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SPRINT
SUSTAINABLE PLANT PROTECTION TRANSITION

H2020 project SPRINT
Sustainable Plant Protection Transition:
A Global Health Approach

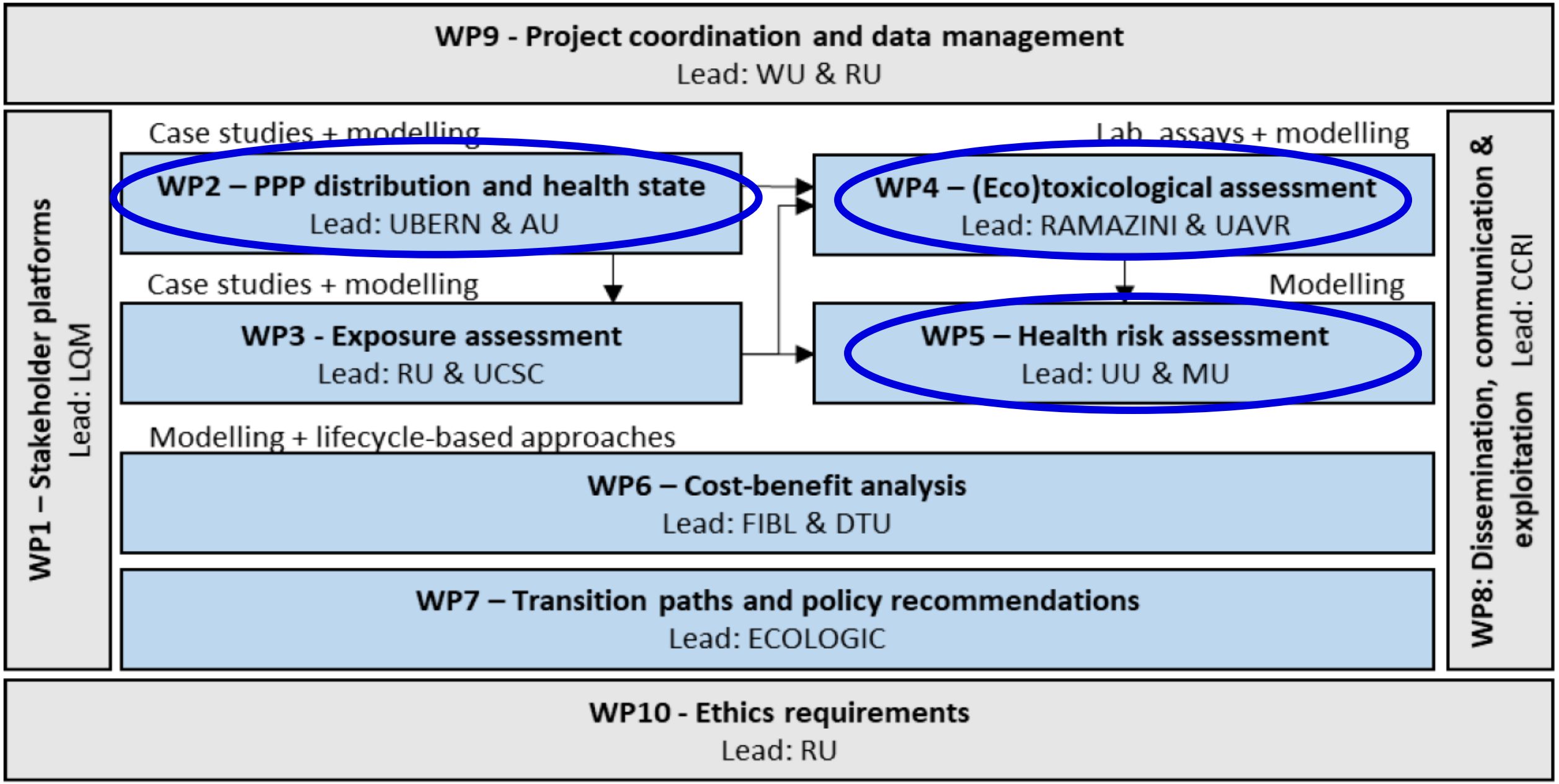
call: SFS-04-2019-2020 - Integrated health approaches and alternatives to pesticide use

A [2019] Integration of plant protection in a global health approach (RIA)

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/sfs-04-2019-2020

Societal Challenges

Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy


WP9 - Project coordination and data management
Lead: WU & RU
WP1 – Stakeholder platforms
Lead: LQM
Case studies + modelling
WP2 – PPP distribution and health state
Lead: UBERN & AU
Lab. assays + modelling
WP4 – (Eco)toxicological assessment
Lead: RAMAZINI & UAVR
Case studies + modelling
WP3 - Exposure assessment
Lead: RU & UCSC
Modelling
WP5 – Health risk assessment
Lead: UU & MU
Modelling + lifecycle-based approaches
WP6 – Cost-benefit analysis
Lead: FIBL & DTU
WP7 – Transition paths and policy recommendations
Lead: ECOLOGIC
WP8: Dissemination, communication & exploitation Lead: CCRI
WP10 - Ethics requirements
Lead: RU

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Soil Health BENCHI

HORIZON 2020 PAPILLONS

H2020 project PAPILLONS

Plastic in Agricultural Production: Impacts, Lifecycles and LONg-term Sustainability

(project 101000210)

https://www.papillons-h2020.eu

Jakub Hofman
Klára Šmídová
et al.

