

Food Fight - S1E6 - Whats the beef with alternative protein.mp3

Matt Eastland [00:00:06] Hello and welcome to The Food Fight podcast. I'm Matt Eastland.

Lukxmi Balathasan [00:00:09] And I'm Lukxmi Balathasan. So Matt and I are both from EIT Food, which is Europe's leading food innovation initiative. We're working to make the food system more sustainable, healthy and trusted. So over the course of the series, we're inviting guests from all areas of the food industry to talk to us about how we can tackle some of the world's biggest food challenges and fight for a better food future.

Lukxmi Balathasan [00:00:33] So in our episode today, we're discussing a really hot topic at the moment. Alternative protein.

Matt Eastland [00:00:37] And why are we discussing this? Well, there are three main reasons. So really quickly, vegetarianism and veganism are on the rise. Traditional meat farming is under fire following studies on how intensive farming is affecting the environment and the world population is growing and current farming methods are struggling to keep up the demand. So whether you like a juicy steak or not, it's inevitable that Alternative proteins are going to be appearing more and more on your menus.

Lukxmi Balathasan [00:01:03] So what's the beef with Alternative proteins? To discuss this topic, we have two guests with us today who are experts in the space. So we have Jim Laird, the CEO and founder of 3F BIO. 3F BIO is a biotech company that produces sustainable protein. Hi, Jim. Welcome to the Food Fight.

Jim Laird [00:01:19] Hi guys.

Roberta Iley [00:01:19] And Roberta Iley, who's a principal change designer at Forum of the Future. So Forum of the Future is a sustainability non-profit organisation and they specialise in dressing critical global challenges by catalysing change. Roberta is specifically involved in a forum initiative called the Protein Challenge 2040. Roberta, Welcome to The Food Fight.

Roberta Iley [00:01:40] Thank you. Hi.

Matt Eastland [00:01:41] Hi to you both. So to set the scene then why don't we just unpack the reasons why we're having this conversation the first place? So firstly, what do we mean when we say alternative protein and why are we talking about this now? Roberta, maybe you could start.

Roberta Iley [00:01:57] Oh, gosh, I wish there was a written definition for this. Well, I suppose there's two takes on alternative protein. One is that you're looking really at kind of the novel ideas coming out in this space. So there's lots of interesting things like microorganisms, you know, extracting protein from yellow split peas, all sorts of interesting processes and opportunities for new protein sources. I like sometimes to take a bit of a broader definition, because I think sometimes what we're really talking about are alternatives that are more sustainable than some of the current. And I think there are actually lots of proteins that we aren't actually particularly novel to people's cuisines around the world, but could provide a really important protein source going forward. So I like to think of it as alternatives to the status quo rather than always being kind of novel and exciting.

Matt Eastland [00:02:49] OK, Jim. Do you agree with that?

Jim Laird [00:02:50] Yeah. I think it's a good definition. For me we are alternatives to the animal. Right now, the only protein that is scaled for...since the dawn of time has been the animal. The animal still accounts for ninety five percent plus of our protein sources. And so for me, anything outside of that and also outside of meat and fish is the alternatives. And it captures plants that captures fungi and it captures emerging technologies of insects, cultured meat. So a fully broad landscape.

Matt Eastland [00:03:18] Okay. So why are we talking about this now? Why is alternative proteins such a hot topic? Does it mean that the way that we're currently farming is unsustainable? Do you think, Jim?

Jim Laird [00:03:28] I think undoubtedly. I think that the facts portrait tell us that we're using vast portions of our land, our water. The eighty percent of antibiotic use is from industrial farming. So sustainability of conventional farming, I don't think that's an exam question anymore. I think the call to action for change that's clear, that's clear and evident. Back to your question, why we're talking about it now? And I think it's more there's a tipping point and that's coming from consumers and it's consumers are changing. So when we become onto it, but consumers are at an individual level are what's initiating change.

Matt Eastland [00:04:02] And I guess a follow on question from that. I'm really interested in this topic as well. So should we just stop eating so much protein? Because I'm always getting I mean, I'm basically pretty much vegetarian these days and I'm always getting told, you know, you're not getting enough protein in your diet. Should we be reducing the amount of protein we eat? Is that a possible solution to this Roberta?

Roberta Iley [00:04:22] Absolutely. I think for Western diets where and clearly this is different amongst different demographics and different places. But we're typically eating perhaps 25 percent more protein on average than we need to.

