

Annual Meeting 2019

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**PROGRAM**





World Manufacturing Forum

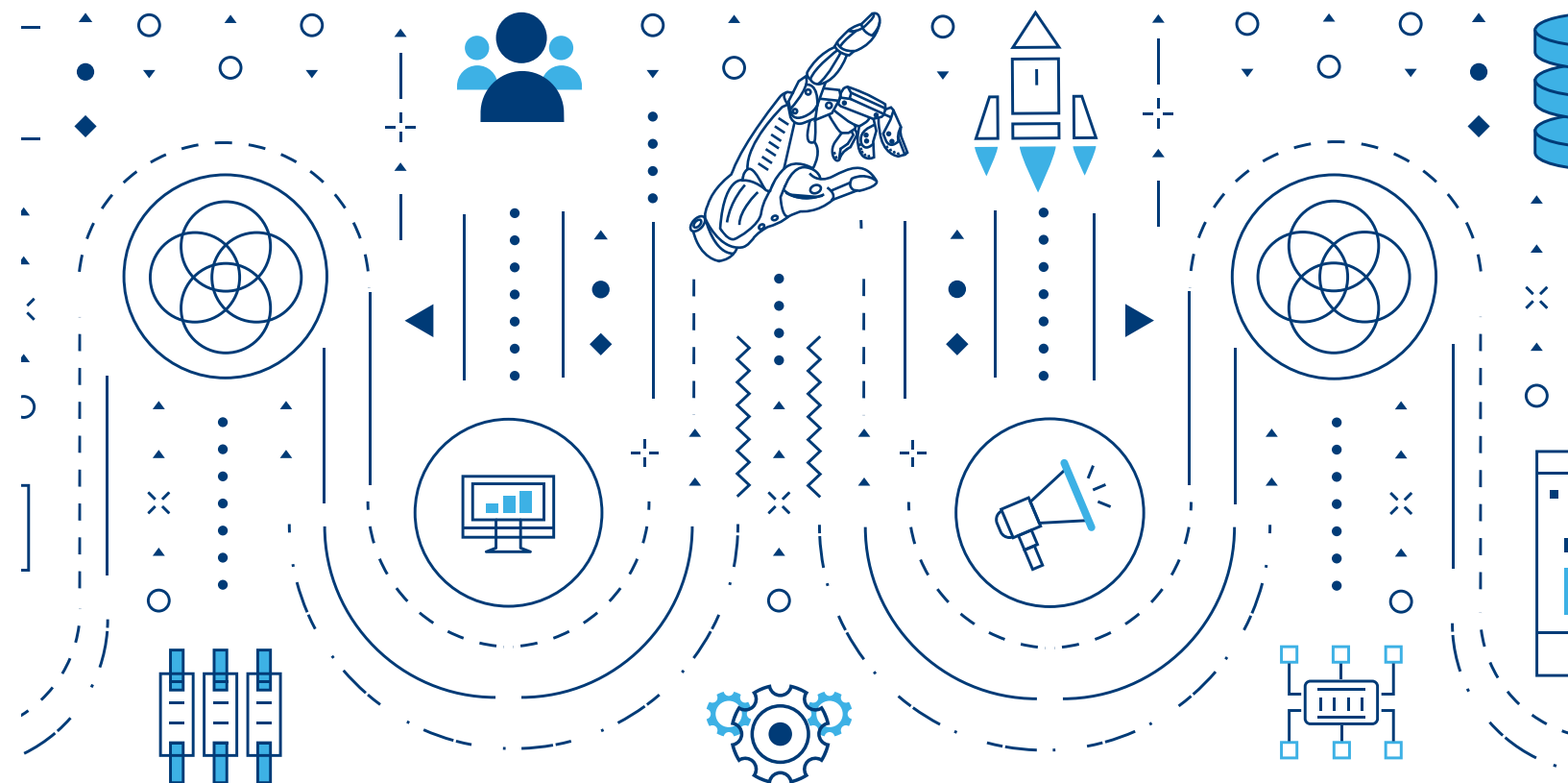
**WMF**

Annual Meeting  
2019

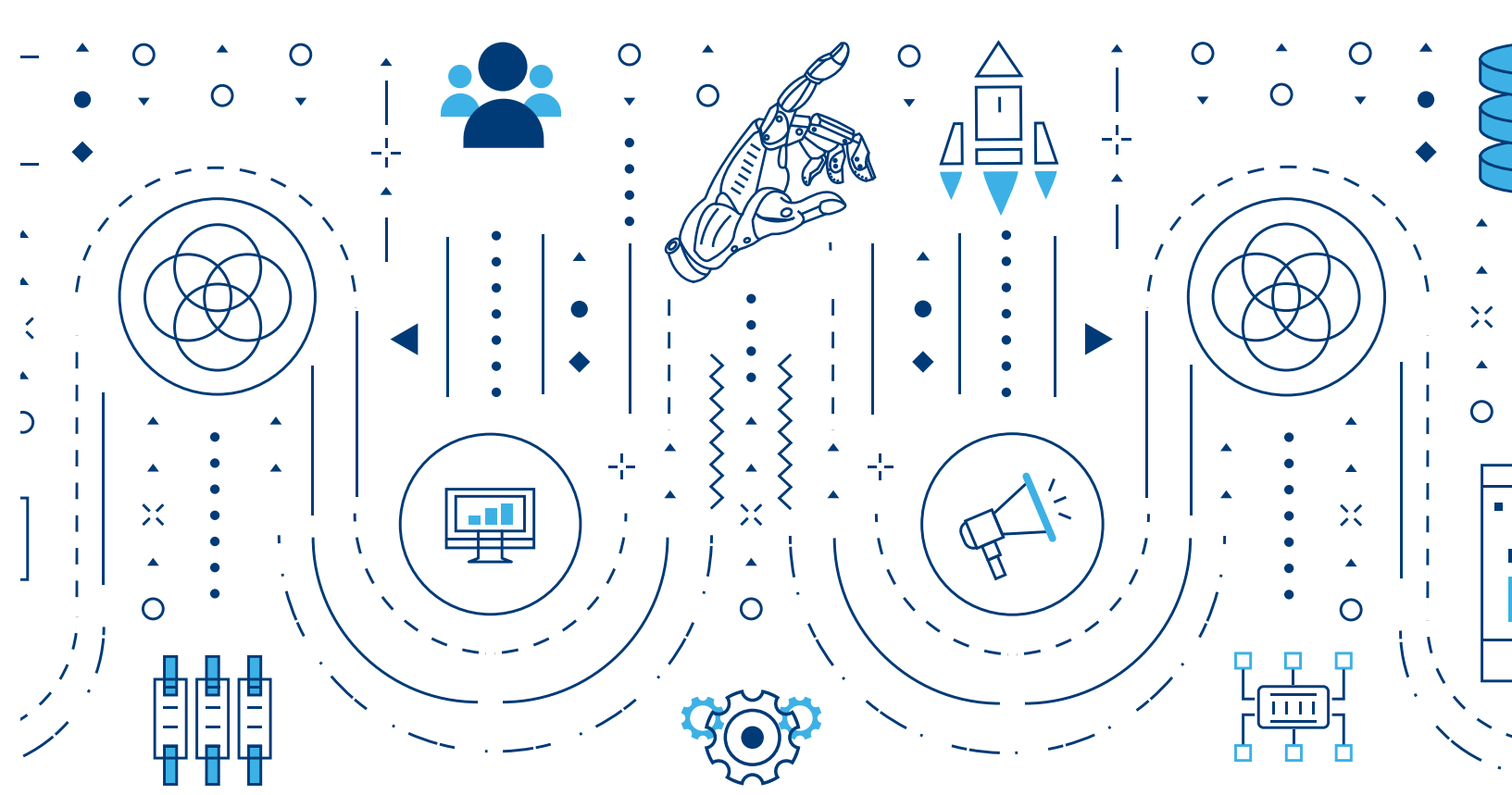
26-27 September 2019  
Villa Erba, Cernobbio

“New Skills for Future Manufacturing”

*The Role of Digitisation for an Educated, Productive and Healthy Workforce*







## VISION

The manufacturing sector is influenced by broad megatrends such as demographic changes, globalisation, advances in automation and the diffusion of artificial intelligence. These megatrends become the challenges for the future workforce. Future automation will change the types and number of tasks in most occupations. According to the World Bank, less than 20 percent of jobs are predicted to disappear completely. In 2017, McKinsey Global Institute presented that in the United States, for example, 30 percent of the jobs created since the late 1990s were types that did not exist before, such as IT administration, hardware manufacturing and development of smartphone applications.

