BELGIAN SCIENCE POLICY OFFICE

belspo

# BRAIN-BE

## BELGIAN RESEARCH ACTION THROUGH INTERDISCIPLINARY NETWORKS

**Call for proposals 2013**

**Axis 1 - Ecosystems, biodiversity, evolution**
**Axis 4 - Federal public strategies**
**Axis 6 - Management of collections**

***Information file for use by proposal submitters***

**Closing dates**

**Expression of interest (obligatory): 26th March 2013 midnight**

**Research proposals: 30th April 2013 at 12:00 a.m.**

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## 1. MULTI-YEAR FRAMEWORK PROGRAMME FOR RESEARCH - BRAIN-BE

On 5th October 2012, the Council of Ministers approved the launch of the first phase (2012-2017) of the recurrent framework programme for research, BRAIN-be (Belgian Research Action through Interdisciplinary Networks).

Through the funding of research projects based on scientific excellence and European and international anchorage, this framework programme allows the federal departments' scientific knowledge needs to be met as well as supporting the scientific potential of the Federal Scientific Institutions[1] (FSI - see annex 2).

The strategic objectives, which have been set, based on the federal visions and priorities (both political and scientific) underlying the BRAIN-be programme, are as follows:

- to promote a coherent scientific policy within the FSI, and to thereby support and reinforce scientific excellence;
- to facilitate access to the scientific potential, infrastructure and collections available within the FSIs;
- to align the research potential with societal needs;
- to supply the scientific knowledge necessary for the preparation, implementation and evaluation of federal policies/strategies, particularly those related to topics involving multiple departments;
- to provide the scientific support necessary for the development of a Belgian position within various international forums for policy development;
- to develop and reach a critical mass for research on topics deemed priority areas in order to reinforce the impact of the federal research;
- to stimulate cooperation within the Belgian scientific community;
- to align with the European and international research agendas and to encourage Belgian participation in transnational and international research activities;
- to provide scientists with a framework allowing them to take up their role in scientific watch and to anticipate issues related to the priority areas of the programme;
- to promote systemic, multi/interdisciplinary and integrative approaches;
- to create added value by strengthening the complementarity and synergies between the activities of BELSPO (including contributions to the international infrastructure and organisations);
- to meet the obligations in terms of research stemming from international agreements;
- to develop interfaces with potential users of research achievements.

The framework programme is structured around six thematic areas

1. Ecosystems, biodiversity, evolution
2. Geosystems, universe and climate
3. Cultural, historical and scientific heritage,
4. Federal public strategies
5. Major societal challenges
6. Management of collections

BRAIN-be is open to the whole Belgian scientific community: universities, university colleges, public scientific institutions and non-profit research centres.

Bearing in mind the priorities of the thematic areas, the framework programme enables participation in transnational programmes, such as the ERA-NETs and the Joint Programming Initiatives (JPI). The current programmes and actions concerned are:

- JPI Connecting Climate Knowledge for Europe (CliK'EU),

[1] The acronym FSI covers the institutions as defined in the Royal Decree of 30 October 1996 and the Centre for Historical Research and Documentation on War and Contemporary Society (Ceges-Soma)

- JPI More Years, Better Lives,
- JPI Healthy and Productive Seas and Oceans (Oceans),
- JPI Cultural Heritage and Global Change
- ERA-net BiodivERsA
- ERA-net SEAS-ERA.

The framework programme is based on the financing of two types of research project:

- four-year network projects with the possibility of two-year projects and,
- pioneer projects lasting a maximum of two years.

Each year, a call for proposals is launched for these two types of research project. This information file concerns the call related to network projects.

BRAIN-be is implemented under the responsibility of the Belgian Science Policy Office (BELSPO), assisted by an accompanying plenary committee made up of representatives of the federal departments and the FSIs. The plenary committee has appointed six thematic committees open to all of the federal departments and FSIs, whose primary role is to identify the priorities for research to be included in the calls for network projects.

For more information about the programme and the various thematic areas, please see www.belspo.be/BRAIN-be.

## CALENDAR OF THE CALLS FOR PROPOSALS

The calendar and the indicative budgets for the calls for proposals are as follows:

| Available budget in MEUR | end 2012 | begin 2013 | end 2013 | end 2014 | end 2015 | end 2016 | TOT |
|---|---|---|---|---|---|---|---|
| Axis 1: Ecosystems, biodiversity, evolution | | 6.93 | | 7.19 | | 7.36 | 21.48 |
| Axis 2: Geosystems, universe and climate | 6.93 | | 7.19 | | 7.36 | | 21.48 |
| Axis 3: Cultural, historical and scientific heritage, | 6.93 | | 7.19 | | 7.36 | | 21.48 |
| Axis 4: Federal public strategies | | 5.65 | | 5.86 | | 5.99 | 17.50 |
| Axis 5: Major societal challenges | 5.65 | | 5.86 | | 5.99 | | 17.50 |
| Axis 6: Management of collections | | 3.66 | | 3.80 | | 3.89 | 11.35 |
| Pioneer Projects | 0.94 | 0.94 | 0.98 | 0.98 | 1.00 | 1.00 | 5.84 |

Based on the calendar shown above, the current call concerns the thematic axis 1, 4 and 6.

The research priorities for the current call for these thematic axes are described in the next three chapters.

## 2. THEMATIC AXIS 1: ECOSYSTEMS, BIODIVERSITY, HISTORY OF LIFE

The frame of this thematic axis is described as follows in the note approved by the Council of Ministers:

> Thematic axis 1 is geared towards the description and comprehension of various biotic modules – soil, plants, bodies of water, atmosphere - their processes and interactions (bio/geo/chemical cycles).
> It is also geared towards the comprehension and prediction of the evolution of life, of the natural dynamics of ecosystems and of biodiversity as well as their reactions to the pressures of mankind and climate.
> Finally, the research would provide the necessary scientific support for the management and sustainable utilization of biodiversity and ecosystems and associated policies.
> This theme will allow the establishment of monitoring or surveillance if this should prove useful in the context of the research.

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The research priorities relate to knowledge requirements on topics that are relevant to Belgium, i.e., that aim to:

- support the development and implementation of federal policies and, in particular, those that fall under the scope of the national strategy on biodiversity and the 2009-2013 federal plan for the integration of biodiversity in four key federal sectors[2];
- support Belgium's position within the framework of its international and/or European commitments[3].

