



World Manufacturing Forum

WMF

Annual Meeting 2018

PROGRAM





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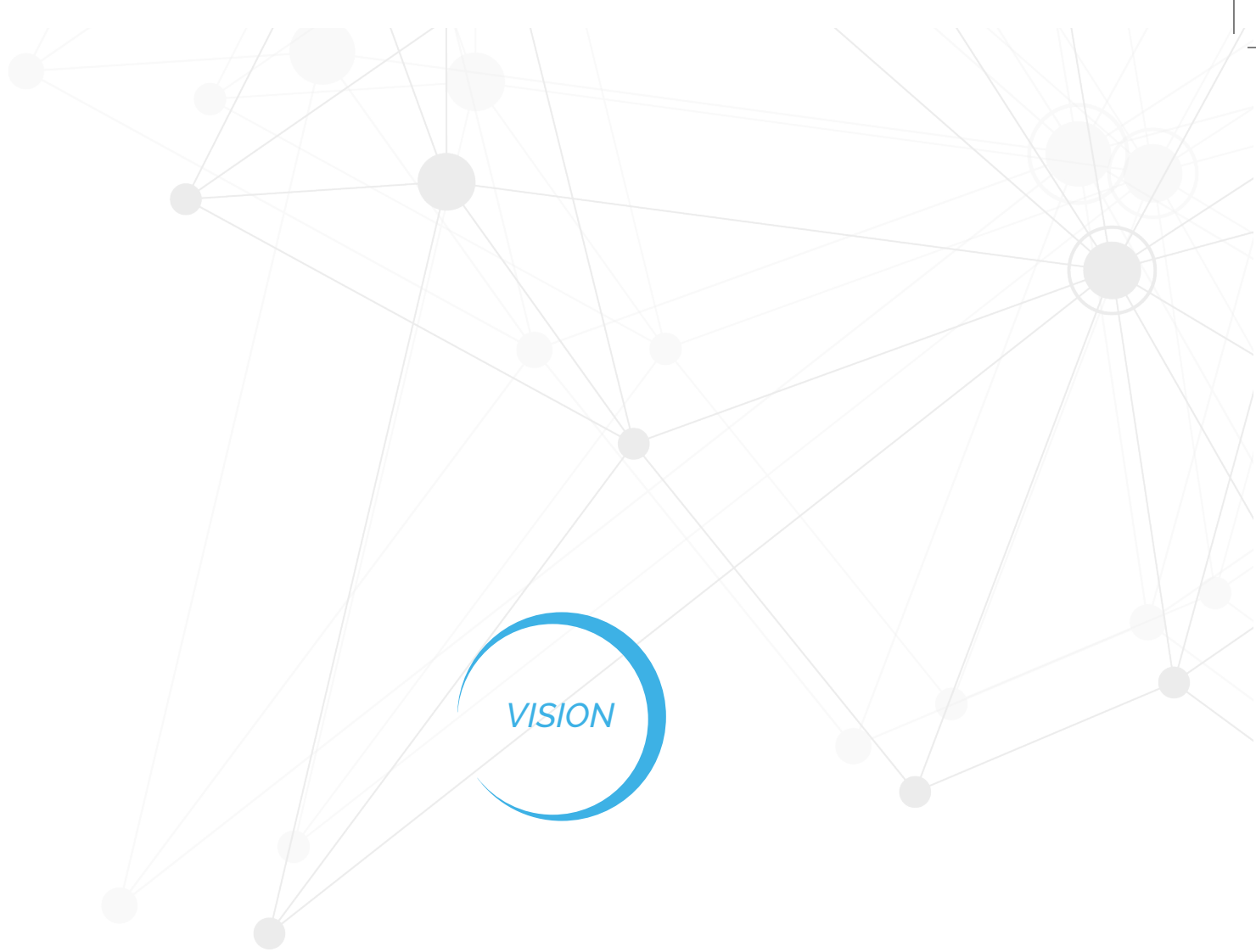
27-28 September, 2018
Villa Erba, Cernobbio