New strategies and actions among governments, education and training systems, employers, workers, and other stakeholders are therefore required as skills affect people's lives and the well-being of nations in ways that go far beyond what can be measured by labour-market earnings and economic growth.

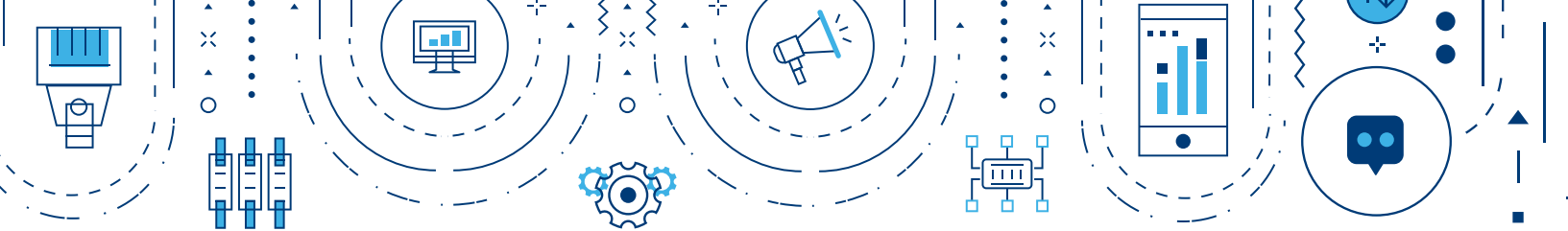
Governments need to adopt more relevant skills policies to tackle the current skill mismatches and develop the skills required by rapidly evolving labour markets. In order to prepare workers of the future with the correct capabilities, education systems should give greater attention to digital skills. Cutting edge education and training are also of paramount importance to empower present and future citizens to better navigate the complex systems characterising digitalised, global societal and production ecosystems. Enterprises and employers will need to make new investments to expand their involvement in educating, training and reskilling of workers. Finally, workers will need to proactively upgrade their skills or acquire new ones through training, education and lifelong learning ready for cross-functional roles. With this goal in mind, which will be the right path for an educated, productive and healthy workforce?

During the forthcoming edition of the World Manufacturing Forum Annual Meeting, it will be highlighted how, in the wake of the Fourth Industrial Revolution, technological innovation is moving forward rapidly. Thus, new crucial skills must be developed starting with primary education and continuing with workers retraining.

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, government and social actors.

During the WMF Annual Meeting 2019, international leaders will have the opportunity to hear how skills-oriented industrial policy agendas support future manufacturing. After a discussion on more general policies for worldwide manufacturing development, the round tables will focus more on skills challenges, and what competencies are needed in different countries (both developed and emerging) and manufacturing sectors. Finally, the Forum will close with a discussion on the jobs of the future that are still rapidly developing and those that currently do not still exist.

Furthermore, the Forum will encourage well-rounded discussion with the participation of high-level speakers from international organisations.



26<sup>th</sup> September 2019

09:30 – 10:00

#### Welcome and Institutional Highlights

- **Alberto Ribolla**, President, World Manufacturing Foundation
- **Marco Bonometti**, President, Confindustria Lombardia
- **Attilio Fontana**, President, Regione Lombardia

10:00 – 10:15

#### Leading European Regions Responding to Global Manufacturing Challenges

- **Fabrizio Sala**, Vice President, Regione Lombardia
- **Stéphanie Pernod Beaudon**, Vice President, Region Auvergne-Rhône-Alpes
- **Mireia Borell**, Secretary for foreign affairs and the European Union, Generalitat de Catalunya

10:15 – 10:40

#### WMF Report Presentation

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

10:40 – 11:00

#### WMF Key Recommendations: Opening Debate

**Moderator:** **Andrea Cabrini**, Director, Class Cnbc

- **Esther Lynch**, Deputy General Secretary, European Trade Union Confederation

11:00 – 11:30

#### Press Conference

*Held in Sala Contessa, Villa Antica - 1<sup>st</sup> Floor*

11:00 – 11:30

#### Coffee Break

11:30 – 13:00

#### Corporate Strategies and Industrial Policies for Digital Manufacturing

**Moderator:** **Andrea Cabrini**, Director, Class Cnbc

*While the advent of Industry 4.0 is the primary focus of national strategies for industrial revitalisation, the proliferation of new technologies has rapidly changed the landscape of many global industries.*

