

EIT Food Position on the EU Action Plan for resilience, strategic autonomy and sustainability of the EU protein system

Knowledge & Innovation Center on Food, part of the European Institute of Innovation and Technology (EIT)

<http://www.eitfood.eu>

Summary of Recommendations

- 1. Broaden the Protein Action Plan into a whole-food-system approach.**

Europe needs to develop a diversified and competitive protein system spanning food and feed, primary production and biomass, processing, infrastructure and biotechnology, through to market creation, growth and consumer uptake. By extending the 2035 target for EU-produced animal feed protein from 25.8% to 35% and including human consumption, the Plan can unlock greater agricultural resilience, food security, and long-term value creation for farmers.
- 2. Put farmers at the heart of protein diversification by directly linking primary production to higher-value food and bio-based markets.**

Integrating protein crops and biotechnology solutions into resilient farming systems could go hand-in-hand with de-risking the transition, ensuring farmers capture fair value, reduce fertiliser dependency, and secure profitable, predictable demand across the entire value chain.
- 3. Launch an EU Protein Value Chain Partnership.**

Bring together farmers, processors, innovators, food and feed actors, researchers, technology providers and investors to identify gaps, develop investable roadmaps and accelerate solutions to scale.
- 4. Bridge the gap from innovation to scale.**

Secure adequate R&I investment in food processing, AI and biotechnology to maintain Europe's innovation leadership. Connect research, skills and entrepreneurship with real-world experimentation, Living Labs and regulatory sandboxes, demonstration and scale-up facilities, and stronger public-private partnerships to build the capacity needed to scale commercially viable

agrifood solutions.

5. Build markets alongside scale-up by moving beyond purely voluntary measures.

To create predictable demand and accelerate market uptake, R&I could be complemented with concrete targets for sustainable public procurement, alongside corporate and foodservice commitments, demand aggregation, consumer engagement, and offtake agreements.

6. Connect the EU protein plan with the Biotech Act II and the Fertilizer Action Plan and the wider Vision for Agriculture and Food and Bioeconomy Strategy.

Integrate biosolutions, advanced biotechnology and fermentation to valorise European protein crops, biomass and side-streams, expand food-grade ingredients, support sustainable and healthy diets, and strengthen Europe's strategic autonomy.

1. Executive summary & strategic context

EIT Food welcomes the European Commission Action Plan for resilience, strategic autonomy and sustainability of the EU protein system alongside the EU Livestock Strategy. The Plan frames protein dependency as a fundamental question of strategic autonomy and security.

However, the ambition should extend beyond reducing reliance on imported feed proteins. EIT Food encourages DG AGRI to position protein diversification as a **whole-food-system strategy** that supports a diversified, competitive and resilient European protein ecosystem. This should encompass food and feed production, biomass utilisation, processing and biotechnology, as well as market development and consumer uptake.

Drawing on our experience as a leading innovation ecosystem with proven strengths in market creation, consumer engagement, and public-private collaboration, **EIT Food's Think and Do Tanks Protein Diversification, Resilient Agriculture, and Healthy Ageing** present the following analysis and recommendations for an integrated approach combining supply, innovation and demand-side measures.

We recognise that the Plan elevates protein production to a matter of strategic autonomy and economic security. It prioritises reducing Europe's dependence on imported protein crops and strengthening domestic value chains. At the same time, protein diversification should also be recognized as a nutrition and public-health opportunity. The protein transition should support access to high-quality, nutritious and affordable protein sources. Agricultural and industrial protein policies should therefore be linked more closely with dietary quality, food innovation and consumer needs, rather than focusing solely on protein volumes or feed self-sufficiency.

The overarching objective should be a **European protein system** that is more self-reliant, competitive, nutritionally adequate, affordable, accessible and acceptable to consumers across all stages of life.

