



Powering Businesses Through Digital Transformation: Episode 1

Transcript

Asif [00:00:00] Welcome to the Art of the Impossible podcast for the design and manufacturing industry that explores how you can leverage technology, processes, and people to make the impossible possible. I'm Asif Moghal, Senior Industry Manager at Autodesk. And each week I'll be joined by two experts from the design manufacturing world to discuss their perspectives on the challenges our industry faces and share what they're doing to overcome them. From smart products, mass customisation, digitisation, supply chain resilience and the convergence of once diverse industries. This podcast is for anyone that runs the design and manufacturing business who's interested in making things possible. You can subscribe by following us on Apple, Spotify or via your favourite platform.

Asif [00:00:54] Today, we're going to be discussing digital transformation and hear about how technology is empowering businesses, reshaping manufacturing and building the industries of tomorrow. We've got two very special guests here to tell us about the innovations and technologies that have powered their company's transformation. And we hope that some of their stories inspire you on your own journey into the future. Our guests are William Bridgman, chairman of Warren Services, and Chris Greenough, chief commercial officer of SDE Technology. Good morning, guys.

Asif [00:01:27] Good morning. Morning, Asif. Great. It would be really useful if you could just describe very quickly what your companies do. Will, if you could describe what Warren Services do.

William [00:01:37] Warren Services is a subcontract machine builder. We make equipment for companies around the world in low volume. We have all the processes in-house, you know, laser cutting and [00:01:49]hypertherm cutting, [0.3s] CNC machining, electromechanical, assembly and test. And then we ship those machines around the world to solve customer's problems.

Asif [00:01:59] Thank you. And Chris, tell us what SDE Technologies does.

Christopher [00:02:03] SDE technology, we are one of the leading metal pressings, fabrication companies in the UK. We have two powder coating lines, we have laser cutting and we've also become the first licensee for a new hot form aluminium process for lightweighting and cost saving within the automotive and aerospace industries.

Asif [00:02:23] Great. So thank you both for joining us today on this first of our podcasts. So let's just dive straight in. So I know we've all been around the industry for quite a long time and we're hearing the word Digital Transformation more, and more, and more. And it's been used in relation to business and the industry a lot. But what does it really mean? Will, when you hear that phrase, what do you understand by the phrase Digital Transformation?

William [00:02:50] It means lots of things, but it's about using the data we have within the business and external to the business to make the business more efficient. And we see it as a must have. If we don't transform digitally, we will be, destroyed might be too big a word but,



you know, it's the savings that can come from using that data and being more digital, and saving money basically, is transformative within the business.

Asif [00:03:20] Now, that's an interesting point you make about data. Can you just share with me some examples of what sort of data are you talking about? Because, again, that's a term that's used a lot as well, data. But what data do you specifically mean?

William [00:03:33] An easy example is currently we use a robot process, automation to take the data out of our invoices that come into the business. So we use OCR technology to take the data off those invoices to match with our system and populate our account system. But actually, we want the data. We don't want a PDF that we have to scan. We want hard data or an XML file with the data that's in the invoice rather than having to extract the information out. You know, like design data, we want the data behind the CAD, not necessarily just the CAD. We don't want the drawing, we want the model. But then we also want the data that drove the model so we can use that information without having to pick it apart and use assumptions around it.

Asif [00:04:23] That's got a very interesting point, because we do see lots of conversations going around about, you know, automating the flow of information from one part of a business to another. And what I often see is how can you effectively move an Excel spreadsheet from one team to another? And it seems like that's not really what we're talking about in terms of Digital Transformation. What you seem to be saying, Will, is how can we take the information from that Excel spreadsheet and make it more readily available across the business, as opposed to just automating shifting a piece of paper from one department to another. And switching that to shifting a spreadsheet from one department to another. How do we take the intelligence out of the PDF, the spreadsheet, CAD file, whatever, and make that more available? Would you say that aligns with your view?

William [00:05:12] Yeah, totally. One of the easy things to do is make the data easy to share in a digital format. We at Warren Services haven't stored any paper documents for the last 20 years. So we can share those documents. But still, some of those documents are like pictures of data where we really want the data. We don't want to share the document. We want to automate the data going from one system to another to really benefit from it. You know, sharing the information digitally is more like industry 3.5, using the real data, the qualified data is industry 4 I believe.

