



Foresight study on sustainable use of pesticides

Presentation for Second Remote Stakeholder
Workshop 25/6/21

Fay Dunkerley RAND Europe

Outline

- Who are we?
- Aims of the study
- Study design
- Progress to date
- Next steps

The study team

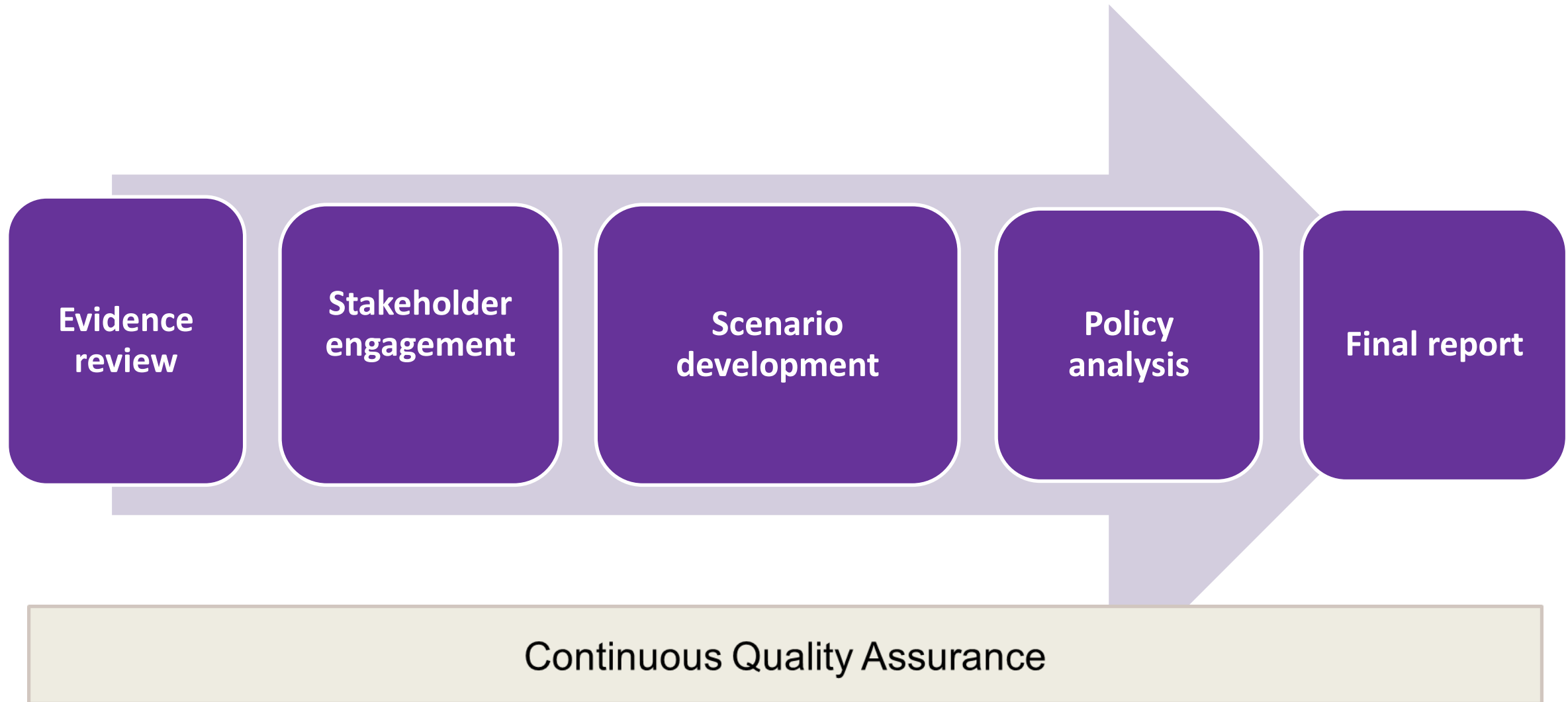


- RAND Europe:
 - Non-for profit policy research organisation with offices in Brussels and Cambridge
 - Research areas include health, safety and wellbeing, transport, criminal justice systems, defence and security, science and innovation, employment and social policy, education and technology policy
 - Dedicated Centre for Future and Foresight Studies (CFFS)
- Arcadia International:
 - Multidisciplinary consultancy dedicated to the food and feed value chains
 - Covering a wide range of subsectors, from agriculture inputs (seeds, pesticides, fertilisers) down to retail
- Dr Elta Smith:
 - Independent consultant with 17 years of experience in the analysis of complex problems at the intersection of food, environment and health systems
- Schlesinger Group:
 - World-leading market research agency, with outstanding expertise in a variety of qualitative and quantitative research method