Manufacturing Revolution to Promote Global Resilience

*How the Industrial Transformation Inspires Education,
Sustainable Development and Societal Impact*







The manufacturing sector is widely recognised as a key enabler of global prosperity and social advancement. In this respect, the relationship between manufacturing growth and improvement of economic well-being has been understood since the First Industrial Revolution. In 2015, manufacturing value added was the 16% of the total world GDP, with an annual growth of 2%. Industrialisation, in fact, has the power to transform economies, spurring global innovation and competitiveness while creating widespread economic prosperity.

Moreover, the transformation of manufacturing in the next decade will take into account the fundamental changes that will be needed to adapt to future markets. The ability to respond to changing manufacturing requirements and support innovation through the adoption of Key Enabling Technologies provides a foundation for answering societal megatrends, for the creation of economic growth and social well-being, and for accelerating industrial development.

The next generation of manufacturing is stimulated through complex global and local integration, mass and one-off production, large and small-scale production lines, product longevity and expiration, intelligent automation and skill building, leading to the advancement of all sectors of society. The future of production will depend on the variety of digital technologies with consequences in productivity, skills, employment, trade and environment.

The World Manufacturing Forum is an open platform that aims to create and encourage innovative industrial culture worldwide in order to prompt economic prosperity and sustainable development. During the forthcoming edition of the WMF Annual Meeting, we will explore the direction the manufacturing industry is taking, the level of technological innovation and the skills the new workforce needs to acquire in order to embrace the Sustainable Development Goals of the 2030 global industrial agenda.

With this goal in mind, our mission is to facilitate dialogue and activities towards a shared common vision to solve global manufacturing challenges through cooperation and collaboration while considering different perspectives of stakeholders from industry, academia, and government, with a worldwide vision. During the two-day annual meeting in Cernobbio, Italy, international leaders will highlight the role of manufacturing through the year 2030, explore how digital transformation contributes to economic well-being and societal advancement and how the new industrial revolution will support sustainable development through education and technological changes.



27 September 2018

09:00 – 09:25

Welcome

- **Alberto Ribolla**, President, World Manufacturing Foundation
- **Marco Bonometti**, President, Confindustria Lombardia
- **Jack Harris**, Chairman, IMS
- **Attilio Fontana**, President, Regione Lombardia
- **Michele Geraci**, Undersecretary, Italian Ministry of Economic Development

09:25 – 09:45

Highlights from the 2018 World Manufacturing Forum Report - Recommendations for the Future of Manufacturing

- **Marco Taisch**, Scientific Chairman, World Manufacturing Foundation

09:45 – 11:30

Innovation Priorities by 2030 in the World

Moderator: Andrea Cabrini, Director, Class Cnbc

The manufacturing strategy development for 2020 highlights both short and long-term challenges. While current efforts focus on encouraging industrial growth and job creation, long-term considerations are needed to address the challenges of globalisation, resource supply and ageing populations.

Megatrends help to determine production challenges of the future that will impact manufacturing companies. These challenges must be faced by production through innovative processes, new products or services, and groundbreaking technologies. The Fourth Industrial Revolution demonstrates how Key Enabling Technologies help innovative ideas transform into new products and services that create growth, highly skilled value-added jobs and help to address societal challenges around the globe.

This session will explore how the worldwide industry is answering these megatrends in order to satisfy the 2030 manufacturing global goals.

