



TRansition paths to sUstainable  
legume-based systems in EEurope

## Policies to support legume based systems

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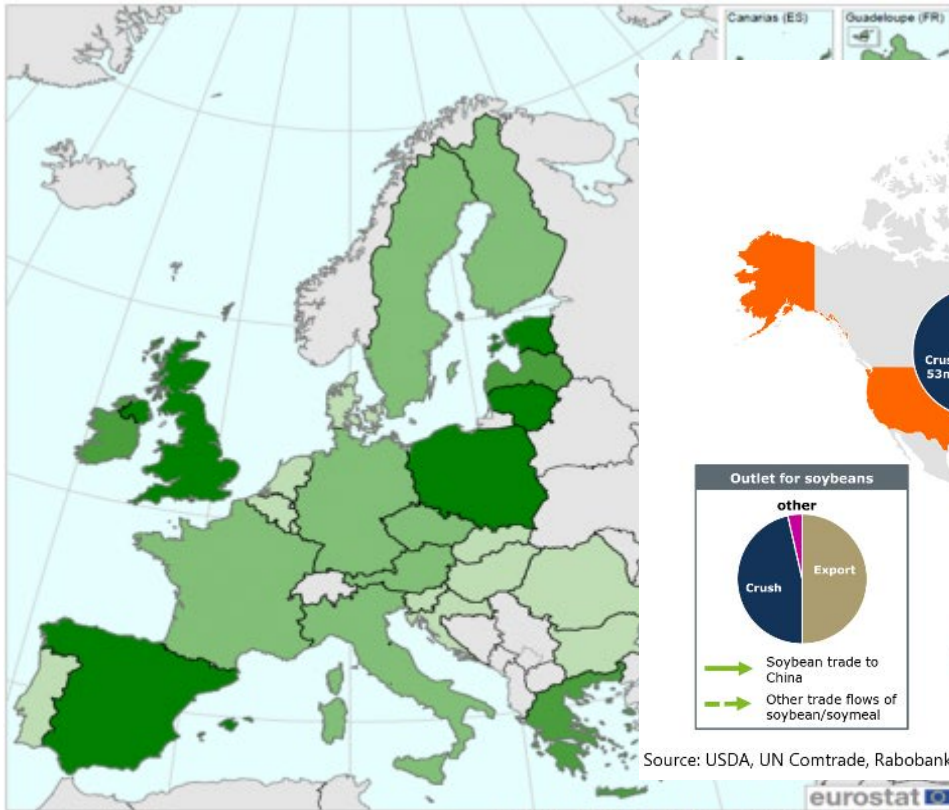
2nd A-LIN meeting, Nyborg, 07-05-2019



