



TRansition paths to sUustainable  
legume-based systems in Europe

## Establish founding membership of the ‘Legume Innovation Network’

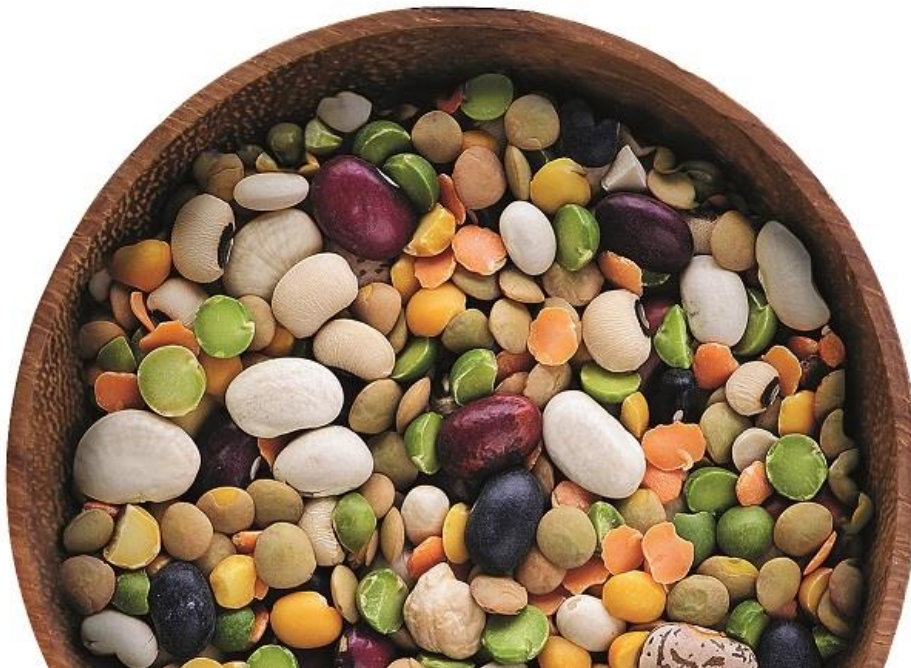
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**Lead Author and Institution:** Roger Vickers (PGRO)

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## Deliverable Description & Contributors

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  - **Project start date:** April, 1<sup>st</sup> 2017
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  - **Work package:** Knowledge Exchange and Communication (WP1)
  - **Work package leader:** Carolin Callenius (UHOH)
  - **Deliverable Title:** Establish founding group of Pulse Europe
  - **Nature of deliverable:** Others
  - **Dissemination level:** Public
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- **Deliverable description:** Through mainly the joint Regional Clusters (now termed, Legume innovation Networks, or 'LINS'), and their interaction, though also knowledge exchange more broadly, key stakeholders will emerge over the duration of the project to establish the founding membership of 'Pulse Europe' (now termed a legacy "LIN"). The founding members will be expected to identify a structure, constitution and long-term strategy which will be capable of advancing innovations to promote the efficacy of legumes (not just pulses), beyond the term of TRUE.
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    - Laura Fetzer and Henrik Maass (UHOH)
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## 1. Concerted action of TRUE with LEGVALUE on development of the LIN

Over the last 4 years, the method adopted in the TRUE-Project to gather innovators has been through workshops defined as regional Legume Innovation Networks [Legume Innovation Networks](#) (LINs).

The concept of Pulse Europe was originally conceived as a potential mirror of the organisations successfully established in Canada and Australia. It quickly became clear that this was not possible in the EU as both organisations are or have been initially State subsidised in some aspects of their activities. They have a very focused nationalist agenda to support the expansion of the grain legume sector for their domestic consumption but also critically for export. Such agencies also fail to develop the role of forage (and woody) legume types, as they are focused almost entirely on the commercial development of grain legumes.