The 2013 call aims at mobilizing the scientific community's expertise on knowledge requirements, which have been grouped into three general themes, in coherence with the description of the key area:

1. understanding biodiversity and the evolution of ecosystems;
2. pressures on biodiversity and ecosystems, and impacts;
3. towards a sustainable use of biodiversity and ecosystems;

The first theme presents an opportunity for research aimed at a better understanding of the general processes that underpin adaptation within the dynamics and the evolution of biodiversity and ecosystems. They are of prime importance in the sustainable management and use of biodiversity, as developed in the following two themes, favouring relevant horizontal links, either with other problems associated with biodiversity (e.g.: climate change; resource efficiency; marine environment; transition towards a society that is more sustainable economically, socially and ecologically; ABS problems; GMO; invasive species, etc.) or with other scientific disciplines or sectors (health, society, agriculture, energy, food, well-being, etc.).

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[2] See http://www.health.belgium.be/eportal/Environment/Environnement/17966735_FR
http://www.health.belgium.be/eportal/Environment/BiodiversityandGMO/Biodiversity/Conceptandactions/Nationalactions/index.htm?fodnlang=fr

[3] They include: the Convention on Biological Diversity, (and its 2011-2020 strategic plan including the "Aïchi Objectives"), the Future Earth Initiative (Rio+20), the Nagoya Protocol relating to the access and sharing of the benefits resulting from the use of genetic resources, the Cartagena Protocol on Biosafety associated with the use of GMOs, the Madrid Protocol relating to the protection of the environment in Antarctica, the collaboration of developed countries and developing countries within the framework of REDD+ (the Reduction of Emissions due to Deforestation and Forest Degradation in Developing Countries, as well as the role of conservation, the sustainable management of forests and the reinforcement of forest carbon stocks in developing countries); the European Habitats Directive and Birds Directive, the European Marine Strategy Framework Directive, the European Biodiversity for 2020 strategy, the CITES Regulations relating to the trade in endangered plant and animal species, the 'Europe 2020' strategy and, in particular, its flagship initiative 'A resource-efficient Europe', the research framework programme 'Horizon 2020', the Bern Convention on the conservation of wildlife and the natural environment in Europe.

The Researchers will ensure that their proposals are clearly anchored in the knowledge requirements described in one (or more) of the three themes and they will take care in their analyses to provide clarifications and recommendations for the federal state's action.

Researchers are invited to produce innovative studies in their approach and must reach beyond the stage of mere observation and putting things into perspective.

Depending on the subject of research, the research proposals will also make the best use of the research infrastructures developed by the federal state, for instance, the collections of the federal scientific establishments, GBIF[4], ICOS[5], LIFEWATCH[6], BCCM[7], the Belgica research ship, and the Princess Elisabeth Base in Antarctica. They will also take into account the research financed in the past in the programmes "*Science for sustainable development*"[8] and "*Scientific support plans for a sustainable development policy*"[9].

Researchers will also take into account other Belspo initiatives in the area of:
- ERA-net BiodivERsA[10]: € 700,000 from this call's budget has been set aside for the researchers selected at the end of the BiodivERsA call procedure currently in progress, relating to invasive species;
- STEREO programme[11]: researchers who wish to use satellite images will benefit from a budget for their acquisition through the STEREO programme.

## 2.1. UNDERSTANDING BIODIVERSITY AND THE EVOLUTION OF ECOSYSTEMS

This topic mainly involves fundamental research, aiming at developing the conceptual, methodological and factual basis for understanding the underlying general processes that drive the more applied and human-orientated issues.
Priority research under this topic focuses on the role of **adaptation** in the dynamics of biodiversity and is essential to understand the impact of different pressures on biodiversity such as listed under topic 2.
Research projects can be characterized by three major key words: patterns, processes and tools.

- Patterns

To describe, inventory and document biodiversity in all its aspects at the (phylo)genetic, specific (taxonomic) and/or ecosystem level, and this at various spatiotemporal scales, i.e. from the deep geologic past up to today, and where possible even in a predictive perspective. This step will help to better understand the phenotypic variation resulting from adaptive processes.

- Processes

To study, disentangle, and understand the processes leading to adaptation, at micro- and/or macro-spatiotemporal scales, which contribute to current and past biodiversity. The objective is to obtain a better insight in how adaption drives phenomena such as speciation, radiations, co-evolution, etc.

- Tools

To explore and develop innovative research tools that are needed to describe and analyse patterns and processes associated with adaptation. As such, these new technologies can provide exciting

4 http://www.gbif.org/
5 http://www.icos-infrastructure.eu/
6 http://lifewatch.unisalento.it/web/guest/home
7 http://bccm.belspo.be/index.php
8 http://www.belspo.be/belspo/SSD/science/program_fr.stm
9 http://www.belspo.be/belspo/fedra/prog.asp?l=fr&COD=EV
10 http://www.biodiversa.org/
11 http://eo.belspo.be/About/Programmes/Stereo2.aspx

opportunities that may allow to (1) tackle questions that with current standard methods are difficult to approach, (2) improve the collection of large scale data sets in an unprecedented way, and (3) access data types that currently may not be readily available to biodiversity researchers.

Research projects should integrate at least 2 of the 3 aforementioned components.

## 2.2 PRESSURES ON BIODIVERSITY AND ECOSYSTEMS, AND IMPACTS

Climate change, pollution, the loss, destruction and fragmentation of habitats, specific farming practices, overexploitation and invasive species[12] are all threats known for their damaging impact on biodiversity and ecosystems**.**

However, many unknown factors remain regarding (1) the direct consequences of these pressures on biodiversity and ecosystems, in particular, **on the "points of no return" and the ability of ecosystems to adapt**, (2) the indirect **consequences** of these pressures on ecosystems and human populations, whether they be environmental, economic, social, health-related or cultural, (3) and the **assessment of associated policies**.

The present call will focus on the following themes:

- analysis of the direct impact of the pressures listed above on the possible rupture of the biogeochemical, structural and functional links and the resilience of the following priority ecosystems:
    - (Agro)forestry and aquatic ecosystems in the Congo basin;
    - Marine environment, within the context of the biotic descriptors of the "Good Environmental Status", as defined by European Directive 2008/56/CE.;
    - Antarctica and arctic regions;

- the study of one of the indirect consequences of the degradation of an ecosystem, i.e. the impacts on human, animal and plant health, as well as the ensuing socioeconomic impacts[13]. In this respect, studying the links between "healthy ecosystems" and "good human, animal and plant health", especially through:
    - the identification of relevant indicators in terms of health within the framework of assessing ecosystem goods and services;
    - the analysis of the ecology/epidemiology of emerging diseases;
    - the analysis of links between biodiversity, the agro-food sector (including the safety of the global and local food supply) and public health;
    - the analysis of links between biodiversity, health and the production of non-food goods (in particular, medication, cosmetics, biocides, etc.) resulting from biodiversity.

