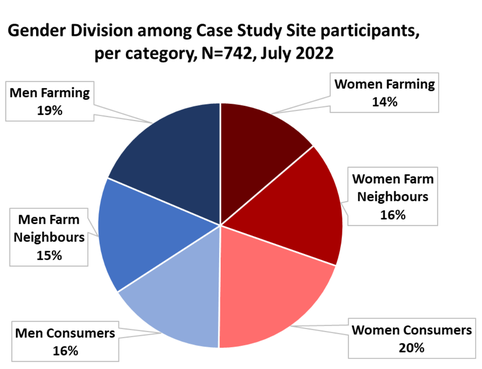
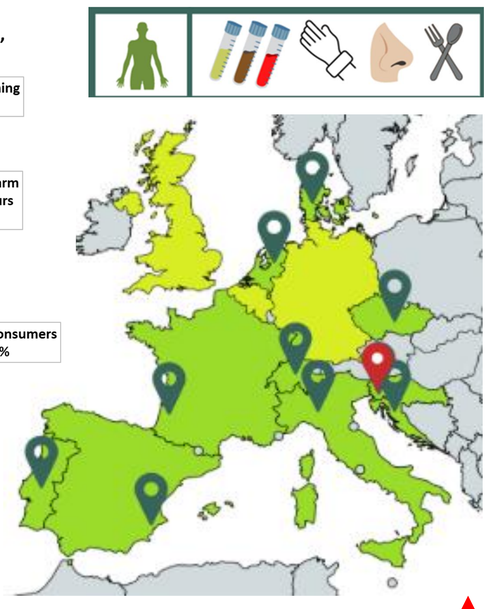
The Gender+ dimension in SPRINT

SUSTAINABLE PLANT PROTECTION TRANSITION

June 2025

The SPRINT Gender Committee





Case Study Sites Participants:
(Farmers, Farm neighbours, Consumers)
332 Men, 337 Women participants

Key document:
D2.3: Inventory of PPP distribution and accumulation in EPAH, incl. gender-mediated differences

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In vivo-testing (Top 3 pesticides of concern and their mixtures):

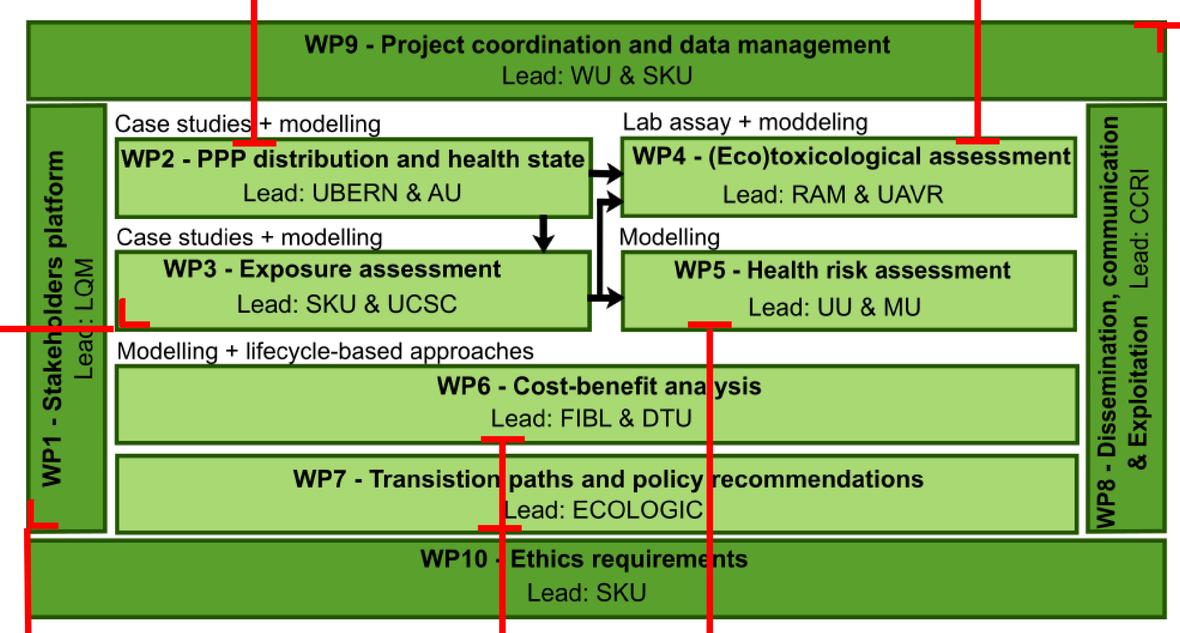
- Shows sex-related effects on endocrine disruption, liver & kidney toxicity, microbiome and behavioural alterations, even in doses currently considered safe in humans or without adverse effects in animals.
- Shows the importance of a component-based approach, including accounting for sex-related effects and early life exposures, as predictive and adequate for hazard and risk assessment of mixtures
- results on a number of gender-relevant outcomes, that appear to be particularly relevant during certain windows of susceptibility of hormonal change or imbalance such as developmental age, pregnancy, menopause, the process of transitioning or hormonal treatments.