Study objectives

- Development of a robust policy trajectory until 2030, combining the following two goals:
 - Achievement of pesticide use and risk reduction targets as announced in the Farm to Fork and Biodiversity Strategies;
 - Protection of food security, food production and food quality, as well as economic well-being of agricultural producers in the EU.
- With specific objectives:
 - To examine and project the most important variables that influence/will influence the sustainable use of pesticides in the EU in the period up to 2030;
 - To generate coherent vision scenarios for 2030 taking into account the most significant drivers in pesticide use and the over-arching goals
 - To describe, for each scenario, the likely impact of a timely launch of appropriate and adequate EU policies on the sustainable use of pesticides, as well as the main obstacles to their implementation;
 - To summarise the results of the discussions and generate specific input so that policy makers can be more informed when preparing relevant initiatives.

Outline of the research approach



Evidence Review

First step of study involved a review of existing evidence to identify the key factors that influence the use of pesticides in the EU and the broader study goals, and the uncertainties in their future development over the foresight period.

The review was organised around the PESTLE framework:



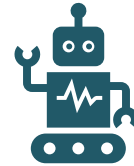
political/legal



environmental



economic



transport (logistics)



societal

A long list of 35 factors was generated from the evidence review

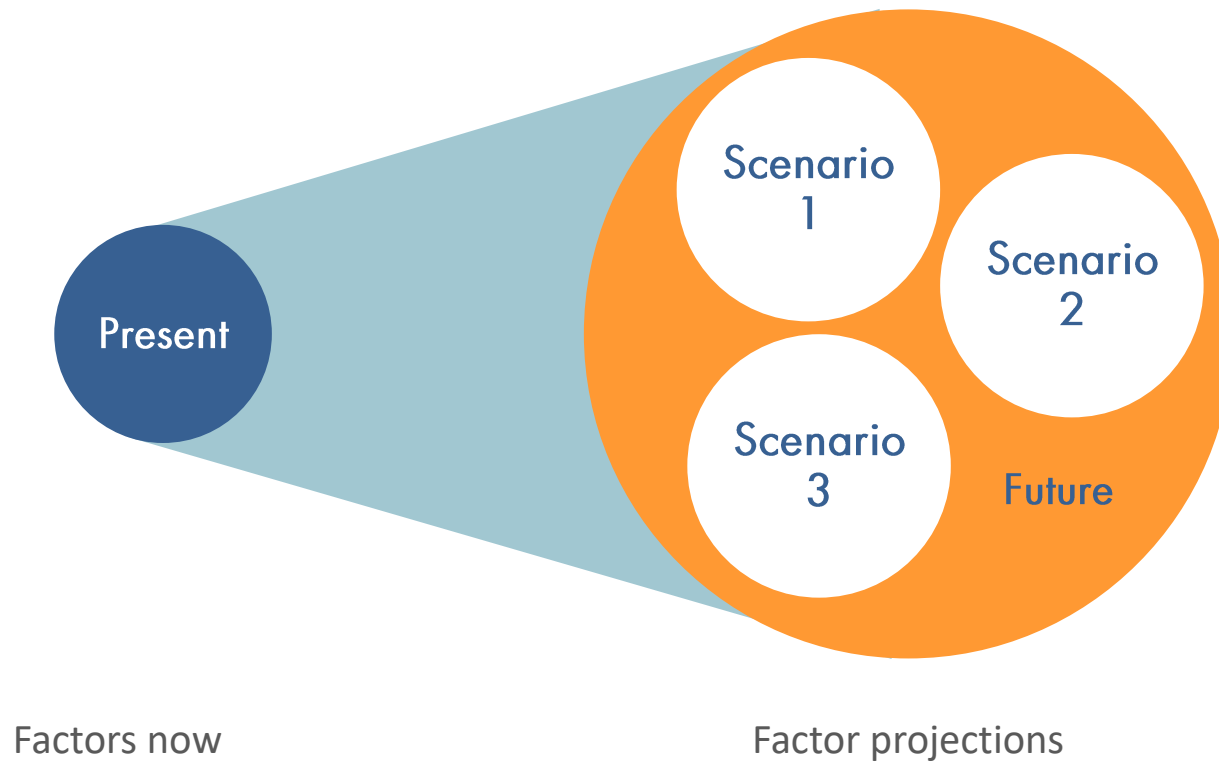
Stakeholder engagement

- **Expert survey** sent to 70+ stakeholders covering a range of actors from government, academia, industry
- Survey respondents were asked:
 - to score the factors in terms of importance and uncertainty
 - indicate plausible future development/ future directions of travel (projection) for each factor to 2030.
- **Citizen survey exercise** to obtain snapshot of attitudes and understanding
- 30 respondents from 6 European countries

=> Survey responses also feed into scenario development process



Scenario development: what are future scenarios?