Asif [00:05:57] Yeah, great. So, Chris, this might sound like a really strange question, but why is it so important for people in our industry, particularly SMEs, to undergo this kind of transformation?

Christopher [00:06:10] Well, where we are in our business, we are quite a traditional manufacturing company. So a lot of manual processes, manual press work. And as Will said, it's really about capturing the data very quickly, turning it into meaningful information and metrics that then we can tackle. So the press work on all engineering companies where we've got very traditional processes, traditional machines, that step I mean, we're not on Industry 4.0. Will said it might even be Industry 3.0 for us. We've got a long way to go. And it's how we can engage SMEs to fast track that sort of that level up.

Asif [00:06:51] We talk a lot to SMEs and some of them quite clearly say, yeah, well, you know, I can kind of do this sort of stuff anyway. I've got a process in place, it's kind of working. And, you know, sometimes you get a sense that there's not that sense of why. Why. So, you know, why do you think, Chris it's important? What's the real message that we need to send to the markets that this is why you should do it?

Christopher [00:07:13] Well, we're constantly asking why within our business. Why are we doing something a certain way? Why do we have two measures on the same product? Why can't the information be there so we can drill down on a product or a process and see: A) is efficient? Where's the waste? And it's only by being able to integrate that system and interrogate the data. That's the only way we can move forward. A lot of manufacturing in, certainly the Midlands, the UK, still has very manual hands on systems and we need to get away from that. We need to be encouraging our teams to think completely differently. We've got a lot of young people coming into engineering now and they are thinking in a completely different way. And what I like about Autodesk is that there are systems now so they can come into a business, look at what we're currently doing and integrate systems to give those cost savings. And don't forget, efficiencies are all about cost savings or allowing the business to make capacity to grow.

Asif [00:08:20] So I think if we can just follow the discussion so far, what we're saying is that the data and the information is really at the heart of Digital Transformation. And if you get it right, we can empower more people to kind of just drill down and make great decisions based on accurate information, but also drive cost savings and efficiency. And I think sometimes that message gets lost in this kind of whole Digital Transformation Industry 4 kind of comment. I think it needs to be broken down as simply as that in order for more manufacturers to kind of really adopt it. Do you think that enough people really understand that digital can lead to efficiency, cost reduction, boost productivity? Chris?

Christopher [00:09:02] No, I think most people, when they think we've had this conversation, if they think of Industry 4.0, they think of robotics, automation, very high level CAD design, and that works in lots of industries. But it doesn't necessarily work in some of the manufacturing sectors. Certainly the traditional manufacturing sectors like craftwork, fabrication, it's more about how can we take that data and how can we use that data and do something with that data? How can we understand exactly through that whole process where the waste was, where the opportunities are to improve the process?

Asif [00:09:40] All right. Okay. That's what we touched on the term. We've both said it's Industry 4. I think actually is a term that it's something like nine or ten years old. So it's probably already out of date. But apparently we're still living through this kind of a revolution. So if you think about other small to medium sized companies like yourselves, what do you think are the most transformative things that are available to the SME sector right now, either in terms of technology or thought processes? And which do you think are going to become even more important given what we're just currently living through? Will, do you want to have a first response at that?

William [00:10:19] There's so many and it depends on what problem you're trying to solve, and there's no one solution fits all. To make digital work you have to work out what the biggest problem in the business is you're trying to solve, or the biggest problem of your customer, you know, is sometimes about customer connectivity with data or engineering, or it

might be supplier communication or it might be internal process verification or measurement or, you know, what the machines are doing. There's so many things. But the great thing is it's so many things can be done so cheaply. Some of the tools out there, you know, from Microsoft, we use the office suite supply platform as our productivity tool and that sort of workspace. And we use Teams, shared Excel documents for mocking up stuff before we write actual software for things. It's a great tool. And then, there's loads of cheap entry points. We're obviously heavily invested in Autodesk products. But you know that the push towards a new fusion platform, you know, they're making it sort of democratising that tool, making it super cheap, making students use it. Making start-ups use it, is having this sort of breadth of technology. And there's no one magic bullet to fix every business because every business has different challenges. So this is about looking at the challenge and finding the right solution.

