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Food systems in a time of crisis

Janez POTOČNIK Chairman, Forum for the Future of Agriculture

Even though FFA2020's flagship event has been cancelled, its driving philosophy of 'accelerating change' cannot be. Before the outbreak of the coronavirus, the food system was beginning to set the global policy agenda; from the EU's Farm to Fork Strategy to the now-cancelled COP26 in Glasgow. This comes from a belated recognition that our current systems are not fit for purpose. Producers, consumers, and the whole food chain have not been held measurably accountable for the depletion of our natural capital, and the bill is now rapidly coming due. Its charges include soil degradation, climate change, loss of steady water supplies on the farm side, and obesity, food waste and many other issues for every citizen and consumer.

The longer we wait to seriously engage with the changes we need, the more difficult it becomes. We have already seen this with climate change; had the world and its leaders seriously engaged with rising temperatures in the early 1990s, the depth and scale of the challenge we face today would have been profoundly different. The same goes for the food system: we are running out of time.

Fortunately, we are not standing still. Around the world, new models of food production – from urban farms to meat alternatives – are being developed, a new generation of farmers is slowly taking the lead, and industry is coming on board. They are being guided by new and better research such as the Food and Land Use Coalition's *Growing Better* report that showcases not just the need for swift change, but also the extraordinary benefits it can bring everyone involved in our food system.

There is a world to be won. Where we have vastly reduced our input use and halted the inefficient linear production processes we use now. Where protection of biodiversity and climate by land managers is appreciated as much as the food they grow, and where citizens everywhere enjoy a better, healthier diet. These things are not impossible, but they will require a fundamental rethink of what it means to grow, process and consume food – not just what it takes, but how it is rewarded, what the system's priorities should be, and where we can best put our common resources.

It is unavoidable that we will, in certain cases, need to make changes that will negatively impact people. We must be honest about that. They should be helped and compensated through a serious transition mechanism, but we cannot allow a venera-

tion of what has gone before to stand in the way of what we need tomorrow.

We must also be serious and reckon with the impact of the current crisis on the food system – from farm workers directly hit by the disease to border closures and empty supermarket shelves. There needs to be a real and serious effort to ensure that the food system remains as healthy and functional as we can collectively make it. The consequences of not doing so are too serious to bear considering.

These strange days show how interconnected, interdependent, and fragile we are, and how seriously our individual and collective responsibility has increased. If there is such a thing as a silver lining to this crisis, it is that we are being shown every day that there is a nearly unlimited capacity for rapid action by states, private enterprise, and people everywhere; by all of us. While we may be critical - and indeed sometimes should be - about individual (in)action, I am hearted to see a global community harness so much energy to deliver rapid action for the better, however tough it may be. Surely there is a broader lesson about our ability to accelerate change when it comes to the food system and the climate, as well as humanity's capacity to absorb it at a rapid

#StayAtHome #FFA2020

The FFA Chairman, together with the secretariat and RISE & ELO teams, wish all readers and their loved ones safety and good health.

We remain united to build a more sustainable food and agriculture system.

Thierry de l'ESCAILLE, Secretary General

Land management in a time of crisis

It is with a heavy heart that we cancelled FFA2020 but extraordinary times call for extraordinary measures, and the foremost duty the ELO has as one of its founding partners is to guarantee the health of our guests, speakers, and staff. In the coming pages you will find responses and answers to the problems the global food system faces, not just right now but on the medium and long term.

The immediate threats we face right now are real, but they are not unexpected. Many are the consequences of long, structural problems in the food system, heightened by the COVID-19 outbreak, that the FFA has addressed over the years: low pay for farmers and the agricultural sector, just-in-time international supply chains that leave little room, and high consumer expectations. These are issues that our members have dealt with for many years now.

As and when we emerge from this crisis, I hope it provides a re-think of the importance of agriculture and the food system, as well as clear solutions on how we can create a more resilient system. This should be more than just dealing with the immediate issues, but also tackling structural problems such as climate change, finding the next generation of farmers, biodiversity, soil loss, and more. If we are to emerge stronger as a society, we must use the current moment to finally take real action, backed up with serious funding, and a resolve to make lasting changes.

The FFA Team would like to thank the Founding and Strategic partners of the FFA for their strong commitment. It enables the Forum to remain the premier meeting place for an open dialogue on global food systems.

Messages from the FFA **Founding Partners & Friends**

syngenta

As the Chief Sustainability Officer of Syngenta, I have been asked often during the past weeks, if sustainability is now "off

The answer is no! Making agriculture more sustainable was always about balancing economy, ecology and society. Nothing has changed because of COVID. But at the same time, it seems that everything has changed.

