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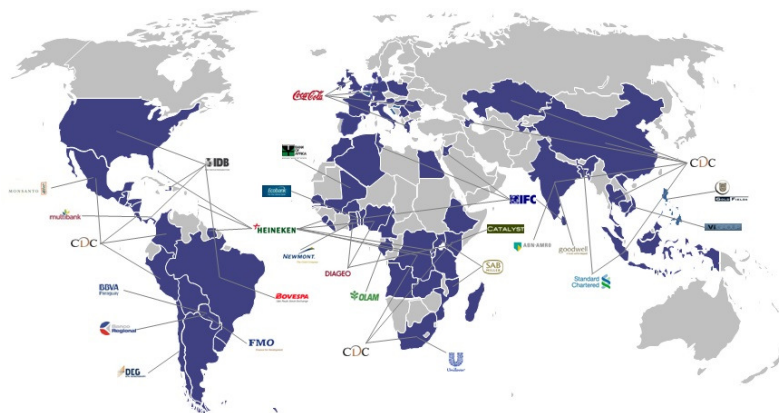
Societal effects of hazard-based legislation on Crop Protection products in Europe

XI Congresso Nacional de Milho

Lisbon, 08 February 2017

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Making Business Work for Society

- Strategy and economic consultancy since 2000
- Represented in Amsterdam, Barcelona and Princeton
- Focus on integrating sustainability and quantifying impact
- Global track record in Agriculture, Finance, Food&Beverage and Mining



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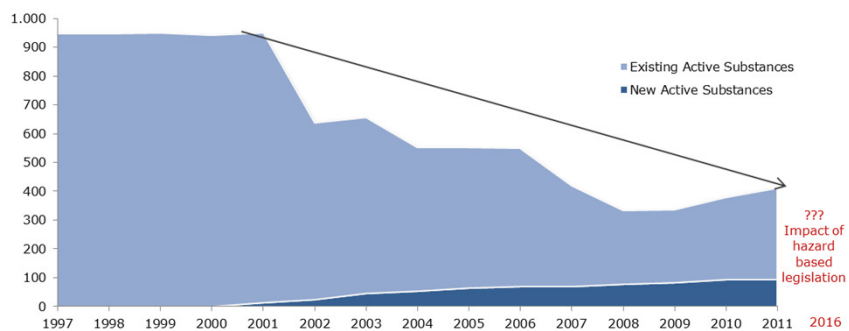
- 1 Introduction
- 2 Methodology
- 3 Key Results

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Motive for study is shift to hazard-based EU legislation

Development of active substance availability



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Contributors include public institutes, farmers and industry



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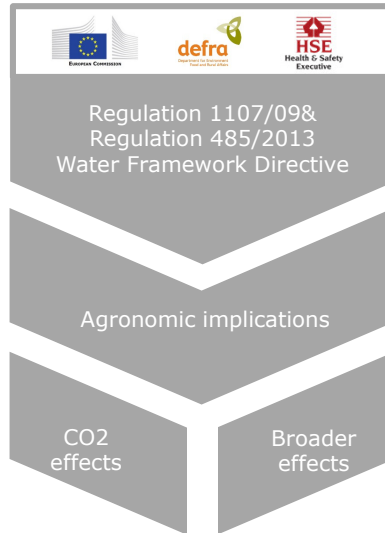
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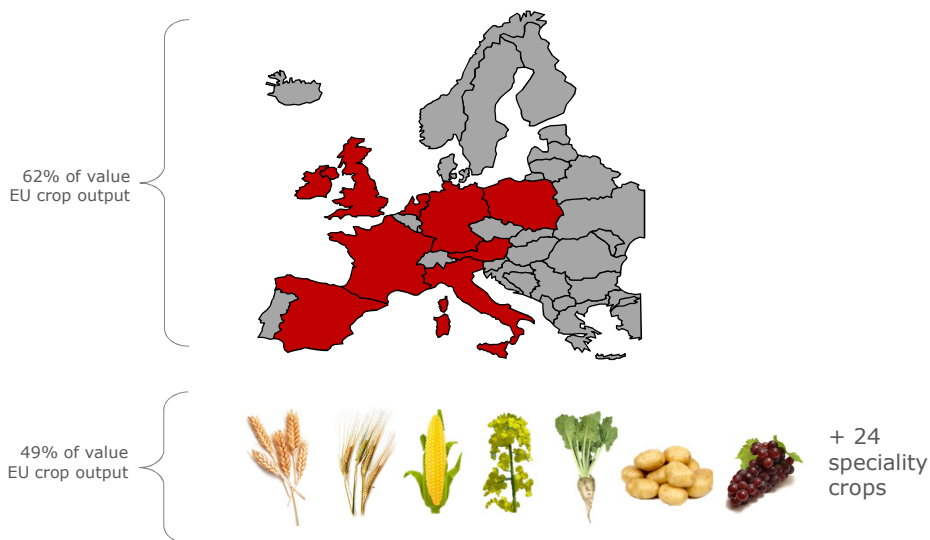
Starting point are 75 substances with uncertain future



