**Untitled Composition**

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[00:00:00] [00:00:00] **Music:** Intro music

[00:00:00]**Arjun Over Music:** As our cities get bigger, they get more and more complex to navigate. in 1950, the urban population of Europe was around 284 million. In 2017, it increased by almost 100% to 554 million. With climate crisis looming around the corner, it has become clear that more cars are not the answer. But what is?

[00:00:22]**Music:** End Music

[00:00:23]**Arjun:** Hi, This is , the official online learning podcast of the project Baltic Sea Region electric. I'm Arjun Jamil, coming at you from the research and transfer center of Sustainability and Climate change management, at the Hamburg University of Applied Sciences. As this is the first episode, let me introduce you to my co-producer, and what we do in this project. George?

[00:00:48]**George:** Hey, Thanks! I'm George Matthews, a student assistant working at the FTZ. The Baltic sea region - electric project, short BSR or BSRE, is all about fostering e-mobility solutions in urban [00:01:00] areas in the Baltic Sea Region. Our aim is to enhance the utilization of e-mobility in urban transport systems around the Baltic Sea Region by demonstrating potential applications of various types of urban e- mobility such as electric city logistics, e-Bikes, e-Buses, e-Scooters and e-Ferries.

[00:01:18]**Arjun:** So basically if you're a decision maker in a city that's considering improving it's urban transport, *especially* with e-mobility, our project would be very interesting to you.

[00:01:28]**George:** Yes, exactly. We're an Interreg project, running since 2017, we have multiple partners in a bunch of baltic sea cities, such as Oslo, Helsinki, Gdansk or Riga. One of our main goals is capacity building, and the idea with this podcast is to equip decision makers and researchers in the domain with tools they can use to study or implement e-mobility solutions with the best possible use of their limited funds and time in mind.

[00:01:58] An important aspect [00:02:00] of this is to understand user behaviours and how we can change the status quo. Another critical tool will be designing effective policies that ease people into change.

[00:02:11]**Arjun:** That's right, and those are our topics for today. Good policies work like a positive feedback loop ; meaning results in one action improve the results of another. This is a tough job for policy makers, but understanding user behaviour might bring us closer to right answer.

[00:02:29]**George:** To understand this we interviewed Dr. Ian Walker, a Senior Lecturer from Department of Psychology at the university of Bath. Dr. Walker, How do we "drive" people away from driving cars?

[00:02:42] **Dr Ian Walker:** Well, it might be good to start the other way round and say what's driving people into cars. And in large part, it's multiple forces pushing on people. So if you imagine a person, they're surrounded by lots of forces, they're surrounded by their social circle and the people close to them, most of [00:03:00] whom probably drive. They then do their journeys within a physical world, which has probably been built to make driving easy. That then exists in legal or legislative world that exists to make driving simple, cheap, take away the barriers, probably give you very little responsibility if your driving. So that you can put all the pollution and the danger. You can just emit pollution in danger without paying the cost or having any consequences. And then finally that physical and social and legislative world sits within a wider culture.

[00:03:43] And our culture tells us that driving is normal. Culture tells us the driving is desirable and sexy and safe and it sends all these messages about driving through film and TV and popular media and the legal system and so on. [00:04:00] And so all of those things are pushing people into cars. It's easy. It's normal, it's safe, it's desirable, it's subsidized, and the government wants you to do it. So that's why people are in cars and against that, it's a massive job to try and get people to switch.

[00:04:18] **George:** Exactly! So in BSR electric, we're working with our partners in Helsinki to understand how to get people to switch from cars to a more sustainable way to get around. Petteri, the mobility expert at the Helsinki region environmental services authority is a project manager at the BSRE project. One of his tasks there is making people switch to sustainable modes of mobility by promoting for example e-cycling.

[00:04:46]**Arjun:** In Finland, there are around 500.000 families owning two cars, where the second car is often more than 10 years old. At the same time, Finland is behind in the usage of e-bikes compared [00:05:00] to other EU countries, and e-bikes are often perceived to be “for old people only”. That's why Petri and his team launched some campaigns for e-bike promotion in the Helsinki area.

[00:05:12] Petri, tell us about that:

[00:05:14]**Petteri:** We have had lots of like testing campaigns. And that's because studies show that in Finland and all over the world, people have much more positive image or feel towars E-biking after they have tested. So giving just a short test drive, changes the attitude much more positive to the e-biking. And that's what we have been doing in the way of these testing happens and these larger testing campaigns.