- identification and analysis of the potential negative and positive impacts of REDD+ [14] activities on biodiversity and ecosystem services, as well as their costs and alternative proposals.

## 2.3 TOWARDS A SUSTAINABLE USE OF BIODIVERSITY AND ECOSYSTEMS

The sustainable use of biodiversity and ecosystems means exploiting these biological resources, for the benefit of current generations and in a geographically fair way, while ensuring their preservation, conservation, regeneration and long-term survival, in order to guarantee their use by future generations. The concept of *sustainable use* implies taking into account the economic,

[12] The problem of invasive species is dealt with in the framework of the biodivERsA open call.

[13] The knowledge requirements described in this point are taken from a list of research needs in biodiversity-health, established by the "Communauté de Pratique Biodiversité-Santé". See: http://www.biodiversity.be/1996.

[14] http://unfccc.int/methods_science/redd/items/4531.php

environmental, social and cultural conditions linked to the exploitation of these biological resources in a balanced manner.
In order to be able to apply the concept of the sustainable use of biodiversity and ecosystems, it is necessary to have prior scientific knowledge on the following particular themes:

- Developing integrated tools, approaches, methodologies and concepts aimed at estimating the value of biodiversity and ecosystems from an environmental, socioeconomic and cultural point of view, from the perspective of the sustainable use of biological resources. Building and testing economic models in a Belgian context allowing the internalisation of all the costs linked to the use of biodiveristy and ecosystems and/or their conservation and preservation;

- Studying dependencies to and impacts on biodiversity and ecosytem services as well as associated socioeconomic impacts of potentially 'non-sustainable' activities or uses that fall under the remit of the federal state or exercised in the North Sea, in the sectors of health, food, well-being and industrial activities such as energy production or other manufactured products. Envisaging these dependencies and impacts in Belgium and third countries that export goods and services to Belgium and the European Union;

- Identifying the DPSIR indicators of a sustainable use of biodiversity, ecosystems and ecosystem services within the Belgian context;

- Meta-analyses, research and development (1) of experimental tools that help to improve the assessment of potential risks to the environment and, in particular, to the microflora and microfauna of the soil or non-target species and, (2) socioeconomic impacts linked to the introduction into the environment of genetically modifed plants in Belgium.

## 3. THEMATIC AXIS 4: FEDERAL PUBLIC STRATEGIES

The frame of this thematic axis is described as follows in the note approved by the Council of Ministers:

> The federal government deploys it competencies by means of public policies that organise and/or regulate the life of its citizens and its own functioning. We have in mind public policies applied by the federal public services such as Foreign Affairs, the Interior, the Economy, Public Health & Environment, Social Security, Defence, Employment, and Justice... like in any modern state, the organization and monitoring of these policies relies on scientific results among other input. This thematic area aims to finance the activities and support of the competencies of the Federal Authorities, from a perspective that is historical, contemporary and prospective.
> Priority will be given to issues that touch upon multiple areas of federal competency and which offer a coherent and complementary framework for the research conducted by the departments in order to minimize the fragmentation of the research.
> The topics of research will be based on the strategic orientations of Belgian policy.

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**A horizontal problem: the phenomena of societal transition**

The observation has already been made on numerous occasions: for the past few decades, our society has been facing a period of accelerated transition. There are few areas unaffected by change, indicating a paradigmatic shift. It is this change of paradigm that marks the distinction between an evolution within a model and a transition between two models.

International literature reveals a series of transitions that could well be at the source of a significant amount of pressure on authorities. Among other things, it refers to economic and demographic changes, the destabilisation of the family, the evolution of the employment market, certain cultural and technological changes, the globalisation movement, the issue of sustainable development and the evolution of modes of governance.

The question of managing these transitions by the authorities – **i.e., the federal state** – lies at the heart of this call for proposals.

Within the framework of its activities, the federal state is led to accompany, anticipate, guide, curb, support, etc., societal transitions (exogenous transitions). It must therefore be properly armed to be able to aprehend them in the best way possible, otherwise risking seeing its actions suffer from a discrepancy in relation to the paradigmatic evolutions, and subsequently offering unsuitable and ineffective solutions. New notions, such as resilience, applied to both society and the state apparatus, are appearing within the framework of a transition towards a model of sustainable development.

Furthermore, the state is led to manage transitions within its own structures (endogenous transitions). Expectations with regard to the state, as an authority, employer and economic player, etc., insofar as the latter are affected by phenomena of transition, may force it to manage its own change. Confrontation with a changing environment also raises the question of the internal transformations it is capable of implementing in order to deal with the situation.

There is also the possibility of public policy transformations and new methods of public action related to the movement of paradigmatic change.

## The challenge of societal transitions for federal public policies

These elements indicate to what extent the current situation, comprised of the combination of multiple transitions, represents a major challenge for public action. Since the number of areas subject to transition are increasing, whether they be endogenous or exogenous, it is easy to understand the need to acquire the relevant knowledge tools.

The different stages of public action - conception /preparation, implementation, evaluation – require significant scientific support.

On the one hand, for the conception of public policies, taking into consideration transitional phenomena, identifying the instruments aimed at meeting them, and even the definition of public policies aimed at initiating transitions that have become necessary or desirable, must be the subject of study. We must therefore raise the question of the position of public policies in relation to transitional changes.

On the other hand, as regards the implementation of public policies, there is the crucial problem of obstructions to the transitions and the obstacles encountered by the public policies to overcome them. Whether it is a question of the state accompanying the changes, enduring them or even willingly restricting them, the problem of obstacles must be taken into account, on an organisational, structural, psychological, social and economic level. The study of these obstacles is an essential stage in the clarification of the relationship between public policies and transitions.

, the difficulty of setting up integrated and trans-sectoral policies is a striking example. The political responses to the various phenomena of transition won't be able to remain restricted to a single area of competence in the future. Although concertation mechanisms exist within the federal government (or with the other levels of power), the necessary creation of links, coherence and integration between the sectoral policies is a major challenge facing the authority. And yet, there are many obstacles hindering these concerted evolutions. Therefore, its essential to examine them and find out how to remove them. Which would be the best systemic approach or methodology to implement in order to guarantee the operational coherence of certain policies? Which facilitating elements can be envisaged to remove the obstacles?

