



TRansition paths to sUstainable
legume-based systems in EEurope

New governance solutions for legume-based food systems

Bálint BALÁZS & Eszter KELEMEN
ESSRG

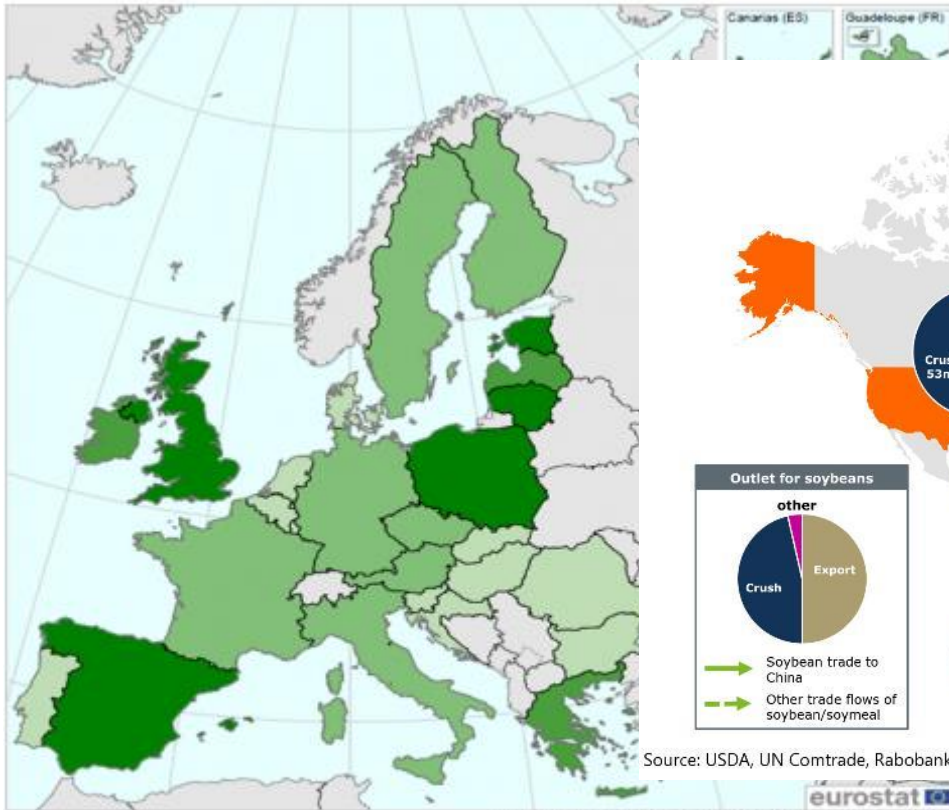
BUDAPEST, 20.09.2019
European Conference on Crop Diversification



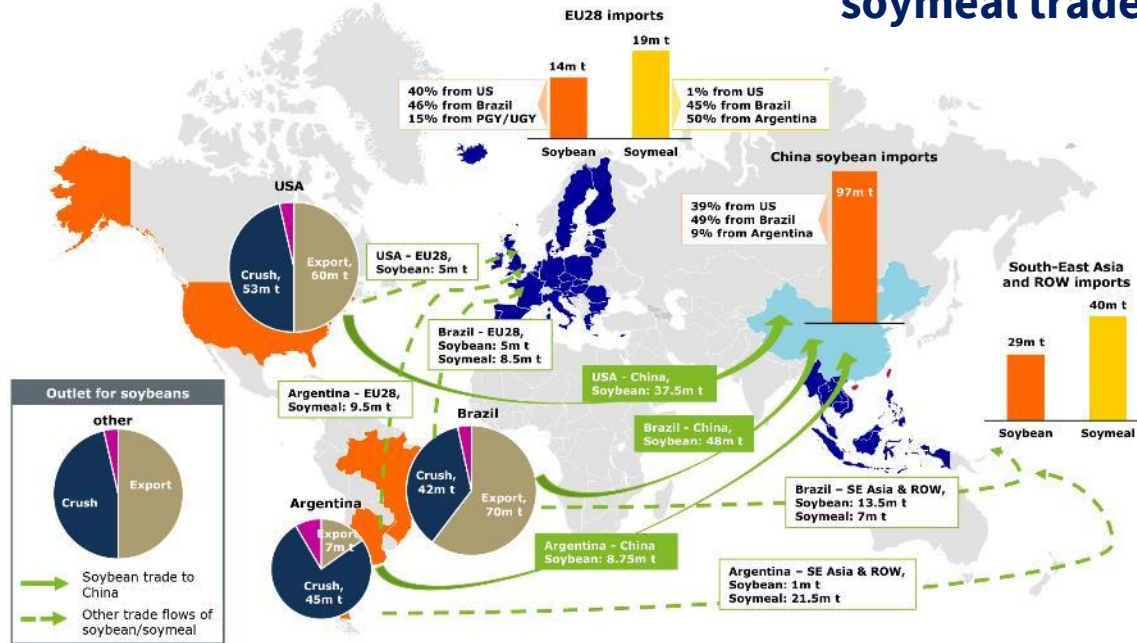
What is the problem?