In realising the incompatibility of the North American and antipodean models, it was decided to set up the framework for an organisation in Europe that could facilitate the communication between all innovators in the European value chain and research communities and using the idea of the vehicle already devised for the workshops of the TRUE-Project *i.e.*, Innovation Networks. This has evolved to a concept established as a legacy EUROPEAN LEGUME INNOVATION NETWORK (LIN) for which an image has been created, the Logo of which carries through the legacy of the TRUE-Project.



### 1.1 What is the primary objective of the LIN?

The LIN aim is to connect legume-focused businesses and NGOs and facilitate knowledge exchange and sustainable commercial development within Europe. It is neither intended to replace any existing network or organisations nor to duplicate what they already achieved. The LIN is conceived as a conduit for communications between innovators in the legume industry. The industry is fragmented and communication as a result is less than fluid leading to misinterpretation and isolation. The LIN concept has at its heart a method for bringing those innovating in different degrees of isolation together, facilitating the creation of value between them and a more cohesive approach to market development as a result. Such foci will also help direct advocacy efforts LIN, which





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should be geared to improve the political and socio-economic frameworks, and reverse the marginalisation of European-grown legumes, and particularly grain legumes. Since, it is there for the benefit of everyone without hinderance in their already established activities.

## **1.2 Who can join?**

The LIN is not exclusive - partners in all forms will be welcomed by their common interest - to help realise sustainable legume-supported agri-food systems.

The LIN will initially be launched by those who developed the concept, but with a view to it being quickly taken over by others by summer 2021. This will allow the LIN to continue to evolve to meet the needs of those within the network. The LIN should retain an enduring focus on innovation and issues spanning the legume supply networks and should be guided, by a founding constitution that ensures a wide membership base that embraces all aspects of:

- input and production, commodity processing and food technologies;
- trading markets, retailing plus new and emerging markets;
- cultural aspects including 'sustainable consumption' and environmental impacts; and,
- socio-economics, governance and policy-development.





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## 2. The basic current structure of the LIN

- The basic structure of the LIN will be defined by the founders. These will be identified as the project ends. The TRUE-Project is setting up a framework, but it will be for those with interest from the legume community who will pick up the concept and evolve it once the TRUE-Project concludes.
- Initial expressions of interest by companies have been encouraged by the creation and population of a stakeholder map utilising an association developed with the [Digital Innovation Hub- Agrifood](#). The LIN membership is mapped on the hub where companies can outline their agrifood interests within a wider hub, and disclose their specific interest in legumes by associating with the LIN.
- A [LIN LinkedIn group](#) has also been created where interested individuals can participate in discussions.
- TRUE has worked in very close and effective collaboration with the LEGVALUE project. The LEGVALUE website also hosts a [stakeholder directory](#). As this project closes the website is being transformed and rebranded into the LIN website and will serve as the platform for the LIN for a 2-year period from the end of the LEGVALUE project. The LIN website already has the dedicated URL - [www.legumeinnovationnetwork.eu](http://www.legumeinnovationnetwork.eu). Here the LIN will gather relevant information, host online events, and signpost to other legume-related websites, organisations, and content.







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### 3. Strategic LIN launch using TRUE- & LEGVALUE-led webinars

Working with the LEGVALUE project, the intention had been to formally launch the LIN at the final conference. However, this had to be cancelled due to the COVID-19 pandemic. In its place, a series of 8 Webinars under the title “*European Legumes in Transition*” has been organised through which the concept of the LIN will flow. These webinars will explore the components which comprise the European Union’s food systems, which is best summarised as ‘fragmented’. The value chains will be examined with focus on the general scene surrounding legume in Europe, optimising production, the diversity of end uses, market analysis, plant breeding and how science is ready to assist commerce in innovation. A Policy Session will bring the knowledge-gained together to identify opportunities for transition to greater legume production and use across the EU. In the concluding event on the 11<sup>th</sup> May, the LIN will be launched with presentations focusing on reporting the importance of LIN-development from the varied perspectives of a diverse range of existing legume networks, innovating-companies, -NGO’s, and -national associations. This final event will serve as 'call to action' for the founders of the LIN to step forward.