*The new policy framework serves as a strategic guide to enable the transformation of the manufacturing sector and accelerate the adoption of the Industry 4.0 and related technologies in response to the Fourth Industrial Revolution. It is vital that policies adopt to changing needs of companies to support their digital transformation strategies.*

*In the opening panel, the key pillars of national agendas from different countries, will be presented and shared between all the panellists and the audience. Representatives from large industrial associations will also share the strategic priorities and needs of companies in an increasingly digitised manufacturing environment.*

- **Dennis Darby**, President and CEO, Canadian Manufacturers & Exporters
- **Nadine Girault**, Minister, Ministry of International Affairs of Quebec
- **Jeroen Heijs**, Director for Industrial Policy, Ministry of Economic Affairs & Climate Policy (The Netherlands)
- **Renate Hornung-Draus**, Managing Director, Confederation of German Employers' Associations (BDA)
- **Mehmet Fatih Kacir**, Deputy Minister, Ministry of Industry and Technology (Turkey)
- **Ahmed Taha Boraie**, Deputy Minister, Ministry of Trade and Industry (Egypt)

#### Keynote speech

- **Beniamino Quintieri**, President, SACE

13:00 – 14:00

#### Networking Lunch





14:00 – 15:30

### Skills Gaps and Global Education System Across Various Manufacturing Industries

**Moderator:** Andrew Spannaus, Chairman, Milan Foreign Press Association

*The change of skills in manufacturing is not a singular challenge, but it diverges by industry and sector. Starting conditions, investments in technology adoption, skills availability and adaptability of the workforce, make different industries have different needs and approaches to future skills. However, a shared concern will be the retraining of workers, from roles that will be declining into those with a positive outlook. As the focus shifts to skills development, workers like new technologies will also continue to evolve, and the workplace will shift to a more healthy and human centric manufacturing.*

*The session aims to discuss and present the peculiarities of future skills in different manufacturing industries. What skills are needed for the transformation of the different manufacturing industries? How a globalised education should evolve to support the lifelong learning of workers not only in the schools (high schools, colleges and universities)?*

*One of the main discussion is related to the role of education and training providers in preparing the future manufacturing workforce and the responsibility of companies in retraining and "upskilling" existing workers. What is the role of apprenticeships and technical vocational education and how do they supplement formal education?*

- **Rhonda Barnet**, President & COO, AVIT Manufacturing
- **Giovanni Brugnoli**, Vice President, Confindustria
- **Lourino Chemane**, Advisor, Minister of Science and Technology, Higher and Technic Professional Education (Mozambique)
- **Jun Ni**, Professor and Director, University of Michigan
- **Leo Reddy**, Chair, President and Founder, Manufacturing Skill Standards Council (MSSC)

### Keynote Speech "The Perfect Mix: Humans, Artificial Intelligence and Machines in Future Manufacturing"

- **Josef Nierling**, Managing Director, Porsche Consulting

15:30 – 16:00

### Coffee Break

16:00 – 17:30

### Jobs to Come: The Future of Jobs in the World

**Moderator:** Andrea Cabrini, Director, Class Cnbc

*With the rise of the Fourth Industrial Revolution, many jobs are evolving. To support this evolution, new skills are necessary. It is evident that these changes are impacting many industrial sectors, but the manufacturing sector is among the most impacted due to the introduction of many innovative production technologies. On one side there will be the creation of new roles while conversely there will be the elimination of others.*

*The objective of this session is to understand how the workforce will evolve in order to be aligned with the competence requirements of Industry 4.0. The importance of "hard" skills will increase due to the proliferation of Industry 4.0 technologies. In the same way, technological evolution will increase the importance of more human-centric skills such as analytical thinking, problem solving and transformation skills. Therefore, skills of future jobs are different from the current jobs, and it is vital to prepare the workers of the future need to be ready for these changes.*

