



EU funded research on African Swine Fever: recent projects and opportunities under H2020

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The 'HORIZON 2020' logo is located at the bottom of the slide. The word 'HORIZON' is in large, white, sans-serif capital letters. The letter 'O' is replaced by a realistic, three-dimensional globe of the Earth, showing continents and clouds. To the right of the globe, the year '2020' is written in the same white, sans-serif capital letters. The entire logo is set against a background of a blue sky with a bright sun or light source behind the globe, creating a lens flare effect. The bottom of the slide shows a curved horizon line of the Earth.



Evaluating and controlling the risk of African swine fever in the EU

- FP7, 2008-2011, 3 mio EURO, 17 participants.
- Achievements:
 - **DIAGNOSTICS:** Development of PCR-based methods for ASFV detection, including pen-side tests.
 - **VACCINOLOGY:** Improving conventional and developing new high throughput methods to facilitate genome manipulation and vaccine development.
 - **ANTIVIRAL MOLECULES:** Study of efficiency of three types of antiviral molecules (chemicals compounds, siRNA and gallate esters) to inhibit the production of ASFV.



ASFORCE

TARGETED RESEARCH EFFORT
ON AFRICAN SWINE FEVER

- FP7, 2012-2015, 5 mio EURO, 18 participants.
- Achievements:
 - **RISK FACTOR ANALYSIS:** Supported with phylogenetic studies of new genome markers. Role of wild boars.
 - **COST-BENEFIT ANALYSIS:** Of existing and potential risk-based surveillance strategies in Europe.
 - **VACCINOLOGY:** Initial Development of candidate virus deletion mutants.
 - **DIAGNOSTICS:** Two novel diagnostic tests developed including rapid field diagnostics.



Development of field tests for rapid screening of pathologies as well as simple laboratories tests in animals

- FP7, 2012-2015, 3 mio EURO, 12 participants.
- Achievements:
 - **DIAGNOSTICS:**
 - Diagnostic kits and immunoassay methods for diagnosis and differentiation of African swine fever virus (ASFV) AND classical swine fever virus (CSFV), at patent stage.
 - Real-time monitoring system online for early diagnostics of infection, tested with ASF virus.

So what has been achieved?

- New models for developing effective risk-based surveillance systems based on epidemiological situation in Europe and neighbour countries.
- Significant advancements in diagnostic tests, including ASF/CSF discriminatory tests.
- Advancements and capacity towards vaccine development. Challenges: candidates, safety, reliability.

Other H2020 projects



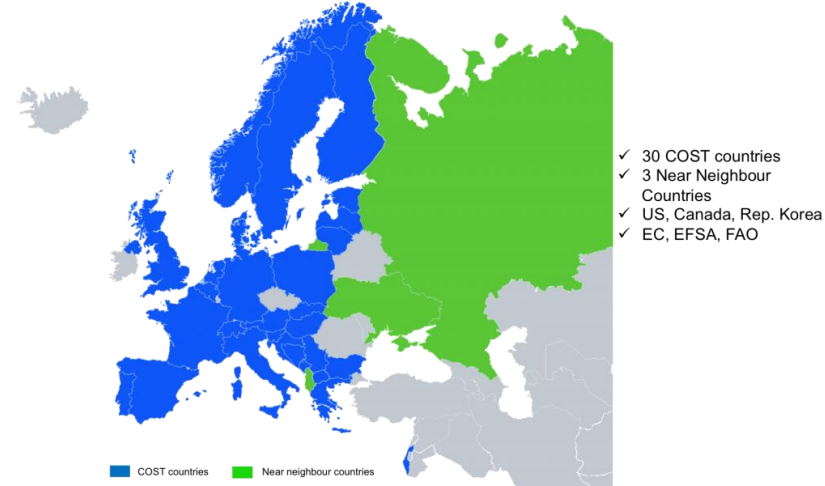
ASF-STOP:

COST action CA15116 – 05/2016-05/2020

<https://www.asf-stop.com/>

1. Better manage and control wild boar populations given their importance in ASF spread and maintenance
2. Develop methods of surveillance to increase the early detection of ASF incursion into new areas
3. Understand the epidemiology of ASF in the unique European context; to determine the epidemiological role of wild boar, ticks vectors of the virus, and the environment
4. Develop and improve management tools; such as an ASF vaccine and novel diagnostics, determine how to involve stakeholders and the general public in preventing ASF spread and determine how policy and legislation can contribute to prevention, control and eradication of ASF.

