



# Denso Systems

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# Emma Taylor – Denso Systems

[You can find the video of this interview here](#)

## Emma Taylor – Denso Systems

I: OK, well, we're very happy today to have Emma Taylor, who is the training manager and DM UK Manufacturing, which is part of the giant Denso Corporation of Japan. And Emma's got a particularly interesting role in trying to enable innovation, particularly amongst shop floor workers. So, Emma, first of all many thanks for agreeing to talk.

ET: No problem.

I: Could you tell us a little bit, first of all, about what it is that you do and the sort of context?

ET: Certainly. I joined Denso three years ago. I work in their Telford Operations and we're a first tier automotive supplier. What that means is we make car parts and, predominantly, HVAC units, which is air-conditioning units, radiators, condensers, heater boards. So, a lot of different technology and a lot of different processes.

We employ 700 people. The majority of those individuals work on the shop floor actually making things. Over the last three years we've actively embarked on a programme to encourage the individuals who work on the shop floor to get more involved in the process and to understand what the role that they play and how they can make small incremental improvements.

I: This is the idea of Kaizen.

ET: It is. Kaizen is key philosophy within Japanese manufacturing. It's often used as a business improvement tool to make efficiencies within a process, so we can create products with less quality defects and, also, more cost-effectively. But I like to see Kaizen as also having a wider remit, which is one which enables everybody to realise and think about how they can make change for the better. This very much links into creating a work environment where creativity or ingenuity is part of the daily work and part of the way everybody works together in order to improve the processes, be they're an engineer, a quality manager or whether you're actually working on an assembly line and you're putting three screws into a HVAC case.

I: Yes, because most of these people are not necessarily PhD-qualified scientists.

ET: No, not at all. The majority of our workforce, probably about one third, are actually what you'd traditionally know as 'shop floor workers'. We call them 'associates'. They're individuals who have got a variety of different backgrounds. We are very diverse in terms of our nationalities. But the main thing that we really wanted to focus on was to encourage the feeling of ownership within the process so that they understood the role that they played. One way to

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do that is to work on the interaction that they with the supervisors and the specialists. The way that we do that is to encourage the supervisors and the specialists to involve the shop floor associates in the low level improvements that we make every day, just as part of the way that we go about doing our work.

I: Could you give us a couple of examples of the kinds of things they might be involved in doing?

ET: Certainly. Every morning we have something which we call a 'team brief' which is a low level communication activity. It's a small group of people getting together to talk about the production that happened yesterday and the production that needs to happen today. Within that there will be a number of change points that have to be communicated and then there will be a request from the individuals within the workgroup of how those change points will impact their work area and, firstly, whether they're able to implement them, what support they'll need, and then have they got any ideas of how to build on those change points, any further improvements that they'd like to see. All those are then captured on a noticeboard within that work area and then it is up to the support teams then to work through each of those items that have been identified and, every step of the way, involve that particular worker in that process so they can see what's happening and what's changing, but also they can contribute to how the change happens.

Ultimately, as a business, we understand that the individuals who are making the product, they have got their hands on that product every single day, so they're having a completely different experience to the engineers who may be observing the product being made, but working together and combining their ingenuity and understanding of how the process operates. We feel that, collaboratively, we can actually make more effective improvements and ones that heighten this feeling of ownership within the process.

I: And do people feel that sense of ownership that actually their little bit of the process is getting better through their efforts?

ET: I would like to think so. It has been a long process and it will continue to be a long process. When we started this journey three years ago we understood that, as a business, we had a very traditional structure; it was a very siloed organisation. So, we had specialist teams who would go and make improvements to the process and individuals were told what improvements had been made and then how they were required to work differently.

So, we've really been making every effort to change that structure and there are, I would say, nice green shoots that are starting to emerge, particularly around the level of communication that we're receiving from the shop floor workers. I also like to think that we're having more of a feeling of pride and of value of the work that they do on a day-to-day basis.