Asif [00:11:53] What was interesting there was that you kind of just started by saying there's no silver bullet and it's important for people to kind of understand what problem you're trying to solve. So I think that hit that pretty clearly, and I really like the comment you made about democratising the availability of information through technology to help more people in the business. So you know, kind of interesting comments. Chris, what about your perspective?

Christopher [00:12:18] Well, I think obviously the unprecedented thing that we've just gone through, I mean, the more and more people are now working from home, more and more people are using these digital platforms. And I think these digital platforms will get better and better because they're going to need to, demand will grow and grow. But it's really about sharing data, being safe and secure with data and also accessing data internally, from our company, when we're working from home. So it's really about companies having to get very slick and very, very quickly update their systems. But I think the COVID-19 virus will just accelerate the need for technology to be even better. So it's exciting.

Asif [00:13:06] In a sense we've almost have been forced to kind of adopt newer ways of working and maybe some of that could be carried through into whatever, I don't even want to say "new normal," but I'll have to say it, whatever normal looks like in the future. The lessons we've learnt from this pandemic hopefully should carry through.

William [00:13:26] But I think it also, Asif, is the opportunity sprung as well around, you know, we're now you know, we're managing our data through [00:13:37]valproate [0.0s] in the design area, and then using fusion lifecycle to change management, well if we've got those systems really locked down for use in the office environment and local homeworking. Well, why can't we employ engineers from Scotland or from Wales or from, you know, the South Coast or why not in the US timezone or the Japanese timezone? So we started thinking, you know, some projects we work on are super time-critical. So you can only work your team so many hours in the UK. Well, if you've got super solid pro digital processes, well, actually, could we work with a team in the US and some people in, you know, the Japanese sort of time zones so we could work 24 hours a day so we could, you know, progress these projects at much higher speed. So we wouldn't necessarily have thought about that unless we were thinking about it but, you know, it's accelerated I think from adversity. Sometimes you realise the opportunities that are there.

Asif [00:14:45] That's an interesting point, Will. So potentially the flexible availability of skills and expertise from outside of the traditional ways. If we want an engineer, you either go to a recruitment agency or local college or school, or you have Chris, I know you guys and

Will you've got your own apprenticeship programmes. But potentially, if we do make data more available, if we do connect and collaborate, perhaps that opens up the opportunity to find new skills and new expertise from anywhere in the world and have almost this sort of 24/7 round the clock kind of working practises. And I think that that itself could be pretty transformational.

Christopher [00:15:20] So that's where opportunities can come. I mean, there's lots of things now. So we're looking at products or markets that have gone down in volume. We were very quickly looking at new markets that we wouldn't potentially look at, online shopping, making our own product.

Asif [00:15:34] I'm trying to put myself in the shoes of maybe someone who's listening into this podcast. And let's imagine that I'm running a design and manufacturing business and we meet up at a conference or something, and we're networking, and I'm asking you for your advice. And it sounds great. The theory sounds great as all of this sort of stuff does. But what are the practical things I would need to consider to start my transformational journey if you could maybe share, you know, from your experience. So, Chris, we'll sort of start with you. What advice would you give me if I said to you, Chris, I'm thinking of getting a bit more digital in my business and creating new workflows. What advice would you give me?

Christopher [00:16:19] Well, you've really got to think completely differently. You've got to map the current processes and then understand how quickly you can get for the end goal. So look at where you want to get to, which is for us having no paperwork on the shop floor, completely digital, everything on one integrated system. And we're still a way away from that. But we understand there's a timeline. So don't try and scrap everything that you originally had. Map out what you've got, map out where you want to go, and do a road map and invest some time, either in people or time in your current process. So allow yourself time to look at where you want to go.