Finally, the assessment of public policies seems particularly crucial today more than ever before. Within this framework, setting up qualitative or quantitative indicators to assess effectiveness, efficiency and suitability for the needs of the public policies seems to be an essential element. It is a question of having tools and assessment methods, as well as carrying out assessments within the framework of setting up reflexive policies.

## Scientific support for transitional federal public policies or ones in transition

Expected research within the framework of this call

- will meet the transversal concerns described above, i.e. the challenge of societal transitions for federal public policies, in terms of the conception/preparation of these policies, their implementation and the associated obstacles and/or their assessment,

- by applying them to particular themes divided into three separate approaches:

  - ✓ federal public policies in response to societal transitions, approach applied to
    - socio-demographic evolution, socio-professional trajectories and welfare
    - evolution of the transport system and mobility

  - ✓ the endogenous transition of the federal state apparatus, approach applied to

- the transition of the civil service employment market: age, qualifications and skills
- digital transition

✓ the federal public policies in transition, approach applied
- to transitions in security policies

If necessary, the research objectives will be based on several points of reference, which are:

- at federal level, the governmental agreement of 1st December 2011 and the government's long-term strategic vision of sustainable development,
- at European level, the European growth strategy - EU2020 – as well as the future research and innovation programme, "Horizon 2020", especially with regard to its "Societal Challenges" component.

## 3.1 FEDERAL PUBLIC POLICIES IN RESPONSE TO SOCIETAL TRANSITIONS

Societal transitions have a profound effect on the impact and especially the suitability of federal public policies in several domains.

- **Socio-demographic evolution, socio-professional trajectories and welfare**

  Several societal, demographic and economic transitions (ageing population, increase in the number of divorces and a reduction in marriages, increase in the number of women in the employment market, career changes, migration, etc.) have major repercussions on the efficiency of our welfare system. Consequently, we must assess the impact of these factors and elaborate a strategy with a view to improving the efficiency of the welfare system, especially as regards reducing poverty (objectives of the Europe 2020 strategy). The efficiency of our pensions system, in particular, is strongly influenced by these societal demographic transitions that influence the structure of life courses and contibute to their diversification; it is therefore a matter of urgency to elaborate a strategy aimed at maintaining or improving the social efficiency of pensions.

- **Evolution of the transport system and mobility.**

  Faced with an increased demand in mobility, our transport system is struggling to meet the multiple and increasingly heterogenous needs, a consequence of the social, economic and demographic evolutions our society is experiencing. Intra- and extra-urban infrastructures are becoming more and more saturated, and the public policies implemented to remedy this situation aren't providing the expected improvements, especially as regards road congestion. This problem has major horizontal implications, especially in terms of direct economic cost, the loss of competitiveness among businesses, a decrease in the commercial speed of public transport, air pollution, the attractiveness of towns and public health. The areas particularly in question are fiscal measures, aimed at reducing car use and the modal transfer towards more sustainable methods, the organisation of working hours and activities responsible for the saturation of the transport infrastructures, town and country planning, policies to support technologies, etc.

  Furthermore, faced with these challenges and other imperatives such as fighting climate change as well as access to and the efficient use of natural and energy resources, alternative travel methods and technologies are being implemented, such as electromobility, which seems to be a particularly good solution. But public policies in this domain are particularly complex to elaborate and implement, owing to their impact on our entire economic and social system and the numerous existing obstacles, especially technological, societal and legislative.

  Research will provide scientific support for the analysis and evaluation of the public policies allowing solutions to these challenges to be found, by endeavouring to place them in an

interdepartmental perspective, aimed at achieving a balance through the integration of the stakes and constraints, especially socioeconomic, fiscal, organisational and environmental.

## 3.2 ENDOGENOUS TRANSITION OF THE FEDERAL STATE APPARATUS

The federal state apparatus is confronted with major endogenous transitions whose effects combine and impose a real transformation in its method of organisation and production of services.

- **Transition of the civil service employment market: age, qualifications and skills**

  For the first time in our history, the number of people retiring is greater than the number of people entering the employment market (rate of replacement of the working population is less than 100%). From a demographic point of view, we are witnessing a contraction and division of the working population. This is linked to both the ageing population and the reduction in the presence of younger members of the population (who have a higher level of education overall). These phenomena have a more direct impact on the civil service. In Belgium, 41.8% of federal civil servants are over 50 years old and the distribution of qualifications is clearly asymetric (40% of university graduates are under 40 years old).

  These changes must generate reflection upon age management at the level of the federal state because they will significantly modify the way careers move forward, professional trajectories, and the management of knowledge and skills. These profound changes also mean that work conditions in the Belgian federal civil service must be examined, particularly owing to new needs in terms of flexibility and new ways of dealing with time in professional life.

- **Digital transition**

  The digital revolution raises the question of the state's digital efficiency and the adaptation of its structure and its organisation with a view to controlling the flow of information between its various components, but also between the latter and its citizens. The implications are considerable and lead to the definition of a global strategy taking into account, above all, a necessary revision of the legal and normative framework (norms, standards and legislation), reinforced interoperability between the different information systems and documentary systems (choices of hardware and software, structures and common exchange formats), the definition of digital information management policies in the mid to long term in order to ensure budget and energy savings, the guarantee of the security of the information produced and the training of civil servants in the use of new IT tools.

## 3.3 FEDERAL PUBLIC POLICIES IN TRANSITION

While the state is confronted with external and internal paradigmatic changes, it can also be the source of transitions, through radically new public policies. Hence, the past few decades have witnessed the emergence of attempts at participative democracy and management by the state, setting up actions relying on incentive rather than regulations, and even the complete overhaul of the prerogatives of public policies, for instance, in legal matters. These examples underline the fact that public policies can also go through a transitional period, whether or not they are linked to endogenous and/or exogenous transitions.

- **Transitions in security policies**

  Every society has to face a multitude of risks, whether they relate to the vagaries of life (illness, death, handicap, loss of means of subsistence, etc.), social interactions (delinquence, damage linked to economic and professional activities, etc.), infrastructure failures (rupture in the supply of energy and other things) or natural phenomena (epidemics, natural risks, climate change, etc.).

In this respect, we can distinguish the objective risks, their social representations (the way in which they are perceived or not) and the actions that are conducted to deal with the risk such as it is.

