

Talking Improvement

The Improvement Cymru Podcast

Episode: 'The Toyota Way'

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Guest: Nick Pearn

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Intro

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Sarah Patmore: I'm Sarah Patmore. I work on a wide variety of improvement projects right across Wales and I've had the opportunity to work with colleagues from the Toyota Lean Management Centre a number of times over the past few years.

I wanted to record this podcast to share those experiences and share a little of what we've learnt. It's my pleasure to chat today with Nick Pearn, Principal Specialist with the Toyota Lean Management Centre based in Deeside in North Wales.

Nick and I first met in the middle of the COVID pandemic when we worked together on a laboratory improvement project. Since then, we've been in regular contact to discuss how the lean principles at the heart of the "Toyota Way" could support some of the challenges being addressed by NHS Wales.

In essence, the various pieces of work that Nick and the rest of the Toyota Team have helped us with, have all been related to improving process efficiency. So for example, the first project was focused on achieving a 12 hours or less turnaround

time target for the high volume COVID samples being tested in our microbiology laboratories.

And the lab, which worked closely with us on this project, saw a significant 43% improvement. So, Nick, thank you for joining us. Can we begin with you introducing yourself and why you wanted to join me on today's episode?

[02:00]

Nick Pearn: Well, thank you, Sarah, for inviting me today. So as you've already said, my name is Nick Pearn. I've worked for Toyota for 17 years, which sounds like a long time. And when I counted up before it's 14 years longer than I've worked anywhere else, which introduces a question about what is so good about working for Toyota.

I think the answer I've come up with and shared with many from Public Health Wales is that they are constantly investing in us. So I'm still a work in progress, still being trained by Toyota, not only in the tools that we use for improving processes, but equally a set of behaviours and a way of conducting ourselves. We learned quite early on that one of the principles that Toyota stands very firmly behind is a desire to contribute to society. And when we've asked how we can do that, we've come up with little better option than working with health services.

So taking what we've learned over a long period of time and some real needs that exist in your world, it's felt like a natural partnership for us, I think.

[03:15]

Sarah Patmore: And we're really grateful for it and really interested to explore a little bit further on some of those challenges that exist in our world. How you think that Toyota and the principles can really help us.

Is there any chance that you can offer our listeners just a quick, high level summary of the work of the Toyota Lean Management Centre and the principles that guide the work that you do?

[03:40]

Nick Pearn: I like your choice of words there. Sarah, because you've known this for a while now, and I think given the opportunity, you know, that we would talk all day about Toyota. And in part that's because we're very proud of what it is that we do.

So thinking about that question, it's probably easier to say what TPS and the Toyota way are not. So perhaps for the people listening. TPS is the Toyota Production System - a set of tools, and in there we talk about things like standardised work.

If we've seen some criticisms, people will say it's about making people behave like robots and everybody do the same thing. What we're saying is, no, it's not really about this. What it is about is discovering waste and inefficiencies and having a structure or framework that's strong enough to ensure that they're eliminated, not only for the people that discover them, but everybody who works for the organisation. My background was in supply chain, so the one terminology we hear

over and over again is “just in time”. I always find myself saying that “just in time” is not about having no inventory, it’s about creating smooth, continuous flows.

And if we use terminology like this, I think everyone would be able to see how potentially this can be a benefit in a health care setting as well. If we’re talking TPS house, there was just one other pillar that we’ve not mentioned which is “built in quality”.

If it’s misinterpreted, people talk about not being able to make mistakes. Now, this gives the impression that a mistake is a bad thing, where in reality, a lot of what we do at Toyota is about taking or generating an environment where mistakes are seen as positives and learning opportunities that we can use to make ourselves better.

So as I say, it could probably have gone on all day, but hopefully that gives people a flavour of the sort of things that Toyota think about.

[05:46]

Sarah Patmore: Perfect. I think one of the things that is particularly interesting is that last point that you made about mistakes being that opportunity to learn. And that’s something really interesting for us in the NHS I think. Because while that is absolutely important to us and it is something that we would say is, is one of our principles equally we are operating in a risk averse environment where we would need to minimise the number of mistakes and learn super quickly.

