



SUSTAINABLE DEVELOPMENT GOAL 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

WWW.UNIDO.ORG

Ministry of Agriculture and Rural Development (MARD) and United Nations Industrial Development Organization (UNIDO)

Food Innovation Hub – Viet Nam

Consultation with research, development and Government representatives on Vietnam's vision and development for a multi-stakeholder and pre-competitive regional Food Innovation Hub







SUSTAINABLE DEVELOPMENT GOAL 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

WWW.UNIDO.ORG

0

Ministry of Agriculture and Rural Development (MARD) and United Nations Industrial Development Organization (UNIDO)

Food Innovation Hub – Viet Nam

Background



INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT





Introduction

- The Viet Nam government wishes to create a strong Food Innovation Hub in Viet Nam to link domestic and regional innovation networks and advance the use of digital technology to develop smart agriculture value chains.
- The Food Innovation Hub will help to scale and <u>accelerate</u> the **transformation** of the current Vietnamese food systems into a **"green"**, **sustainable** and **low-emission agro-food powerhouse**.
- The Viet Nam Government, with the World Economic Forum, locally represented by Grow Asia, initiated a **scoping phase** to develop the Food Innovation Hub concept.
- The Food Innovation Hubs are conceived as **country-led**, **multistakeholder**, **pre-competitive partnerships** to leverage technology and broader innovations to strengthen local **innovation ecosystems**, to accelerate food systems transformation.



Introduction

• UNIDO in partnership with MARD and IPSARD, is supporting a consultation and scoping phase with food system stakeholders to develop a detailed proposal for a Food Innovation Hub in Vietnam by end June 22.

The purpose of these consultations is to:

- 1. Communicate the opportunities, and existing ideas for a Food Innovation Hub in Vietnam
- 2. Gather stakeholder ideas about priority needs, impact areas, business models, and opportunities for a multi-stakeholder Food Innovation Hub
- 3. Start to identify potential partners and linkages with existing networks and initiatives.

Interested? Let's connect!



Food Innovation Hub in Viet Nam Statement of President Nguyen Xuan Phuc

At the United Nations Summit on Food Systems, President Nguyen Xuan Phuc affirmed:

"Vietnam aspires to become a food innovation center in the region, and to expand international cooperation in research, forecasting, and sustainable management of natural resources."







Outcomes of the Food System Summit - the National Action Program on the Food System in Vietnam period 2021-2030

The NAP has priority activities and targets in five areas:

- 1. Ensure people have access to safe and nutritious food (Action track 1)
- 2. Transition to sustainable food consumption (Action track 2)
- 3. Promoting sustainable, responsible, green growth, reducing GHG emission agriculture (Action track 3)

4. Developing agri-food value chains that are competitive, transparent, inclusive and fair (Action track 4&5)

5. Strengthening resilience to people's vulnerabilities, shocks and pressures, especially women, youth and vulnerable groups (Action track 5)



The Sustainable Food Systems NAP outlines general solutions for implementation and provides some guidance for a FIH in Vietnam.

Solution ideas include:

- (2)strengthen coordination and cooperation between institutions and partners and integrate food system linkage issues and programs
- (4) Invest in research, development and innovation and technology transfer associated with the needs of food system;
- Strengthen the linkage of innovation networks for Vietnam towards becoming an innovative center of food systems in Southeast Asia.
- (5) Invest in digital transformation across the entire food system;
- (6) Strengthen coordination and information sharing
- (9) Prioritize gender equality, participation and social inclusion

Global food systems transformation requires innovation ecosystems

TECHNOLOGY AND BROADER INNOVATIONS

Present a significant opportunity to accelerate food systems transformation

However, food systems are behind other sectors in adoption and scale of technology and innovations; and require <u>robust</u> <u>innovation ecosystems</u> through multistakeholder and collective action Improve equitable access to technology and innovations for farmers and consumers