2. Positive measures

The Plan introduces several positive measures and initiatives across the value chain:

- **Value chain support:** Greater support for European protein crop value chains.
- **Incentives for farmers:** Recognition of carbon and nature-credit incentives for legume-based systems, which opens a direct income route for farmers into protein diversification.
- **Public procurement alignment:** A clear recognition that locally produced pulses align with the announced 'best value' public procurement approach, transitioning to these criteria to reward sustainability.
- **Education & awareness:** Stronger promotion of pulses through schools, specifically leveraging the EU School Scheme to familiarise children with their benefits, taste, appearance, and nutritional value, alongside dedicated awareness campaigns.
- **Fiscal tools:** Recommendation that Member States consider 'designing taxation policies to contribute to the transition to a resilient food system' and that they promote fiscal policies that 'improve consumer access to affordable food.'
- **Value-chain leadership:** Targeted support for producer organisations, cooperatives (especially for sharing the costs of specialised machinery), and long-term value-chain development.
- **R&I investments:** Increased investment in research and innovation while establishing the recognition of plant-based foods as an important market opportunity.
- **Dietary diversification:** Clear recognition and emphasis on the importance of a balanced diet, including a specific section dedicated to supporting diversified diets to strengthen the resilience of the food system. The Plan states that "*legumes and pulses are considered an important component of a varied and sustainable diet, and several Member States recommend increasing legume consumption*". This creates an important basis for linking protein diversification with nutritional quality, disease prevention and healthy ageing. Pulses improve digestion, help regulate blood glucose, minimise inflammation, and lower cholesterol, reducing the risk of chronic conditions such as

diabetes, cardiovascular disease, and obesity. Furthermore, their long shelf-life without nutritional degradation cuts food waste from spoilage.¹

- **Member States action plans for plant-based foods:** The **Danish Action Plan** provides a strong example of how Member States can combine policy tools across different levels of governance to strengthen plant-based value chains, from local production and alternative proteins to more diversified diets. Other Member States, including the **Netherlands, Finland, France, Germany, Portugal, Spain, Sweden**, are also advancing protein-diversification initiatives. The Danish approach can provide useful inspiration for strengthening and connecting these efforts towards more resilient and sustainable national protein systems.
- **Generational renewal:** The Commission encourages Member States to include protein crop diversification in their policies for generational renewal and support for young farmers. This would create new business opportunities and provide stronger incentives for young people entering farming. In addition, risk management and financial support tools can help farmers adopt protein crops more easily as part of their farming activities.

3. Limits and undervalued opportunities

While we support the strategic framing of pulse adoption, we highlight several undervalued opportunities:

- **Targets, scope and ambition:** In addition to the Plan's target to increase the share of EU-produced protein from oilseeds and protein crops used in animal feed from 25.8% to 35%, it could also include an equivalent ambition for proteins intended for human consumption.

The **Protein Diversification Think Tank's 2024–2025 global landscape analysis** identifies protein diversification, alongside agroecological practices, as a key lever for the transition of future food systems. Europe should therefore set a broader protein-diversification ambition spanning food and feed, and encompassing crops, biomass and novel protein sources. This would connect agricultural resilience with food security, nutrition, farmer value creation and industrial competitiveness. Targets should look beyond production volumes to include processing capacity, the availability and affordability of nutritious protein foods, increased consumption of pulses and legumes, and uptake through public procurement. A **Food-Systems Approach** is essential: shifts towards a more diversified protein mix can reduce demand for livestock production and, consequently, overall feed

¹ OECD/FAO (2025), OECD-FAO Agricultural Outlook 2025-2034, OECD Publishing, Paris/FAO, Rome.

demand and reliance on imported high-protein feed, particularly soya meal², further strengthening Europe's resilience and strategic autonomy.

