht van maatschappelijke uitdagingen en behoeften;
- U kunt gebruik maken van de resultaten van het project: een overzicht van onderzoeksbehoeften, bestaande en nieuwe veelbelovende financieringsconstructies (regionaal, nationaal, Europees, internationaal) en inzicht in de mogelijkheden voor een betere verbinding tussen wetenschap en beleid/praktijk;
- U kunt in contact komen met andere netwerken in binnen- en buitenland, u krijgt inzicht in welke andere landen uw opgaven delen en hoe u deze samen kunt oppakken.

Annex II: Documents used for the desk study

Documents underpinning societal challenges and related research questions:

Bedrijfstakonderzoek: Gezamenlijke kennisagenda (5 jarenplan) van de drinkwaterbedrijven http://www.kwrwater.nl/BTO/

CATO programma (CO2 opslag) http://www.co2-cato.nl/

Collegeakkoord provincie Noord-Brabant https://www.brabant.nl/

Dynamische Uitvoeringsagenda (DUA) Brabant van het PMWP, en het bijbehorende uitvoeringsprogramma Vitale Bodem (not published yet)

EDGAR gasprogramma (beta gamma over toekomst gas in NL. biogas tot gasrotonde en CCS) http://www.edgar-program.com/nl/nieuws/enabling-sustainability-with-gas

Energieprogramma wat in november wordt geissued door kabinet (not available yet)

Kennisagenda Bodem en Ondergrond (2011)

Kennisagenda geothermie Kennisprogramma ondergrond EZ not published yet (http://www.namplatform.nl/investeren-in-de-regio/educatie/ontwikkeling-kennisprogramma).

NICOLE: document voor NICOLE. (not published, on demand) http://www.nicole.org/

Ovv rapport rond bevingen http://www.onderzoeksraad.nl/uploads/phase-docs/843/33ef77ab629erapport-gaswinning-groningen-nl-interactief.pdf

PBL Toekomst van de landbouw ex ante evaluatie

Platform31 (2014) Maak Ruimte. Manifest ikv Jaar van de Ruimte (versie December 2014).

Prorail Innovatie en ontwikkelagenda 2015 (not public).

Prorail (2013) Meerjarenplan Duurzaamheid 2013-2015

Provinciaal Milieu- en Waterplan 2016-2021 (strategisch document) en bijbehorend uitvoeringsplan (in de maak) http://www.brabant.nl/dossiers/dossiers-op-thema/water/waterbeleid/provinciaal-milieu-en-waterplan-2016-2021.aspx

SMART URBAN REGIONS OF THE FUTURE http://surf.verdus.nl/voorpagina

Vitens innovatieagenda: in de onderwerpen staat waarin Vitens wil innoveren (not public)

Wit, Han de & Zoetbrood Pascal (undated) Formule Leven met Water ook bruikbaar in de toekomst? Evaluatie werkwijze Leven met Water

SPI

Bloemers, T., S. Daniels, G. Fairclough, B. Pedroli & R. Stiles (eds., 2010): Landscape in a changing world. Bridging Divides, Integrating Disciplines, Serving Society. Science Policy Briefing ESF-COST nr 41, Strasbourg / Brussels. 16 p http://www.esf.org/fileadmin/Public_documents/Publications/SPB41_Landscape_ChangingWorld.pdf

Duijn, M., G.J. Ellen, Hooimeijer, F.L. and Alphen, J. van (2014) Kennis voor Deltabeslissingen Grootse Plannen voor waterveiligheid. Water Governance, 03 (2014), pp. 17-26

Herber R. (2011) Kan ook de Diepe Ondergrond Ruimtelijke Geordend Worden? Inaugurele rede 1 maart 2011, Rijksuniversiteit Groningen

Isaacson, de uitvinders (ter inspiratie voor science-policy interface: boek over de ontwikkeling van de it-achtige wereld)

Kahneman Daniel 2013 Thinking fast and slow

van Os HWA, Herber R, Scholtens B. (2014) Not under Our Back Yards? A case study of social acceptance of the Northern Netherlands CCS initiative. Renewable and Sustainable Energy Reviews 2014; 30: 923-942

Rathenau: http://www.rathenau.nl/publicaties/publicatie/wetenschap-als-strijdtoneel.html

WRR: http://www.wrr.nl/publicaties/publicaties/

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