



TREASURE, a Horizon 2020 multi-actor project on traditional resources for agricultural diversity and the food chain



UNIVERSITA DI BOLOGNA



Marjeta Čandek-Potokar
KIS (Agricultural Institute of Slovenia)



Funded by European Union
Horizon 2020
Grant agreement No 634476

The call was tailor-made for our network. Will we seize the opportunity?



Horizon 2020
> Societal Challenges
Call : H2020-SFS-2014-2015

H2020 website

Topic Description

- Less

Scope:

Specific challenge: Genetic diversity in agriculture and forestry - both within and between species - is commonly recognised as a pre-requisite to ensure food security, productivity as well as resilience of crops, forests and animals vis-à-vis biotic and abiotic threats in changing environments. Widening the genetic basis of crops, forest trees and animals as well as diversifying production is therefore essential. This requires coordinated efforts to enhance conservation, access and use of a wide range of genetic resources conserved in ex-situ and in-situ/on-farm conditions. Local livestock breeds, forest plants and crops are a particularly important source of genetic variation as they are associated with a number of favourable characters such as robustness, adaptation to local - often marginal - conditions or organoleptic and health attributes. They also provide the basis for products with a regional identity for which there is increased consumer interest. Despite these benefits their use has been decreasing partly because of lower productivity as compared to modern, high yielding and more uniform breeds and varieties. The improvement of local breeds and crops provides opportunities for diversification in agriculture along with new openings for regional, high quality products and for economic development.

Scope: Proposals should address one of the following issue (A):

A. [2014] Traditional resources for agricultural diversity and the food chain

Proposals should enhance description and evaluation as well as management and performance of local varieties and breeds along with their respective farming and (seed) production systems. Measures deployed should potentially span from research to demonstration and dissemination as well as development of (environmentally and economically) sustainable production schemes. Proposals should have a relevant socio-economic dimension, tap into knowledge from the formal and informal sectors, encourage the creation of networks within and between regions and address the value chain for regional high quality products. Overall, activities should capture more systematically the value of diverse and so far untapped genetic resources and encourage their broader use in breeding activities, in farming and in the food chain. Proposals should address either livestock or crop genetic resources (including from forest trees as relevant in farming activities). Proposals should fall under the concept of 'multi-actor approach'[1] and allow for adequate involvement of the farming sector in proposed activities.

SFS-07a-2014 Traditional resources for agricultural diversity and the food chain



Agriculture R&I conference,
Brussels, 26-28 January 2016



Funded by European Union
Horizon 2020
Grant agreement No 634476

Analyse the call - special care to “key words” and „expected impacts”



Scope: Proposals should address one of the following issue (A):