- **Enabling regulatory pathways for protein ingredients:** The implementation of the Novel Food Regulation should maintain high standards of safety and consumer protection while avoiding unintended barriers to protein diversification. For ingredients derived from established food sources, demonstrating a history of consumption before May 1997 can be challenging, potentially triggering additional costs, data requirements and delays to market. Greater regulatory clarity and a proportionate, science-based approach are needed, particularly where conventional processing does not materially alter the composition, nutritional characteristics or safety profile of the source material. This would reduce regulatory uncertainty and help safe protein innovations move more effectively from R&I to market and scale in Europe.
- **Reliance on voluntary measures:** The Plan refers to the intention to reinforce the role of public procurement, through the adoption of 'best value' approach rewarding quality and sustainability and highlighting that local legume production will benefit from this approach. While the key actions explicitly include "improving the uptake of sustainability criteria in public food procurement", no concrete targets are set to ensure effective implementation of such criteria across Member States. Also, the Plan addresses "taxation policies" but does not clearly mention the VAT rate, which can be an important lever in increasing the affordability of legumes and pulses.
- **Food processing**
While the Plan addresses supply and farmers, R&I and investment, and demand and markets, processing remains the missing middle of the value chain. Competitive processing capacity is essential to valorise plant and alternative proteins and build resilient EU value chains. The Plan should therefore recognise existing and new processing infrastructure as a strategic asset and support its competitiveness, modernisation and scale-up through a coherent industrial, regulatory and investment framework. The European Competitiveness Fund (ECF) could contribute to this ambition, while existing oilseed and starch facilities offer opportunities for circularity, fermentation and the valorisation of co-products for food and feed.
- **R&I needs greater ambition:** R&I support should go beyond technical processability to enable nutritious, appealing and market-ready protein foods, addressing nutritional quality, digestibility, bioavailability, food-matrix effects and sensory acceptance. European plant-based industry stakeholders have proposed a **€3 billion R&I investment agenda for 2026–2035**, spanning crops, processing, nutrition, market development and

² JRC report - Closing the EU protein gap – drivers, synergies and trade-offs (2024)

consumer uptake. Greater coherence across the EU Bioeconomy Strategy, biotechnology and biomanufacturing agenda, Life Sciences Strategy and relevant industrial and food policies will be critical to translate R&I into market and scale.

- **AI and biotechnology:** While the Plan includes R&D actions for alternative proteins, it remains conservative in its treatment of technologies likely to reshape future protein value chains. Artificial intelligence is largely absent, while **advanced biotechnology, including precision fermentation and plant molecular farming**, should be integrated into the Protein Plan and appropriately reflected in the forthcoming Biotech Act II. Yet these technologies can complement European agriculture by valorising EU crops, biomass and side streams, creating new markets and value opportunities for farmers, and enabling more resource-efficient production and processing.

Their economic potential is significant: the EIT Food EU Agri-Food Biotech Alliance estimates that food biotechnology could generate **€140 billion in additional value in Europe by 2040**, while biotechnology could impact **up to 60% of what Europe grows and produces**. The Plan should therefore integrate AI and biotechnology into its R&I framework, alongside research on nutritional quality, bioavailability, processability and sensory acceptance, and support their development from R&I through scale-up and market adoption. This is increasingly important for Europe's long-term competitiveness and strategic autonomy as other regions integrate biomanufacturing into their food and bioeconomy strategies.

- **Future EU agrifood resilience, competitiveness and autonomy:** The Plan should adopt a stronger long-term food-systems perspective, recognising protein diversification as a strategic component of Europe's resilience and competitiveness. Diversifying European production and processing can strengthen autonomy, support climate adaptation and soil health, improve nutrition, and create new value opportunities for farmers and rural economies. At the same time, biotechnology, new ingredient sources and AI are reshaping food value chains.

China's 15th Five-Year Plan, for example, prioritises food security and domestic supply while promoting biomanufacturing and synthetic biology, including new protein sources. Against this evolving global landscape, Europe risks losing value creation if policy focuses predominantly on primary production without equally enabling processing, demonstration, industrial scale-up and market adoption. Protein policy should therefore connect agriculture with Europe's wider ambitions on biotechnology, industrial competitiveness, resilience and strategic autonomy.

- **Policy coherence and implementation:** The Plan would benefit from greater coherence with other EU initiatives addressing strategic dependencies. The recently published EU **Fertiliser Action Plan** provides useful examples of a more implementation-oriented approach, including a market observatory, a value-chain partnership, measures to develop lead markets, action on regulatory bottlenecks, and reinforced support for research, innovation and scale-up. A similarly comprehensive approach to proteins should cover the full value chain, including processing and refining, while providing greater regulatory simplification and predictability.

Clear milestones, timelines and institutional responsibilities, combined with better alignment of EU funding and policy instruments, would help translate the Plan's ambition into investable and scalable value-chain transitions, enabling farmers and other value-chain actors to capture greater value from the transition.

4. Empowering farmers: incentives, market and risk reduction in legume production

Diversifying production through protein crops, particularly legumes, can strengthen agricultural resilience, soil health and biodiversity. Farmers are the engine of this transition, and the Plan rightly seeks to reduce production risks and strengthen market opportunities. However, production incentives alone are not sufficient. Protein diversification requires a whole-value-chain approach connecting farmers, processors, retailers and consumers, while supporting healthy and affordable diets, sustainability and competitiveness. In line with the EU Bioeconomy Strategy, agriculture³ should also be recognised as a key contributor to new, sustainable and higher-value agrifood value chains.