What has changed now is that there is more public attention and real concern to how we ensure food security, enable optimal food production locally and the affordability of food. They were never off the agenda. That farmers need to earn their life income from farming was never off the agenda of a more sustainable agriculture, and it's good that we currently learn publicly more

The fact that we do not read about climate change in the headlines these days, does not mean that climate change is not happening. It's there and farmers are again facing drought and terrible weather events. Climate change adoption and mitigation is very much on the agenda, it does not pause. Biodiversity loss and unsustainable land use is not off the agenda.

It's only the headlines and our attention which has been changing for the past weeks, not the basic facts what we need for a sustainable food system and agriculture.

Alexandra BRAND

Chief Sustainability Officer, Syngenta



JOHN DEERE

"We are committed to those linked to the land. Together with the FFA and the connected partners we want to establish a sustainable and productive farm business".

Global megatrends like growing world population, climate change, higher living standards, changing diet patterns, require major changes in the farm business. The nowadays emphasis is on further sustainability. John Deere, as the industry global leader provides advanced products and services, offers innovative technology that enables farmers to increase sustainability, productivity, profitability and their quality of life as well. Climate change mitigation and other ambitious societal goals can only be achieved if farmers, suppliers and all partners closely linked to the agricultural value-chain are committed. The Forum for the Future of Agriculture provides an outstanding platform to promote this dialogue between the key-players and stakeholders of the whole sector.

Messages from the FFA Strategic & International Partners



"We joined the FFA as it provides a unique platform for dialogue, ideas and cooperation. A higher level of understanding is imperative to reach the pace and scale of change needed to help nourish the world in a safe, responsible and sustainable way" said Michelle GROGG, Vice President Corporate Responsibility at Cargill.

As countries and nations around the world enact measures to halt the acceleration of COVID-19 and protect their populations, food must be able to move in order to ensure food security while continuing to protect the environment and our natural resources.

At Cargill, we are well positioned to connect people and to make a positive impacton the planet through the products and services we provide, while advancing the UN Sustainable Development Goals. Every day, we connect farmers with markets, customers with ingredients, and people and animals with the food they need to thrive. Side-by-side, we are building a stronger, sustainable future for agriculture and bringing significant value to people's lives every day through moving food and crops from places of surplus to areas of deficit.



The FFA has become a trusted and forward-looking space for dialogue on agriculture and the environment. For WWF, it is high time that environmental challenges take centre stage and nature is rightfully treated as the very basis on which food production relies. By joining this Forum, WWF would like to contribute to moving the debate beyond agriculture, and instead address food systems in their full complexity, from sustainable farming and fisheries to healthier diets, from food waste to climate change mitigation. By transforming our food system, we can make sure there is enough nutritious food for every person - now and in the future.



The Nature Conservancy is committed to pioneering environmental approaches that work for both people and planet. The COVID-19 crisis has brought the vulnerabilities of our global supply chains into sharp focus. As an industry, agriculture is driving some of the most significant environmental challenges our world has ever faced. With these socio-economic, environmental, and humanitarian implications, achieving a sustainable and resilient recovery of agriculture and our food supply chains will be central to the global recovery from this crisis.

Six out of every 10 humans depend on agriculture for their livelihoods and food production and agriculture will have a crucial role to play in underpinning the recovery. In partnership with global players and local communities and by focusing on critical places like Africa, Brazil and China, The Nature Conservancy is committed to shaping a future where we can feed a growing global population, while delivering positive outcomes for climate and biodiversity.



Agriculture is unique as one of the industries most affected by climate change as well as being one of the best positioned to be central to climate solutions. Most are now aware of agriculture's carbon footprint and water use. But there is still work to be done in communicating the sustainability gains that have been made by the sector as well as the desperate need to continue driving innovation in order to feed the world. We believe that agriculture and investment in agriculture research is key to creating sustainable change. The current pandemic has shown the importance of resilient, responsive systems. By leveraging R&D and evidence-based policy on both sides of the Atlantic, we can create a more resilient agricultural sector and world.

thought for food

The COVID-19 crisis really shows how fragile our food systems, and all of our global systems, are when confronted with an unexpected threat. What we find inspiring, and what fits with our next-gen innovation ethos, is to see the prevalence of open and collaborative approaches to solutions development. Scientists, researchers, synthetic biologists, biohackers, and others are starting an open-science movement to help respond to the outbreak. Automation and indoor growing are potential solutions for us to be better equipped for food production for this, and future, crises.

In 2019, we invested in building the TFF Digital Labs, the first-of-its-kind digital start-up acceleration and collaboration platform that addresses the specific needs of 21st-century food and ag innovators around the world. Fostering collaboration, engaging new stakeholders, and learning from each other using our digital platform is how TFF supports its global community of entrepreneurs and accelerates change.



