

The Food Fight Podcast - Can we really feed 10 billion people by 2050?

Matt Eastland [00:00:06] Hello, I'm Matt Eastland.

Lukxmi Balathasan [00:00:07] And I'm Lukxmi Balathasan.

Matt Eastland [00:00:09] And welcome to the Food Fight podcast. The show from EIT Food, looking at how we can improve food together.

Lukxmi Balathasan [00:00:16] EIT Food is Europe's leading food innovation initiative, working to make the food system more sustainable, healthy and trusted. And over the course of the series, we're going to be inviting people from all areas of the food industry to talk to us about how we can tackle the major challenges facing our food system.

Matt Eastland [00:00:33] And whether that's looking at issues like tackling obesity, reducing food waste, or even exploring whether we'll all be eating lab grown meat in the future, nothing's off the table. Basically, what we're talking about here is improving food for our benefit. And for that, of the planet.

Lukxmi Balathasan [00:00:49] So for our very first podcast, we're going to be asking the big question, can we really feed 10 billion people by 2050? Matt, what do we mean by this question?

Matt Eastland [00:01:02] Well, we all know the world population is growing. So according to United Nations research, the world population is projected to increase by about a third by 2050. That's 10 billion people. And to feed this population, it's estimated that we're going to require a 60 to 70 percent increase in global food production compared to what we have today, which is a massive number and poses a load of challenges.

Lukxmi Balathasan [00:01:29] Can we actually feed everyone? Break it down.

Matt Eastland [00:01:32] Well, firstly, there is a question of are we physically capable of producing that much more food? Do we have that capability? Secondly, how can we ensure that we can produce a high enough quality of food to properly sustain us?

Lukxmi Balathasan [00:01:45] And all of this is going to have an inevitable negative effect on the planet, right?

Matt Eastland [00:01:49] Yeah. There's a long list of incredibly scary stats here. So, food production is responsible for up to 30 percent of global greenhouse gas emissions, 70 percent of freshwater withdrawals, and the food system industrial activities require about 25-26 percent of the EU's energy consumption. Yet despite the massive drain on resources and the planet, we then waste about a third of all our food globally, which is a massive shame. And I could go on and on. So the question really is, can we really feed 10 billion people by 2050?

Lukxmi Balathasan [00:02:27] Wow. OK. So it sounds like we've got lots of complex issues to solve and we know that there's some great initiatives taking place globally and in the studio with us today we've got two experts. So first of all, we're joined by Professor Corinna Hawkes, who's the director of the Centre of Food Policy at City University, London. Corinna's mission is to help the world eat better through better diets that are good for the planet, too.

Corinna Hawkes [00:02:51] Thank you for inviting me.

Lukxmi Balathasan [00:02:52] And our second guest is Stephane Durand, who's the director of Agri-Food Quest at Queen's University Belfast, a leading innovation centre in Northern Ireland, focussing on tech and innovation in the agri food sector. Queen's is also an EIT Food partner. Great to have you here, Stephane. So by way of introduction, can you give us a quick overview of what you do?

Stephane Durand [00:03:11] Yes. Glad to be here and thank you for the invite. So Agri-Food Quest is a competent centre funded by Invest Northern Ireland for the local industry and its local problems really to be solved between academia and industry, but also local issues. When you look at it in detail, they're actually are perfect pilot for the global issues as well. I'm also working within the Institute of Global Food Security, which is tackling the big issue of the food sector in particular in relation to food integrity, but also in relation to food and health. And finally, sustainability.

Lukxmi Balathasan [00:03:47] So looking at this question, we also need to think about changing habits and attitudes. So, Corinna that is really where you come in. Can you give us a brief insight into your work?

Corinna Hawkes [00:03:56] Sure. I'm a director of the Centre for Food Policy at City University of London. And as a centre, we are concerned with educating the next generation around food policy and food systems issues, and we have a master's program. And we also can gather evidence and conduct scholarship into how policy, how food policy, can effectively address the big challenges of the global food system. My own work is around the healthy eating space. In fact, to me, that's not so much about habits and attitudes. Even then, that's very, very important. But it's actually about driving systems change and understanding how you can change the food system in order you can change what people eat. I'm particularly concerned with how we design and deliver policies that are actually working for people, particularly those who experience disadvantage.

Lukxmi Balathasan [00:04:43] That's an interesting term that you brought up: food systems. I guess before we really unpack this large question about feeding all of these people on the planet can you explain a little bit about what you mean by food system and why it's struggling to cope.