Matt Eastland [00:04:36] Right.

Roberta Iley [00:04:36] There's a lot of nutritional debate about this. So I wouldn't call it a closed case. But I think there is a good argument for all of us to look at what we're consuming across the board but protein specifically and reducing that as well.

Lukxmi Balathasan [00:04:48] So, I mean, you mentioned breeding twenty-five percent more so if we all... I mean, that's some, that's interesting. That's something that we don't really usually hear about these days. So if we just consumed less protein than is there a need for alternative protein?

Roberta Iley [00:05:03] Oh, yes, absolutely. I mean, I think there's a lot that can be done by reducing our consumption and by reducing the waste. I mean, we know in meats, for example, there's a huge amounts of waste, which we could be looking at quite closely. But I don't think that solves the entire problem. We need a system fundamentally in the future that provides us with the protein that we need in a sustainable, healthy way. And at the moment, that's just not there yet.

Jim Laird [00:05:27] Yeah, I think protein is a good thing. Good consumption of protein correlates with good health outcomes, good nutrition outcomes. So are we all eating too

much protein? I think we're all eating too much. And though we're eating too many calories, but actually we need protein. We need fibre. And I think protein and fibre within the diet is a good guy. So I think eating too much as it is maybe a broader issue and possibly part of a different topic. Should we eat less protein? Well, I think will we eat less protein? Probably not. I think we are being communicated to that protein correlates with positive health outcomes. And on that basis, generally speaking, we'll continue to see fairly high-levels in Western involve markets. But I think there is a genuine gap elsewhere where there is protein deficiency. And that's that needs to be addressed as well.

Lukxmi Balathasan [00:06:16] Okay. So, Roberta, now that we've sort of unpack this topic a little bit, let's go and hear a little bit more about the protein challenge twenty forty. So can you explain a little bit more about what this is?

Roberta Iley [00:06:28] Absolutely. So this was a collaboration that was set up actually four years ago now and counting. And the idea was to bring together businesses and NGOs around this issue and actually wasn't initiated by forum. It really came from industry, so some of the partners that Forum of the Future work with and really started to recognise that protein was a kind of big upcoming issue. And that was kind of pretty pioneering at the time, because although we talk about protein now as though it's part of our common language, it really wasn't a few years ago. That's been a big shift that we've seen in the last few years. And so right out, at the outset of the collaboration was really to put it on the radar. So we tried to get companies operating across the sector, right from meat producers, feed companies, through to retail consumer brands, and, of course, some of the innovative start-ups operating in this space but really first and foremost to put protein on the map. And now to catalyse action, particularly by piloting new approaches and helping people to look at these issues more systemically.

Matt Eastland [00:07:33] Wow amazing love that. Jim is this kind of big seismic change and the need to get protein on the agenda. Is this the reason that you got into the Alternative proteins business in the first place?

Jim Laird [00:07:45] If I'm honest, I don't think so. I think my background is I'm twenty-five, thirty years in food and with covering a range of areas, including running the world's biggest meat-free brand for a period of time.

Matt Eastland [00:07:57] Right.

Jim Laird [00:07:58] So I know the market and I know the landscape. I think what excited me was when we saw our technology for the first time and started to think can it be a genuine solution? It sparked an interest and that's what got me into it. I wouldn't say it was the light bulb was on at a hundred watts from second one. It took some time to work out whether what we had was a genuine solution for where there was a big market need. But actually, once I started to see that and what we do is we make mycoproteins, we make proteins from fungi or from small organisms. And once I started to see that it's resource efficiency was compelling and attractive relative to the competitive landscape. That's when it started to excite me. And that's what got me hooked properly, such that we have moved on in a couple of years to a stage where we're becoming tangible and more real. And I think I genuinely believe that making protein from smaller organisms does create the future of food or a future of sustainable protein.

Matt Eastland [00:08:55] Okay, great. And you're producing something called ABUNDA Mycoprotein. So can you explain for the listeners exactly what that is, where they would see it, those sorts of things?

