



ANSTO



Benefits at a glance

- ▶ **Export sales up from zero to \$5 million**
- ▶ **DIFOT (Delivered in Full on Time) of 95%**
- ▶ **Annual savings of \$6 million**
- ▶ **Yield variability improved from between 35% and 70% to a consistent 75%**
- ▶ **Government funding secured to triple capacity by 2016**
- ▶ **Improved customers relationships from increased reliability**
- ▶ **On target for Class A accreditation in planning and control**

Customer Profile

A new era for Australian nuclear

The Australian Nuclear and Science Technology Organisation (ANSTO) has recently undergone a spectacular transformation and it is now in touching distance of Class A accreditation for Planning and Control. With anticipated annual savings of six million dollars and massive export growth as a result of an operational excellence programme with Oliver Wight, ANSTO's story is one of vision, commitment to change, and ambitious growth plans.

Imagine the **possibilities**,
realize the **potential**.[®]





“Looking at us now, with a DIFOT of over 95% and export sales of \$5 million a year, it’s hard to believe just three years ago we were struggling to reliably supply even the domestic market.”

*Shaun Jenkinson,
Group Executive for Nuclear Business, ANSTO*

Based just outside Sydney and employing more than 1,200 people, ANSTO is an Australian Government organisation with many strings to its bow. Although it is a public research organisation, there is also a commercial component including a Neutron Transmutation Doping (NTD) Silicon irradiation business; nuclear medicine production; and the provision of consultancy and knowledge services to the minerals sector.

ANSTO plays an important role in the nuclear medicine industry. As the operator of Australia’s only nuclear reactor, it provides 85 per cent of the nuclear medicines used in Australian hospitals, supplying more than 10,000 patient doses a week to 250 hospitals & medical centres in Australia & the Pacific region. Used to diagnose diseases like cancer, heart disease and neurological disorders, nuclear medicine is constantly evolving, allowing doctors to improve diagnosis & treatment approaches at increasingly early stages of disease development, potentially saving more lives.

On the face of it, ANSTO would appear immune or at least indifferent to competitive pressures and an unlikely bedfellow for Oliver Wight, a business improvement consultancy specialising in developing sustainable competitive advantage. Not so. As a Commonwealth Authorities and Companies (CAC) agency, Australia’s nuclear agency is in the relatively rare position of having a responsibility to foster diverse and growing commercial

arms. This, combined with the scale of its operations and the diversity of its business units, presents challenges, which are somewhat uncommon in a government sense, but easily recognisable to industry - it was the makings of a partnership between Oliver Wight and ANSTO that is now paying handsome dividends.

“You hear a lot about different consultants saying they’re going to give you ‘\$x’ in value,” says Peter Arambatzis, Chief Financial Officer. “I was a bit concerned when I was told we’re going to get a multiple of 5 or 6 [as a return on investment],” he says. “But in actual fact what’s been delivered by the great work and support of Oliver Wight is in excess of \$6 million; double what we expected.”

ANSTO’s product portfolio includes an impressive range of radiochemicals, radiopharmaceuticals (also referred to as nuclear medicines) and accessories, but this provides some



serious supply chain complications. Group Executive for Nuclear Business, Shaun Jenkinson explains: “The biggest isotope we make here is Molybdenum, but it decays rapidly – with a half-life of 66 hours, we lose 20 per cent of it every day. After about three weeks, it’s gone. That means it’s not possible to make it and put it on the shelf. You have to have an efficient supply chain, from irradiation of starter materials in the reactor, through processing, to shipping right on time, so it can be used immediately by the hospitals and central pharmacies. It’s tough.”

And that’s just part of the challenge. ANSTO Silicon involves irradiating bulk silicon ingots, before returning them to the manufacturer to be processed for use in high powered switching devices used in fast trains, power infrastructures, hybrid cars and high-end technologies. Unlike the products used in nuclear medicine once it’s made, it doesn’t decay, but the difficulty here comes with scheduling to meet the customer’s needs.

Looking at ANSTO now, with a DIFOT (Delivered In-Full, On-Time) of over 95% and export sales of more than \$5 million a year, it’s hard to believe that when Jenkinson joined the company - just three years ago - it was struggling to reliably supply even the domestic market. “The organisation has great minds and highly committed people, but we were working with tools and processes that were not integrated with the people. We weren’t a reliable and robust supplier of product to our customers and

some of them were very dissatisfied,” he reveals. “We were supplying our customers but not with the reliability they wanted.”