Asif [00:17:05] That's a good point, because I think sometimes people may misinterpret transformation as revolution as a great film about the founders of McDonald's. I think it's on Netflix or other platforms and they show the original two guys who ran the very first McDonald's burger bar. And what they did is they kind of got a playground and mapped it out with sort of red tape of where all the cities do this sort of cooking stations and washing stations were. And they watched and observe the time, their staff going through it. And they they they kind of they did that a number of times until they realised better and better ways to do it. So it sounds like, you know, that's almost probably a really good place to start. It just says I think you said, Chris, mapping out your processes. Does that does that kind of resonate with what you're saying?

Christopher [00:17:48] Well, it does. And yet you can't throw everything away because you'll end up inputting something very quickly because you have to, what you need to do is take small steps, but understand as a business where you need to get to and make sure you're investing in your people all the way along that process, because they are they are the drivers of process. So they need to understand what you're doing, why you're doing it, and they will embrace it. So certainly there's more and more young people coming into manufacturing, as I said, and they are ready to embrace digital technology. They are ready to embrace a new way of thinking, but current staff are willing to do that as well. Certainly in these times, every business needs to change very quickly.

William [00:18:33] Will, people is a subject close to both your hearts. But I've heard you say a few times, Will, that you want to invest in your human capital. I think you have that sort of phrase inside Warren. How is digital kind of empowering your people? What are you noticing that's different about them or what are they now able to do? And how is their attitude towards work?

William [00:18:58] The people are our biggest asset. I've said it many times before any idiot can spend millions of pounds on machines, but, you know, the people will be the biggest advantage of this and also the hardest thing to crack. So you've got the change you know, the change piece of work, not everyone is going to like this, but you've got to encourage them to like it and show them the wins. We always say we want to free the people from the mundane, whether that's loading parts into a machine or loading data onto a system or screw or going through reports to find the answer when we really want the system to tell us the answer.

It's about making it clear to them that their job role may become redundant, but that job is not becoming redundant. You know, the robot will steal your job, but the robot will give you a better job. We've got instances of a young lady that has generally done only invoice processing, incoming invoicing. She's now in September starting on a HR apprenticeship because the role of doing the invoices is becoming less. But there's more need for us supporting our young management team to be better managers. We know better communicators rolling out the digital programme. So I think, you know, our aim is to be able to use digital to pay people more money because we're not paying them for doing anymore. We're paying them for thinking. And there is always a fear that there will be casualties along the way. But that will be the very last thing that we will do. You know, we will train, train and retrain and try. But you have to realise that sometimes there might become a point where not everyone can be part of the new future of the company. Yeah, hopefully that doesn't happen. But talking about what Christopher said about making a plan and you said about what to do. I sort of agree with that, but also don't as in don't spend too much time planning and just do something. Do something that's cheap. And if it doesn't work, throw it away and do something else, because otherwise you get stuck in this thing. We must spend ages working out a strategy of how we're going to do this. And six months down the line they're still thinking about strategy and how we're going to make it all perfect. We're a great believer in agile development, MVP, minimum viable product. Get it out rough and dirty. Get the people using it and get the people to define what they want the system to do. Don't spend too much time trying to make a really great system without actually using it and getting the people using it to tell you how they want it to work.

Asif [00:21:50] Yeah, it's something we see a lot of I guess, you get sort of process paralysis or the goal is perfection instead of progress. So sometimes being too strategic can certainly prevent us moving forward. So, Chris, what's your view on how you start having these conversations with your people? Because Will was talking about the robots will take your job, but they will give you a better job, it sounds like, Will, from what you're saying, that your staff are enjoying potentially more variety in their role. And I guess people enjoy that opposed to having the mundane nine to five, I'm going to do the same thing over and over again. But it's still a difficult conversation to broach with your staff. So, Chris, how do you go about having that initial potentially very difficult discussion with people?

