



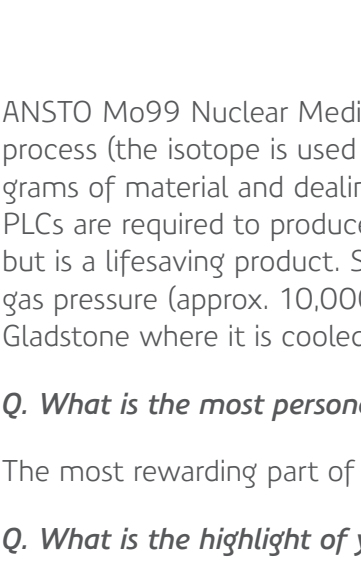
*Last month I attended the Hannover Messe in Germany, the world's leading industrial technology fair which is attended by more than 220,000 visitors. With Australia at a critical crossroads right now, it is important that we all understand the remarkable technology transformations taking place that will drive decision making, collaboration, sustainability and connectivity into the future. And, it was certainly on show at Hannover Messe!*

*The factory of the future is closer than ever, where information will be seamlessly exchanged between machines and products, ensuring optimal results and peak efficiency.*

*But whilst excited by the future, this newsletter celebrates the technical excellence we are already seeing in Australia; technology providing safety and security for critical infrastructure, new efficiencies for an artisan cheese maker, workforce certainty in the mining sector as well as some innovative new technology, revolutionising agriculture in arid climates.*

*Also in this issue, you see the first in a series of 'Tips and Tricks', collated from our Service Technicians who support industrial automation and control technology across industry. I hope you'll find this new content valuable.*

Cheers, Adrian Fahey



## 5 Minutes with Peter Maasepp

### Q. How long have you been with SAGE Automation?

Since 2007. 4 years in Adelaide and nearly 4 years in Sydney office. However, I have worked with SAGE since 1994, when Andrew was just starting. When I was employed with Citect, Andrew helped me out on projects over the years in Adelaide including ACI glass, West End brewery and Olympic Dam.

### Q. What are the exciting opportunities in your region right now?

A. SAGE is fairly new to NSW, so there are lots of opportunities in this market. The most exciting for me currently is the ANSTO Nuclear Medicine Facility.

ANSTO Mo99 Nuclear Medicine facility is a project that is both challenging and exciting. The actual Mo99 process (the isotope is used for cancer tracing) is an eye opener as far as the effort required to process Nano grams of material and dealing with radiation. A large 3 story building and a control system consisting of 4 large PLCs are required to produce the isotope safely. The resulting product is worth millions of dollars per gram, but is a lifesaving product. Stations. Here the gas goes through 2 stages of compression to achieve mainline gas pressure (approx. 10,000kPa) before being piped over 500km's to the LNG plant built on Curtis Island in Gladstone where it is cooled down to -161 degrees Celsius for transportation.

### Q. What is the most personally rewarding part of your role?

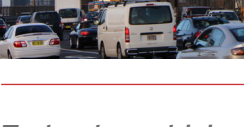
The most rewarding part of my role, is seeing young engineers develop both technically and personally.

### Q. What is the highlight of your career with SAGE Automation so far?

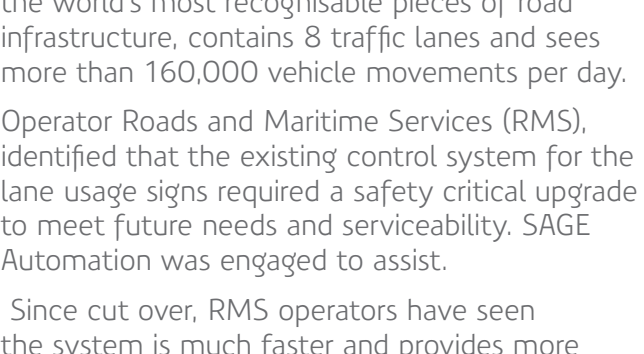
Definitely winning the Sydney Harbour Bridge Electronic Lane Change control system project. In the automation world, the public really don't know what you do, most think you're in IT. Working on a high profile project like SHB that everyone can relate to, helps to explain the role automation engineers have in the real world, which is satisfying.

### Q. Outside of work, what is your favourite thing to do?

Catching up with wife and family, especially grandchildren, riding my road bike and spending quality time in Bunning's.



## Projects



### Technology driving critical infrastructure into the future

The iconic Sydney Harbour Bridge, one of the world's most recognisable pieces of road infrastructure, contains 8 traffic lanes and sees more than 160,000 vehicle movements per day.