[00:05:59]**Arjun:** Ok. [00:06:00] What would you say are these reservations that people had before testing an e-bike? And how does testing them gets rid of those reservations?

[00:06:09]**Petteri:**  especially in Finland, maybe in other countries too, people think that e-bikes are mostly for elderly people or people who have some limitations. But, after testing, they feel that "Oh, this is great", and "Oh, this is also for me, for opportunity to cycle to work without getting sweat and things like that."

[00:06:35] So I think that's the most valuable thing in testing: that they really feel how great it is to, to use e-bikes . we have also found out that maybe not only the second car, but maybe we use it also target our campaign to the [00:07:00] families that have only one car. Because sometimes it's much easier to a family to sell their only car than the second car because there are some family dynamics.

[00:07:13] Because in many cases, the second car is considered the car of the mother and the first car is considered the car off the father. And in Finnish cases it might also be that the fathers car is like a company car of the father.

[00:07:42] And if they sell the second car, then the mother of the family becomes much more dependend on the husband concerning mobility chances and things like [00:08:00] that. But selling that only car of the family,it's like a common decisions of the whole family.

[00:08:09]**George:** Oh, wow! That's interesting. I wouldn't have thought that.

[00:08:12] **Arjun:** Yeah, me neither.

[00:08:13] So we see: helping people to overcome their reservations by introducing them to other modes of mobility is one way to make people switch from cars to other, more sustainable alternatives. But there are also other approaches. Dr. Ian Walker is going to tell us about one of them:

[00:08:33]**Dr Ian Walker:** So if we're going to encourage active mobility, we need to be making those modes easy, we need to be making them normal, we need to make them feel safe and comfortable. But critically, and this is the thing that people always miss, we also need to be making driving harder at the same time. I've read a load of literature recently and I've not found a really good example [00:09:00] of a switch from car to active modes without making driving more difficult at the same time.

[00:09:07]**Arjun:** Would you say that making driving more difficult at the same time, is, somehow perilous to implementing a sustainable active mobility solution considering your decision maker?

[00:09:18]**Dr Ian Walker:** Yeah. The problem is if you're a decision maker, if you're a policy maker you've probably seen the benefit cost analysis of encouraging healthy, active travel.

[00:09:31] It's a brilliant thing. You get cleaner streets, you get more active, healthy populations, you get greater social inclusion. You deal with this systematic transfer of harm from the wealthy to the poor. So active travel is great, and as a policy maker, you want to do it.

[00:09:51] But there will always be forces of conservativism and essentially a kind of social inertia that makes [00:10:00] it hard to change people because there's a very instinctive and very almost knee jerk reaction. If you say, we're going to address driving, private driving, of solo people in cars, people immediately tend to get very defensive. Partly because they perceive it as an attack on their own freedom, their own mobility. And partly because in many cases it just feels like an attack on the established social order. You know, to a lot of people driving from place to place is just what a grown up person does to move around and so a policymaker will feel an initial fright from people if they suggest there's going to be any restriction on driving.

[00:10:47]**George:**  But it's not like that all around the world. Let me introduce you to Jenny, a partner in the BSR electric project. Jenny, please tell us about yourself -

[00:10:58][00:11:00] **Jenny:** So, yeah, my name is Janice Pakistan. I work for this Norwegian NGO called Zero, and that stands for zero mission resource organization. And we are promoting climate solutions to cut all the emissions in Norway. And I work as an advisor for transport and big cities or the urban climate solutions.

[00:11:27] I've been working for zero for seven years. So more about me. I'm a vegetarian. I am biking every summer and every winter with winter tires. I live in Oslo and I have two kids and a cat.

[00:11:47]**George:** Norway is an excellent case study in e-mobility implementation. In 2019, a peaking majority of new vehicle purchases were electric. Instead of making driving fossil fuel cars harder, they simply [00:12:00] made using the alternatives easier.

