Touch your smart badge where you see this icon to track your attendance across the event.
Welcome to Manufacturing Leaders’ Summit, the UK’s longest-running manufacturing conference – and for the many returning delegates and speakers, it’s good to see you again.

Over the years we have seen many shifts in emphasis in the discussions that take place at this conference – as we paid attention to the rebirth of High-Value Manufacturing, offshoring and reshoring, talent acquisition, and now the opportunities and challenges presented by the next wave of digital transformation.

One thing has, however, remained constant: You. The level of engagement we have been able to maintain with senior executives in UK manufacturing has been a testament to the hard work of my predecessors (one of whom, Nicholas Cox, is on hand to assist me over the next two days), but also to the value you place on learning from, benchmarking with and networking among your peers.

This year’s Manufacturing Leaders’ Summit has intentionally upped the ratio of speakers to delegates, as we seek to provide the best possible platform for you to discuss the challenges and opportunities in the year ahead.

Our new-and-improved ‘Discussion Table’ format enables you to pick three discussion tables each day to spend time leaning in with your peers on some of the issues that matter most to you and your team. NB. Please do remember to tap your badges on the RFID receivers so that we can keep track of the popularity of the discussion tables.

The conversations you have at Manufacturing Leaders’ Summit are at the heart of Digital Manufacturing Week, the UK’s annual celebration of advanced manufacturing.

However, we have ensured that there remains plenty of time during lunch, and at the end of each day, for you to visit the adjacent Smart Factory Expo – Europe’s biggest digital manufacturing exhibition. This is your opportunity to see many of the concepts being discussed at Manufacturing Leaders’ Summit, put into action on the exhibition floor.

As you spend time in Smart Factory Expo, please note that your status as a delegate allows you to access our VIP Lounge on the exhibition floor during the breaks – where you can recharge, and grab yourself a tea or coffee.

Also part of the Digital Manufacturing Week festival of advanced manufacturing are our two awards evenings. Join us for the reveal of The Manufacturer Top 100 2019 on 13 November at 18:00 (free for manufacturers) and for The Manufacturer MX Awards Ceremony & Gala Dinner on 14 November at 18:15 (separate tickets required).

It just remains to thank our sponsors and partners, without whom we would not be in a position to discuss these key issues today – and to wish you a very successful conference.

Best wishes,

Ashley Oulton
Conference Director, The Manufacturer
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<tr>
<th>Time</th>
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<tr>
<td>8:30</td>
<td>Registration</td>
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<tr>
<td>9:00</td>
<td>Doors open</td>
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<td>9:15</td>
<td>Chairman’s Welcome</td>
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<td>Steven Barr, Managing Director, Edge Digital Manufacturing</td>
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<td>Henrik Von Scheel, Originator of Industry 4.0</td>
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<td>Keynote - What Does it Take to Deliver a Sustainable Business?</td>
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<td>John Kitchingman, Managing Director, EuroNorth, Dassault Systémes</td>
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<td>Nigel Pekenc, Director, Manufacturing Centre of Excellence, A.T. Kearney</td>
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<td>Matt Cadieux, Chief Information Officer, Aston Martin Red Bull Racing</td>
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<td>Keynote - Hype v Reality in Innovation</td>
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<td>Mike Bristow, VP Operations JLR and COO Manufacturing Logistics, DHL</td>
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<td>Chairman’s Closing Comments</td>
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<td>Scheduled Visit to Smart Factory Expo</td>
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DAY TWO AGENDA: 14.11.19

8:30  Doors open
9:00  Chairman's Welcome
      Steven Barr, Managing Director, Edge Digital Manufacturing
9:10  Keynote - Manufacturing the Future – Made Smarter
      Andrew Schofield, Manufacturing & Materials Technology Director, BAE Systems
9:25  Keynote - How is the UK’s Fourth Industrial Revolution progressing and what are the latest industrial digital technology challenges and opportunities?
      Brian Holliday, Managing Director, Digital Industries, Siemens
9:40  Discussion Session 4
10:25 Keynote - Scale Digital in Manufacturing
      Ralf Schulze, Associate Vice President, IoT Works Business Innovation Group Manufacturing Europe, HCL Technologies
10:40 Keynote - How Digitalisation, Industry 4.0 and Cobots have turned BMW Mini into a Smart Factory
      Martin Koch, General Manager Production Control, Process Improvement, Installations and Maintenance, BMW Group Mini Plant Oxford
10:55 Keynote - Realising the Promise of AI
      Chris Harries, Industry Solutions Director, WW Manufacturing Industry, Microsoft
11:10 Coffee Break and Networking
11:40 Panel Discussion – Building Competitive Advantage
      Darren Jukes, Leader of Industry for Industrial Manufacturing Services, PwC
      Carl Haycock, UK Operations Director, Domino Printing Sciences
      Andrew Wall, Head of Project Data Management, Airbus Defence & Space
      Marco del Seta, Head of Digital, BOC
12:00 Keynote - The Joy of Big Data
      Nigel Moulton, Global Chief Technology Officer, Dell Technologies
12:15 Discussion Session 5
13:00 Keynote - 5 Key Lessons in Monetising Digital Products
      Peter Colman, Partner, Simon-Kucher & Partners
13:15 Lunch
14:00 Discussion Session 6
14:45 Chairman's Closing Comments
15:00 Visit to Smart Factory Expo
16:00 Summit and Expo Close
Keynote Synopsis – DAY 1:

09:25 Manufacturing our Future: Joining the Dots
This is an extraordinary time for the UK economy and for UK manufacturing. Political and economic uncertainties, coupled with ever more complex and fast-paced technical change presents numerous challenges for manufacturing firms of all sizes in all sectors. Much of UK manufacturing has the potential to not only weather these storms but also to create and capture new sources of value, and to strengthen capabilities to be able to respond to future changes. However, there are some critical factors that may prevent this potential from being realised. This talk will focus on three issues:
- The impact of the changing technical, business and policy context for UK manufacturing;
- Reasons to be positive about UK manufacturing and its potential role in the global economy;
- How strengthening linkages between organisations and activities could deliver a stronger UK manufacturing ‘ecosystem’.

Speaker: Professor Tim Minshall, Dr. John C. Taylor Professor of Innovation & Head of the Institute for Manufacturing, University of Cambridge

09:40 Putting the Industrial Internet to Work: How to Start, Where to Focus
Digital technologies will not only help manufacturers build their Factories of the Future, they will be an key enabler of the Circular Economy. Hear about key global trends in the digital transformation of manufacturing, how the Circular Economy can be enabled by ‘going digital’ and how GE Digital’s customers are already optimizing their activities using industrial data – delivering productivity gains that support their sustainability, financial and operational goals.
- Learn how digital technologies help manufacturers play their role in the Circular Economy
- Identify where to focus your next digital initiative
- Hear how global manufacturers have achieved real ROI from their digital investment.

Speaker: Matthew Wells, VP Digital Product Management, GE Digital

10:40 Move Beyond the Smart Factory Hype to Deliver Business Value
The epicentre of the 4th industrial revolution is manufacturing, it has reshaped the way things are made and it is changing the manufacturing sector beyond recognition. Explore with the Industry 4.0 originator what Industry 4.0 is, why it matters and how to apply it in your Smart Factory journey. Discover how to take advantage of the next generation of Operational Excellence, Supply Chain 4.0 and Smart Automation to name a few.

Speaker: Henrik Von Scheel, Originator of Industry 4.0

11:10 Setting the Stage for Digital Success
Stage One designs and fabricates innovative solutions for the creative industries. Their ability to solve problems in unusual ways sets them apart from their competitors, as does their continual investment in digital technologies. But how can a business with fabrication at its core transition to a more innovation and knowledge-based approach? Asif Moghal of Autodesk will share how the company used digital to enhance its capabilities, and the impact this had on their products.

Speaker: Asif Moghal, Senior Industry Manager – Design & Manufacturing, Autodesk

12:25 What Does it Take to Deliver a Sustainable Business?
While for the last 30 years, productivity, profitability and efficiency have been at the centre of how companies are managed, increasingly, all companies, from start-ups to international corporations now pay attention to business sustainability.
- What is the meaning of business sustainability?
- Which factors undermine longevity and inhibit sustainable growth?
- Which qualities characterise enduring companies and enable them to survive and thrive?
- How are business models and cultures evolving to build agility and sustain organisations?

Speaker: John Kitchingman, Managing Director, EuroNorth, Dassault Systèmes

Today’s global value chains and the end-to-end processes that underpin them, from raw material extraction and processing through to consumer fulfilment and end-of-life disposal, reuse or recycling, have been built on a paradigm of localised production nodes and globalised flows. But what will happen to the role of production when the Fourth Industrial Revolution and the other trends restructure the paradigm on which global value chains have been built? We propose a new framework to help all key stakeholders think through the implications of the ongoing transformations of Global Value Chains for their industrial development and investment strategies.
- Three global mega-trends are driving a paradigm shift in the shape of GVCs, from raw material extraction to final distribution – emerging technologies; the environmental sustainability imperative emerging from the accelerating global climate emergency and the reconfiguration of globalisation.
- These trends will shift where value is created, how trade will be distributed across geographies and what the relative
Keynote Synopsis

Manufacturing the Future – Made Smarter
The manufacturing challenges facing next-generation aircraft will be presented together with the focus on the technologies that are required to address them. Examples of how Made Smarter is helping with this and how BAE Systems are supporting the initiative.

Speaker:
Andrew Schofield, Manufacturing & Materials Technology Director, BAE Systems

How is the UK’s Fourth Industrial Revolution progressing and what are the latest industrial digital technology challenges and opportunities?