Operator Roads and Maritime Services (RMS), identified that the existing control system for the lane usage signs required a safety critical upgrade to meet future needs and serviceability. SAGE Automation was engaged to assist.

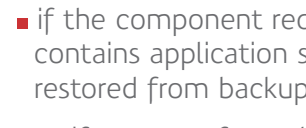
Since cut over, RMS operators have seen the system is much faster and provides more information. We asked RMS Project Manager John Bell, to elaborate on the new system's benefits.

*"The new Australian-designed electronic lane control system replaces software first installed in the 1980s and has reduced the time it takes to change north and south bound lane configurations and allowed incidents to be reported faster to the Transport Management Centre," he explained.*

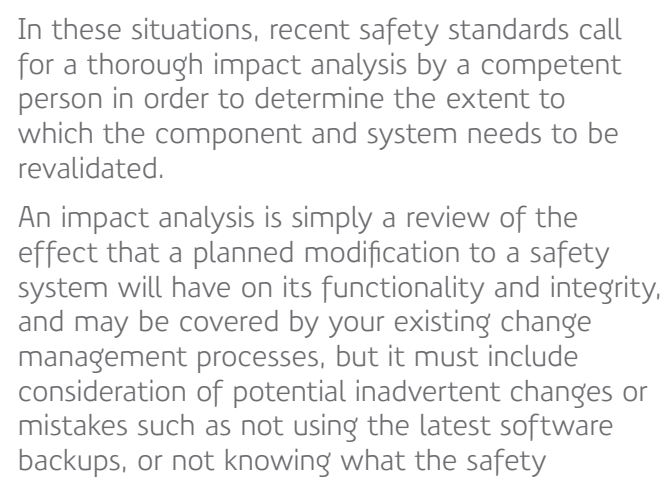
*"To meet traffic demand and accommodate future traffic patterns we needed to ensure we were operating with the best technology available. This system was developed specifically for the Sydney Harbour Bridge and is expected to serve road users well into the future."*

*"The new system forms part of a package of work to improve and adapt the Sydney Harbour Bridge to the needs of a modern city."*

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## Service



### Did you know?

Our team of Service Technicians are exceptional at solving problems, it's what they do best.

In this section of our newsletter, we will be sharing some of the tips and tricks our Service Technicians use to get our clients back up and running after a breakdown, and better still, ways to avoid the causes!

### Tips and Tricks #1: Returning of safety systems to operation after a safety circuit fault

In the event of a safety circuit fault, replacing like for like hardware (exact same make and model), requires validation of only that component to ensure it has been installed correctly, as it does not impact the integrity of the safety system.

However under the following conditions the implications are further reaching:

- if the hardware is not like for like,
- if the component requires configuration or contains application software that must be restored from backup,
- or if recovery from the fault requires any change to the hardwired design, configuration or software of the safety system.

In these situations, recent safety standards call for a thorough impact analysis by a competent person in order to determine the extent to which the component and system needs to be revalidated.

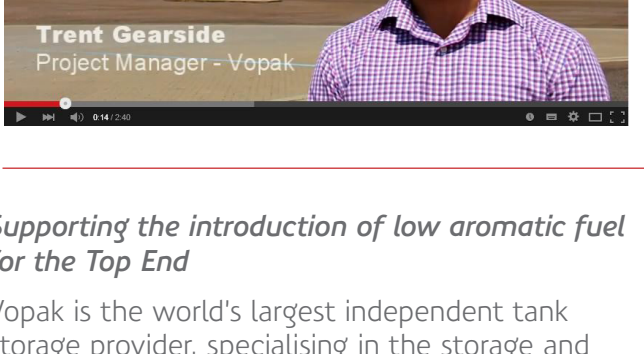
An impact analysis is simply a review of the effect that a planned modification to a safety system will have on its functionality and integrity, and may be covered by your existing change management processes, but it must include consideration of potential inadvertent changes or mistakes such as not using the latest software backups, or not knowing what the safety requirements are in the first place.

So to ensure fast return of your safety system following a safety circuit fault, reduce risk to personnel and maintain the integrity of your safety systems it is important that there is robust configuration management of all safety related aspects, including maintaining current safety documentation and validation procedures.