Jim Laird [00:09:05] ABUNDA the trademark, mycoprotein is a Greek word for myco for fungi and protein. So it's protein made with small organisms to explain how we do that. It sounds sciencey. In reality, we take the sugars out of grain such as wheat and maize, and we ferment it. So large scale fermentation, large-scale fermentation tanks, similar way that you'd see large scale brewing tanks or the way large scale vats making yoghurt. We convert the sugars using fungi into protein in a single step fermentation. So, you know, it's growing food with grain or a single cell stage fermentation. And what we make is a whole biomass, a whole food which contains protein of fibre, which is then very versatile, versatile for a range of category applications and product applications.

Matt Eastland [00:09:50] So is it something that other businesses are using to produce different kinds of food or is this something you're selling straight into the consumer?

Jim Laird [00:09:58] So the stage we're at we produced a pilot scale. We've sampled our product with a range of bigger food companies. But we won't have industrial scale or commercial scale capacity for another eighteen, maybe twenty-four months. So in terms of where has maker protein been seen, the world will think Roberta was talking about the range of protein sources, Alternative proteins sources and outside of the animal than in that meat free space or meat alternative space for the last three or four decades. There's been a range of choices been Soya has led the way and Soya has done a good job at making delicious food that doesn't contain animal. More recently, other types of plant come in. Pea legumes are hitting that wave as well and mycoprotein or fungi has been there as well for thirty, forty years and is ingredient in that in the global brand leader in that meat freespace. So it's long established, but we are not supplying that at this stage.

Matt Eastland [00:10:52] Okay. Thank you. That's clear.

Lukxmi Balathasan [00:10:54] You've said the word delicious. So I guess when it comes to consumer, you know, taste texture is most important when they're making their choices. So what are some considerations that you as start-ups similar to you need to take into place to operate in this field?

Jim Laird [00:11:10] I think delicious does come first in food or delicious and acceptability. I think generally for the food industry has always championed that. And, you know, within the protein choices and meat and fish, part of those putting choices they have, for some consumers, given deliciousness and they tick lots of boxes for lots of consumers. I guess for increasing size of the consumer base, meat and livestock isn't the acceptable choice for your deliciousness. So what the plant space has to do is try and give the consumer what it loves and that will include succulent texture, lack of aftertaste. And those are things which everything that is competing with the animal has to deliver again through succulents. I think texture properly comes back is almost top of the list when you talk to consumers. If you get the texture wrong. The texture is part of taste, texture wrong then

Matt Eastland [00:12:01] You've lost.

Jim Laird [00:12:02] You've lost the consumer.

Roberta Iley [00:12:04] I mean, the amounts of innovation that's happened even over the last eighteen months on this is huge. But I also think it's come at a time when consumers are, well, frankly, quite conscious about their health apart from anything else. And this is meeting a need for consumers that are really trying to understand how they can eat better in every sense. So I think, you know, as part of that, but it's come at the right time as well. You know, we have had some of these products, like Jim said for 30 years. So some of this really isn't new. But, you know, all credit, there has been some significant improvement in things like texture as well.

Matt Eastland [00:12:40] Okay. So I'd like to pick up on a couple of things you said there. So you're talking about sustainability and health so I guess first question that jumps to mind is are all Alternative proteins a sustainable alternative to meat based products? And if so, do you think that Alternative proteins should replace meat entirely? Roberta what do you think?

Roberta Iley [00:13:02] Oh that's controversial. Okay.

Matt Eastland [00:13:05] haha that's what we're here for.

Roberta Iley [00:13:07] Yeah. So I definitely see a huge wealth for Alternative proteins. I think that that's without a doubt. We know that many of the Alternative proteins on the market are driving interesting innovations that, let's say, question some of the underlying ways that we've grown food in the past. So they're starting to disassociate land use from food for example. They're starting to show that we can use waste products and bring them full circle back into our food supply chains. And in the case of some of the products we talked about here as well, they're showing the value of microorganisms, we're so used to say cows and sheep and all the big stuff, if you like, but really showing the value that microorganisms can bring to our food system as well. So I think in that sense, they're helping us to really rethink food. But I also, you know, we always talk about balance in this context. We know that a large proportion of the world's population's livelihoods rely on the current food system. And we know that for many people around the world currently, there really isn't a choice and that many of the livestock options, for example, provide really valuable opportunities for people to get their protein nutrition, which is very difficult to see how that could change in the near-term. I also think it's important to say, you know, we do know that many of the livestock products and fish products do bring valuable nutrition into our diets. So there's quite interesting question for me, which we're increasingly exploring as part of the challenge of kind of, you know, how do we make sure that we hit that right balance? And that the Alternative proteins that coming onto the market are really delivering on the sustainability and the health side of things. I think it's easy sometimes to look at something and feel like it's novel and exciting. But we also need to just challenge ourselves sometimes to make sure we are really making the leaps forward that we hope we are. So a good example is where we've got microorganisms, for example, making sure that what we're feeding them. You know, is coming from a sustainable source that we can really justify where this is coming from. And I think consumers will really be looking for that to some degree. We were saying, you know, consumers are really interested in the health side of this. And, you know, there is a question for some of the products coming onto the market now whether these are really delivering against these health perceptions. So I think there is a risk if we don't keep looking and keep innovating and that we may lose consumers along the way.