Speaker:
Andrew Schofield, Manufacturing & Materials Technology Director, BAE Systems

Accelerating Performance on and off the Track with Hewlett Packard Enterprise
Matt Cadieux, CIO at Aston Martin Red Bull Racing, will bring to life how HPE technologies are accelerating the team on and off the track. He will focus on the challenges faced by the team in order to achieve maximum performance at each race. Not only is this a logistical challenge but a design and manufacturing challenge too, with hundreds of new components being redesigned and manufactured for each race from the Team’s factory in Milton Keynes. With limited on-track testing, Matt will outline how the Digital Twin and testing in the virtual world has become increasingly important in this process.

Speaker:
Matt Cadieux, Chief Information Officer, Aston Martin Red Bull Racing

Hype v Reality in Innovation
Mike brings insights into DHL’s latest edition of the Trend Radar, which captures the development of society, business and technology trends. He will pick out some real-life case studies and draw from his own experiences to provide insight and guidance on the reality of taking the aspirational and constantly changing world of technology into the practical world of logistics. And what are your expectations from your logistics provider?

Speaker:
Mike Bristow, VP Operations JLR and COO Manufacturing Logistics, DHL

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How is the UK’s Fourth Industrial Revolution progressing and what are the latest industrial digital technology challenges and opportunities?

Speaker:
Andrew Schofield, Manufacturing & Materials Technology Director, BAE Systems

10:25
Scale Digital in Manufacturing
A growing number of manufacturers have embarked on their digital journeys cutting across IT, OT and Data. The vision, approach, and outcomes are quite different. This session focuses on lessons we have learned jointly with our customers in innovating and scaling digital and some best practices.

Speaker:
Ralf Schulze, Associate Vice President, IoT Works Business Innovation Group Manufacturing Europe, HCL Technologies
10:40
How Digitilisation, Industry 4.0 and Cobots have turned BMW Mini into a Smart Factory
Martin Koch, General Manager at the BMW Group MINI plant Oxford, will give an overview of the innovation and digitalisation areas of the BMW group production system. He will provide insights on the field of collaborative robots, their differences to known automation and successful examples of integration into series production. To conclude his presentation he will give some guidance on how to transform an existing production system into the digital age.
• Clusters of innovation and digitalisation in an automotive production system
• Why and where to use collaborative robots
• How to transform your production system into the digital age

Speaker:
Martin Koch, General Manager Production Control, Process Improvement, Installations and Maintenance, BMW Group Mini Plant Oxford

10:55
Realising the Promise of AI
Manufacturing plays such a central role in the global economy, and it’s a field where the promise of AI is so clear, driving productivity, growth and employment. But with the manufacturing sector being among the first to reap the benefits of AI at scale, manufacturers will also find themselves at the forefront of responding to some of the challenges of AI, from skills to culture to ethics and responsibility. It is these responses that will define our individual and collective success.

Speaker:
Chris Harries, Industry Solutions Director, WW Manufacturing Industry, Microsoft

12:00
The Joy of Big Data
As manufacturing industries embrace digital technologies and processes, one topic continues to dominate the agenda: Big Data and what to do about it. This session will examine current thinking around this topic, and lessons learned from other industries that are employing big data techniques to benefit their businesses.

Speaker:
Nigel Moulton, Global Chief Technology Officer, Dell Technologies

13:00
5 Key Lessons in Monetising Digital Products
The value of digital goods and services as a proportion of the economy has grown dramatically over the past decade. In virtually every sector, mastering both the art and science of “monetising digital” is becoming the deciding factor between strong profit growth and competitive irrelevance. Particularly for manufacturers, shifting to a world of minimal marginal cost of sales renders deeply entrenched cost-plus pricing obsolete. Simon-Kucher is at the forefront of research and consulting work in helping companies develop the proposition and realise the full value of their digital offerings.

Key takeaways from this session:
• Critical success factors for defining the right digital offerings that have true profit potential
• Best-in-class practices in developing monetisation strategies for digital goods and services
• Typical sales execution challenges, pitfalls and antidotes

Speaker:
Peter Colman, Partner, Simon-Kucher & Partners

Panel Discussions:

DAY 1 - 11:55
Building a High Value Manufacturing Ecosystem
• What’s the Vision?
• Preparing your People
• Planning the Infrastructure
• Strengthening your Suppliers

Panellists:
Graham Cooper, Operations & Manufacturing Director, Agfa Graphics
Andrew Wall, Head of Project Data Management, Airbus Defence & Space
Suresh Daniel, Data & Architecture Integration Director, Coats
Neil Anderson, Managing Director, Caterpillar

DAY 2 - 11:40
Building Competitive Advantage
• Selling Expertise
• Accelerating Innovation
• Opening New Markets
• Resilient Supply Chains

