ManuTalk

Day 1

4th - 5th December, 2017

8.15 - 8.55 — **Day One - Registration**

8.55- 9.05 — **Welcome & Chairman's Opening Remarks for Day One**

9.05 - 9.40 — **European Manufacturing Industry: Current state of play and the future. Transformative forces that will boost industrial growth.**

- Current state of affairs for Global and regional manufacturing markets and their impact on Europe
- Key transformative forces that are poised to disrupt Europe's industrial manufacturing sphere
- Factories of the future, Industrial 4.0. How far are European companies from bringing the true vision of a connected enterprise into fruition?
- Next generation technology with a focus on IoT, robotics, augmented reality, additive manufacturing and Human-centered Manufacturing
- The economic and political landscape – what the future holds?

9.40 - 10.15 — **Factories of the Future PPP: towards competitive EU manufacturing**

- Current challenges being faced in Europe's industrial production
- Results to date of Factories of the Future (FoF) PPP
- The connected world – building digital industrial platforms of the future based on suitable reference architectures
- Building the digital industrial platforms of the future based on suitable reference architectures
- Horizon 2020, 3 years on – continuing to create cross-sectorial partnerships and collaboration to build effective, scalable ecosystem solutions to drive IoE across Europe

Dr Rolf Riemenschneider, Head of Sector, "Internet of Things" Unit, DG CONNECT, **European Commission** (Belgium)

10.15 - 11.05 — **Morning Coffee Break**

11.05 -11.40 — **Smart (R)Evolution – Shaping the Future of Manufacturing**

- Smart manufacturing is not new, but upcoming technologies enable smart business models and new successes
- The 4th industrial revolution is executed step-by-step
- Standardization of processes, measurement of metrics and responses to adverse events were, are and will be key for success
- The Centre of Excellence (CoE) team aligns processes, organisation, people and enabling technologies
- Smart manufacturing isn't so smart without smart, educated people

Jan Snoeij, President and Senior Consultant, **Manufacturing Operations Management Institute** (Netherlands)

11.40 - 12.10

Harnessing the power of IoT and M2M technology to transform field services and asset management

- How easy is it to integrate IoT into existing assets for maintenance purposes?
- Exploring the technology available for condition monitoring and predictive maintenance, and the level of investment required
- Special considerations for remote assets – creating an efficient mechanisms to collect data from sensors and turning this into actionable insights
- The potential benefits for business innovation and strategy of implementing IoT for maintenance

12.10 - 12.40

Green and lean manufacturing projects realisation

- Choosing the right green initiatives to undertake in the manufacturing of products
- Best practices in industrial waste water management
- A methodology to trade cost vs. carbon
- Which principles or methods to apply in selecting best scope for your manufacturing processes and the plant
- The Lean Toolbox to minimize your efforts, cost and schedule to realize plants
- Planning for the future for further developments in green and lean manufacturing

11.40 - 12.40

Prearranged one to one meetings on topics of your choice including:

- Manufacturing Technology
- Manufacturing Automation
- Smart Manufacturing
- Additive Manufacturing
- Industry 4.0 / IoT
- Lean Strategies & Operational Excellence
- Continuous Improvement
- Safety Quality & Risk Management
- Facility Management and Integration
- Workforce Development and Leadership
- Geopolitics & Security
- Green Manufacturing
- Industrial Waste Water Management
- Regional Inward Investment – Localised Ecosystems

12.40 - 13.30 — **Networking Lunch**

Industry 4.0

13.30 - 14.05

The digitisation of manufacturing: challenges and opportunities for European advanced manufacturing

- Catching the digital train
- Shifting from incremental to disruptive innovation
- Transformation from machine supplier to manufacturing process partner
- Developing data-driven solutions together with customers
- Investing in a new & hybrid skills-set
- Policy action to support this change

Filip Geerts, Director General, **The European Association of the Machine Tool Industries (CECIMO) (Belgium)**