# What is the problem?

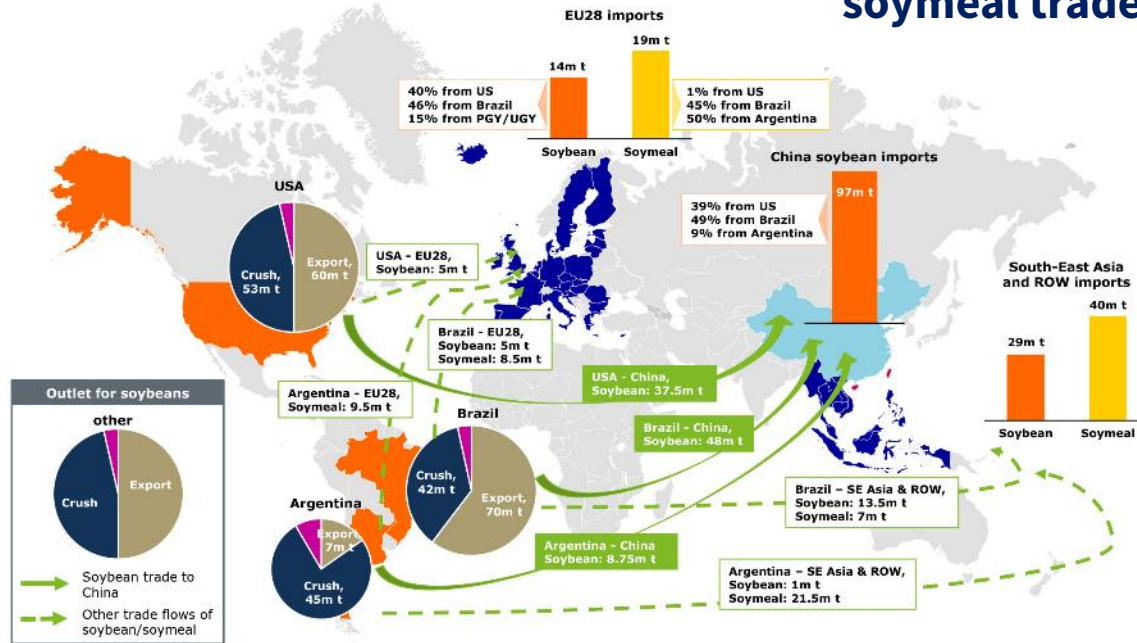


## % Share of Land Area Cultivated for Dry Pulses



Source: USDA, UN Comtrade, Rabobank 2018

## The global flows of soybean and soymeal trade



Source: <https://www.agweb.com/article/the-severe-implications-of-soybean-tariffs/>

Source: [EUROSTAT online](https://ec.europa.eu/eurostat/)

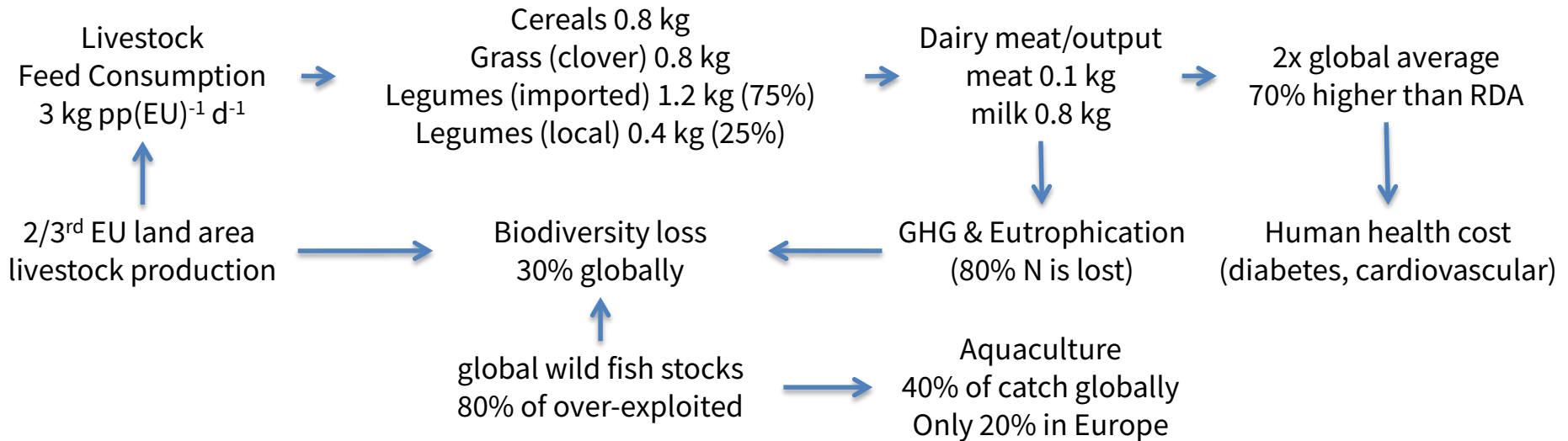
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# The legume paradox