Session Opening Keynotes:

- **Marco Lavazza**, Vice Chairman, Luigi Lavazza
- **Signe Ratso**, Deputy Director General, DG Research and Innovation, European Commission
- **Francisco Betti**, Lead, Future of Production, World Economic Forum
- **Mike Lackey**, Global Vice President Solution Management, SAP
- **Maximiliano Martinhão Salvadori**, Secretary for Technological Development and Innovation, Brazilian Ministry of Science, Technology, Innovation and Communication

11:30 – 12:00

Coffee Break

12:00 – 13:40

Manufacturing Industry as Value Added for Society

Moderator: Andrea Cabrini, Director, Class Cnbc

Well-being and societal prosperity are shaped by the following key dimensions that should be taken into account simultaneously: health, education, personal activities including work, political voice and governance, social connections and relationships, and environment conditions. As the global economy continues to transform, many potentially disruptive production technologies are emerging and some of them are already drivers of the Fourth Industrial Revolution. At the same time, various barriers might hinder the potential impact of the next production revolution on productivity, growth, jobs and well-being.

The session aims to debate the relationship between economic growth, human well-being, and manufacturing development.

- **Sergio Dompé**, President and CEO, Dompé
- **Stefano Firpo**, Director General, Italian Ministry of Economic Development
- **Annamaria Simonazzi**, Professor of Economics, Università La Sapienza di Roma
- **Lucilla Sioli**, Director for Artificial Intelligence and Digital Industry, DG Communications Networks, Content and Technology, European Commission
- **Julien Tognola**, Director of the Industry Department, General Directorate for Enterprise, French Ministry of Economy and Finance
- **Luc Triangle**, Secretary-General, industriAll Europe



WMF Annual Meeting 2018

13:40 – 14:40

Networking Lunch

14:40 – 16:20

International Policies Advancing Manufacturing Development and Global Cooperation

Moderator: Uwe Combüchen, Director General, Ceemet

Global challenges in industrial development and a balanced transformation of the international economic landscape will drive diverse domestic and international policies.

Within the new industrial era, economic, societal and environmental transformations along with technological breakthroughs in areas such as robotics, the Internet of Things and Artificial Intelligence are accelerated. Automation, enabled by information technology, is transforming traditional manufacturing processes and the nature of work itself, promoting new business models.

The session will discuss how to harness the full potential of the Fourth Industrial Revolution to boost competitiveness in the global manufacturing industry by reinforcing international cooperation, promoting investment, and advancing the proper application of technology.

- **Bilal Macit**, General Director, DG for Science and Technology, Turkish Ministry of Science, Industry and Technology
- **Antti Peltomäki**, Deputy Director General, DG Internal Market, Industry, Entrepreneurship and SMEs, European Commission
- **Martin Sanne**, Executive Director, South African CSIR Materials Science and Manufacturing
- **Shinji Tokumasu**, Director, Manufacturing Industries Policy Office, Manufacturing Industries Bureau, Japanese Ministry of Economy, Trade and Industry
- **Ralf Michael Wagner**, COO, Mindsphere, Siemens
- **Zhao Qing**, Senior Vice President, Tus Holdings

16:20 – 16:50

Coffee Break

16:50 – 18:00

Solving the Manufacturing Skill Challenges: Creating a Skills Marketplace

Moderator: Andrea Cabrini, Director, Class Cnbc

The confluence of rapid technological change, globalisation and an ageing population is transforming manufacturing with unprecedented speed. Workforce requirements are evolving and new types of jobs are emerging. However, at the same time, skill shortage, mismatch and obsolescence represent a key challenge for industries and societies worldwide. How can we ensure education and evergreen learning for manufacturing workers and managers? Furthermore, how can we shape novel opportunities for effective skill utilisation in smart, inclusive and sustainable Industry 4.0 workplaces, in order to strengthen economic and social growth without leaving anyone behind?

The session aims to assess how information on job evolution and skill requirements are used by countries to review, renew and develop their education and training systems. Moreover, it will identify and discuss development of national and international frameworks that support coordination between education and training, skilled workers, and the labour market to create a skills marketplace.