A. [2014] Traditional resources for agricultural diversity and the food chain

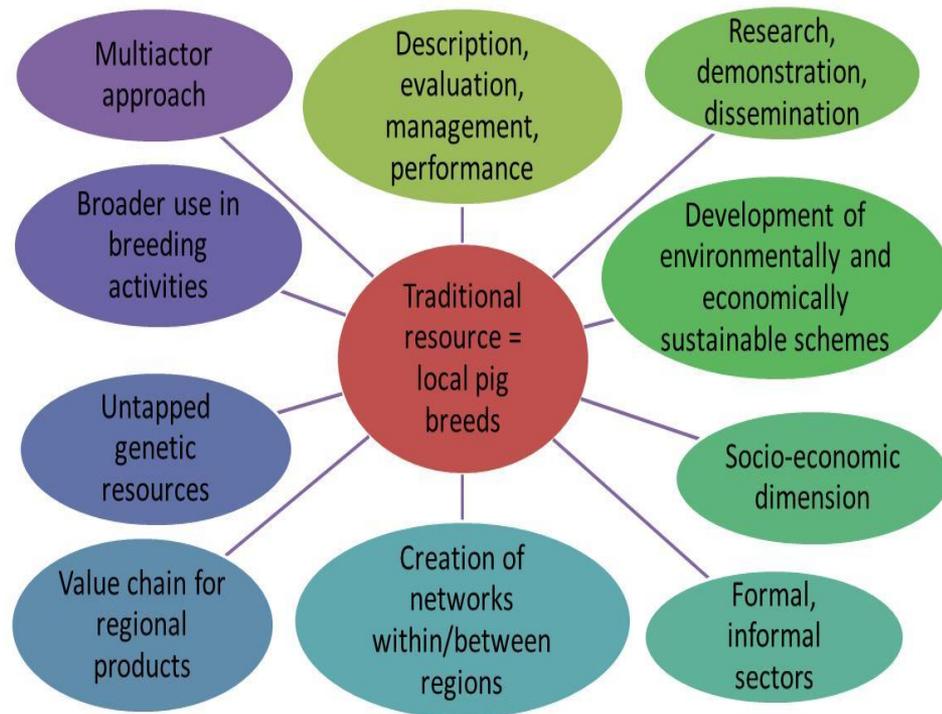
Proposals should enhance description and evaluation as well as management and performance of local varieties and breeds along with their respective farming and (seed) production systems. Measures deployed should potentially span from research to demonstration and dissemination as well as development of (environmentally and economically) sustainable production schemes. Proposals should have a relevant socio-economic dimension, tap into knowledge from the formal and informal sectors, encourage the creation of networks within and between regions and address the value chain for regional high quality products. Overall, activities should capture more systematically the value of diverse and so far untapped genetic resources and encourage their broader use in breeding activities, in farming and in the food chain. Proposals should address either livestock or crop genetic resources (including from forest trees as relevant in farming activities). Proposals should fall under the concept of 'multi-actor approach'^[1] and allow for adequate involvement of the farming sector in proposed activities.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 3–4 million for (A) would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact: Proposals should show how some, or all, of the following impacts will be achieved:

- improved in-situ/on-farm management and evaluation of genetic resources by the farming sector
- productivity and economic gains in specialised farming systems from the conventional and organic sectors
- promotion of traditional and/or underutilised crops (and their wild relatives as relevant) and breeds
- increased availability of diverse, high quality products, e.g. with enhanced health benefits for consumers
- economic benefits for farmers, other types of SMEs and regional economies through the expansion or creation of new products and markets
- broader adaption of livestock and cultivated plants (crops, forest trees for agriculture/agro-forestry) to limiting or changing agro-climatic conditions, e.g. by enhancing robustness through the use of adaptive traits from landraces and local breeds
- enhanced quality and scope of European ex-situ collections and in-situ collections/on-farm management
- enhanced methodologies for management, conservation, characterisation and evaluation of genetic resources
- increased transfer of genetic material into breeding programmes, farming or forest practices, i.e. identification of useful traits (variation) in collections
- increased awareness on the value of genetic resources, engagement of end-users and contribution to implementation of international commitments in the area (e.g. International Treaty on Plant Genetic Resources for Food and Agriculture, ITPGRFA)
- more extensive use of genetic resources in agriculture and forestry
- overall contribution to food security by supporting innovations in breeding and farming

Type of action: Research and innovation actions



Before our eyes during the building up and writing of the project.

Agriculture R&I conference,
Brussels, 26-28 January 2016



Funded by European Union
Horizon 2020
Grant agreement No 634476

Initial dilemmas & tough nuts

Initial dilemmas

- Focus on species “*sus scrofa*” ? - can we succeed with key word (“pig”) which has a negative connotation ?
- Do we have all the competences to answer the scope and challenges of the call?
- How to create/expand the consortium? Who will be the motor?
- We started as Mediterranean network => „research network“, already (too) big – expand yes, but how ?
- How to find & involve non-academia partners ? Do we understand multi-actor approach?

Tough nuts

- How to split/assign roles between science and practice; find a „place“ for each partner esp. non-science partners
- Local breeds (often endangered) = very small populations – difficult to get enough material for genetic characterisation; difficult to organise experiments (with farmers) i.e. have scientifically sound approaches.
- Key word „untapped genetic resources“ – finding a place for the pioneers with developed chains (e.g. „iberico“) => role model, different type of research activities



What did we propose?

How were project's objectives targeted to needs, problems, opportunities of end-users, and the complementarity with existing research?



