

Research on Public Goods and EcoSystem Services

Focus on PEGASUS and PROVIDE



Civil Dialogue Group
Environment and Climate Change

8 June 2016

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DG Agriculture and Rural
Development
European Commission

Horizon 2020

PEGASUS & PROVIDE

WP 2016-2017 & Strategy

H2020 Providing ecosystem services and public goods

PEGASUS & PROVIDE

WP 2016-2017 & Strategy

HORIZON 2020



3 Pillars

Challenge based

Industrial leadership

LET, Risk Finance, SME

Societal Challenges

Excellent science

ERC, Marie Curie, FET, Infrastructures,

Bottom up

Total: About 70bn €

7 Societal challenges

1. Health, demographic change and wellbeing

2. Food security, sustainable agriculture, marine and maritime research and the bioeconomy

(about 3.5 bn€)

3. Secure, clean and efficient energy

4. Smart, green and integrated transport

5. Climate action, resource efficiency and raw materials

6. Inclusive, innovative and reflective societies

7. Secure societies

Agriculture and Rural Development

Research Activities under 'societal challenge 2'

AGRI budget for 7 years: 1,8 billion € mainly on 2.1. (All SC2: 3,8 bn €)

New in
H2020

Co-management DG RTD - DG AGRI

DG AGRI mainly on 2.1 but also on 2.2 and 2.4



2.1.

**Agriculture
and
forestry**



2.2.

**Agri-food
sector for a
safe and
healthy diet**

2.3.

**Aquatic
living
resources**

2.4.

**Bio-based
industries
and
bioeconomy**

2.5.

**Marine
and
maritime
research**



2.1. Agriculture and forestry: main challenges



Increasing production efficiency and coping with climate change, while ensuring sustainability and resilience



Providing ecosystem services and public goods



Empowerment of rural areas, support to policies and rural innovation



Sustainable forestry

2.1.2. Providing ecosystem services and public goods

COUNCIL DECISION establishing the Specific Programme Implementing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020)

*"Agriculture and forestry are unique systems delivering commercial products but also wider societal public goods (including cultural and recreational value) and important ecological services such as functional and in-situ biodiversity, pollination, water regulation, landscape, erosion reduction and carbon sequestration / GHG mitigation. **Research activities will support the provisions of these public goods and services, through the delivery of management solutions, decision-support tools and the assessment of their non-market value.** Specific issues to be dealt with include the **identification of farming/forest systems and landscape patterns likely to achieve these goals.** Shifts in the active management of agricultural systems - including the use of technologies and change of practices - will increase GHG mitigation and the adaptive capacity of the agriculture sector to the adverse effects of climate change."*

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Provision of public goods by EU agriculture and forestry: Putting the concept into practice

WP 2016-2017 & Strategy

ISIB-1: Provision of public goods by EU agriculture and forestry: Putting the concept into practice

Specific challenge:

- **the provision of public goods by agriculture and forestry is threatened**, the more since these are considered to be 'non-excludable', 'non-rival' and therefore without market value. Although the term 'public goods' is widely used, **the concept lacks an operational framework and a common understanding as regards the wider societal and non-market benefits of agriculture and forestry activities** – in particular in the context of dynamic changes in land use and farming systems. **Thorough evidence on the nature, extent and function of public goods provided by agriculture and forestry** – including those of global nature - is required to **identify demand as well as to create effective incentives and policy options for their continued provision.**

ISIB-1: Provision of public goods by EU agriculture and forestry: Putting the concept into practice

- **Scope:** Proposals should **develop a systematic and operational framework to map, characterize and quantify the variety of public goods** provided by agricultural and forestry ecosystems throughout Europe. This will include **identifying links between economic activities in the primary production sectors and the delivery of public goods** (including conflicting demands) **as well as important 'disservices' of agriculture resulting in trade-offs as regards the provision of public goods**. Proposals should take into account **various temporal and spatial scales, different types of cropping, husbandry and forest management systems** as well as the **diversity and dynamics of climatic, natural, cultural and socio-economic conditions** all over the EU. Furthermore, proposals should consider **ways in which to valorise and establish effective support measures** (policies, incentives, public services) for the delivery of public goods in response to societal expectations. **Information and dissemination activities should target a wide range of stakeholders** including from policy making, the farming and forestry sectors and allow for their active participation.