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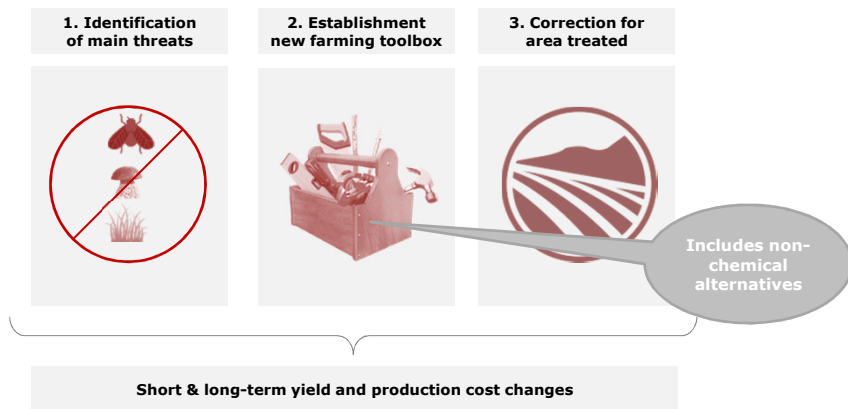
We analysed the effects for 7 staple and 24 specialty crops in 9 countries and extrapolate results to EU28



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Estimation of the value comprises three steps



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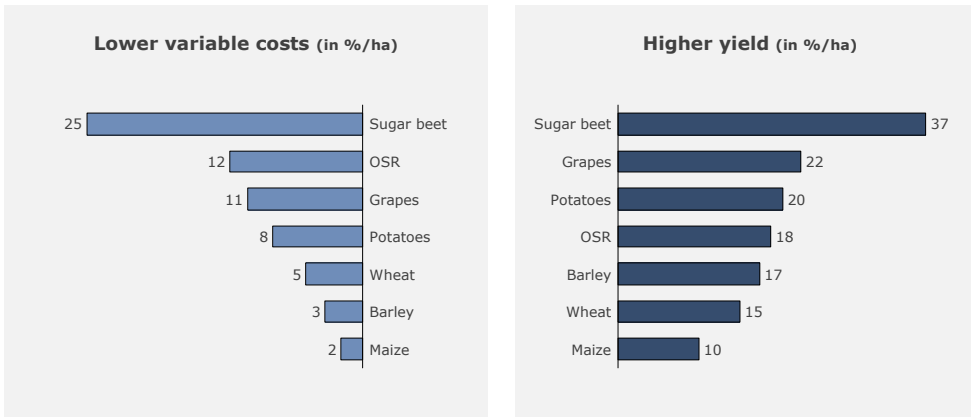
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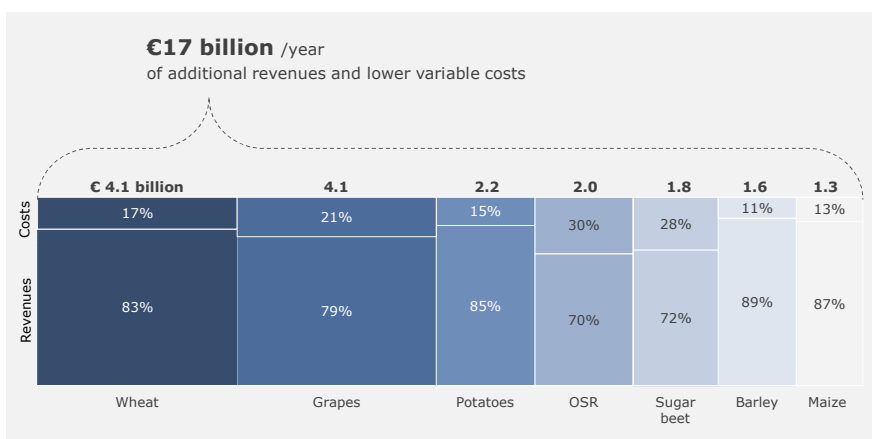
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Current value of 75 substances for staple crops is up to 25% lower variable costs and 10-40% additional yield



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Use of 75 substances supports €17 billion per year, mainly in additional revenues for wheat and grapes