Transitions towards new public security policies will be dealt with from three angles:

- New insecurities. Are the current transitions in terms of security policies linked to the same transitions in insecurities which the state is trying to face? Or, on the contrary, are new public security policies aiming to solve known problems?
- New representations of insecurities. To what extent do the insecurities, which are the subject of security policies, rely on new insecurities or new representations of old insecurities? Which insecurities escape the eyes of the authorities?
- New means and new obstacles to public action in terms of security. Do obstacles prevent the realisation of transitions considered to be necessary? Are they new kinds of obstacles? Can a paradigmatic rupture be identified in the concepts, approaches or technical tools on which the public policies rely?

## 4. THEMATIC AXIS 6: MANAGEMENT OF COLLECTIONS

The frame of this thematic axis is described as follows in the note approved by the Council of Ministers:

> The Belgian State manages numerous collections, defined in the broadest sense as coherent gatherings of tangible or intangible elements. This concerns material or immaterial artistic and cultural, scientific and documentary data based on observation and monitoring and administrative records and other sources of information of the ESF and the public Federal authorities.
> Managing these collections is understood as entailing their acquisition, conservation, restoration, maintenance and valorisation.
> This thematic area deals with the financing of scientific research aimed at improving this management with the aim of supporting its exploitation, particularly in a scientific way.
> These activities cover the development and/or the test of best practices of techniques and methodologies of sampling, digitization, documentation or filing, identification and conservation and access to the information.
> They take place upstream of the thematic research in and of itself, their scientific exploitation forms part of other thematic areas.

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The objective of this call is to federate the expertise of the scientific community – in scientific institutes, universities and research centres – around knowledge needs that are important for the management of collections. On this basis, research projects will have to demonstrate their ability to get the different methodological approaches commonly applied in the disciplines concerned to collaborate and converge, in order to reach the broadest and most diversified understanding possible of the problems.

The international anchoring of research is one of the programme's objectives. There exist closely related initiatives on the international level and in other countries. A possible convergence with these initiatives should be taken into account. In particular, in the area of cultural heritage, Belgium is engaged on a European level in the Joint Programming Initiative 'Cultural heritage and global change'[15].

Furthermore, the departments and institutions at the federal level contribute, manage and/or finance different infrastructures, databases and other sources of information, international organisations and programmes which are linked to the research activities in axis 6 and which could benefit from a better management, documentation or coupling in order to achieve optimum exploitation, especially by making information available to different types of users[16].

On this basis, (new) techniques and methodologies developed in the research of this axis, could exceed a merely theoretical approach and be tested in case studies, which in that case will be limited to representative parts of the collections.

The envisaged research potentially relates to all the collections held and/or managed by the federal state – both in federal departments (BELSPO included) and scientific institutes – and/or where federal expertise exists in the field. The aim is to 'decompartmentalise' the collections and allow a wider use

[15] http://www.jpi-culturalheritage.eu/ The sum of €400,000 from this call's budget could be reserved for the researchers selected at the end of the JPI call procedure in progress.

[16] With regard to Social security, the Crossraods Bank for Social Security manages the 'Datawarehouse Labour Market and Social Protection' (DWH MT&PS), and the 'DG Statistics and Economic Information' of the FPS Economy collects information on the basis of different surveys. In the sector of Justice or police, various databases and/or datawarehouses have also been developed or are being developed, which could be linked in the future.

of the heritage potentially concerned by an intersectional and interdisciplinary approach while allowing the identification of specific approaches to certain collections.

For the call for proposals, the research priorities are:
- collections of physical objects: preventive conservation and methods of sustainable conservation and storage;
- quality management of the information collections: from their constitution to their interoperability;
- access to collections and information.

## 4.1 COLLECTION OF PHYSICAL OBJECTS: PREVENTIVE CONSERVATION AND METHODS OF SUSTAINABLE CONSERVATION AND STORAGE

The fact that more consideration is given to environmental conditions, energy costs, waste management, regulations in terms of the security of collections, staff and visitors, means that procedures and practices for handling and adding to collections, sampling, conservation and training have to be reviewed. This requires the support of the appropriate scientific research with a view to developing integrated conservation.

The research projects will relate to:
- the determination and analysis of the effects of endogenous and exogenous factors on the objects and collections (at the level of their characteristics, transformation and deterioration);
- the definition of critical levels of environmental factors with a view to optimise conservation of the objects / collections and the protection of staff and visitors;
- the development of methods for sustainable conservation by taking into account the optimisation of the available means.

## 4.2. QUALITY MANAGEMENT OF INFORMATION COLLECTIONS: FROM THEIR CONSTITUTION TO THEIR INTEROPERABILITY

The public authorities have accumulated and are accumulating a large and highly heterogeneous amount of information and data. The purpose of the research is to develop high-performance tools and methods to ensure their relevance and accessibility.

These tools and methods relate in particular to the following points:
- the creation and updating of metadata;
- quality control, validation and homogenisation of information, including its calibration or its verification, to obtain - among others - its traceability and degree of uncertainty;
- interoperability (on a technical level and with regard to the content) of the databases.

## 4.3. ACCESS TO COLLECTIONS AND INFORMATION

The public authorities should develop tools allowing optimal and adapted access to all the collections and information they possess.

The research will relate to the following two problems:
- the development of legal mechanisms allowing information and collections to be reproduced and made available in accordance with intellectual property and personal data protection rights;
- the development of tools and methods that favour access to public data and collections and derived products by different categories of users (general public, researchers etc.).

# 5. PROFILE OF THE PROPOSALS

The current call concerns **research projects of 2 or 4 years**.

The projects selected within the context of the current call will begin in 2014.

## 5.1 NETWORKS AND COORDINATION

### 5.1.1 NETWORKS

Each proposal is submitted by an **interdisciplinary network**, belonging to at least two separate Belgian scientific institutions.

The network partners must conduct complementary activities related to a common issue and the integration of achieved results.

All funded teams will jointly share all obligations and responsibilities during the implementation of the project. The contributions of the different network partners may differ according to the content. Accordingly, different partners may receive different shares of the total budget and devote different numbers of man-months to the research, provided they all bear in mind the principles of a network project. In order to ensure a balanced participation between the various partners, the budget of each Belgian partner must be between 15% and 60% of the total budget of the project.

The call is intended for Belgian university institutions, university colleges, public scientific institutions, non-profit research centres.

The project may require specific expertise, which can be delivered in the form of **subcontracting**. Such subcontracting may under no circumstances amount to more than 25% of the total budget of the partner funding it.