ISIB-1: Provision of public goods : Putting the concept into practice

Expected impact:

- **increased understanding of the nature of management and other processes** that influence the delivery of public goods by different types of farming and forestry systems in Europe (e.g. by means of a solid inventory)
- **development of robust mechanisms and tools for a) measuring and valorising public goods** (including in terms of value streams, as relevant) **as well as for b) establishing the contributions** of the agricultural and forestry sectors to the sustained delivery of these goods
- **formulation of appropriate policies, incentives, service models and win-win scenarios** to reduce conflicts between productivity objectives in primary production and the delivery of ecosystems services and other public goods
- overall, **increased sustainability of primary production** by reducing the negative impacts and enhancing the positive contributions of the agriculture and forestry sectors to public goods

ISIB-1: First year of two projects



PEGASUS

Public Ecosystem Goods and Services from land
management – Unlocking the Synergies



PROVIDE

PROviding smart DELivery of public goods by EU agriculture and forestry

Duration: 3 years
Period: 03-2015 / 02-2018
Budget: ~3 M€

3 years
09-2015 / 08-2018
~3 M€

Project
coordinator: Kaley HART – IEEP
**Institute for European
Environmental Policy**

Davide VIAGGI - UNIBO
**Alma Mater Studiorum
Universita di Bologna**

[*pegasus.ieep.eu*](http://pegasus.ieep.eu)

[*provide-project.eu*](http://provide-project.eu)

PEGASUS & PROVIDE: the partners



PEGASUS partners



PROVIDE partners

Cascading "valorisation" chain for ESBOs

[illegible]

PEGASUS & PROVIDE: the case studies

Both projects are based on co-construction, participatory approaches and continuous engagement with stakeholders



PEGASUS

- 30-35 territorial and supply chain case studies
- Action research
- Contrasting farming and forestry systems



PROVIDE

- Stakeholder platforms within each case studies regions in 13 countries
- Analysis of supply and demand of PGs
- Hot-spots identification

PEGASUS & PROVIDE: expected impacts



Awareness

... importance and feasibility of integrating environmental and social, alongside economic considerations within land management decisions,
... renewed conceptualization of the notion of PGs
... consolidated and long-lasting community of knowledge and practice,
... strong stakeholder involvement.



Practical toolbox and operational framework

...to enable farmers, foresters and others involved in managing rural land or along the supply chain to make decisions about how land can be managed sustainably in the long term,
...putting together an inventory/mapping of options, operational means for valuation and evaluation, and a selection of evaluated policy/sector mechanisms.



Recommendations for provision of PGs

...on new options for policy design to support and guide regional, national and EU decisions relating to the sustainable use of agriculture and forest land in the EU into the future,
... on innovative and market related mechanisms for PGs provision.

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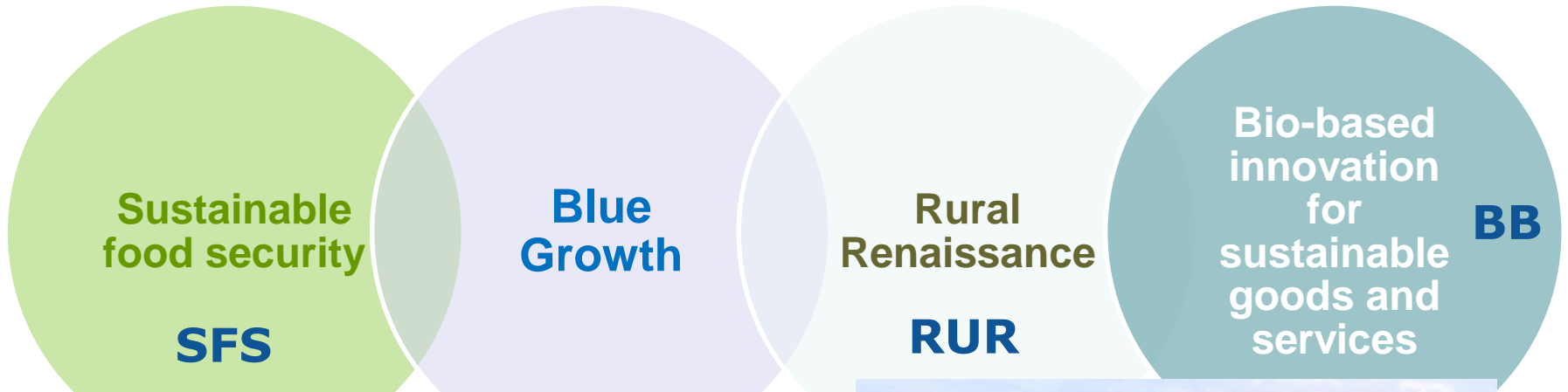
WP 2016-2017 & Strategy