Christopher [00:22:40] Well, it is difficult, but I think you've got to if you've got an engaged workforce, they can see that the end goal is to grow the business. Now, as Will said, the

fundamental is the robots aren't there to take your job, per se. They are there to speed up the process to make more capacity. More capacity means you might need more salespeople. You might look at different sectors as with COVID now we are, with markets now down or reduced. We're looking for different markets. But it's really about retraining people as Will said. The skills that we've got within our company and the enthusiasm and the loyalty, we certainly don't want to lose any of that. So if it means we end up with lots of different people doing lots of different roles, that's great. Now, certainly, since we are bringing people back from furlough, everyone within the company is now doing a slightly different role potentially than they were. We're all having to sort of muster a lot of enthusiasm to keep positive. Both automation and digitisation, all that does is help speed up processes to create more capacity. More capacity means the ability to grow. And that's got to be in everyone's interest. The employees and the employer.

Asif [00:23:57] You said something that actually really resonates, is that the goal is to grow the business. And I think if employers like other leaders like yourself, start with that as the objective, it feels like that would be a more smoother path to having that discussion with people, as opposed to saying the objective is to save money or save costs or drive productivity, because those are all, you know, interesting terms and important terms. But since digitisation will be successful or not, as a result of the people, growing the business or making the pie bigger seems to be a much better place to start. Have you ever come across people that have just said, actually, no, no thanks. I don't want any part of this. I just want to keep doing things the way I've always done them. Will, let us direct that question to you.

William [00:24:46] I think for us, we've always had a bit of a culture change. Some people are more like anti in a way than others, but they all sort of accept it because, you know, we're 30 years old with my mother and father started a business in our garage. We're now employing 100 plus people in eighty thousand square foot, servicing industries around the world. So they've seen all this change over 30 years. We've we had the transformation from manual machining, CSC machining, and then we started laser cutting and high pressure water cutting and painting things and assembling things and having an electrical department and then getting, you know, all these different accreditations, you know, so people have gone through nine thousand fourteen thousand eighty thousand, you know, the new, you know, different schemes and projects and change and new equipment and new ways of working. So, you know, they sort of, they get used to it, but I don't know whether they ever... Not everyone loves it, but hopefully they want to come along on the journey.

Asif [00:25:52] I can imagine that will be a fun conversation to have with certain people. So, Chris, you were gonna say something. Sorry.

Christopher [00:25:58] Yeah. I mean, you always have people in life who are quite content with the role they're currently in. Don't want to change. Just want to do the set, the set job, go home. No hassle. Well, what business really needs are people who they can engage with and take on that journey. And certainly at SDE, what we want is the next engineers to come through. The next team leaders, next managers, next directors. We're looking to grow the business and we want people who want to be part of that growth. An Industry 4.0 digitisation is really about how you improve, how you grow and whether that's the team, whether it's processes, whether it's the company, whether it's the data. It's really about improvement, constant improvement. How do we get better at what we do every single day? And I think if you look at the majority of people, most people want to improve every day. Now, whether

they have a slightly easier work role, whether they have slightly more interest, whether they are slightly more formed at work, it's all about a very, very small step change. So you get better at what you're doing.

Asif [00:27:08] Mm hmm. That's a great point. And there's a really strong sense of how do we do things better in what and what you're both saying. And that seems to be it seems like it needs to be the fundamental backbone of the conversation that any leader has with their team is we're looking for continuous ways to do things better. And technology probably is just a way to do that. It's not sort of an end goal in itself. Do you think, Chris, again, Do you think that's really well understood? Because when people talk about Industry 4 and technology and big data and all those buzzwords, do you think that sense of getting better is getting lost in that messaging or do you think it's pretty clear?

Christopher [00:27:51] I think it's clear to most people, and I think it's clear to most successful businesses. So I know Will's business. I know our business. We engage with our staff and we are constantly trying to and striving to improve. And I think successful businesses are doing that. I think the businesses that aren't successful are losing that message or don't understand that message or don't pursue that message with their employees. So it's really, you can see where people are learning lessons and you can see where people aren't. Successful businesses, the message is getting through, I think.

Asif [00:28:26] So what about the unsuccessful? Well, let's just say the unsuccessful businesses or people that are not sort of typical of yourselves. How do we get through to the leaders of those organisations? Will, what's your thought on how could we connect with those people about something that they care about?

