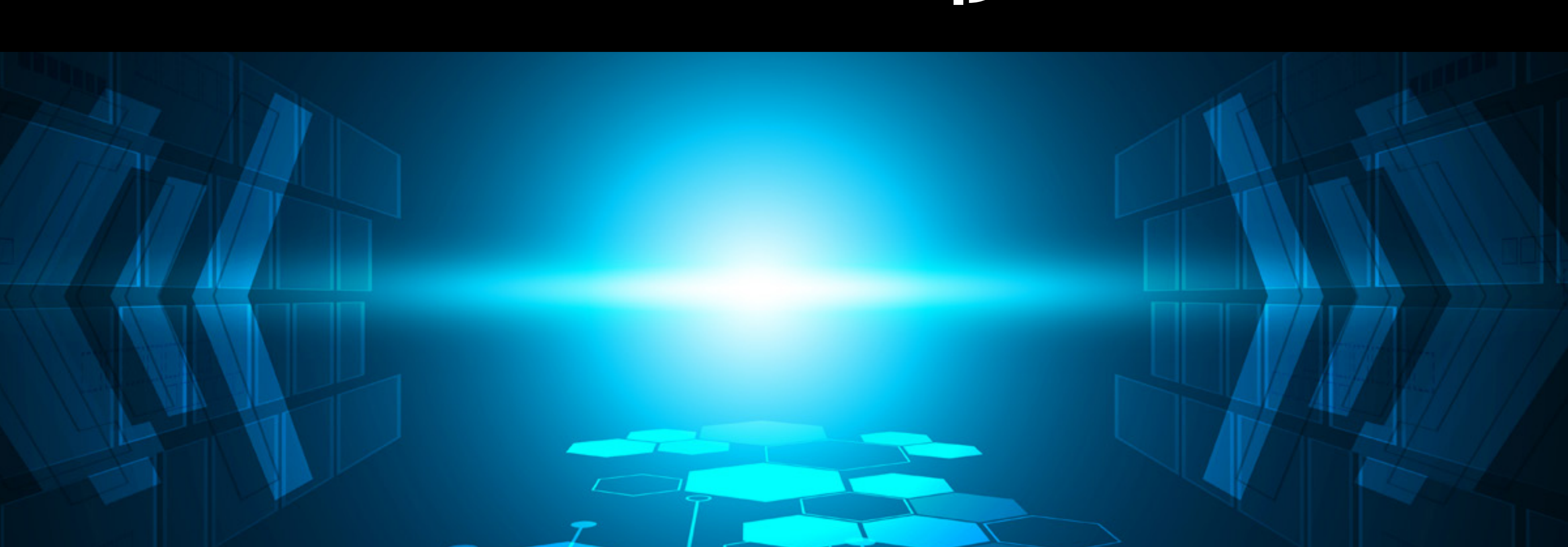
OPEN IIoT



What in the World?

No one could have predicted the extraordinary impact that COVID-19 would have on the world a few months ago. If anything, it's taught us lessons that we will carry with us for the rest of our lives. Time is precious, life is uncertain, and that things are not always in our control.

While this journey is one of compassion, unity and humanity, the real task now lies in rebuilding and reaccelerating our economy. The local and the global economy ..will soon have to cross our biggest hurdle to fix what is broken and quickly!

AI was deployed during COVID-19 to teach computers to use big data-based models for pattern recognition, explanation, and prediction. These functions can be useful to recognize, predict, and explain COVID-19 infections, and help manage socio-economic impacts. Once this virus has left our news headlines and the world starts to heal, AI and Industry 4.0 technologies will be more in demand than ever before.

Fact. Industry 4.0 is no longer a buzzword. As we rebuild, it will be used to increase efficiencies, ensure quality and improve processes. When we get the green light, manufacturers will need to figure out how to meet demand and make profits, quickly… and this is where IIoT technologies come in.

For those who haven't yet deployed such technologies or for those who have questions on how these technologies can be used post-COVID-19 lockdown, get in touch with our team.

Our teams are working remotely and available for virtual meetings during this time!