ASF-STOP countries



Other H2020 projects



VETBIONET

Infrastructure project; **2017-2022; 28 partners/12 countries; EUc EUR10Mio**

<http://www.vetbionet.eu/>

To establish and maintain a comprehensive network of pre-eminent high-containment (BSL3) research facilities, academic institutes, international organisations and industry partners that is dedicated to advance research on epizootic and zoonotic diseases and to promote technological developments.

Three types of integrating activities:

Transnational Access Activities –free-of-charge access provided to researchers or enterprises proposing a sound project related to epizootic and zoonotic diseases.

Networking Activities to foster the cooperation between project partners and to forge cooperative relationships with other European or international research initiatives, industrial stakeholders, international organisations and policy makers

Joint Research Activities to improve the scientific and technological standards of services provided by the consortium

Opportunities under Horizon 2020

Societal Challenge 2: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

SFS-10-2017: Research and approaches for emerging diseases in plants and terrestrial livestock

Scope: Proposals will contribute to understanding the drivers of emergence and to finding adequate responses to emerging pests and diseases in plants (work on *Xylella fastidiosa* is excluded under this call topic) and **emerging infectious diseases in terrestrial animals**. They will target one or more of the pests and diseases threatening EU agriculture/forestry (regulated or non-regulated, invasive or native) and causing significant economic losses, **such as African swine fever**. The choice of target species should consider the potential threat in terms of development and spread as well as potential impact on agricultural production, public health, or trade. Proposals should increase knowledge on the biology, development and spread of pests/diseases. They should improve methods and strategies for risk assessment, prevention and containment and enlarge the range of tools for integrated and sustainable pest/disease management. International cooperation with countries affected or threatened by the same pest(s)/disease(s) is encouraged. **Proposals should fall under the concept of the 'multi-actor approach'** and be based on the active participation of stakeholders from research, plant/animal health authorities and the farming and business sectors. Partners from non-EU regions particularly affected by the targeted pests and disease(s) should also be involved. As regards livestock, proposals should contribute as appropriate to the objectives of the STAR-IDAZ international research consortium...

Indicative EU contribution/project: EUR 5 million

Proposed projects are at the final stage of selection



Opportunities under Horizon 2020

Societal Challenge 2: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

SFS-12-2019: A vaccine against African swine fever

Scope: The research proposals will address the necessary steps for developing safe vaccines against ASF for domestic pigs and wild boars. Proposals should build on past or ongoing EU funded research and on current knowledge of the characteristics of the viruses and research gaps, with the **overall purpose of developing pilot vaccines and their companion DIVA test**. Activities should address vaccination **as part of a control strategy in different scenarios** and should consider the potential impact on animal production and trade. Particular focus should be put on the European situation and the role of wild boars in the spread of the disease, so **the proposals should address at least the ASF viruses circulating in Europe, and may also cover all or the most relevant exotic ones**. Wild fauna other than wild boars, that are involved in the epidemiology and for which vaccination may help control the disease, may also be addressed. **Participation by non-EU regions particularly affected by ASF is recommended.**

Proposals should fall under the concept of the 'multi-actor approach' and be based on the active participation of stakeholders from research, animal health authorities and the farming and business sectors. Involvement of the pharmaceutical industry is highly recommended.

Indicative EU contribution of up to EUR 10 million – Innovation Action

Planned call deadline: 23/01/2019



Thank you for your attention!

HORIZON 2020

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