% Share of Land Area Cultivated for Dry Pulses



The global flows of soybean and soymeal trade



Source: USDA, UN Comtrade, Rabobank 2018

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

Source: EUROSTAT online

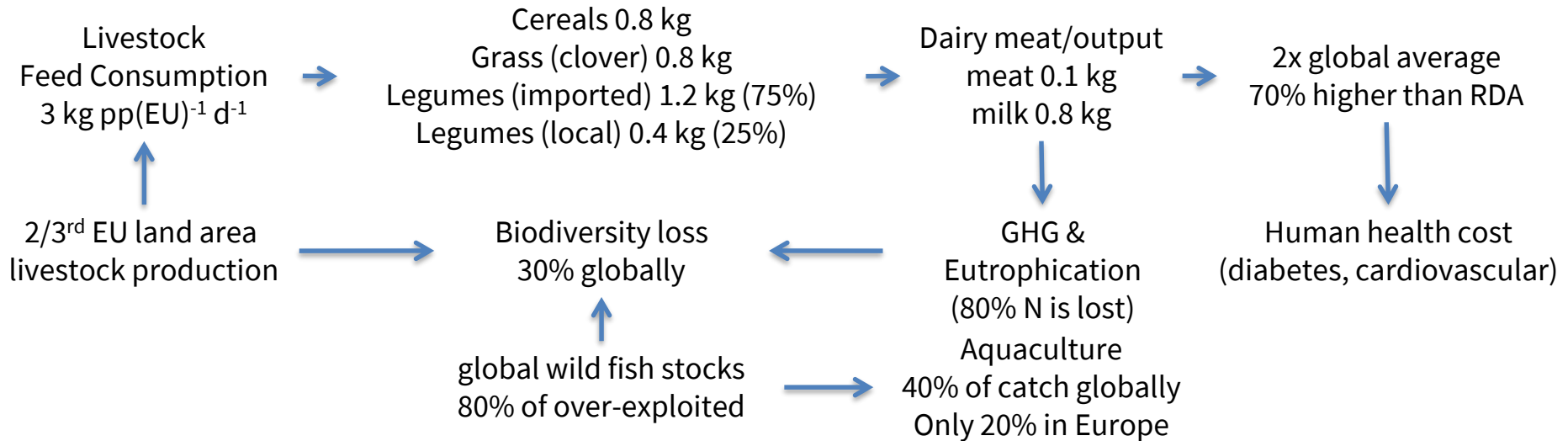
Eszter Kelemen, Balázs Bálint - ESSRG



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



RODA DA ALIMENTAÇÃO MEDITERRÂNICA

CULTURA, TRADIÇÃO E EQUILÍBRIO!

A circular diagram titled "RODA DA ALIMENTAÇÃO MEDITERRÂNICA" (Mediterranean Diet Wheel) showing various food categories. The wheel is divided into segments representing different food groups: fruits and vegetables, grains, legumes, dairy, and oils. Surrounding the wheel are several icons representing key principles of the diet: "Use especiarias locais e de temporada" (Use local and seasonal spices), "Faça refeições saudáveis" (Make healthy meals), "Coma tranquilamente - Pausas frequentes" (Eat peacefully - frequent breaks), "Use ervas aromáticas" (Use aromatic herbs), "Lembre-se dos frutos gordos" (Remember the fats), and "Alimente - Divirta-se" (Feed - Enjoy). A separate icon on the right indicates "Alimente-se de forma saudável" (Eat healthily) and "Beba álcool e bebidas açucaradas com moderação" (Consume alcohol and sugary drinks in moderation).

