

PRESS RELEASE

2019-01-30

For Immediate Use

Building a business case for Industry 4.0 – Convincing your stakeholders



Much noise has been made about Industry 4.0 and the global movement towards connected factories, but the reality is that here in Canada, things are moving a lot slower – and rightly so.

For drives and controls expert, Bosch Rexroth, the fourth industrial revolution isn't actually a revolution at all, but rather a period of logical and essential evolution – an evolution doesn't happen overnight.

Here, Andrew Minturn, Strategic Product Manager at Bosch Rexroth, explores the first – and critical – phase of transitioning towards a connected facility: stakeholder engagement.

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca

PRESS RELEASE

2019-01-30

For Immediate Use

The concept of Industry 4.0 was first coined in Germany in 2010, with the manufacturing superpower leading from the helm with the implementation of digitized factories, connected plant and more importantly, a connected supply chain. Here in Canada, progress is slower, with most successful penetration points to date being the result of a Canadian subsidiary pushed towards digitization by their German or Japanese based head offices.

Many surveys and studies have revealed that there is reluctance and even a suspicion towards implementation of data-driven facilities and a lack of education amongst stakeholders has been identified as one hindrance to progress.

The situation right now

Whilst the “Factory of the Future” has gained much media attention in recent years, this has largely caused a sense of manic for many facilities who think they need to completely digitize their facility overnight – a task which would be near impossible for even the most well-resourced business.

Media hype aside, the situation right now in Canada is a smart manufacturing, connected equipment, data-driven facility management and a connected supply chain are all on the horizon. Evolution has started, and you must factor it in to your growth strategy in order to maintain your market position.

That said, industry leaders like Bosch Rexroth are promoting a steady, strategic, step-by-step approach to fully connecting a facility. A process which Rexroth itself has undertaken and successfully completed. The first stage to this strategy is to convince reluctant stakeholders to engage with the possibilities of Industry 4.0 in process of education and information sharing.

Let’s look at five areas of buy-in which many facilities could focus on during this early, but critical, stakeholder engagement phase:

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca

PRESS RELEASE

2019-01-30

For Immediate Use

Understand that evolution is possible, even for ageing manufacturing environments

The notion that a process facility is too large or too old to evolve in favour of digitization is unfortunately a common one and is a mindset that must be challenged if stakeholders are to engage with and support industrial connectivity.

Whether a facility chooses to take granular approach to Industry 4.0 implementation, or prefers the idea of a complete digital switchover, it is important to remember that digital technologies are highly scalable and can match even the largest, most complex of production environments.

Even legacy machinery equipment which at first glance, doesn't lend itself to machine communication and data sharing can often be bought inline too, with a variety of technologies on the market designed to support the digitization of ageing infrastructure. For many reluctant stakeholders, this offers reassurance over CAPEX investments in the early stages of any Industry 4.0 strategy.

Customer and supply chain demands will require connectivity

The gold standard in Industry 4.0 is not that of a digitized factory, but of a digitized supply chain; something which the automotive industry in particular is keen to adopt. It has been suggested by many early adopters that before long, the ability to "plug in" to an Industry 4.0 ready supply chain will become a "qualifier to compete", and those who are unable to connect in this way will face losing out on valuable customer contracts.

A connected supply chain maximizes efficiencies and profit for the entire route to market and is the only viable way industry will be able to meet the demands of the more convenience-led, digitally-minded customer profile of the future.

Working within a fully automated supply chain allows suppliers and logistics providers to view data gathered and analyzed at plant level so they can adjust their performance in accordance with real-time production requirements. Further downstream, there could be additional automated

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca

PRESS RELEASE

2019-01-30

For Immediate Use

communication with delivery providers and the customer, generating lean efficiencies for OEMs.

Failing to show your commitment to this process of evolution will, in the medium-to-longer term, damage supply chain relationships and leave you unable to service the demands of connected customer demanding the ultimate in efficiency and convenience.

Data-driven maintenance and process system health

At plant level, real-time gathering and processing of data from sensors not only enables production quality checks at the point of manufacture and economical batch size reduction, but also facilitates accurate machine and system health checks and continuous monitoring.

With instant, and even remote, access to this information, repairs and maintenance can be predicted and scheduled in to natural production breaks, to prevent costly plant downtime or worse, unplanned system failure.

A slow and strategic approach will maintain outputs and deliver optimized results

The idea of delivering a complete digital overhaul of a process facility is simply unreasonable and would most likely require a considerable period of system shutdown to initiate; a cost and inconvenience which most facilitates simply couldn't offset.

A more successful approach is a slow and high strategic step-by-step process, which enables businesses enough time to make well-researched and well-considered decisions. Remember, this is evolution, not revolution – a message which must be made clear when vying for stakeholder buy-in.

Identifying the correct connectivity implementation partners, and carefully assessing each area of the process line to outline where efficiencies could be realized and which machinery holds the largest potential ROI are time consuming but completely vital tasks that should not be rushed.

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca

PRESS RELEASE

2019-01-30

For Immediate Use

Sensors are a sensible start for gathering data and identifying opportunities for improvement

Contrary to what much of the media hype might have us believe, the right place to start your journey towards connectivity is in fact data gathering via sensors, which are fitted onto a cell, machine or tool. These sensors are connected to software which, once correctly installed, can measure variables such as temperature, pressure, vibration and power consumption.

It is important to work with a leading provider to assess, install and help you to interpret the process data you gather, in order to shape your ongoing digitization strategy.

Once process data gathering is in place, businesses can choose to enhance the capabilities of their in-situ sensors, through the integration of “higher-level systems” which will facilitate the collation and display of data in real-time. This can lift your connectivity implementation from a simple “plug and play” function to something which is more integral to the business’s overall infrastructure and processes.

The benefits of starting with data collection and interpretation is clear. It provides businesses with their first taste of a connected environment, and an inside view to the machines they rely on daily, it also enables decision makers and strategy facilitators to validate their connectivity plans before requesting additional CAPEX or larger scale evolutionary improvements.

Engaging with stakeholders on the evolution of a process facility towards Industry 4.0 can be daunting, but make no mistake; failure to move in favour of connectivity will result in loss of revenue and ultimately reduced market share. Early adoption and a slow, strategic, step-by-step approach, under the guidance of a class-leading industrial connectivity specialist, is a proven recipe for success. For more information on sensors and other Industry 4.0 technologies, click [here](#)

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca

PRESS RELEASE

2019-01-30

For Immediate Use

About Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation. With its intelligent components, customized system solutions and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, more than 30,500 associates generated sales revenue of 5.5 billion euros in 2017.

To learn more, please visit www.boschrexroth.ca

About Bosch

Having established a regional presence in 1906 in North America, the Bosch Group employs nearly 34,500 associates in more than 100 locations, as of December 31, 2017. In 2017 Bosch generated consolidated sales of \$13.7 billion in the U.S., Canada and Mexico. For more information, visit www.bosch.ca

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros (\$88.2 billion) in 2017. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 125 locations across the globe, Bosch employs some 64,500 associates in research and development.

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca

PRESS RELEASE

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, www.twitter.com/BoschPresse.

2019-01-30
For Immediate Use

Contact for Journalists:
Bosch Rexroth Canada
David Lopes
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6043
Fax (905)335-4184
david.lopes2@boschrexroth.ca

Bosch Rexroth Canada
Karen Maiden
3426 Mainway Drive
Burlington, ON
Telephone (905) 315-6044
Fax (905)335-4184
karen.maiden@boschrexroth.ca