The participation of **Federal Scientific Institutions** and the cooperation between partners from **different Communities** is encouraged. To ensure coherence in scientific quality between the proposals submitted, preference will be given to consortiums participating with Federal Scientific Institutions or with partners from different communities.

If it would offer added value to the project and to the development of Belgian expertise, submitters may propose a cooperation with **non-Belgian universities or public research institutes** (except for international institutions such as the Joint Research Centre). This participation will take place on a **co-funding** basis. The funding of non-Belgian partners by BELSPO will not, under any circumstances, amount to more than 20% of the total budget requested by the network. The non-Belgian partner is responsible for the co-funding, from other sources, for at least the same amount as that requested from BELSPO.

The programme wants to promote equality between men and women in research, therefore, the projects should take this into account in the choice of the researchers and, where relevant, by integrating the gender aspect into their research.

### 5.1.2 COORDINATION

A **coordinator** (belonging to a Belgian research institute) must be designated in each proposal. In addition to his/her scientific and management qualifications, the project coordinator must be able to synthesise and integrate the research results in order to promote applications and support for decision-making. The specific role of the coordinator is:

- to coordinate all activities to be carried out in the framework of the project;
- to coordinate the internal meetings between the network members;
- to coordinate the meetings with the Follow-up Committee and write the reports of these meetings;
- to coordinate the production of the interim and final project reports intended for BELSPO;
- to inform BELSPO of any problems that might interfere with the correct implementation of the project;
- to coordinate the synthesis and translation of the research results, with a view to applications and support for decision-making;
- to coordinate the publication and dissemination of the research results;
- meetings related to the project's progress between the network and BELSPO.

## 5.2 BUDGET OF THE CALL AND THE PROJECTS

The total available budget for this call is as follows:
**- EUR 6.93 M for Axis 1, "Ecosystems, biodiversity, evolution"**
**- EUR 5.65 M for Axis 4, "Federal public strategies"**
**- EUR 3.66 M for Axis 6, "Management of collections".**

The present call offers room for four and two-year research projects. There is no budgetary limit per project. Within a project, the budget of each Belgian partner is between 15% and 60% of the total budget of the project in order to guarantee a balanced participation among the various partners.

The project budget is reserved exclusively for the project activities.

The different categories of expenditure financed by BELSPO are:

**Staff**: Pre-tax wages associated with increases in the cost of living, employers' social security and statutory insurance contributions, as well as any other compensation or allowance due by law and secondary to the salary itself and tax-free scholarships. Tax-free scholarships refer to a grant subject to a tax exemption under the tax laws. BELSPO prefers staff to be hired under a labour contract.

**At least 60% of the total proposal's budget has to be devoted to staff.**

**General operating costs**: this includes all current expenditures related to the project's implementation such as usual supplies and products for the laboratory, workshop and office, documentation, travel and accommodation, use of IT facilities, software, etc. The total amount of these operational costs is set at a flat rate of 15% maximum of the staff budget for the coordinator and 10% maximum of the staff budget for the other partners.

**Specific operating costs** (invoices will be required): this includes all specific operating costs directly linked to the execution of the project such as costs for analysis, organisation of workshops, maintenance and repair of specific equipment purchased by the project, surveys, etc.

**Equipment** (***only for the Belgian partners***): Purchase and installation of scientific and technical apparatus and instruments, including computer hardware. Equipment needs to be purchased in the first half of the project.

**Overheads** (***only for the Belgian partners***): Institutions' general overheads that cover, in one lump sum, administration, telephone, postal, maintenance, heating, lighting, electricity, rent, machine depreciation, and insurance costs. The total amount of this item may not exceed 5% of the total staff and operating costs.

**Subcontracting** (***only for the Belgian partners***): Expenses incurred by a third party to carry out tasks or provide services that require special scientific or technical competences outside the institution's normal area of activity. The amount may not exceed 25% of the total budget allocated to the Belgian partner concerned.

The total requested budget for **international partners** may **not exceed 20% of the total proposal's budget** and only covers staff and operating costs.

In addition to the financing of the project, BELSPO will cover the actual expenses for taking part in field work campaigns in Antarctica. Expenses which are reimbursed by the State within the context of these campaigns cover: (i) travel and living expenses and (ii) transportation and insurance of scientific equipment. All other costs should be included in the overall project budget.

## 5.3 FOLLOW-UP COMMITTEE, VALORISATION AND DATA

### 5.3.1 FOLLOW-UP COMMITTEE

Each selected project is accompanied by a Follow-up Committee. The objective of this committee is to provide **active follow-up** of the project and to **valorisation of the research**. It will carry out this role through the exchange and provision of data and information, giving advice, suggesting possibilities to valorise the research, etc. The Follow-up Committee is composed of **potential users of the results**, such as representatives of public authorities at national, regional, European, or international level, social actors, scientists, industrial actors, etc. The members of the Follow-up Committee are non-funded partners.

It is up to the candidates to specify in their proposal the functioning and specific goals of the committee (number of meetings, method of information exchange, etc.), and the role and profiles of its members. The actual composition of the steering committee will be defined in collaboration with the Belgian Science Policy Office.

### 5.3.2 VALORISATION

Each research proposal must include **concrete proposals for valorising** the research and the research results, and the required budgets must be foreseen. This might involve, for example, the organisation of thematic debates and meetings, proposals for disseminating and popularising the results, proposals to integrate data into computerised databases on national and international levels, the elaboration of targeted messages intended for experts, policy-makers or managers regarding the content of specific results, including its limitations, the related uncertainties, the hypotheses and methods used, etc. The target groups of these valorisation proposals must be explicitly described.

### 5.3.3 USE AND MANAGEMENT OF DATA

Concerning the use of existing data or the collection of new data, proposal submitters should take the following guidelines into account:

- Whenever possible, the partners should make use of existing (administrative or non-administrative) databases to meet the needs of their research. For this, they must check beforehand whether the data are accessible, at what cost, and how much time it will take to acquire the data. If, after the start of the research, it appears that due to partner negligence or

insufficient knowledge of the field, the data files will not be available in time, this may constitute a reason for BELSPO to cancel the contract.

