

# Transcript of 'A Beginner's Guide to Servitization'

## Season 2, Episode 33, Transforming Tomorrow

[Theme music]

**Paul:** Hello and welcome to Transforming Tomorrow, the podcast from the Pentland Centre for Sustainability in Business.

I'm Paul Turner.

**Jan:** And I'm Professor Jan Bebbington.

**Paul:** How does a tyre become part of a high-tech service operation? That's one of the many questions we'll be answering today in our chat about servitization, and how it impacts productivity and sustainability.

[Theme music]

**Paul:** Jan, I'm thinking of a 13 letter word.

**Jan:** [sarcastically] Oh, that's really good for you. Uh, does it begin with, errr... are we gonna play hangman?

**Paul:** Yeah, go on. Guess some letters. I want you to guess some letters.

**Jan:** What about an S?

**Paul:** Yes, there is an S.

**Jan:** E?

**Paul:** Yeah, I think you're cheating now.

[Both laugh]

**Jan:** I'm reading.

**Paul:** You're reading. As far as this game is concerned, you are very definitely cheating.

**Jan:** Yes.

**Paul:** Do you know what really annoys me about this word?

**Jan:** Yes, I do, but you better tell our listeners 'cause they don't know why you'll cross right from the beginning.

**Paul:** It's got a zed in it.

**Jan:** I quite like zeds.

**Paul:** I don't mind zeds, but for all intents and purposes for the way this, eh, this word is written, it should have an S in the middle of it, but whoever came up with it must have been American or Americanised because they threw a zed in the middle of it.

**Jan:** And so what is this word that's so annoying you and, and offending you in ways that, uh, seem... reasonable?

**Paul:** [laughs] I can tell by the way you said reasonable you don't mean it. And you're also worried about our guest as a result, aren't you?

How badly am I going to treat our guest purely on the basis of the word that he's come to talk to us about?

**Jan:** Ah, you'll, you'll get over it. I feel sure.

**Paul:** Yes, the word is servitization. And the S at the start is a proper S, where there should be an S in the middle, there's a zed. Everything else about the word is perfectly acceptable.

**Jan:** Well, except I dunno what it means, so...

**Paul:** Well, that's your fault. You've not done your research ahead of this episode, have you?

**Jan:** Maybe I did a little bit. But, but there's lots to know about this concept.

**Paul:** Yes, there is. And lots to know about servitization, which in I, I'll explain it very briefly from the layman layman's terms, I'm the layman of all laymen when it comes to this.

Rather than doing everything yourself, you get other people hired in to do little bits of things for you.

**Jan:** Ooh, I don't know. Somebody's gonna have to judge your homework on that one...

**Paul:** ...well, that, that, honestly, that that's not even a GCSE level. That, that's not even, a year two SATs level when it comes to it, for our English listeners. For anyone else who doesn't know what year two SATs are, it's tests that they

make six and seven year olds sit. Which again is something I don't like, but that's nothing to do with this.

**Jan:** I think it's more complicated than that. So I think...

**Paul:** ...it undoubtedly is. [both laugh] If the whole concept of servitization could have been summed up in that half a sentence I garbled out a few seconds ago, there wouldn't be a point of having a podcast.

**Jan:** Well. Who have we got to tell us more about it?

**Paul:** Well, the person we've got with us to tell us more about it, and hopefully to explain how it ties in with sustainability as well, because that might not be immediately obvious.

We've got Professor Andreas Schroeder, who is the Professor of Digital Strategy and Services Innovation, and that's here at Lancaster University Management School.

We've had better job titles. If he was a Distinguished Professor, that'd be even better, I don't know.

**Jan:** Don't. Andreas, don't let him go down this route. Just ignore him. That's all I'm saying.

**Paul:** Andy, welcome to the show.

**Andreas:** Thank you very much for having me.

**Paul:** First of all, before you get round to marking my homework on a definition of what servitization means, can you tell us a little bit about yourself and your background?

**Andreas:** Yeah, so I'm originally from Germany. I did my undergrad in environmental engineering. Then I did my PhD in New Zealand.

**Jan:** I didn't know that!

**Andreas:** Yeah, here you go. In Wellington.

And then I worked for a few years in Hong Kong and, yeah, for the last 15, 18 years in the UK, and recently at Lancaster University.

**Paul:** He said to us before we started recording that he could do a Kiwi accent, and now it becomes apparent how we're not going to ask you to do that,

because there's so many people we don't want to offend by having guests, you know, just do random accents during the show.

There you go. A combination of Germany, New Zealand, and England all in one.

**Jan:** But I also really like that environmental engineering background, and it's all about accounting, if you haven't realised.

Accounting, environmental accounting and environmental engineering have a lot of things in common. So as accountants, we tend to sort of boil it all down to money, but it's the energy flows underneath it, and the physical flows underneath it.

So I, accountants and engineers I think understand the world in similar ways.

**Andreas:** Uh, it's been quite a while that I have finished my undergrad degree, and I moved quite away from environmental engineering.