Throughout the discussions surrounding the establishment of the LIN, we have sought to maximise the input of other related projects. The LIN has been promoted extensively within the [Crop Diversification Cluster](#), and has worked together with the Thematic Network, [Legumes Translated](#), the [International Legume Society](#) and the [Global Pulse Confederation](#). Representatives of these projects and networks will participate with presentations in the webinars that launch the LIN.

The concept and design of the LIN as a platform is strategic. It is intended that links with other key legume-focused projects and organisations will be formalised over time. It is not the intention of those within the TRUE or LEGVALUE projects to 'own' the LIN, merely from the outset to state its main aim and perceived mission. Whilst those involved in the initial set up will continue to have interest in the maintaining the LIN, the concept is that it should be developed by those in Industry who see merit in the concept. They will be free to take it in the direction that best suits active innovators in the sector.



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## Appendix I: Source materials for LIN launch

- i. About the Legume Innovation Network:  
<https://www.true-project.eu/legume-innovation-network/>
- ii. Original public invitation letter  
<file:///N:/PROJECTS/TRUE/LEGUME%20INNOVATION%20NETWORK/LIN%20%20launch%20-%20invitation%20letter.pdf>
- iii. Webinar series details <https://www.true-project.eu/news-events/legume-webinars/>
- iv. Virtual conference and webinar hosting site for LIN Launch, webinar outputs and related materials. <http://www.legvalue.eu/virtual-conference/>
- v. Example letter of personal invitation to the LIN, seeking stakeholder commitment circulated to the entire wider LEGVALUE and TRUE-Project networks.  
  
LIN invite.docx
- vi. [Linked In group](#) to which interested parties are invited. As of 8<sup>th</sup> April, 2021, 99 members
- vii. Additional promotion of the LIN continues via:
  - [TRUE-Project Facebook pages](#)
  - [TRUE-Project Twitter feed](#)
  - [Legvalue Twitter feed](#)
  - [CDC website](#)
  - [Open Access Government Publication](#) (Page 380)
  - Press releases: an example template circulated to all project partners for their use translation and further distribution. Press releases were centrally circulated to 197 agricultural journalists in the EU  
  
LegValue webinars  
PR template.docx
  - LIN has featured in editions of the more recent LEGVALUE and TRUE Newsletters. Examples include TRUE Newsletters 5 and 6 (<https://www.true-project.eu/publications-resources/newsletter/>) and LEGVALUE Newsletter 3 (<http://www.legvalue.eu/publications/legvalue-3rd-annual-news-letter-2020-edition/>)
  - The LIN invitation was sent (and can be sent again) to all TRUE and LegValue members and to all participants of the regional LIN workshops, who declared their agreement to be contacted again after the event.







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## Annex II: Background to the TRUE-Project