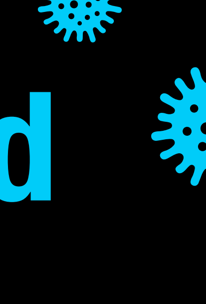
For now, we wish you all the best and here's to some light at the end of this tunnel!

COVID-19 & IIoT, What We've Learned

Advice from our panel

Nick Psahoulias

Jim Wallace



Jozef Ceh

Max Jarmatz

Richard Roberts

What do you wish you knew pre-COVID-19?

Max Jarmatz of NORD DRIVESYSTEMS: We've learned a lot from past disruptive events like the economic crisis in 2008 or the supply chain interruption after the Fukushima disaster. In the aftermath, we have decentralised our production, built up second source suppliers and increased our stock levels. Our highly automated production centres already rely heavily on robots and can be run even without the presence of human workers for some time.

Nevertheless, every crisis requires a company to adapt to exceptional circumstances. We are now changing our supply chain from air-to-sea freight which is almost not affected by COVID-19.

The COVID-19 pandemic has put major pressure on companies' supply chains. How can we optimise our supply chain to bolster local manufacturing in future?

Jim Wallace of Balluff: Traceability and real-time visualisation of the supply chain is critical at times like this to allow flexibility and fast reaction to demands. RFID systems, barcode information and software integration to ERP systems are critical to achieving this goal. In addition, traceability of employees is very important. Who was working on which machine at what time, producing which batch of which product?

The top 3 takeaways from this pandemic in relation to the manufacturing sector.

Jozef Ceh of SMC Corporation ANZ: We need to analyse our production lines to ensure that they are three things: flexible, functional and digital, moving forward.

Changing a production line to produce more units, multiple variations or a completely different product at a rapid speed has called for consideration of modular and scalable production lines. In terms of functionality, it is becoming more apparent that if each product, from the central processor right down to the sensor level, can possess more individual parameters that may allow for a greater functional scope and reduced physical changes.

Digitally, having real-time systems and flow of data from the whole process provides a complete picture which integrates with the CRM or ERP. Leads to more accurate forecasting, production planning, use of resources and more efficient production in terms of cost of production, energy use, waste management and production capacity.

Do you believe that the future supply chain will be influenced by the COVID-19 crisis and why?

Nick Psahoulias of Beckhoff: Every supply chain, regardless of the level of automation, requires human involvement. From companies who are required to reduce the number of staff that can work together, to airlines grounding their craft, and distribution networks that become more separated; the pressure mounts on the remaining industries and services to work overtime to keep up. In a year from now, we will be working differently. We will better understand the need to be able to react quickly to these events, and how our supply chain must be more flexible and resilient. Also, the ability to second-source or locally-source the raw materials needed to sure up the supply chain.

7 steps to implementing an IIoT plan, quickly

Richard Roberts, ZI-ARGUS:

1. Consult with Industry 4.0 experts to understand what Industry 4.0 can do for your people and your business.
2. Identify areas in your processes and plant that can directly benefit from Industry 4.0 solution.
   a. Measure these areas to take a snapshot of the now, this will act as a KPI to measure successful implementation.
3. Generate a scope of works to implement I4.0
   a. Break it down into phases, each successful phase leading onto the next.
   b. Earmark local subject matter specialists to liaise with I4.0 experts to assist in the transition.
4. Engage Industry 4.0 Experts to implement these phases:
   a. Measure each phase upon completion comparing the changes changes according to the KPI's.
5. Educate local staff members on the tools used in the Industry 4.0 solution
6. Continue measure to ensure the solution is still making an impact on process/ production.
7. Be open to simplicity for a solution and define budgets to accommodate. Consider an operation costing model to support on-going development and implementations rather than a traditional capital costing model.

Comments by the team on the feasibility of a 'lights out operation' for in-demand items such as hand sanitiser, rice, pasta and toilet paper:

Nick Psahoulias of Beckhoff Automation: Many industries can adopt a lights-out approach, especially those in the distribution of fast-moving consumer goods (FMCG). Fully automated warehouses have been utilised for many years and have proven themselves to be far more reliable and timelier than those using traditional manual pick-and-pack methods. By harnessing the power of live-data and automated picking machines, the process of getting goods out the door, safely and accurately, benefit both the consumer and the supplier.