Matt Eastland [00:15:28] That's really fascinating. Thank you and again, you come back to that health issue. So, you know, we've I think probably a lot of people out there who've

listened to this or are listening to this have heard about the impossible burger. So that's now being stocked in Burger King, that's gone mainstream. So that's a vegan patty was developed in the Bay Area, the US, and which is claiming to be better for humans on the Earth and a beef burger. But if you allow me just a second. So there's a recent Guardian article that just had this paragraph that's jumped out at us, and I'm just going to read it straight out. So it says that some believe we should be sceptical of these claims. The original formulation had no cholesterol, but more salt and saturated fat than a five guys beef patty. As for its environmental footprint, many have criticised the push to eat more soy, which the impossible both contains since its soil depleting mono-crop. It's also not organic. So from a consumer perspective, this is really complicated. And how is a consumer meant to understand what are the best choices for them to make from both this kind of health and sustainability angle? Jim, how do we unpick it for a consumer or as a consumer?

Jim Laird [00:16:35] Well, I think your three topics, health, taste, environment and the consumer, there's some choices within there. So the question of environment, are plant based alternatives more sustainable than livestock? I think the answer to that question is very simple yes. Terms of water usage, land use, carbon emissions that they emit less. Is a space for meat? And your second part of your question was, will it replace meat entirely? In many ways, I hope not. I think I hope not. I think but I do think that meat might become the alternative. I think the balance of nutrition and calories and feeding the globe, I think probably is not the long term coming from the animal. But does it take off the menu entirely? I think not my personal viewpoint. How does the consumer balance those things of environment, taste and health? As with everything in food, there's different brand positioning. That will capture some of that space. And Matt your physique says you champion the health environment.

Matt Eastland [00:17:36] Ahahaah flattery will get you everywhere.

Jim Laird [00:17:37] For others out there, there is indulgence and taste which might come first. And actually, if we are too virtuous with meat free offerings, then it's not going to meet consumer desire in the masses. I think what the beyond burger and possible burger will do is changing what we eat, not the way we eat. So I think that whole amount of brand investment dollars will be required to get us to fundamentally change our lifestyles and our plates. I think we will be here for a long time. I think getting consumers to switch away from going to Burger King or choosing what they like to eat isn't going to happen radically. I think some parts of the top of the pyramid will do. But I think the masses will want to eat their everyday favourites that they can enjoy and trust. And that might be fish and chips, spaghetti Bolognese, a burger and chips, whatever it may be. And I think the role of the food industry is to put more sustainable protein sources into those everyday favourites.

Roberta Iley [00:18:33] I think to me, it's one of those things that's a bridge. I guess we hope it's the entry point for many people. Like you say, whose lifestyles aren't going to change overnight in terms of what they eat. But I guess the hope is it provides a bridge in a different way of eating going forward. And I guess I would like to definitely sort of address a bit of a myth though around the soy piece, which I think is important. We know that, and this is where you should check your stats, but it's around, let's say, eighty percent of soy, something in that region, seventy to eighty percent of soy and it specifically the soy meal goes into animal feed specifically. So a lot of the demand driving soy is coming from the livestock side of things. And as a consumer eating soy directly, you're playing a very small part in those land-use changes. That's not to say it's insignificant. That's not to say we shouldn't be looking quite carefully at how we produce soy on the ground. The

monoculture, you know, all of these aspects. But I think you can also rest easy that eating soy products directly as a human is not a bad way to go.

Lukxmi Balathanan [00:19:40] Ok yeah. That's really good to know.