But in the last couple of years with my work of servitization, it all comes back. And I think this is where we're heading.

**Paul:** Andy's far more interesting than you. He recognised the boringness of accounting, engineering and moved away from it into an entirely new area.

**Jan:** Well, that's, that's probably not unjust.

**Paul:** [Laughs] It might be for engineers, I don't know. For accountants, I've only got the one person as evidence, but that's it.

Um, can you tell us a little bit then about what being a Chair of Digital Strategy and Services Innovation means and what that is in your current role?

**Andreas:** So, in my current, so I have a PhD in information system. Um, so I'm, I'm, I'm looking and interested in, in data and, and technology that enables data.

But what the problem is with data in itself that it, it really doesn't have any value. Unless you wrap it into something like a business model and you prepare for it like a strategy to create value.

So I, I'm interested in data, but unless there is a value attached to it or created by, I'm not interested in it. So that's basically helping organisations to create value from that data. That's, that's what I do.

**Paul:** Is this similar in context of something like where they say 'lies, damn lies and statistics', because the statistics don't necessarily mean anything or tell you the truth unless you know the whole context and everything that's around them.

**Andreas:** Yeah, no, yeah, I mean, I know where you're coming from. But, um, I would say for me, in, in my world, data is a resource to, to create answers to questions.

So I'm more interested in the questions that we are trying to answer and then work backwards. What data do we need? How do we combine it to answer this question, if this question is worth pursuing.

So if there's a value attached to be able to get a good answer to a certain question.

**Jan:** And so quite interesting that it's services, not service innovation, but services innovation. What kind of services are involved in there?

**Andreas:** So, I mean, we, I, I'm, and my team, so I have, work, work with a team of around 20, we are working for industrial, industrial services. But in our world, the distinction between what a product and what a service is, is a bit fluid.

So you, you think, you know, a machine is a product and, you know, you have a digger that is a product that you can buy. But in the end, a digger is a device that provides a service to you. So it digs a hole, it, it gets, uh, gravel out of the ground. So we try to look at it from the perspective of the value it creates essentially.

And incidentally, there is a physical product as a platform for creating the service. But at the end, the effective service is the, the hole in the ground. So that's, we are basically now at servitization again, is moving away from thinking about products, but thinking about what products do and the value they create, and that eventually becomes a service.

Where there's a physical entity, we call a product attached to it.

**Paul:** Right? I think we're at the point where we need to define what servitization means specifically, and whether my brief summary in half a sentence is anywhere near close to being a proper definition, Andy.

**Andreas:** So, so servitization, I mean, there are a lot of terminologies that are not very well, um, differentiated from each other.

But when we talk about servitization, we talk about largely a manufacturer moving, moving away from trying to compete with a product, but by trying to compete on the service that they create for their customer. Often involving the product.

And that also involves the, the time of transition. So for a manufacturer that may take anything between 2, 3, 4, 5, 6 years to be good at focusing on and competing with the service they provide, and not just on the product alone.

**Jan:** And I, uh, we'll ask you for some examples, but immediately my mind's going, oh, actually I don't want to own a car, what I want is mobility. And so that sort of distinction between the thing and what you get from it...

**Andreas:** ...exactly...

**Jan:** ...is there. So from a consumer's perspective, that's much easier to make sense of, but that's a big job for a, a business that has been producing stuff to get into this different mindset.

**Andreas:** Yeah. And that, that keeps us, keeps us busy.

It is, it is a big story. I mean, there are a lot of success stories out there, which are, you know, we will probably talk about in a few minutes, but it's hard work.

So for, it's a, it's a cultural change. You have to think about your products differently. You have to think about your customers differently, and you have to think about what your role in the entire equation is.

**Paul:** I'm at a bit of an advantage here because I was actually sat in the workshop that Andy did with some of his colleagues about a month ago, all looking at servitization and seeing how businesses, this was in particularly engineering, manufacturing, in this kind of region, can servitize their offering and how they can make it.

And seeing how some of these companies were talking about, they might sell a product and never deal with that customer again until they need to sell them a replacement product X number of years down the line.

And how they need, might want to move to a thing where actually they're working with them on a more regular basis, providing the service rather than just that one product.

And it's really fascinating to see the, the thought processes that need to go into it.

**Jan:** But also, and I know we're gonna be talking about sustainability, but it strikes me that if you sell and forget, and then your consumer will forget you as well...

**Andreas:** ...yeah...

**Jan:** ...whereas if you are involved in an ongoing relationship, when you think I need X again, you go back to the person who, who sold it to you in the first place.

So I think, yeah, that's a, that's a really interesting business model, not only a sustainability and business model.

**Andreas:** Yeah, no, it is. I mean the, the, we work with companies that arrive at, at, at the point of where they decide to go down this route from different motivations. Some of that is, is purely commoditisation of their product.

They realise now they provide product X and everybody provides product X as well, and they often do it at a better price point. So they're looking at how can I build on, on my product in order to compete.

We have other companies that work with us because they're interested in the data side. So they say, you know, we have a product, we have so much data on the product, what do I do with this data? How do I monetise my data?

