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[SPEAKER_00]

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[SPEAKER_02]

So welcome back to the episode two of our RegInno podcast by Center for Innovation Research, University of Stavanger.

In this podcast, we share stories and ideas behind academic papers that shape our understanding of innovation and regional development.

I'm Muzamil, PhD researcher at University of Stavanger, and with me is my co-host Raj Karel today.

[SPEAKER_03]

Thank you so much, Muzamil, for introducing me.

My name is Raj.

I'm also a PhD candidate at the University of Stavanger.

And today in our podcast, we're going to talk about something very important, that is sustainability transitions.

And sustainability transitions in the face not only of the global north, but also of the global south, co-creation of knowledge and how that helps in the process of transition.

This is a very important conversation.

And with us today, we have...

[SPEAKER_02]

Yeah, we have Professor Matias Ramirez, who is a reader in Science, Technology and Innovation Policy at Science Policy Research Unit, University of Sussex.

He's a co-director of Transformative Innovation Policy Consortium and academic coordinator of TIPSI's Latin American Hub.

Matias, welcome to the RegInno podcast.

[SPEAKER_03]

Thank you.

Thank you for the invite.

I will start us off right away, Matias.

I want to know, in the very beginning, what inspires you to research about science, innovation, technology, policy?

And that in light of what makes you think it needs to transform?

And why is the transformation process different based on where we are in the world?

[SPEAKER_01]

Well, I began my journey in science, technology and innovation in my PhD a long, long time ago.

I always had in the back of my mind that technology is central to the development of society, of humanity.

for good, but occasionally also for not so good.

So there is a very important relationship between how different civilisations have used technology, who's benefited from it, what determines or what influences

who benefits and who loses from that process.

So that got me interested in science, technology and innovation.

And then I had the opportunity through a funding, UK funding, to actually do that for my PhD.

Now,

In that PhD, what I looked at was often the way in which people think about firms, companies and technology, and the way in which it influences work is that companies decide to use technology and that can enhance or lose skills, that can enhance or lose jobs.

And in my opinion, the voice and the agency of workers is often invisible.

It's a kind of like an arrow, which goes from firms to workers.

And of course, there's been a lot of work from labor process theory, et cetera, to try to change that, but not from the innovation management side.

So that's what I did, and I looked at how unions, trade unions in particular, were able to actually influence the way technology was used.

So I did that for a while.

I used some insights from systems of innovation theory and so on.

Now, the journey with transformation and transitions really began about...

five years after I joined the Science Policy Research Unit, SPRU.

These were people who were thinking about long-term changes.

And that word transformative was key for me.

Because everything that I'd studied before was how to improve existing systems.

But nobody had... I hadn't read about...

approaches to innovation which wanted to change systems and that was there was no vocabulary there was no theoretical framework until the transitions people came so that really grabbed me transitions in terms of sustainability so that's where the journey with with transitions began

[SPEAKER_02]

Yeah.

Thank you, Matthias.

Really insightful.

Now, you have written quite a lot about working conditions of uncertainty, complexity and lack of consensus.

Can you actually paint a picture?

How does this look like on ground?

[SPEAKER_01]

Well, yes.

So there's an area of studies of science, technology and innovation.

which I think there's always been a tension in science, technology, innovation between those who, those approaches in social science, which try to, to minimize complexity and minimize uncertainty kind of more, um, singular options, if you like, uh,

as opposed to that area of studies from science, technology, innovation, which actually say, no, you have to embrace the uncertainty and the complexity associated to that.

Sometimes some people say that comes from more the STS side of science, technology, innovation, which is the more sociological studies.

That reflects the constant battle that exists within social science in general between those approaches which look for singular solutions, black and white,

simple dichotomies, and those which really are far more critical, if you like, or constructivist about the way in which to understand reality.

So my approach is that,

yes, you have to embrace that uncertainty and that complexity.

but you don't have complete control over what you can do.

There is a reality.

So I'm probably somewhere in between the kind of realists and those who are far more constructivists.

I'm somewhere in between that.

So I think people have agency.

You can construct things.

You can build things.

You can change.

You have agency, and individuals have agency.

Networks have agency.

And that's a lot of what we do in transitions, that it's bounded within certain realities and certain structures within which you have to work.

[SPEAKER_03]

Related to the very same concept, you work a lot with boundary objects.

To our audience who has never come across the term boundary objects, how would you define them?

And can you pick us an example from your past where using this concept has really unlocked conversations that was blocked before?

[SPEAKER_01]

Okay, yeah.