Matt Eastland [00:19:42] Really good to know yeah. It has been playing on my mind actually so thank you for that. And in talking about like consumers and how they embrace Alternative proteins if we need to going forward to feed the planet, so how do we do that? So is it about consumer education? How do we get consumers to really trust Alternative proteins?

Jim Laird [00:20:04] I'll start I think consumers have got really passionate, strong views about all sorts of protein. So and for some that comes to, I love meat or we were brought up being educated about the virtues of milk. So we're educated about the virtues of protein. And I guess its switching. And then so we look at the broad protein landscape. All proteins have got some pros and cons and pros and cons in terms of the deliciousness or tastiness, their environmental impact. So they've all got pros and they've got some baggage in terms of cost and where the source from and how it impacts environment. I think for some people, the idea of some of the new proteins, such as eating insects, is disgusting. But I guess there's an equal proportion for whom the idea of eating meat from the animal is equally disgusting. Talking with consumers as a big group is maybe simplifying it. And we've got a shifting demographic and a shifting consumer base that is probably provoking this conversation at a macro level. So how do we do it? I think we do it at a micro level. We do it by giving choices and Roberta says the number of products coming on the fixture in the supermarkets is proliferating and we'll put that under we bad products going in the fixture, bad plant based products, things which don't fit everyone's desires. But it's still part of the journey and therefore is driving that change.

Matt Eastland [00:21:23] And Roberta, do you agree? I mean, do you think that consumers are embracing Alternative proteins? What else can we do?

Roberta Iley [00:21:29] I think a proportion are for sure. But that question is, how do we make this mainstream? And we as the Protein Challenge, don't work with consumers directly. But I think some of those things we've seen coming through in our research are things like, the concerns that parents have about the nutritional quality for children, particularly in the early days. Also associations around things like masculinity and, you know, and there's been some quite interesting work around that in terms of and myth busting with kind of personal trainers, vegan personal trainers and things like that. And I think also, you know, people have really strong associations around protein and sort of celebration. And there's something quite interesting there about, you know, how do we make Alternative proteins equally part of celebration food? I think there's a danger when we still see certain products, meat for example, always as the luxury in our lives. And there's something about how we kind of shift that to a better balance.

Matt Eastland [00:22:33] Yeah, and that's really interesting, I have to admit you know, when it comes to Christmas meal, I do tend to look a little bit longingly at the Turkey that everyone else is tucking into and I have something else so yeah.

Jim Laird [00:22:42] Three types of potato.

Matt Eastland [00:22:43] Yeah, that's true. I do tend to go for that so yeah.

Lukxmi Balathasan [00:22:47] So as part of the podcast series, we've asked people across our social media and our networks for questions to pose to you on Alternative proteins. So I'm going to kick off with some terminology. So if meat comes from plants or animal cells, is this still meat at all? Do you guys have an opinion on the term meat?

Jim Laird [00:23:05] I think it's what consumers understand. I taste the Perfect Day ice cream and it's delicious. And it says in the back non-animal whey protein and you're thinking ok is that..am I understanding that as a consumer or so, do we get to non animal meat in the same way? And in many ways, I think it helps me as a consumer understand it. That'll do for me. And if I have to switch away to call my burgers disc's or my sausages links, then again, I'm not sure the shopper is going to go there.

Lukxmi Balathasan [00:23:37] What do you think? I know this has been quite controversial in the U.S. and has been lobbying to get milk, non plant-based milk, no longer common milk and

Matt Eastland [00:23:46] Yeah, that's right. Meat curb that you can spell meat, but it has to be m e e t and stuff like that so yeah it gets kind of strange really. What do you think Roberta?

Roberta Iley [00:23:56] I'm not sure I have a like specific view on this, to be honest. I think like Demps said, you know, there's a value in meeting the consumer where they're at. I guess there's also a value in understanding that, like every type of protein, you know again as you said, has different characteristics that have different tastes, different nutrition, you know, and there is some value in making sure that you can distinguish to some degree what you're eating. So jury's out.

Matt Eastland [00:24:23] Ok. So another question then. So consumers have people like us I guess? They've just asked, you know, how do we shop for Alternative proteins? You know, how do I integrate this into my everyday diet? Or is this just happening anyway? What do you think Jim?