Call: SFS-21-2020: Emerging challenges for soil management

B. [2020]: Emerging challenges for soil management: use of plastic in agriculture (RIA)

Societal Challenges

Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy

Agricultural plastics

To fill knowledge gaps on the

sources,

behaviour

and long-term ecological

and socioeconomic impacts

of MNPs from AP in European soils

and provide the scientific background

to enable policy, agricultural and industrial innovation

towards sustainable farm production systems

Cross-cutting theme 1 Multi-actor approach

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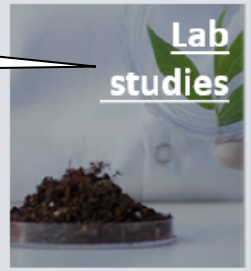
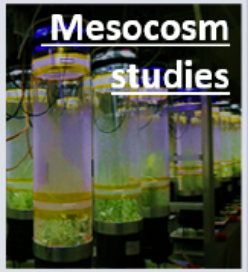
Cross-cutting theme 3 Integrated multipronged studies





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WP1. MNPs properties and sources to farm soil

T 1.1 Chemical/technical characterisation of AP

T 1.2 Processes and rates of release of MNPs and chemical additives

T 1.3 European Atlas of agricultural plastics usage, management and MNP sources

T 1.4 Development of reference materials and analytical methods

WP2. Behaviour and transport

T 2.1 MNP source apportionment in European agricultural soils

T 2.2 MNP transport and ageing in soil

T 2.3 MNP transport to the water environment and uptake by biota and crop

WP5. C.D.E.

T 5.1 Stakeholder engagement

T 5.2 Dissemination and Exploitation plan

T 5.3 Knowledge hub

T 5.4 Clustering with other EU initiatives

WP4. Production and sustainability impacts

T 4.1 Effects of MNPs on crop production and quality.

T 4.2 Socioeconomic sustainability of APs

WP3. Ecological effects

T 3.1 Effects of MNPs on soil properties

T 3.2 Effects of MNPs on soil microorganism diversity and functioning

T 3.3 Effects of MNPs and additives on soil invertebrate populations, community and functional diversity

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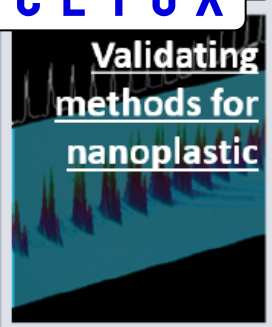

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Cross-cutting theme 2 Method optimisation and validation

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Soil Health BENCHMARKS

https://soilhealthbenchmarks.eu/

BENCHMARKS: Building a European network to advance soil research, monitor soil health and advocate for sustainable land use

Jakub Hofman

Horizon Europe Framework Programme (HORIZON)

Call: Research and Innovation and other actions to support the implementation of a mission in the area of Soil health and Food (HORIZON-MISS-2021-SOIL-02)

Topic: HORIZON-MISS-2021-SOIL-02-02 - Validating and further developing indicators for soil health and functions

Type of Action: HORIZON-RIA

Coordinator: prof. Creamer, WU; **Grant Number:** 101091010; **Timeline:** 1/1/2023 – 31/12/2027

EU Missions:
Soil Deal for Europe

- 60-70% of EU soils are unhealthy
- soil is fragile resource that needs protection for future generations

- the Mission leads the transition towards healthy soils by:
  - R&I programme
  - 100 living labs and lighthouses
  - harmonised soil monitoring
  - people's awareness

- **the 8 Mission objectives ➔ ➔ ➔**

"75% of European soils as healthy or significantly improved by 2030"

1. Reduce **desertification**
2. Conserve **soil organic carbon stocks**
3. Stop **soil sealing** and increase re-use of **urban soils**
4. Reduce **soil pollution** and enhance **restoration**
5. Prevent **erosion**
6. Improve soil structure to enhance **soil biodiversity**
7. Reduce the **EU global footprint on soils**
8. Improve **soil literacy** in society

BENCHMARKS

- develop **Integrated Soil Health Monitoring Framework** with **stakeholders** from **24 Living Labs** across Europe
- deliver harmonised and cost-effective **indicator measurements** for soil health assessment, in which the **link between indicators, soil functions and ecosystem services** is clearly demonstrated
- test and validate the **SH&F mission indicators** as well as the **BENCHMARKS additional indicators** for the **different land-uses** (agriculture, forestry, urban) and **different scales** (local, landscape, region, Europe), and establish context specific **thresholds** for these indicators
- develop a European broad **sampling framework, methodology and protocols**, which can support relevant EU policy, regulation and monitoring needs