If you would like to speak with one of our safety experts or receive more information in this area, please [CLICK HERE](#)



## Training



### Training the key to workforce planning and retention for Glencore

Next month, SAGE Automation will commence delivery of a 3rd round of Instrumentation Training at Mount Isa Mines. The training program aims to address the current shortage of qualified instrumentation professionals in the region.

With focus placed on the practical skills gained rather than the qualification, the training, which is delivered on site using modern, site-specific instrumentation training rigs, is highly relevant and provides students with both maintenance and troubleshooting skillsets, which helps reduce the risk of downtime in the plant.

Training Advisor Kerry Brisbane from the Mount Isa Mines Skills Centre, having trialled other training models including online training and sending workers away for extended periods, said the flexible approach of the program is what makes it unique and best suited to the company's business needs

*"The Program not only provides us skilling of our existing tradespeople but it offers a genuine career path for our electrical apprentices to ensure a continuous flow of qualified workers for plant areas as well as higher retention rates," Kerry said.*

*"This training as a key element of our workforce planning and retention strategy,"*

Superintendent of Electrical Maintenance for the Copper Concentrator, Monica Joseph who has seen 5 of her team undertake the training is delighted with the outcomes of the program so far.

*"This program is certainly delivering the benefits we are looking for with minimum interruption to our operations," Monica said.*

The achievements of the joint venture were recognised when the SAGE and RMIT Venture won the Innovation Award in the Kinetic 2012 Training Awards. These awards are the most prestigious recognition program for training and skilling in the resources sector and celebrate exceptional dedication and innovative practices.

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## Projects

Innovative engineering solutions for industrial automation and control



## Manufacture

World class custom control and power switchboard systems



## Service

Fast response 24/7 support from specialist technicians



## Business Optimisation

Lean business solutions delivering tangible results

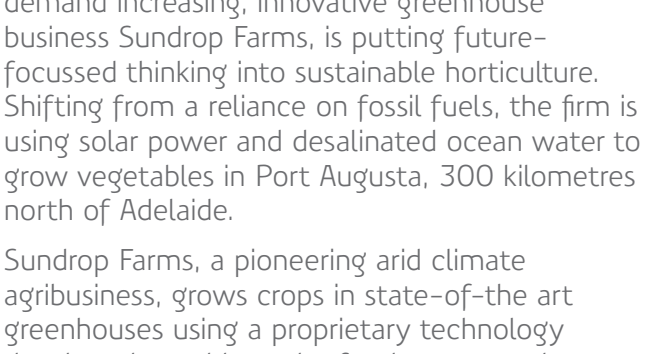


## Training

Upskilling today's workforce with enhanced industrial technology skills



## Manufacture



### Revolutionising agriculture in arid climates with cutting edge technology

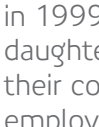
With our climate becoming drier and food demand increasing, innovative greenhouse business Sundrop Farms, is putting future-focused thinking into sustainable horticulture. Shifting from a reliance on fossil fuels, the firm is using solar power and desalinated ocean water to grow vegetables in Port Augusta, 300 kilometres north of Adelaide.

Sundrop Farms, a pioneering arid climate agribusiness, grows crops in state-of-the-art greenhouses using a proprietary technology developed to address the food, water, and energy security issues typical to arid regions. The approach uses solar power to create the heat, electricity, and desalinated water needed to support the growing operations. Global investment firm KKR is partnered with Sundrop Farms and is providing growth capital to the company to support its international development and to expand its current facility in South Australia. This will result in a 20-hectare greenhouse facility that will produce more than 15,000 tons of vegetables annually for markets across Australia.

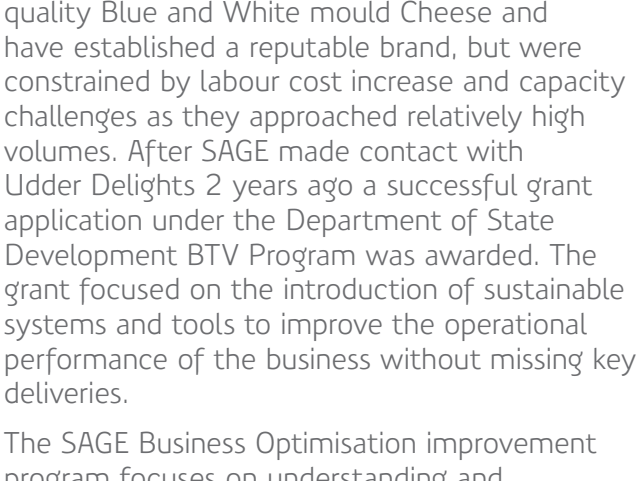
The site's energy capture process uses approximately 24,000 of eSolar's tracking mirrors (heliostats) to harvest solar thermal energy. The energy is stored and then used around the clock to power the entire operation, control the temperature inside the greenhouse and drive a thermal desalination process. eSolar is a California-based leading developer of modular, scalable concentrating solar power (CSP) technology to the global market. The heliostats track the sun, redirecting and focusing solar energy to a tower-mounted receiver system provided by Aalborg CSP A/S, a world leader in concentrated solar power (CSP) boiler systems and technologies.