Lean Manufactruing & Operational Efficiency

13.30 - 14.05

Good companies can start a continuous improvement program but great companies can sustain them - Sustaining the lean journey

- How can we develop a culture of continuous improvement in organizations?
- Creating a buy-in of the people and developing a shared vision of the organization
- Identify training needs; deliver first-rate training, & measuring its effectiveness
- Next steps of the lean journey
- Business Transformation

Brent Wong, Corporate Director Lean Enterprise and Global Operations Director, **Belden** (Germany)

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Industry 4.0

14.10 - 14.45

Case Study: Industry 4.0 Above the Clouds

- Exploring Augmented Reality AR in production
- Looking at production lines where humans and robots work side by side
- 3D printers producing prototypes
- An insight into how one company is delivering tomorrow's ideas today

14.50 - 15.25

Digital Strategy towards sustainable Manufacturing operation - AkzoNobel's journey towards Industry 4.0

- What can Industry 4.0 do for chemicals?
- Current trends affecting our business
- Sustainable Automation & Digital Technology strategy
- Lights-out manufacturing - a reality or still an idea?
- Smart manufacturing: Marrying IT and OT to improve productivity
- Manufacturing productivity improvements

Johan Stockmann, Director Industry 4.0, **AkzoNobel** (Netherlands)

Lean Manufactruing & Operational Efficiency

14.10 - 14.45

Getting prepared – How to adapt a Business Excellence Program to meet upcoming requirements

- Vision/Mission of our network
- Business Excellence defined
- Relevant trends for Business Excellence
- Future scenarios – Innovation cycle applied on the system Six Sigma/ Business Excellence
- Potential Focus Areas – What do you need to have on your radar?
- Siemens Case Studies

Erik Schwulera, Director Operational Excellence, **Siemens AG** (Germany)

14.50 - 15.25

The search for business excellence through systems, processes and culture.

- The evolution of our 'Manufacturing & Supply Chain Way'
- Strategy – what does it mean at the working level
- SCOR and ARIS – our attempts at knowledge management.
- Exploiting IT tools, apps & analytics
- Influencing behaviours through common values

James Harper, VP Manufacturing & Supply Chain Planning, **Leonardo MW Ltd** (UK)

15.25 - 16.15 — **Afternoon Coffee Break/Refreshments**

16.15 - 16.45

Adopting a Quality Management system to drive safety

- Adopting a holistic approach to risk management throughout your business
- Ownership of safety by all employees in all business activities
- Integration of safety procedures in all aspects of business
- Integration of safety into all aspects of business documentation
- Continuous communication of safety KPI's

16.45 - 17.15

Collaborative Robots, the rise of a new generation

- Advances in collaborative, self-aware, heuristic robotics systems, designed to work un-caged alongside humans on both heavy duty and intricate tasks, are opening up vast new opportunities for the adoption of highly-automated production models that were once considered unfeasible.
- With this new wave of robotic systems being deployed what are the uncertainties and how do we deal with them?
- How production processes can be optimized, and on how workforces are trained and deployed.

17.15 - 17.45

Real time data analytics to create value and operational efficiency within in your manufacturing processes

- Challenges for today's manufacturer
- Digital transformation meets reality.
- Achieving your manufacturing and business goals
- Real time data analytics for effective predictive maintenance made easy
- Integrating your labour on your digital manufacturing journey with a solution based on the Poka Yoke principle to achieve your productivity and quality goals
- Intelligent material conveying: a new approach to increase your ability to respond quickly to the dynamic needs of your market.
- Innovation is delivered by many competencies

15.25 - 17.45

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17.50 - 18.25

Open Panel Dicusssion: **Building a leadership team for the Manufacturing 4.0 era and buildng the Next-Generation Workforce strategy**

To succeed in the M4.0 era, manufacturing executives will have to be tech savvy; comfortable with decentralized, collaborative organizational structures; and able to deal with rising complexity as pervasive connectivity drives the creation of more and more information about every aspect of the business.