Back then, market demand was far higher than the global market could supply, silicon suppliers were in the fortunate position whereby they could behave in a less than optimum way. But as the market changed and global demand decreased, customers began to command greater accuracy, faster turnaround speed, and the right quality. ANSTO needed to get its value proposition right.

The health division began to roll out some basic improvements in 2010, making some significant savings. However, after 12 months, it was recognised it needed to be taken further. “By some means we were getting the product to customer, but it was very hard. We realised changes needed to be made in a more integrated way across the supply chain,” says Jenkinson. “And to do this we would need some external support from an organisation with a demonstrable track record.” That organisation turned out to be Oliver Wight.

Jenkinson explains how the relationship came about: “We identified the need for improvement and end-to-end integration across the whole supply chain - that was the key motivator.



And our CEO Dr Adi Paterson was very much behind it; that was crucial. He empowered a group of senior executives to go and identify how we would do this and report back their findings.”

Several organisations were nominated, and a robust selection process undertaken to identify which group to work with – the best suited to what the organisation wanted to achieve.

Oliver Wight’s Proven Path is an implementation methodology developed on knowledge and experience the consultancy firm has gained from over 40 years working with some of the world’s most successful companies on their journey to Class A accreditation - a globally recognised standard of excellence. It is this methodology, which Jenkinson identifies as the deciding factor in partnering with them. “We knew Oliver Wight could help us through this journey in a way that would embed sustainable change rather than something that disappeared two years later.”

“We wanted to own the improvement process in the organisation, not have someone just come in, tell us how to repair something and then leave,” explains Jenkinson. “With the Oliver Wight approach, you learn to do it yourself; you get guidance and help developing the new processes, but you invent them. Oliver Wight transfer their knowledge to you so you can teach and train each other internally until you become self-sufficient.”

As the key product, demand and supply components were being set up, it was quickly discovered that while external supply issues were driving the improvement, internal processes were part of the problem. “To really manage the supply chain we realised we needed an Integrated Business Planning process in place too, so this was done in parallel with the supply chain improvements,” explains Jenkinson. Integrated Business Planning (IBP) integrates diverse processes in the extended supply chain, product and customer portfolios, demand and strategic planning, into one seamless management process.

“We kicked off the IBP process, establishing the discipline of the monthly review meetings despite having very little data. This ensured the work done in the supply chain had somewhere to go; that we could monitor it, and more importantly there was a key group of executive and senior managers who could release resource to repair or improve parts of the supply chain that needed it. It would have been a disaster to have the team finding great opportunities for improvement without a process by which to get approval for resource,” he adds.

ANSTO introduced in to IBP some robust processes, particularly in the demand and supply meetings, which focused on developing a good 24-month, unconstrained forecast of product. This has been particularly beneficial, as Jenkinson explains: “It provided the supply group in the reactor with a



“It’s been a dramatic transition; with a 24 month forecast we can effectively plan ahead to meet both domestic and export demand.”

Carlos Charlin

Continuous Improvement Manager, ANSTO

24-month forecast allowing them to come back with costed supply plans, which give us the visibility to make important business decisions. We can see if we need to invest money in infrastructure to meet the unconstrained demand, and how much it will cost to do it.”

The impact of the operational excellence programme on production capacity has been spectacular. ANSTO has gone from a yield variability of between 35 and 70 per cent to a consistent planning yield of over 75 per cent, with a very tight tolerance on production.

Not only that, in May 2010 the organisation had zero export sales - today, it is bringing in \$5 million per year from export sales alone. Why? “Because we now have the capability to make and distribute product, whereas previously our forecasting process centred around what we were selling not what we could sell. Essentially we were selling everything we were making, but we were having trouble making the Molybdenum so our forecast wasn’t as high as it should have been,” says Jenkinson. “We realised if we could improve our processes and product yield, we could make more of the opportunity in the market. Unconstrained demand would be higher, we’d have more product to sell, and in turn greater revenue.”

By implementing some simple, yet important process changes the organisation now has much greater alignment between forecast and supply. The predictability of the reactor cycle, for example, has been improved through the publication of a well-articulated schedule. This schedule is integrated with the production plan for Molybdenum and NTD Silicon.