WITH ROBUST INNOVATION ECOSYSTEMS

- Increase investments in inclusive and scalable innovative solutions and enabling policy incentives
- Enable use of emerging Fourth
 Industrial Revolution technologies
 to improve resiliency of food systems
- 4 Unlock institutional bottlenecks in support of systemic change
- 4 Mitigate unintended consequences



Ensuring economic and social

inclusion for all food system

actors, especially smallholders,

Inclusiveness

women and youth



Sustainability

CAN MEET THE ASPIRATIONAL GOALS OF FOOD

SYSTEMS

Minimizing negative environmental impacts, conserving scarce natural resources and strengthening resiliency against future shocks



Efficiency Ensuring that sufficient food is produced and available for the world's population



Nutrition and Health Promoting consumption of a diverse range of healthy, nutritious, and safe foods







Food Innovation Hubs

leveraging technology and broader innovations to strengthen local innovation ecosystems accelerate transformation for the Food Systems.



- Neutral, multistakeholder and pre-competitive focusing on market based solutions
- Foster and cultivate food systems innovation for localized impact
- Support delivery and **adoption** of technology innovations at scale
- Develop a community of practice to share learnings and build capacity

*A Global Coordinating Secretariat has been established (with support from the Government of Netherlands and housed at the World Economic Forum) to catalyze, support and scale the global portfolio; and coordinate and share learnings across the emerging network of Food Innovation Hubs.



Operationalizing the Food Innovation Hub in Vietnam. Today's consultations are part of the Build phase of implementation

_

_







SUSTAINABLE DEVELOPMENT GOAL 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

WWW.UNIDO.ORG

Ministry of Agriculture and Rural Development (MARD) and United Nations Industrial Development Organization (UNIDO)

Food Innovation Hub – Viet Nam

Design concepts and ideas



INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT



Steps towards operationalizing the Food Innovation Hub in Vietnam. Today's consultations are part of the **Build** phase of implementation

1. BUILD

- Develop a 'coalition of the willing' to catalyze the Food Innovation Hub in Viet Nam.
- Identify key priorities and strategic objectives and a set of initial offerings from the Food Innovation Hubs and partnership model
- Develop a portfolio of activities and partnership structures
- Develop an operational model and delivery proposal for a FIH submission to MARD

2. ACTIVATE

- Develop a community of practice to share learnings and co-create new solutions
- Continue refining partnership model to ensure sustainability of the Food Innovation Hub
- Monitor progress and act on relevant learnings

3.	SCALE	

- Scale initiatives and scope of the Hub
- Review progress and measure impact
- Serve as an ecosystem of support for meeting a multitude of challenges
- Expand the portfolio of activities





Build – developing a Hub concept and proposal

- Partners and partnerships
- Hub business and governance models
- Examples of Innovation Hubs
- Strategic themes and objectives
- Innovation activities and services
- Workshop groups share your thoughts and ideas
- Next steps

Why an Innovation Hub? Global food systems transformation requires innovation ecosystems

TECHNOLOGY AND BROADER INNOVATIONS

WITH ROBUST INNOVATION ECOSYSTEMS

Present a significant opportunity to accelerate food systems transformation

However, food systems are behind other sectors in adoption and scale of technology and innovations; and require <u>robust</u> <u>innovation ecosystems</u> through multistakeholder and collective action

- Improve equitable access to technology and innovations for farmers and consumers
- Increase investments in inclusive and scalable innovative solutions and enabling policy incentives
- Enable use of emerging Fourth
 Industrial Revolution technologies
 to improve resiliency of food systems
- 4 Unlock institutional bottlenecks in support of systemic change
- 4 Mitigate unintended consequences



Ensuring economic and social

inclusion for all food system

actors, especially smallholders,

Inclusiveness

women and youth



Sustainability

CAN MEET THE ASPIRATIONAL GOALS OF FOOD

SYSTEMS

Minimizing negative environmental impacts, conserving scarce natural resources and strengthening resiliency against future shocks



Efficiency Ensuring that sufficient food is produced and available for the world's population



Nutrition and Health Promoting consumption of a diverse range of healthy, nutritious, and safe foods





Partnership principles

- The Hub is a multistakeholder, **pre-competitive and neutral partnership platform**;
- It is open to all members of the food innovation system;
- Contributions should suit the type of partner and can be in cash or in-kind contribution;
- Partners are encouraged to share their knowledge and time with the hub; and
- Partners have direct involvement in the transformation of the Food Innovation Systems.
- Active engagement and collaboration between private sector (including MSMEs), research, development and Government stakeholders at all levels is an essential underlying principle.