- **Diego Andreis**, President, Ceemet
- **Martina Koederitz**, Global Industry Managing Director, IBM
- **Jayson Myers**, CEO, Next Generation Manufacturing Canada
- **Jorge Ramos**, CEO EMEA, Embraer

18:00 – 18:30

Keynote: "Digital Transformation: Three Superpowers of Manufacturers"

Through the waves of digital transformation, manufacturers have gained three superpowers that enhance products, operations, and workers. Today, manufacturing executives must make strategic choices as to how they apply these superpowers across their business. Please join PTC Executive Vice President of Products, Kathleen Mitford, as she defines how manufacturers can capitalise on the promise of digital transformation today and drive the future of industrial innovation.

- **Kathleen Mitford**, Executive Vice President, Products, PTC

19:00

Gala Cocktail and WMF Video Contest Award Ceremony

- **Fabrizio Sala**, Vice President and Regional Minister for Innovation, University, Export and Internationalisation, Regione Lombardia



28 September 2018

09:15 – 09:30

Opening Keynote

- **Massimo Garavaglia**, Vice Minister, Italian Ministry of Economy and Finance

09:30 – 11:00

Manufacturing as a Powerhouse of Emerging Countries

Moderator: Andrea Cabrini, Director, Class Cnbc

How will manufacturing affect the development of emerging countries? The role of the manufacturing sector in emerging countries is to create employment and wealth, even if it has also been observed that there are gaps in human skills, education and technology. This represents an obstacle in adequately addressing the manufacturing sector's ever-changing skill and technology needs.

Furthermore, as reported in the IMD Policy Paper of 2017, public investment has broadly increased in developing countries over the last 15 years. Despite this, the investment in infrastructures remain considerably lower than in other countries. Infrastructure services are primarily provided by the public sector and private participation is largely channeled through Public-Private Partnerships, which are mostly concentrated in the energy sector.

The session aims to explore the current situation of manufacturing development in emerging countries and the importance of embracing the digital revolution.

Session Opening Keynote:

- **Li Yong**, Director General, UNIDO
- **Pichet Durongkavoroj**, Minister, Thai Ministry of Digital Economy and Society
- **Carlos Magariños**, Ambassador, Embassy of Argentina in Brazil
- **Cham Prasidh**, Senior Minister, Cambodian Ministry of Industry & Handicraft
- **Luis Eduardo Siteo**, Senior Policy Reform Advisor, Mozambican Ministry of Industry and Commerce

11:00 – 11:15

Keynote

- **Vincenzo Boccia**, President, Confindustria

11:15 – 11:45

Coffee Break

11:45 – 13:15

Role of Financial Investment on Manufacturing Development

Moderator: Andrea Montanino, Chief Economist, Confindustria

Businesses cannot develop without adequate financial resources. A fast-changing scenario, such as that of the Fourth Industrial Revolution, should be accompanied by a modernisation of relations between banks and businesses, implemented at regional, national and international level.

Moreover, bank credit is no longer sufficient to meet the financial needs of businesses, therefore it is becoming necessary to mobilise private sources of long term financing for the real economy, with particular attention to SMEs.

This session aims to discuss the role of both traditional and alternative credit instruments to finance the activities of manufacturing companies.

Session Opening Keynote:

- **Gordon Bajnai**, Chairman of Global Advisory Board, Campbell Lutyens
- **Carlo Ferro**, President, STMicroelectronics Italy
- **Peter Lawler**, Executive Vice President, BDC Advisory Services
- **Adiari Vazquez**, Investment Manager, Caixa Capital



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13:15 – 14:15

Networking Lunch

14:15 – 15:45

Resource Aware Manufacturing: A Circular Economy to Satisfy Sustainable Development Goals

Moderator: Claudia Pensotti, Journalist, Class Cnbc

The circular economy represents an industry answer to a series of challenges such as waste generation, resource scarcity and sustaining economic benefits. Some years ago, industries began to implement strategies for sustainable development. The circular economy represents the most recent strategy that is able to integrate the economic activity and environmental issues in a sustainable way.