Rabobank

Over the past thirteen years FFA has become the place for debate about shaping a sustainable food and agricultural system globally. FFA has evolved from being a convener to a true influencer. It's a role more needed than ever, given the tremendous challenges COVID-19 impacts pose on the food and agriculture sector. In cooperation with our public and private strategic partners, Rabobank looks forward to continue working towards solutions to support our food and agriculture systems in achieving the Paris Climate Agreement and 2050 climate neutral goals.

"Our current situation proves, more than ever, just how vital partnerships are for achieving a sustainable and resilient food and agriculture system worldwide" said Berry MARTTIN, Member of the Managing Board at Rabobank.

Selected thoughts from FFA2020 keynote speakers

COVID-19 - No longer business as usual

Dr. David NABARRO, Special Envoy of WHO Director-General on COVID-19, Strategic Director 4SD



David NARARRO

The world's businesses are all in different circumstances. You will be facing staff and stock shortages, changes in demand and markets, extreme fluctuations in share price and many other challenges. My advice is to act quickly and decisively. Take responsibility for the Public Health choices you make. The experience from countries who have 'flattened the curve' is that speed is critical. Delaying the onset heightens both the immediate problem and the length and depth of economic impact. You and your brands form major influences on public behaviour.

Keeping your workforce engaged in meaningful and valuable activity when morale may be at a low ebb is good for them, good for your reputation, and a service to your society. Businesses are seeing that acting compassionately, swiftly, and meaningfully enhances their brand and customer loyalty. It is a powerful message about who you are and what you stand for. Doing the right thing when the world is suffering is good for business.

We know small businesses in hard hit areas are placed under huge strain. Please seek advice from your governments, national and local, on measures they may be putting in place to help you through, be they tax breaks, loans or other forms of support. Please recognise your importance in your towns, villages, and communities. Please pay attention to what is needed during this pandemic as well as what is not and how you might be able to quickly enter new markets where you add value, locally or nationally. Whatever size your business, things will not be easy for some while. Plan for the worst and act decisively to put yourself in a strong position. If you have a choice, do something meaningful that enhances your reputation.

Accelerating the change to sustainable food while protecting biodiversity

Terry TAMMINEN, President & Founder, Seventh Generation Advisors

Facing massive changes to our planet and food systems from climate change and deforestation, the evidence is clear that only by returning to regenerative farming can we support 10 billion people by 2050 and conserve the natural ecosystem services that Nature provides us. I recommend the resources at *Kiss the Ground* https://kisstheground.com for more information.

Beyond that, we should also focus on three strategies for maximizing efficiency and coexisting with Nature:

 End food waste by improving supply chain infrastructure (so more food makes it to markets before spoiling); and by converting post-consumer food waste to fuel, fertilizers and animal feed. SGA is working on these projects in Gujarat India, with 18 local municipalities converting 300 tons of organic waste/day (each) to valuable materials in cost-efficient ways.



Terry TAMMINEN

- 2. Make use of degraded lands. In the US, ending the ban on cultivation of hemp, for example, allows growing drought-tolerant crops that can thrive in poor soil. In another example, SGA worked with farmers in Acre, Brazil to use degraded land for fish farms, creating a processing/marketing co-op so farmers could produce value without clearing more rainforests.
- 3. Combine conventional farming with indoor vertical farms (with grow lights) where practical to relieve pressure on land.

Finally, a word about protecting lands from unsustainable practices. In California, to ensure co-existence of farms with Nature, SGA helps NGOs to use citizen lawsuits to ensure agri-toxins don't drift to neighboring communities and that chemical fertilizer loads don't wash into nearby streams and water supplies. We also support regulatory action to keep forest agriculture sustainable - tree plantations for paper/wood often destroy adjacent habitats, when they could instead create new habitat and harvest sequentially as required by law.

I also want to recommend the documentary "The Game Changers" https://gamechangersmovie.com which describes how we can eat less meat. Much deforestation is the result of growing soy to feed cattle, rather than cutting out the "middleman" and eating vegetables directly!

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Selected thoughts from FFA2020 keynote speakers

Accelerating Change

Agnes KALIBATA, President, Alliance for a Green Revolution for Africa (AGRA) and UN Secretary-General's Special Envoy for the 2021 Food Systems Summit



Agnes KALIBATA

This year started the UN Decade of Action to achieve the Sustainable Development Goals (SDGs) by 2030, representing our global community's collective aspirations for people, planet, and prosperity. Yet with only ten years remaining, we are not on track to achieve many of these goals, and in some instances, we are moving in the wrong direction. The COVID-19 pandemic is only further undermining the progress made in several areas and makes our task that much harder.