SAGE has been engaged by eSolar to design, construct and test the heliostat power distribution and communication enclosure for the operation. The enclosure contains rack-mounted backup battery management, custom electronics, network and server gear, power distribution panels and a control panel. The facility is expected to be operational in early 2016.

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## Business Optimisation



### Meet some folks passionate about cheese production

Udder Delights was established in the Adelaide Hills town of Lobethal by Trevor Dunford and his late wife Estelle as a goat cheese factory in 1999. Under the expert guidance of their daughter Sheree and her husband Saul Sullivan, their company has grown consistently and now employs over 25 people in the Adelaide Hills town of Lobethal.

Udder Delights have been making high quality Blue and White mould Cheese and have established a reputable brand, but were constrained by labour cost increase and capacity challenges as they approached relatively high volumes. After SAGE made contact with Udder Delights 2 years ago a successful grant application under the Department of State Development BTU Program was awarded. The grant focused on the introduction of sustainable systems and tools to improve the operational performance of the business without missing key deliveries.

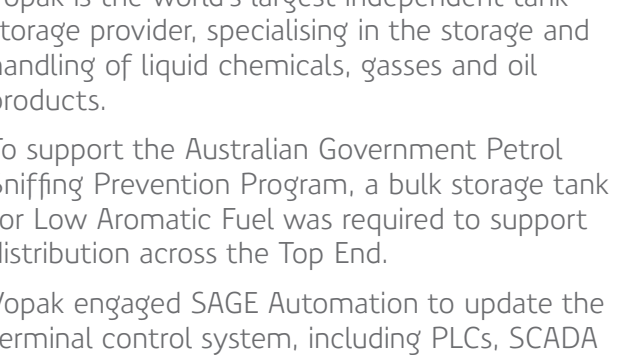
The SAGE Business Optimisation improvement program focuses on understanding and improving manufacturing opportunities for businesses like Udder Delights. SAGE worked with Udder Delights to create a detailed project plan with improvements across the site including milk pasteurisation, material handling, stock management and improved workspace arrangement for efficiency under a 55 program. A key outcome of the program was the monitoring of milk parameters (Fat and Protein) to produce a more consistent size cheese that will enable Udder Delights to be ready for larger scale packaging automation. In addition improving the ability to reduce the costs of transport, rationalise the heat and energy wastes by changing to a new pasteurizing process will cut significant costs in the production of cheeses as the company grows.

We asked Saul to comment on the work so far "Working with SAGE has been eye-opening. Their insight and knowledge to optimize our systems and processes has completely surpassed our expectation. Their approach to continuous improvement has been well embraced by management and staff – which is testament not only to their intellect but also their interpersonal skills. We look forward to seeing what our business looks like at the end of this project – where a more systematic and effective operation will take the place of manual processes while ensuring our artisan integrity is not compromised. A big thank you and well done to SAGE Business Optimisation."

[FIND OUT MORE ABOUT SAGE BUSINESS OPTIMISATION PROGRAMS HERE](#)

[FIND OUT MORE ABOUT UDDER DELIGHTS CLICK HERE](#)

## In Other News



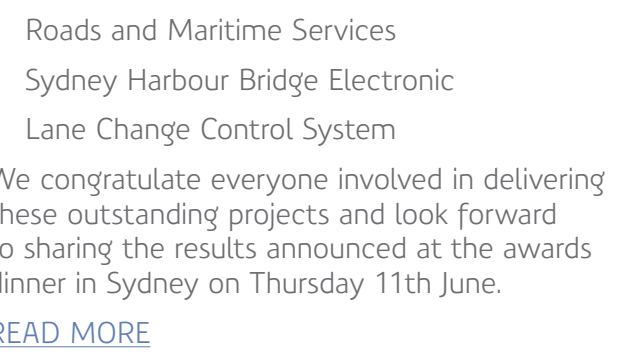
### Supporting the introduction of low aromatic fuel for the Top End

Vopak is the world's largest independent tank storage provider, specialising in the storage and handling of liquid chemicals, gasses and oil products.