Corinna Hawkes [00:04:58] Sure. So the food system is essentially everything and everybody involved in bringing food onto people's tables and the relationships that those processes have with our economic, political, environmental and social realms. So it's could be kind of everything because so much in the world is involved in somehow getting food onto people's tables. And the reason it's so important is that the policies and incentives of that system impact what we eat. They impact the environment. They have political implications. Food is often used as a weapon of war, for example. Food is a massive economic sector. So if we don't tackle the problems of this big food system, then we're not tackling the major challenges of the world today.

Matt Eastland [00:05:48] And that's something that I mean, you're talking about some big stuff, there. It sounds scary. Are you concerned and scared about this big challenge that we all have to tackle?

Corinna Hawkes [00:05:57] Well, I mean. I've been doing this work for about 20 years now, and I think at first I used to find it really scary because it is really scary. But you have to get up in the morning and just get on with your work really. So, I mean, my philosophy is just get up and get on with it. It's so big. The challenge is so big that if you actually thought about it deeply every day, you'd be so scared you wouldn't do anything. Yeah, it is big. But you have to just get up and get on. And we're very lucky that around the world today, there was more and more and more engagement from academics, from civil society, from industry, from across the board, on trying to tackle the problems of the global food system.

Matt Eastland [00:06:35] And Stephane, and, you know, this is huge, right? And is this something that is concerning you in what you do?

Stephane Durand [00:06:40] Yeah. Again, same as Corinna. The issue is not really concerning, it's more about really how do we do something about such a big question and segment it into different areas that eventually we can really solve. So policy is one part of it. I believe very much in the grassroots, actually. And you can see a massive change in grassroot in terms of what they can do. I mean, just look at this young girl from Sweden, Greta Thurnberg, is really by just purely saying what she thinks, suddenly it's attracting millions of young people who are saying 'hold on here she's got a point'. So it's those kind of grassroots that I see really they are going to make an enormous change into the way that we manage food across the world.

Lukxmi Balathasan [00:07:30] Completely agree. And I think one of the things we were thinking about when we were looking at this from an EIT Food perspective, is we're talking about two billion extra people, but they're not going to be in the Western world, the population is going to be going around the Indian Ocean. And I mean, for me, culturally, growing up, eating a vegan and vegetarian diet was part of my culture. It was only when I moved to the Western world, I had McDonald's shoved into me. So, like, how do we, 'us' in the West, focussing on feeding 10 billion people, how do we ensure that we take into account where the population is going to be and how do we work with our existing diets of where the population is going to grow?

Corinna Hawkes [00:08:08] Well, I think there's a harsh reality that we consume too much, not necessarily that they're poorest aspects of society in Western countries at all. But we consume too much meat, we consume too many calories. And it goes across the board. We consume too much energy. There is a situation of overconsumption which is directly incentivized by our economic model. And we have to face the harsh reality that we're going to have to reduce some of that consumption to spread consumption more evenly, because what other parts of the world and other populations who need to actually have more. So it's a difficult challenge, especially when we bought up an environment that implies that, you know, more is more and more is good. And you can have this. But there are costs to it and technology has some solutions, but unfortunately, we are going to have to think about how we're going to reduce our consumption.

Matt Eastland [00:08:59] And Stephane do you agree with that? I mean, if we do all reduce our consumption and maybe we have to, is that something which is going to impact the farming industry?

Stephane Durand [00:09:08] I mean, now you introduce an enormous question, so I'm going to cover an enormous question. Absolutely. And the answer is that, so farmers are the most resilient people in the world. Yes. And they've been resilient already for a long, long time. And they have to be resilient based on the weather and based on many different