And again, you know, if you start to create an ongoing relationship with your customer by providing ongoing service, there's a lot of opportunities for creating value on the back of the data.

And we have now, in the last couple of years, companies that come to us and say, we want to go down, compete, but at the same time improve our, our carbon footprint.

So we want to get ready for a world of Scope Three. But the, the fascinating thing, and I, I come this early to this, um, punchline, it aligns profit with sustainability, which businesses really want,.

**Jan:** And can you open that up a wee bit more? So what part of sustainability. Is it about the carbon footprint or is it about the material footprint that aligns this idea, potentially, with a sustainable development agenda?

**Andreas:** Um, it's all of the above. So if you're a provider of a product, there, there are different ways of why you're not becoming more sustainable. Uh, one of the ways is that you need to invest in the product, and the product becomes more expensive. So taking components out and, and replacing it with components.

The other, the other reason, uh, is, is that your, your customer is not interested in the product and so on and so on. And servitization opens this one up for you.

So, in a, in a product sales world, so the alternative to servitization the old traditional world, you try to create a good product for the least possible price to protect your profit margin.

So you don't design necessarily for sustainability, you don't design for repair, you don't design for circularity. All of these are cost to you, which you want to design out. So you have a product that is optimised for sale. And, and as a, as a result, you know, you create your, you know, far carbon footprint through the product and for your customer as well.

If you have an ongoing relationship and you're actually responsible for the product over the lifetime of the product, you design differently. You design for repair because every repair is at your cost. You design for circularity because you are continuously the owner of the product.

So in the product-only world, products are being sold off whoever part of the world, and you never be able to close the loop in a circularity model. If you are responsible for the product entirely, you close the loop. So that, that is already, and, and then if you are responsible for the product, that means you're responsible for recycling, you're responsible for maintenance. Often you have contracts that make you responsible for energy efficiency. For uptime, all the things that usually drag down the, you know, the, the sustainability equation.

**Paul:** Is this an easy switch? Is this something that companies, once they understand the concept, can do quite straightforwardly? Or is it something that takes an awful lot of effort on their part?

**Andreas:** It, it really depends on, on the company. And what we initially, when we set out to work with, with these companies, what we initially thought is that the, the large company, we work with large companies and a lot of small, medium sized companies. We initially thought the large companies, they're,



you know, they're very experienced, have all the resources that tell us how it's done.

Then we take the knowledge, we research it, and we help small and medium companies to make this transition. It turns out that the, the opposite is the truth. That the small and medium companies are much more agile in the way. they understand their customers, they approach their product.

They are flexible about their role in the supply chain, and there's a very little politics around. If the owner wants this, it will happen. In a large company, this is not the case. So it, it is a really very difficult cultural change.

**Jan:** So is it suitable for different types of business or realised in different ways?

So here I'm thinking of our listeners and um, and maybe explain some terms. So often we'd say B2B, which means business to business businesses. So these are people who are in commercial relationships with other commercial orientated organisations.

And then we have B2C, which is businesses that work with consumers. Is there a distinction about how you do servitization between those two elements, and is it easier or harder in one or the other?

**Andreas:** Yeah, I mean, it's, it's, it's a good question. In, in my work, in my research centre, we only focus on B2B. The reason is we, the, the entire thinking around it usually starts with very high value product.

So we're talking about an, an engine of a plane. And this is a couple of million pounds. This is where it, it justifies the investment of time thinking about it.

But then if you look for example, at some car-sharing operations, also this has now been very well established in the B2C world, but that's a different world from my world.

**Paul:** I love the example of the planes. 'Cause that's one that was mentioned in the event there, and I think I want to say it was Rolls Royce...

**Andreas:** ...it's, yeah, Rolls Royce...

**Paul:** ...Rolls Royce, how they no longer sell the engine, but they almost like lease the engine.

**Andreas:** That's a, that's, we get into the terminology so we can, we can, so, so 50% of the engines that we had seen flying around, around about are not owned by the airline itself.

So British Airways, you see an engine flying around 50% chance that this is not owned by British Airways. It is owned continuously by Rolls Royce, or some financial institute attached to Rolls Royce.

That means that Rolls Royce has the responsibility for uptime, for maintenance, for efficiency gain, for everything related to the engine. And nobody else is allowed to touch the engine.

So, and, and Rolls Royce have been the, they have been starting this in the, in the seventies. Because again, from their perspective, they needed to compete on something that the others could not compete on.

The others could also sell engines, and they sold very good engines. But Rolls Royce could take on the responsibility of uptime, which the others could not at this point in time. So they developed this and they redesigned the entire engine around this.

So now the design of a Rolls engine starts with a service objective. Uptime, energy, efficiency, whatever we were held accountable for. And not the sales perspective.

**Jan:** And when it's quite technical kit like that, is this where the data comes in? Because there must be data gathered or produced on the operation of the engine, how long it's been going, et cetera, et cetera.