“With a product that decays 20 per cent in 24 hours, if you can save half a day in your processing, you save a lot of product, explains Jenkinson. “Overall we’re on track to achieve savings far in excess of what we set out to. And because of our demonstrable capability of production and recent track record on supply, we’ve also secured government funding to build an upscale facility for 2016, which will triple our capacity, so our export potential in the next few years is significantly higher than our current position.”

It hasn’t been a straightforward journey, however, as Russell Thiering, ANSTO’s Supply Diamond explains: “Getting people to forecast as far out as 24 months provided us with some initial challenges, but it has improved over the past 18 months to be far more accurate. I have seen a shift in decision-making; where previously decisions were made in different silos and there was a focus on departmental priorities, we now take an organisation-wide approach. And that’s best for the business,” he says.

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Peter Arambatzis
Chief Financial Officer, ANSTO



“The other challenge in the initial phases was that we were putting extra workload on people; asking them to re-design processes alongside their day jobs. So in return we promised to relieve them of some meetings, give some of their time back. Plus, we made sure they knew the result was going to be worth the effort – an end to fire-fighting and the start of planning and control in a much more stable environment.”

“It’s been a dramatic transition,” acknowledges Carlos Charlin, Continuous Improvement Manager. “At the first IBP meeting some of the discussion was around whether or not the numbers were accurate. Now we’ve stopped arguing about that, new behaviours have been embedded and instead we’re discussing the strategy; how we’re going to close the gaps; and what actions need to be taken. These are cross-functional discussions. We have action plans and then people go away and implement those actions.

“The sheer scale of improvement across the organisation just from having a good 24-month forecast is quite astonishing,” he adds. “Having a rolling forecast with a discipline, in itself identifies savings we probably just roll with every month and don’t realise.”

Operations Manager and Integration Lead, Mark Moore was heavily involved in the project, and is an IBP advocate:

“Operational Excellence has been pivotal in providing a new culture of openness and flexibility in integrated management practices through training and exploration of new ideas. And there have been significant changes to come out of it, from the introduction of a commercial 5S program and a more cohesive supply chain, through enhanced planning for the reactor and integration with co-suppliers of isotopes.”

Moore describes the impact it has had: “It’s becoming easier and easier to get the products to our customer quickly and efficiently. We’re increasingly process driven and deal much better with exceptions.”

Jenkinson agrees: “Our biggest production day tends to be Sunday because hospitals that use our products, want it there for Monday morning. When I first started at ANSTO I used to get a text message telling me what the problem was in the facility; what product may or may not get delivered; which customers we might let down. Now, I rarely if ever, get a message on Sunday. I know everyone is getting their product on time; we have happy customers, a very high DIFOT and excellent control and planning within the organisation. Plus, there’s a whole raft of other improvements we’ve achieved in terms of embedding the right behaviours and systems.”



“Getting people to understand their role in the improvement process is fundamental,” says Charlin. “I see a great deal of enthusiasm and genuine interest from people at all levels of the organisation, who understand they do have an impact on the business and know how. Behaviours are difficult to change but it is made easier when people see the real impact.”

But Jenkinson is adamant the changes wouldn't have been possible without involvement from the senior management team, “it is important that you get belief in the processes from the CEO and senior management – we had, and still have, that.”