aspects of it. But I'm going to take a step back a bit really in this aspect. I was privileged two days ago. I was in Belfast where my home is. And it was a conference with Jonathan Porritt CBE and he's probably one of the best known environmentalists, who has been banging at the drum for the last 50 years in the UK. And I go back really to this aspect of equity because that's what he puts at the centre of it. And unless we can really sort of out this equity aspect of it, we will never be able to feed 10 billion, let alone currently the seven and a half billion. But what he said, really, I thought it struck a chord for me. He said something, the vision should be: 'how do you develop a sustainable creation of wealth for the longer term?' And I thought that was such a fantastic phrase to think about. You know, we're all in it together. But if we could really create wealth in a sustainable matter across the entire society, then we'll solve the problem. And currently, this is a reality. We cannot feed seven and a half let alone ten. So the issue really of are the farmers going to struggle or not, no they need to adapt. And they also best to adapt. And policy becomes such an important aspect of it. So the last 30 years, when you talked to farmers who have gone to education, so agriculture, education in the UK, they've been told to produce one thing brilliantly. That's what they've been told. So you produce beef and you'll have to produce to be the best beef farmer or you produce milk or you produce cereals and you have to be the best at it. And the best in the Western world means yield. And a consequence of it is a force of reliance on things that are really destroying the very things that they have, they own, which is the soil, has been massively and implications for the longer term in terms of how we can really be self-sufficient. And across the world. And I think that's one of the fundamental issues, is we need to change the way. So I was reading a fantastic report from Tim Lang, actually, who is part of it and is also in the EAT Lancet report from the ISA, the Royal Society of Arts and Commerce in particular. But this report really is exactly talking about how do you diversify? How do you create equity with quite a lot of very simple examples about how to make this happen. And interestingly, when you talk to the farmers they are ready for it. They know that they need to change. The question is how?

Matt Eastland [00:12:08] Okay. So that's also another huge question. But is it, is it just farming? I mean, you mentioned the EAT Lancet report. And Corinna, I know this is something that you've been involved in. I mean a) what was the EAT Lancet report and what was it saying? It was talking about something about diet. So it'd be great if you can kind of unpack that for people listening.

Corinna Hawkes [00:12:26] Sure. So the EAT Lancet Commission on a Healthy Diet, and sustainable food systems was a report put together by 37 scientists around the world. I was on the commission and it was designed to identify what a healthy diet was in the first instance and how and if that diet could be actually produced sustainably with a measure being greenhouse gas emissions. So it produced a diet, the EAT Lancet diet, as it's now being called, which sets out what we should be eating as a planet in order to promote our health as well as, in order to protect the planet and remain within planetary boundaries. In fact, it's actually rather difficult for the global population to eat healthily and still remain within planetary boundaries. There was a lot of emphasis when it came out on the fact that we need to reduce our meat intake in particular, in order to try and stay within planetary boundaries.

Matt Eastland [00:13:20] But doesn't that mean that there's going to have to be like a massive behaviour shift in the way that people eat? And if that's the case. How do we do that?

Corinna Hawkes [00:13:29] Yeah, I mean, people are going to have to consume less meat, but that is again, that's largely the wealthier populations in the wealthier countries.

There are actually some populations who, who would benefit, at least their young children would benefit from eating a bit more meat. That's, we're talking very, very, very small amounts of meat. And some people are vegetarians and their moral objections to eating meat but smaller amounts of meat can be very nutritious, particularly for young children who are at risk of malnutrition. So really mainly it's about high meat eaters reducing, but it's also about the junk food epidemic. So you mentioned McDonald's earlier, the growth in processed foods, industrially manufactured foods which draw on the food, which is produced, so much of what is produced, cereals or oilseeds, which is then ground up and processed in some way, sugar is another one and used in these processed foods. And so diets have gone to this radical shift from being more based on the basic food groups to including these processed foods. So that combined with meat, combined with a much higher intake of vegetable oils, which are very calorific, is leading to a world which is much more affected by overweight and obesity and diet related chronic diseases than ever before. So we have this lethal combination of undernutrition, which includes underweight what's called stunting when kids don't grow properly, MICA nutrient deficiencies combined with overweight and obesity and diet related non-communicable diseases. So it's a tricky one and my work is all focussed by how you change that and you need change. I mean, I could talk about it for a long time. I'll just give three basic points that you need change at multiple levels. So that's about saying, if you got the EAT Lancet diet or any kind of food based dietary guideline, to be honest, they're not perfect, but they broadly indicate what a healthy diet is. We need agricultural producers to produce that diet. But then we also need the food distributors to make sure that can be distributed and not wasted because there's a huge problem of food waste and there tends to be disproportionately large waste among fruits and vegetables and legumes as well for perishability and storage issues. Then we need to make sure that that diet doesn't disappear into the highly processed, industrially manufactured food when it's processed and it remains healthy. So if you're producing tomatoes, they stay as tomatoes, not go into Ketchup. That kind of thing. And then we need to make sure that that diet is retailed through the system. So we need to completely realign our food system from producing more foods through the higher yield, to producing the right kind of food, and that's throughout the system, it is not just about agriculture, but it's all the way through the system. So that's the first piece. And the second piece is around understanding people's lived experiences that influence it, lived realities influenced the foods that they eat. So if you're living in a very disadvantaged situation, trying to work two jobs and feed your kids and have very little money, there's a reason why you would buy certain foods which are neither good for your health nor for the planet. And the work that I do as vice chair of mayor London's child obesity taskforce we're very much looking at that and trying to understand the reality of people's lives. And then these are the two areas of evidence, if you like, that we need. And then the final piece is to innovate action at all levels. So that's at the policy level. It's at the grassroots level, at the industry level. It's at the level of social, technological and policy innovation. So there's a tremendous amount of possible tools out there. There's no shortage of approaches of ideas of how to make change. It's a question of actually getting them implemented. And as soon as you do that, you face barriers, you face economic barriers, you face pushback. There's all kinds of reasons why you can't take these actions. So then it becomes a political question. And how do we address the politics and economics, political and economic question, which break down those barriers and redesign the economy. I am a great believer that the big the big change has to be redesigning the economy in order that we can actually get these actions implemented.