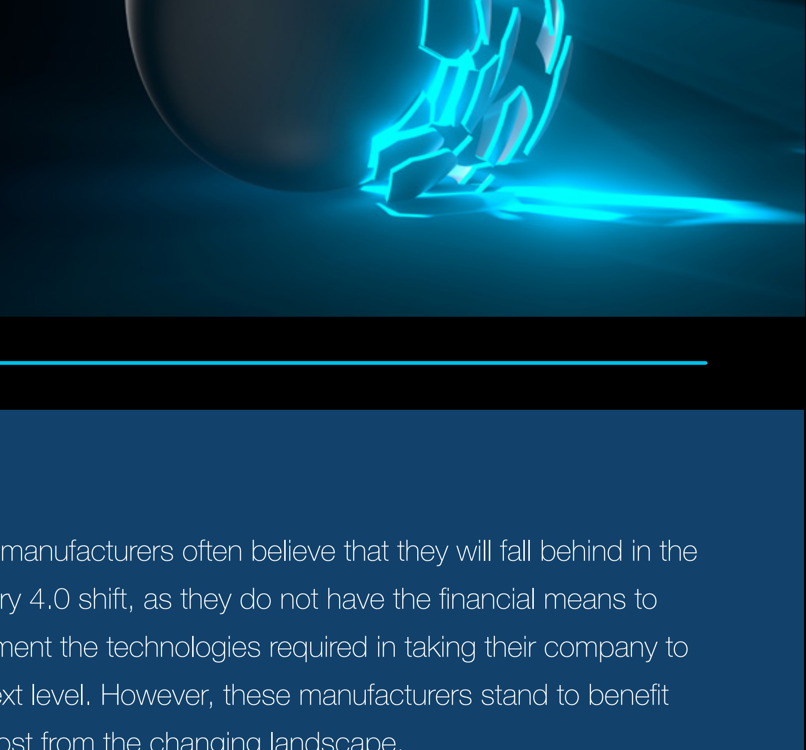
Max Jarmatz of NORD DRIVESYSTEMS: Many of our customers in these industries now run three shifts, including weekends and heavily rely on their equipment manufacturers. NORD has received an essential supplier status in EUROPE to keep producing and support our global customers.

Jim Wallace of Balluff: We are also seeing fast-moving suppliers re-purpose production lines to manufacture some of these products with massive demand. Industry 4.0 concepts of flexible manufacturing and lot size 1 help in this transformation. The fewer components that need to be physically changed or adjusted, the faster the goal can be achieved.

Comments by the team on how COVID-19 will impact local manufacturing.

Nick Psahoulias of Beckhoff Automation: COVID-19 will surely influence local manufacturing. However, I believe this impact can be mitigated if both the state and federal governments can better support local manufacturing, by introducing incentives, subsidies, concessions and removing the costly red tape that is needed to manufacture goods locally.

From our family to yours, wishing you a wonderful Easter!



DID YOU KNOW?

Small manufacturers often believe that they will fall behind in the Industry 4.0 shift, as they do not have the financial means to implement the technologies required in taking their company to the next level. However, these manufacturers stand to benefit the most from the changing landscape.

https://openiiot.com.au/why-small-manufacturers-are-uniquely-suited-for-the-digital-era/

We're Famous

Our relationship with **Retail Media** has grown leaps and bounds since our inception. Check out our cover feature in this month's Retail World as well as our double page spread which explores AI in manufacturing & Industry 4.0 implementation advice.

In Other News

What does AI mean to manufacturing and how can it be used to deliver commercial value?

Open IIOT asked Dr Zygmunt Szpak, a senior research associate at the Australian Institute for Machine Learning, to explain the topic in a nutshell.

Read the full article here: https://openiiot.com.au/what-does-artificial-intelligence-mean-for-manufacturing/

STAY IN TOUCH

Postponed Events

Our roadshows and event appearances for this year have been delayed. Keep watching our LinkedIn page for event updates.

Follow us on LinkedIn https://www.linkedin.com/company/open-iiot-australia/