NET ZERO FOOD SYSTEMS COMPILATION SCRIPT

Hello and welcome to The Food Fight podcast from EIT Food: a show exploring the biggest challenges in our food system and the innovators dedicated to solving them.

I'm your host, Matt Eastland, and this week we're diving into one of EIT Food's core missions: net zero food systems. It's a critical topic — the global food system is responsible for roughly one-third of all human-generated greenhouse gas emissions.

Reaching net zero will require nothing short of a systemic transformation. That means accelerating the shift toward sustainable and regenerative agricultural practices, unlocking new markets that reduce food loss and waste, and empowering all actors across the value chain to participate in a truly circular food economy.

These themes took centre stage at Next Bite 2025 in Brussels earlier this year, where we heard a wide range of perspectives on how to turn this ambition into reality.

With an industry that contributes so heavily to global emissions, there's no shortage of pathways to drive meaningful change. One of the most significant — and most scrutinised — is animal agriculture. The environmental cost of raising animals for food is well documented, and the numbers remain stark. Livestock production accounts for around 14% of global greenhouse gas emissions, according to the UN's Food and Agriculture Organization. An estimated 60% of all mammals on Earth are livestock, while just 4% are wild. And at any given time, there are roughly 26 billion chickens — outnumbering humans more than three to one.

With figures like these, it's clear why many leaders in the field — including Adi Yehezkeli, CEO of Fabumin — see reducing our reliance on conventional animal agriculture as a crucial step in cutting emissions.

[00:04:38] Ade: the need to eat less meat or to decrease the meat consumption is the most crucial thing and. This is why I became, it's not the reason because I became vegan and vegetarian like 30 years ago. Vegan 10 years ago, uh, I was feeling I would, I had compassion and I was feeling sorry about the animals.

And only in the na the last few years I understand the, uh, um, the climate issues that they're causing or the damage that this industry causing. So I can, I, I would say that we need to decrease, of course, the, the, the meat use or the to or eating meat. But in, but also we can offer alternatives just like we do in famine.

Because if we will offer replacement for eggs, we will repla, we will reduce the carbon emission as well, because the carbon emission also in the egg industry is huge enough because we need also to feed the, those chickens, the chickens and the hands, and there's a transport of those animals. There is a lot of, uh, damage, climate damage involved in this industry.

Regardless, our compassion for animals. So I would say yes, we do need to eat less meat, try to avoid it at all. I know it's difficult, but we will do it in trans, we will do the transmission and of course to find more alternatives.

But not everyone thinks ditching meat and dairy completely is the answer… Arnaud Delacour – founder and CEO of The Very Food Co. – believes a slightly less hard-lined approach is the way forward…

[00:00:47] Arno: I, I think, um, you have to look at it from a different perspective, uh, different perspectives first. Um, I think there's been a, a big push from, uh, the industry, uh, me including in kind of convincing people to change their diet.
Uh, I think it's what we've seen, uh, this past, uh, 10 years ago with, uh, all the funding that came, uh, on the, on the market for plant-based, uh, meat. Um, and I think what we see now is that, uh, convincing people to, uh, change their diet has some limitations. Um, and so what we are really focusing now, and I think, uh.

A lot of other startup companies or, or even bigger companies are, are looking at that is how we can, uh, replace ingredients, uh, things that are invisible to the consumer. Uh, they bring a lot in terms of functionality. Uh, they have a big impact on our food system. Uh, and yet if you replace egg white with aquafaba, you may not even need to, to say it.

Like, it may not be a marketing, um, thing. So I think we are moving away from having to convince people to. You know, go vegan or, or, or, or reduce dairy consumption and just do something that makes sense both economically and, and functionally. And plant proteins is just, is just superb. We, we have, um, we have a lot to do because animal agriculture has been, has been here for a long time and we've really optimized all the processes.

Run agriculture. Um, so we'll still have a lot to discover around plant process and I'm, I'm very optimistic that, uh, it'll be a big part of the changes is to replace the invisible.

Of course aquafaba isn't the only ingredient providing exciting alternatives to meat products…

[00:10:20] Denis: there's like 10,000 different seaweed species that we're currently not utilizing in the food industry. Uh, 70% of the planet is covered by oceans compared to land, but we are still using 98% of the caloric intake every day from land-based products. This is. This is not just a midst of opportunities, this is also plainly just stupid.

You know, I mean, we are destroying and using so many resources on land. While we could have that, um, much more efficiently and with zero input, uh, from the ocean,

That was Deniz Ficicioglu, co-founder and CEO of Wunderfish — a company committed to bringing more seaweed-based products into Europe's food sector. While seaweed has long been a dietary staple in East Asia, consumption in Western markets is rapidly gaining momentum. And for good reason: seaweed is nutrient-dense, fast-growing, and requires no freshwater, fertiliser, or arable land to produce.