Lukxmi Balathasan [00:17:29] Currently. Are there any cultures globally that have got it right?

Corinna Hawkes [00:17:34] Sure. Yeah. I mean, I get asked that question a lot because it's a really good question. The answer is, is that no where, no country has got it right. But there are some actions that some countries are taking which appear to be working, and there were some localities within countries where things appear to be working. So that's kind of a mixture where you find communities that haven't really changed that much, that they're still living quite traditional lifestyles are I don't like the word traditional but, lifestyles which are not very modern in the sense of, you know, not being invaded by lots of junk food and and not being part of a very mainstream economic system. And then there are particular initiatives and actions which appear to be working. And then there are some cultures which appear to be more resilient to change. So people often cite Japan and South Korea, for example, as being countries that still have good aspects to their diet. But those countries are changing rapidly, too. So there's nowhere really that has got it all right. But there are examples of where policies are being pushed forward in a positive way. So if I can give the example of Chile recently, the country has taken a very strong stand against obesity. They have a very high rates of obesity in Chile, very low, very minimal rates of undernutrition. So there's a lot of work, there, around labelling and marketing and trying to give information to consumers and stop these kind of junk foods from being so attractive to consumers. But they've got a massive problem. So you can't say, 'oh, they've got it all right.' One of the reasons they're taking some as action is because they've got such a big problem in the first place, one of the largest problems of obesity in the world. So the way that I prefer to say is who's taking the most innovative action and who's taking the strongest action that we can use to inspire and say it's possible change can happen.

Matt Eastland [00:19:22] And on that point. So you're talking about innovation and people driving this, Stephane and I mean have you globally, have you seen any really interesting innovations in this space that they're going to help feed 10 billion people by 2050?

Stephane Durand [00:19:37] Hundreds of things that is going on and feeding 10 billion has got so many different aspects to it because you need to think about regeneration of soil. You need to think about really the resilience of climate change. You need to think about one of the biggest problems that is going to hit the world. Really, and this is already hitting the world, which is water deficiency. And it's probably the one that is going to come first in many ways. And as soon as you have water deficiencies, you need to adapt your agriculture and the way that you produce food to the fact that you should produce less water. So an example, simple example is California is deficient in water for many, many years. Its water needs to be imported into California in order to produce a lot of the food that then goes all around the world. So one example in a modern world we love now, we're moving away from dairy products and into other kind of products. Almond milk. So 90 percent of all the almond is coming from California. In order to produce one almond, it needs five litre water.

Matt Eastland [00:20:42] Oh wow. I'm guilty of this.

Stephane Durand [00:20:44] Okay. And that's a consequence of a global supply chain and global supply system, as we've talked about at the beginning. So. But there are many solutions and all solutions, interestingly enough, for me, the most. It's very difficult for the large organizations to innovate. And it's because of layers and everything is about risk management. So you find layers upon layers of decision, which means that eventually it's not that they're not innovative, it's just that there are enough blockage not to really implement those innovation in many ways. So in terms of innovation, what I find is that most innovative tends to be in relation to the startups and to young companies who don't have those barriers and are really developing a lot of things. So again, going back to