Panellists:
Darren Jukes, Leader of Industry for Industrial Manufacturing Services, PWC
Carl Haycock, UK Operations Director, Domino Printing Sciences
Andrew Wall, Head of Project Data Management, Airbus Defence & Space
Marco del Seta, Head of Digital, BOC
Table 1: Global Value Chain Agility
From a demand perspective, proximity to the customer’s voice is overtaking factor costs as the main determinant of economic value for most participants in the value chain. GVCs must be tailored to deepen the sources and use of demand data, and to rapidly tailor offerings to customers’ personal preferences and priorities. Vertical disintermediation will help to connect sources of production with the customer and will serve to shorten value chains. Conversion of operating models from functional, isolated models towards cross-functional customer/channel alignments will also help GVC participants better adapt to the needs of the customer and patterns of demand.
- How would you define agility of your value chain?
- How agile is your value chain end-to-end?
- What are the key opportunities in becoming more agile?
- What are the current challenges you are facing in achieving the target agility level?

Hosts:
Matt Yeates, Supply Chain Director, Tata Steel
Antti Kautovaara, Vice President, Manufacturing Centre of Excellence, A.T. Kearney

Table 2: New Business Models for Manufacturers
Digital transformation is not a destination – it is a journey. In this roundtable session, we will examine the associated opportunities for manufacturers and how to stay relevant in a highly competitive environment. If done right, business transformation brings numerous advantages, such as revenue growth, market share growth, and transformed business models. Join our roundtable discussion to discover the journey to new business models in the manufacturing sector and the answer to the most important question: How to not only survive but thrive in a market where threats come from the most unexpected corners:
- Why and how to transform your business to stay relevant and get ahead of the competition
- How to define business objectives for digital transformation and Industry 4.0 projects
- A battle for guaranteed uptime, OEE improvement and maintenance cost reduction. How Industrial IoT can improve your performance metrics
- Do you see benefits from servitisation (building as-a-Service models)?
- What are the biggest digital transformation challenges in manufacturing?
- How to build a successful as-a-Service model? Lessons from the diamond industry

Hosts:
Jackson Bond, Co-Founder and Chief Industry Evangelist, Relayr
Sabine Mavin, RD Software & Systems for Advanced Manufacturing, Laing O’Rourke

Table 3: Factory Automation
The industry is right on the threshold of the Fourth Industrial Revolution. Automation is being followed by the digitalisation of production. The goal: an increase of productivity, efficiency, speed, and quality, resulting in higher competitiveness for companies on their way to the future of industry.
- Productivity • Efficiency • Speed • Quality

Hosts:
Suresh Daniel, Data & Architecture Integration Director, Coats
Simon Keogh, General Manager, Digital Industries, Siemens

Table 4: Field Service Automation
Business are facing many challenges around Field Services, from keeping up to date with the latest regulation changes, increased customer expectations and the growing skills gap. Enabling today’s Field Service workers to overcome these challenges through the ability to connect workers with the latest regulation, updated workflows, training material and guided tasks.
- Bringing the experience of the organisation to hand with instant access to relevant information and providing remote SME support.
- Measurement of process and tooling, operations, performance and adherence to regulations – evidence based (data, audio and video).
- Optimisation of Field Services tasks through standardisation and best practice identification while allowing for specialisations.
- Enabling the business through data analytics and insights to provide better performance, predictions and prescriptive maintenance.
- Allowing increased safety of Field Services through matching skills alignment between task and operative.

Host:
Max Hemingway, Distinguished Technologist, DXC Technology

Table 5: Manufacturing Data in the Cloud
“You can’t manage without measuring, and what is measured gets done.” This is what the leader of multi-national company with operations across the world said when asked why he was heavily investing in the cloud. How to connect dozens of data sources, located in remote plants, coming from heterogeneous systems? Three data sets are required for process optimization and analytical applications: asset data, ERP data, and manufacturing data, which makes it even more of a challenge. What if the cloud was the solution for manufacturers to consolidate the required data, run some analytics and turn it into value?
- Increase the derived value of your data by bringing enterprise-wide manufacturing data into the cloud
- Reduce your total cost of ownership
- Increase the overall performance of your operations

Hosts:
Sarah Black-Smith, Head of Factory Operation, Siemens
Bernard Cubizolles, Senior Global Product Manager, GE Digital
Richard Seel, Managing Director North America, Delaware
David Elmer, Operations Director, Puratos

Hosts:
- Delivery lead time
- Business value
- Manufacturing industry
- Customer demand
- Accuracy
- Networks. On this roundtable discussion, we'll be discussing:
  - How automation contributes to increased productivity and accuracy
  - Managing and reacting to fluctuating and unpredictable customer demand
  - The integration of machines and people in the manufacturing industry
  - Adopting innovative warehouse technologies to drive real business value
  - Enabling solutions to meet the demand for ever shortening delivery lead time

Hosts:
- David Elmer, Operations Director, Puratos
- Richard Seel, Managing Director North America, Delaware