- Hear Insights from the panel on the challenges on current skill set in a digital environment
- How advanced technologies may help create new business models and opportunities
- Best practices to lead increasingly empowered employees
- What do we mean by the 'Next-Generation Workforce'
- A framework to design an organizational structure that takes advantage of M4.0 possibilities

18.25 — **Chair's Closing Remarks**

18.30 — **End of Day One**

19.00 — **Champagne Reception**

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Day 2

Day Two

8.40 - 8.50 — **Chairman's Opening Remarks for Day Two and Summary of Day One**

8.50 - 9.25

Integration of Continuous Improvement and Business Process Standardization into a holistic system for a global health care Corporation; Johnson & Johnson Production System

- Business Case to mature an organization over more than a decade from "firefighting issues" to a network wide approach to use the knowledge of all available associates.
- How to grow an organization from discrete continuous improvement efforts towards an integrated approach to leverage, innovate and drive performance and change in each part.
- How to implement a global management system in a decentralized environment
- The importance of inclusion of all levels of an organization to drive change across a network of sites with more than 100 sites.

Jan Jaeger, Corporate Director Lean Enterprise Senior Director Global Consumer Improvement Program Lead, **Johnson & Johnson** (USA)

9.25 - 10.00

The Reality of What's Possible with Collaborative Robots and What's Still in the Works in 2017

- Developments in newer, lighter, and stronger robotic materials and technology to drive down production costs
- The current capabilities and limitations of robotics on the market and in development
- Maximizing the potential for lower-volume, higher-mix applications in an expanded market while simultaneously maintaining low inventory in the warehouse
- Case Study: A manufacturers success story in collaborative robotic deployment among the human workforce

Heiko Witte, Head of Engineering Improvement & Quality, **Rolls Royce**

10.00 - 10.20 — **Morning Coffee Break/Refreshments**

Workshop 6

10.25 - 10.55

Business Transformation through Data - Solid Architecture is Unlocking the Power of IoT

- IoT is a manifestation of the idea that the main ingredient of the information age is data - Leveraging data as the new source of innovation and the main driving force to achieve business success
- To truly embrace the digital transformation, organizations need to collect actionable data from their assets, processes, and products
- The benefits of simplification of the OT-IT integration through a loosely coupled containerized layered architecture
- The importance of investing in flexible IoT architectures that allow to overcome the limitations of the traditional approaches in the field of OT
- Leveraging powerful new IoT architectures and technologies while taking into account proven Enterprise IT best practices

Workshop 7

10.55 - 11.25

Are the Security Issues Facing the Industrial IoT Over-Hyped? Security Challenges and Concerns

- Are We Creating An Insecure Internet of Things (IoT)?
- Understanding the repercussions of breaches in IoT
- What is the best way to address the challenge of IoT security?
- How to build security at the outset, rather than as an afterthought in the design process and monitoring connected devices throughout their expected life cycle
- What are the costs associated? How can these be minimized/justified?
- Collaboration among R&D, IT, and the data organization will be essential

Workshop 8

11.25 - 11.55

How smart sensors are transforming the Industrial Internet of Things

- IoT's arrival has created a surge in demand for sensors
- This is the first time a mass market emerge for novel sensor types
- What are the most interesting sensor types and how can you integrate innovative sensor design in your products?
- Can sensor driven business models create superior value and incorporate designs which enhance end-user experience?

10.25 - 11.55

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12.00 - 12.50 — **Networking Lunch**

Smart Manufacturing

12.50 - 13.25

The age of Industrial IoT – How SKF's PLM team has helped structure and address the challenges of where to start and what to focus on

- Recognition that beyond the PowerPoint, the reality is complex – not just the technology, but with processes and culture
- The need to rethink the way we define a new production facility or machine investments – Machine capability is not enough – machines are driven by information
- How we bridged the physical and digital worlds to better understand the value of the investments
- So what is next…

Nicholas Leeder, Director Product Lifecycle Management, Group Technology, **SKF B.V.** (Netherlands)