Key document:
D4.6: Report on the gender-specific analysis addressing distinct toxicological effects patterns of pesticides mixtures

Exposure to pesticides by gender in farmers, neighbours and consumers

- Exposure data by gender are difficult to interpret (small differences and high variability, combined with a low number of observations per substance)
- Potential factors underlying the observed exposure patterns are thought to stem from work-related activities and domestic use
- Recommendation to collect and analyse data by gender in future exposure studies, to build up the database for rejection or confirmation of possible gender-related exposure and connecting results to possible underlying exposure causes and effects.

Unexpectedly, indoor dust – especially in farm homes - had the highest number of pesticide residues → Target especially also women considering they mostly manage the house, watch the children and clean.



Activities

- Gender+ training
- Gender+ survey
- Gender+ balance in consortium
- Gender+ integration at WP level
- Advice communication & dissemination strategy
- MentiMeter exercise on collaboration
- 2024 Workshop gender+ inclusion in SPRINT policy recommendations
- Integration meetings with relevant WPs
- Periodical reporting

Recommendations

- Include Gender+ Expertise at the start of proposal development
- Gender Committee members among partners & WPs to ensure connection
- Encourage visibility of GC
- Provide sufficient budget for GC and partners for Gender+ activities

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Key document
D3.6 -Exposure to PPPs by gender in farmers, neighbours and consumers

