

Enabling better infrastructure

Infrastructure for a better future

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Please note: the transcript has been edited to make reading as easy as possible.

Introduction: Welcome to 'Infrastructure for a better future', a series where we have honest conversations about the infrastructure challenges we are facing and how we can build a better Aotearoa. In each episode we talk to experts from here and overseas about what works when it comes to addressing these issues.

Geoff Cooper: Kia ora tātou, and welcome to the podcast. We're going to be talking with Kerry Bobbins, who's the Head of the Enabling Better Infrastructure Programme, which is convened by the Civil Engineers Institute in the United Kingdom. This is a group that the New Zealand Infrastructure Commission has been working quite closely with for a little while now, as the Commission starts to pull together the National Infrastructure Plan.

The Enabling Better Infrastructure Programme has been advising us on one component of the Plan particularly, the Infrastructure Priorities Programme. It is helping us put together a

rigorous and repeatable evaluation methodology for projects that we receive as part of the National Infrastructure Plan.

They have also been advising us on far more than that, and thinking about what it is that makes a good National Infrastructure Plan, how we go about defining infrastructure needs, thinking about things specific to New Zealand and so on and so forth. So it's a real great pleasure to be able to introduce Dr Kerry Bobbins. Welcome to the podcast.

Kerry Bobbins Thank you for having me on.

Geoff Cooper: Kerry has more than 12 years of experience in the research policy, sustainability and thought leadership space of infrastructure, and is here in New Zealand meeting with Te Waihanga officials and with the wider infrastructure Leadership Network talking about building better infrastructure through building trust first. We're really lucky to have Kerry here

sharing insights gathered from her work with governments that she works with around the world on infrastructure.

So the first question I have for you, Kerry: You've been with the Enabling Better Infrastructure programme for some time. What has it taught you about the challenges facing many jurisdictions and countries around the world when it comes to infrastructure?

Kerry Bobbins: Well, firstly, thanks very much for having me on the podcast. It's really lovely to be able to share some of the key learnings on the programme.

Having worked with governments now for the last couple of years, what's been really interesting to learn is that often infrastructure around the world is different, and governance systems are different. But really at the heart of the matter is that often governments are facing very similar challenges when it comes to planning and prioritising infrastructure. I suppose this is exactly where the programme tries to step in.

We act almost as a convening entity to try and share insights on how governments can use a national vision to identify some of the key objectives when it comes to infrastructure, assess their needs both now and into the future, and develop a plan that's not something that's just a wish list and something that's very aspirational, but something that can be landed on the ground that has already kind of been thought through before it's launched or produced. I think that's been one of the most surprising things, and something that we can work towards achieving and sharing knowledge more to reduce some of those challenges associated with that.

Geoff Cooper: Yeah, it's really one of the things that when I look at the principles of the Enabling Better Infrastructure programme; You split it up, set objectives, assess needs, develop a plan. One of the really important parts of the setting of the objectives is to have a view of what the country can afford when it comes to infrastructure. Do you want to just talk a little bit about the motivation for that one as being such a key plank for setting the objectives in the first place?

Kerry Bobbins: Absolutely, and I think it comes back to just what I mentioned before, planning

can be quite aspirational, and it's always good to have a starting point when you're thinking big and dreaming big about what your country can do and achieve, but it does need to be landed in a way that is practical and feasible. One way to do that is through considering the affordability of what can be delivered, both now and in the future.

As part of this new 30-year-plan that you are developing, a lot of work has gone into understanding what that affordability is and what it means for what New Zealand needs for the future. We see governments doing this in a range of ways across the world. I mean, one of the really good examples is the UK's fiscal remit, which really does set a very clear boundary around what the country can afford, and using that to ruthlessly prioritise their projects. It's one of really those tangible and practical variables or factors that countries can use to really guide what they deliver when it comes to the final selection of projects.

Geoff Cooper: We often start with strategies, with visionary statements, and there'll be an impetus to think about, how can we make things better? What are the big pieces, the big rocks that we can move. Often, those big rocks are very expensive. How do we think about those big parts of the puzzle next to the affordability constraints. Are there countries you've seen dealing with that, the juxtaposition of these two things?