So, the interest in boundary objects emerges from the work we're doing in the transformative innovation policy consortium because uh TIPC for short yeah uh and uh what we've been doing since about 2016 in TIPC this was a consortium that was founded at the university of Sussex that includes the university of Utrecht and uh the university of Valencia as the academic partners but we have a series of members, core members, who are policy makers

So you've got, for example, VINNOVA in Sweden and the Department of Science, Technology and Innovation in South Africa.

And initially there was called Minciencias in Colombia.

Now there is SENACYT in Panama.

And what we're trying to do is we're trying to work to get the policymaker institutions to introduce what we call the third frame of innovation, which is transformative innovation.

So how do we do that?

And you can think of different ways to get policymakers, which initially have a different vision of the way in which policy should be done, to adopt transformative innovation.

So you have narratives, you have practices, you have methods, and so on.

And we wrote a paper where we think about how knowledge and policy moves between areas.

But in that process, we found that certain objects were able to capture the imagination of policymakers and researchers who hadn't come across this before.

And what these objects did was that they worked across different boundaries, say, between policymakers and academics or between policymakers, academics and

industry practitioners.

They allowed us to establish a communication system.

And they allowed us to understand each other when we come from different backgrounds.

And this had been ignored.

And that's why they're called boundary objects, because they break boundaries between... It could be cognitive differences.

So, as I say, practitioners, policymakers, academics, but also geographical differences.

So, you know, if we develop some ideas in England...

And you take them to Sweden or you bring them to Norway, people have a different reality.

So you need to break those boundaries.

Amongst those objects, it could be many.

It could be a tool.

It could be a document.

It could be a technology.

But two of the ones that were very important for us in the work that we did were the transformative outcomes.

we wrote a paper on which are called 12 transformative outcomes and they're used to design experiments but they can also be used to evaluate the success or otherwise of learning from experiments and they have been quite important to establish that common language that common understanding and learning between us. And that's been ignored, I think. It was a little bit ignored by us, but also by the transitions literature, the importance of understanding certain objects to achieve change when you're trying to move between different groups, whether it's cognitively from, as I say before, professions and so on, or geographically.

Working in South Africa or working in Latin America is very, very different context to the UK or to Europe even.

And so how do you establish that communication, a deep communication?

You need some of these boundary objects to work properly.

[SPEAKER_03]

The next question... is a follow-up.

And the question is just how, right?

I'm thinking we don't even need to go beyond borders right now, even within a singular country.

You mentioned in the earlier part of the podcast that academics like to think in frameworks and policymakers are mostly chasing one silver bullet recommendation.

How do you blur the boundary between that?

I see, yeah, they don't really talk to each other, right?

How do we do it?

[SPEAKER_01]

Yeah, I mean, I'm going to respond to that question, actually, by kind of taking a page out of Andy Sterling's, who I understand visited you earlier, where he says something which is quite important, which is that in life, or let's say in politics, we embrace always...

the uncertainty, the different views, the complexities of making decisions, important decisions around, say, sustainability.

It's natural.
We debate them.
We argue them.
Everybody understands that there's more than one way of thinking.
There's a plurality of views.
That's politics.
But when you come to policy...
somehow that uncertainty, that complexity just disappears.
And you try to just get rid of that and say there's only one way and everybody has to follow this way.
And that's not good.
And it simplifies reality.
It's authoritarian because you don't hear other voices.
You leave people out.
It's very non-inclusive.
So why somehow when you move to the policy arena, traditionally anyway, you have this tendency to want to control.
You have this tendency to want to simplify.
And that's driven essentially by the power interests of those people who want their particular interests and their particular privilege to be enhanced, right?
Okay.
It takes away accountability.
So this is the problem that we have when we deal with policy.
Okay.
And it goes to your question.
So our task, our challenge is to try to bring in - when you get to the policy process -
is to say, no, you've got to accept there's more than one view here, and you have to maintain, to some extent, you have to introduce the different voices, you have to keep those voices being heard.
So that's always a challenge, and that's always difficult to do.
So the question is, how do you do that?
Now, I think it's easier in some contexts than others.
Yeah.
Apparently.
So when you go to somewhere like Sweden, I was there two weeks ago talking to Vinnova.
On the surface, they are very, very flexible.
They want to hear all the voices.
Although when you actually get down to the issues, they also find it difficult to keep those voices.
So you have to, I think there are two things that we can do to help that process, to maintain the process accountable, democratic, and so on.
So one is you look at the specifics of the policy cycle.
You actually get into the process and then you have to look at things like experimentation.
So you treat projects like experiments from what you can learn.
You have to think crucially about things like evaluation.
These are things which hopefully you remember, Muzi, from that course, which are, you know, formative evaluation, which allow people to make mistakes, to learn from those mistakes.