- If the proposal requires collecting new data (e.g. via a survey), the team must justify with **clear and convincing arguments** its choice of methodology, referring to the objectives of the study and specifying why this particular form of data collection is required and preferable to other approaches. This means the proposers must provide sound and detailed argumentation in support of the chosen methodology (sampling, etc.) and highlight its added value in comparison to existing databases. In addition, the partners must provide the budget required for this data collection.
- As the data collected within the framework of the proposed research must be available to other users for other purposes, the proposal must clearly indicate when and in what format the data are made accessible, specifying which categories of users are likely to benefit from access to the data.
- If the project needs earth observation data, BELSPO's the space research and applications service can provide them on the basis of a justified request (see http://eo.belspo.be)

# 6. PROCEDURES

This paragraph describes the procedures for submitting a proposal, the project selection procedures, and the principal contractual obligations applying to selected projects.

## 6.1 INFORMATION MEETING

The following information and networking sessions will be organized at BELSPO, Avenue Louise 231, 1050 Brussels:
- **Thursday, 28th February morning**: administrative / procedural aspects and axis 6
- **Thursday, 28th February afternoon**: administrative / procedural aspects and axis 1
- **Friday, 1st March 2013 morning**: administrative / procedural aspects and axis 4

To participate, please register beforehand on the website: www.belspo.be/BRAIN-be.

## 6.2 HOW TO ANSWER THIS CALL FOR PROPOSALS?

The submission takes place in two steps, first by filing an expression of interest and then by filing a research proposal.

### 6.2.1 EXPRESSIONS OF INTEREST

Interested parties must submit an expression of interest, using the form intended for this purpose. These expressions of interest will be used by BELSPO **only** in order to seek **foreign experts for the evaluation of the research proposals**.

Expressions of interest are submitted in **English**.

Interested parties are asked to **only** use the form available on the BELSPO website:

| |
|---|
| **http://www.belspo.be/** |

The expression of interest must be sent **in electronic form** to the following address:

| |
|---|
| **BRAIN_call2013@belspo.be** |

To facilitate the treatment of the the expressions of interest it is asked to include in the "subject" of the email **"Axis [X] _ [Acronym proposal]"** and to rename the file of the expression of interest in the format: **"[acronym proposal] _ [name of coordinator] _ [institution coordinator]. docx"**.

The expression of interest must reach BELSPO no later than:

| |
|---|
| **26th March 2013 midnight** |

**A receipt will be sent by e-mail.**

**BELSPO will disregard expressions of interest submitted after the closing date.**

## 6.2.2 PROPOSAL SUBMISSION

### GENERAL GUIDELINES

Only proposals for which an expression of interest have been submitted on time will be taken into account.

The submitter is asked to **only** use the forms that are downloadable from the BELSPO's website (http://www.belspo.be/). Only the research proposals that fulfil all the eligibility criteria will be considered (see annex 1).

**No annexes** to the submission file will be taken into consideration during the evaluation and selection procedure.

The proposal must be sent in English and only electronically (Word and signed copy in pdf format) to the following address:

| **BRAIN_call2013 @belspo.be** |
|---|

The original signed documents must be kept and can be requested during the procedure.

To facilitate the treatment of the research proposals it is asked to include in the "subject" of the email **"Axis [X] _ [Acronym proposal]"** and to rename the file of proposal in the format: **"[acronym proposal] _ [name of coordinator] _ [institution coordinator]. docx"**.

The proposal must reach BELSPO no later than:

| **30th April 2013 at 12:00.** |
|---|

**BELSPO will disregard proposals submitted after the above-mentioned closing date and time.**

**A receipt will be sent by email at the latest by 6th May 2013.**

### FORMS

Each proposal form includes four separate sections.

Section 1 - Administrative data
Section 2 - Technical, scientific, organisational and financial description of the proposal
Section 3 - Qualification and experience of the participants
Section 4 - Experts

| The forms can be obtained from the BELSPO website at the following address:<br><br>**http://www.belspo.be** |
|---|

## 6.3 EVALUATION AND SELECTION

### 6.3.1 SELECTION PROCEDURE

The selection process of the research proposals is done in two steps: a scientific evaluation, followed by a strategic choice. The scientific evaluation is conducted by foreign experts who are specialized in the fields of the call for research proposals. The selection decision is made by the Minister of Science Policy among the highest ranked proposals on the basis of the strategic advice of the programme's plenary committee.

### 6.3.2 BASES FOR THE EVALUATION

The eligible proposals (see point 6.1.2) will be evaluated externally by foreign scientific experts qualified in the research field involved.

The text of the call for proposals serves as the basis for evaluating and selecting the proposals.

### 6.3.3 EVALUATION CRITERIA

The general evaluation criteria to be taken into consideration by the experts are the following:

***Compliance with the aims of the programme and content of the present call***

***Scientific quality***

- clarity of the objectives and tasks; relevance of the methodology; coherence of the objectives, the tasks and the methodologies; alignment of the proposal with the state of the art in the proposed field;
- scientific originality of the proposed research, taking into account the innovative character of the potential results, value of the research in light of other research underway in the field in question.

***Potential impact of the project on science, society in general and on decision-making in particular***

- positioning/relevance of the research with regard to the orientations of the call;
- potential use or integration of the project results by the scientific community, society and decision-makers;
- relevance of the proposals for distributing the results and making them available;
- profile of the members, role and functioning of the follow-up committee;
- integration of relevant societal themes such as sustainability, the gender aspect, etc.

***Quality of the network***

- level of scientific excellence or expertise of the candidates;
- complementarity of the competences among the partners;
- interdisciplinary nature of the network;
- distribution of tasks between partners;
- added value of the foreign partner's contribution;
- scientific quality, management, synthesis and communication skills of the coordinator.

***Compliance of project/resources***

- balance of the distribution of resources between partners;
- realism of the means deployed (duration, budget, personnel);
- gathering, use and accessibility of the data necessary for the project;

***International anchoring***

- positioning of the project in relation to international activities (existing or in preparation)

## 6.4 CONTRACTUAL OBLIGATIONS

### 6.4.1 CONTRACTS

For the proposals selected, a contract is drawn up between BELSPO and the network of funded teams.

For this purpose, the submitters of the proposal will be asked at the end of the evaluation and selection procedure to concisely formulate the specifications on the basis of which the contract is to be drawn up. This **technical annex** to the contract will be drawn up in consultation with BELSPO and will take into account the recommendations formulated by the foreign experts and the Programme Committee. Adaptations to the original proposal may relate to the content of the research, the composition of the network or Follow-up Committee, the budget, the choice of the coordinator, the proposals for valorising the research, etc.

BELSPO grants the selected projects the **funds** required for their implementation. BELSPO shall reimburse at most, and up to the amount specified in the granted budget, the actual costs proven by the partners providing these costs are directly related to the implementation of the project.