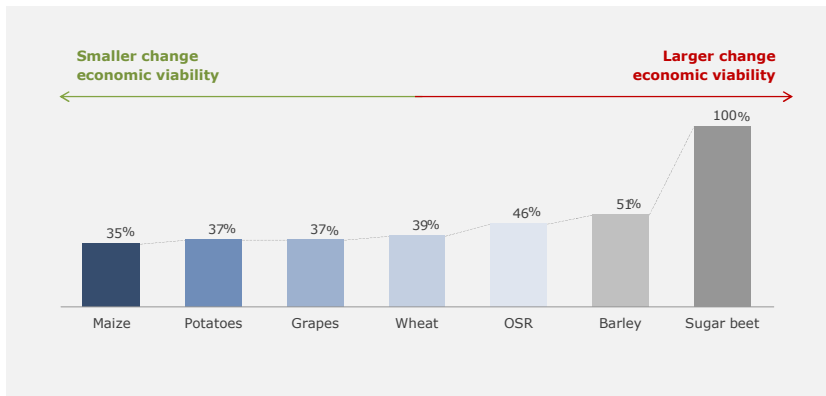
Determining factors include:

- Crop area
- Yield and variable costs change per crop
- Value of crop output

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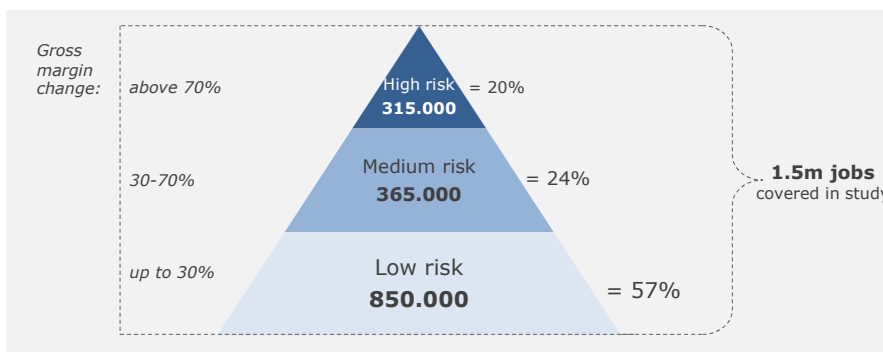
Extent of impact on economic viability depends per crop

Change gross margin in % compared to current situation



Reduced economic viability puts 20% of farming jobs at risk

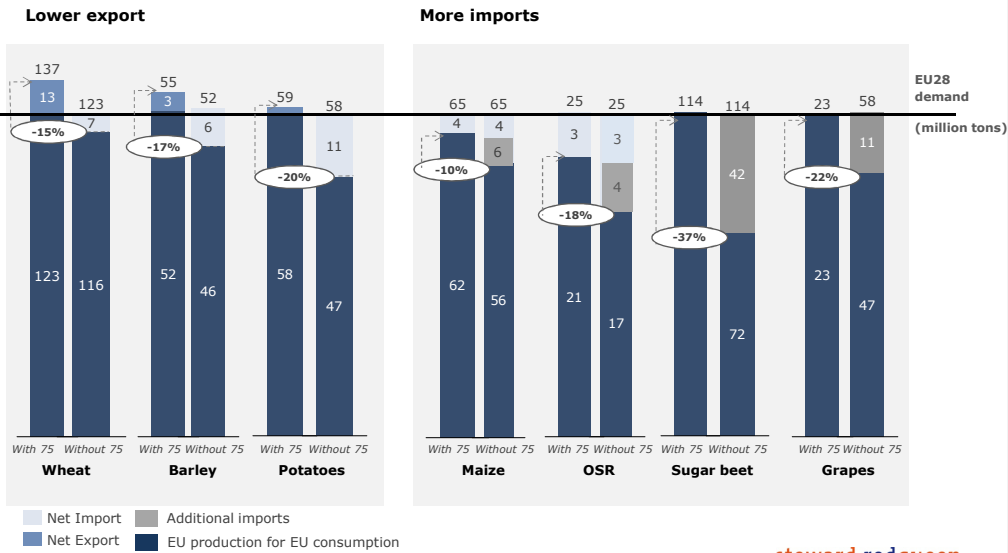
Risk-levels of employment in crop agriculture in scope of study



Within the 9 depth-countries, crop agriculture represent 3.5m jobs or 2% of total labour force.