Building on the experience of Mission Soil, the Plan should support regional, national and transnational platforms and Living Labs that bring together farmers, researchers, innovators and other value-chain actors to test and demonstrate solutions in real-world conditions, exchange knowledge and best practices, and accelerate the adoption of sustainable protein production practices.

4.1 Market predictability: Greater market predictability is essential to de-risk the transition for farmers and processors. Contract facilitation should promote voluntary, market-based arrangements that complement, rather than inhibit, well-functioning market mechanisms,

³ EP AGRI Committee - The Bioeconomy in the Agriculture of the Future Report

including futures markets that provide price transparency and enable stakeholders to manage price and production risks. This should be supported by strengthened EU protein market intelligence and foresight, building on existing monitoring to assess future demand, production potential, climate impacts and emerging dependencies. Together, market-based contracting and stronger foresight can provide the confidence needed to support competitive and resilient EU protein value chains.

4.2 EU Protein Value Chain Partnership: Building on the approach proposed in the Fertiliser Action Plan, we recommend establishing a cross-sectoral EU Protein Value Chain Partnership bringing together farmers, processors, food and feed actors, technology providers, innovators, researchers, investors and Member States. The Partnership should provide structured dialogue and greater long-term predictability, align future crop and biomass needs with climate and market demand, identify value-chain and infrastructure gaps, and develop investable roadmaps to accelerate innovation and scale. Farmers should be positioned as key partners and beneficiaries, connecting crop and biomass diversification with viable markets and new value-creation opportunities.

4.3 Agronomic advantages and costs reduction: Greater integration of protein crops, particularly legumes, into crop rotations can improve soil fertility and resilience through biological nitrogen fixation, while reducing reliance on synthetic nitrogen fertilisers and associated input costs. Protein diversification should be embedded within broader regenerative farming systems rather than treated primarily as a crop substitution strategy, complementing practices that support soil health, biodiversity and climate resilience. These benefits can strengthen both the environmental and economic sustainability of EU farming systems and contribute to reducing Europe's dependency on imported fertiliser inputs.

4.4 CAP financial support and risk reduction: The future CAP should help de-risk protein diversification for farmers through targeted financial support, including Coupled Income Support (CIS), agri-environmental and climate actions (AECAs), transition payments and appropriate risk-management tools. These instruments can reduce barriers to adoption and give farmers greater confidence to invest in new crops, practices and market opportunities.

4.5 Rewarding environmental and climate benefits: Protein diversification can provide environmental benefits while creating new opportunities for farmer remuneration. The Plan

should facilitate access to emerging mechanisms, including carbon farming incentives under the CRCF and nature-credit approaches, where these can credibly reward improvements in soil health, biodiversity, climate mitigation and ecosystem resilience.

4.6 Unlocking value through circularity: Agricultural side streams and co-products should be recognised as potential sources of additional value rather than waste. Enabling their use in food, feed and bio-based applications can open new revenue opportunities for farmers and other value-chain actors while strengthening resource efficiency and circularity.

4.7 Opportunities for next generation of farmers: Protein diversification can open new business opportunities for young farmers. Member States should integrate these opportunities into generational-renewal measures, combining financial support with access to skills, innovation, markets and emerging value chains.

5. Aligning funding, investment and policy

A resilient and competitive EU protein system requires better alignment of funding and policy instruments across the value chain. The Vision for Agriculture and Food, the Bioeconomy Strategy, CAP, R&I funding, the European Competitiveness Fund and other relevant instruments should jointly support production, innovation, processing and market uptake, building on the integrated approach of the Fertiliser Action Plan. Investment should be needs-based, prioritising the adaptation and efficient use of existing processing capacity—including multi-crop facilities—while supporting new infrastructure where genuine capacity gaps exist.