So, I mean, the reason that we wanted to work with Toyota, particularly at the height of the pandemic when we were facing that COVID testing challenge in the laboratories, was that initially the laboratories first of all, it’s important to say that for the very first project we worked together on, the lab setup a brand new test at speed, and their focus was on quality, the highest quality process that they could put in place. And it was very high quality, brilliant process.

But as the numbers of samples landing in the labs increased so rapidly that a very high quality process started to show that there were efficiency gains that could be made there.

So we needed to not compromise on quality, but increase efficiency, and we needed to do that really quickly. And what we saw in the laboratory was the potential for us to use some of the production line process methodologies that we thought you could really bring, that expertise.

So we wanted lean experts and we thought Toyota. And then when we started having conversations with you, just to pick up on a point that you made earlier around the community engagement and how you could do good in the world, you were really keen to work with us, which was fab for us.

So an important element of your process, I’ve learned, is that initial go look and see visit. And I wondered why is that important to the process? And can you remember what your first impressions were when you went into that laboratory in North Wales for the first time?

[07:57]

Nick Pearn: I think absolutely we can. You've touched on something very important, which is “go look, see”, and I think back to the half a day when we first visited that lab in North Wales, and you will have seen that we are not biomedical scientists.

We didn't understand a lot of what was going on, but we can only help people where we see some way in which the Toyota principles can be applied. What we saw when we came through the door was a group of scientists putting in probably 120% effort and still struggling to meet capacity.

Now, once we got over our technical gap in knowledge, we don't need to understand how the scientific tests themselves work. But we have some tools that allow us to start to see everything we do as a process and the things that stuck out to us where there was some level of variation in the process.

This is something we look for in lean and somewhere that opportunities exist. There was definitely a level of stagnation. Now this manifests itself as tests which are in varying stages of completion, but waiting for another process. At the same time we witnessed waiting time and we could talk at great length about different forms of waste. And I mentioned earlier that one of our objectives is to eliminate waste. Once we see waiting times, it's either people waiting for machines or machines waiting for people.

We were confident that if nothing else, we would be able to increase the capacity of that process. So what probably started as abstract fear, because we were in the middle of a pandemic, there was a lab that was processing very important samples while on paper it sounded like Toyota should be able to help in this situation.

Having seen with our own eyes and identified some opportunities, both Ian and I, who undertook the work, were very much more confident that we would be able to make some sort of contribution.

[10:12]

Sarah Patmore: And the work that we all did in that first lab by all of us, you steered and coached and led the work and we supported. But you were very much working in partnership with the team on the ground there. And what factors do you think made the most difference? And just for our listeners, you know, the visible shift in the data was the “less than 12 hour turnaround time moved from a baseline before your support of 31% hitting the target to 74% hitting the target post implementation”.

So we saw a significant 43% improvement in that target achievement. What do you think made the difference? So I'll kick it off by saying, I think your approach to working in partnership was really fundamental. But for you, were there other things that really sat at the heart of that 43% improvement?

[11:16]

Nick Pearn: So when we look at the work that was undertaken in that lab, if we link it back to the pure Toyota theory, much of the work was centred around standardised work, documenting the process and exactly how it should be undertaken by people in the lab.

Now one particularly strong memory I do recall of this, was the day we undertook a trial and defined exactly what each of the lab members should undertake. Now we know because this absolutely killed them, where people sat around doing very little.

Now, this doesn't mean that people are being lazy, but is showing one of the things we see in a number of organisations, which is people's desire to find work. So when there is genuinely nothing to do, everybody goes off hunting and starts to steal each other's work.

Only when you start to look in quite a level of detail on what's being undertaken, you start to expose the fact that there is less work than there is time available. And by structuring that work and putting it in the correct order without any additional effort on the part of the people undertaking the work, the efficiency improves.

[12:38]

Sarah Patmore: And isn't that interesting? So one of the things that you started off by saying was there's a fear sometimes when the Toyota name is mentioned that you want to turn people into robots. And certainly within the lab work, we had to manage the messaging and some colleagues being a little bit worried that this was just about making people work harder and work faster and all the way along, your approach to working in partnership and you know the "go look, go see" was a real fundamental part of that. And you just explained how you're not experts in their processes, you never claim to be experts in their processes.