Types of Hub Partners*?

- 1. Government MARD, other Ministries and agencies, Provincial Departments.
- 2. National and international research and academic institutions
- 3. International development organisations and NGO's
 - Multilateral
 - Bilateral
- 4. Private sector focus on MSMEs
 - Food and agriculture businesses input suppliers, production, processing, food manufacturers, exporter, wholesalers, retailers
 - Food industry support services transport, logistics, cold chain, finance, analytical, e-commerce advisory, certification
 - Technology companies agri-tech, fin-tech, digital technologies, automation
- 5. Industry groups and associations



Types of Partners – Columbia FIH (example)

The Hub will have three types of partners

- 1. Founding Partners: Large players, committed to leading action to transform the food system and will contribute cash or equivalent in-kind) over the first three years of operation.
- 2. Action Partners: Members of the innovation ecosystem, and will pay yearly membership fee, depending on their nature.
- **3.** Institutional Partners: They are public entities (national and local governments), international development agencies, and multilateral organizations.

Identifying specific Hub partners is an important next step



Partnership and operating models for a Food Innovation Hub? The structure of the FIH should respond to

Ę



Examples of Innovation Hubs?

Ē





PARTNERSHIP FOR SUSTAINABLE AGRIEULTURE IN VIET NAM

Government-led Partnership



Unilever







Food innovation hubs in France and Belgium Learnings from a recent study trip











- Agri-food competitiveness cluster/ non-profit entity to link enterprises and tech experts.
- Started since 2006 with seed money from Govt.
- Governance structure: 1 President, 1 Director and 6 process managers total 20 members.
- A network of 390 members (2/3 is industrial firms) + research centers, labs, universities; + 500 innovative collaborative projects since 2006.
- Follows the innovation priority of state and regional Govt.; Plays role of policy recommendation and policy implementation;
- 1\$ of public budget getting 2\$ of private investment + member fees
- Public budget was decreased from 80% (2006) to 40% (2020); share of state fund decreased while regional govt's fund increased.
- Clusters performance evaluation and award "Certificate of excellent" every 4 years; The Evaluation committee from related ministries



INNOVATION SUPPORT SERVICES



5 cross-cutting areas of innovation:

- Food, nutrition & health
- Food quality & safety
- Manufacturing, processing & preservation technologies
- Functional ingredients
- Agricultural and agri-food marketing

Mission

- Making smarter food a unifying value: healthy, responsible, convenient, connected, personalized
- Connecting businesses and research partners
- Stimulating and facilitating the emergence of collaborative projects
- Building and managing a community committed to smart foods





VITAGORA INNOVATION CLUSTER

- Created in 2005 from Govt. initiative as an innovation cluster on agri-food.
- Core working team of 27 staffs but cover 653 members in France and worldwide (food companies, public and private research, and partners) (memberships from 900Euro 1250 Euro/year)
- 4 years strategy decided by Director Board; Annual meeting of Strategic orientation committee and Science committee to identify key priority of the year; Quarterly meetings with industries to identify needs of innovation \Box looking for fund (public/private) to solve the problems;
- 40% from public funds (French govt. funds for innovation projects, French national research funds, regional fund, EU research fund)
- Since 2015, Vitagora hold the Gold Label of Cluster Management excellence (4 year's evaluation)

