European Commission

Integrated Plant Protection
Thematic Session II

EU-China expert seminar
Brussels, 27 October 2016

European Commission,
DG AGRI H5 "Research and Innovation"

HORIZON 2020

European Commission

Legal base in the European Union

Directive 2009/128/EC of the European Parliament and of the Council on the sustainable use of pesticides

European Commission

Examples of topics with relevance for research and innovation on plant health and plant protection

- SFS-06-2016: Weeding – strategies, tools and technologies for sustainable weed management
- SFS-08-2017: Contentious inputs in organic farming
- SFS-10-2017: Research and approaches for emerging diseases in plants and terrestrial livestock (excluding Xylella)

- SFS-11-2016: Challenges for disease management: Perennial crops in the tropics and sub-tropics
- SFS-13-2017: Validation of diagnostic tools for animal and plant health

- SFS-17-2017: Innovations in plant protection
- SFS-28-2017: Functional Biodiversity - effective crop pollinators and predators interplay

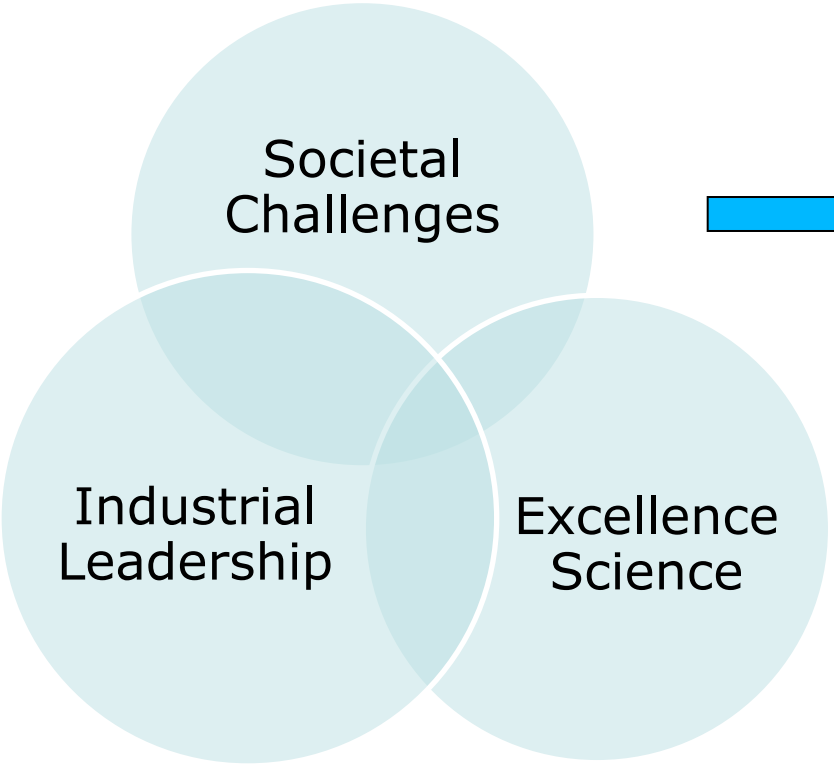
European Commission

EUCLID

Europe China Lever for IPM Demonstration

- Optimisation of various **pest management methods** and **development of several new ones**
  - **Selected farming systems**, focus on fresh tomatoes, grapes, leafy vegetables
- Promoting their adoption through **IPM packages**
- **Assessing** the innovative candidate pest management and IPM methods
- **Disseminate kowledge** to key stakeholders, **participatory framework**

HORIZON 2020: The 2014 – 2020 Framework for Research and Innovation



Total: About 70bn €

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

H2020 Openings for plant and agricultural research

Part I Excellent Science

1. European Research Council

2. Future and Emerging Technologies

3. Marie Sklodowska-Curie Actions

4. Research Infrastructures

Part II Industrial Leadership

1. Enabling & Industrial Technologies

1.1 Information and communication technologies

1.2 Nanotechnologies

1.3 Advanced materials

1.4 Biotechnology

1.5 Advanced manufacturing

1.6 Space

2. Access to Risk Finance

3. Innovation in SMEs

Part III Societal Challenges

1. Health and wellbeing
2. **Food security, sustainable agriculture, marine research and the bioeconomy**
3. Secure, clean and efficient energy
4. Smart, green and integrated Transport
5. Climate Action, Environment, Resource Efficiency
6. Inclusive, innovative and reflective societies
7. Secure societies

Horizon 2020 philosophy

- H2020 rolled out on the basis of **biannual Work Programmes** (WP)
- WPs result of a **strategic programming excercise**
- Call topics are "**challenge-based**" and more open to allow for increased competition
- Increased emphasis on **applied research**: Innovation component more prominent
- Research programme requested to contribute to EU Commisison's **Growth and Jobs** agenda
- **Stakeholder and societal involvement** (multiactor approach in SC2)

Implications for plant and agricultural research

- Overall, significantly **increased budget** – even though not materialised in 2014/2015

- Breeding, methods, technologies as **means to reach objectives**

- **Stronger link between basic and applied research**; the latter one being in the driving seat

- New avenues for **testing and innovations**

- Scientific knowledge to be better connected with **know-how and needs from practitioners and users**: New role for breeders, farmers, consumers?

Systems wide innovation

Farming systems

Rotations, soil, nutrients

Associations

Plant-Pathogen dynamics

Pedo-climatic conditions

Integration of plant protection and farming systems research:
Future advances likely to come from improvement of systems rather than single components

Objectives

1) Presentation of the challenges

2) Identification of common challenges

3) Value added of tackling these challenges together

4) How to tackle these through R&I

5) Report to the plenary