William [00:28:44] It's about showing them that other people are doing it. You know, it always makes more sense that somebody thinks ah, Warren services, we do stuff like they do. You know, why can't we do the same? It's about showing. If a big technology company goes in, it goes, we can solve all your problems, you just buy our system and do 50 days of implementation, a thousand pounds a day, and it'll all be great. And they're going to go. And I don't think so. So I think it's about us just being happy, like through this podcast, like through some of the events we do. And we host events at Warren Services. You know, I want Warren Services to be great. I want Warren Services to be leading in lots of things, including our digital transformation. But we're happy to share that with other companies. And I think it's making it easy for them to adopt, you know. It's not big, upfront costs. It's something they can try out easily. And you well know Asif, we're a great believer in the digital catalyst programme and Chris was saying earlier on how do you implement things in companies? And one of the easiest ways is to, you know, get a smart young person in the business and let them have a dig about. And then in a few days, like, why are you doing this? Why are you doing that? And if you're happy and open to that, and you haven't got a big ego and going, well, what you know, you're a young kid, straight out of university with an engineering degree. I've been doing this for 30 years. Yeah, you might well have been doing it for 30 years. It doesn't mean you know everything about it. So, you know, it's an amazing resource in these young people who think completely differently. Sometimes it's good to upset the apple cart.

Asif [00:30:28] So almost a sense of bringing in this kind of like nonexperts to kind of just just very openly and honestly just ask the questions that maybe we've forgotten to ask is, you

know, why are we doing it this way? And potentially, do you know there's five or six different ways to do that differently or better? So a strong sense of bringing in that nonexpert.

William [00:30:47] Yeah, definitely. You know, we've had quite a lot of success with that system. You know, you need to be happy to take it on board. I think some manufacturing companies aren't led by people who want to be told by a 22-year-old that, you know, maybe they should look at different ways of doing this. So you've got to be, as a business, open to that level of scrutiny from a young person. But it can be very, very valuable to the business and very low cost.

Asif [00:31:18] You have an example of some of the insights that one of these young people gave you personally? Will? That you ultimately implemented in your business?

William [00:31:27] Isolated things. It's just, you know, they can come up with the most obvious things. How could I not have noticed that? Or not thought about that, you know? Well, I will read this piece of information twice. So it's a system that develops over years. And, you know, we thought titbits on. And they look under the hood of it and realise all this doesn't make any sense whatsoever. And I'm like, oh, now that you say it, it doesn't. But over the last 10 years it developed it seemed perfectly sensible. But all of a sudden now you point to how you look quite foolish, which is fine. I'm happy to take that on board. You know, we want our staff to challenge us. I'm not a leader that's fearful of my staff. I want them to be able to say, you know, I think we might be doing this wrong. And then some of these smart young people are happy to say that, which is good.

Asif [00:32:25] Chris, I know you guys at SDE are, big, big, big investors in skills and young people. What are some of the insights that some of these kind of, let's call them nonexperts, have brought to your business? And if you could share.

Christopher [00:32:38] Well really, as Will said, it's coming in with a completely fresh pair of eyes, knowing what technology is out there and knowing software, knowing things like iPads and how easily apps can be used, and coming into our business, not knowing the business at all. Looking at what we need from a process or to gather data. And very quickly they come up with ideas that we've never even thought of because they don't know our business. That's the problem. Once you've been inside the business so long, you do get into the habit of "this is the process". This is the way we've always done it. But I think one of the biggest problems we've got with digitisation Industry 4.0, as you said, Industry 4.0. Now, the term itself is quite old. We need something, whether that's a tech road way, a tech path. It's all about process improvement and digital. And digitalisation is just part of that process improvement. So it's how you can make your business more reactive, better growth, better people within your business could be constantly training. But that's what it's all about, not just automation.

Asif [00:33:47] What I heard both of you say was that a fresh perspective potentially is one of the most powerful ways to start building your transformational map or journey or pathway. It doesn't sound like it's actually that difficult to do. Just just get the right fresh pair of eyes into the business. Will, I know you're looking at sort of universities and students. And, Chris, I know you're kind of coaching and developing and training people, at the marching centre. Why does it seem so difficult for other manufacturers to do? Because there's universities and

colleges everywhere. Why aren't more people doing this? Why aren't more people bringing in these nonexperts? Why do you think? Chris, let's start with yourself.