The Forum for the Future of Agriculture community knows very well – most of the world's food systems are failing. Even in Africa, where we have seen two decades of growth and improvements in the economy and people's livelihoods powered by steady growth in the agriculture sector and more food than ever, we have millions of people still hungry and malnourished. Obesity and food waste are on the rise. We are placing increasing strain on our natural resources and rapidly degrading our environments and biodiversity. The WHO estimates that up to 75 percent of new infectious diseases we are facing today, such as COVID-19 and SARS, originate in wildlife as a result of poor food safety and human activity linked to encroachment on the environment. The challenges are only getting more difficult with continued population growth in some parts of

the world, changes in diets, and increasing challenges from climate change.

Something major must change, and with a speed and scale that is up to our ambitions.

Transformation of the world's food and land use systems offers one of the single strongest drivers we have to change the current trends and achieve the 2030 sustainable development agenda. The question is how to do it. How do we make food systems less of the problem and more of the solution?

This Global Report by the Food and Land Use Coalition (FOLU), is a great addition to the body of knowledge guiding us towards the sustainable development agenda. Whether you're working globally, regionally, nationally, or in your own state or community, this report offers a transformation agenda in food and land use systems that can help change the trajectory of development and get on a path to achieving the SDGs by 2030. The report is particularly centered around ten critical transitions that would enable food and land use systems to provide food security and healthy diets for a global population of over nine billion by 2050, and tackle the core challenges of climate change, biodiversity loss, health and poverty. The ten transitions are intimately linked and matter deeply in how choices around investment and development will work, whether in Africa or in any other region of the world.

Ultimately, this report will only be as good as the actions it leads and enables us all to take. As the UN Secretary General's Special Envoy for the 2021 Food Systems Summit, I must stress that achieving our collective vision requires all of us to act, not just someone else. It will require all of us – governments, companies, civil society, consumers, producers, and international agencies – to get out of our comfort zones, understand what is working and not, bring new actors to the table, and collectively scale-up effective food systems approaches, accelerating change and the pace of our progress. We are running out of time, so that time to act is now. As the report shows, with transformation in our thinking, our approaches, our investments, and our governance, we can remake our food systems in ways that can benefit all and meet our ambitions.

FFA2020: Global politics and the need for change

Politics in the age of (climate) change

ELO Team

The past decade has seen an extraordinary acceleration of various crises and upheavals that have demanded much of the European and global food system; from the 2008 financial crisis and food price spikes, to the current COVID-19 pandemic. The speed with which global events have impacted daily lives as well as the food system has grown ever faster. In response, global citizens have grown increasingly restless over the seeming inability of politics to overcome the monumental challenges that have come our way, or to deliver better climate and environmental care.

Perhaps the EU Green Deal could provide part of such visionary leadership that pulls together countryside and the city, farmers to consumers in order to deal with some of the defining crises of our time. It will take extraordinary skills to do so without generating enormous disruptions to farm business and the food chain, especially in such a delicate time.

This challenge is made all the harder by the fact that our problems can no longer be treated in isolation; the rapid spread of COVID-19 would not have been possible without a globe-spanning interconnected food system of trade and farming that connects Wuhan to Berlin and Washington D.C. The threat of climate change and ecological breakdown affects us all simultaneously, and emissions come from every facet of global society, including the food system.

These interlocked crises demand a bold new form of politics that is ready to take lead, act decisively and create an uplifting vision of a brighter, sustainable future. In part, the fragmentation of the politics of yesterday has occurred precisely because such leadership was not forthcoming.

However, new political answers are rising to the fore; some are old parties reinventing themselves, others are new creations born out of a vacuum left by existing systems. Whether they will be able to mobilize and satisfy voters will need to be seen, but it is clear that the systemic problems faced by a globalised society will require more than statements; it will require action.

Why transatlantic collaboration should play a key role in building a more resilient and sustainable food and agriculture system

Mark TITTERINGTON, responsible for FFA strategy and partnerships, Director-General of the Transatlantic Policy Network



As part of the continuing effort of the FFA to build a strong link between what is happening in Europe and the rest of the world, in building a more sustainable food and agriculture system, this year's annual conference was to have featured a roundtable focused on the transatlantic dimension. We had hoped to be able to do

that in conjunction with our new international partner, the Chicago Council on Global Affairs, with interventions from Dan GLICKMAN, (Distinguished Fellow of the Council) and Ted MCKINNEY, the United States Under Secretary for Agriculture.

The focus of the roundtable was to be on how the European Union and the United States might collaborate more closely to build a more sustainable food and agriculture system. Clearly, there are differences, some of them long-standing, especially in the area of trade and particularly for non-tariff regulatory barriers. But FFA Chairman, Janez POTOČNIK, and Doug BEREUTER, a Distinguished Fellow, Chicago Council on Global Affairs former Member of the U.S. Congress (1979 – 2004) have recently argued that the high level of expertise, resources, existing funding capacity, and the strength of the still vital relationship between the United States and Europe, that exists at many different levels of government, provide a strong foundation for continued progress on agricultural development and the necessary provision of safe, sustainably produced food.