[00:12:01]**Jenny:** So this started in Norway many years ago while we had this small electric vehicle factory. It was an electric car producer called "Think" and to make it more profitable and easier to produce and sell those cars, it was actually business policy to give benefits to electrical cars, of course, in addition to environmental benefits. So this was both to help a producer of an environmentally friendly technology and cut emissions. After some years, this car factory was sold to the US and after a while, it didn't exist anymore. But the incentives lasted and the baseline of the incentives is that [00:13:00] electrical cars, when you buy them, you don't pay the normal taxes as you pay for normal cars for fossil cars. And also you have user benefits so that in the bus lane, you could drive with electric cars, you could park for free in the cities and even some places you could just charge your car for free. And in the toll roads around the biggest cities, the electrical cars pay nothing. That was the baseline. And of course, since this has been really, really effective and we now see that 44% of the new car sales in Norway, it's electrical cars and up 60, 70% in the cities are electrical cars.

[00:13:49]**George:** So, to understand, Ian was talking about the UK trying to get rid of their cars, while Norway is incentivising buying them?

[00:13:57]**Arjun:** Right, the key difference here [00:14:00] is population density. The UK has 273 people living in one square kilometer, where as Norway has *13.* This means that Norway seems a lot less crowded than the UK if everyone owns a car. Let's ask Jenny again,

[00:14:15] Jenny, do you have an electric vehicle?

[00:14:18] **Jenny:** Yes. I don't have a driver's license, so I don't drive an electric car but I drive an electric cargo bike. And when my kids were small, we could have, my daughter and two of her friends in the same bike and biking around, and they were singing and laughing in the cargo bike and really happy to be driving around and with e-mobility.

[00:14:41] And of course, I take electric trumps and electric buses in Oslo.

[00:14:59] **George:** So if [00:15:00] Norway is pushing EV's so hard, how come Jenny's not buying a Tesla?]

[00:15:05]**Arjun:** So Jenny, lives in a city with a population density of 1500 people per sq. kilometer; the public transport system can operationally profitable.

[00:15:14] **Jenny:** Yeah. So I live in the heart of Oslo, and I've never needed any access to a car. And my husband doesn't have a driver's license either. So we go on the Interrail in Europe with the trains in the summer and to the mountains in Norway by train and the everyday life we can take the public transportation and the bikes and walking.

[00:15:37]**George:** That's really interesting, Jenny's use case does not require her having a car.

[00:15:42]**Arjun:** Thats true, and thats the key to get people to switch from using cars to more sustainable modes of transport. In fact we spoke to Ian about that as well.

[00:15:54] **Dr Ian Walker:** So part of the solution probably rests on really engaging [00:16:00] with people to find out what their goals are. So is a person's goal actually to drive their car or is it person's goal actually to get to work, to get to school, to go to the shops, to see their friends, to be able to make journeys on demand because.

[00:16:17] If people can be made to realize that generally that goal is actually those things, that goal is really freedom and mobility. It might be possible to help them see that their car is not the only way to get those things, but at the moment it often is. And so that's the thing that policymakers probably really need to get to grips with is the fact that in both the perceived sense and often in a real sense, the car is how you have mobility and the alternative needs to come in and provide those same golden goal requirements that the car currently provides.

[00:16:57] The other thing I would say to policy makers [00:17:00] is there's a nice body of research now on the timing of intervention. So one of the barriers to changing travel behavior is that after a fairly short time, your travel decisions become automatic, they become habitual, they become just something you do unconsciously every morning, especially for your commute or your trip to school or college, you're doing the same thing every day.

[00:17:25] You do not think through your options. You just repeat yesterday's behavior. And so one of the problems when you are in that habitual state is that giving people information or even establishing a whole new train system, they will not notice it. The information does not go in because people are just repeating their behavior without really thinking about it.

[00:17:49] So the key thing to do is to intervene at key moments when these routines are broken. So for example, when a person moves house is the [00:18:00] perfect time to change their travel behavior and we've done quite a lot of research showing that. When a person starts a new job, when a person has a child, when a person retires, these are the moments when they're habits are naturally broken for a period of a few weeks, and you can then jump in and do these interventions.

[00:18:18]**Arjun:** A critical question here would be, as a policymaker, your idea is to target the masses. How would you focus on these individual cases where a person individually would move to a different environment?

[00:18:31]**Dr Ian Walker:** Do you know, it's really interesting. If you think about it, the policymakers almost always know exactly when all of these big life transitions are happening.