## EU legume-dependency but not cultivation



## Evidence of socio-technical breakdown?

Adapted from: [Westhoek et al., 2011.](#)  
[The Protein Puzzle. Euro J Food Res Rev 1, 123.](#)

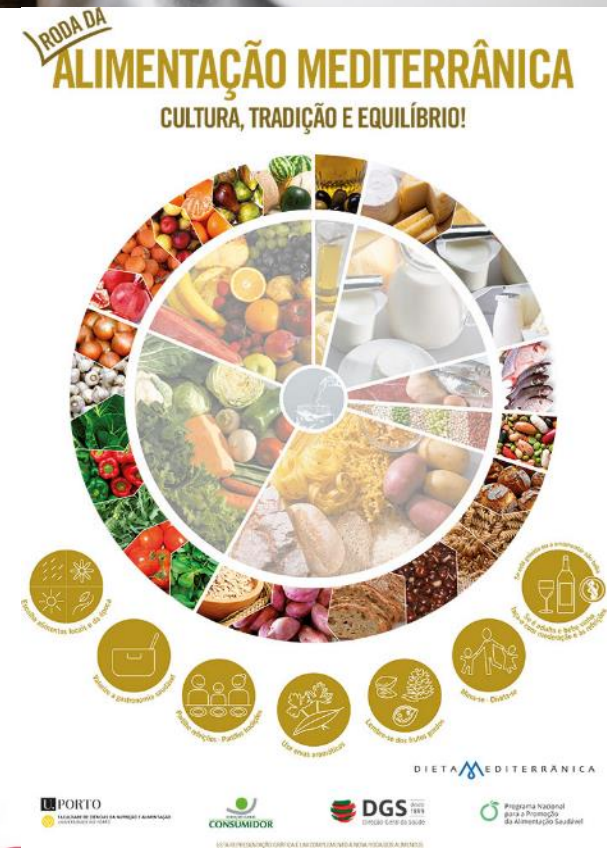


# Policies to support legume based systems

## Diverse types of instruments, from EU to local level



- Beus et al 2013: integrated approach with
  - greening measures,
  - investment in research,
  - constraints on the use of synthetic N fertilizer
- Legume Futures Reports (Helming et al. 2014., Topp et al. 2014):
  - international trade and climate-change mitigation are likely to have the most significant effect