As the global population grows and pressure on agricultural resources intensifies, seaweed stands out as one of the most scalable and sustainable sources of future food. In fact, estimates suggest it could supply more than 100 million tonnes of additional food by 2040, offering a powerful lever for improving nutrition, diversifying diets, and reducing the environmental footprint of what we eat.

https://www.nhm.ac.uk/discover/seaweed-farming-potential-sustainable-food-source.ht ml

Carbon emissions reduction extends far beyond the development of alternative ingredients. In reality, every corner of the food system holds significant potential to lower its environmental impact.

As Krzysztof Klincewicz from the University of Warsaw observed, transforming the system requires a holistic view — one that recognises how even incremental improvements across multiple stages can collectively drive substantial reductions in our planetary footprint.

[00:13:34] krzysztof 6: I would look at the sector of food processing, which seems to generate a lot of waste in many countries, in many companies because it's like, you know, low hanging fruit, something that you could achieve relatively easily.

Um. Digitalization of production processes, optimization of, uh, warehousing, you know, switching to production that resembles more sort of just in time production than just, you know, storage and, um, a lot of food losses. Definitely be useful. The same with, um, also all sorts of food service, catering, restaurant sector here.

Food losses are a major issue and everybody knows how to solve this problem. It seems simple and yet. Nobody wants to tackle this directly so that that's short term solution. But at the same time, uh, I think we really need to, to also think more systematically and transform the entire value chain. So it has to start with, um, agriculture, produce use, for example, of pesticides.

Um, it's very positive that, for example, within European Y uh. European Commission is even thinking about this topic in the context of, uh, national or regional independence. So that's, you know, uh. The block of countries would not heavily depend on imports of certain products, ingredients, um, components from abroad.

So, um, it came up to the level of, uh, political discussions. Right. So it's, it's not only a climate, it's not only short term solution. It might be part of a huge strategic thinking process.

The global farming population is ageing rapidly, and the UK is no exception. With the average farmer now around 59 years old, the need to attract and empower the next generation has become increasingly urgent. Without fresh talent, new skills, and renewed interest in agricultural careers, the sector risks losing its capacity to innovate, adapt, and meet the evolving demands of a sustainable food system…

[00:03:35] Student 3: Sure. So my name is Esef. I am the co-founder of a startup called Agro Boros, and I'm also a student in agroecology in the Netherlands.

So in this startup, we started all these things because we, we saw that um, children were new generations were more and more disconnected with like the realities of farming and food systems and understanding all these concepts. And, um, and we see that we have a growing disconnect also in terms of, um, young farmers.

Taking over the land. So we want, we wanted to tackle this issue. We wanted to address this issue, and that's why we created Agro, which is about creating educational programs to make these topics of food systems realities of farming and all this interconnection more accessible to children. So mostly focused on primary school children, um, in urban areas because we think that's where most of the work has to happen.

And, um, yeah, to, so to make this more accessible, then we are really trying to, uh, recreate some sense of magic and fascination for the child, not only pure based science about, okay, that's not only a carrot that is growing in this form, but is also all these cycles that are in interconnected with it. And not only, um, on the ecological side, but also on the social, on the political economical side.

So these topics are tough for children. But at the same time, if you want to shift of mindset that is like really durable over the long time, we need to try to make them really into that. So, uh, we do it is through a lot of storytelling, through a lot of like art-based learnings, a lot of like sensory learnings. We're trying to. Bring topics of climate change in our program.

So that's why we also want to approach these questions with children. Um, to me I think there is a lot of work and a lot of improvement to make in the animal farming, uh, area for several reasons. I think there's a lot about, I mean, we talk a lot about like methane emissions that are. It goes by like remnants, like cows, sheep, goats, um, and these methane emissions.

So like staying in the atmosphere. Less longer than CO2, for example, but are way more aggressive than CO2. So there is meth emissions through, uh, regular gas emissions by the animals, but also, uh, through manual management that is not well managed, uh, a lot of times in a lot of places. Um, and I think a, a very big.

Point also about this. Uh, greenhouse gas emissions in animal farming is about, uh, feed crops production. I think there's a big shift that needs to happen also on this, um, because a lot of our land is meant for, um, feed crops, monocultures. It says like soy, soybeans, this kind of things, but also deforestation for, um.

Growing this feet and for pasture, for example. So if we were shifting towards, um. Using this land for food crops or rewilding, reforesting, I think we would store more carbon, for example. And yeah, we would just reduce, um, emissions overall. So yeah, I think it's, it's very connected to what we're doing because I think like the most is important is like the shift in mindset about okay, maybe you can consider to consume less animal products or become vegetarian fully, um, or vegan even.

Um, and, um. Yeah. So we're trying to bring these things to, to children.

