

## Science with and for Society – Project Partner Search Form

### CALL: Science with and for Society 2016

- I offer my expertise to participate as a Partner in a Project
- I am planning to coordinate a project and I am looking for Project Partners

#### Topics

- SwafS-01-2016: Participatory research and innovation via Science Shops
- SwafS-03-2016-2017: Support to research organisations to implement gender equality plans
- SwafS-04-2016: Opening Research Organisations in the European Research Area
- SwafS-07-2016: Training on Open Science in the European Research Area
- SwafS-09-2016: Moving from constraints to openings, from red lines to new frames in Horizon 2020
- SwafS-15-2016: Open Schooling and collaboration on science education
- SwafS-16-2016: Mapping the Ethics and Research Integrity Normative Framework
- SwafS-17-2016: The Ethics of informed consent in novel treatment including a gender perspective
- SwafS-18-2016: The Ethics of technologies with high socio-economic impact and Human Rights relevance
- SwafS-19-2016: Networking of National representatives and resources centres on Gender in R&I
- SwafS-25-2016: Celebrating European Science

#### 1) PROJECT INFORMATION

**Field of expertise related to the topic:** entomology, citizen science

**Potential contribution to the project:** see project description

**Role in the project:**

- Research                       Dissemination                       Other
- Training                               Technology Development

Project idea: increase public awareness and perception towards the so called "bugs" and scientists studying them

Project description: We live in a world full of living creatures of which we ourselves are part. Approximately 1.8 million species of microorganisms, fungi, plants and animals are known nowadays; however, the number of species yet to be named scientifically is estimated at 10 to 30 million worldwide.

Most of this world of living organisms around us belongs to the group of the invertebrate animals: insects, crustaceans, worms, spiders (commonly called "bugs")... but what is the perception that the so called civil society has concerning this huge part of nature? Is it positive or negative? Has the common citizen any idea about the "small" world about him/her?

Researchers and scientists are of course deeply involved in the study of invertebrates, but what is the perception that citizens have of these studies? Do they understand the role of these organisms in the ecosystems? Are they aware of the importance of their presence for the survival of the planet and mankind? There is a strong gap between the scientific research in this field and its understanding by the people.

The relationships of the people towards the so called “bugs” is in most case negative – people are afraid by what they do not know and by what they believe can sting, or bite or carry diseases. These negative impressions are even stronger in countries where the level of knowledge of the natural world is lower (for many reasons: cultural, historical, religious, etc.). In many countries of the southern part of Europe “bugs” are only perceived as something to fight or to be afraid of. Their role as ecosystem services is not understood at all. The situation seems to be much better in countries of northern Europe. The aim of this project is also to verify and compare the state of the art in different countries, and eventually to fill this gap.

Natural History Museums and Universities are places where the common citizen always refers when he /she meets a “bug”. The usual questions are: “is this animal dangerous?”, “does it bite?”, “how can I kill it?” and so on. Of course for scientists this negative approach is frustrating and it is sometimes hard to let people understand how important these organisms can be for the ecosystem. Obviously a few invertebrates can actually be dangerous or carry illnesses or to bite or sting, but their percentage is ridiculous compared to the number of them living around us.

We believe that a Science Shop on “bugs” will be a model of participation that could bring researchers, students, environmental agencies and organizations, and civil society together to explore and understand this mysterious and mostly unknown world. Science Shops will serve to assist the community to tackle this kind of real problems in the everyday life of people and on the other hand will give to the civil society the opportunity to participate actively to science and research. Being the number of species of “bugs” so huge, the number of scientists and students studying them will always be inadequate; the “educated” citizen could thus give an extremely important contribution to science increasing the knowledge on the invertebrates, in several fields:

- 1) endangered species
- 2) alien species
- 3) useful species
- 4) dangerous species
- 5) disease vectors

The so called “citizen science” is the instrument that the citizen can use to give contribution to science, if he is informed, prepared and finds the platforms or the “physical” places (Science Shops in our case) where to deliver (and obtain) information.