[00:18:43] If you move house, you have to tell your local authority. If you start school, the local authority knows. If you have a baby, the health authority knows. Government know exactly when all these big life transitions are happening. Retirement, they know through the tax system. [00:19:00] So the government already know exactly when all of these big life transitions are happening.

[00:19:04] Many of them are planned in advance, like having your baby or retiring or moving house, but we're just failing to use this information.

[00:19:12]**Arjun:** Would you say that there's data concerns about using this information for targeted campaigning, for example Cambridge Analytica and the targeted political advertising on facebook. Because that is in essence what it is?

[00:19:26]**Dr Ian Walker:** That's a very interesting question.

[00:19:27] I think that's a discussion, we'd need to have. But ultimately this is not forcing people to do things. This is giving people advice on how they could live healthier, cleaner lives with more social benefits in a way that would still meet their goals of socializing, working, parenting, and so on.

[00:19:50] So yeah, for local governments or national governments to send messages to its citizens, I don't think it's a major problem, but [00:20:00] certainly something we could look at a bit further.

[00:20:02]**George:** Speaking of governmential policies, targeted information is a good way to promote sustainable mobility for private people. For the industry there are other policies to make it go green. For example in Norway, the government used the method of green procurement. That means demanding sustainable methods when making procurement contracts with companies. Jenny told us something about it:

[00:20:25]**Jenny:**  And the starting point for the electrification of bigger ships in Norway has been the ferries.

[00:20:33] It's a really long country with a lot of fjords. And then we have a lot of car ferries crossing all the fjords in Norway. So that's actually part of the road system that we have operating ferries everywhere. So when both, the state government, they run some of the ferries and the regional government run the rest of the ferries.

[00:20:56] And that means that you have public procurement to [00:21:00] actually buy those ferries and to operate them. So starting to demand to cut the emissions in the ferry sector, it started with one ferry, a state developed, or it was like a development contract in the public procurement, saying we would like a zero emission ferry.

[00:21:19] And at that point there were no zero emission ferries in the world, but the government said, we want someone to make it. And actually they got one. It's called unpack. It's a good name, don't you think? And that was the first one. And from that point on, it's been now the standard for all public procurement to demand zero emission in ferries where it's possible and low emission ferries where it's not possible yet with zero emission.

[00:21:46] And now I think there is, altogether with the electric ferries that we have and the ones that are now under production, we have 80 in total. And

[00:21:57]this is interesting because a lot of [00:22:00] countries and cities and needs different kinds of ferries. So it's interesting that we could be this early mover market for this in Norway and also that of course we could get business and work places out of it because we don't benefit from the electric car revolution as much as the car industry countries.

[00:22:21] We don't sell electrical cars, but we sell electric ferries. So as Norway is now starting to get less and less dependent on the oil industry, we need green new jobs and green new businesses. So the maritime sector has been one of the pillars for that, that the government really wants to develop.

[00:22:42]**Arjun:** So, in the case of Norway, the green procurement policies of the government made the fjords and the sea cleaner, but also gave the economy a boost by inviting businesses to innovate. This in turn motivates businesses to develop an economy of [00:23:00] scale, essentially creating a business model for these new products.

[00:23:03] As you can clearly see, there are many different nuances to think about when trying to implement e-mobility.

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[00:23:10] **George:** Yes, that's true. We talked to Ian about which social aspects to keep in mind when implementing policies. Jenny told how incentivizing e-cars worked out very well for norway and how green procurement opened a whole new business sector in norway. Finally Petteri explained, how making people try out e-bikes made them overcome their reservations and realise the advantages.

[00:23:34]**Arjun:** So what would you think is the best way to promote sustainable mobility? Is it to de-incentivize fossil modes with different legislations or policies or rather to incentivize the other modes? Either by giving advantages, green procurement or by providing information and better infrastructure and public transportation?

[00:23:53]**George:** We are really looking forward to hearing your answers to these questions. For further information about [00:24:00] this topic, we are currently implementing an online learning module.

[00:24:03] So Franziska, the deputy head of our research center is going to tell you about that.

[00:24:10] Hi Franziska!

[00:24:10]**Franziska:** [Franziska talking]

[00:24:11]**George:** Thank you, Franziska.

[00:24:12]**Arjun:** and thank you all for listening to our podcast . If you want to learn more about these topics and our project in general, go to bsr-electric.eu or send us an email to: bsr-e@ls.haw-hamburg.de !

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