Automation

12.50 - 13.25

The Shifting Economics of Global Manufacturing

How a take-off in Advanced Robotics Will Power the next Productivity Surge

- Productivity is a key driver of manufacturing competitiveness
- How will robotics change the calculus of manufacturing. The era of moving factories to capitalize on low-cost is coming to an end
- Smart Factories, will size matter?
- Case Study: How advanced robotics will be able to apply logic to make decisions and/or operate in quasi - or unstructured environments
- Will costs continue to fall?
- Technical Advances

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Day 2

Smart Manufacturing

13.30 - 14.05

Using AM technologies to lower production expenses, speed product development, enable new designs, and change how and what you manufacture.

- Today the use of 3D printing as a manufacturing technology is reality
- The permanent switch to the use of AM as a production technology has its influence on the complete value chain. A deeper insight in the challenges to be met with this transition. These challenges are as well technological, as economical and can have a broad impact
- How AM technologies are evolving to make a real impact on costs and production times
- Recent case study

14.10 - 14.45

Digital Supply Chain journey of a beverage bottling company

- Coca-Cola European Partners Digital Supply Chain framework, governance and teams
- Challenges of the digitalization and approaches to address them
- Focus topics we're working on in Supply Chain
- Lessons learned referring to the implementation of a 'Line Monitoring System'
- Roadmap and outlook

Tilmann Rothhammer, Region Production Director, **Coca Cola** (Germany)
Steffen Löser, Region Production Director Manager Business Processes & Solutions (Supply Chain), **Coca Cola** (Germany)

Automation

13.30 - 14.05

Case Study: An Automation journey from business case and planning to role out from the Automotive Industry

- Crafting your business case for automation
- Funding your automation project
- The challanges of Connecting legacy systems to modern enterprise/ material planning software
- Automation for low-volume production
- The workforce and how the company developed current skill set
- Improving OEE through operational excellence techniques
- Multi-function robotics

BMW (TBC)

14.10 - 14.45

The global Quality Workflow: Making the transition from manual to automated compliance processes

Learn how automated global quality management systems provide the speed and efficiency to keep up with the rapid product lifecycle, mitigate risk, and ensure excellent quality.

- The challenges of a complex product lifecycle
- How organizations can overcome manual processes, and implement an automated global quality workflow
- How risk management improves the level and efficiency of compliance
- How one company began their journey to operational excellence with a global quality workflow

14.45 - 15.00 — **Afternoon Coffee Break/Refreshments**

Workshop 9

15.00 - 15.30

How will Additive Manufacturing impact the industrial landscape, regional economies and governmental policies?

- Today the use of 3D printing as a manufacturing technology is reality; every day new applications are developed to be produced with so called "Additive Manufacturing".
- The permanent switch to the use of AM as a production technology has its influence on the complete value chain. This presentation has given deeper insights in the challenges to be met with this transition. These challenges are as well technological, as economical and can have a broad impact.
- How governments should adapt their policy on local and EU level, to help in this paradigm shift

Workshop 10

15.30 - 16.00

Challenges of Deploying Lean in a Complex Manufacturing Processes

- What does the lean model look like in practice for asset-intensive industries
- Moving away from traditional Lean models and looking at new approaches
- Industry spotlight - Pharmaceutical industry, the late adopter of the 'Flow' concept
- Industry 4.0 will impose important questions for highly regulated industries, and what about Lean?

15.00 - 16.00

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16.05 - 16.40

Open Panel Discussion:

Lean has been revolutionizing operations for the last 50 years but what's next?

- Using lean as a catalyst for innovation moving beyond the factory floor.
- The new Era for Lean; with the better usage of Integrated Data across multiple channels allowing greater insights into customers journeys allowing lean to deliver higher levels of customer value
- With the sophistication of technology and Data coupled with psychological insights means customer's needs and desires can be improved and sustained

16.40 — **Chairman's Closing Remarks**

16.45 — **Close**