I: And can I ask you the factory director's undoubted question, does it work at the bottom line?

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ET: Well, I think you'd have to ask him that. As a business, we have been and we continue to be a single PPM supplier. We maintain that.

I: That's Parts Per Million.

ET: That's Parts Per Million. So, from that perspective, we are impacting on the bottom line. From our president's perspective, he is very concerned about the future and the future talent and the long term sustainability of the business, particularly around innovation and creativity at all levels, purely because of the new technologies that are coming in and will be coming in over the next five years, particularly within the automotive industry. We don't design the products, we have to make the products, but we have to think of ways of how to build the new product as competitively as possible. To do that we really need everybody to work on a collaborative basis.

So, from our president's point of view, if he can see that we have work teams who are supporting one another, speaking to one another on a day-to-day basis and really sharing their experience and knowledge in a productive way, then I think that he will be quite happy with what he's seen so far.

I: I'm sure he will, yes. This is very noble, very wonderful aspiration. It must be hard to make it happen in practice. Could you tell us what hurdles have you had to overcome to get this in place?

ET: I think we haven't overcome the hurdles; the hurdles are still very much there and they're very much around, initially, individuals maybe not wanting to take on board the responsibility, not feeling that they are part of a process and a system, that they merely come in to do their job and they're only paid to do their job, not to actually think about how to improve their job. So, it's very much about educating a leadership within the organisation so that they can start to learn how to have the different types of conversations with people, just to gently encourage them to understand that their ideas matter, that they will be listened to and that, most importantly, their ideas will be implemented at the worksite.

So, it's a combination of things that have to happen in order to overcome what is, essentially, resistance to change and an understanding, as a Japanese organisation with the Kaizen philosophy, we will never get there. We're always seeking to improve and we're always seeking to be better than we were yesterday. That can be quite a difficult and challenging environment to work within and one that takes quite a lot of trust and openness, which is something that you have to work at every single day, because it can disappear as quickly as you create it.

I: So it's really about changing a culture.

ET: It is.

I: Yes. Is there a role that formal training plays in this?

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ET: There is. As a business, we have traditional training programmes that we put people on, but we also have a range of, what you'd traditionally call 'action-based learning programmes', which are a little bit of classroom training, but then the majority of the activity is based on the shop floor, working as teams, workgroups and actually making improvements as part of the training, so the tools that you're learning, you're putting them into their practical context and then you're getting a media feedback straightaway, as well as actually improving the process. So, it's that continual learning that we're involved in as a business.

I: So, the impression I'm getting is of a company which is continuously learning; it's the Kaizen philosophy embedded in learning.

ET: It is, I think so. Probably we wouldn't call it that. We're not there yet in terms of our own maturity, to understand that that is what we're actually consciously doing. I think, maybe, on an unconscious level we are walking our way towards an environment whereby learning becomes part of the day-to-day activity, be it through problem solving or through more collaborative communication in order to improve the processes that we have.

I: Fascinating. Emma, one last question, if I could: you're an innovation manager, you're working very actively with a key part of the innovation process, if I asked you to come and give a lecture to some of my students – the collective wisdom of Emma Taylor – any words of wisdom you'd impart?

ET: I would share with people not to be afraid to take risks, to not be afraid to step out of your comfort zone and move into the unknown and to embrace that as a learning experience, and to realise that you only really truly learn something when you actually have experienced it for yourself. So, what that meant for me was to actually move out of the office environment and into the shop floor environment. So I'm actually based directly in the factory, so every day I can be as hands on as I can, because it really is through getting your hands on the product and your hands round the problems that you can really start to learn and share and experience what is happening for those individuals. From that you can then involve those individuals to help you or to help another specialist design a solution that is going to make that process a little bit better, either for the company, but, ultimately, for the individual who's doing the work.

I: That's wonderful. Thanks very much for your time, Emma, thank you.

ET: Thank you very much, John.