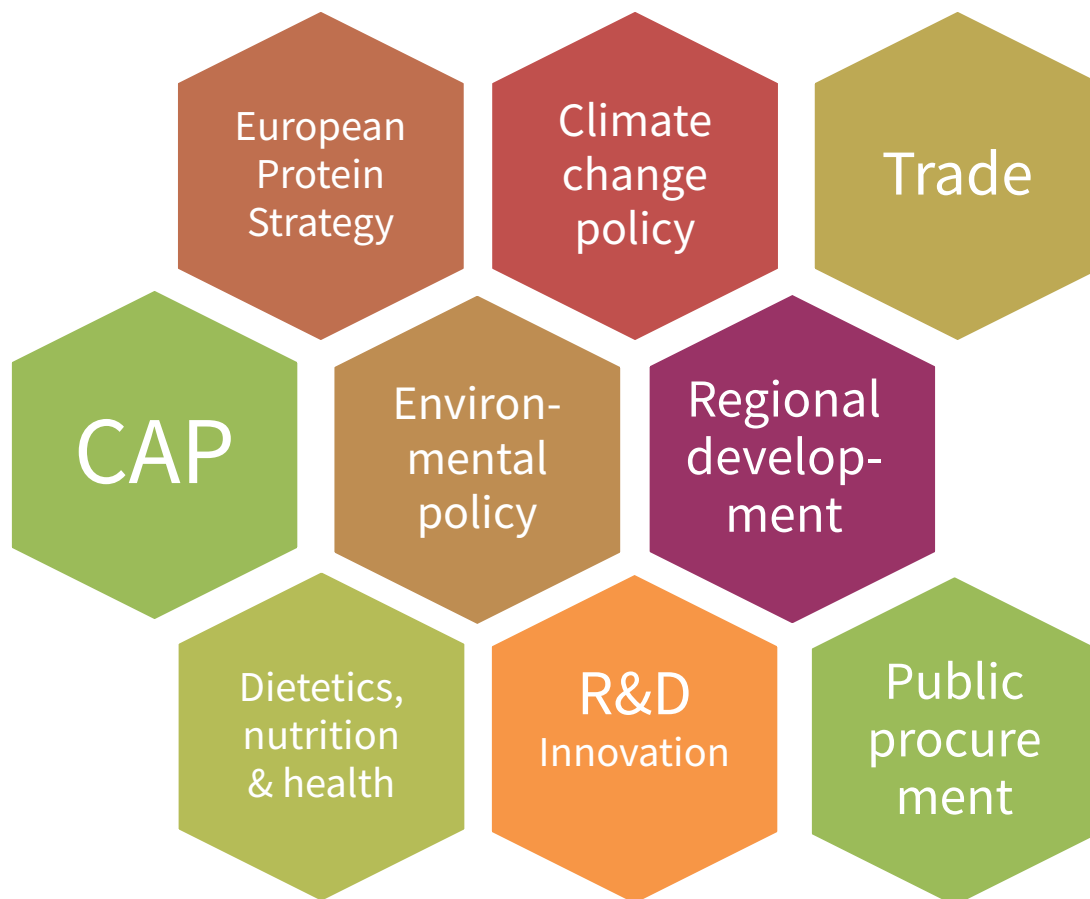


## Co-Creation of the policy analysis

What are the practical policy challenges?  
What approaches do already exist?  
What is the most needed policy change?



# EU policies relevant for legume supported systems

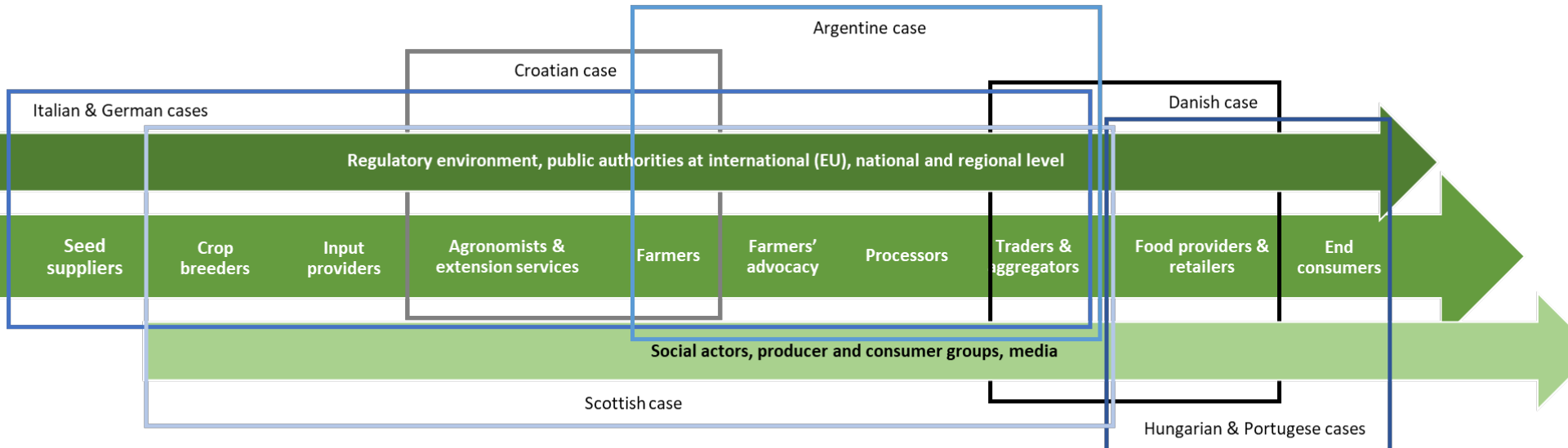


Policy incoherence

Path dependencies



# National / Regional case studies



## Analysis incorporated

- Primer data (interviews, media & document analysis)
- Results of previous TRUE LIN meetings
- Results of EC's stakeholder survey on plant proteins (2018)





