

WORLD MANUFACTURING FORUM



Artificial Intelligence for the Manufacturing Renaissance
The Resilience of Companies in a “New Normal” Society

PROGRAMME

worldmanufacturing.live
worldmanufacturing.org

11-12
November
2020

Livestreamed
from Cernobbio, Como, Italy

Artificial Intelligence for the Manufacturing Renaissance The Resilience of Companies in a “New Normal” Society

Without any doubt, manufacturing is a major driver of global economy, both in terms of jobs and overall wealth. Throughout the world, industry is a pivot around which the whole economy moves. It contributes greatly to prosperity acting as the engine of global and local value chains and provides many jobs. In Europe, for example, manufacturing employs 36 million people, which accounts for one out of every five jobs in the region. All of this is now jeopardized by the ongoing health crisis. The International Monetary Fund recently announced that the lockdown recession will cause a 3% drop in global GDP in 2020, or even worse.

How should companies respond and prepare for a long-term disruption to supply?

Unsurprisingly, companies that were ahead in the digital transformation journey before COVID-19 struck are tending to adapt to the crisis better than their competitors. Their business models and working processes meant that they were able to reinvent themselves more rapidly or accelerate changes already underway. We are going to see permanent behavioural changes. Business leaders today are rightly focused on the huge business continuity challenges posed by Covid-19. First and foremost, they must ensure that employees are as safe as possible, securing financial sustainability, assessing the resilience of supply chains and reinforcing crucial systems to support unprecedented levels of remote working and online trading, while withstanding an upsurge in cyberattacks. In addition, new technologies have profoundly changed industrial production. As a result, leading companies are now looking to disruptive technologies as a way to improve performance. Many have already started to experiment with technologies such as machine-to-machine digital connectivity (the Industrial Internet of Things), artificial intelligence (AI), machine learning, advanced automation, robotics, and additive manufacturing. The impact of this shift shaped what is now universally known as the Fourth Industrial Revolution. On that basis, during the 2020 edition of the World Manufacturing Forum, it will be highlighted how, in the attempt to move towards a global economic renaissance, technological innovation is progressing rapidly and AI has become an area of strategic importance and a key driver of resilient economy.

The World Manufacturing Forum will take place over two days:

- After the morning side events, the Forum will start on **11th November at 2 PM with plenary sessions discussing how companies and the manufacturing sector at large will resurge in a “New Normal” world.** During the afternoon, the Forum will continue with technical sessions co-organized with high-level technological companies.
- **On the second day, on the 12th of November, the program will alternate again technical and plenary sessions, reversing the order of the first day.** The day will start with morning technical sessions that will be followed in the afternoon by plenary sessions presenting the technological, ethical, legal and socio-economic aspects that need to be considered to boost research and industrial capacity. The discussion will focus on how to put AI at the service of citizens and economy, while also responding to the disruption in manufacturing and global value chains caused by the COVID-19 outbreak.

The first online edition of the World Manufacturing Forum will be livestreamed from an exclusive location: the beautiful Villa Erba in Cernobbio. Participants will have the chance to achieve a comprehensive knowledge of the most relevant themes of the manufacturing scenario, thanks to streaming sessions, in-depth materials, videos, speaker-led discussions and interviews with experts from high-level international institutions, research organizations, and companies.

WORLD
MANUFACTURING
FORUM
2020

Programme

NOVEMBER 11, WEDNESDAY

2:00 PM – 5:30 PM CET



2:00 PM – 2:15 PM CET

Welcome

Alberto Ribolla President, World Manufacturing Foundation

2:15 PM – 2:35 PM CET

Opening Remarks

Marco Bonometti President, Confindustria Lombardia

Attilio Fontana President, Regione Lombardia

Alessandro Perego Director of the Department of Economics, Management and Industrial Engineering,
Politecnico di Milano

Li Yong Director General, United Nations Industrial Development Organization (UNIDO)

2:35 PM – 3:20 PM CET

Back to the Future: Manufacturing Beyond Covid-19

The Manufacturing sector and global economy in general are being affected by the COVID-19 outbreak. Knowing that we will have to adapt to a “New Normal”, it will be crucial to anticipate the economic and social changes that will be needed to reduce the negative impact that the crisis is having on our lives.