So is this some of the sophistication of, uh, you know, Rolls Royce or whoever is doing this business model, is it to be able to analyse that data in a way that really then optimises, you know, safety versus cost of repair, et cetera.

**Andreas:** Yeah, yeah. So, so I mean Rolls Royce being one example, but there are others.

So they have a constant data feed off the, you know, the engine, what the engine is doing, the different parameters of the engine, but also the flight path of the plane.

So they know exactly which engine has been exposed to desert air versus, you know, north Atlantic fresh air. So they have a very, very good understanding of

what they can expect to see when they open up the engine, how to optimise the maintenance regime, what parts to replace, what parts to look out for.

And everything needs to be, the entire process is around the optimisation of this, of this data model.

**Jan:** But the airline'll be really interested in that data as well. So do they have rights to have that data as well, or is there some data sharing activity going on?

**Andreas:** I mean, I don't know what their rights are, but I would be very surprised if this is not being shared.

And when you enter a servitization context, the, the boundaries of what is yours and what is mine, start blurring a bit because you, you, you get a perfect alignment of objectives between, you know, the manufacturer and, and the customer. You want your customer to be successful because Rolls Royce gets rewarded for every minute of engine in the air. And they get penalised for downtime.

They get rewarded for energy, efficiency gains for their, from their customer, create, and they get penalised for additional energy. So they want to make the customer successful. And that is what is really beautiful about this concept.

You, you want your customers to be successful because you get rewarded of the outcome and the value that your service creates for your customer.

**Paul:** It strikes me that it becomes more of a partnership almost between them, the two organisations that are involved. It's not the basic customer, buy something, goes away.

You are, you've got a longer-term relationship where you are want both wanting each other to be successful whilst you are working together.

**Andreas:** Yeah. I mean, and that, that also makes it, makes it so difficult for a lot of, you know, manufacturers and their buyers to expose themselves or to, to work with this model, because a lot of manufacturers have a quite an arms-length relationship with their customers, that sometimes they go to distributors or their product retailers.

We find that some of the manufacturers we work with have very little understanding. They're brilliant on their, on their product. They've very little understanding of the customer, the application area of the customer, the challenge that the customer faces, the use scenarios, and so on and so on.

So when we engage with these manufacturers, we often spend a lot of time with the customers of these manufacturers, to help understand and frame the business model and identify where value opportunities lie.

**Paul:** So we've talked a lot about Rolls Royce and planes here, as an example. Me and Jan might both look at each other and say that's not exactly the, the ideal topic for sustainability.

But are there other examples within servitization that you've come across that are more specifically, maybe, related to sustainability in other areas?

**Andreas:** Yeah. But I want to challenge you on this. Sustainability will happen within a working industry or it will not happen. So we will, we need to find ways to make things like planes more sustainable.

We, you know, the other example I could give you is tyres. And you would probably say tyres is also not very sustainable. But you know, we will have road transport. And the tyre has a huge impact on fuel efficiency, carbon at the end, and the opportunities for retreading tyres is also determined of how the tyre has been used and abused, and so on and so on. And being able to document this with data.

We working, uh, one large project we had with Goodyear working on them as a tyre as a service. So that provides them, you know, instead of they, they were very interested in moving away from selling the tyres, to providing tyres, or whatever the tyre does, rubber on the road for their customers. Their objective is to reduce fuel spend of their customers. Their objective is to predict tyre blowouts on the motorway.

They have now sensors put into the tyres that helps to recognise immediately when the tyre is below the recommended pressure. With all safety, um, concerns around this, they put in sensors and large deep holes to, you know, to monitor tread size, tread depth, and make sure it has all, uh, been, been well documented and that data helps them to support their customers, and being more efficiency in the operations. We will always have tyres.

**Jan:** And that's fascinating. Because when you wander around the world just living your life, you don't know what's embedded in the systems that you're, you're operating within.

So I, I could absolutely, I, I knew that Rolls Royce owned some of its own engines, no matter, you know, where they were. I had no idea tyres were in

that process as well, or the technology that you could embed within them for these multiple values.

So particularly the, you know, not having blowouts is a big, you know, social benefit and safety benefit from that, but also that the world is digitised in a way that I sometimes find quite frightening.

But actually it is digitised in, in all of these ways that as consumers and citizens we don't necessarily know about.

**Andreas:** Yeah, It is, but again, we have also a lot of companies that do the digitisation and then they wonder where the money actually sits. And they try to sell that data to their customer.

And to be honest, a customer of, you know, a road haulier, I don't know, 500 trucks. They're not interested in so much of the data of, of their, their tyre efficiency, they're interested in reducing their fuel bill.

So, and that is the opportunity by combining the product, and the knowledge of the product, and the expertise around the product with the data, and then creating a value package that is a lot more interesting to a haulier, because it means reduce my fuel bill by 8%, instead of just looking at a dashboard of, of tyre data.

**Paul:** Yeah, it's like what you see on a much bigger scale. What you see in your car, you can see how many miles per gallon you've been doing, and you know that if your tyres are at the correct pressure, then you should get better miles per gallon.