grassroot and people that suddenly, where there land is a desert and how they're going to really change from a desert back to really a productive land. And there are some fantastic results really in many parts of the world, in China, in particular in Africa. In Ethiopia, where really those grass root solutions, have come up without almost no help of anyone. So it's possible. And where it could be to turbo charge it through policy. So the policy is not there really to solve our problem. It's there to turbo charge something that really these people are ready to do and is just almost a helping hand. So social and what's going on in relation to food system? And that, Corinna has detailed in many instances. It's a key issue really, it is that we need to change in our Western world. And how do we really change in terms of innovative approach to those challenges is something that will come from many different players. But I think and I like to remind people that in our Western world in particular, convenience is not a right. Convenience has never been a right. But the problem is everything that's been driving really innovation into the food systems has been about convenience more than anything else. And convenience has created many other issues. When I arrived in the UK 25 years ago, it was no salads or vegetables in plastic, but it's convenient. Actually, interestingly enough, more for the retailers in this point of view and for the supply chain, for the supplier actors than anybody else. And now it's almost impossible to find a vegetable that is not really surrounded by plastic. Very, very difficult. Actually, it becomes a very difficult thing. So in terms of the innovation is out there, it's happening. It's happening at the grassroots level. It's growing fast. It's growing, but it's how do you have the mass change in those areas is where we need to turbocharge really to make it even more easy for people. And I'm not going to talk convenience, but easy for people to see that there is an alternative. And this alternative actually is quite good. So education for me is one of the key things at Queen's University. We do a lot of work, actually, interestingly enough, in within agri food quest. We've got one project, for instance, where we've got 15 companies who are involved with the locals, schools willing to drive a change in thinking about food. And unless we start at this age of two, three, four, five, I think we are going to struggle really to make radical changes fast enough, because those young people are the very ones who are going to be able to really change for the longer term, really and education. When you look at the curriculum, there's nothing about really how food is being produced, how food really interact with the body, how food is related to health, all those aspects of it. And policy to start with, policy would be very simple because governments and UK governments spend millions, if not billions to feed a lot of people on a daily basis. From all the civil servants to the schools, to the hospitals, to the. But they relinquish the responsibility on the longer term to private organisations who are driven by just wanting which is profit and nothing wrong with this. But the consequence is that suddenly you also relinquish the opportunity to actually drive change easily through really is the provision of food in those organisations.

Matt Eastland [00:25:30] So you talk, Stephane, about responsibility there. It seems like there's a lot put on the government there, but is it just the government? I mean, is it only going to be through policy change that we can fix this problem or is it all of us? Is it the food industry? Is it us as consumers? I mean, Corinna, what do you think?

Corinna Hawkes [00:25:49] Well, responsibility needs to be taken by everybody we're all responsible. So quite often that the wars that we get into and the debates that we get into about you know who is primarily responsible. It's very hard to answer that question because responsibility is needed at all levels. But the key thing for me is it. If we say, well, they are responsible, then that is just the way of not effecting change. It's saying, well, until they do something, whoever they is, then I don't need to do anything. And in fact, as individuals, we need to be taking responsibility where it is possible. But part of that responsibility is actually calling out when others need to take responsibility. It's not just

about, you know, I'm going to have changed my diet or consume a bit less. That's important. But it's also actually about recognizing that others do have responsibility, because the last thing that we want is the whole thing to be placed on so-called consumers to take all the responsibility, because it's impossible for consumers just to change what they are doing and one, if they're subject to disadvantage. And I mentioned earlier. But second, if they're not being helped along the way through policy and innovation. So I think it's the simple answer is everybody needs to take responsibility.

Matt Eastland [00:27:01] And do you think businesses have a role in that as well? Are they going to be sort of pushing this or is actually there going to be a bit of a disconnect for them? Where actually potentially we're asking businesses to be more sustainable, be more responsible, maybe even encouraging people to eat less food. Is that going to work?

Corinna Hawkes [00:27:19] Yes. And it's the one area they don't like to go. They're happy to change the foods that they're providing and to tweak it a bit. But to actually say we need you to sell less, whether you're you know, if you're a big supermarket, we say as a supermarket we want you to sell less food to people, doesn't go down very well. Yeah. We need businesses to stop selling unhealthy food to children or marketing that those kinds of foods to their children and their parents. We need businesses, small businesses. And we're talking globally here and small entrepreneurs and real businesses and street vendors and the businesses that serve people who live on very, very low incomes in situations of disadvantage to just be providing healthy food. But you're not going to get any of this without a policy framework that incentivizes the production and sale of healthy and sustainable food and disincentivizes the sale of large quantities of meat and junk food. So that's what I mean by you need responsibility at all levels. So everybody has a responsibility. Everyone needs to act, but it needs to act in synergy. And for that, what you need is political leadership. And that's what we don't have enough of yet. You need to have political leadership at the highest levels who say, you know what, this is serious. And I know that we can solve this problem and I'm going to make that happen. We have not seen our political leaders do that yet. We have some great examples in this country, in Europe and around the world of action. But we don't have that true political leadership that says this is a big problem and there's some big solutions and some solutions across the board. And I am going to work single mindedly to make this happen. If that happened, we could solve this problem. And we don't have that political leadership at this point in time.