You were there to learn about their processes and bring your expertise in, and you constantly listened to them and learned from them and reassured them that this might actually result in you having a defined break time, that is a valuable break time and you're not trying to scratch a quick, you know, comfort break in the middle of your shift. And so what you've just described is really releasing that fear, isn't it? You're not turning people into work harder, work faster robots.

[13:45]

Nick Pearn: And we see this a lot of places that we turn up that there's a genuine fear that we're trying to make people work harder, which isn't the truth. In fact, the history of Toyota was founded by a gentleman called Kiichiro Toyoda, whose motivation was to make his own mother's work easier.

So it's all about making work easier. And if we can do this, then efficiency naturally comes rather than being something that we need to force.

[14:17]

Sarah Patmore: That's a beautiful thing. Following the success with that initial labs work, word spread in the improvement community and out in the service as well. And other areas became interested in what lean and what Toyota could offer and we next asked for your help looking at the flow of COVID samples from the emergency department in one hospital to the lab, and how to improve the efficiency from test subject, to the person who was having the swap taken, to the results being available to the staff in the emergency department. Was there anything different about the way

that you approached that work from the previous in-lab project, or do you approach each problem with an identical framework?

[15:04]

Nick Pearn: We've got slightly different approaches depending on the process or activity that we're studying, but the similarities come in that the tools we use are there to encourage us to look in more detail than we did previously. So while we were in the laboratory, we used standardised work that made us look in detail at the activity that the human beings were undertaking.

In the case of the samples, we used value stream mapping, which encouraged us to look at the flow where stagnation existed and where opportunities for improvement in those samples themselves used. So while there are slightly different tools, the approach is the same. We find when we work with people that we always see the same results. If we can lead them by the hands and look at their own process in more detail that we always have them, 'Oh I didn't realise that happened like that type "moment" or isn't that a little bit strange?' We can already see a way in which we can do it better. And I think this has been the truth through all of the activities that we've undertaken, that the good ideas and the improvements have come from the people undertaking the process, which I think you touched on before. We have to acknowledge that they are the experts and they're going to know a lot more about their processes than the people that turn up from Toyota.

[16:29]

Sarah Patmore: Yeah, absolutely. And I've seen that, those sort of "ooh aha" moments - the light bulb moments. I've seen those in the people that you've been working with and when we've been working alongside you. The most recent service areas that your team have supported us with have been looking at more complex patient pathways through an emergency department down in South Wales and starting to look at cancer pathways too.

And listeners may feel that this has got the potential to really step away from the production line roots of Toyota efficiency. And I wondered, did you and your colleagues have any concerns about working with us on these more complex patient pathway projects?

[17:12]

Nick Pearn: I think an interesting question and one of the things we've always said at Toyota is that open sincere communication is very important. So I wouldn't be letting you in on a secret if I said we were a little bit worried at the time when accidents and emergency departments were first mentioned. Our contact with that type of world is through the media, and it's been well reported that there were huge waiting times in these departments and before visiting, I think it's only natural to be a little bit apprehensive that this might be beyond the tools of the Toyota Production System.

So for example, the analogy I'll use, if I've got an oven at home and I need to bake 1000 loaves of bread per day. There is no Toyota tool that will find a solution to that. So we were a little bit nervous as to whether the problems were more fundamental and ones of capacity than issues that could be fixed by the tools that we've spoken

about so far, standardised work value stream mapping. I think when the group turned up, they were very pleased to see that very quickly opportunities could be identified.

I think in our world and in your world, the terminology probably has a slightly different not necessarily meaning, but focus. People always talk about waiting time in accident and emergency departments. Our observations were linked largely around waiting time, but waiting time as a form of waste.

Some of the waiting time we were never going to be able to do anything about. But we could see there were instances where waiting time was being created either because clinicians were looking for equipment or indeed in some instances looking for rooms in which to undertake consultations that if we focused in these areas, then genuine improvements could be made.