Christopher [00:34:31] Well, it's really about working on finding the right partners to work with, so whether that be the right college, the right university, the right training partner or, for example, Autodesk and what you're doing with the placements, it's about finding someone you can work with, and too many manufacturers have worked with a partner, whether it be a college or university, that it just hasn't worked out. And I think there's more and more a look to manufacturing now as a career. I think the apprenticeship role is the best way to get a loan for a degree. But I think engineering and manufacturing, everyone can say, is going to restart and kick the economy going forward. And I think that there's actually more of an interest from young people to come into manufacturing. So I think the time is now perfect for manufacturers to restart looking at working with Autodesk and similar placements.

Asif [00:35:28] Will, from your point of view. Why do you think it is? If it is so easy, there's hundreds of colleges, hundreds of universities in the UK, some of the best in the world, actually. Why is it so difficult for more manufacturers to just kind of knock on their door and say, hey, you know, I'd like to get so into my business? What do you think the problems and the barriers are?

William [00:35:47] Because they don't bother knocking on our door and asking. People just like, you know, they're just stuck in their way and they don't know any better. You know, they don't try. We've got an amazing apprenticeship programme and we've got amazing young people entering the business and people say, oh, you know, how do you do it? I'm like, well, my mom and dad have been working on this for 40 years. You know, the business my dad ran prior to this business, you [00:36:14] know, it bakes within us. [1.7s] This engagement with schools, colleges, universities. And, yeah, sometimes it's really frustrating because academia is not business. You know, we're lucky in a way that we work very closely with local college, college of west Suffolk, West Suffolk College, which is great for all our apprenticeship training, and then we've got Cambridge University down the road and the UEA at Norwich, you know, we work with manufacturing at Cambridge, which is very business focussed. They want to have that engagement. But you need to spend the time to make the engagement. It does take time. You don't get anything for free in this life. You know, it is true that anything you need to build customer relationships. You need to build supplier relationships. You need to build your pipeline, your supply chain of talent. We just recruited another three apprentices for this year. Some of them have started already, the September start for their education. But what we find is what Chris said as well, which is, you know, we've got some very, very bright kids that are now on this degree level apprenticeship programme. People who would have traditionally gone to Russell Group universities are seeing, well I could go to Warren, I'll go and get paid. I'm not going to end up with 50,000 pounds of debt. And I'm gonna have six years of industrial experience. And this will still count towards, you know, being a chartered engineer. This looks like quite a quite a good option for me. So somebody one of the top students as a young lady, and I'm not allowed to say who it is, at a local, we have a feeder establishment within the UTCs, which is based in Norwich. And I'm fairly sure one of their students was offered a place at Cambridge University and it's turned that place down to take an apprenticeship with Dyson. You know, that's the sort of stories we need to be telling people. Dyson's got a really good name, you know. The training you receive there. Is just about keeping and building those relationships over many years, but I think especially the colleges and universities now with the

apprenticeship levy and the government pushing for this connection to business, you know that education should be, especially vocational education, should be driven by business selling. It's just the amount of time you put in is equal to the benefit you get out of it.

Asif [00:38:57] So I'd like to kind of bring it back to, kind of, I suppose it's the final question I wanted to ask both of you. You won't be surprised. It's next steps. Something I'm really passionate about is how do we boil this kind of knowledge and experience down into practical things that anybody listening to this podcast could do. So if there was a three point plan that you wanted to leave with any other leader of a design and manufacturing business in order to get them on their digital transformation journey on whatever we want to call it, and whether it's to do with technology, people, processes, strategy, leadership, could be anything. What would be your three point recommendation? Chris, could we start with you?