Coming soon

and coming next

Horizon 2020 work programme 2016-2017

Societal Challenge 2 WP divided into four calls:



Selection of 2016-2017 topics covering environmental and CC issues

SFS topics

- SFS-16 **Bee** health and sustainable **pollination**
- SFS-27: **Permanent grassland** – farming systems and policies
- SFS-28: **Functional biodiversity** – pollinators and pest predators
- SFS-29: **Socio-economics** in ecological approaches
- SFS-30: **Closing loops** – focus on C, N and P

RUR topics

- RUR-02 **Coastal-rural interactions**
- RUR-03 Towards 2030 – **policies and decision support tools for land management**
- RUR-05 Sustainable supply of and payment for **forest ecosystem services**
- RUR-09 **Business models** for modern rural economies
- RUR-13: Building a **future science and education system**

RUR topics

- RUR-01 Policy framework and governance models in **rural-urban linkages**
- RUR-04 improving farming and the supply of **drinking water**

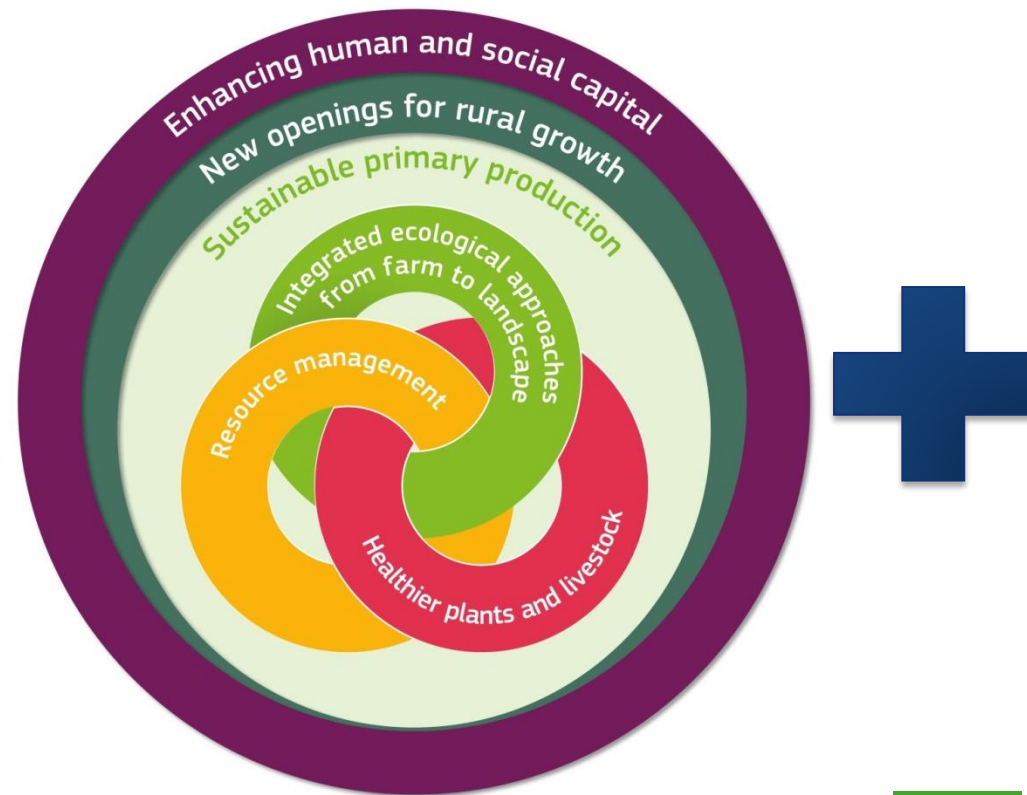
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RUR topics (csa)

- *RUR-10: Thematic Networks compiling knowledge ready for practice*

A strategic approach to EU agricultural research and innovation

Five building blocks



Cross cutting issues

Support to policies impacting rural territories and food systems

International cooperation

Building the European Research Area

Role of the private sector

Balance basic / applied – synergies between instruments

Thank you for your attention!

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Useful links:

EIP-AGRI: www.eip-agri.eu

DG AGRI Research and Innovation

<http://ec.europa.eu/agriculture/research-innovation>

HORIZON 2020 – Work Programme 2016/2017 – societal challenge 2

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-food_en.pdf

A strategic approach to EU agricultural research and innovation:

<http://ec.europa.eu/programmes/horizon2020/en/news/designing-path-strategic-approach-eu-agricultural-research-and-innovation>