Table 6:
Warehouse Automation
Without adapting the right warehouse systems and associated automated technologies, manufacturing businesses could be finding themselves falling behind their competitors while trying to achieve optimal customer service. With increasingly demanding consumers and the pressure to deliver accurately, fast and on time, Supply Chain Management have had to embrace automated technologies to deliver increased productivity in complex, global warehouse networks. On this roundtable discussion, we'll be discussing:

- How automation contributes to increased productivity and accuracy
- Managing and reacting to fluctuating and unpredictable customer demand
- The integration of machines and people in the manufacturing industry
- Adopting innovative warehouse technologies to drive real business value
- Enabling solutions to meet the demand for ever shortening delivery lead time

Hosts:
- David Elmer, Operations Director, Puratos
- Richard Seel, Managing Director North America, Delaware

Table 7:
Connected Manufacturing
We believe there are five critical challenges that must be overcome by IoT and industrial automation enablers. We call these banana peels because in many cases you don't see them until it's too late and before you know it you're lying flat on your back.
The first banana peel is that the solutions are incredibly complex and integrated. You're dealing with massive volumes of data. Potentially thousands of connected devices. Across multiple physical locations. Not to mention the physical footprint for equipment is getting smaller and smaller. Find out more about these challenges, discuss with peers how these affect your business and how we can address them:
- Difficulty finding technical talent
- IT Systems for rough and rugged environments
- IT Systems Product Longevity & Stability
- Cyber Security Threats
- Global Agility

Hosts:
- Andrew Wall, Head of Project Data Management, Airbus Defence and Space
- Greg Moore, OEM Enterprise Technologist, Dell Technologies

Table 8:
Talent Acquisition
One of the biggest issues facing the manufacturing industry is the war for talent, both against direct competitors, and other industries that are often seen as offering more attractive career prospects. However, for manufacturing businesses to thrive in today’s competitive economy, it’s vital to find the best employees. So how can you alter your approach to ensure you're attracting and engaging with top talent? And how do you set your business apart from your competitors?
- Positioning yourself as an employer of choice
- Developing a positive candidate experience
- Developing efficient recruitment strategies

Host:
- Dan Kirkpatrick, Head of Customer Success, Hunter

Table 9:
Day One – Future Fit – Trailblazing in the Fourth Industrial Revolution
Given an ever-increasing disruptive environment NatWest has developed a programme of insight focused on the manufacturing sector and what it takes to be ‘Future Fit’. The most recent investigation focuses on three key areas that are central to identifying excellence in manufacturing:
- Leadership mindset, collaboration and support for investment. It is on this fabric of priorities that manufacturing firms thrive or dive, prosper or fail. During the roundtable discussion we would like to share insight into the key characteristics of a ‘Trailblazer’ and why they are needed in the changing landscape of manufacturing.

Hosts:
- Richard Hill, Head of Automotive & Manufacturing, NatWest
- Matt Cook, Business Growth Director, Automotive & Manufacturing, Corporate & Commercial, Commercial & Private Banking, NatWest

Day Two – Round Table Discussion 4 – Boosting Productivity
The aim of the Industrial Strategy is to boost productivity by backing UK businesses which drives increased earning power through investment in skills, industries and infrastructure.
- How can we all collaborate and understand the grand challenges in producing smarter factories to boost productivity especially around the need for and supply of future investment?
- How can we all unlock what is needed to make this happen?

Host:
- Ian Isaac, Managing Director, Lombard

Day Two – Round Table Discussion 5 & 6 – Megatrends
As a company we dedicate thousands of hours to researching, analysing and understanding tech disruption and its impacts. We do it to stay one step ahead of our customers’ needs, to make a difference to their lives and protected against threats. Our focus is where disruptive technologies converge because that is what drives exponential advances. We’ve discovered five emerging themes of disruption that could upend entire sectors and industries – Megatrends that we’d like to explore with you today:
- Hyper aggregation & personalisation
- Privacy, trust, permission & protection
- Platformisation & decentralisation
- Human & digital interface
- Culture & work 2.0

Hosts:
- Ian Isaac, Managing Director, Lombard (Session 5)
- Neil Bellamy, National Head of TMT & Services, UK Corporate & Commercial Banking, NatWest (Session 5 & 6)
- Keith Nowland, Sales Director, Lombard Technology (Session 6)
Table 10: Digital Transformation

Digital Transformation is a crucial topic within the manufacturing sector. At our roundtable we will tackle this head-on and examine some of the challenges, opportunities and major technology in play. We will be discussing just some of these issues:

- Common objectives and challenges for technology adoption in the manufacturing sector.
- The importance of digital collaboration and participation in ecosystems.
- Edge vs Cloud for data management and execution in future factory environments.
- The digitalisation of manufacturing and the importance of a data-driven process.
- The role of wireless technology including NB-IoT, 5G and Wi-Fi.