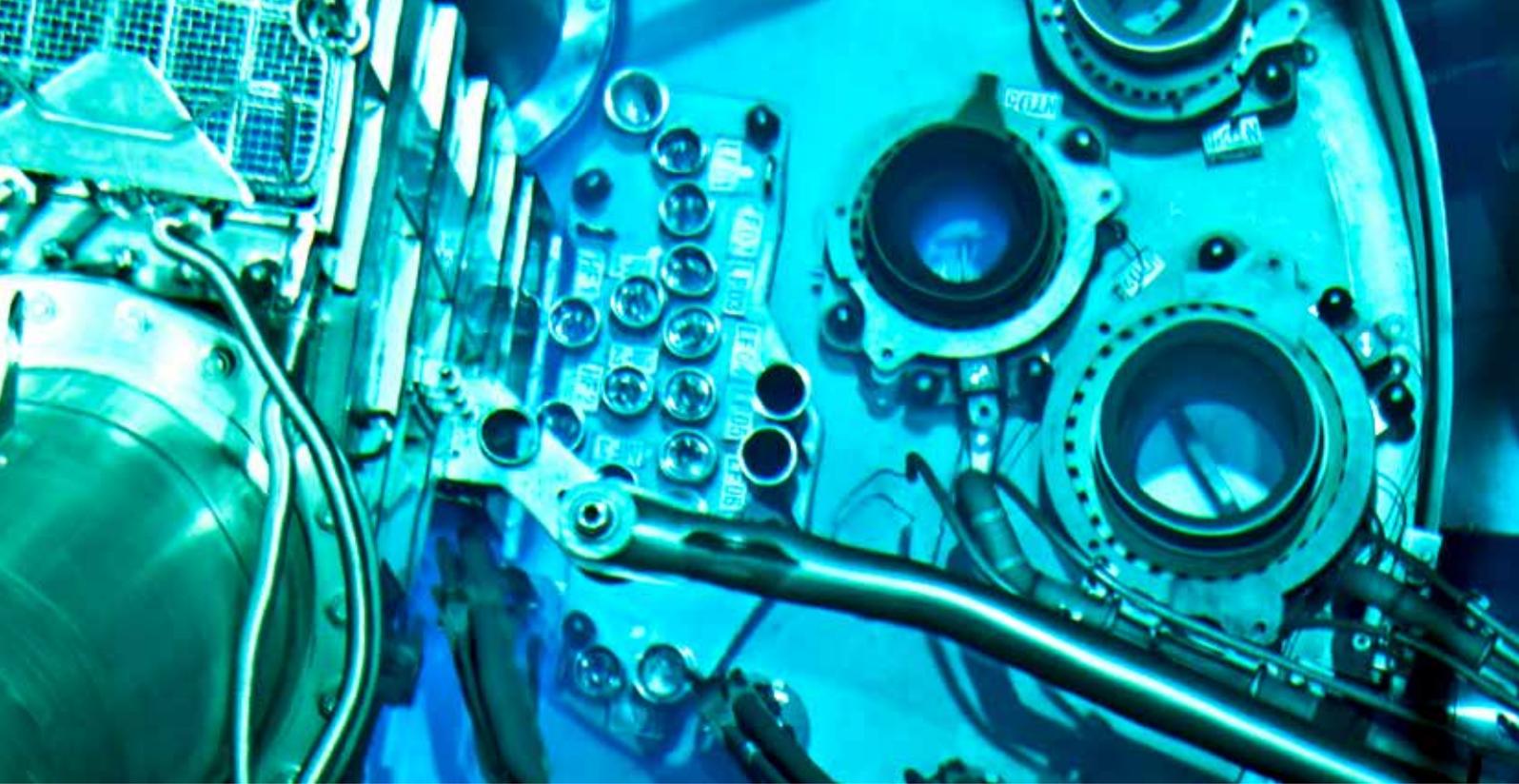
Because people and behaviours have now been integrated with the processes and tools, training rather than education has become priority - on how to use the tools supporting the programme, and how to integrate information with their colleagues. ANSTO is rolling this out across the entire organisation, reaching all 1,200 of its employees to ensure the processes are embedded and IBP becomes the way the entire organisation operates.

If the retention of its Silicon customers is anything to go by, it's little wonder the reach of the programme is being expanded organisation-wide. “Supply outweighs demand and our Silicon customers have choice; and are choosing us as their number one supplier. We've got the right quality, service and approach.

We build partnerships with our customers based on how we can help them improve their business, and that's important to them,” says Jenkinson.

And ANSTO has no plans on slowing down. Now just fingertips away from Class A accreditation for Planning and Control, Jenkinson, already has his sights on the next goal – Class A for Integrated Business Planning. “The journey we're on now is one of continuous improvement. Where can we go next? How can we improve again?” With the opening of a new export-scale medicine plant with potential to provide enough medicine for a sizeable chunk of the world's population, big things lie on the horizon.

“For me it's going to be the gift that keeps on giving,” says Arambatzis. “I'm looking at reinvesting time and money with Oliver Wight on the next phase of the implementation and it's been a fantastic journey and a fantastic partnership. It's been a different consulting engagement to what I've experienced previously. Oliver Wight brings a lot of experience to the fore; that with a real partnering model has really transformed ANSTO,” he concludes.



When you talk to Oliver Wight about improving your business, we'll assume you want results, not just better processes - things like increased revenues and margins and greater market share. If you have the ambition, it is possible to make improvements that truly transform the performance of your organization and create more fulfilling roles for the people within it. We believe this can only be delivered by your own people. So, unlike other consultancy firms, we transfer our knowledge to you; knowledge that comes from nearly 50 years of working with some of the world's best-known companies.

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