## Potential policy pathways

**Knowledge transfer** via multi-actor collaborations, public support for increased accessibility of best available knowledge

- Issue addressed: lack of knowledge and awareness
- Enablers: legitimate narratives for more legumes (e.g. environment, climate health, nutrition) and increasing media coverage of such topics



**Public-private partnerships**, increased funds to support (grassroot) **innovation** and experimentation with traditional breeds

- Issue addressed: technological lock-ins, lack of suitable breeds
- Enablers: innovations led by private sector, emerging networks for sharing know-how







## Potential policy pathways

**Improved financial incentives** (i.e. support intercropping, couple CAP payments with national funds or restrictions on nitrogen use)

- Issue addressed: limited profitability of legume production
- Enablers: financial gains via improved soil quality and reduced fertilizer use

**Certification and labelling** to prioritize in subsidy and procurement systems, better acknowledge the ecological functions of legumes

- Issue addressed: limited profitability of legume production
- Enablers: by advocating for legumes farmers and companies can present themselves as acting on health and environmental problems and might realize price premiums





## Potential policy pathways

**Integrate health and nutrition aspects** in food and agricultural policies, promote pulses via public catering, support niche market segments

- Issue addressed: unfavourable trade structure, import concerning plant protein sources
- Enablers: high demand for GMO-free products, more credibility attributed to products of regional / traditional origin



Focus on **agro-ecological approaches**, support alternative agri-food systems in legume production

- Issue addressed: Disintegration along the value chain, distance between the key players
- Enablers: Emerging networks of legume producers, grass-root initiatives to support farm-to-table solutions





# Break-out group on Policies

**Group 1: Public-private partnerships to support innovation**

**Group 2: Certification and labelling**

**Group 3: Agro-ecological approaches**





## General contact information

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Facebook/Twitter: [@TrueLegumes](https://www.facebook.com/TrueLegumes)



**TR**ansition paths to **sU**stainable legume-based systems in **E**urope (**TRUE**) has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 727973