Lukxmi Balathasan [00:28:58] And I know this is something that you feel strongly about to Stephane. So what's your take on this? Who's responsible and the role of government in this?

Stephane Durand [00:29:06] I mean, I totally agree with Corinna. It's everyone within really well involved in food, which is basically every one of us because we eat every day or hopefully and there are producers and supply chain players and retailers and lots of farmers. But yes, a consumer will need to change and to change. You need changing day framework in order for them to start doing something different. And at the moment, because the political agenda has been moved away. If it wasn't never there, ever there, is very little mentioned. I mean, Boris Johnson comes in and really almost nothing to date has been mentioned around really this aspect of climate change, around where this influence of climate change on food production, about how we're going to produce more with less. How are we going to really make it a net zero carbon emissions? How all those aspects of it have not been discussed, but it's when you look at the report in particular IPCC, I mean, there is a quite conservative in their approach to science. So they are saying now it's 12 years, it's 12 years to change. And unless we change and why is

climate change is the centre of it, is because if suddenly you've got a really high period of really intense heat and high pile of intense water, then the system is not really resilient enough to produce really doing those conditions. All of this therefore has implication on policy right now. But I believe that changes will happen for the younger generation will happen from and I mentioned about the 2 billion. They are the one's who are going to make the change.

Matt Eastland [00:30:53] So why don't we make it easy for government then? You know, we've got some really good minds in the studio with us. You know, why don't we think about a utopian food industry? So if you could kind of go back and redesign the way that we produce and consume food, what would you do differently? You know, can we crack this for the government right now?

Stephane Durand [00:31:14] The easy one is, first of all, the current policy across the world has been driven by one policy, really. And the policy has been cheap food and cheap food for the last probably 50, 60 years because it gets really the people off the back of politicians. So it's easy in many ways because guess what? If suddenly there's not enough food in the plate, then that's the first thing that will happen. There'll be revolutions. So the cheap food has been really a centre of policies in U.S. policy in Europe, policy in most part of the world, really. And now the perversion of it is that, there's too much being consumed because it's so cheap and the ones who don't have the food will actually survive better from a purely buying enough food for their children if they buy cheap food, which is also full of calories and very little in nutrition. So all of these policies around cheap food needs to change. But that's where really the policies are important is you need therefore to subsidize in the right areas. Subsidies are happening. They are happening for the wrong reason. And with the wrong people. So a good example for me is around subsidy. A simple one really this could happen. Subsidy around carbon. The current subsidy around carbon in the world is 300 billion dollars a year. OK. Versus green energy. Probably less than 100. About 50 to 60 billion. They will take a shift. A very small shift, actually, not a hundred percent, but a shift of 30, 40 percent of this money that currently you give to the carbon rich industry into a green energy. There's suddenly the opportunity to produce things that are more sustainable in the longer term. It's very easy to do, but governments are not prepared to do that because then you've got a lot of lobbying going on. And interestingly, agriculture is not ready for that because what it means suddenly is that fertilizer become too expensive and therefore they cannot produce enough and therefore they cannot get enough money for the food that they produce. And so the whole system is interconnected. So how do we get all this imbalance at the right time is really a very complex world issues that cannot be solved just purely by the UK. In the UK we produce less food than we consume, so therefore we import a lot of the food that we need. So it's really important how we rethink about how all those key players that can make a difference really, receive almost a nudge and they will not get a nudge unless really, the grass root, is making their voice heard and I think it's just the beginning of it. It's happening, but as Corinna is saying not fast enough.

Lukxmi Balathasan [00:34:16] So same thing to you Corinna. If you could hit control-alt-delete, start all over again. How would you create the food system?