But doing that on a big industrial scale, and on far more than just the tyre pressure that you're getting, it's really fascinating to see how that could work.

**Jan:** Well, stay with me. I may be going down a cul-de-sac. And if I do, I apologise. You can, you can pull me back out of it.

So one of the things that happens with innovation and around sustainability, and maybe not with servitization I think, but where, you know, there's new products or there's um, more energy efficient products or whatever, we get something called the rebound effect.

And so, you've ended up, you know, having something much more energy efficient, but then you take the money and you buy other stuff with it. And so

you do still get some efficiency benefit, but it is not as much as you think because of this, this rebound effect.

Does the rebound effect happen within servitization or is it designed in a way that actually drives out that rebound effect?

**Andreas:** I, I don't know. I haven't, yeah, I haven't come across it yet. But a lot of products that are innovative, I mentioned this at the beginning, will not come into the market.

So they are just not sellable because they're too expensive or too innovative for the market at this point in time.

Let's take for example, a, a digger, a hydrogen-powered digger.

**Jan:** Yeah. Can't see it.

**Andreas:** Yeah [Jan laughs] can't see it?

**Jan:** No, well, I can't see it as being commercially viable.

**Andreas:** Commercially viable. That's, I mean, the technology is exists. They have been driving around yesterday through, through London as, as a part of a showcase.

So the, the problem is, is the market isn't there for, for the following reasons. Nobody knows that, you know, what's the residual value of this? I buy a digger. I know exactly what will happen within the next 2, 3, 5 years. There's a new technology, very difficult to get your hands around it. But also, how do I get enough hydrogen, which gives me the assurance of supply of fuel?

So what one of the companies is we are working, is doing is saying, okay, we, we cannot get this into the market in the traditional for product way. But if we provide the entire piece as a outcome based value proposition, which even includes the fuel.

So we provide a working digger that creates, you know, holes in the ground for you, fully fuelled up at eight o'clock on your construction site. Which technology it uses, how you get to fuel that does not, that's not your problem.

And suddenly you have something that becomes a value proposition. How that now changes the behaviour of the, either the construction operator, I think this is where you're heading saying, okay, I'm now saving, you know, carbon on this one, I can be, you know, less efficient in other operations, I cannot tell you.

There's, this is a, just the one-to-one relationship, um, that is of interest. Um, and how this affects the manufacturer and say, okay, I now clean up my, my carbon balance sheet by focusing on, on, you know, decarbonised fuel, uh, decarbonised diggers. How will this affect the rest of mine? I mean, these companies constantly want to optimise. I would be surprised if they, if they think in this way.

**Jan:** Yeah. And I think the rebound effect is often, um, identified within consumers...

**Andreas:** ...yeah...

**Jan:** ...um, but, but I don't know how easy or how appropriate it would be to apply to businesses for exactly those reasons that you just outlined.

**Paul:** Does something like servitization, is it affected, does it suffer, I guess, for want of a better word, when you've got things that are happening, like say in America at the moment, we have the pushback against sustainability, we have the pushback against diversity, et cetera, within the government there.

Does that then affect how some companies treat servitization and how they treat maybe the sustainability aspects that come outta that?

**Andreas:** I, I don't know how it will affect it. I mean, nobody knows what will, what will happen. But the, the sustainability effect is a consequence of being more efficient. Of being more aligned with your customer, and helping, you know, being yourself more competitive.

So you can scan, you can cancel the word if it, you know, if it creates a hiccup in the, you know, current US administration, the environmental benefit objectives, and you still arrive at the same thing. You want to create safe cost for your customer. Energy is a big cost. You reduce energy. You already have, you know, some of the decarbonisation effects.

You want to be able to, you know, better recovery of, of your raw materials, as a business objective? If circular economy is not the right term, it's still a good business principle. So a lot of this relies on, on, on being actually optimised and efficient in the way you run business and being, being just a very good businessperson.

**Paul:** Have you come across any particularly radical ways of using servitization that before you saw it you would never have thought servitization could have been used in that way?

**Andreas:** Yeah. I mean we, we are working with a crane company. And they are thinking around, you know, lifting as a service. Instead of you buying every 20, 30 years a crane from me. Um, we could have an arrangement where I constantly provide you the ability to lift and we charge you per lift.

There's also some, you know, a rope company would, you would have the same argument. They said, there's a lot of rope inspections need to be done. A lot of disasters happen if ropes are not properly looked after.

So again, we could think about on, you know, as happening, you know, providing, again, the rope as a service proposition. And we do the, the constant maintenance of the rope, because in most operations of the customers there is nobody there who does this properly anyway. So there is, um, there is very limited boundaries of what you can or cannot do.

In the olden days, it was very much reserved for high capital investment goods. Nowadays, we have companies that work on products that are in the 5,000, 50,000 pound range, and they're very, very focused on, you know, expanding the value proposition for their customers. And that's independent of the value of the product.

**Paul:** Is this servitization something that if you say were to create an actual object and a physical product, you can patent it, you can trademark it, you can make sure that you are the only one that can use it?