Vitagora's structure

An efficient and inclusive organisation



27 biên chế: Qu h lỷ chung (3 thành viên); **Nhüm th** c hi h vọ phôt trian: Trưởng nhóm, Giám đốc ngành nông sản, Điều phối viên đảm bảo chất lượng, Điều phối viên dịch vụ đào tạo, Nhà phát triển kinh doanh và Điều phối viên tổ chức sự kiện; Nhüm 🛄 m🗋 & h sinh thôi: Trưởng nhóm, Nhà phân tích tình báo chiến lược; Đội quốc tế: Trưởng đoàn, Nhật Bản, Rwanda; Nhüm truy h thûng & ti p th



9







- EIT is an independent EU body as an integral part of Horizon Europe, the EU's Framework Program for Research and Innovation.
- Developing food innovation and entrepreneurship in the regions under the EIT Regional Innovation Scheme (RIS).
- Has network of 20+ Co-Location Centres (CLCs) and hubs across Europe; more than 2900
 partners, drives innovation across Europe by bringing together business, education and
 research as EIT Knowledge and Innovation Communities to finding solutions to global challenge,
 from climate change and sustainable energy to healthy living and food.
- Has business accelerator programs to develop the best entrepreneurs, food start-ups and SMEs in a business-led innovation community;





EIT Governing Board (GB): 12 members, appointed by the European Commission, balance between higher education, research, innovation and business experience as well as gender and geographical balance.

- Members have a four-year non-renewable term of office; independent and autonomous in decision-making and is responsible for the selection, evaluation and support of the EIT Knowledge and Innovation Communities (KIC);
- The **Executive Committee (EC)** supports GB, consists of the EIT GB Chairperson and three GB members.
- European Commission Observer: the EU Commission appoints to take part in the meetings of the GB and EC.

The Knowledge and Innovation Communities (KIC) carry out activities that cover the entire innovation chain: training and education programs, reinforcing from research to the market, innovation projects, business incubators and accelerators. The EIT's role is to guide the process and set the strategies. EIT using KPI systems to evaluate the performance of each KIC



European Institute of Innovation & Technology EIT's Knowledge and Innovation Communities: bring together businesses, research and universities

train a new generation of entrepreneurs: develop your entrepreneurial skills with the EIT

develop innovative products and service: take your idea further by bringing it to the market

Kick-start companies: create or accelerate your venture with EIT support

EIT Climate-KIC	EIT Digital	EIT Food	EIT Health
innovation for climate action	for a strong digital Europe	addressing sustainable supply chains from resources to consumers	together for healthy lives in Europe
EIT InnoEnergy	EIT Manufacturing	EIT RawMaterials	EIT Urban Mobility
pioneering change in sustainable energy	leading manufacturing innovation is Made by Europe	developing raw materials into a major strength for Europe	smart, green and integrated transport



Governance structure of EIT Food

- Management team
 - CEO
 - COO
 - Biz creation
 - Strategic program
 - Innovation
 - Education
 - Communication
- Regional Directors
 - EIT Food North-West
 - EIT Food North-East
 - EIT Food Central
 - EIT Food West
 - EIT Food South

Protein Diversification

We are developing and adopting diversified protein-based solutions, which are healthy, sustainable, safe and affordable.

Sustainable

Agriculture

practices.

We are supporting European

requirements by co-creating

farmers in meeting sustainability

climate-neutral, fair, resilient and

economically viable agricultural

Circular Food Systems

We are encouraging the shift from linear to circular, sustainable food systems, in which resources are reused, nutrients recycled, byproducts reduced and what remains is reutilised.

Sustainable Aquaculture

We are transforming the aquaculture sector by reducing its carbon footprint, transitioning to circular economy, and ensuring food security and safety. Targeted Nutrition We are supporting the development of a personalised approach to nutritional products and dietary guidance to create behavioural change towards more healthy and tailored diets.