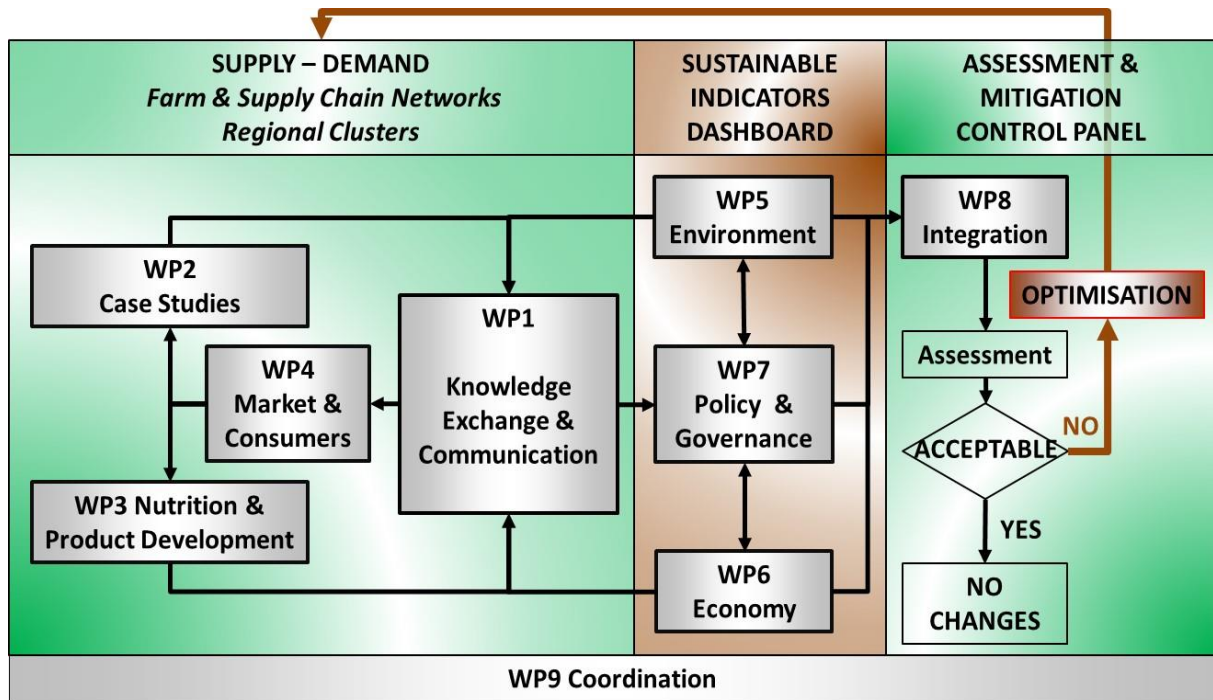
### Executive Summary

TRUE's perspective is that the scientific knowledge, capacities, and societal desire for legume supported systems exist, but that practical co-innovation to realise transition paths have yet to be achieved. TRUE presents 9 Work Packages (WPs) supported by an *Intercontinental Scientific Advisory Board*. Collectively, these elements present a strategic and gender-balanced work-plan through which the role of legumes in determining '*three pillars of sustainability*' – '*environment*', '*economics*' and '*society*' - may be best resolved. TRUE realises a genuine multi-actor approach, the basis for which are three *Regional Clusters* managed by WP1 ('*Knowledge Exchange and Communication*', University of Hohenheim, Germany), that span the main pedo-climatic regions of Europe, designated here as *Continental*, *Mediterranean* and *Atlantic*, and facilitate the alignment of stakeholders' knowledge across a suite of 24 Case Studies. The Case Studies are managed by partners within WPs 2-4 comprising '*Case Studies*' (incorporating the project database and *Data Management Plan*), '*Nutrition and Product Development*', and '*Markets and Consumers*'. These are led by the Agricultural University of Athens (Greece), Universidade Catolica Portuguesa (Portugal) and the Institute for Food Studies & Agro-Industrial Development (Denmark), respectively. This combination of reflective dialogue (WP1), and novel legume-based approaches (WP2-4) will supplies hitherto unparalleled datasets for the '*sustainability WPs*', WPs 5-7 for '*Environment*', '*Economics*' and '*Policy and Governance*'. These are led by greenhouse gas specialists at Trinity College Dublin (Ireland; in close partnership with LCA specialists at Bangor University, UK), Scotland's Rural College (in close partnership with University of Hohenheim), and the Environmental and Social Science Research Group (Hungary), in association with Coventry University, UK), respectively. These *Pillar WPs* use progressive statistical, mathematical and policy modelling approaches to characterise current legume supported systems and identify those management strategies which may achieve sustainable states. A *key feature* is that TRUE will identify key *Sustainable Development Indicators* (SDIs) for legume-supported systems, and thresholds (or goals) to which each SDI should aim. Data from the *foundation WPs* (1-4), to and between the *Pillar WPs* (5-7), will be resolved by WP8, '*Transition Design*', using machine-learning approaches (e.g. *Knowledge Discovery in Databases*), allied with *DEX* (*Decision Expert*) methodology to enable the mapping of existing knowledge and experiences. Co-ordination is managed by a team of highly experienced senior staff and project managers based in The Agroecology Group, a Sub-group of Ecological Sciences within The James Hutton Institute.