The session will present case studies and environmental strategies to demonstrate how a circular economy could benefit the environment while boosting competitiveness and resilience and will also show how the manufacturing sector can achieve the UN Sustainable Development Goals (SDGs).

- **Carlos Alvarez-Pereira**, Founder and President, Innaxis Foundation & Research Institute
- **Flemming Besenbacher**, Chairman, Carlsberg Group
- **Peter Dröll**, Director of Industrial Technologies, DG Research and Innovation, European Commission
- **Jay Rogers**, CEO, Local Motors

15:45 – 17:15

Artificial Intelligence and Cyber Industrial Revolution: Shaping the Future Factory

Moderator: Claudia Pensotti, Journalist, Class Cnbc

Nowadays, one of the features of Industry 4.0 is the emergence of digital factories that are characterised by a living network of machines, people and products enabling the real-time optimisation of the entire manufacturing flow. It promises higher production efficiency not only of factory floors but also of the entire value chain of manufacturing, supply and distribution.

The session focuses first on how the Artificial Intelligence and the Fourth Industrial Revolution shape the future factory. It presents emerging technologies that could enable and define future 5G mobile communication standards and cellular networks and discusses applied digital technologies such as additive manufacturing, robotics and augmented reality. Secondly, the session will investigate the challenges of the Digital Industrial Revolution regarding standardisation and cyber security, sharing the opinions of representatives and main actors in this field.

- **Fabio Barsotti**, Executive Vice President, Head of Manufacturing and Program Management Optimisation, Leonardo
- **Kenneth Budka**, Senior Partner, Nokia - Bell Labs
- **Max Lemke**, Head of Unit for Technologies and Systems for Digitising Industry, DG Communications and Networks, Content and Technology, European Commission
- **Ilijana Vavan**, General Manager Europe, Kaspersky Lab