Bringing the next generation into the food industry — and equipping them to understand the climate challenges it faces — is undeniably valuable. But what concrete steps must farmers and other industry stakeholders take to transition to low-emission practices? And perhaps even more importantly, what obstacles stand in their way?

[00:08:31] Denis: Yeah, generally I think what we need to adopt more is a diversity in what we cultivate and then, uh, also use in the food industry. But that's very much easier said than done because what I mentioned earlier is that, um, we've built this food system in such an efficient way that every.

Every time we have a banana that's, that's swaying off, you know, two, three centimeters or the colors off, you know, it just doesn't fit in the system anymore and it doesn't get used. It could, it's just waste. And, um, so introducing more diverse crops and, uh, products as, as really, really hard because then, uh, suddenly the product prices explode quite, um.

Quite massively. Um, but if we don't, um, you know, on the farming side, if we don't really start doing this and offer alternatives, then nobody's gonna pick them up either. Um, what, what I love about, uh, the seaweed farming part is that, um, it doesn't necessarily, uh, take away jobs. Uh, but it, it just, um. It gives an alternative, um, in terms of income to fishing communities.

So we say you don't necessarily need to give up all the fishing, but why don't you, um, um, add seaweed farming to it to have a more symbiosis, uh, in the maritime ecosystem and also generate a more resilient income. And that's

probably something we need to see on land as well, like mixing, maybe animal farming with, uh, diverse crop farming and uh, yeah, bringing back the diversity.

[00:09:15] Student 2: Okay. My name, um, was Enoch Manga. I'm Akina student studying farm management at University of Doff in Germany.

And uh, I'm also a co-founder of New Nutria Limited Enterprise Limited, which is a group that is focused in, uh, producing precooked dehydrated beans. This means that we cook the beans and dry it for our consumers, depending on their taste and preferences. And, uh, I'm also having a background in agricultural economics and farm management.

And I'm very much interested in things to do with regenerative agriculture and, uh, food viol chain productions.

So I believe, yes, this kind of systems are key to net zero emissions and, uh, I say this is relevant to us and what we do.

We are planning to have a system where we have contact farming with the farmers. We produce our beans that we, we, we later cook and dehy dehydrate. So we are with the contract farming, we are going to help the farmers to, with the, we are gonna help the farmers come up with very efficient and effective ag economic processes that help them to produce organically and all that kind of stuff.

So some of the changes that we will advise them to do include. Going to say to organic farming, some economic process like mulching of the products, crop diversifications and such kind of, of challenges. And most importantly that what we, what we're focusing on is organic productions, which means we are going to ask them to use organic fertilizers and also reduce the chemicals that they apply in these farms as they produce these beans.

So the biggest challenges that they're facing are two. The challenges are, uh, the funding gaps. You find that it's very expensive to adopt this kind of, uh, production systems. And also number two, which is a, a big challenge, is the knowledge gaps. You find that most farmers don't have the knowledge that they require to produce in these waste that the customers prefer.

Particularly in the European Union where farmers are, consumers are really, really into what they consume and they really want to understand how it's produced.

With so many challenges facing farmers and producers, the wider question remains: who truly holds the responsibility for driving these positive changes? Is it the industry itself, policymakers, consumers, or a combination of all three — and how can accountability be shared to ensure meaningful progress?

[00:02:46] Arno: Yeah, I, I think, um, it's a bit difficult to, uh, impose on, uh, on, on people, on consumers. Uh, and I think we see that from, uh, lobbies or, um, you know, when we talk about climate crisis, uh, the oil industry came with, uh, the footprint, uh, analogy and say, yeah, you have a footprint.

And it's kind of, uh, diverging the responsibility, uh, from um, um, big operates. We have a role to play as consumers as well, but, uh, it depends a bit. What was the choice out there? So I think it comes from companies. I think big operates. They have a big role to play. Um, and, um, and I think policy makers as well.

Um, we can't, uh, expect people to change just because it's good for the planet. Both the consumers and especially big corporates. So we need to make it, um, um, uh, attractive, uh, or unavoidable maybe in order for these big corporates to, to go, you know, it's been, um, I think we had this, this issue, like if you compare another topic, additives in the US and additives in Europe.

In Europe, we have something a lot stricter. Uh, but somehow it works at the end. There is less additives in our food than there is in the us. Maybe we should also have this type of rules for, you know, uh, having, uh, what, what is our target in terms of, uh, emissions on from our food system and how we can reduce, and if we have the right rules, I'm sure they'll be, they'll be followed because we won't have any choice.

[00:06:20] Ade: I guess it's the whole stakeholders that, it's the con, the end consumer, the produ, the producers, also the farmers. They have to be involved in this kind of, uh, it's not a revolution. I know revolution scares people. Let's call it transmission or something more that people can adjust, like the word vegan.