## Work-package structure

The flow of information and knowledge in TRUE, from the definition of the 24 Case Studies (left), quantification of sustainability (centre) and synthesis and decision support (right).



## Project partners

No	Participant organisation name (and acronym)	Country	Organisation Type
1 (C*)	The James Hutton Institute (JHI)	UK	RTO
2	Coventry University (CU)	UK	University
3	Stockbridge Technology Centre (STC)	UK	SME
4	Scotland's Rural College (SRUC)	UK	HEI
5	Kenya Forestry Research Institute (KEFRI)	Kenya	RTO
6	Universidade Catolica Portuguesa (UCP)	Portugal	University
7	Universitat Hohenheim (UHOH)	Germany	University
8	Agricultural University of Athens (AUA)	Greece	University
9	IFAU APS (IFAU)	Denmark	SME
11	Bangor University (BU)	UK	University
12	Trinity College Dublin (TCD)	Ireland	University
13	Processors and Growers Research Organisation (PGRO)	UK	SME
14	Institut Jozef Stefan (JSI)	Slovenia	HEI
15	IGV Institut Fur Getreideverarbeitung GmbH (IGV)	Germany	Commercial SME
16	ESSRG Kft (ESSRG)	Hungary	SME
17	Agri Kulti Kft (AK)	Hungary	SME
18	Alfred-Wegener-Institut (AWI)	Germany	RTO
19	Slow Food Deutschland e.V. (SF)	Germany	Social Enterprise
20	Arbikie Distilling Ltd (ADL)	UK	SME
21	Agriculture and Food Development Authority (TEAG)	Ireland	RTO
22	Sociedade Agrícola do Freixo do Meio, Lda (FDM)	Portugal	SME
23	Eurest -Sociedade Europeia De Restaurantes Lda (EUR)	Portugal	Commercial Enterprise
24	Solintagro SL (SOL)	Spain	SME
25	Public Institution Development of the Međimurje County	Croatia	Development Agency

\*Coordinating institution





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## Objectives

### **Objective 1: Facilitate knowledge exchange (UHOH, WP1)**

- *Develop a blueprint for co-production of knowledge*

### **Objective 2: Identify factors that contribute to successful transitions (AUA, WP2)**

- *Relevant and meaningful Sustainable Development Indicators (SDIs)*

### **Objective 3: Develop novel food and non-food uses (UCP, WP3)**

- *Develop appropriate food and feed products for regions/cropping systems*

### **Objective 4: Investigate international markets and trade (IFAU, WP4)**

- *Publish guidelines of legume consumption for employment and economic growth*
- *EU infrastructure-map for processing and trading*