Given the challenge posed by the COVID-19 crisis to the world's food and agriculture system, the need to build on these foundations has arguably only increased. This applies to working together to set standards and policies which inform expected norms and behaviours. It means sharing knowledge and best practices, developing and extending nature-based solutions, and undertaking joint research and technology development, that can build resilience and sustainability in our supply chains.

To succeed, there is a clear need to deepen our understanding of and respect for each other's approach and beliefs. But this is also something that feels even more relevant and urgent today and is therefore a topic which we expect to return to in our recalibrated FFA program during the remainder of 2020.



DUNFLLL

amily photo at the opening of the 25th Conference of the Parties (COP25) on climate change

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FFA2020: Realigning consumption during and after COVID-19

One of the long-term trends in the food system is an increasing demand from consumers on knowledge of the provenance of their food, its production methods, and the overall food chain. New trends and technologies such as fully traceable food, blockchain, and the construction of shorter supply chains where the consumer at least 'feels' connected to the producer, are slowly taking root across the food system.

But increasingly, these trends are growing ever more systemic with younger consumers..

ELO Team

This new generation puts a premium on such values, by taking these into account in their purchase decisions and their attitude towards brands and consumption overall, which in turn inspires older consumers to likewise change their habits. Businesses should be empowered to take heed and deliver on these trends and demands. Furthermore, these demands are not just made by consumers, but should be and are also driven by the Sustainable Development Goals, the Paris Climate Agreement, as well as the acknowledged lack of overall sustainability in the system.

Going forward as a society, it is essential that the fundamentals of what it means to be ethically, socially and environmentally responsible as a business and a consumer in the food system are explored. Encouragement of consumers and the promotion of best practice examples in the supply chain must go hand-in-hand in achieving real change in how we view and value food. Modern society has high expectations of the food they eat, but these are set against the tight margins and limited economic flexibility to transform to the desired level must be examined, and given just consideration.

Every individual is a consumer, and so the question remains whether everyone is genuinely motivated, properly educated, and willing to pay the price for change. How this transition is dealt with while still delivering safe, abundant, available food every day is a defining challenge of the 21st century.

The biggest challenge in delivering more sustainable consumption habits

Helena LEURENT, Director General, Consumers International

Consumers International's recent survey of our membership revealed a familiar pattern of problems faced by consumers during this crisis, regardless of location:

- Surge pricing and price gouging: reported by 66% of our members – they are calling for transparency in pricing, price caps on essential goods, and enforcement of all relevant price gouging legislation.
- Goods shortages: 63% were seeing shortages of essentials like food, over-the-counter medicines and products essential for limiting the spread of the virus like hand sanitiser and face masks.
- Loss of access to basic needs and essential services: consumers reliant on physical outlets for their food, banking or paying bills are at risk of missing essential services. Those without internet connectivity, or with expensive connections are further disadvantaged as they cannot switch to online modes.
- Fake news, scams and misleading advertising: misinformation is fueling unease, creating an ideal environment for scams, products with misleading claims to surge, and panic buying, leaving many consumers unable to buy goods they needed.
- Financial losses: many have lost or at risk of losing their jobs and income, putting contracted services such as energy or finance at risk of cut off or default.

COVID-19 reminds us of the urgent need for positive change in the food sector. For instance, globalised supply chains have left vulnerable populations exposed to food shortages, and the global prevalence of poor diets means we've seen that obesity puts individuals at greater risk from COVID-19. Going forward, we must create a more resilient, fairer, and sustainable food system for all.



Sustainable nutrition: are dietary guidelines in line with planetary boundaries?

In the framework of the Forum for the Future of Agriculture, on 1 April WWF planned to hold a high-level debate with the European Commission, leading scientists and stakeholders in the food industry on the topic "Are dietary guidelines in line with planetary boundaries?".

Recent research and scientific reviews show broad consensus on the key changes needed to make our food and farming systems truly sustainable. These include drastic modifications to our food environments to stimulate dietary change, as the European Commission's just released scientific report "Towards a Sustainable Food System" underlines.

One important tool in this regard are dietary guidelines, which to date, primarily focus on human health and nutrition. WWF believes that these guidelines should be taken one step further now, by integrating environmental sustainability and orienting consumers towards the best options for individual, public and planetary health. In the EU, this would undoubtedly lead to updated dietary advice proposing greater reductions in consumption of high impact foods, especially animal-based products.

Developing EU-wide guidelines for sustainable and healthy diets should be an action of the upcoming Farm to Fork Strategy, as part of a wider package of measures aiming to make the sustainable option the easy obvious choice for consumers

Selected thoughts from FFA2020 speakers: Combining food and environmental security





Citruses - Iberresparagal Project in Andalucia

Marina BEERMANN, Director of Cooperation, WWF

Andalusia in Spain is home to species-rich ecosystems and a centre for fruit and vegetable cultivation in Europe. This has led to a massive overuse of natural water resources by agriculture in recent decades.