## Most legitimate policy narratives

Increase the EU's self-sufficiency of plant protein sources

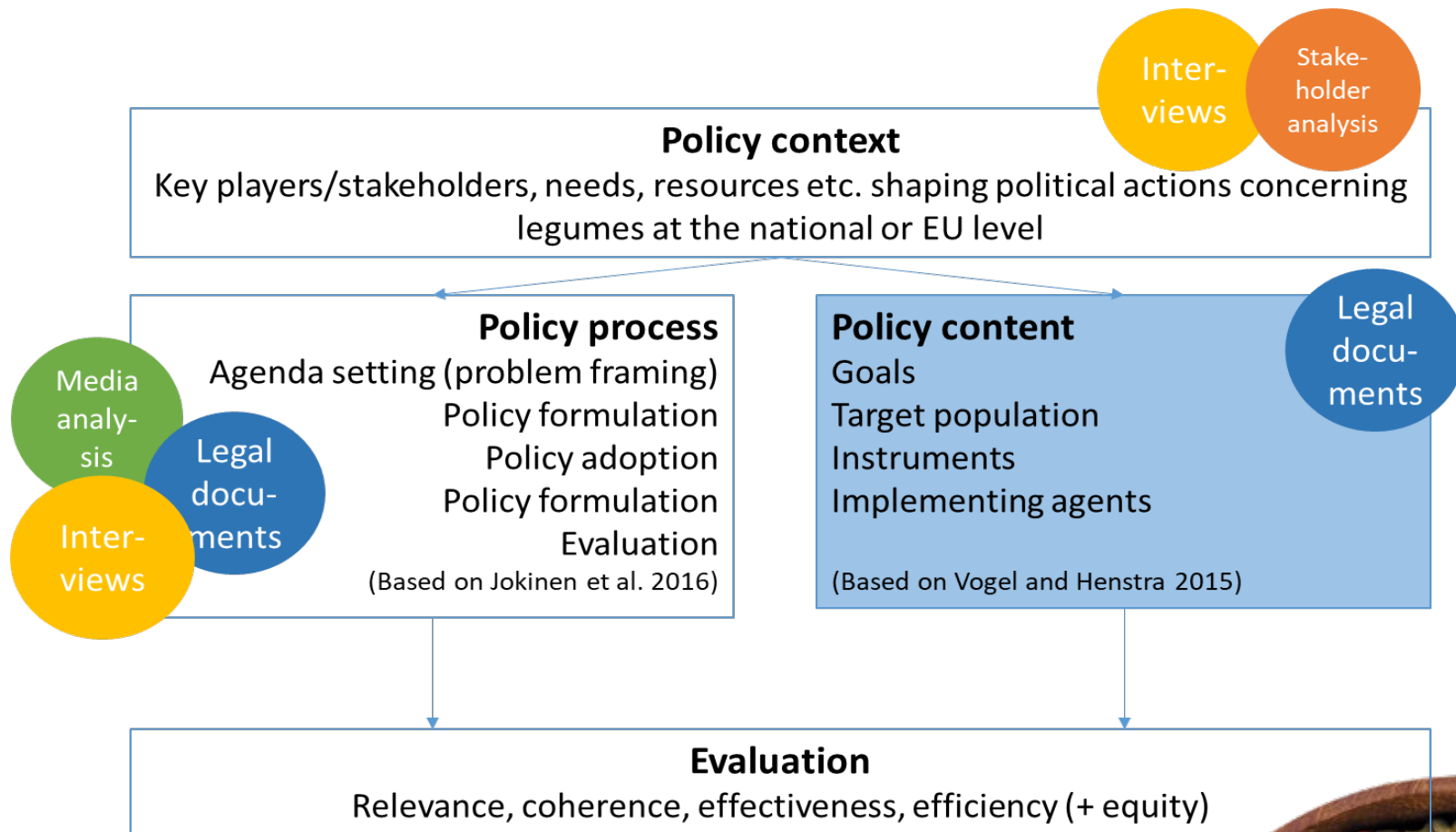
Improve health and nutrition status of European citizens

Combat biodiversity loss and climate change

Create opportunities for knowledge sharing and innovations



# Critical analysis of existing policies for legume supported systems



## Legume Paradox

### The TOP10 components



- 1. EU's dependency** on non-taxable soybean imports
- 2. Supporting policy** for legume-based food production failed to increase legume-based diets
- 3. Policy innovations** could help transition?
  - Greening CAP
  - Invest in research
  - Ban synthetic N fertilizer
  - International trade
  - Climate-change mitigation





4. **Legume-friendly policies (protein strategies)** where they exist, are oriented towards industrialised livestock production.
5. **Agricultural policy** (Common Agricultural Payments, Greening and Voluntary Coupled Support) is effective in different ways in different countries.
6. **Research and innovation** sector: despite the activity regarding legumes, a lack of knowledge transfer is a common problem.
7. **Home-grown protein** production (in Germany, France and Poland) helped by policy is dominated by **soybean**.







8. **Health and nutrition** became new momentum of consumption policy and gain increasing acknowledgment. The focus is far from legumes.
9. **Governance solutions** only rarely have proven effect on increasing home-grown legume consumption.
10. **Trade policy** is cryptic but still the demand by China is leading soy production and trading prices.

In sum, **legume focussed innovation is lagging behind**, and increasing legume consumption creates increased imports.