Is there any kind of protections in place when it comes to something like servitization? If you come up with an idea of how to servitize a product, to stop everyone else just copying you and doing exactly the same?

**Andreas:** As far as I know, not. You basically, you get yourself, if you get serious about it, you're invested. You get yourself an advantage of capability.

So in the case of, of the airlines, you know, Rolls Royce enjoyed a five year to 10 year advantage, being able to deliver on that. And everybody else of course, you know, saw what they're doing and they started to copy of this. But, you know, you have the time advantage, you have the capability advantage, and, um.

But a lot of products that we are looking at, a tyre, I mean, it's, it's a tyre. A truck is a truck. There's nothing. There might be some small element that is patentable, but these are all really commodities. So it's um, and that also limits



as a, as a manufacturer, your innovation space. Because whatever you put there, it's still a tyre.

But if you start to expand on this and say, okay, I don't focus on the, in my innovation on the product, I focus my innovation on the delivery of the value to my customer. Certainly you have a lot of greenfield things that nobody's ever thought about, and that's quite exciting to see how, how a tyre becomes part of a high tech, you know, a service delivery operation.

**Paul:** And I suppose it becomes like what would more traditionally be seen as the service industry, the service sector, whereby if you provide a service well, and you do a good job of it, then you keep that relationship with the people you are working with?

As long as you do the job well and provide, you know, and not providing a service that turns out to be a total failure, then people are gonna carry on working with you.

**Andreas:** Yeah. But also, once you have a service, an established service relationship. You learn an incredible amount of your product because you have constant data feed.

You earn, learn an incredible amount of your customer and probably can look at, you know, how to kind of replicate this across my different customers.

So it gives you an inbuilt competitive advantage already, because you can then start design for service that means that all your next iteration of your product become a lot more serviceable.

That means the cost base of you delivering and taking on the responsibility becomes reduced. So, you know, you, you start to innovate a lot faster than your competitors who basically started a few years after you.

**Jan:** What I like about the example so far is that you've looked at, uh, you know, a product that is in, that you want to have virtually continuous use. For example, you know, an engine.

Does servitization work, um, when somebody just needs the service occasionally? And so when you're speaking about cranes, that's where it sort of popped into my mind that actually I might be somebody that just needs a crane for a, you know, a three months or whatever.

So does servitization happen in that process already? Although in some ways now I'm talking myself out of the question I asked you, so...

[Everyone laughs]

**Jan:** ...both of you are kind of looking at me, she's going quietly mad in the corner. Um, because that's already a service. You know, you hire something to do it, but...

**Andreas:** ...there will be a traditional rental market.

**Jan:** Yes. So how is it better than hiring for the time that you need it? Or is it much more of a business model for this continuous use?

**Andreas:** It's a, it's a continuous, it's a continuous use scenario. And you become part of your customer's business...

**Jan:** ...yeah...

**Andreas:** ...I mean, I mean, it also happens in the rental market. So we, we, you know, some companies we work with, they supply to the rental market, they supply to the rental providers and then they go out the rental.

So their role is to make sure that the product stays in a pristine condition to be ready for rental...

**Jan:** ...oh yeah...

**Andreas:** ...again, so it, it, it does happen there. But, um, so these are, I mean, you don't do this for three months. This is a long-term relationship, you do co-develop together with your customer. And they take time to develop, but they then become also quite profitable, I have to say, for both sides.

**Paul:** What you were talking about seemed almost like going back to what you were talking about, B2C...

**Jan:** ...yes, yeah...

**Paul:** ...where you become a customer rather than being another business that's operating it. So that, that, that's what struck in the head when you were saying that, which is when I used the word leasing before and immediately realised that Andreas was gonna pick up on the use of the word leasing is not quite right.

But it, it's an, it's not quite a leasing thing, it's, it's got elements that are similar to it, but elements that are not. It's a...[sighs]

**Jan:** And, and I now realise that I've come across this, but in a different sector altogether, but not described as servitization.

Um, when tractor providers go into a relationship with the farmers usually on, you know, big scale farms, and they are gathering data the whole time using, um, you know, geospatial technology...

**Paul:** ...mm-hmm...

**Jan:** ...to know where the farms are doing what. And then if you've got sensors in your fields about what kind of soil type you've got as well...

**Paul:** ...mm-hmm...

**Jan:** ...you're suddenly in a, in a precision farming context where the data drives what's going on.

Which is quite different from how my dear old dad used to sort of have a look, say, oh it's gonna rain on my plough field today, which was, you know, completely different, you know, sort of technological space for that activity.

**Andreas:** But again, what you describe is, would be a company that would come to us and say, okay, I have now this data. I could help my customer to become more successful, but what is the business model? How do I monetise this?

And, and my answer then would be to, to you is how much risk are you willing to take on? So, for example, you could contract for uptime of the tractor. You could contract, contract for, for fuel reduction of the tractor. You could contract for future yield of the farm. Basically, how much risk do you want to take on? And this is where your business model is.