Kerry Bobbins: Yeah. I think in some ways, these are things that are identified right at the beginning, but there's obviously a lot of work that's needed to understand what these things look like in practice. A country that springs to mind again is the UK, because I think they've got to the point where they've done a number of national infrastructure assessments. They are now focusing on updating a lot of the first set of work that they've done around developing a clear strategy and how to deliver on it, and have made it a bit of a way through that process. One of the key learnings is that it does form part of something that's iterative. It's establishing from the outset what those big kind of boulders or moving parts are, and starting to take one step forward towards understanding what that is.

Another example that jumps to mind is, in 2015

Canada, decided to change the way that they were going to invest in infrastructure, and didn't quite know exactly what their current stock was, what state it was in. That for them was one of those key boulders to first unlock or unpick some of those affordability challenges. That was the first step to try and understand what was there. They embarked on a process of starting to gather data from their existing stocks that they had. So getting in touch with the National Statistics Office, but also put in motion things like data agreements to try and share what they had and kind of quantify that. Then also used regular surveys that were being run to start to gather more detailed information on things they didn't know. So I think the lesson learned within the UK, it's a process that has to be revisited, but also from Canada, that it's a process that has to start somewhere. So it's about starting, maybe a bit smaller than the final goal, and using what you have to refine it to a point where you can learn more about what that boulder looks like, maybe the look and feel, where it might become a bit further down the line, where you feel that you can quite easily move that boulder, because you know enough about what it looks like and so on.

Geoff Cooper: Right, there's some real basics here about, in the first instance, knowing something about the assets you have the condition that they're in, the location of those assets, how vulnerable they might be to something like climate change and weather-related events, to better understand what the options are to improve the situation from there. One of the things that that is incorporated in the best practice approaches that you speak to here is the need for stakeholder participation. We know that infrastructure is, at least in New Zealand, but in many other countries, I'm sure, heavily decentralised, has a lot of interests, a lot of users. People rely on their infrastructure for modern life. For much infrastructure, it can be critical for human survival as well. What motivated the need to really take that stakeholder-first, participatory approach to deriving an infrastructure strategy.

Kerry Bobbins: Yeah, absolutely, this is something that's come up more recently in the work we've done with governments. We entered about a year ago, a phase of many national government's elections periods were coming up with the potential for political change. At about that time, we were in the process of updating our guidance on the programme. What we heard, in addition to, the more tangible measurement data side of things and the use of tools, was

actually the value of strong relationships in ensuring long-term vision can be delivered on in the midst of a potential change when it comes to the political landscape. It really built from there where we kind of consolidated that more firmly in our guidance and started to look at the different ways that countries were doing that. There's definitely key levels to this. At the very top level, it's kind of cross departmental working and finding avenues for doing that. It's very much then at the level of agencies and making those connections really strong, where there's direct engagement, but also incentivizing engagement across different agencies, because it really does start to impact how infrastructure is delivered. We're hearing more and more that there's examples of agencies just not aligning around delivering infrastructure.

There's two examples that I hear across the world at two different levels. The first is possibly at the street level, where the same corner has been dug up and relayed about four or five times in the space of six months for various infrastructure type reasons, upgrades, or repairing infrastructure. Then you also get the stories of hospitals being built in certain parts of the world that just don't have adequate service access. The water, the electricity is not being delivered to this fabulous, new, shiny building. The coordination across those are really, really important.

I think in addition to this, what we also started to hear is bringing industry partners along with you is actually really important. In the policy space, we've heard for a long time, include everyone at the start, which is more easily said than done. But it really comes to delivering projects. You really do need to make sure that the industry, partners and contractors are part of that particular process.

Even more importantly, in a lot of countries, bringing the public along with you is really important in terms of understanding what the needs are on the ground in different parts of a country. Also allowing public engagement in the process at various stages. I mean, this is almost kind of a really big ask, involve all stakeholders in strategic planning. I think one of the first steps is really taking a step back to understand: what does that landscape look like in your country, who are the key stakeholders? Then thinking about the process you're going to follow and try and kind of match those two particular opportunities, where they might provide the most impactful insights, or else you might end up spending your whole life doing engagement.