17:15

Closing Cocktail

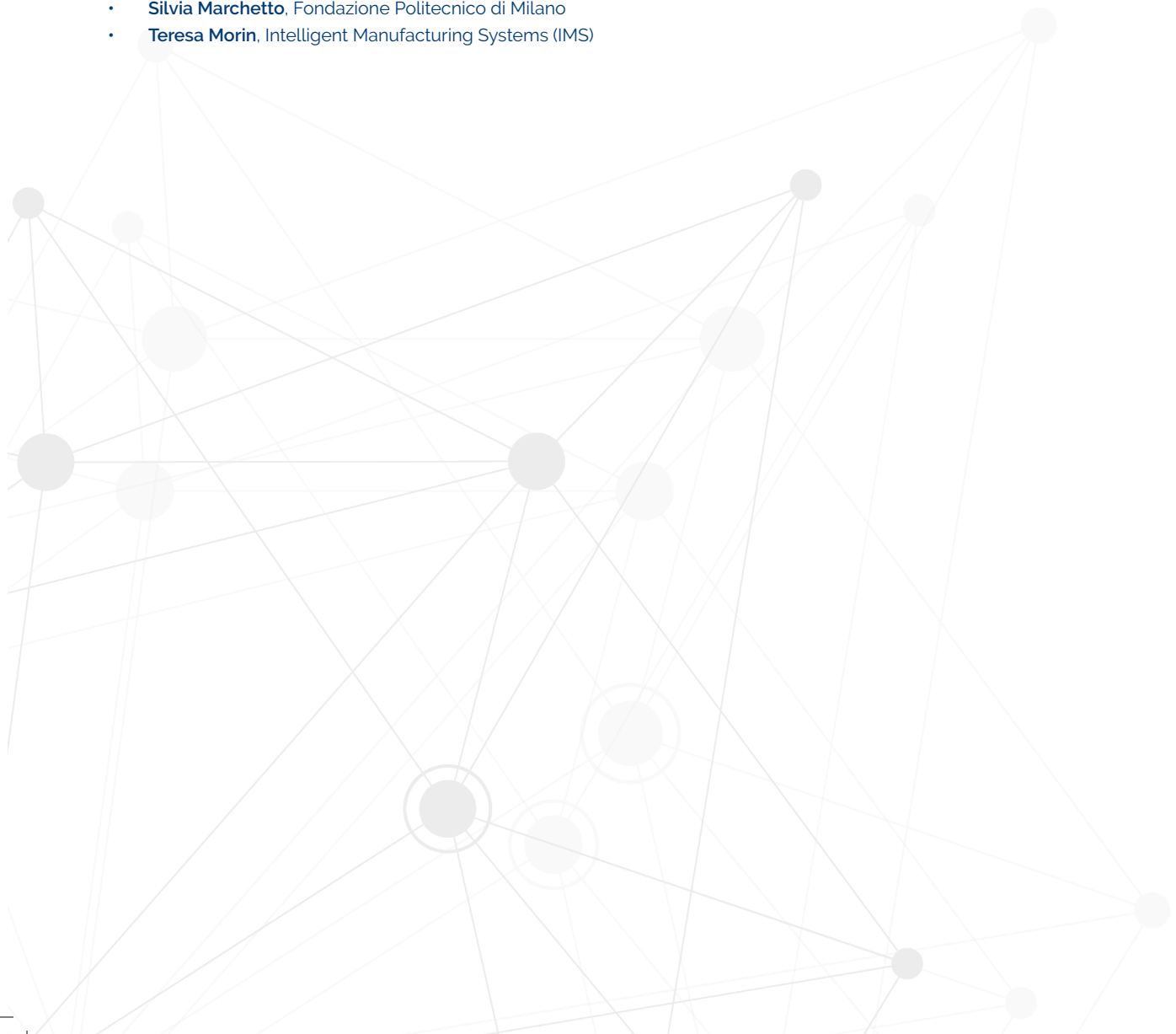


Program Committee

- **Dan Nagy**, Managing Director, Inter-Regional Secretariat, Intelligent Manufacturing Systems (IMS)
- **Silvia Pagani**, Director General, Confindustria Lombardia
- **Alberto Ribolla**, President, World Manufacturing Foundation
- **David Romero**, Research Scientist and Scientific Project Manager, Tecnológico de Monterrey University
- **Ivan Scannapiecoro**, Research Programme Officer, European Commission, DG Research and Innovation
- **Marco Taisch**, Scientific Chairman, World Manufacturing Foundation
- **Jurgen Tiedje**, Head of Unit, European Commission, DG Research and Innovation

Organising Committee

- **Roberta Alberti**, Confindustria Lombardia
- **Elisabetta De Berti**, Fondazione Politecnico di Milano
- **Laura Della Bella**, Confindustria Lombardia
- **Giacomo Fabbio**, Fondazione Politecnico di Milano
- **Polina Gorobtcova**, Fondazione Politecnico di Milano
- **Alessandro Ingegno**, Confindustria Lombardia
- **Rossella Luglietti**, World Manufacturing Foundation
- **Silvia Marchetto**, Fondazione Politecnico di Milano
- **Teresa Morin**, Intelligent Manufacturing Systems (IMS)



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2018 KEY RECOMMENDATIONS BY THE WORLD MANUFACTURING FORUM REPORT:

- Cultivate a Positive Perception of Manufacturing
- Promote Education and Skills Development for Societal Well-Being
- Develop Effective Policies to Support Global Business Initiatives
- Strengthen and Expand Infrastructures to Enable Future-Oriented Manufacturing
- Encourage Eco-Systems for Manufacturing Innovation World-Wide
- Create Attractive Workplaces for All
- Design and Produce Socially-Oriented Products
- Assist SMEs with Digital Transformation
- Explore the Real Value of Data-Driven Cognitive Manufacturing
- Promote Resource Efficiency and Country Specific Environmental Policies

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