There has to be accountability in evaluation.

Because often what happens is, and this, by the way, comes from researchers as well.

Researchers think when they're doing their projects or when they're doing their work, that they are accountable to the funding agencies.

But if they're doing a project on food security, they should actually be accountable to the actors whom they're trying to change in terms of food security.

But when you ask them, they feel that they're accountable to what they said they were going to do in the projects.

So you've got this real...

I think, misunderstanding in terms of how policy is done.

And so you can work at that level.

You can work in terms of trying to introduce tools, boundary objects, changes in key elements of the policy process to try to maintain that diversity and so on within certain bounds.

But you've got to go beyond that.

You've got to create networks

which include policymakers, which include academics, which include social movements, which include industry practitioners, so that when you're trying to introduce new policies, that they find fertile territory where people can take them up.

And that doesn't happen if you don't create these kind of actor networks which can actually take that policy forward.

If you can't just do it from the policy process itself,

You also can't do it just from academia.

You have to have within society a broad range of actors, technologies, practices, institutions, and so on, which allow you to make those changes.

And that's a broader societal process which you have to build.

Transformative innovation calls these niches, transformative niches.

But whether you do it with niches or whether you do it with something else, you have to work at the broader societal level for those changes to actually happen.

[SPEAKER_02]

Yeah.

Matthias, you have written about the concept called mutable fluid spaces.

What makes it different from just a normal meeting room where academics and policymakers meet?

And how do you simplify this?

Yeah.

[SPEAKER_01]

Well, I'm not sure if we want to simplify it, but the concept of a fluid space, it comes from actor network theory.

And what we are trying to do there is that

Think about a policy, okay, which is developed in, let's say, something like systems of innovation.

You know, Lundval developed that, and it was a very good idea at the time because it brought institutions into the concept of innovation, which before it was just market failure, kind of thing.

So with national institutions, you were talking about system failure, and that

was a real advance, I think.

um so then the OECD took it up and the European Union all these big uh sort of big institutions and then sort of 20 years later you get to somewhere like Colombia or some or wherever so so it travels yeah so you've got systems of innovation which is associated to a set of assumptions and and a set of tools, and then it travels somewhere else.

And I'll give you the example of Colombia because I did a lot of work there. You find that the science and technology agencies in Colombia take the idea of systems of institution and they use that to divert money from scientists to companies to do entrepreneurship.

That's it.

Nothing else.

But systems of innovation is a far more holistic theory.

It's about skills.

It's about work and so on.

And yet it's completely changed.

So what happens is that over spaces, the concepts get changed.

So there you've got the idea of it's old wine in new bottles.

So they put a different name, they change the name, but actually they keep on doing, either they keep doing what they were doing before, or they change things to what they were going to do anyway.

So the same thing can happen with transformative innovation.

Now the OECD has taken up transformative innovation as a kind of third frame in addition to others.

But what is very likely to happen, unless you kind of do something about it, is that it will either be old wine in new bottles, or people will just use it for whatever they wanted to do in the first place, before.

So what we're trying to do with this idea of a fluid space is to say, well, if you take some of these assumptions and some of these ideas of transformation, and you take them somewhere else, what you've got to do is you've got to adapt it. You've got to translate it or even mutate it

in other words, change to the context in which you're working.

So if we bring it to Stavanger, people are thinking, well, what about the oil industry?

So they're trying to relate the concept to something else.

Now, and you should change it, because if it's rigid, then we go back to the sort of linear way of thinking about innovation where, you know, it doesn't matter the context.

So that's not the way.

But what you've got to do is you've got to try to change it, but maintain the spirit, the aims, the objectives which transformation was trying to do.

And the only way you can do it...

is by creating this space, this fluid space, fluidity means movement, change, but that includes the people who developed the initial ideas, and the instruments, and the boundary objects, together with the new people.

And through that you create something new.

So let's say, for instance, I'm going to go tonight, as it goes, to Oslo, and I'm going to speak to the Research Council of Norway.

And they're going to talk to me about their ideas of circular economy and they're

going to talk to me, their ideas about youth, you know, involvement in society and so on and so forth.

So I've got to think about how these ideas of transformation can be relevant in this context, and we'll have a conversation, and something new will come up.

That is a fluid space.

It's a space in which we can develop something new, something original, which is adapted to the context, but...

that maintains those original ideas and promotes what were the sustainability, a better world, and so on.