I think the other area in which waiting time became very important during this study was often, people waited in queues to get to the front of the queue to be told within a few seconds that need to join another large queue and lead onto waiting times.

In our language, this is stagnation and we would always look for opportunities to try and overlap these waiting times so that the customer experience improves. And this was very much the results of the report that was generated.

[19:51]

Sarah Patmore: Thank you. And I haven't told you this, but I popped in to the hospital that you were supporting with the ED [Emergency Department] work recently, a different project, but I took the opportunity to pop my head in and it was really gratifying to see some of the concepts that we've been talking about with the team there.

Just a couple of weeks ago they already had new visualisation boards up and were describing how much easier that was making some aspects of their work. So some of the easy tests have changed. They've implemented and they recognise that some of the more complex ones are outstanding, but they are committed, they're definitely taking it on board.

You may feel that you've already answered this - but just for the absence of any doubt, what do you think are the biggest opportunities that lean concepts can offer these more complex areas of our NHS services where it could be that some of our listeners are thinking, actually, lean can't help with some of the complexity that we see in some areas of our service? I wonder if you've got any perspective on how lean can help from your perspective.

[21:06]

Nick Pearn: I'm sat here at the moment a little bit worried that I could be giving your listeners the impression that lean is a set of tools. And if you go off and do your standardised work, study, and you do your valley stream map, you'll identify some opportunities and everything gets better from that.

It's probably important to acknowledge that lean, the Toyota Production System or even the Toyota Way are no silver bullet that will make every problem disappear.

And we're talking about huge problems that have many facets and characteristics if we talk about waiting time in hospitals.

Where I want to move the conversation towards, is not so much the tools, but the culture, the behaviour, because I think this is where the real opportunities exist. I was really encouraged that you've returned to the hospital and you've seen some small changes, because what this means is, we've generated a belief in people that things can be changed and that they can be improved. Now if we think about it like a really heavy, heavy ball, we've overcome the inertia of change. The challenge now is to keep it rolling. And I would say it's culture and behaviour that will keep it rolling.

I think one of the things I've seen on a number of occasions is that the experts are out there at the coalface, so to speak, the nurses, the clinicians. These people, if they believe that they're empowered to make change, will ultimately lead to your success.

So I think that's one area I do want to encourage you to keep working on is fostering this belief that just because things have been a particular way for a long time, it doesn't mean it needs to be the case and that actually everybody is empowered to make a difference. And if enough people make enough small changes, this will add up to be one huge improvement.

[23:20]

Sarah Patmore: I think that's such an important point. And would you say that that's our biggest challenge in the NHS in terms of incorporating Toyota principles into our work in the NHS? Is it culture and behaviour that we need to tackle rather than some of these technical tools?

[23:42]

Nick Pearn: I think it is, when I look at both Toyota and the NHS, in both instances, their biggest asset is their people. But we'd have to say on a number of occasions I've come across people in the NHS who have not believed that they can make a difference.

I work for a relatively small Toyota plant in North Wales with 650 employees. But what we're very confident of is every one of those people has a genuine belief that they can contribute to improvements. I'm not sure that's always been the case in your world.

It's like a tap just waiting to be turned on because all the people we've come into contact with, provided with the opportunity and a direction to put that energy and, you know, have achieved great things. But it's about switching every one of those employees on one by one to get some benefit from it.

[24:48]

Sarah Patmore: I love that metaphor. Switching us all on. Nick, what do you think are the benefits to us in the NHS, in health and in social care across Wales from working with industry experts in the way that we've done with Toyota over recent years?

[25:11]

Nick Pearn: I think what we've probably brought more than anything else is a slightly different way of thinking. The NHS is probably more akin to the old fashioned industry that has always done the same thing for many years and start with the belief that it is difficult to change where organisations like Toyota have been a lot more agile and willing to embrace change. If we put the two together, that ignites this this small spark. And I can think of, you know, a number of individuals who've put huge amounts of effort into improvement projects. And I think we've only been a catalyst. We haven't provided the fuel. It was there all of the time. It's just that initial spark that sets it all off.