### **Objective 5: Inventory data on the environmental intensity of production (TCD, WP5)**

- *Life Cycle Analyses (LCA) -novel legumes rotations and diet change*

### **Objective 6: Economic performance - different cropping systems (SRUC & UHOH, WP6)**

- *Accounting yield and price risks of legume-based cropping systems*

### **Objective 7: Enable policies, legislation and regulatory systems (ESSRG, WP7)**

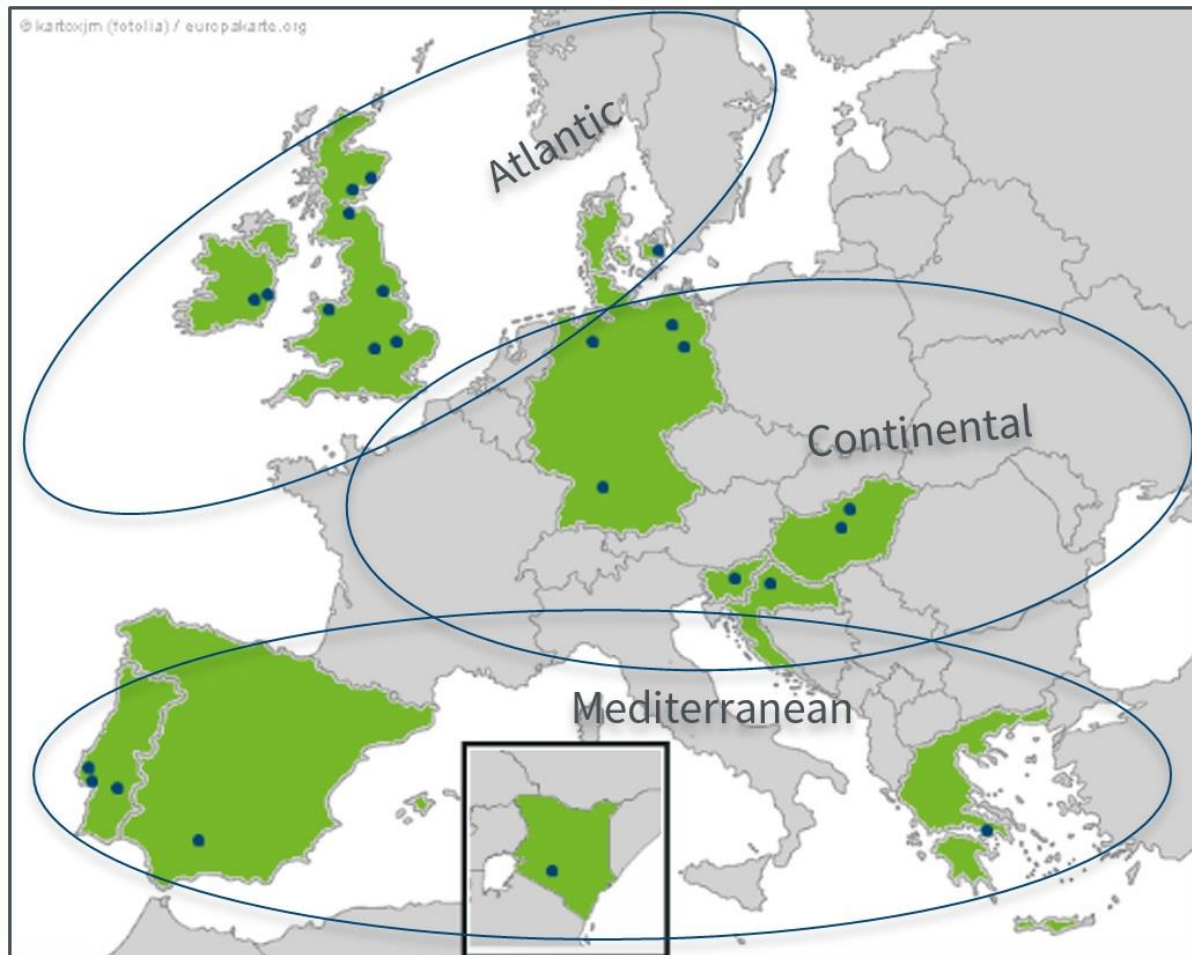
- *EU-policy linkages (on nutrition) to inform product development/uptake*

### **Objective 8: Develop decision support tools: growers to policymakers (JSI, WP8)**

- *User-friendly decision support tools to harmonise sustainability pillars*



## Legume Innovation Networks



Knowledge Exchange and Communication (WP1) events include three TRUE European Legume Innovation Networks (E-LINs), and these engage multi-stakeholders in a series of focused workshops. The E-LINs span three major biogeographical regions of Europe illustrated above within the ellipsoids for Continental, Mediterranean and Atlantic zones.







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## Acknowledgement

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## Disclaimer

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