Hosts: Juan Villa Posada, Systems Integration Manager, SEM
Brenden Rawle, Director of Interconnection EMEA, Equinix

Table 11: From Economies of Scale to Economies of Skills

From a supply perspective, the competitive advantages derived from economies of scale in production are diminishing relative to "economies of skills". That is, an increased emphasis on the capacity to engage in creative thinking, particularly in specialist fields, and pursuing more open innovation through networks of research, product development, marketing and process development, rather than innovating via isolated internal groups.

- If we drew a scale ranging from fully reliant on economies of scale (traditional manufacturing model) to fully reliant on economies of skills (ideal model), where do you think we are now as an industry?
- What industries are at the forefront of mastering the economies of skills?
- What strategies and learnings can we re-apply from these trend-setters?
- What are the key enablers to transition and progress towards economies of skills? What are the current challenges?

Hosts: Neil Anderson, Managing Director, Caterpillar
Nigel Pekenc, Director, Manufacturing Centre of Excellence, A.T. Kearney

Table 12: Bridging the Innovation Gap in the Digital Age

Innovation is integral to competitiveness, and manufacturers have an unprecedented opportunity to become more innovative thanks to rapid and sustained advances in digital technology. But it’s not that simple! Get it right, and you’ll pave the way for a more prosperous future. Get it wrong, however, and you’ll leave yourself open to disruption and a loss of market share.

- Prioritise innovation when dealing with legacy infrastructure or rigid contracts.
- Adopt a phased approach to innovation, not an overnight transformation.
- Create a ‘fail-fast’ culture to welcome innovation.
- Unlock and communicate the value of tech innovation for your business.

Hosts: Margaret Wood MBE, Chairman ICW (UK), Non-Executive Director, HVM Catapult, Member of the UK Government Made Smarter Review
Paul Norton, Solutions Director, Rackspace

Table 13: Secure Manufacturing for Industry 4.0

Everything is increasingly connected, from the IT environment to the factory floor, but is it all secure? 48% of manufacturers have been subject to a cyber security incident and the average cost of those incidents is over $5m per company according to a recent Ponemon report. So why not join Palo Alto networks, the world’s largest independent security company, and debate five core aspects of your manufacturing business that are critical to secure with a pervasive and consistent tool set.

- Securely unify IT/OT environments.
- Ensure the uptime of manufacturing operations.
- Protect your IP.
- Maintain the confidentiality, integrity and availability of your extended supply chain.
- Secure new customers and routes to market.

Learn how next-generation security can help you mitigate these risks.

Hosts: Edvardas Poska, Manufacturing Manager, Princes
Nick Burrows, Systems Engineer Manufacturing, Palo Alto Networks
Sarah Berry, Major Account Manager, Palo Alto Networks

Table 14: Implementing Industry 4.0

As the world becomes ever more connected, with billions of intelligent devices and machines generating massive amounts of data. How do we create a bridge between real and virtual worlds and turn these vast amounts of data into value is key to success, so we need to look at a number of factors.

- Importance of Leadership.
- Developing the right Skills and culture.
- Technology adoption – building the right foundations.
- Creating and using Eco systems – academia/catapult centres/Siemens.

Hosts: Vaibhav Boricha, Technical Planning, BMW (UK) Manufacturing
Mark Higham, Process Automation General Manager, Siemens
Table 15: Challenges for Harnessing Big Data
Comparisons have been made between Big Data and oil, insofar as Data is the fuel for the next engine of growth in the digital manufacturing economy. At Dell Technologies, we see 5 challenges to harnessing and understanding the true power of data, and during this discussion we would like to explore how we navigate these in this new and exciting arena.
• Volume versus value
• Legacy versus current
• Operating at scale
• Business Case creation
• Talent

Hosts:
Gerard Bartley, Global Master Data Manager, Jacobs Douwe Egberts
Nigel Moulton, Global Chief Technology Officer, Dell Technologies

Table 16: The Networked Supply Chain
How can suppliers and OEMs work together to overcome challenges and take advantage of opportunities by forming a secure and innovative value network?
• Enhancing collaboration, optimising data management and securing sensitive data.
• Standardising change management to improve visibility, minimise errors, reduce rework and lower costs.