Which obviously would be good, but there's a lot more work to be done across the wider planning process.

Geoff Cooper: Yeah. I mean, we've certainly experienced this. I think that for us, the strategy is only as good as the information in it, and the best information oftentimes comes from the folks that are using the asset, maintaining the asset, or managing the asset.

Just to pick up on this point around these cross-cutting issues you've spoken about, digging up the ground and trying to do it once rather than multiple times. I think about the way that infrastructure sectors have grown up for New Zealand over the past 100 years, it really has been through the sector lens. You know, you're a transport person, you're a water person, and so on and so forth. But increasingly, I think the challenges that we face looking forward are cross cutting. As we sort of build our cities, we need to think about delivering services that might sort of be bundled together. Or you think about something like resilience. This is not an issue for any one sector. It can be an issue for entire sectors. Or the way that we manage corridors is another example where, sure, we might be driving on the roads, but those roads are also taking freight, or underneath it they might be taking telecommunication services and so on.

Do you have any reflections on how governments are trying to kind of pull these sector views together to have more coordinated conversations around some of these bigger cross-cutting issues?

Kerry Bobbins: Yeah, I think what you're referring to speaks largely to the shift to looking at a systems approach when you start to plan and deliver infrastructure. What we've seen quite commonly across the world is governments are developing committees or boards. So obviously you'll have a sectoral plan to some degree, which will help to deliver on a national vision. But in addition to that, national governments are really shaping up opportunities like boards or committees. An example of this is in Ireland, they have a really ambitious 2040 plan, which is outlined in their National Development Plan and a planning framework. So it's a spatial plan, and as part of this, they have a board which is kind of cross government entities looking at funding. They have a Coordination Committee which includes different agents and end users as part of that. So they almost brought them up a level to kind of be part of that decision making process and provide input on that, which almost creates

a bit of a buy in when it comes to rolling it out on the ground.

What we've also seen is agreements are really important. Even things like data sharing takes things one step further towards creating avenues of communication or access, which makes communication easier. In Ireland, there is a map that's accessible that shows infrastructure projects across the country at what stages they're at. This is very clear view of what's coming next and how that that all fits together.

Another key example is in Norway. Again, it's kind of the creation of different opportunities for input. So even as part of the cost benefit analysis of projects, there's a two-stage process which different key experts or entities are brought in on to help decide on which projects go ahead. This helps to provide the input on projects, but it also gives that visibility on what's coming next.

Geoff Cooper: That's really interesting. There's like a governance part to all of this, and who was involved in governance. And the second point you've raised is one just about data sharing, more generally, but transparency, and there's something in all of this which is just about sort of daylighting the issues and revealing some of the difficult trade-offs that we might have as a country.

I want to come back to a phrase you used earlier, which was 'ruthlessly prioritise'. Certainly when you look at the New Zealand Infrastructure Pipeline, one of the things that is very striking is that a large chunk of it is not funded, either because the projects aren't quite ready, or, in fact, because there's no clear pathway for funding through existing mechanisms. But any which way you think about it, it's going to require prioritisation if the affordability constraints remain.

The Enabling Better Infrastructure initiative talks a lot about non-built options, right? There is, on the one hand, infrastructure, but we can also be thinking about the things that avoid the need for infrastructure in the first place, or indeed, think about making better use of existing infrastructure. What is the focus in this space, and why the focus in this space?

Kerry Bobbins: Yeah, this is an interesting one that's also come up a lot more recently on the programme.

I mentioned just a moment ago that we updated our guidance at the beginning of last year, and we did go out and interview over 60 key

leading entities and stakeholders involved in this space. This was coming up as a really big concern around the fact that infrastructure just costs so much, and we have a large proportion of the asset base already there. So that was this incentive to look at infrastructure service needs and how they can be met, rather than what the infrastructure needs are, in terms of the physical manifestation of them.