The World Manufacturing Foundation called to action its partners and players from different geographies and sectors - industrial, academy and policy - to let their voices be heard on this globally relevant topic and on its impact on the manufacturing sector and beyond, to answer to the following questions.

- How global economy and manufacturing were impacted by the pandemic?
- How is the manufacturing ecosystem reacting to specific critical issues due to this transformative situation?
- What are the lessons learned, best practices and recommendations to stimulate future courses of actions in a post-COVID 19 manufacturing paradigm?

Alberto Ribolla President, World Manufacturing Foundation

Marco Taisch Scientific Chairman, World Manufacturing Foundation

Lisa Anderson President, LMA - Consulting Group

Cristina Oyón Director of Technology, Innovation and Sustainability, SPRI - The business development agency of the Basque Government

Daria Taglioni Research Manager, Trade and International Integration, Development Research Group,
World Bank

Randy Zadra Managing Director, Integris (Canada)
Ambassador, World Manufacturing Foundation

3:20 PM – 4:30 PM CET

PLENARY SESSION 1

PREPAREDNESS & PRODUCTIVITY: Building the Pandemic-Proof Supply Chains of the Future

The coronavirus pandemic represents a pivotal moment for the manufacturing sector. Three areas of focus can help companies navigate its short-term effects: protect the workforce, manage risks to ensure business continuity, drive productivity remotely. In order to promote global prosperity, we need to look beyond the current uncertainty, towards possible long-term changes to the industry.

Most of the ongoing industrial trends already started some time ago, and today's crisis will merely accelerate their adoption. Domestic Manufacturing: Western countries that have become so reliant on off-shore supplies for basic needs are now seeing the downside of decades of off-shoring production. Decoupling of Supply Chains: Greater visibility and coordination across the supply chain will enable better collaboration with a wider base of suppliers, part of a highly efficient and more resilient supply chain.

Bruce Kramer	Senior Advisor, National Science Foundation (NSF)
Deborah Barta	Senior Vice President Innovation & Startup Engagement, Mastercard
Bronwyn Fox	Deputy Vice-Chancellor, Swinburne University of Melbourne
Linda Hasenfratz	CEO, Linamar
Mike Lackey	Global Vice President of Solution Management Manufacturing, SAP

4:30 PM – 5:15 PM CET

PLENARY SESSION 2

POLICY & PEOPLE: A Comprehensive Industrial Policy to Adapt to the “New Normal” Society after the Covid-19 Pandemic

Industrial policy aims to strengthen the competitiveness of the manufacturing sector and, as a result, the whole economy. This strategy gives also the tools to face global challenges and seize the opportunities offered by new technologies and the single market.

The Coronavirus pandemic sheds light on the ongoing dynamics complicating both policy and company responses. They are consequential when appropriate policy reactions come, corporates respond with long term strategies and investment positioning. Industrial policies should take into consideration the above trends to ensure an industrial renaissance for a global prosperity, with a new agile model, able to reduce bureaucracy.

Pierre Gattaz	President, Business Europe
Stefan Pan	Delegate of the President of Confindustria for Europe, Confindustria
Lucilla Sioli	Director for "Artificial Intelligence and Digital Industry" Directorate-General CONNECT, European Commission

5:15 PM – 5:30 PM CET

Closing

Carlo Bonomi	President, Confindustria
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NOVEMBER 12, WEDNESDAY

2:00 PM – 5:30 PM CET



2:00 PM – 2:05 PM CET

Opening

Jack Harris Vice President, World Manufacturing Foundation

2:05 PM – 2:50 PM CET

WMF2020 Report Presentation Manufacturing in the Age of Artificial Intelligence

It has been anticipated that Artificial intelligence will significantly revolutionise the manufacturing sector. The benefits will be profound as more organisations deem AI vital to obtain or sustain their competitive advantage. However, this transformation will bring forth relevant challenges, such as implications for workers and the need for quality data to fuel AI systems. Furthermore, there are many ethical questions related to AI that must be addressed to foster sustainable adoption of AI.