Hosts:
Steve Sutcliffe, General Manager Supply Chain, Nissan
John Kitchingman, Managing Director, Euro North, Dassault Systèmes (Day One)
Barry Preston, Supply Chain Expert Business Consultant, Dassault Systèmes (Day Two)

Table 17: Data Visualisation
A discussion around maximising the value of data visualisation within manufacturing operations.
• Critical KPIs
• Leading and lagging indicators
• Operational status
• Real-time and time-series data
• Resolving the data voids

Hosts:
Rashitha Jayasekara, Digital Marketing Manager, Rolls-Royce
Chris Hannes, Industry Solutions Director, WW Manufacturing Industry, Microsoft
Ruptesh Pattanayak, Director Industry Solutions, Microsoft

Table 18: The Workforce Skills of the Future
PwC, 40% of manufacturers call out the shortage of skilled workers as their biggest challenge. The UK is desperately trying to plug this gap through a number of means such as “buying in” these skills through recruitment or developing them through home grown apprentices, neither of which seem to be closing the gap fast enough for our industry to compete. According to an Engineering UK 2018 report we have up to 110,000 roles within engineering unfilled every year. It is crucial that the industry steps up to help government and academia to provide a more balanced, collaborative approach which blends innovative, creative thinking alongside continuous development. In this round table we will;
• Understand the capabilities that industry needs to survive and thrive
• Explore the concept of specialists versus generalists within manufacturing
• Highlight strategies to close the skills gap and recruit in new and diverse talent in a more sustainable way

Hosts:
Marco del Seta, Head of Digital, BOC
Mike Westlake, Global D&M Strategy Manager, Autodesk Education Experience

Table 19: Data-Driven Supply Chains
We will explore how organisations work to fully connect the Supply Chain Network, how data creates Intelligent Manufacturing Operations and how operations become Integrated and Agile. The challenge of being customer centric and demand driven for a globally distributed operation is tough enough, but with market uncertainty, tight margins and often short product lifecycles, real-time data intelligence is critical. However, data to drive supply chain decisions is available from multiple sources, such as: technology embedded within assets, consumer trends, production status or physical location. Information Systems no longer present data in functional silos, but share real time, representing opportunities to use data to optimise operations with a “digital core”.
• How are organisations exploiting this opportunity?
• What does a “data driven supply chain” mean to you?
• What are your next steps?

Hosts:
Nathaniel Jevons, Supply Chain Director, Coty
Jeremy Phelps, Digital Transformation Advisor, Industry Value Engineering, SAP

Table 20: Low-Energy Manufacturing
Low-energy manufacturing is a hot topic, as energy prices rise and periods of uncertainty cause unease within the sector, manufacturers are looking of ways to reduce their energy output and cut their costs. Low-energy manufacturing can be accomplished through a variety of different methods. The first step towards lowering energy use is to fully understand your energy consumption.
• Reducing energy intensity through analysing associated unit cost and emissions through data analysis
• Optimising energy consumption through operational efficiency and production continuity
• Protecting competitive advantage and profitability through delivering energy management best practice and innovation
• Cost improvement through targeted investment in energy efficiency with a short pay-back period

**Hosts:**
Graham Cooper, Operations and Manufacturing Director, Agfa Graphics
Dan Hulme, Consultant, Inenco

**Table 21:**
**Building a Transformation Road Map**
Technology is irrelevant. What we want to achieve though it is far more important. But far too many organisations start their digital journey by selecting technologies and asking how they can ‘fit’ them to their business. A far more effective approach is to ask where are we today, where do we want to be, and what's stopping us getting there? The answers to those questions are the beginning of real business transformation and a practical strategy that can transform the way we design, make and sell products. In this round table we will:
• Assess where you are today
• Introduce the 5 key digital capabilities
• Build a strategy that your people can get behind.

**Hosts:**
Bradley Smith, Senior Manufacturing Projects and Initiatives Manager, GE Aviation
Asif Moghal, Senior Industry Manager – Design and Manufacturing, Autodesk

**Table 22:**
**Predictive Maintenance**
This roundtable is to openly discuss and debate the role of Predictive Maintenance in the modern manufacturing environment. Where do you see the benefits of applying Predictive Maintenance techniques, what equipment types would be suited to this approach, where should they be targeted and what challenges and barriers are manufacturers currently seeing in this field?
• Where do you see the benefits of applying Predictive Maintenance techniques to your plant or equipment?
• What types of equipment would be suited to a Predictive Maintenance approach?
• Where do you believe Predictive Maintenance should be targeted in your organisation and who would be responsible for the initiative?
• What challenges and barriers are manufacturers currently seeing in this field?
• What is stopping you moving forward with Predictive Maintenance today?

**Hosts:**
Roche Nguimatsa, Head of Operations Improvement, Dr. Oetker
Ian Williams, Senior Director of Solution Architecture, GE Digital

**Table 23:**
**Starting and Benefiting from AI**
Data is everywhere, ever increasing quantity and complexity. But there is a major difference between data, information and actionable insights. It's no wonder many organisations are losing sight of what to do with data. This data dilemma is making artificial intelligence (AI), Big Data and advanced analytics key to digital transformation. In manufacturing there are many AI / Machine Learning use cases from increasing production yields, automating quality control, optimising supply chain and more. The challenge is how to build the business case and get started. Our table will discuss:
• Example use cases and value delivered
• How to start an AI or ML project
• Discuss some of the challenges and how to overcome them
• Our aim is to help answer your questions and give a view of how you can get started.