Corinna Hawkes [00:34:22] Well, I'd start by having a public policy that supported diversity, at point of production. So that would be a transformative policy. As Stephane has said, their focus has been for the last decades, decades and decades on productivity as the goal of food policy. And that was laudable. It was because they wanted to feed the world. It's you know, you can't say all those stupid idiots. Actually, it was a very sensible

thing to want, which is to produce more food to feed the growing population. But it led to the specialization and focus on productivity and yield. So the first thing I would do is to completely change policy so that it was incentivizing farmers to produce on farm diversity, landscape diversity and diversity within countries. That is a completely different system to what we have now. And I think would be, it would have effects I can't even predict. But that's what I mean by transformative policy. If you take a systems approach, I think we need to take a systems approach to this issue. It's like what are these big policies which are transformative and policies that support diversity of point of production is one of them. The second one is I would change the nature of competition law to break up the concentrated large industries and completely scatter them and break them up, even though quite a few of them are doing some really quite good things. Now, you know, I can't deny that and I'm not suggesting they should stop doing that. And there's perfectly decent people, very good people in some of those companies doing good things. But if we're talking big vision, let's break them up and let's start to think about how we organize our businesses, how we stimulate innovation on entrepreneurship in the private sector in order to produce healthy and food from sustainable food systems. For that, we need to start again. You asked about starting again. And then the third thing that I would do is to introduce education, skills and literacy from practically the point that you are born, which means that breastfeeding is really important. And then as soon as possible to be surrounding kids in a very, very comprehensive way with every message, every incentive, every encounter that they have with the world is about saying health and sustainability. And it's enjoyable and it's fun and it's going to lead to a better life for you. So that's a whole kind of education skills literacy piece, which would have to be hugely comprehensive. But to get to those first three, very radical, very, very radically different things we need to start to educate the elite. So at this point in time, I mentioned political leadership is vital. We need to have leadership at the levels of politics, at the level of the economy, at levels of business, the level of education, that at all levels who understand that these issues are connected and that we need radical change. But we can move towards radical change. And offering the people in account, fantastic people out there, but they just don't quite get it. And that's what's so important about our master's program. It's why we're developing professional development programs for education as well at my Centre for Food Policy. But it needs to go way beyond that. So when we're talking education, let's remember we're also talking about the education of the elite.

Lukxmi Balathasan [00:37:22] So your point about education is really an interesting one, because a lot of the questions we get from our Twitter audience is you can educate the public about healthy behaviours, but then how do you link healthy food and tasty food, how do you ensure that consumers are going for both?

Corinna Hawkes [00:37:38] I mean it's absolutely vital. And there's no reason that healthy food cannot be delicious. Unfortunately, though, because kids are targeted with these very, very sweet foods from a very young age, they get very accustomed to it. And that's what they associate with being delicious. I mean it is delicious, extremely likeable, extremely easy to like. And the food industry engineer it in that way. There's a brilliant scheme here in the UK, which is from a Finnish scheme called 'Sapere'. It's called 'Taste Ed' here in the UK, run by Bee Wilson and others, which is about exposing children to fruits and vegetables. And many of them have never been exposed to them before and they're picking them up and they're thinking about the texture and they're stroking them and kind of getting used to them. It's about educating or exposing, the word educating isn't quite right. It's about exposing, about learning, about healthy food that is also delicious. And everyone needs to brush their teeth. You know, we teach that from quite a young age. If we just said, okay, one of our essential aspects of education is to expose kids to healthy

and delicious foods that would completely transform things. But as part of that, you need to get rid of the junk food. You know, you need to cut it out and you need to protect children from it so it doesn't get in the way. I consider it a kind of a big brother. That industry is targeting young children with this junk food and it's intruding and getting in the way of healthy learning, which is affecting their long term health on the health of the planet.

Lukxmi Balathasan [00:39:00] And I guess, you know, I think in terms to wrap up on a positive note, Corinna, what are you most hopeful about? Are you seeing some changes? Are you feeling like: yes, there is hope. We are going to be able to feed 10 billion people by 2050, in a sustainable and healthy way?

Corinna Hawkes [00:39:17] We will if we get the political will and the economic changes that are needed to make that happen and all the other changes. So, yes, it's possible. We all need to be driven by the idea that something is possible. Like Stephane, I see a lot of innovation going on, a lot of action going on around the world in policy and in production practices, in civil society, in certain parts of the business world. And I think what I'm most excited about is really developing a new vision, if you like. I think that we are moving towards a greater understanding of a vision we need to get to. So that to me is a plate, a plate of healthy food produced from a sustainable and economically viable food system. So what I'm excited about is communicating that vision and unleashing innovation of, of different actors across the system to say, what can I do to achieve that plate? And there's many, many actions that are going on around the world that can help do that from the very, very smallest level to the large level. And I'm not going to pick out anyone in particular, but I think I'm excited about that action and I'm excited about championing it, which is something I try and do and I'm excited about connecting it, which is again, something that I try and do. And I suppose my vision is of when there's a real global movement saying this is our vision and we're just going to get up in the morning and we're just going to do what we can and we're going to share lessons. We're going to feed off each other and we're going to push forward change as fast as we can.