Compared to other reference countries, the cultivation of oranges and mandarins in Andalusia results in the highest environmental costs by far, especially due to the region's water shortage. In the year 2015, WWF Germany/Spain and EDEKA decided to launch a project aimed at improving the cultivation of these types of citrus fruits and thereby reduce inherent environmental costs, starting with the supplier *Iberhanse*.

With the support of the WWF and EDEKA, the farm implemented various measures in four fields:

- 1. More sustainable water use (on the farm and in the river-basin);
- 2. Integrated pest management;
- 3. Efficient fertilization and promotion of soil fertility and
- 4. Conservation and promotion of biological diversity and ecosystems.

The result: 36% less environmental costs per produced ton of oranges, considering the categories Land Use, Water Consumption, Pollutants and Greenhouse Gases.

Is ruminant agriculture a pariah... or a global asset?

John GILLILAND, Devenish, Director, FFA2020 speaker, regional FFA Ireland 2019 speaker

In 2013, Devenish, an innovative livestock nutrition company purchased a 180ha farm, in Ireland.

The aim:

• deliver ruminant carbon neutrality by 2025, in a transparent and verifiable way, so that Environment Regulators would be reassured; and consumers could eat a balance diet, from an independently verified, carbon neutral, farming system.

The how:

- Credibility. Initially, this focused on Devenish's Irish research providers, Teagasc and University College Dublin (UCD). As the
 project-built momentum, Queen's University Belfast (QUB), Scotland's Rural College (SRUC), and Wageningen University &
 Research (WUR) also engaged.
- Taking a whole farm approach. Farmers can reduce, as well as emit, greenhouse gases (GHGs). Alongside driving animal efficiency, we created an annual, whole-farm Carbon Balance Sheet to see where we are, and if we were on track to hit carbon neutrality by 2025;
- Creating a baseline. In 2014, with Teagasc, we carried out an aerial LiDAR survey to audit all our above-ground carbon in our
 trees and hedges. In 2017, we sampled all our soils to 30cm and measured our soil carbon. This baseline, allows us to measure
 our carbon change, over time.

The result:

• In 2019, we displaced 56% of all the GHGs. We are now accelerating carbon sequestration through improving our soil pH, planting multispecies swards, managing our hedges and woodlands, and establishing agroforestry.

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Examples of COVID-19 impact on farm businesses

Agriculture, forestry, farmers, and farm workers have been severely impacted by the COVID-19 crisis. From closed borders to lack of seasonal work(ers) and squeezed supply chains. The current pandemic is creating new problems and exacerbating existing ones.

On this page, we have asked two ELO and FCS members about how their operations have been affected, and what their hopes and expectations are from Europe.

How to face the post crisis reality

Galina PEYCHEVA-MITEVA, farmer from Bulgaria, speaker at the FFA2019, winner of the Soil and Land Management Award 2018, speaker at the regional FFA Bulgaria 2017

No man (or woman) is an island and any world crisis affects us as business owners, managers and people. It is way too early to say what the repercussions of the Covid-19 pandemic would be as we are just on its onset. Our team is our greatest asset and I sincerely hope that our employees and their families will manage through this situation safe and in good health. We expect to eventually have supply chain pressure if the situation is prolonged. We expect to see many businesses in a dire situation and a contraction in demand for our production, despite the fact that we are food producers and demand for our production is relatively inelastic. We also expect to be in technical impossibility to have a rose flower harvest in May as this is an operation which is done entirely by hand by as many as 150 people. The operations that we do by hand at the vineyard, on the lavender fields and the rose fields have stopped indefinitely, and nature does not stand by and wait for the epidemics to go away. The result on yields and the general state of the fields cannot be evaluated as it depends on the duration of the isolation, but it cannot be considered as positive in any way. Only the future will show how much more is there to come. In the long run, this crisis will eventually be over and we will have to continue to manage our lands and business.

COVID-19 Impact on a cross-border cattle farm

Frits van EVERDINGEN, speaker at the regional FFA Romania 2014

We have a family farm business based around the extensive production and breeding of ecological cattle for beef. The breeding component is in the Czech Republic, the fattening and selling to the end consumer part is based in the Netherlands.

Our first concern is with the health and safety of our farm employees here in the Czech Republic. Out of 9 employees, 6 are above 56 year old. Another immediate impact of the COVID-19 crisis is the agro-tourism side of the farm, which we have had to shutter for the foreseeable future; we do not know how the crisis will impact the crucial summer season for our holidays homes and B&B.