**Hosts:**
Hassan Khalid, AI/ML Engineer, GSK
Ian Henderson, Chief Technologist for Manufacturing, Hewlett Packard Enterprise

**Table 24:**
**How to bridge the gap between IT and OT**
This much debated topic is at the forefront of all our minds in the manufacturing world. Combining the speed and innovation of Information Technology with the rigour of Operation Technology is the main objective. We will discuss:
• Critical considerations before embarking on building the bridge
• Key approaches that allow a shorter route to value
• Use cases from other industries where progress is significant
• Potential quick wins
• The goal is to leave with an action plan for your business

**Hosts:**
Gill Woodward, Operations Director, Advance Tapes
Alexander Mikoyan, Large Enterprise Accounts Sales Leader, Hewlett Packard Enterprise

**Table 25:**
**The Value of People to Business Sustainability**
How to capture the knowledge and know-how of our current workforce and prepare our own businesses for shifting work patterns by developing, nurturing and attracting the workforce of the future.
• Optimising current operations: Connecting the dots between people, ideas and data inside and outside an organisation
• Eliminating silos: Redefining how to collaborate regardless of location of communication platform
• Digital continuity of knowledge: Lifelong learning at the core of the current and future workforce.
Table 26: Mastering AM: How the rules of the game are changing
• From mass production ... to mass customisation
• From overseas production ... to local, distributed production
• From storing parts ... to storing files

Hosts:
Richard Almond, AIT / ALM Lead Engineer, Airbus Defence & Space
Andrew Knowles, Business Manager UK &I, HP Multi Jet Fusion 3D Business

Table 27: How can Logistics Improve Production Output?
Logistics or supply chain management can have a huge impact on your production output. In this session, we discuss what constraints you might have with your production levels. What space do you have and how much is dedicated to production activities vs storage and delivery? Are there ways to improve that cost less and improve your cash flow?
• Are you constrained by your output level?
• Inventory levels – what’s the right balance?
• How’s inventory managed through your supply chain?
• Erratic availability of materials?
• What does your ideal scenario look like?

Hosts:
Murray Goodrick, VP Business Development & Account Management, Manufacturing Logistics, UK & Ireland, DHL Supply Chain

Table 28: Global Materials Visibility in a Digital Age
Digitalisation will continue to drive an evolution of manufacturing requirements and processes that drive higher productivity and reduce waste in the factory and there will be an increasing need for businesses to implement digital tools to remain competitive. In this session, we’ll discuss supply chain visibility of your materials/parts and the practicalities around it.
• What is supply chain visibility in your eyes?
• What are the potential benefits of improving visibility?
• What are the practicalities of doing it?
• Is there any hype that you’ve seen and what’s the reality?

Host:
Martin Michael, VP, Global Sector Development MLEMEA and UKI, DHL Supply Chain

Table 29: Digital @ Scale
HCL has created a digital delivery operating model, called FENIX (Forward thinking, Engineering driven, Nextgen focussed, Innovative, Xperience centric) to help manufacturing enterprises transform from a legacy set up into a Product Driven organization and executing using Scaled Agile methodology.
Focused areas include Data & AI, Spotify Agile led development, DevOps implementation, Platform Development/Management, Cloud Native development, etc. Our discussion focuses on how manufacturing enterprises have undertaken their digital journey enabled by HCL’s FENIX operating model.

Host:
Cameron Brown, Senior industry Leader – Digital & Analytics, HCL Technologies

Table 30: Innovation @ Scale
Data has taken over from oil to fuel the economic growth of the future. A growing number of manufacturers have innovated by embracing data from their products in the field, (re-)designing their value chain process, using the scalability of Cloud to get real-time manufacturing insights. IoT, PLM, RMI, Complex Assets Management, etc. are amongst the most important enablers of the new future for manufacturers.
Our discussion focuses on adoption of Innovation and use of new platform centric business models to get manufacturers a visibility and foresight of Overall Equipment Effectiveness, Downtime Analysis, causes for variation in Availability, Performance, Quality, etc.

Host:
Ralf Schulze, Associate VP, IoT Works Business Innovation Group Manufacturing Europe, HCL Technologies

Table 31: Technology and Innovation Strategy
Leading-edge companies are characterised by their constant drive to innovate effectively, increase productivity and respond to disruption. For such companies, successfully integrating existing technologies and anticipating the impact of emerging new technologies are critically important tasks.
By working with organisations at all stages of technological development, the Institute for Manufacturing at the University of Cambridge has developed a number of research proven tools and methods to support companies in managing innovation and developing effective business strategies. Join us to discuss how taking strategic approaches to technology and innovation management can help to drive a firm’s commercial success.

Hosts:
Rob Munro, Industrial Associate, IfM Education and Consultancy Services, University of Cambridge (Day One)
Andrew Gill, Industrial Associate, IfM Education and Consultancy Services, University of Cambridge (Day Two)
# Main Stage

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