Jim Laird [00:24:40] I come back to change what you eat, not the way we eat. So the plant based solutions have to give you things that you can cook with. And you understand and it goes on the table is not a compromising choice. So it has this taste as good and cost not more than the metal alternative. I think we could aspire to the fact we're all eating or feeding ourselves from our own farm kitchen or front garden and we're growing our own. But I don't think it happens. It doesn't happen for the macro scale so errm.

Matt Eastland [00:25:06] Ok so do you think like a TV celebrity, chefs and restaurants play a role here? Do they need to be pushing Alternative proteins harder?

Jim Laird [00:25:16] All sorts of influences impact us. I think who influencers whether it will come to the chefs, but Greta Thunberg is an influencer. I think there's something today of Lewis Hamilton making a huge noise about his veganism and maybe gaining a bit of a backlash for it. But I think it's about normalising what we do and the normalisation comes from the fact that celebrities and influencers - its ok. And then help through celebrity chefs or through chef world through backpacks and labels in the same way as the food industry has for decades. How do I make this delicious? How do I feed my family? How do I... Why am I going to be happy at the end of that meal?

Matt Eastland [00:25:54] And what do you think Roberta? Any tips and tricks for consumers out there about how they get more of alternative good quality Alternative proteins into their diet?

Roberta Iley [00:26:02] I think for me there's part of kind of embracing the other movement that's going on here, which is us eating much wider kind of world cuisines. At least in some parts of the world. And, you know, I would really encourage people to go to cuisines that use these plant based and Alternative proteins as a natural part of their diet. There's some great Indian dahls and all sorts. That I think many consumers are starting to really incorporate into their diets. It is a step. You know, I definitely resort to, you know, frozen micro protein options on a regular basis. But, you know, I think there's something about enjoying and experimenting with this a bit as well. So I would encourage consumers to look in that direction. I agree with Jim, there's also a real wealth of influences here. And I think the more that we can help all build our skills with this, because unfortunately, if you cook a lentil, for example, it can be a really, really boring meal if you don't know how to do it properly. And I think says something here about, you know, just clueing up a little bit or making sure that you, you know, you put the right seasonings in and things like that.

Matt Eastland [00:27:08] Love that.

Lukxmi Balathasan [00:27:08] So, you know, you both talked a lot about the push coming from consumers. Is there anything more outside of consumers? Should governments be doing more? Is it really...

Jim Laird [00:27:17] Absolutely. Everyone should do more. The call to the crises and call to action that's two fronts. So it's on genuine protein deficiency in certain parts of the world and then it's on responding to the environmental impact of overconsumption of the animal. So the call to action is vast. And is anyone doing enough? I think no. So it's that piece of should government do more? I think Denmark has showed signs that they might do something. But generally speaking, I don't think a government has radically influenced this conversation. And it's a maybe a vote loser. So should government do more? Should NGOs always do more? Yeah. Forum of the Future pioneer in the way and they are and that's what's required. But that call to action and EIT Food is waving the flag. But there's impact required on so many levels because the timescale and the call to action doesn't have the time to wait for the cultured meat, the cultivated meat, ten to twenty year horizon. There is something which is required there.

Roberta Iley [00:28:17] I'm really keen on seeing what food businesses, food brands, retailers and others can do in this space. I think it's one thing to put a Alternative protein product onto the shelf. I think it's an entirely different thing to help be part of kind of shifting this sustainable protein movement. I think that's partly about it's partly simple sayings about how you put it on the shelves with what other products. What kind of labelling all of that kind of thing counts. But I also think there's a broader systems piece here. You know, we're interested and trialling, for example, work on chefs curriculums because we recognised early on that actually mainstream chefs training at the moment simply doesn't include the kinds of skills that are conducive to producing tasty meals based on plant protein and others. And those curriculums haven't changed for about twenty years so it's about right time now to shake things up a bit and so we're looking to companies to say, well, you know, if you're not getting the skills through from chefs that you need to create the products that you want to put onto the shelves, onto the canteens and so on. How can you be part of shifting some of these systemic pieces behind the scenes as well? So I think as part of that, I think there's some interesting things as well here about the just

transition. You know, I think we know that so many people's livelihoods are reliant on traditional sources of plant protein. And as we discussed, we know that that's not totally out of the picture there's a really valuable role as well here and for livestock and dairy and so on. But we know that it's going to shift significantly. So there's also a clear role here for businesses, for governments, for father's funders to start looking at how do we support a transition that enables everyone to benefit from a new sustainable protein system?

