

High Level Dialogue at CFS 47
Innovation
March 10, 2021

REPORT

On March 10, 145 leaders gathered in a virtual High Level Dialogue as a contribution to the cross cutting theme of Innovation in preparation for the Food Systems Summit. The groups recognized the importance of grassroots innovations, stemming from the needs of the ordinary citizen, and a desire for more “supply chain thinking” in inclusive science and technology innovation. The promising concept of Food Hubs, which would serve to bring together partners in Food “Silicon Valleys” both regionally and globally, could serve to bolster innovation by cross-pollinating ideas.

Innovation has been identified as a cross cutting lever of change for the Food Systems Summit.

Communities of interest were grouped around the following during the dialogue:

- Carbon pricing & measuring
- Precision agriculture
- Renewables
- Food loss and waste
- Oceans/Horticulture/Livestock/Agroforestry/Crops
- Nutrition
- Access to Market, especially for SMEs
- Innovative food product development

Some challenges explored include:

- Scaling the technology adoption curve especially on last mile delivery for farmers and consumers, to positively impact food systems.
- Building innovation ecosystems to incentivize, adapt and scale opportunities to enable food systems transformation, bring about systemic unlocks and mitigate against unintended consequences.
- Supporting the growth of business innovation to meet the needs of different types of stakeholders and lead to food systems transformation

The key issues which kept resurfacing were:

- **Data sharing and transparency:** In order to avoid duplication of systems and data, data-sharing should be encouraged. Systems should also be transparent so as to build trust especially among farmer communities. Data interoperability is imperative.
- **Infrastructure:** More investment in communication infrastructure is needed so no one is left behind.

- **Innovation hubs:** Public and private sectors need to create an enabling ecosystem for innovation to thrive.
- **Policies:** Governments and regional organisations need to set up innovation policies which will serve as catalysts and frameworks for innovative technology
- **Collaboration:** Innovators must work with the players on the ground who would use the technology, such as farmers or consumers, during the innovation process. This will help innovations meet real needs as well as guide innovators on how to make it user-friendly.

A) Main Findings

- **Data and Digital Systems**

In order to advance data and digital systems innovation, there is a need first of all for user-centered innovation – innovation generated from the ordinary man’s needs and then developed by the technical person for the market. This means that at the interim stages of innovation development, the potential users must be involved directly so it is better placed to meet reality and offers a human-centered design. Such innovations must be adapted to the local user’s language, but end users must also have some capacity development to understand the technologies available.

Digital SPS tools help move agricultural products along the value chain across borders. Blockchain tools can be useful, for example, in digitalizing seed supply chains. The private sector needs to collaborate as data competition impedes effective collaboration.

Data sharing willingness/capacity and interoperability were big impediments – on the part of farming communities adopting these innovations. We must develop continental, regional and country frameworks for agricultural digitalization with a component on internal & external data sharing.

- **Scientific and Technological Innovation**

There is a need for “supply chain thinking” in inclusive science and technology innovation. This must go from researchers and innovators all the way to consumers. We need to understand how science and technology impacts labour so that those people affected can be trained to acquire the necessary new skills. Labour, price and access must be taken into consideration when looking at scientific and technological innovation.

Cooperation and collaboration is critical. Government, science and industry need to come together and they must engage with the farming community to address current issues. Enabling policies and increased funding for national research institutions will enhance output. Private research institutes and foundations should connect to carry out more research in an accountable manner and with all due diligence. Research must be demand-driven.

Recognize the importance of establishing platforms with an inclusive atmosphere and a multidisciplinary approach in pre-competitive spaces such as innovation hubs. Stakeholders, such as farmers, students, government representatives, NGOs, and

companies, can be brought in early to see the development and potential of innovations which in turn works to build trust among them.

- **Building National and Regional Innovation Ecosystems**

There is a need for frameworks that involve policy incentives, smart partnerships, farmer communities especially in the design process of innovations and investment. Financing schemes have to be tri-partite to be measurable and instead of providing funding to individual farmers, cooperatives should be formed and given access to these funds. Blended finance is essential to drive innovation. This would guarantee knowledge and capacity sharing.

Also, there is a need to harmonize the risk approval process at national, regional and even global levels in order to speed up dissemination of information and not reinvent the regulatory approval wheel each time. Different regulatory bodies must build a level of trust with each other.

