Sustainable agri-food systems need you: the puzzle and paradox of legume-based agri-food systems in Europe


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**T-**Pathways to sustainable legume-based systems in Europe (TRUE) Project

**Paradox and puzzle:** Legume-supported agri-food systems are sustainable, and European agri-food systems are heavily legume-reliant. However, these legumes are not home-grown; why is this?

**Aim:** Identify and enable transition paths to help realise more sustainable legume-supported agri-food systems in Europe.

**Approach:** Nine strategic Work Packages (WP) pool data and analyses combined with expert knowledge from stakeholders across the entire supply chain.

**Partners:** 24 academics and non-academics spanning the agri-food system across 11 countries.

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**WP1:** Knowledge Exchange & Communication

**WP2:** Case Studies

**WP3:** Nutrition and Product Development

**WP4:** Markets and Consumers

**WP5:** Environment

**WP6:** Economic

**WP7:** Policy and Governance

**WP8:** Transition Pathways

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**Legume Innovation and Network (ELIN) workshops**

Held across Europe to engage a wide diversity of actors from across the agri-food system to identify factors that enable legume-supported agri-food systems. **→ Urgent need for tailored education of actors throughout society** to help ensure that all consumers are fully aware of legumes.

**Economics & Environment**

- Early (Life Cycle Analysis) data confirm the **high nutritional provision and low environmental impact of legume-based foods and feeds**
- The LCA and economics-based approaches are providing indicators of the environmental-, human-health and economic potential of legume-based agri-food systems.

**New Products Development**

- Novel processing to deliver **novel legume-based foods** (for humans) and feeds (for animals, fish and shell-fish).
- **Novel legume-based meals** in catering units to improve human health and well-being.

**Decision Support System (DSS)**

Preliminary DSS has been conceived to test sustainable systems using legume-supported food systems as a model. The approach uses legume-focused sustainable development indicators of economic-, societal- and environmental-wellbeing.

**Policy & Governance**

- **Policies** to increase home-grown protein production and consumption exist only rarely across the EU states.
- **Health and nutrition** are new focal points of consumer policy and are gaining increasing acknowledgment.
- **Trade policy** is creating a marked governance framework. **→ Policies for legumes are incoherent**

**TRUE works objectively to identify and enable the transition paths to more-sustainable home-grown legume-supported agri-food systems**

**Markets and Consumers**

Study of the public and private food procurement highlighted that **wholesalers are the key ‘bottle-neck’** for the movement of legumes into the food service markets.

**Innovative Case Studies**

- Precision Agriculture Technology
- Breeding For High Production
- Intercropping for Food, Feed & Biorefinery

- Legume-based Pasture
- Legumes in Dairy Farming
- Clover Organic Production

- Elite inoculum
- Silvo-Arable Production
- Heritage Varieties

- Grafting
- Biofertilisers

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