On the medium-term, the impact might become very serious if we cannot sell our ecologically-raised cattle in the autumn for pric-

es that support our farm. With exports halted in the Netherlands and the service industry shut down, meat supply is quickly outstripping demand, and prices have collapsed. Right now, beef farmers must hold on to their cattle and keep feeding them, but there is no light at the end of the tunnel.

Here, we see the differences in policy and government attitudes; the Czech authorities announced supporting farmers and local food security, but the Dutch are choosing not to support our family business operations in the country due to a pre-crisis desire to cut beef herds. Our business needs the support of both countries if it is to thrive.

Right now, it seems more essential than ever to ask how important (local) food production and pan-European markets are to national and European politics. The farm could depend on the answer to that question.



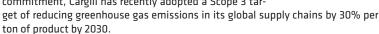
Special focus on soil health

As part of the annual conference, selected exhibitors are given the chance to present their solutions for a more sustainable food system to the FFA audience. This year's focus was to have been on soil health. We have invited them to give their thoughts below.

Soils are part of the solution in the climate fight. By working together businesses and farmers can implement agricultural practices for the regeneration of soils. Nestlé joined the Living Soils programme that aims at restoring soils while providing healthy products for consumers and supporting a better life for farmers.



With a global footprint in major food and agriculture supply chains around the globe, Cargill is committed to protecting the earth's vital natural resources and reducing its environmental impact. In alignment with its climate commitment, Cargill has recently adopted a Scope 3 tar-



This year we intended to host a lunch discussion as a side event of FFA2020 to showcase how, through a partnership approach, we are advancing soil health in Europe, empowering farmers to store carbon in agriculture soils and making agriculture part of the solution for tackling climate change.

We continue our journey towards regenerative agriculture alongside European farmers; our goal is to continuously identify new support mechanisms Cargill can deploy to incentivize farmers to adopt and sustain those more sustainable agriculture practices. If we are successful in this endeavor, we will help farmers storing carbon in agricultural soils, as well as improve their soil's natural fertility, improving resilience to extreme weather while also enabling farmers achieving greater business results.



ORTO 2.0 project: **Unanimous winner of the Soil Award**



The Land and Soil Management Award is granted annually to an outstanding project contributing to and being a model for soil protection from the viewpoint of agricultural practice. It rewards land use and soil management practices mitigating soil threats i.e. soil degradation, erosion, reduction of organic matter content, diffuse contamination, and compaction as well as the reduction of soil biodiversity, salinization, sealing, flooding and landslides. The award is open to applications from within Europe.

This year, under the presidency of prof. Martin GERZA-BEK, the Jury unanimously chose 'ORTO 2.0', a project submitted by a cooperative in Italy, as the winner. It is a very innovative and fascinating initiative, which has high potential to foster soil awareness in big cities. It provides a cultivation service through an App for mo-

bile devices - today about 70 users in Rome already manage their own patch through this mobile tool

In addition, the Jury attributed the 'Diploma of Recognition' to the project "A research and demonstration agroforestry experimental site in Ramecourt (Northern France)", submitted by Antoine DEQUIDT aiming to set up the first experimental agroforestry site to show and to study its agro-economic and environmental performance in local agro-pedoclimatic conditions.

The awards ceremony took place on March 31 via Social media. On behalf of the winner, Lorenzo ARTIBANI noted that "Orto 2.0" is an Agricultural Cooperative whose vision is to guarantee everyone food sovereignty and a healthier, more sustainable lifestyle, in the attempt of preserving the health of our precious soil and re-establishing local biodiversity.

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Meet the next generation of entrepreneurs



At FFA2020, the next generation of farm entrepreneurs were to be given the opportunity to present their contribution to the food system in the form of a start-up corner, supported by the Friends and Young Friends of the Countryside. The following seven start-ups, led by passionate, forward thinking, and innovative young entrepreneurs, demonstrate the possibilities for

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accelerated change in farm business models. In their own unique ways, each project seeks to make a difference and shape a sustainable future for our farmland:



Quentin d'HUART and Geoffroy de CAN-NIÈRE have created and developed several innovative products to digitally measure trees. TimbTrack enables forest managers to understand multi parameters and achieve efficient and precise forest management. In addition to this they have created a digital platform to give an interactive view of an entire forest by storing data, measurement, and its history. Combined, these modules make forest data automated and instantaneous, saving considerable time. During these crisis times, these innovative entrepreneurs developed a special protective mask for car-



Quentin d'HUART

egivers who work on the frontlines in Belgian hospitals and care homes. It has been reported that at the time of publication, over 3,000 caregivers have received such masks from TimbTrack.

More information: www.timbtrack.com



Whilst in his final year at Cirencester, Constantin HUET launched a label to help ease and stabilize the transition period between conventional and organic farming. The fiveyear period is a great challenge as famers have lower yields and cannot charge higher rates for their produce. Pre-O enables consumers to acknowledge this and allow farmers to sell their produce at a higher price. The Pre-Organic solution has been well received and duly won several awards.