- 1) endangered species

To find data on the distribution and population size are a difficult task, requiring a long term monitoring in different habitats. The role of citizens in achieving this task could be essential in order to properly assess the risk categories and the major threats for each species. Of course the role of the Science Shop is to give to the citizen the necessary information to identify the species and the role of the scientist is to verify the information. If data is being collected for scientific purposes a robust scientific protocol needs to be developed for data collection.

2) alien species

Invasive non-native species are a major concern in this globalized world, with a current policy relevance due to the proposed EU Regulation on the prevention and management of the introduction and spread of invasive alien species. To have an immediate alert on every new invasion is extremely important in order to put immediately in place the appropriate measures. Citizen science initiatives in monitoring invasive alien species are thus one of the goals of the Science Shop.

3) useful species

In the case of “useful” (the term is not nice, but useful to explain certain concepts to the people) species, the main task is to give to citizens the necessary information in order to understand the positive role of invertebrates in the ecosystems.

4) dangerous species

A few species can be harmful or dangerous (e.g. a few Hymenoptera, some spiders, etc.); it is important to give the correct necessary information to citizens, without unnecessary alarmism.

5) disease vectors

A few species can potentially be vectors of diseases (e.g. some ticks, bed bugs, some species of mosquitoes, some worms, etc.); in this case, also it is important to give the correct necessary information to citizens, without unnecessary alarmism.

This new approach to an “unknown” (for the majority of people) natural world will promote the growth of a social awareness of the importance of this large amount of tiny creatures; it will also provide means through researchers, students and teaching staff will be able to transfer their knowledge for the benefit of the community. At the same time, citizens will also be able to provide useful information to the scientific community and to policy makers. Some of the discussed points are strictly connected with relevant international initiatives concerning endangered species, non-native species invasions, climate change, health problems, and so on.

This project will try to make this field of science more attractive, notably to young people, and open up further research and innovation activities. It allows all societal actors (researchers, students, citizens, policy makers, business, environmental organizations etc.) to work together in order to better align both the process and its outcomes.

Already experience as a Coordinator:  yes  no

As a Partner:  yes  no

If “yes”, which project: i4Life

Other partners in consortium already identified (with countries):

**2) TARGET COORDINATOR / PARTNER SOUGHT**

**Organisation details:**

Higher education / university

Industry / SME

Research institution

Other

NGO

Please specify:

Education

**We are looking for following Expertise / Competencies:** see project description

### 3) CONTACT DETAILS

Contact Person:

Name: Luca Bartolozzi

Ms  Mr

Organisation: Natural History Museum - University of Florence

Address: via Romana 17

Postal code: 50125

City: Firenze

Country: Italy

Phone: +39 0552755116

Email: luca.bartolozzi@unifi.it

Organisation web address: <http://www.msn.unifi.it/>

Short profile of the Organisation: With ten million specimens and over four centuries of history, the Museum of Natural History of the University of Florence is the most important Italian natural history museum and one of the largest in Europe. The Museum is member of CETAF, Consortium of the main European museums of Natural History.

The Museum is organized in eight sections located in various parts of Florence: Anthropology and Ethnology, Biomedicine, Botany, Chemistry, Geology and Palaeontology, Mineralogy, Botanical Garden, Zoology.

All the collections are actively studied, conserved, expanded and exhibited in order to transmit the extraordinary patrimony of scientific and historical knowledge that is the true value of a museum.

The spirit of the Renaissance, which marked the beginning of the modern age and produced an effective synthesis between science and art in Florence, still animates the Museum, where the desire for renovation is admirably combined with the wish to maintain ties with tradition

**Date:** 13/04/2016

**The offer is valid until:** 30/06/2016

I agree with publication of my contact data on "Science with and for Society" network website

YES  NO

**PLEASE FILL THE FORM AND RETURN IT TO YOUR HORIZON 2020 NATIONAL CONTACT POINT FOR SCIENCE WITH AND FOR SOCIETY.**