Bringing together partners at a regional and global level is promising. We can promote the creation of a food “Silicon Valley” which will attract multidisciplinary talent, operate efficiently and promote out-of-the-box thinking. The formation of national and regional innovation hubs will also promote cross-pollination of ideas and technology. These hubs enable active knowledge transfer between researchers, business, government and farmers.

- **Societal and Institutional Innovations to build Leadership and Improve Scale**

Multistakeholder partnerships are key. When all stakeholders are engaged, then the incentive structure of different agents is distinct and becomes better discernible. Donor coordination in developing countries is also key, otherwise different donors push different solutions, none of which become possible to take to scale so we must identify locally those projects that would benefit most from being scaled up. Donor coordination in developing countries is also key.

Create spaces for transparent dialogues between farmers, consumers and authorities. Consumers need to be educated on the innovations used and the science behind everything to trust the farmers. Systems to provide data for smallholders to allow them to aggregate to sell products and export are also essential.

Farm clustering and consolidation through which farmers are encouraged to reduce operation costs and increase incomes.

While innovations are often triggered by societal stimulations, governments have a role to play in providing the guarantees and financial safety nets that investors require. Each innovation requires a support structure.

B) Discussion Topic Outcomes

- **Data and Digital Systems**

Focus on accessibility and addressing barriers to adoption – cost, communication, skill set, specificity of local and regional context. Investment in broadband infrastructure to bring the technology to those that need it. Need to look at innovation from the lens of underrepresented populations (youth, gender, indigenous populations). A solution – Public investment in rural connectivity and communication platforms.

Availability of platforms to disseminate data (smart phones, infrastructure) to food system actions in an efficient manner.

We need to address the digital divide. The poor, disadvantaged communities need access to digitalization – from smart phones to digital devices/smart cards etc that can help them receive market access (e.g, in determining payment for environmental services).

- **Scientific and Technological Innovation**

Communication of technology to smallholder farmers calls for improved infrastructure. Application of science is the issue. Issues of language and communication, extension service, field experiments, funding and government support is needed.

There needs to be inclusion, active engagement, collaboration, and empowering of the users including youth, women, and local communities/beneficiaries. A need for a Platform that brings different stakeholders together and for broader interactions and transparency in implementing solutions.

We need to demystify the sector and the innovation that is happening, allow people to see and understand it. Bring policy-makers to the innovators.

- **Building National and Regional Innovation Ecosystems**

There must be a policy environment that enables innovation to come to forefront and government/institutional leadership.

The role start-ups play is of great value. For instance, one large multi-national works closely with start-ups on packaging. '2good2 go' aims at opening up food baskets to consumers, help consumers explaining the 'best before date' labelling, to reduce food waste.

Youth are central to innovation and more programs are needed for students and to inspire youth globally to work in food systems.

Shortened value chains are essential. We need to deliver directly to the tables of consumers and educate consumers on locally available products. Innovation is essential to getting Direct to Table.

A comprehensive approach to the whole value chain is needed, in order to guide the consumers to the choices, and also link it to the social protection programmes in order not to leave anyone behind.

Lack of capacity, both in companies but also within overnments, is a problem. There is a need for a more catalytic change for food testing, food marketing etc. We need to have all that in the countries, especially, low income countries.

The need for intensifying of public and private partnerships to put forward the agenda through investment across multiple areas and aspects and innovating the ways where the investment is redirected, e.g. packaging etc. is needed.

The investments of governments in healthcare is difficult to change, but momentum is needed in order to shift the focus to “health for care” instead of “healthcare”, as food is really impacting the health of the population.

- **Societal and Institutional Innovations to build Leadership and Improve Scale**

Learning and sharing best practices will contribute to scalability. Regional Economic Commissions have a role and should be doing more. We need to discuss issues of other key sectors: livestock, fisheries, forestry. Also there is a need for interconnection among all the components and at all levels

C) Areas of divergence

- Mitigation against the unintended consequences of data circulation and use, and digital misuse, possibly forms a risk for agricultural producers.
- Proposing inclusive digital solutions means first and foremost ensuring that the digital infrastructure is universally accessible.
- One size does not fit all. There is a need to respect local needs, capacity, particularly in developing geographies.
- Private sector is not viewed as a partner. It can be perceived as too focused on capital or profit whereas anti-profit view is a component of culture, research community, and ecosystems. These need to be bridged to get effective innovation happening.
- Policies can sometimes be the obstacle, not the pace of innovation or willingness of companies to change.