People don't like the word vegan. We're trying to, uh, place it to, with a plant base. So all the stakeholders need to be in around the table. Even those, the farmers who raise the animals because we don't want to take their, um, take their work, their, uh, income. So we, let's think together. And so I say that I, I think the responsibility is upon all of us, all the value chain, from the producer, from the plants, from everybody that on the value chain until the end consumer and the pressure needs to come with the end con end consumer.

They have a massive power on the productive producer. So we can do that..

It's important to not lose sight of what we're aiming for, so to close out this episode, we asked experts and innovators to share their visions of what a net-zero food system could look like by 2050

[00:04:46] Arno: Huh. That's a, that's a big question, eh, because how fast we can go, we can get there and, uh, and what visible change we can see.

Um, as I, as I, as I said, a big part of our footprint, um, of, of, uh, yeah, of our footprint, uh, is coming from, uh, agriculture and aima agriculture. Um. We have to expect, for example, the Western diet to be closer to what the Asian diets is today. Uh, with more, uh, plantain, with more, uh, tofu, with more things like that, that are good for the health, good for the planet.

And when it comes to ingredients, we have to expect also diminution of, um, um, diminishing the, the, um, animal ingredients in our food system. And so I think there are things that will definitely be visible. Um, what is on our plate. Um, and I, I think it also comes down also to economical, uh, factor because we are on a.

Um, on this only planet that we have, and we can't really, uh, grow more, uh, animals and there will be a time, and I think we're starting to do that where meat consumption, uh, fish consumption starts to decline.

Not only because people don't want to eat that, but because they can't afford it. Um, and the idea is, is, um, to accompany this challenge, this shift so people have enough to eat and I can still, uh.

Obviously, uh, uh, enjoy with a new, uh, diet. Um, so one again, that is more, that is closer to, to, uh, the Asian diet. So I think there are things that will be visible and some of the things that, again, they will be invisible to the consumer. Uh, and, uh, like the ingredients, um, I think it will be a combination of both for.

[00:11:33] Denis: That's not that far in, uh, in the future, to be honest. Um. But I have to say, I'm optimistic in the sense of that we will see change because, um, a lot of things that we do today, how we act today are really from our perspective and our, you know, from our generational perspective.

If, if I look at my nieces who are foreign aid, you know, they already have a different approach to food and they question food, you know. Quite differently than when I was a kid. Um, so those will be the, this will be the generation that will drive the change. And maybe 2050 is not where we see the tipping point, but we will see, um, we will definitely see the, the, the plant base and hybrids.

Space finally skyrocketing. Um, this is, we are still in the very early growth phase for plan-based. Uh, I know everyone's disappointed, uh, about the growth in the past two years, but this is really just a plateau of the very bottom of the growth curve. So I, I truly believe in 25 years this will be, um, completely different.

[00:09:09] Ade: I always picture in my mind factories with, uh, with, uh, smoke, and I know it's not that simple, but. Somehow I related to, it's related to me as clean air, which I know it's invisible, but it's still, I think, I imagine clean air and nature.

Um, I know it sounds quite bizarre, but this is what I'm picturing, like something clean and green and healthier for. For the environment and for us, because it's healthier for our health, but it's healthier, healthier to our soul as well. Um, so it's really interesting to imagine carbon, zero carbon emission and, but it's also related to, um, eff um, effective effectiveness.

Because as we use our resources, once again, it's very effective. It's more effective than just one use. But I can't imagine that, I don't imagine, I can't imagine how effectiveness looks like, and I have another, uh, issue that I

wanted to, to address. It's also the hybrid because I think the future for us, I talked about the transmission.

And I think the transmission related to the hybrid product that we can offer to the market, US startups that present alternative, and I think the, uh, the hybrid product are, is the, is the right way to go to help people to do the, this transmission from eating because people are eating meat for thousands of years and now we're telling them one in, in two or three decades to stop.

It's, it's. It's, it's not gonna happen. We need to, we need to accomp accompany them during the transmission and we can make some hybrid product. So we won't replace the whole egg components in our product, but we will make replace, uh, a partial replacement and this can help people and the food engineers that we are trying to convince them to try the alternatives.

You can keep your product, the one you familiar and the one you love with the same texture and the same taste, and this is what people are looking for, taste and texture. With hybrid product, we can do the transmission more slowly, but it'll, it'll be wiser, I think.

That was just a glimpse of the remarkable conversations we had at Next Bite 2025 in Brussels. Next week, we'll shift our focus to the challenges and breakthroughs shaping the path toward a resilient food system, sharing more of the inspiring stories from the event — so stay tuned.

For now, thank you for joining us on this week's episode of *The Food Fight* podcast. To learn more, visit the EIT Food website at www.eitfood.eu, and join the conversation using the hashtag #EITFoodFight on our LinkedIn channel at @EITFood. And of course, if you haven't already, hit that follow button so you never miss an episode.

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