RATIONALE

Public opinion is not favourable to intensive pig production which is confronted with environmental and animal welfare issues.

Local pig breeds and their respective production systems meet high criteria and expectations of modern society in regard to the environment, animal welfare and food quality.

KEY CHALLENGE

The key challenge is a development of sustainable pork chains in geo-agro-climatically different regions of Europe by using the biodiversity resources encompassed in European local pig breeds.

CONCEPT

TREASURE is built on the inherent value encompassed in local pig breeds, their production systems and product qualities. The idea is a new paradigm of pig production that meets societal demands regarding environment, genetic diversity, ethical and social aspects and economic value.



Table 2: List of local pig breeds involved in the project

Country	Native name for pig/breed	Alternative name (found in the literature)
DE	Schwäbisch-Hällisches	Schwäbisch-Hällisches
ES	Ibérico	Iberian
ES	Negre Mallorquí	Black Majorcan
FR	Gascon	Gascon
FR	Basque	Basque
HR	Crna slavonska	Black Slavonian
HR	Turapoljska	Turapolje
IT	Cinta Senese	Cinta Senese
IT	Mora Romagnola	Mora Romagnola
IT	Sarda	Sarda
IT	Apulo Calabrese	Apulo Calabrese
IT	Casertana	Casertana
IT	Nero Siciliano	Nero Siciliano
LT	Lietuvos vietinės	Lithuanian indigenous wattle
LT	Senojo tipo Lietuvos baltosios	Old type Lithuanian White
PT	Bisaro/Bisara	Bisaro
PT	Alentejano/Alentejana	Alentejano
RS	Mangulica	Mangalitsa
RS	Moravka	Moravka
SI	Krškopoljski/Krškopoljska	Krškopolje



What did we propose?

How were project's objectives targeted to needs, problems, opportunities of end-users, and the complementarity with existing research?



„untapped“ genetic
resources

Local breeds in Europe (majority) are conserved thanks to the support of public money (**gene banks**).

In order to be **sustainable** it is important to make them self-sufficient, **economically viable**

➤ **research** needed because there is a big void of scientifically proven evidence of their qualities (e.g. characterisation) and of their needs (e.g. nutrition)

➤ **interaction** of different actors needed to build up „pork chains“

Research and development activities were proposed to improve **knowledge, skills** and **competences** necessary to develop existing and create new **sustainable pork chains** based on European **local pig genetic resources** (local pig breeds).

- Scientific challenges
- Exchange of knowledge/experience btw partners
- Joint ventures („trade mark“)



How did we employ multi-actor approach?

Choose key partners/actors with complementary knowledge (scientific and practical), sufficient knowledge exchange activities and a clear role for the different actors

Scientific questions original/innovative: key centres of knowledge in respective research areas, countries

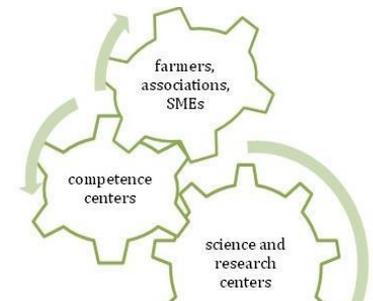
Farmers' associations involved in collection of genetic material, organisation of experiments, conducting data collection, surveys

Diverse knowledge transfer activities involving farmers' associations, competence centres and advisory services

Focus on strengthening networks (science/practice, countries/regions)

Joint venture (umbrella trade mark ... co-creation and co-ownership)

25 partners & 13 linked TP



How did we employ multi-actor approach?

Each partner (academia or non-academia) with a clear and visible role in the project i.e. various actors (e.g. farmers) involved from work planning to dissemination, demonstration



Photos from on-going experiments in Croatia, France, Slovenia



Field experiments will (mainly) be conducted in „real life“ situations working directly with farmers e.g. linked TP => cross-fertilisation of knowledge/ideas

How did we employ multi-actor approach?