- Scenarios represent **plausible** futures across a full spectrum of possibilities

Scenario development



Identification of factors

Cross-impact analysis

Future projections

Consistency analysis

Cluster analysis

Scenario narratives

Cross-impact analysis

Influence matrix

How does Factor A (row) influence Factor B (column)?

RATING SCALE

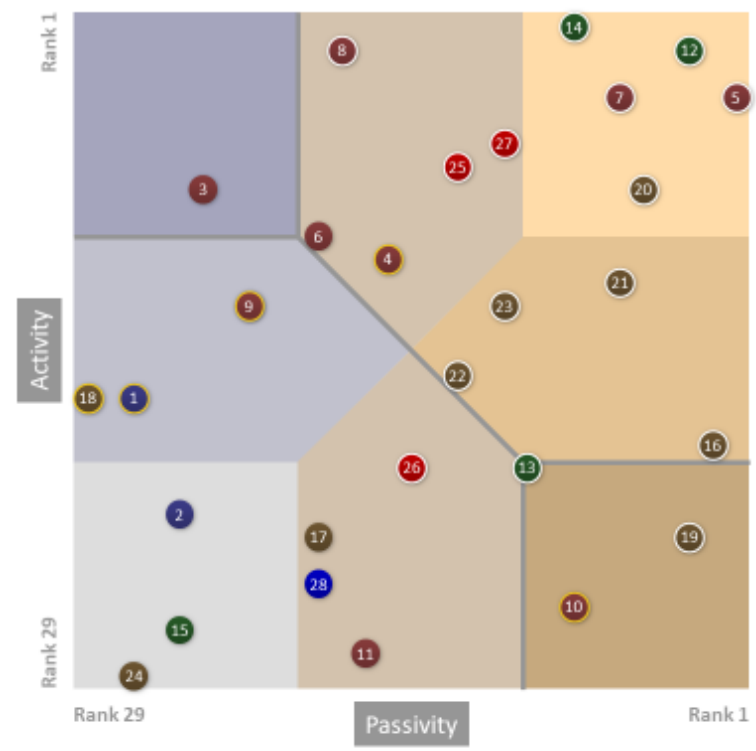
- strong and direct impact
- medium impact
- weak and delayed impact
- No impact

activate the matrix field you want to start and click on the "Start" button.

Start

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM		
4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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Direct analysis – rank scale

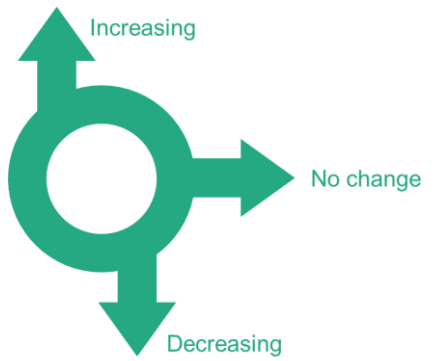


Factors scored in internal workshop for influence

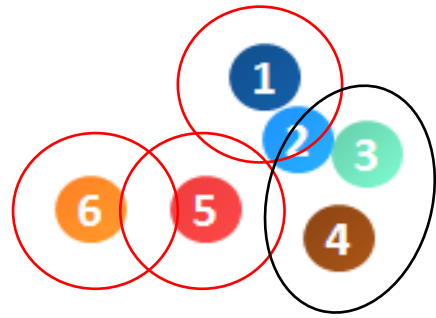
Helps shortlist key factors but also need to take account of uncertainty, overlap...

Scenario development next steps

Factor projections



Cluster analysis



Scenario narrative



3.1. Driving Ahead

Summary: In this scenario, both gross domestic product (GDP) and per capita travel have continued to rise at rates higher than anticipated.³ Growth in both of these is being stimulated by the rise of autonomous vehicles, which are changing the face of not only transport, but also healthcare and retail. Many of these are shared vehicles, reducing costs for those who no longer have to own cars. The ease of use has led to growth in vehicle travel and congestion, as being stuck in traffic no longer means being unproductive. As the population has grown, the large proportion of older people who live on their own has greater flexibility to travel, especially for medical visits, and the freight and retail sectors make heavy use of autonomous vehicles for both long-haul freight as well as delivery to customers.

Consistency analysis

Scenario	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10	Scenario 11	Scenario 12	Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	
Scenario 1	1																				
Scenario 2		1																			
Scenario 3			1																		
Scenario 4				1																	
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Scenario 18																		1			
Scenario 19																			1		
Scenario 20																				1	



EUROPE