So you have to create that space.

If you keep the academic or whatever space separate from the others, then I think you will get change, but you could get the problem where you just carry on repeating the same thing again and again.

So you've got to create a new

You've got to enlarge the actor network.

Yeah?

That's the idea.

And it's not easy because we work with very, very different contexts.

So we're trying to develop tools to be able to bring that all together.

[SPEAKER_03]

Previously I asked about...

academics and policymakers.

Now I want to take a step forward and ask about policy transfers.

And there's two sub-questions to it.

First, policy transfers is often understood as policy developed somewhere and implemented somewhere else.

Is that as option true or how can we make it better?

How can we not make it simply a transfer?

And second, you also mentioned and for sure you've worked throughout many countries in the world.

How has your experience of working in middle income or low income countries different, better, worse than working in the UK?

And what has it taught you that that's more from what you've learned in Sussex or the UK, for example?

[SPEAKER_01]

Okay, so two quite different questions, but related actually.

Okay, so policy transfer...

Yeah, I mean, the traditional way of thinking about policy transfer thinks of policy as essentially two things.

One is that it's a set of codified messages that you can sort of stick in an envelope, put a stamp on it, send it somewhere else, open the envelope, God knows where, and it tells you follow steps one to five or one to three or whatever it is, and then you implement that.

Yeah.

And there are two assumptions there.

One is that you can codify that process into a series of steps, which, as I think we just discussed, that's very, very difficult to do.

Yeah, for sure.

And the second assumption is that policy can be a linear process, essentially a

kind of technocratic, top-down process, which a few illuminaries, whether you come from...

uh top people in the OECD or World Bank or a university you know think that they know the best way and that you can just impose this somewhere else so it's linear it's top down it's codified so that was the that was a previous way of um thinking about policy transfer and with transformative innovation and uh um in fact there's been a debate let me put it this way with regard to transformative innovation.

Let me just say, because there was some work, which was by people like Christian Binz and Lea Furstschiiling, where they looked at some big infrastructures. And those big infrastructures are very, very important for things like, you know, global warming, energy, water, and so on.

And what they were doing initially was that they thought that those infrastructures could change according to where you were.

So if you were going to do a water solution in China, you would adapt that water infrastructure to the conditions in China, to the people, to the cities and so on.

Actually, what they found, that didn't happen.

What they found that in the end, the way in which the water infrastructure was designed was the same infrastructure in China, as in Denmark, as in other places.

And you find that with design of cities.

You look at the profile of cities, they're all the same.

You look at many, many other areas where there's a market at least, and they end up being the same thing.

And what they found was that the people who were doing this...

Then they asked, why did that happen?

And they put it down to these kind of key people, these key brokers, which was in some cases consultants, and in some cases were key institutions, such as the World Bank, which were kind of, I don't know if imposing, but certainly their recipes, and they had the money behind them, were the same solutions everywhere, which were happening.

This is where a market exists, and you can introduce that sort of thing.

Okay, so that's an interesting, it's just an interesting feature which counteracts a little bit the earlier point I was saying that policy transfer really should be a process of translation, should be a process of mutation, should be a process of change.

So you've got that tension going on.

And certainly, when you think of the global south, where often the market does not exist, or a market, or doesn't function properly, where you've got a mixture of formal and informal, legal and illegal, what you tend to find is that if you try to introduce...

very top-down policies, or in a linear way, you get this splint rank, okay?

So if you think of sanitation systems

in a global south city, they're usually very splintered between wealthy areas that copy the industrialized north, you know, where people don't see any, you know, you've got tubes and you've got individual toilets and so on and so forth. They try to copy that and it works because they can pay for it and you've got good infrastructure.

But then you go down the road to a less wealthy neighborhood, it doesn't work.

So you've got this splintering, this unevenness as you go to the global south

between systems.

So that's my experience.

What we're trying to do now is that's actually a research agenda that we're trying to do, particularly around circular economy.

So a bit later this month, I'm going to go to Panama, and we've got a group of South Africans there.

And we're going to look at, you know, if you look at the...

Particularly in the area of waste, you know, 70% of global waste is not either recycled or circular, it's not reused.

It's just simply burnt or just left there or ended up in the water or in the rivers or dumped or whatever.

So that idea that you can just transfer things obviously works for a certain group of people, but it doesn't work for the majority.

So you have to have...

You know, you have to adapt.

You have to look at that.

So we're going to look at that.

I mean, you know, it's the implications of policy.

It's not policy itself, but it's the implications of policy.

