# THE INNOVATOR

Takatoshi Ohkubo is a Japanese quality director making a big difference. Here, he speaks to Natasha Cowan about what makes quality the differentiator at 3M and how he uses neuroscience to turn his team into influencers

WORDS: NATASHA COWAN

PHOTOGRAPHY: Steve Morin akatoshi Ohkubo is the director of corporate process innovation and quality assurance at 3M Japan. The company is widely considered one of

the most innovative organisations in the world and is a winner of the US government's prestigious National Medal of Technology.

3M was founded in Minnesota in 1902 as a small mining venture. Fast-forward to 2017 and the company now makes 55,000 products and operates in about 70 countries across the globe. These products include everything from the sticky tape on your desk to stethoscopes used by hospitals internationally.

Famously, the organisation has employed the '15 per cent rule', which encourages staff to spend up to 15 per cent of their time pursuing their own thought experiments and projects to create breakthrough inventions. This policy has inspired innovation organisation-wide and was responsible for the invention of the company's most famous product, the Post-it Note.

Ohkubo has risen up the ranks by understanding the psychology of management and creating a culture that ensures quality meets 3M's innovative philosophy. His novel management techniques have made him a force to be reckoned with and ensure he keeps his customers happy and his staff even happier. Here, he tells *QW* readers his secrets.



### What is your role at 3M?

I design innovative quality processes and take responsibility for the corporate process and corporate products, including complaints. The quality team optimises the digital process at 3M and our job is to improve results while using limited resources.

### What does quality look like at 3M?

I employ high-potential people to come up with solutions to process issues. The team collaborates with different people across the company, such as the sales department, as well as the supplier and also the customer. Importantly, we play a governance role in the company because it is our job to make sure we deliver good quality to all our customers. This includes forecasting preventative activity to make sure the customer is satisfied.

### What are your aims for 2017?

From a quality assurance perspective, we need to be prepared for potential quality issues in the new product introduction process and managerial change process. Crucially, we will be assuring against human error in the production line. We are also using Lean Six Sigma to solve issues in our processes and a key tool for us is DMAIC methodology (define, measure, analyse, improve, control).

### Why is team development so important to 3M?

To do a good job quality professionals need a certain level of competency, for example, understanding the 5 Whysthis requires training and certification. By training the team in FMEA (failure mode and effects analysis), we are able to find clues for identifying potential risks in new products. The tool helps us to provide preventative action whenever we identify potential risks. Then we use a programme to identify quality issues after products are introduced to the market.

### How do you train your auditors?

Often we hold workshops, including programme work sessions, to help auditors understand how to identify potential risks. We also give training

in audit design because we want our auditors to speak to the supplier and gain information on the quality control process before they visit the workplace.

We then show them how to provide a potential risk analysis using FMEA and conduct a check based on the outcomes. Next, we identify issues through the audit and we meet with the supplier representatives to provide corrective actions. It's important to continue to communicate with the supplier after the audit so you can help them solve the problems with the product. Developing skills in communication with the customer is vital. Our auditors need to know how to build a relationship of trust with the customer so we identified a skillset for this.

### Tell us how you build trust with the customer

I tell my team to use a good, logical approach when they are explaining a nonconformance. It's very important that the customer understands the issue with the product and they understand the corrective action, so we have trained our people to think about the issue from the customer's point of view.

### How does understanding neuroscience help you become a better manager?

Our Six Sigma Black Belts need to

By understanding neuroscience we can learn about the biology behind doubt and anxiety in the workplace. These feelings are detrimental to relationships. For example, I ask my team to tell me if they are frustrated as soon as the feeling occurs. Why? Because when we are stressed our body creates the neurotransmitter cortisol, which leads to unconscious anxiety. Our brains use up 20 per cent of our daily calorie intake and 75 per cent of this is consumed by our unconsciousness, so the question is: how do we use this energy productively? When we think negatively we waste energy. One way of preventing this is to solve the customer's problems quickly with a well-thought out explanation. build a solid team so they must have good teamwork skills in order to build trust effectively. If cortisol is the key neurotransmitter in anxiety, then we should understand oxytocin is the key neurotransmitter for trust.

## **WHEN WE THINK NEGATIVELY** WE WASTE ENERGY"

# 3M by numbers

THE COMPANY BEGAN AS A SMALL MINING VENTURE IN MINNESOTA, US

PRODUCTS ÚSED IN HOMES. **BUSINESSES, SCHOOLS,** HOSPITALS AND MORE

> **OPERATES IN ABOUT 70 COUNTRIES**

# 2016

**OPENED A STATE-OF-THE-ART,** \$150M (£120M) RESEARCH AND **DEVELOPMENT LABORATORY IN MINNESOTA** 

WINNER OF THE 2017 CATALYST AWARD, WHICH RECOGNISES **COMPANIES WORKING HARD** TO EXPAND OPPORTUNITIES FOR WOMEN

I tell my team to get to meetings five minutes early and submit their meeting minutes within 24 hours because this builds a good relationship, free from anxiety and full of trust. By acting in this way you become an influencer in your organisation.