### 6.4.2 EXTERNAL EVALUATION

All research projects are subject to one or more external evaluations. These evaluations, conducted by foreign experts, concern the project's scientific quality (methodology and interim results) and strategic impact, in the light of its initial objectives.

### 6.4.3 REPORTS AND PROGRESS MEETINGS

The contract will define the various reports to be submitted to BELSPO. These reports are to be included in the project work plan and the cost of preparing them (including translations) must be covered by the project budget.
As well as the reports, meetings on the project's progress will be organised between the network and BELSPO.

### 6.4.4 DATA, RESULTS, INTELLECTUAL OWNERSHIP AND OPEN ACCESS

Foreground shall be the property of the institution carrying out the work generating this foreground, as mentioned in article 11 of the general conditions of the contract (annex 2). As regards existing information and data, ownership remains the same.

Each institution shall ensure that the foreground of which it has ownership, is disseminated as fast as possible.

Furthermore, each institution undertakes to make the foreground available in a freely accessible institutional deposit (institutional open access repository), immediately and free of charge, in order to be able to read, download, copy, print, or distribute it or to carry out a search within it.

For research areas concerning the marine environment, biodiversity and the Antarctic, researchers must bear in mind that a copy of the analysis and measurement data and/or metadata will nevertheless be transferred to specific databases such as:

- IDOD/BMDC (http://www.mumm.ac.be/datacentre),
- AMD (Antarctic Master Directory) (http://gcmd.gsfc.nasa.gov/KeywordSearch/Home.do?Portal=amd&MetadataType=0),

- GBIF (Global Biodiversity Information Facility) (http://www.gbif.org/) with possibly the help of the biodiversity platform (http://www.biodiversity.be)

The promoters of projects that include tasks in which biological materials are used, must ensure the preservation of this biological material by depositing it in a culture collection (Biological Resource Centre), and preferably one in Belgium. This does not apply to material that promoters can prove has already been deposited in a culture collection or for which existing agreements (Material Transfer Agreement) do not allow it to be deposited. Biological material includes cultivable organisms such as microorganisms, viruses, plant, animal and human cells as well as the replicable parts of these organisms, such as non-modified and recombinant plasmids (including those with DNAc inserts).

### 6.4.5 RESEARCH ETHICS

The first code of ethics for scientific research in Belgium was drawn up in 2009 (see http://www.belspo.be/belspo/organisation/publ/pub_ostc/Eth_code/ethcode_en.pdf).

The "Code of Ethics for Scientific Research in Belgium" is a joint initiative of the Académie Royale des Sciences, des Lettres and des Beaux-Arts de Belgique, the Académie Royale de Médecine de Belgique, the Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten and the Koninklijke Academie voor Geneeskunde van België, with the support of the Belgian Science Policy Office.

All projects must take this code of ethics into account in their research.

## 7. COMPLAINTS

BELSPO places great importance on the quality of its service and on improving the way it operates. A special form to handle complaints has been created.

The complaint form is available at the following address:
http://www.belspo.be/belspo/organisation/complaints_en.stm

Complaints submitted anonymously or which are offensive or not related to our organisation will not be processed.

A complaint is handled as follows:

- once your complaint has been filed, a notification of receipt will be sent.
- the complaint will be forwarded to the relevant departments and individuals and will be processed within one month.
- an answer will be sent by e-mail or letter;
- the complaint will be treated with strict confidentiality.

If you are dissatisfied by the initial response to a complaint, you can always contact the Médiateur Fédéral/Federal Ombudsman, rue Ducale 43, 1000 Brussels. (email contact@mediateurfederal.be).

## 8. CONTACTS

Further information can be obtained by contacting the secretariat:

BRAIN-BE@belspo.be

02/238 34 80 (FR)
02/238 34 65 (NL)

# "BRAIN-be" Programme
# Call 2013 - Network Projects
# Eligibility of Proposals

The Belgian Science Policy Office (BELSPO) ensures that proposals meet all the eligibility criteria listed below. Proposals that do not meet one or more eligibility criteria will not be evaluated. Coordinators of ineligible proposals will be informed by BELSPO. The eligibility of each proposal is verified on the basis of information provided by the submitters in the submission file.

**List of criteria**

For all proposals submitted, the following criteria are examined. Only those that meet ALL these criteria are used for evaluation.

| | |
|---|---|
| ➢ The submission was preceded by an expression of interest for the same research topic | ☐ |
| ➢ The submission file is complete (all required forms have been completed) | ☐ |
| ➢ The submission file was submitted in electronic format (in Word and pdf) | ☐ |
| ➢ The submission file was submitted no later than 30th April 2013, 12:00 | ☐ |
| ➢ The proposal concerns a 2 or 4-year project | ☐ |
| ➢ The proposal concerns a network of at least two different Belgian institutions | ☐ |
| ➢ The proposal coordinator is employed by a Belgian research institution | ☐ |
| ➢ The network consists of participants from universities and/or public scientific institutions, and/or non-profit research centers | ☐ |
| ➢ Budgetary aspects: | |
| - the budget of each Belgian partner is between 15% and 60% of the project budget | ☐ |
| - at least 60% of the project budget is spent on personnel | ☐ |
| - the budget for subcontracting does not exceed 25% of the total budget allocated to the concerned partner | ☐ |
| - the budget of the foreign partners does not exceed 20% of the total budget requested by the network | ☐ |

## ANNEX 2: LIST OF FEDERAL SCIENTIFIC INSTITUTIONS (FSI)

1. National Archives and State Archives in the Provinces (ARA-AGR)
2. Royal Library of Belgium (KBR)
3. Belgian Institute for Space Aeronomy ((BIRA-IASB)
4. Royal Belgian Institute of Natural Sciences (RBINS)
5. Royal Institute for Cultural Heritage (KIK-IRPA)
6. Royal Meteorological Institute of Belgium (RMI)
7. Royal Museum for Central Africa (RMCA)
8. Royal Museums of Art and History (RMAH)
9. Royal Museums of Fine Arts of Belgium (RMFAB)
10. Royal Observatory of Belgium (ROB)
11. Scientific Institute of Public Health (IPH)
12. Veterinary and Agrochemical Research Centre (VAR)
13. National Institute of Criminalistics and Criminology (NCIC)
14. Royal Museum of the Armed Forces and Military History (MRA)
15. The Centre for Historical Research and Documentation on War and Contemporary Society (Ceges-Soma)