And this is also whether your data, your data needs to show you, I can, you know, I can create this amount of value, I can handle this amount of risk, and I can do it better than my customer.

Because you could also just give the data to your customer, but most customers do not have the expertise and the product context to make use of the data that you do.

So you have something you win, and your customer also wins. So it's very important that these relationships are continuous and there are, you know, it's, it's a cliché to call them a win-win, but both of the, both sides can pull out. So if a customer doesn't have the impression that I get more value than I would otherwise get, they would not agree to continue this...

**Jan:** ...yeah...

**Andreas:** ...so that's the part of the equation.

**Jan:** And now I fully understand why you've got digital strategy in your, your chair title as well.

**Andreas:** Yeah.

**Jan:** 'Cause actually these, these two things have to gel together to make it work.

**Andreas:** And, and without it, it's just data.

**Jan:** Yeah.

**Andreas:** And yeah, we drowning in it and, and you know, we may or may need more or the wrong one or the different one, but we don't know until we know how we wrap this into a value proposition, that we want to compete on.

**Paul:** And again, it goes back to how much trust there must be in that relationship, before you even start. To be trusting from both sides, that both parties, that the service that is being provided is gonna be valuable to you, and the person who's providing the service is gonna get value from the company that they're dealing for.

**Andreas:** Yeah, there, there are big contracts around it. So for every downtime minute, Rolls Royce, yeah, there, there's, at this point in time, they wouldn't need these contracts anymore because there is a lot of alignment, but there is penalties for every minute of downtime where the engine is not ready. This is, this is hardnosed contract objectives that are, that are wrapped around, and some of these contracts are, are very large.

But the way we work with companies as part of the, you know, work with the research centre is we, we, we develop value proposition and then we pilot them with, with customers. So, if your hypothesis is that with my data and my product I can create 5% efficiency gain for my customer then we work on developing a pilot, run this pilot for a few months and see can we do that?

And if we are happy with this, then we can go to the next customer and see if this applies to a second customer. And then we have confidence that there is really some value on there. And then we go to develop it and, and invest in it and, and scale it up.

**Paul:** So as we're coming towards the end, I wonder if you can just give us maybe a couple of examples of the type of companies you're working with right now, where you are applying this servitization in your discussions with them? And where you'd maybe like to take servitization to next, what, what type of companies may be different geographies as well?

**Andreas:** Yeah. So we work with a large number of, you know, with a, with a large number of, of global companies. A lot of the, um, the work that we do is with machine providers. Lifting equipment, forklifts, of that kind, uh, trucks, tyres.

But also, um, we have one company now we work with, they do baking ingredients. And you would say this is very different from the one above. And, and you're right. But again, the same principle holds, is that there's a global company that has a lot of expertise in how their ingredients should be used, and we're talking about large-scale industrial baking operations, and they see that their customers don't use their ingredients effectively and that they don't optimise the machines to the specific circumstances of their product.

You know, there's an, the humidity, there's a lot of waste is created, a lot of energy waste, a lot of product waste. And they're saying, you know, we understand this a lot better than our customer. We have the major resource our customer is working with. We want to expand our role and our responsibility in the operations of our customer and take on some of the risk.

So suddenly it goes from, we sell you ingredients to, we make sure that, um, only 95% of your, of, of your output is resellable. And, and we take on the, the responsibility for that.

**Jan:** Until you said that word, it was floating around in my mind. But actually it is also a new model of responsibility.

It isn't like, here's some stuff, whatever. It's like, here's some materials that will do what it says on the tin, because I'll work with you to make that happen...

**Andreas:** ...yeah...

**Jan:** ...so that's extending your, your due diligence, responsibility, however you'd like to think about it.

**Andreas:** Yeah. But also if you, if you think it, I mean, whoever listens and is in a manufacturing context will probably recognise this. A lot of manufacturers know so much about their product, which they cannot, you know, design into their product, and it is not being made to use for their customer.

They often go to their customers if they have the chance and say, this is not what we designed the product for. No wonder you have problems A, B, and C. So what we are doing with our work is we're helping the expertise of the manufacturers to make to a much better use for their customers. And, you know, compete on that. Because right now it's an unused resource. And, and that's, uh, that's you know, not good.

So what we, where we are going in the future? Um, so here at Lancaster, I think we want to make this servitization, you know, a stronger offering to, to the, the regional economy.

There's a lot of drive here towards productivity gain. And we haven't used the word productivity, but this is the, you know, I come to this in a second. And sustainability, and general, you know, developing the industrial base of, of the northwest.

So we see servitization as one of the, the big drivers. So why is productivity such an important concept in this? Is, um, because if you reduce for your customer downtime, if you help your customers to be more efficient in the operation, if you help your customers to get more output for less input, i.e. energy, raw materials, you directly affect the productivity gains of, of your customer.

And we have just finished a large scale UK survey on this. It was a government ESRC sponsored survey around the productivity gains and the, uh, sustainability gains of the business model.