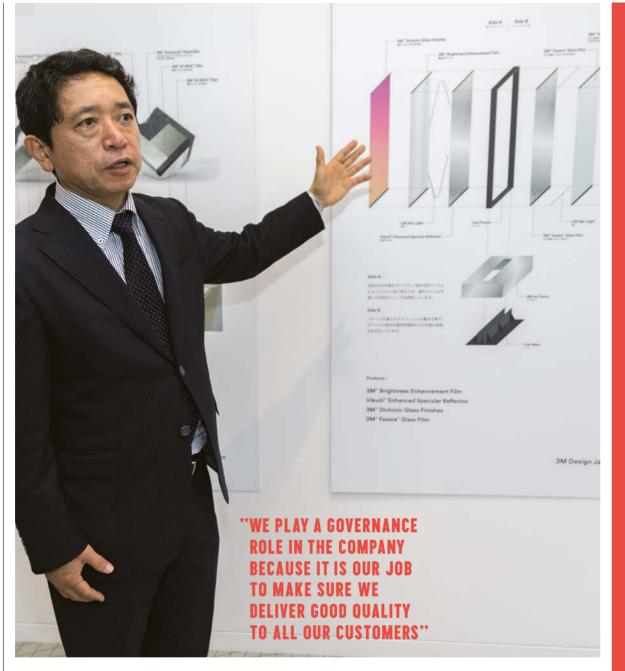
### What is your 'business system design for innovation' idea?

The idea is based on understanding the psychology of the human mind and using it to create organisational systems we can use to inspire people to pursue their professional goals and work in a more innovative way.

To empower your team and foster innovation you have to give people the freedom to pursue new ideas with the knowledge that whatever the result, they will be supported. For example, when a new hire joins a company, senior executives often expect them to deliver a productive and positive outcome quickly. During this time the new hire might propose an idea for making an improvement. If their manager is not supportive of the idea or the idea fails and the new hire is punished, he or she will sense there is a poor company culture.

People do not like change, however, change is crucial if we want innovation to take place. For an organisation to be successful, employees have to stretch themselves and often this means doing something that is a little out of their comfort zone. This might give them some anxiety and they might feel compelled to do the task. I call this the 'stretch process'. A manager's job is to support this process by giving the employee a feeling of safety and security, for example, directly helping them when they have a question and reminding them your door is always open. I call this the 'serotonin effect' as it creates feelings of a calmer atmosphere.

Serotonin is a chemical in our brain that helps us feel happy and secure. Sunshine and eating enough protein help us to create serotonin but you can also create serotonin through kinship with the people you like. This helps you during the uncomfortable stretch process and ensures you will succeed in a sustainable way. This type of management is proven to work far



better than giving people a light and easy workload and it even works better than increasing an employee's salary - giving someone a pay rise alone will not help them achieve their goals or climb the career ladder. Feeling respected by your manager and colleagues motivates you to pursue new goals and stretch yourself.

By creating a continuous cycle of setting new 'stretch goals' and supporting your staff, you will give people more resistance against stress as they know they will be supported in the future. By following this formula, employees will be less afraid of failing and will want to pursue new achievements for the team and the company as a whole.

### How are you engaging people across the company in quality?

Our team is able to demonstrate excellence across the organisation because they show people their achievements. We lead workshops across the company and we always find the root cause of a problem and give a corrective action, along with identifying potential future risks. During these workshops we engage with others, for example, our manufacturing and sales teams, and solve their challenges - proving quality is an asset to everyone in the company.



Hygge: the Danish way to create a culture of happiness and innovation

Across the world from 3M's Japan headquarters, the Danish Happiness Research Institute conducted a study of job satisfaction in the workplace with surprising results.

The report, published in 2016, found Denmark has the happiest workforce in Europe, with 94 per cent of Danish employees saving they were satisfied with their work, while the EU average is a mere 77 per cent. If you read the lifestyle section

of any magazine or newspaper in



### INTERNATIONAL: JAPAN

the last year, you would have learned about the Danish phrase 'hygge'. The seemingly untranslatable word has sprung in to the vocabulary of design gurus and East London hipsters alike. A feeling of homeliness or cosiness is often used to sum up hygge and it is often likened to sitting by an open fire on a cold winter's night. Now, CEOs are using this idea to increased productivity in the workplace and evidence suggests this could this be the root cause of the 17 per cent increase in job satisfaction.

According to the Happiness Research Institute, good leadership plays a significant part in ensuring job satisfaction and managers need to pay attention to employee's achievements, telling them how their contributions have helped achieve the big picture. As Morten Fjord, manager at Kolind Centralskole, says: "It is particularly important as a leader, when work assignments get complex and challenging for a company, to strengthen employees' belief in their own abilities."

Additionally, the research suggests money has almost no positive impact on job satisfaction. However, this does not negate its importance to people's satisfaction with their life outside of the workplace.

Lastly, the report found that trust is pivotal for creating job satisfaction and retaining staff. Trust increases productivity and decreases stress but it has to operate as a two-way system, between colleagues and between employees and managers. However, the trust between leaders and staff has a greater impact on motivation. To strengthen trust, leaders and employees should meet regularly and these meetings should be smaller as people tend to hide in larger crowds.