Digital Traceability

We are supporting technologies that make it easier to digitalise

traceability. This can improve the

of food.

safety, efficiency and sustainability

 \rightarrow





Private sector-led

Q

What we Do in the Food System Transition

Together with our partners we have defined an ambition and a course of action for three focus areas. Based on the needs of the business community, combined with learnings from field experts and backed by sound research, the following Innovation fields will be the focus of Foodvalley NL:

Sustainable Protein System



Shortening time to market for competitive, locally produced and consumed plant-based proteins

Healthy Choice the Easy Choice



Increasing the viability and appeal of healthy food options for all stakeholders in the food chain

Circular Agrifood Chain



Stimulating large-scale waste stream valorisation to proliferate circular agrifood business models





Lesson learned for Vietnam

- Food Innovation Hub could be a Government institution (i.e., EIT Food) which relies on public fund **OR** a non-profit/association model (i.e., Valorial and Vitagora) created by Government initiative-seed funds; small size (~30 staffs);
- Governed by a committee assigned by Government or invited by FIH president, but **always** includes of representatives from industries, research bodies, SMEs and start-ups;
- Importance of developing and strengthening international networks and collaborations is critical
- Membership is a responsibility but also benefit from FIH; Seed money funds are needed;
- FIH follows the long-term (5 years) innovation strategy/policies and public funds for innovation programs/projects;
- Response and recommendation to innovation policies;
- Network at national level but a vision for regional and international level;
- Multisectoral partners are key factors for success



Communities Food Innovation Hubs



Filter 🗸



WORLD

Worldwide, nearly 2 billion people lack access to sufficient, nutritious and safe food and 690 million people suffer from chronic hunger or lack of proper nutrition. Current food system needs to produce much more food, whilst already now planetary boundaries are being crossed. The Food Innovation Hubs initiative catalyzed by the World Economic Forum with public, private and civil society partners is a call to action for a locally driven program, enabling innovations to sustainably improve the way we produce and consume food, through an eco-systems approach.

Columbia Food Innovation Hub



3 Pillars and enabling technology



Columbia Food Innovation Hub



What does the Hub in Columbia do?

Columbia Food Innovation Hub





UNITED NATIONS

Themes and strategic objectives?

- Innovative food preservation, processing and value-adding
- Food safety, integrity and traceability systems
- Circular (bio) economy innovation to reduce agricultural product and food loss and food waste
- **Transforming food system connectivity** through market linkages, clustering, high-tech and processing zones, smart logistics and e-commerce.
- Mechanization and automation in food and agriculture to increase efficiency
- Sustainable, resilient and low carbon food production systems

Cross-cutting themes

- Digital technologies and data analytics
- Gender and social inclusion
- Innovative financial services
- Green growth and low-carbon food systems





What activities and services could a Food Innovation Hub provide?

- Facilitate multistakeholder innovation networks, partnerships and collaboration;
- Solve problems by attracting funding to research, develop and adapt new technologies and innovations in key areas;
- Promote adoption and scaling of new technologies and innovation with the private sector
 - case studies, demonstrations, technical support;
- Supporting food innovation and entrepreneurship in agri-food and technology businesses

 incubation and acceleration;
- **Build capability** through vocational and professional training, technical support and industry scholarships;
- Knowledge and information sharing and create awareness; and
- Support food system policy, planning and investment

Where and how?



Operate at different scales, geographies and sectors

- National Hub
- Regional Hub e.g., Son La (north), Dak Lak (central), Dong Thap (MRD)
- On-ground activities

Strengthen regional networks and collaboration

• Regional and international innovation networks and partnerships – with research institutions, universities and agri-food and technology businesses.

Phased implementation over time

Realistic progressive implementation of pilots and regional Hubs, investors, partners and activities.

Appropriate business, partnership and governance models.



Next steps

- MARD requires a focused and achievable concept proposal for a Food Innovation Hub in Vietnam, with a clear set of strategic objectives, themes and impact areas, a business and governance model and implementation plan...
- Formulate a taskforce and strategically engage international development partners. Everyone can play a role!
- We would like to hear your thoughts, experiences and ideas......



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Thank you