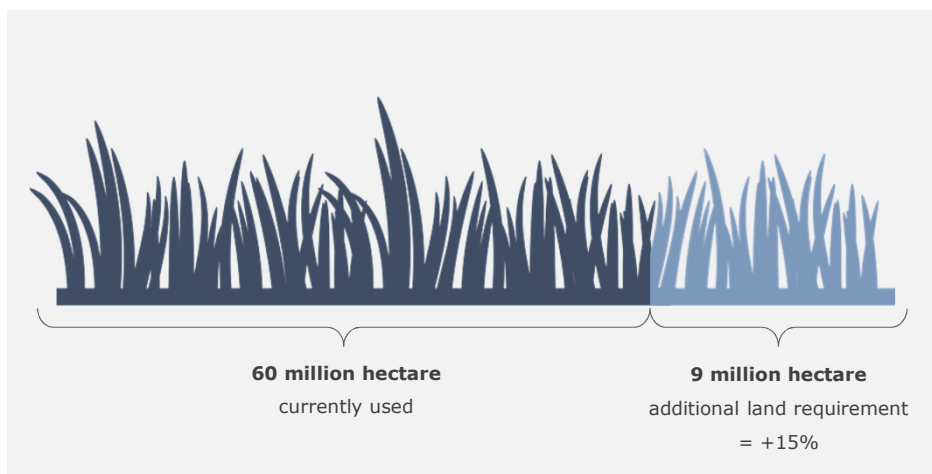
Reduced own production worsens EU trade balance

EU wheat production & consumption in the EU (million tons)



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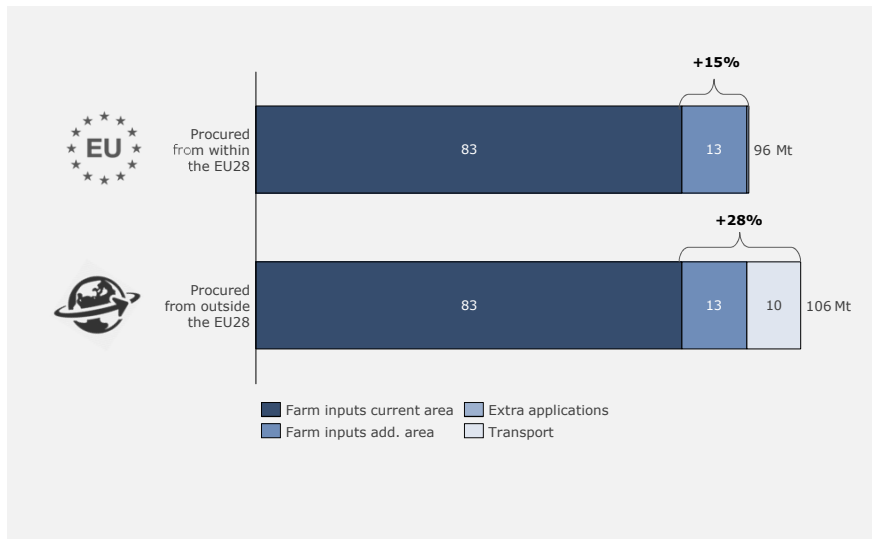
Use of 75 substances allows for using 15% less area



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Without 75 substances carbon footprint is likely to rise

Carbon footprint related to two scenarios to meet EU consumption (in million ton CO2 emissions)



This excludes emissions related to land use changes of 26 million ton CO2 emissions per year

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Final remarks

The study complements other societal impact assessments

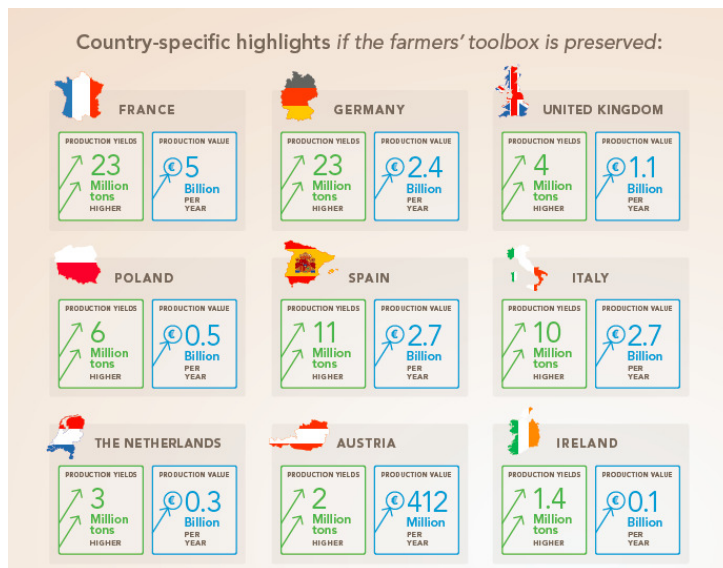
The assessment highlights societal trade-offs of hazard-based legislation

And underlines the importance of innovation

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Key-messages for 9 European countries



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