6. Recommendations

EIT food through its Think Tanks propose the following actionable leverages across key policy areas covering the whole food value chain:

I. Primary production & farmer support

- **Coupled Income Support (CIS):** Strengthen targeted support to incentivise protein crop production and farm diversification.
- **Transition payments:** De-risk farmers' transition by covering investment and adaptation costs and temporary profitability gaps.
- **Agri-environmental and climate actions (AECAs):** Reward protein-crop practices that deliver soil, biodiversity and climate benefits.
- **Sectoral interventions:** Use the dedicated protein crop sector under the CMO to support investment, innovation, market development and risk management.

II. Infrastructure, processing & industrial resilience

- **Processing and infrastructure:** Use National and Regional Partnership Plans (NRPPs) and the European Competitiveness Fund (ECF) to address critical gaps in storage, logistics and processing across food, feed and bio-based value chains, while making best use of existing capacity. Investment should also enable the valorisation of side streams and co-products, strengthening circular and resilient regional value chains.
- **Biomanufacturing capacity:** Building on the upcoming Biotech Act II, strengthen Europe's capacity to scale industrial biotechnology, biomanufacturing and advanced fermentation. A supportive industrial framework is needed to move innovation to scale and retain strategic production capacity and value creation in Europe.
- **European Competitiveness Fund (ECF):** Recognise plant protein diversification and food-system innovation as strategic ECF investments, supporting both new and existing processing capacity and addressing key competitiveness barriers, including energy costs and regulatory burden.
- **Financial mechanisms & European Investment Bank (EIB):** Tailor EIB-backed instruments to de-risk investment across the protein value chain, supporting farmers and the adaptation, modernisation and scaling of processing capacity.
- **Blended finance and private investment:** Building on the Bioeconomy Investment Deployment Group (BIDG), mobilise public and private finance to bridge investment gaps and accelerate protein innovations from demonstration to market.

III. Research, innovation & regional collaboration

- **Horizon Europe and the next R&I Framework:** The Plan rightly recognises key R&I needs, but greater ambition is needed across the full innovation pathway—from crops, biomass and food processing to nutrition, AI and biotechnology. Funding should connect research with skills and entrepreneurship, real-world testing and Living Labs, demonstration and first-of-a-kind scale-up. Dedicated support is needed to bridge the 'valley of death', enabling innovators and processors to move promising solutions from research to market and scale in Europe.
- **Human nutrition and healthy ageing:** Strengthen dedicated human-nutrition research comparing protein sources, food matrices and processing methods, with a focus on nutritional quality, bioavailability and longer-term health outcomes. Advanced analytical tools, including AI and multi-omics, can help translate this evidence into healthier foods and evidence-based precision nutrition.
- **Cohesion Policy (S3 and I3):** Strengthen interregional collaboration and technology transfer to connect regional capabilities and accelerate the scaling of protein and bioeconomy and **biopeptides value chains**.
- **Biotechnology and advanced fermentation:** The Protein Action Plan should integrate agrifood biotechnology into Europe's protein transition through the Biotech Act part II. Precision fermentation, plant molecular farming, biomass valorisation and novel ingredients can complement crop diversification, unlock new value from European agricultural raw

materials and side streams, and create new market opportunities. Connecting R&I with demonstration, scale-up and market adoption will help translate European innovation into competitive value chains, while creating value for farmers and rural economies.

IV. Environmental services

- **CRCF and carbon farming:** Enable farmers to capture value from verified climate benefits associated with protein diversification, including reduced fertiliser-related emissions and increased carbon storage. Clear guidance on carbon claims, in-setting and the allocation of benefits across value-chain actors will be important to support credible market uptake.
- **Nature credits:** Develop robust mechanisms to reward farmers for measurable biodiversity and ecosystem benefits delivered through diversified rotations and other biodiversity-positive protein production systems.
- **Fertiliser Action Plan:** Connect protein diversification with the broader implementation of the **EU Fertiliser Action Plan**, using its policy, market, innovation and investment levers to accelerate nutrient efficiency, nitrogen-fixing crops and biosolutions. This can reduce dependency on imported mineral fertilisers while strengthening soil health, farm resilience and European strategic autonomy.