The 2020 World Manufacturing Report focuses on the transformation of the manufacturing sector in the age of AI, with the aim of sharing expertise within a global network, at building stakeholders' resilience and competitiveness, and at making possible a prosperous and sustainable future for us all.

Marco Taisch Scientific Chairman, World Manufacturing Foundation
David Romero Professor of Advanced Manufacturing, Tecnológico de Monterrey
Thorsten Wuest Assistant Professor of Smart Manufacturing, West Virginia University

2:50 PM – 3:45 PM CET

PLENARY SESSION 3

POLICY & PEOPLE: The Dawn of Human-Machine Interaction

AI deployment must be based on an approach that promotes the respect of fundamental rights, including human dignity, pluralism, inclusion, non-discrimination, and protection of privacy and personal data. Along with enhancing the machines' skills, increasing amounts of data are being collected and information on human behaviour is being monitored; all of which present challenges for privacy and data protection. One of the main issues concerning the relation between AI and workplace is about the interaction with the workforce, which requires new skills, and, on the other hand, a reduction of specific kinds of available jobs for humans.

We should also consider how AI is not only something the big tech giants are focused on, it is something that has an impact on our everyday life. It powers those amazingly accurate TV recommendations, as well as personalized search results. But AI has the power to do more. The session aims also to discuss how AI applications promise to transform the lives of citizens across the globe, e.g. with autonomous vehicles, blockchain, education. People will learn how to live with intelligent products, improving their lives.

Marta Batalla Massana Policy Officer, DG Grow - European Commission
Paolo Benanti Roman theologian, Third Order Regular of St. Francis
Klaus Beetz CEO EIT Manufacturing
Chandrakant Salunkhe Founder and President, SME Chamber of India

3:45 PM – 4:00 PM CET

KEYNOTE The Quest for Sustainable Manufacturing: the power of Virtual Twin

Guido Porro

Euromed Managing Director, Dassault Systemes

4:00 PM – 5:00 PM CET

PLENARY SESSION 4

PREPAREDNESS & PRODUCTIVITY: Transform Traditional Businesses in High Tech Companies

Thanks to recent innovations in cloud computing and big data storage and analysis, Artificial Intelligence is making great strides in improving efficiency in manufacturing environments, leading to better performance. AI also provides critical information to help managers make more informed business decisions.

The session aims at discovering how traditional companies can increase their efficiency applying Artificial Intelligence in machineries and complex plants, in quality control in remote, and, equally importantly, in the workplace. The discussion will present best practices and emerging scenarios.

John Polowczyk

Admiral, US Navy

Bernardo Calzadilla-Sarmiento

Managing Director, Directorate of Digitalization,
Technology and Agribusiness, United Nations Industrial Development
Organization (UNIDO)

Kilian Gross

Head of Unit Technologies and Systems for Digitising Industry,
European Commission

Nicholas Leeder

Vice-President, Head of Digital Transformation Solutions, PTC

Fabrizio Sala

Vice President, Regione Lombardia

Gilles Savard

CEO, IVADO

5:00 PM – 5:20 PM CET

KEYNOTE – PLANET: The Road to the Green New Deal in the age of Manufacturing 4.0

This inspiring keynote will present how the application of technologies such as Artificial Intelligence can accelerate a Green New Deal. The urban digital ecosystem in fact can facilitate the creation of value-added services, while also improving and restoring damaged ecosystems, contributing to the ambitious reduction of greenhouse gas emissions.

Giulio Cesareo

CEO, Directa Plus plc

5:20 PM – 5:30 PM CET

Closing

Gian Paolo Manzella

Secretary of State for Economic Development

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