[26:10]

Sarah Patmore: And there's an engine metaphor. I knew there was going to have to be one from you. Perfect. Thank you. For myself and my colleagues who've worked alongside you in the various projects that you've helped us with, I can say with confidence that we've learnt masses from our work with you.

What would you say is the main lesson that you've learnt professionally from working with us? Is there anything?

[26:41]

Nick Pearn: I think the one thing that strikes me, in your world it's very easy to see the impact on the customer. And when I think of a customer in your world, I'm often thinking of a patient. So whether it's processing a test, progressing someone's care within an accident and emergency department, it's very easy to see the real impact on the customer, which I think is something we miss a little bit when we're building engines, because we just ship them to another plant. They put them in a vehicle and we don't get that direct contact. Now, the teaching tells us that we should be a customer focused organisation.

I think the one thing we've got from working with yourselves is a real reminder of just how important every decision that is made, is to the customer and how we should remember them all of the time.

[27:39]

Sarah Patmore: Hmm, thank you. But I think it would probably be remiss of me not to share some of the lessons that we have learnt. I said we'd learnt masses, but what have we learnt? So for me personally, I think the key lessons I've learnt from watching and supporting the work that you've done with us is the time that you take to really understand the system and not skimping on understanding the important details. That is a really big lesson for me, and I say the important details because you made the point earlier that there are some things you don't need to be an expert in.

So don't get hung up on the fact that I don't understand this particular aspect of somebody's clinical experience or clinical task, but actually taking the time to understand how that task in principle fits into a flow or fits into a pathway.

And looking at the variation in that and taking the time to map every variation so that you really understand all the ways into a process that a patient could come in, for example, or a test a sample could come into a laboratory.

That's been a really big lesson because I think sometimes we can see a couple of routes in and then we're like, "Okay, well that's it then". Actually, if you just dig a little bit more, there are another three or four ways in that add to the complexity and those are really important things to know.

So taking the time to really understand the system and the level of engagement and collaboration that you have with the people that you partner with has been really inspirational. At no point have I ever felt that you have told us to do something.

You have never held yourselves up as the expert. What you've just been describing as being partners in learning, but offering your perspective from your experience to add to our perspective, from our experience. I think that partnership has been inspirational and I've seen in practice how it's worked really, really well with all different staff groups at all different grades. It just works. And that's something that I have integrated into my own practice in spades. And then lastly, this is really interesting to me because the way that you present back your findings is very visual, and in the NHS I think we've got a tendency to rely on quite hefty sometimes, reports. So, because I've done quite a lot of work with you and I've been the link between your team and back into our service.

I have lost count of the number of times that people have said, "Have you got a copy of the report from Toyota?" And I have to sort of consistently manage that message, say, "yes, I've got the report, but it's not the traditional report that you might be expecting."

This is not a 35 page narrative. This is very visual. It shows the data. It shows the people. It's got diagrams and images and graphs and photographs to illustrate points. And again, I found that really inspiring because I think people see it better and they connect with it better and as a result, they do more with it. So thank you for those three key learning points.

[31:08]

Nick Pearn: That's really fantastic. I really wanted to ask what you'd got out of it, and I think you know that more than explains it. But you do hit on an important point there that we want to be very clear in our communication, and our aim is always to try and reduce our message down to a single piece of paper.

Now, initially, it might look that is because we at Toyota lack attention and we cannot focus on more than one sheet of paper. But when you start to think about it a little bit more, if you can deliver your message clearly with limited space, then this proves to people that you've really understood what it is you've been doing and you equally understand what was important about what you did. Because if you write a, was it a 36 page report, was that the standard?

[32:10]

Sarah Patmore: I'm going to say it was, I wrote one recently for a different project and it was about 30 pages, yes.

[32:18]

Nick Pearn: Okay. Perhaps this would be an indication that you're struggling to decide what was the most important. And our message is always one of quality over quantity.

[32:34]

Sarah Patmore: I'm going to have that printed on a T-shirt. So I've got two more questions that I kind of prepared to ask you. And actually one of them, I'm a little bit nervous to ask, but I'm going to go with it anyway.

I feel like you might sort of refer me back to one of your previous answers, but I'm going to go with it. So which of the lean principles or methods would you say offers the greatest payback? So we're back to talking about tools and techniques here rather than culture and behaviour.