Inter-dependency between partners and tasks (shared efforts) to reach project goals

Examples:

WP2

Management & performance of local pig breeds in their production systems

- WP2.1 task comprises visits of farms to collect data (surveys) for multicriteria evaluation of production systems (for WP1, WP2, WP4) + genetic material (for WP1)
- WP2.3, WP2.4, WP2.5 comprise experiments – supplying WP3 (with products for quality evaluation), WP1 (gene expression studies, pilot study on intestinal microbiota) ...

Important role of farmers associations

WP1.5

- DNA markers
- Authentication
- Traceability

- WP1.5 results important for WP3.4 that concern development of breeding programmes for local pig breeds

Important role of farmers associations

How did we employ multi-actor approach?

Diverse knowledge transfer and networking activities involving various actors

- Many dissemination/demonstration activities with/by farmers' associations
- Training school how to make quality meat products (e.g. farmers who make their own products and sell on-farm)
- Study visits (farmers)
- Kuleniada – local competition of salami type product quality



Goals

- Sharing experience, views
=> strengthen competences
- Strengthen networks within/btw regions
- understanding „difference in culture“ (science # practice)

Reviewers:

Very valuable initiatives for transfer of knowledge ...

The consortium needs to give more attention to its plans for scientific publication

Event in Firenze organised by partner and its linked TP - Cinta Senese breed association with participation of Spanish partner

Events published on web page

Event involving Slovenian advisory service with participation of Italian, German (non-academia) partners



Agriculture R&I conference, Brussels, 26-28 January 2016



Funded by European Union
Horizon 2020
Grant agreement No 634476



Today's discussion ...

TREASURE is just an example of „understanding“ of multi-actor approach (when/how to involve actors, how to engage them, how to use their competences)

- No ideal situation; always pros/cons, ups/downs
- Bonding factor = common interest (progress in the sector! in which we work)
- Obstacle = overcome „cultural“ differences between science#practice, public#private
- Recognising & exploiting potentials of different actors

A chain is only as strong as its weakest link



Follow us

<http://www.treasure.kis.si>



TREASURE
Diversity of local pig breeds and production systems for high quality traditional products and sustainable pork chains

HOME PROJECTS SPECIES PARTNERS NEWS MEDIA CONTACT INFOPANEL

THE ACTION - Diversity of local pig breeds and production systems for high quality traditional products and sustainable pork chains is a Research & Innovation Action financed by European Commission under the Horizon 2020 - grant agreement no. 634476.

Start of the action: 01/04/2015 Duration: 48 months (31/03/2019)

Budget: 3,395,966.75 EUR

The project is coordinated by **Kmetijski inštitut Slovenije - Agricultural Institute of Slovenia (KIS)** and involves a **Consortium of 25 partners** from 9 countries.

The **aim of the project** is to improve knowledge, skills and competences necessary to develop existing and create new sustainable pork chains based on European local pig genetic resources (local breeds). The project will address:

- Description and evaluation of local pig breeds, with an emphasis on untapped ones using novel genomic tools.
- Performance of local pig breeds in contrasted agro-climatic conditions and production systems (indoor, outdoor, organic). Focus will be on pig feeding and management strategies and on the use of locally available feeding resources.
- Intrinsic quality of traditional and new regional high quality pork products and attitudes of consumers from various market areas, in particular the motives for the choice and willingness to pay such products.
- Cost/benefit analyses and marketing strategies in particular short chain distribution channels.

All activities are driven from the perspective of sustainability (environmental impact, animal welfare, product quality, consumer acceptability and market potential). The ambition is to enhance existing and create new networks between academia and non-academia partners, within and between regions and to tackle the value chain for regional high quality pork products, focusing on diverse and so far untapped pig breeds, their production systems and pork products.

Event Calendar:

Jan 2016
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Recent News:

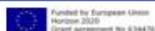
- Strategic approach to EU agricultural research and innovation
- Seminar on breeding pig genome
- Horizon 2020 Multi actor approach and Thematic networks
- Treasures presented at review of good practice at H2020 Info Day in Croatia

Subscribe to newsletter:

Login:

© 2015 Treasure

THANK YOU FOR YOUR ATTENTION



Agriculture R&I conference,
Brussels, 26-28 January 2016



Funded by European Union
Horizon 2020
Grant agreement No 634476