Key document
D9.2 - Gender Insights into the SPRINT project

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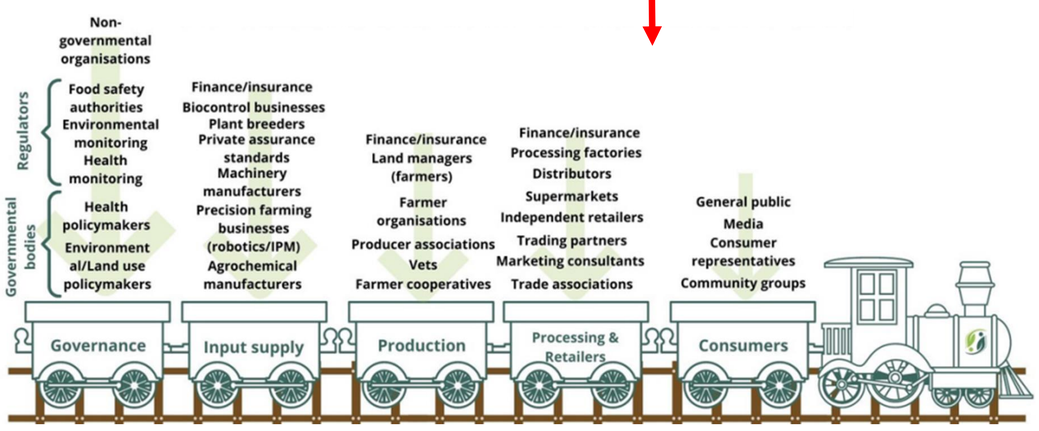
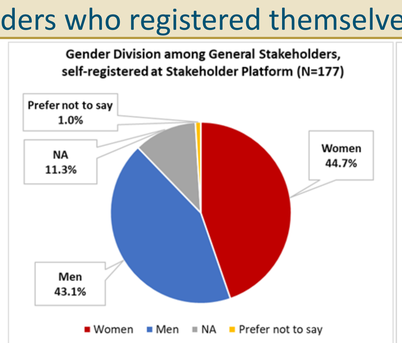
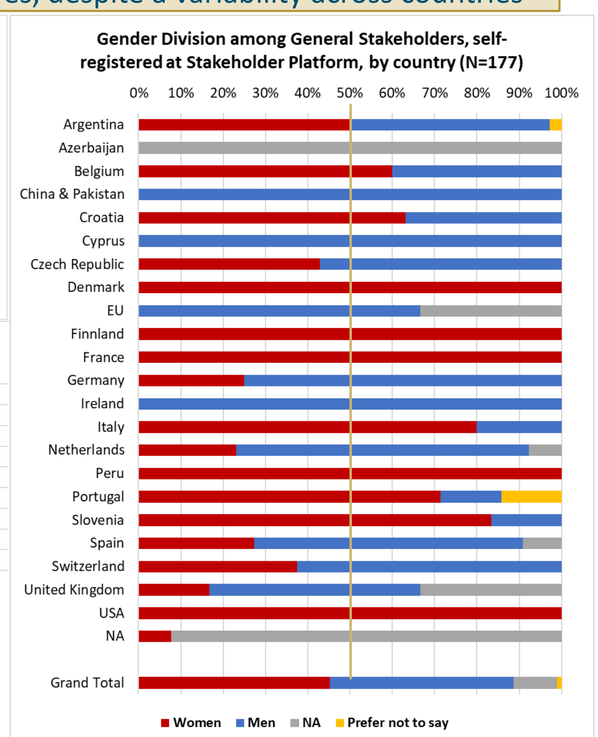
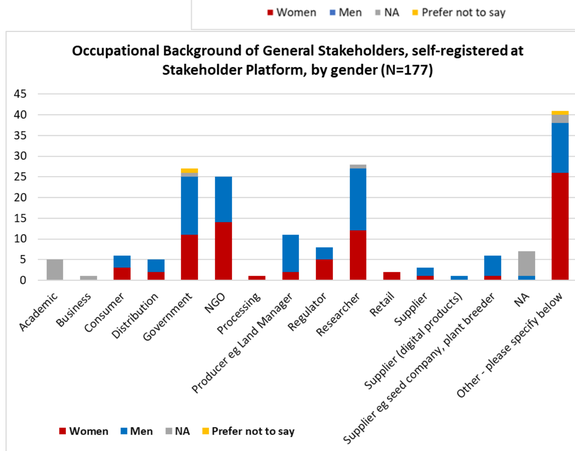


The SPRINT transition train started off in July 2022 with m/f balance among the stakeholders who registered themselves, despite a variability across countries







Tool	Overall purpose	End users
I: Recommended procedures and results database for data on pesticide (eco)toxicity	Procedures and recommendations for the (eco)toxicological tests developed in SPRINT and a simple database of data, including results of mixture testing.	efsa European Food Safety Authority; Regulators; Policy makers; Industry; Scientists
II: Database of the models used	A list of the models applied in the SPRINT case study sites, including both pesticide fate and exposure models.	
III: Estimations of pesticide input/environmental distribution and reality check	Provides estimates of pesticide inputs into the environment and provides modelled concentration maps for soil, water and air.	
IV: Exposure, hazard and risk estimations and maps	Exposure estimations and maps for terrestrial and aquatic ecosystems, (farm) animals, and humans.	
V: Integrated health impact	An integrated risk assessment where all impacts and risks (from tool IV) are combined.	
VI: Libraries of existing tools/data	A structured database of other existing tools and sources of pesticide related data	

The toolbox emphasises the importance of incorporating gender analysis into all human and animal toxicological studies, in order to strengthen the evidence base and expand datasets on gender-specific exposure and associated health effects. Such analysis strengthens accurate comparison and modelling, supports the development of gender-specific risk assessments, and facilitates research that can connect exposure or effects to specific social and spatial underlying connections.

NB: In vivo experiments with m/f animals require more animals for testing but is important for comparison

Transition pathways and policy recommendations:

Cost-benefit analysis:

- include all farm family members of the farm household who do or can bring in income and labour, either concerning farming activities, non-farm activities on the farm, or elsewhere off-farm.
- Work on completing big data sets and EU statistics to make such analysis possible on a large scale

Good practices

- Represent both partners fully by interviewing both farm partners separately
- Include how social support in families and networks facilitates joining in or strengthen resistance
- Include other social aspects (life histories) to understand why farm partners separately or together support transition

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