So that's the constant battle that we're having.

to try to make sure, to try to move from this linear way of thinking about policy from the north to the south.

And there are good examples.

I mean, if you think about, I know more the Latin America case, if you think about things like participatory budgeting, you know, that emerged from Brazil, where that was a governance which allowed people to make decisions about

If you think of the transport systems that were introduced in Bogotá, in Medellín, you know, these were battles that policymakers or groups of policymakers had to take to actually, you know, change the way you think about policy, which wasn't kind of top-down or wasn't...

imposed but they had to innovate they had to come up with things, I mean the cable car in Medellín system is is just a fantastic example because there you know if you go to Medellín you especially at night around you are these valleys and they're all lighted up and it's all people living there

In these hills around it.

So those are all the poor people.

That's where all the poor neighborhoods are.

Because these were... So the middle class live at the bottom, near to where all the infrastructure and the jobs are.

And then what happens is that over years, people moved to the city to look for work and they couldn't...

They couldn't go at the valley at the bottom, so they had to establish themselves in shantytowns.

So those places, if you want to go down to work or if you want to go down to the offices, it was terrible before.

It took you hours to get down, and you had gangs who would charge people, you know, to go down.

It was very, very hard.

So this cable car completely broke the stranglehold of these transport companies. And in fact, what they did is at the top of the cable car, which is probably the poorest area, they built a massive library.

So middle class people, if they wanted to go to the library, they had to get in the cable car and go up to, you know.
So it completely turned upside down.
And that was work by urban planners.
That was work by architects.
That was work by policymakers.
You see?
And then other places have copied that.
So you can do it.
You can do it.
And I think, just to finish off on this point, I think that if you go to the Global South especially...
There's a lot of transformative work going on, but it doesn't have that label.
It's incredibly transformative.
I wrote a chapter on it recently.
I hope it's going to come out soon in a book.
But it just doesn't have that label.
And that's fine.
Yeah.
But it should do.
And we can learn from that process.
So it doesn't just go from the policy, you know, to the society.
Also, policy has to learn from what society does.
The alliances, the actor networks that are created.
So I think this is a very long-winded answer.
But, you know, in the global south, policymakers, they're not as strong, they're not as influential.
So the way to do it
is actually to understand that transformations happen from social movements, from society,
and that you can learn a lot from that.
And the role of policy is to facilitate that, to not get in the way, to not clamp down on things, but rather to legitimize, to support, to take them forward.
That's my view.
It doesn't have to be everything from policy.
You can have this movement between what's happening in social movements and policy, and then they help each other.
That's, for me...
the way to think about how this goes forward because to do something just from policy you know if those networks don't exist it's very very difficult and it will be short-lived that's that's the answer it's a really beautiful answer yeah yeah that's that's my view

[SPEAKER_03]

So in this podcast series, we're trying to obviously inspire it from Diary of a CEO.
We're trying to link this episode with the last episode and the next episode with this episode.
And the way we do that is we asked the last guest to give a keyword in which you can answer anything from your research, how you perceive that keyword.
And then you can give a keyword for our next guest.

So our last guest was Andy, and he gave you a keyword, ignorance.
It's a tough word.
But how do you perceive it, and what would be your keyword for the next guest?

[SPEAKER_01]

Okay, so you want me to talk a little bit about ignorance?

Yes.

Okay.

[SPEAKER_02]

Very short.

[UNKNOWN_SPEAKER]

Okay.

[SPEAKER_01]

Well, I assume he meant overcoming the ignorance of policymakers, of people in power.

Because sometimes, often, when you think about ignorance, you talk about the poor.

They're all very ignorant.

No, for me, often the ignorance actually...

comes from the sense of entitlement that people in power have.

And so I think if those people have a sense of accountability, you might be able to break that sense of ignorance.

It's not just an individual thing.

It's the way in which you can break that in society.

So that's a short answer, not answer, but comment on ignorance.

Yeah.

And my keyword for your next guest would be collectivity.

Collectivity, I will note it down.

[SPEAKER_02]

Perfect.

Thank you very much.

Genuinely, it was a really enlightening session with you.

And that's exactly what the Reg Innovation Podcast is all about.

So we keep asking questions.

who benefits from transition and who leaves behind.

And we'll keep raising this type of questions in our conversations in the upcoming episodes.

Thank you very much, Matias.

Thank you, Matias.

[SPEAKER_01]

Thank you for inviting me.

It's a pleasure to be here.

Thank you.

[SPEAKER_00]

You have been listening to a podcast from the University of Stavanger.