Matt Eastland [00:40:50] I love it. Join the food fight. And Stephane. Are you hopeful? Are you excited about the future or are you a bit more pessimistic?

Stephane Durand [00:40:57] My glass is always half full, never half empty. Today we can feed 10 billion easily, except that at the moment we don't know how, but we could. So that's the important part. I really almost going to jump on what Corinna has said just early on, because that's the most exciting part for me, is that the young people, and the young people are already so connected, so interconnected, so communicative with each other. It's a community already of young people and it's happening at a pace that really neither politician nor civil society is really comprehend. But it's happening. And I see that at grassroots levels and almost they are saying, you know what? Forget about politics because we are going to make it happen. And I am very hopeful that they are the ones who are going to make the changes and are making the changes as we speak now. We can accelerate it with the goodwill of politicians and civil society and companies and everyone around it. But they are going to make the changes, it just needs a nudge and the nudge will be, and actually, you only, don't, need a 100 percent of the population to agree. It just takes 15 percent. Many studies have showed, you know, what wants you, the tipping point will be at 15 percent. And I think we're getting close to that. We're getting close to that in terms of awareness. We are getting close to that in terms of knowing that we need to do something different. And it's not only just the consumer, it's not only the people. It's actually also companies. It's farmers. It's politicians. Some politicians who are not really busy bickering at each other, but it's happening, it's just what is a tipping point and a

tipping point I think is going to be closer than than we think. The tipping point is about where suddenly, hold on here. I mean, the fact that, for instance, politicians have accused and fought directly with this poor girl, 15 years old, Greta Thurnburg. Yes. On social media, shows that she's got a point that is suddenly becoming so important they have to fight it back in a wrong way as they do. But actually, it's already happening. And I'm very confident that the tipping point is sooner than we can ever imagine.

Corinna Hawkes [00:43:19] And if I could just add to this, we've been talking about these various aspects of food from climate change to a healthy diet and the different communities working on different aspects of food. So climate change is more than just about food, of course. But you've got a whole load of people working on climate change and food. You've got a whole load of people working on food waste. A whole load of people working on business start ups, a load of people working on undernutrition, a load of people working around overweight and obesity. So there are lots of different communities who were innovating and pushing forward change in these different aspects of food. If they could work together and connect together, we would achieve so much more, which is why it's one of my ambitions to work to try and do that and to help move towards that. And so I think that everyone's so busy trying to get their things done here, you just stand up and say, actually, there are others out here that we can connect with to make more effective change.

Matt Eastland [00:44:09] That's amazing, because I mean, that's actually exactly what the EIT Food Community is really trying to do, like connecting all the actors across the food value chain to break down and solve all of these problems. So what a lovely way to finish off. So thank you very much there Corinna. And Corinna, Stephane it's been an absolute pleasure. Really, really fascinating talking to you both. So thank you for that. I mean, if people want to know a little bit more about who you are and what you do, where can they go?

Stephane Durand [00:44:35] From my point of view, either on Agri-Food Quest website, agrifoodquest.com or in a wider sense within the Queen's University website, as the Institute of Global Food Security or IGFS.co.uk.

Matt Eastland [00:44:49] Great Corinna?

Corinna Hawkes [00:44:49] Sure, come to the Centre for Food Policy website or just put me into your Google, or come to one of the many talks that I give or come and study our master's program.

Matt Eastland [00:44:58] Thank you very much. Thanks for listening to this episode of the Food Fight podcast. Please remember to hit subscribe as we've got some great episodes coming up covering things like food waste and food and packaging and whether we can trust our food. We cover it all.

Lukxmi Balathasan [00:45:12] If you want to find out more about EIT Food and join the conversation, please check out eitfood.eu or follow us on Twitter @eitfood

Matt Eastland [00:45:21] Until next time from me, Matt Eastland ...

Lukxmi Balathasan [00:45:23] ...And me Lukxmi Balathasan.

Matt Eastland [00:45:24] Thanks for joining us.