V. Demand stimulation

- **National Protein Plans and Protein Dialogues:** Use EU Protein Dialogues to encourage national approaches that connect protein diversification with demand and market development, building on good practices such as Denmark's Action Plan for Plant-Based Foods
- **Market uptake and lead markets:** R&I investment should be matched by measures that create predictable demand and enable innovation to scale. Public procurement, corporate and foodservice commitments, demand aggregation, consumer testing and targeted promotion can help accelerate market uptake. For emerging biotech-enabled foods, consumer engagement, education and tasting initiatives can help understand consumer needs, build trust and inform product development.
Drawing on the Bio-based Europe Alliance, aggregated demand and offtake agreements could help create lead markets and provide greater predictability across the value chain. Connecting farmers and producer organisations with processors and downstream buyers can further reduce transition risks, unlock new market opportunities and help European protein innovations move from demonstration to commercial scale.
- **EU Promotion Programmes:** Leverage EU promotion programmes to increase awareness and uptake of pulses and other protein sources that support more sustainable diets. Clear, evidence-based consumer information and proportionate labelling rules should enable informed choice while supporting innovation and competitiveness.
- **Food environments and public procurement:** Mobilise retailers, restaurants, food-service providers and public authorities to increase the availability and uptake of more sustainable

protein choices. Public procurement should extend across schools, hospitals, universities, workplaces and care facilities, while ensuring nutritional quality, affordability and consumer acceptance.

VI. Common Market Organisation (CMO)

- **EU School Scheme:** Strengthen the role of pulses in the EU School Scheme, moving from awareness and occasional tastings towards more regular availability. Consider extending eligibility to unsweetened, appropriately fortified plant-based drinks, subject to clear nutritional standards. The current scheme prioritises fruit, vegetables and milk, while the Protein Plan itself proposes raising awareness of pulses through the scheme.
- **Protein Sector and Producer Organisations (POs):** Enable Producer Organisations to support diversification into plant proteins for human consumption, including varietal transition, food-grade production, innovation and appropriate processing capacity.
- **Market-based contracting and risk sharing:** Promote voluntary, market-based contracts that improve predictability and share transition risks between farmers and buyers, while remaining responsive to price and input-cost volatility. Contracts should include appropriate price-review or market-linkage mechanisms and be tailored to individual value chains, preserving price discovery and hedging opportunities for globally traded commodities such as soy.

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About EIT Food

EIT Food is growing Europe's food innovation ecosystem to build a healthy, sustainable and resilient food system. We empower innovators and entrepreneurs. We invest in ideas and talent. We create space for science, research, industry, and policymakers to accelerate systemic change across the food sector.

Supported by the European Institute of Innovation and Technology (EIT), a body of the European Union, EIT Food has been at the forefront of food system innovation in Europe since 2016. We are Europe's largest food innovation ecosystem.

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These recommendations have been drafted in collaboration with three EIT Food's Think and Do Tanks (TDTs), focusing on Protein Diversification, Resilient Agriculture and Healthy Ageing. Think and Do Tanks bring EIT Food partners together to understand emerging trends, tackle shared challenges and develop common solutions through joint activities and projects across the agri-food sector.

- **EIT Food Protein Diversification Think and Do Tank** - established in 2022 - brings together stakeholders from across the food system, including industry, research, innovators and civil society. The TDT fosters structured dialogue and collaboration to overcome barriers to protein diversification. They co-create evidence-based roadmaps, recommendations, and actions. Its mission is to bring **protein diversification to the forefront of relevant policies** and accelerate innovation and adoption across Europe.
- **EIT Food Resilient Agriculture Think and Do Tank** – established in 2025 - aims to accelerate the transition towards more resilient agriculture across Europe, contributing to food security, environmental sustainability and viable farmer livelihoods. It brings together stakeholders to identify the **environmental, social and economic barriers and enablers** shaping this transition, while recognising the trade-offs and synergies between these objectives. The Think and Do Tank co-designs practical interventions to enable wider adoption, with a particular focus on **policy action, innovation and transition** **finance.**
- **EIT Food Healthy Ageing Think and Do Tank** – established in 2024 - brings together experts and stakeholders from across Europe to accelerate food system transformation in support of healthier and more active ageing. It identifies gaps, barriers and opportunities and co-creates evidence-based roadmaps, recommendations, and actions. Its ambition is to better align the food system with the needs of an ageing population, using food and nutrition to prevent age-related non-communicable diseases and support health and wellbeing throughout life. The Think and Do Tank connects research and innovation, education, policy and advocacy, and cross-sector collaboration to translate knowledge into a scalable and accessible solution.