More information: www.pre-o.com



Constantin HUET





Harnhill Workshops



Generally, start-ups a lot to get off the ground, and incubators provide the access to necessary resources to help them grow. As one of these, Farm 491 is specifically linked to the Royal Agricultural University of Cirencester in the UK. It helps entrepreneurial students to think, plan, start, and make their own business evolve. They achieve this through mentorships, providing workspaces and promoting exposure within the industry.

More information: https://farm491.com/



Aurian de BERGEYCK, a young man who wants to put in motion an important initiative to restore biodiversity in otherwise scarce and barren landscapes. He has come up with an efficient and simple way to plant hedges. Conventional and effective, hedges do not impose heavily on agricultural land, rather they leave space for cultivation whilst creating corridors of natural habitat which can also act as natural boundaries for farmers and provide important ecosystem services.



30Mhz have developed a large variety of sensors and a central portal which enables growers, advisors, distributors, and researchers to gain full insight into the climatic conditions of horticultural and agricultural produce. Their data platform ingests all kinds of data sources and analyses information interactively, allowing horticultural stakeholders to continuously improve the production process of crops, plants, seeds, and bulbs.

More information: www.30mhz.com



Bird Control Group

Bird Control Group has created a revolutionary device which successfully helps to avoid conflicts between birds and human activities in a sustainable, innovative and safe way. Their fully automated laser technology device spots and scares birds away 24/7 without them getting used to it.

More information: www.birdcontrolgroup.com



Founded by Katherina UNGER, LivinFarms recognises society's detachment from the sources of the food we eat, especially in large cities. The distance needs to be greatly reduced and consumers need to be reconnected. Alternative protein is in growing demand, LivinFarms are pioneers in this field and have created a device to grow insects from home. Their Smart Mealworm Farm upcycles food waste and produces highly nutritious fertilizers and proteins.

More information: www.livinfarms.com



Start-ups are vital to the progression of the agricultural sector. The niches they find and exploit are effective indicators of problems in our food systems, helping it to be checked and improved. In this regard we can see that the focus currently lies with finding climate change solutions, sustainability, and ecosystem restoration.

The seven start-ups we have showcased are exciting examples of progress in our community. The Friends and Young Friends of the Countryside acknowledge their hard work and wish them all the best in their endeavours. They are the future of our agricultural sector and we would kindly suggest that the FFA followers promote these pioneers and their initiatives in order to motivate other young entrepreneurs. Watch this space!

For more information please visit: http://yfcs.eu and www.friendsofthecountryside.org The Editorial team would like to convey special thanks to Caroline MAHR, Robert de GRAEFF, Niall CURLEY, Athéna LEFEBVRE, Marie ORBAN, Charles de FIERLANT DORMER, Robert EVANS-BEVAN and Jurgen TACK for their contribution to this special CountrySide magazine edition.



Sustainability at FFA2020

FFA2020 has chosen to work with "CO-2logic" to ensure our event is sustainable. The CO2-Neutral label guarantees that labelled organisations are actively calculating, reducing and compensating their local and global climate impact.

For more information on the FFA sustainability approach visit www.forumforagriculture.com/sustainability

Diary dates

19 May, Webinar

The RISE Foundation launch of report - Crop Protection and the EU: Where are they going?

www.risefoundation.eu.

FFA

15 June, Berlin - Brussels, Webinar

Forum for the Future of Agriculture Webinar

www.forumforagriculture.com

16 June, Berlin, Germany

ELO General Assembly

www.elo.org



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Accelerating Change

The annual Forum was founded by the European Landowners' Organization (ELO) and Syngenta; they were joined by Cargill, WWF Europe, Rabobank, The Nature

Conservancy, Thought for Food as strategic partners. The FFA brings together a wide and diverse range of stakeholders to inspire new thinking on how European and global agriculture needs to respond to the major challenges of delivering both food and environmental security.

Due to the escalation of the COV-ID-19 outbreak in Europe and around the world, the FFA partners cancelled the 2020 Forum for the Future of Agriculture that was due to take place on March 31 in Brussels.

Before the outbreak of the COV-ID-19 pandemic, the conference would have examined the global and European political response to increased citizen demands for climate action, increasing the biodiversity outputs on farmland, the role of consumers, as well as major European initiatives such as the EU Green Deal, the Farm to Fork Strategy and the reform of the CAP.



Nestle Good food, Good life





The FFA partners and secretariat are working hard to reshape the FFA in order not just to answer the urgent questions regarding the food system that the pandemic has identified, but also to keep you informed in various new ways. We look forward to meeting you online soon for a renewed dialogue and, when possible and safe, to see you again in the near future.

Wishing you and yours safety and good health,

The FFA Team



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