And we are just closing it down, but we had an early crunch at the data so we can demonstrate that the change in business model creates significant productivity gains and sustainability gains for the manufacturer, and for their customers.

So if you replicate this across the, the region or the UK, if we get the right business model, we can create huge gains on, on two of the big concerns that

the UK currently has, which is, you know, productivity or the lack of productivity gain, and the lack of progress in sustainability.

And yeah, I think, and I hope our work, um, helps to address that.

**Jan:** And usually our last question is, what are you finding inspiring? But I, I don't know if we need to ask that because the whole thing's inspiring!

**Paul:** I was worried you'd found the whole thing depressing then. No, I was too depressing. No, no, no, it is. And you can see that Andreas is really inspired by the whole concept.

**Jan:** Yeah. And no, and you, we've talked before, but I think today, I think I finally got it. I was, I wasn't kidding when I was nodding and smiling before when [Andreas laughs] when we talked, but I sort of like, it was just beyond my grasp. Whereas I think, I think you've absolutely nailed it now.

I think our listeners will be absolutely riveted by that as well as thinking, ah. Okay. That's, that's what's going on.

**Andreas:** And they should reach out, they should come to Lancaster University and ask for support in their, in their, you know, business model innovation around how to move from a established product base to create more value and compete better, um, to the benefit of, of everybody as we have learned.

**Paul:** Andy, thank you so much for coming in and talking to us about this topic. It's something that both myself and Jan had an idea of, and now we've got even better idea of, thanks to you. Thank you.

**Andreas:** Thank you very much for your time.

[Theme music]

**Paul:** I am thinking of changing our relationship, Jan, and maybe offering my, uh, my skills as a co-host on the podcast on a servitization basis.

**Jan:** [deadpan] Yeah. What am I gonna get out of that?

**Paul:** You'll get a certain number of podcasts over a certain number of time. You'll get X number of snide remarks guaranteed per episode.

[Jan laughs]

**Jan:** I can see it now. And, uh, it's, yeah, it's probably business to business as well. Well, I mean, that was, I mean, I have to say I found that quite electrifying.

But when you just sort of think, ah, I see, and because of that B2B equipment, you can kind of see the value, uh, the values involved for the equipment itself, but then the cost of energy and the cost of downtime, those things are just huge, hidden costs.

And if this illuminates them and provides a way forward, uh, tremendous.

**Paul:** And if it provides sustainable long-term relationships and partnerships, and that was something it, it is much more than a basic customer-supplier relationship, it is a lot more partnership wise in there.

It means that these businesses should be more sustainable in terms of lasting longer because they'll be able to carry on doing this, knowing that each of them is learning from the other and improving the more that that relationship goes on.

**Jan:** And the whole changing relationships of trust, of responsibility, of shared value. All of those elements we see, we see some of those ideas in a lot of, uh, you, know community-based work.

So, I dunno about you, but I don't use my, my drill that often. And so you get sort of community hubs of, of power tools and trimmers and those sorts of things.

So again, it's got that same kind of feel to it and that you get that efficiency because you've got relationships of trust, responsibility, sharing of resources.

But then the big thing that really, uh, smacked me between the eyes is that data intensity, and actually having the data to be able to build out the model seems to be really important as well.

**Paul:** Yeah. And having that data to be accessible for all parties so that each side can see where they could make improvements and what might need to be changed from their aspect of it.

And getting this data from actual practical application of a product, not just testing it in some kind of building way or figuring out how stuff works in the first place, but actually how it's been properly used.



'Cause as Andreas says, they might be using products, sometimes customers or businesses might be using a product sometimes in a way that it wasn't originally envisaged.

**Jan:** Mm-hmm. That's very cool. I enjoyed that.

**Paul:** Yes, it was a very good conversation. We're gonna have another very good conversation next week, I'm sure, but it won't be involving, as far as I'm aware, anything to do with 13 letter words that have a zed in them.

**Jan:** [laughs] There's not that many 13 letter words with the zed in them, I suspect.

**Paul:** I think there's actually a lot, if you count all the Americanisms...

**Jan:** ...oh, yeah...

**Paul:** ...'cause anything that ends with 'isation' or 'ise' or 'ised'. Don't get me started. [Jan laughs] We're getting into the whole rabbit hole...

**Jan:** ...we're getting into your grammar and your...

**Paul:** ...of grammar, and annoyance of what the Americans have done to our English language.

**Jan:** Yeah, we're in your grammar phase. We'll, we'll bypass that.

**Paul:** We're gonna be speaking to the first of what is essentially a mini-series that will be spread over a long period of time on local heroes, businesses locally who are doing things with regards to sustainability within their actions.

And we're gonna have Steve Parkman, who is a graphic designer, who we work with quite a lot as the Pentland Centre, and I work with in my role here at Lancaster University Management School as well.

**Jan:** That's good. I think there will be a scale difference, but I think the attitude and the can-do and making a difference will be the same.

**Paul:** Until then. Thank you very much for listening. I'm Paul Turner.

**Jan:** And I'm Professor Jan Bebbington.

[Theme music]