DIETA MEDITERRÂNICA

PORTO
FACULDADE DE CIÊNCIAS DA NUTRIÇÃO E ALIMENTAÇÃO
UNIVERSIDADE DO PORTO

CONSUMIDOR

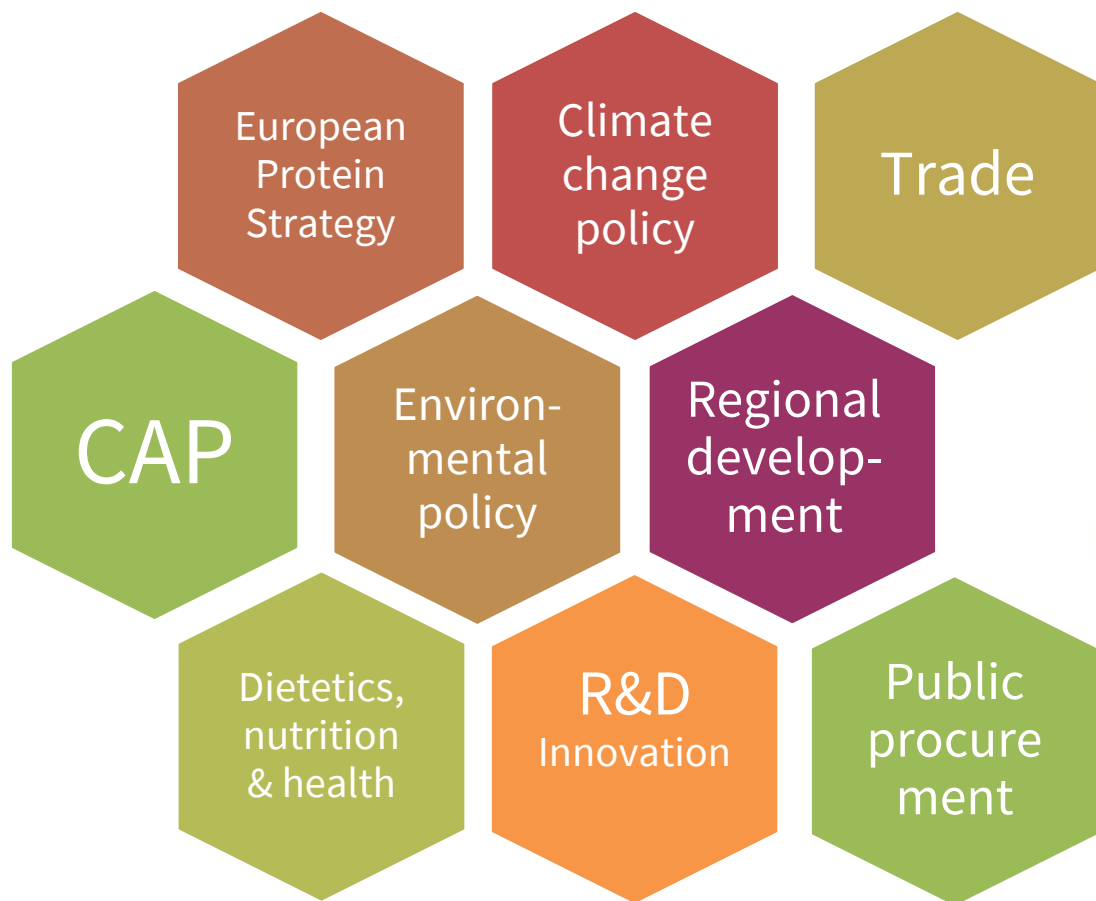
DGS
CÓDIGO C-02-00-0000

Programa Nacional para a Promoção da Alimentação Saudável



Slow Beans *comunità* leguminosa

EU policies relevant for legume supported systems



Policy incoherence

Path dependencies





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

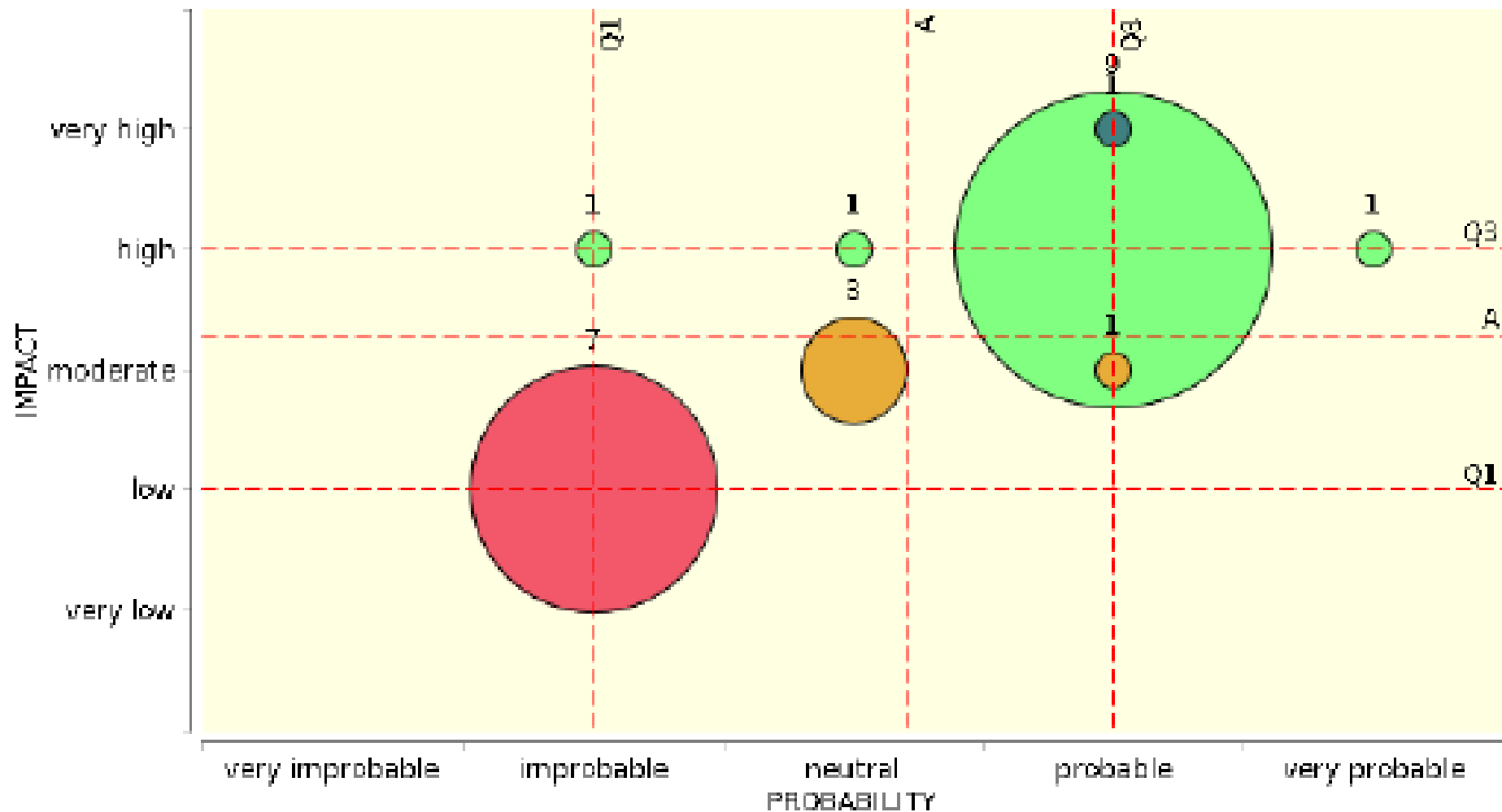




eDelphi on favourable governance contexts of legumes

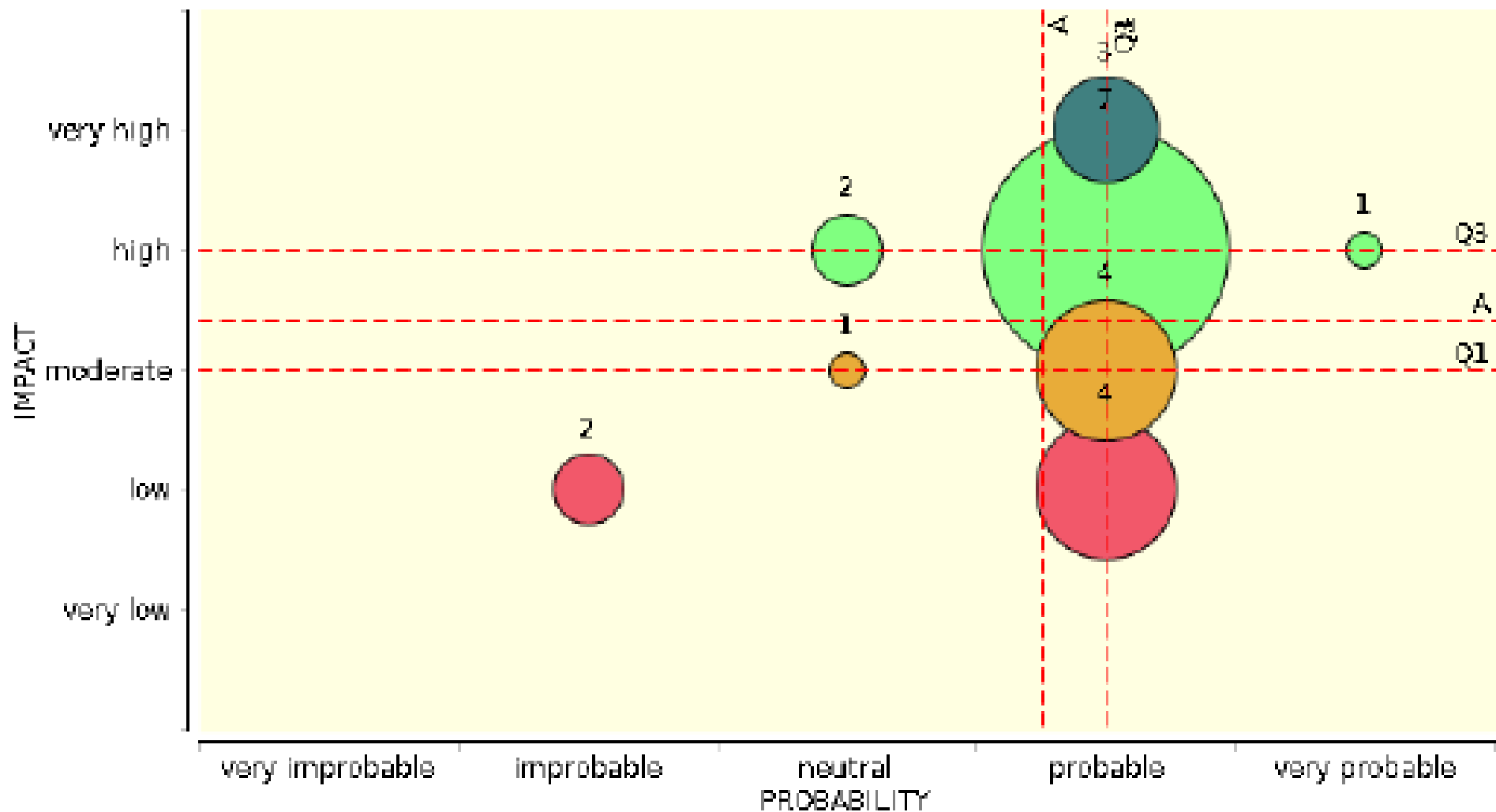
- **Will this policy lead to more legumes in our food system?** Assess the probability that the policy leads to more legumes in our food system. The probability can be assessed as 1=very improbable, 2=improbable, 3=neutral, 4=probable, 5=very probable.
- **How much impact can the policy have on our food system?** Assess the impact that the policy leads to more legumes in our food system. The *strength of its impact* on our food system can be assessed: 1=very low, 2=low, 3=moderate, 4=high, 5=very high.





Changing the international trade agreements (mainly the EU's focus on cereal production) would reduce the EU's dependency on non-taxable soybean imports.





Increased agricultural incentives within the CAP support farmers growing plant proteins and therefore contribute to improved legume-based food production





Help us assess the policy prospects for legumes!

**Do you want to join our legume panel?
Or suggest further panelists?**

Get personal invitations at balazs.balint@essrg.hu



TRansition 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