We've included this as a really strong focus in the project, where we're encouraging governments to draw a wide range of infrastructure options to deliver on those needs. There's lots of examples of this at the project level, but our focus was, how can governments start to widen the range of options as part of the strategic planning process from the outset? The research really did show that there's an interesting range of ways that governments can do this: the use of green infrastructure or nature-based solutions, the use of sharing agreements for existing assets, repurposing infrastructure across the entire lifecycle, also looking to change behaviors, which can come to sometimes extend the life of infrastructure, like airports, for example.

It's worth realising that not all of these are going to solve all the problems, but they can often solve a lot of those problems which might not require new capital investments. I suppose that the crux of this is really starting with the idea of: Is new infrastructure needed? And then looking to use one of these. I think two interesting examples really came out of this in terms of case studies, which I think really do forge a new way of thinking about infrastructure and infrastructure needs more strategically.

So in Wales, they follow SDGs as a baseline, which is really interesting. This is part of their wellbeing of Future Generations Act, which they launched in 2015 which is based really strongly on the Sustainable Development Goals. As part of this, an independent panel that was appointed by the Welsh Government put together 51 recommendations for Wales' long-term road strategy, and part of that was setting out criteria for the building of new roads. If they didn't fit one of those four criteria, an alternative solution needed to be found. It has incentivised a use of a range of different alternative approaches that would be low- or no-build to help deliver on a service need.

Geoff Cooper: So it was sort of creating a constraint of some kind, and then asking to optimise within that constraint?.

Kerry Bobbins: Yeah. It relies on quite a good

understanding of what those constraints would be comprised of. So what does the current asset stock look like? What would be needed? How that would fit into policy, and clearly setting out that if it doesn't just fit with one of those, some alternative would need to be found.

Geoff Cooper: On the non-built stuff. I know that you are getting a little bit more into housing and transportation integration. We've oftentimes looked at this as or used the framing of non-built because it is very expensive oftentimes to put housing in locations where there isn't already infrastructure. An alternative can be to put it in places where there is already existing infrastructure. But of course, this requires housing and transport to really be hand in glove with one another. Do you want to talk a little bit about what ICE is doing in this space?

Kerry Bobbins: Absolutely. So what we've started to see, just more generally in the policy and decision making landscape, is that housing is obviously a topical issue. But one of the things that is starting to bring into question for us is, how does it start to interface with economic infrastructure in that decision making process? What we're seeing is this kind of shift around the world to start to include infrastructure as part of the wider infrastructure planning remit. This is something that the UK government has started to talk about within the last couple of months. But there's also something that's been happening for quite some time in Ireland, for example. They are classifying housing as part of that wider infrastructure decision making process..

Also, more recently, probably within the last year and a half, with the change of ministers in Canada, the Infrastructure Planning Commission is now focusing on housing, too. What we are seeing is this trend. The work we're doing is to take a little bit of a closer look at those interactions, how they're coming together in countries and how we can pull together some best practice on setting up really good, solid relationships to ensure exactly what you've said -- the delivery of houses and transport, also the wider system of infrastructure needed.

I think one of the key challenges that this also brings out -- and it's another trend that seems to be emerging -- is that often housing and housing need is more specialised. There's just certain areas or parts of a country which might need a higher demand. It's challenging governments to take a more spatial approach to how they plan infrastructure. This is another topical thing which I think would be worth looking into. There are countries that are doing it. Ireland, again, I

think that's the space they've been working in for a couple of years. But also in Latin America, there's a strong focus on spatial policies, they call them territories, or a territorial-type approach. It really is developed out of a more top-down, bottom-up approach to infrastructure planning, where that national vision is set. The roles and responsibilities, also decisionmaking and what goes into the plan and the variables for project prioritisation is coming from the bottom up. We're seeing that happen in Chile and Peru, and it definitely seems to be more of a regional trend in the Latin American context.