Lukxmi Balathasan [00:30:03] So part of that change now and a big focus for EIT Food is supporting start-ups in this, which you are in.

Jim Laird [00:30:09] Delighted to be thank you.

Lukxmi Balathasan [00:30:10] So any top tips for start-ups jumping on board on the alternative protein sector? And you know what's really helped you, you know, do so well?

Jim Laird [00:30:21] I think in this space, the luxury for start-ups is something you can be passionate about. And being purpose led, having something you can get genuinely passionate about lets you build a fantastic team. I think the tip is the size of this market is vast. There is no singular solution, which is the utopian solution. And therefore, collaboration is what's required. And I think EIT Food enables that collaboration between start-ups and big corporates. So for me, the tip for start-ups is embrace that collaboration. Talk to everybody you can talk to. And I think, is this a real competitive landscape? It will become so but right now, this is not, there is not a case of pea beats mycoprotein or where does soya fit. There is space for the palate. We all want rich diversity in our plate. And therefore, collaboration is sensible within collaboration with the EIT network. Looking at the funding options and there are a range of funding options, but funding options that can drive you to impact and scale. Because I think the real call to action for us all is getting to scale.

Matt Eastland [00:31:28] Wise words from Jim. So, guys, we're really nearly out of time. But before you go, I wanted to ask you one of these kind of out there questions. So if you could rip up the food industry and start again, what would be the first changes you'd make to readdress the balance in the protein chain? Silence in the studio.

Jim Laird [00:31:51] You give the big exam question at the end Matt.

Matt Eastland [00:31:51] Ahahahaha

Jim Laird [00:31:56] If you want the real disruption I think we have to have is brands and retailers play a certain role if we want big disruption than where we see it is coming from some policy and regulatory impact. And everything we've seen with tobacco industry and excess sugar and its impact on health and nutrition and the diet and the economy has been changed, impacted by disruption from government and policy. And I think that's if I was to rip it up, I'm not I'm not doing the anarchist rip up. But I think if you want genuine disruption and we want to mitigate against where you started off with the environmental and the health impacts, then I think we need pause human intervention.

Roberta Iley [00:32:41] I think, so for me, I wonder whether this comes down to something like along the lines of true costs that people talk about. I'd love to have seen a system that was setup from the beginning where we saw the, you know, the true cost to some degree of producing food was recognised in our economy. So that would show up pretty quickly that some of our sources of protein that we now use and now rely on have a very high true costs to the environment and they have been heavily subsidised to date. And this is not

about making foods totally unaffordable for people, but it is about recognising their relative differences and the true costs of different types of food. And I think if we'd started with, you know, ideally if we started with that kind of mindset and understanding from the beginning, the sources of protein we'd have relied on would have looked very different right from the start.

Jim Laird [00:33:30] I think farmers are fundamental to what we do. And actually, I think the farmers celebrating the farmer, whether it is maybe something which I didn't pull out on that last question because I think we only make food thanks to the farmers and whether it be making livestock or whether it be making primary grains. We are reliant on them and working collaboratively. I think we have to the farmers should in no way be the demon in this in the story.

Roberta Iley [00:33:53] Exactly. And I think recognising their role in as land managers, as guardians of so much of our planets that, you know, we know these transitions need to happen, but I think we should be putting them very much at the centre of some of these solutions rather than at the edge.

Matt Eastland [00:34:11] What a lovely way to finish. Thanks very much, Roberta. So we're ending the show, guys. So I guess we just need to ask, where can people find out more about your work? Roberta?

Roberta Iley [00:34:20] Go to Forum For The Futures web site on the Protein Challenge. Lots of information there, and I'd love people to get in touch if they're interested.

Matt Eastland [00:34:29] Thank you. And Jim?

Jim Laird [00:34:30] Thank you. Been a pleasure to be here. Similarly go to 3fbio.com and there's a contact us and we'd love to talk to you all.

Lukxmi Balathanan [00:34:39] Brilliant.

Matt Eastland [00:34:39] Great stuff.

Lukxmi Balathanan [00:34:39] Well, thank you both for being here with us today on the podcast. And this has been The Food Fight.

Matt Eastland [00:34:44] Thank you both.

Jim Laird [00:34:45] Thanks very much.

Roberta Iley [00:34:45] Thank you.