Christopher [00:39:46] Yeah. So the first thing I would do and the first thing I did, it starts making the people speak to a or the manufacturers. Speak to yourself, Asif. When we're talking about Industry 4.0, I heard you talk. Do as much background information as you can to learn the lessons from all the people. Then look at your current business. Look at your current strengths and your weaknesses. The processes that you want to improve. The growth plans that you've got in place and the people you've got. And then really the final point is, as Will said, I mean, I mentioned road mapping where you are now and then starting, but don't be afraid to start. So Industry 4.0. Going back to our conversation many years ago, Asif, the thing that struck me was do something different. So I have since that point many years ago, done something different than our competitors. SDE Technology is investing in new processes, investing in our people and staying ahead of the competition. That's key. Don't wait. Don't wait to start the journey. Start the journey sooner rather than later. You will reap rewards. But if you do not start the journey, you will end up standing still and somebody else will be ahead of you.

Asif [00:41:03] So start talking to people, peers, colleagues at the customers. Start looking at what problem you want to solve. What is it you're trying to do and then make a start? That seems to be the summary of what you're saying, Chris, is that. That's right.

Christopher [00:41:21] Well, it is, yeah. And really, don't be afraid of engaging with customers, suppliers, competitors, and really look at what the market needs. So you must speak to your customers. What is the defining thing your customer comes to you for, whether that's quality cost, which is normally a given service supply. Customers are looking for technology. They're looking for a better service. They're looking for better feedback. So it's really, make sure you're speaking to the right people. Speaking to all the stakeholders. But then once you've made a start, it takes a lot of enthusiasm to keep the momentum. So don't start and then fail, fail or falter because you haven't put an opening source behind it. Like Will in his company, I think fantastic enthusiasm, fantastic potential. Will, he's constantly banging the drum for what Warren services have done and the same SDE. It's about telling people what you're doing, but making sure you've got the enthusiasm and effort to carry it through.

Asif [00:42:28] Which is as much of an attitude as well as to what to do so. Will, what about your three point plan for anybody that might be listening and thinking? I think I could give digital transformation a go.

William [00:42:42] Get a bright, young, smart, you know, graduate or any young person. In your business, have a look around, turn over a few things and give you some sort of free advice. You know, once they've done that. Also, think of the biggest problems that you have in the business. The things that stalling growth or where there's a bottleneck or, where is the biggest quality problem. Align that with what the person or young person, the digital catalyst, what ever you want to call him has done and then do something quick and cheap that everyone can benefit from and then everyone can input from. Do not try and implement something big, you know, a big system that will do everything because it will fail. Go do something cheap. It doesn't cost a lot of money. And then you can see the benefits and then the rest of the business will then go, actually, could I do this? Could I do that? And the best digital transformation comes from the people doing this stuff. So, you know, we had a suggestion the other day about a system for reordering consumables, like nuts and bolts and stuff like this. I found an app at home. Could we use this with the robot to order things? Yeah. Great. Knock yourself out, because that would definitely succeed because it's got the buy because it was their idea. You know, just do something. There's so much stuff you can do for free or very low cost and there's plenty of people to help, you know, not just Autodesk. The people from as low as the stuff on YouTube, on the Internet. We're in an age of information availability. You have to field trip it, but there are some great people telling some stories and, you know, talk to people like me and Chris. We are normally pretty happy to talk to people within our space and show and let them come to the factory. Yes, a little bit harder at the moment. And see what other people are doing.

Asif [00:44:48] So we're kind of coming towards the end of the show. And I think what I've learnt, what I've heard you both say, is that digital transformation, if we break it down into its most simplest term, it's nothing more than a way to look at our businesses and do something better. And if we just use technology to enable that definition of better, whatever it is seems to be about providing more people in the organisation information in order for them to do their job more effectively, which is what I heard you both say was it could empower them to have more enthusiasm, bring the right attitude into their role, and perhaps make them less fearful of change, which, you know, we hear a lot about automation. Sounds like the best place to start would be to ask yourself what is it we want to do better? What does better look like for us? And start developing a plan just to kind of give it a go without overcomplicating it. So hopefully they have, the great input you've both shared with us today is going to help more people to reflect on their organisations and maybe even give it a go. Maybe even have a go at some of the things that you guys have talked about.

[00:46:03] So I'd like to thank you both for sharing some of your experiences and expertise on how you have started to transform your business. And I'm sure that transformation is going to continue. So thank you very much, both of you. And thank you to the audience. And make sure you tune into our next episode. And you'll find out more about how we can work to make things that we think might be impossible, possible.