To support the Australian Government Petrol Sniffing Prevention Program, a bulk storage tank for Low Aromatic Fuel was required to support distribution across the Top End.

Vopak engaged SAGE Automation to update the terminal control system, including PLCs, SCADA and safety systems, to integrate this new tank.

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### 2015 Process and Control Engineering (PACE) Zenith Awards

Now in its 12th year, the PACE Awards recognised the achievements of Australian engineering companies and individuals for the contribution to Australian Industry.

SAGE is proud to have been named a finalist in two categories;

\* Water and Wastewater

City West Water

Enterprise SCADA Replacement

\* Transport, Power and Infrastructure

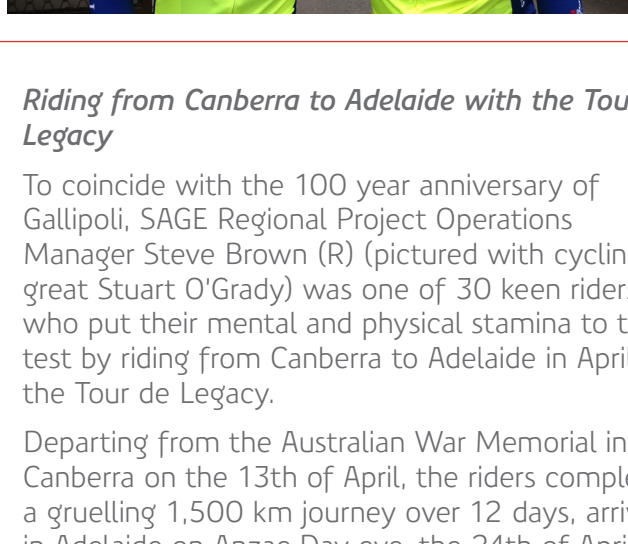
Roads and Maritime Services

Sydney Harbour Bridge Electronic

Lane Change Control System

We congratulate everyone involved in delivering these outstanding projects and look forward to sharing the results announced at the awards dinner in Sydney on Thursday 11th June.

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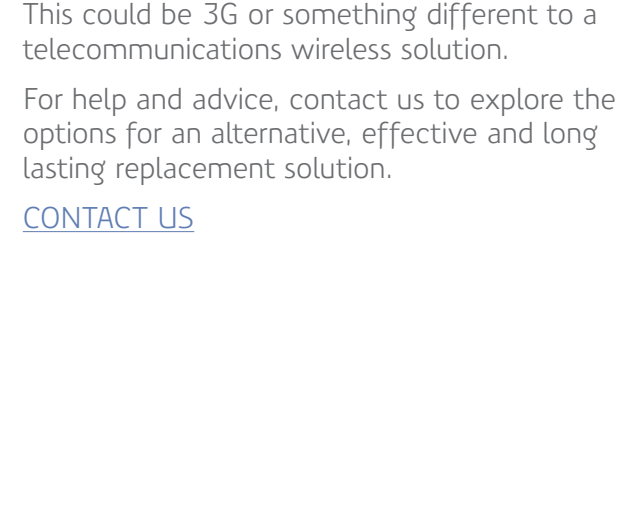


### Riding from Canberra to Adelaide with the Tour de Legacy

To coincide with the 100 year anniversary of Gallipoli, SAGE Regional Project Operations Manager Steve Brown (R) (pictured with cycling great Stuart O'Grady) was one of 30 keen riders who put their mental and physical stamina to the test by riding from Canberra to Adelaide in April on the Tour de Legacy.

Departing from the Australian War Memorial in Canberra on the 13th of April, the riders completed a gruelling 1,500 km journey over 12 days, arriving in Adelaide on Anzac Day eve, the 24th of April. The 30 riders, raised in excess of \$155,000 for Legacy.

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### The 2G GSM network to close by the end of 2016

Many businesses rely on GSM modems for applications such as telemetry and paging. Telstra has recently announced that it will be shutting down the service that these type of devices need to communicate at the end of 2016.

How does this affect my business? As with past changes, a new medium or technical solution is required to continue your ongoing operations. This could be 3G or something different to a telecommunications wireless solution.

For help and advice, contact us to explore the options for an alternative, effective and long lasting replacement solution.

[CONTACT US](#)