Geoff Cooper: We've been talking about spatial planning here for some time. We've got our largest city, which was amalgamated in 2010 was required to do a spatial plan. And have, I think, made some quite good leaps in that direction. When I think about spatial planning, I think about the inputs that make good spatial planning, and one of those is knowing a fair amount about your existing assets, the condition, having good asset management plans, and so on. Those are the areas where I see room for improvement, from our point of view, we don't always know as much about our assets or what the opportunities are to stage development or extend networks, or so on, perhaps as we should. How do we improve that so that spatial planning actually becomes easier? Because right now, it feels like quite a giant leap for some places

Kerry Bobbins: Yes, absolutely. I think just reflecting on the South African context, with these three tiers of government, with some of the metropolitan cities having some influence over infrastructure decision making that often those interactions between national but also understanding what's happening at the city level. Although there's that annual auditing process which often happens within governance systems, the reporting mechanisms, the variables, the available data often doesn't match and align, which actually makes it quite difficult to amalgamate information on what's there to effectively manage those kinds of relationships.

So I think it's kind of going back to the basics in some instances and trying to set up those common variables and common ways of reporting to help facilitate that. This doesn't happen overnight. It's a lot easier to do in some countries rather than others. It's almost setting up that standardised reporting, but then also trying to find levers for boosting accountability, towards ensuring that they input that information in a way

that's usable.

Geoff Cooper: Yeah, great. I think we probably are getting pretty close to time. I know that the EBI has been around for five years now, you've achieved a lot. Maybe we can just sort of finish with a bit of an open question on, what are the sort of key insights you've taken away from your experiences over the last five years working with all of these different countries on infrastructure?

Kerry Bobbins: Yes, absolutely. So for me, there's three key findings that I've found really interesting about working with governments, that I feel that could that have been providing the most value to other governments. So just to go back to what I said at the start, we found that governments around the world, infrastructure looks different, governance systems are different, but they often face common challenges. Kind of bringing together people to have a conversation, to learn and share, is actually really important. So this kind of picks up on some of the key findings or reflections that I have.

One of the things that we have heard a lot about is uncertainty. One of the biggest challenges when planning for the long term is uncertainty. Through the work that we've done, we've been able to unpack a little bit more about what that means. We've been able to see that there's uncertainty about getting those fundamentals right. Developing that clear vision that's easy to access understand, and getting buy-in on that.

Secondly, creating a supportive context. So going back to things that we've discussed already, so how to involve all the stakeholders? At what stage in the process and so on.

Then lastly, engaging with the practicalities of making changes. How exactly do you bring together a landscape of supporting regulation and put in place the monitoring and review? Even on top of that, for me, what's been really interesting is, yes, there's uncertainty with all three of those. But often working on the practicalities and the supportive context requires getting the fundamentals right, and almost bringing alignment then between those other two factors. That has been interesting, that it's not just uncertainty, but also kind of bringing alignment to going from the basics to the actual the doing side of things.

I think the second key area is around the value of firsthand insights and peer-to-peer learning. So through our engagements and events we've run, we've understood that it's all well and

good to have your aspirational plan which is invaluable for providing that direction. But real life experiences, conversations, and firsthand accounts, brings these plans and also bits of guidance and tools into life in ways that can't be done in your office, away from everybody else.

The last key area, which I think has been really interesting, is to see the value of international benchmarking, but also regional benchmarking, and how countries are using both to position themselves within the wider landscape. Also the value that international insight sharing, towards bringing clarity to where you need to be, drawing on those regional insights and working more broadly to better understand some of those boulders you explained before, and maybe how to move them for your particular country in a way that works for you.

Geoff Cooper: That's a really fantastic way to end it. I mean, the commission has been trying to leverage these exact same things over the last few years. The peer-to-peer learning really resonates with me as we start to think about pulling together Senior Responsible Owners in New Zealand through a leadership program.

Of course, the benchmarking stuff is really important and has been a big part of our thinking for the National Infrastructure Plan. Thank you so much for your involvement in our learning. We certainly find it very instructive to understand the international landscape, I think in many ways, to give us reassurance that New Zealand, whilst it has its challenges, is not actually unique. That many countries face these different, difficult challenges, and we can move forward by learning what other places are doing and apply the things that have worked and move past the things that haven't worked.

So thank you for the time that you've taken for working with the Commission, and I think we'll leave it there. And I wish you a good trip for the rest of your time in New Zealand.

Narrator: Thanks for listening. Find out more about the work Te Waihanga is doing to transform Aotearoa at tewaihanga.govt.nz