But if you had to choose just one technique to use, which one would you recommend?

[33:16]

Nick Pearn: Oh, dear. You made me nervous before you asked the question. I think the answer that came to mind, you've told me I'm not allowed to give, and I think this probably reinforces that it's the culture that is more important than the tools.

Now, during our conversation, I've tried to steer clear of using too much Japanese. But if I say to you, 'Genchi Genbutsu'. Is this in your mind a tool or a behaviour? Because I want to try and get away with using it as my answer.

[33:51]

Sarah Patmore: Well, I'm going to have to be really honest now and say that the Japanese terms that you use, I remember them, but I can't attribute them to what they actually mean. So I was trying to think, a 'Gemba walk', that's the 'go look, go see' we were talking about earlier wasn't it, the 'Gemba walk', so I'm going to take that one.

[34:09]

Nick Pearn: Yeah, it's the actual place and the actual thing. And I think from all of the activity that we have done, the best moments have come from being on the shop floor at the working site with your people and discovering with their eyes, opportunities and problems which exist. And everywhere we go, there's this universal truth that if people take the time to look, to see and to understand what's going on, this is by far the most powerful thing we can do.

When we talk about lean - I'm not sure if I broke the rules in answering - but it's something we believe in so strongly. I don't think I could provide any other response, really.

[35:02]

Sarah Patmore: Some rules are worth breaking, Nick. So let me just repeat that back to you, because that might be what I want printed on a T-shirt is take the time to go look and see and understand.

[35:17]

Nick Pearn: I think that's important. The understanding part, because a 'Gemba walk' with looking and seeing alone is probably little more than good exercise. Its understanding and coming to a collective understanding about what you're seeing. It's not just what the Toyota or the lean person is seeing, but the experts in the area see the same thing. We always talk about finding and building consensus.

[35:48]

Sarah Patmore: And that that feels really powerful to me. Just the most recent work that I was involved with, with your team was in the emergency department down in South Wales, and I was really struck by the number of staff, colleagues who were working in that department and as they were getting the feedback from this, this is what we're seeing so far. This is what we're finding, this is what we think might help you. The consistent thread of their feedback was "we really recognised that, thank you so much for listening. Thank you for getting it. It's so, so useful to us to have somebody to really get it" and be able to articulate some of the points that they felt they'd been trying to make but hadn't been able to communicate properly.

So the point that you've just made really resonates with me having had that experience with colleagues on the ground. And I think there's a risk here that I'm asking you to repeat yourself, but I am going to ask my final prepped question: which is what would be your golden nugget of advice for those of us who are working to support improvements across health and care in Wales?

[37:05]

Nick Pearn: You've saved the hardest question until last haven't you?

[37:09]

Sarah Patmore: Sorry.

[37:11]

Nick Pearn: I think from all my years of experience at Toyota, the one thing I've learned above all else is improvement isn't something that you do to other people. It's something you do with other people, probably. In its ultimate form. It's something that you facilitate other people to do for themselves. And I think this comes back to the learning, and the fact that we never preach to anybody. This is because we see the real benefit is allowing people the space and a safe environment in which they can make their own discoveries.

Because with all of it, ultimately seeing is believing. And if somebody else tells you, there's always going to be a little bit of doubt. True success lies in helping others make their own discoveries and generate their own improvement ideas.

[38:16]

Sarah Patmore: Nick, you've given me so much choice of slogans to put on my improvement t-shirt range. And there was another one, true success comes from...I can't remember exactly how you phrase it. Helping other people find their own solutions. I'll paraphrase it as that.

[38:34]

Nick Pearn: I think that's what we're trying to get at. You're going to have to get a big batch of t shirts tonight.

[38:39]

Sarah Patmore: I know, I'm going to make a fortune. Nick, it's been a joy. Thank you so much for taking the time to join us. I've genuinely, really loved chatting with you today. When we work together, obviously we've got a task to do, so having a chance to just explore different perspectives and insights and how you felt about some of the work has been joyful. Thank you.

[39:04]

Outro

[Audio ends]