- **Alberto Alesi**, Mexico Director, ManpowerGroup Solutions
- **Francisco Betti**, Lead Future of Production, World Economic Forum
- **Tony Bond**, CIO, Great Place to Work
- **Jong-Seok Lee**, Associate Professor, Sungkyunkwan University, Fellow Professor, POSCO
- **Dov Moran**, Managing Partner, Grove Ventures

17:30 – 18:00

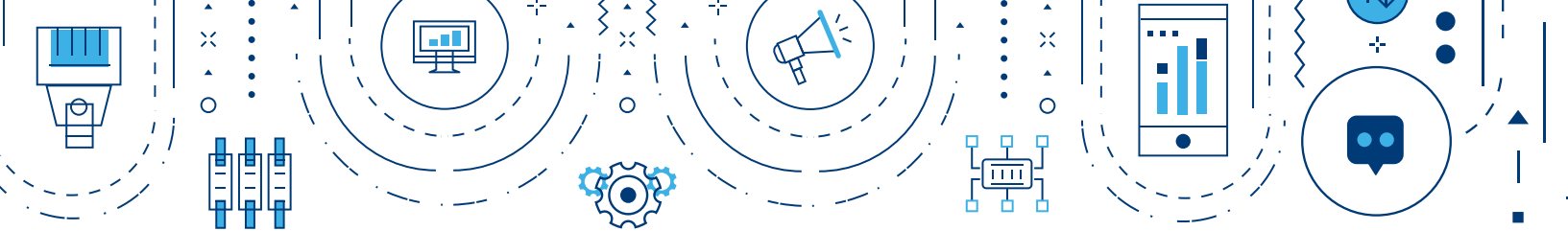
### Closing Keynote: "How Industrial Companies Capitalize on Digital Transformation"

- **James E. Heppelmann**, President and CEO, PTC

19:00

### Cocktail & Business Idea Challenge Award Ceremony

- **Fabrizio Sala**, Vice President, Regione Lombardia



27<sup>th</sup> September 2019

09:30 - 10:00

Welcome and Institutional Highlights

10:00 - 11:30

Policy Framework for Industrial Skills Development in Emerging Countries

**Moderator:** Claudia Pensotti, Journalist, Class Cnbc

*With the advent of the Fourth Industrial Revolution and the disruptive technological change, the need for specialized technical skills calls for immediate attention. The skill-set required to join the manufacturing sector depends both on levels of development and industrialization, on the technological progress and integration in global value chains (GVCs) inter alia. Moreover, as a growing number of current jobs become vulnerable to automation, public and private sectors need to come together to advance skills development programmes to provide a qualified labour pool for the jobs of the future. Likewise, they have to develop or improve industrial competitiveness. This session will explore how emerging economies are promoting and harnessing 4IR through educational systems and skill policies.*

- **Olga Memedovic**, Chief of the Business Environment, Cluster and Innovation Division, and Deputy Director of the Department of Trade, Investment and Innovation, UNIDO
- **Afia Owusu-Forfie**, Director, Coders Who Travel Inc.
- **Sardar Ahmad Nawaz Sukhera**, Secretary of Commerce, Ministry of Commerce (Pakistan)
- **Jürgen Tiedje**, Head of Unit, DG Research and Innovation, European Commission

11:30 - 12:00

Coffee Break

12:00 - 12:15

Keynote Speech

- **Vincenzo Boccia**, President, Confindustria

12:15 - 13:45

Disruptive Technologies to Enrich the Digital Manufacturing Transformation Journey

**Moderator:** Claudia Pensotti, Journalist, Class Cnbc

*Digital technology provides the potential for a fundamental transformation in businesses and organisations as well as the development of new business models. The Internet of Things (IoT), Artificial Intelligence, Robotics Process Automation, Machine Learning, and Blockchain increase the importance of data that is the basis for enriching the digital transformation journey.*

*Nowadays, every organizational decision around a digital transformation strategy is driven by data. In today's world of digital disruption, data is the most valuable asset to an organization. Businesses can transform themselves through data, and data is transformed through digitalization.*

*Machine learning methods require massive datasets and an increase in power with more data, making data access a key competitive advantage. This potentially conflicts with the prevailing global industrial culture and ethics, which emphasizes nondisclosure of data, especially to competitors. The same could also be said for artificial intelligence and other emerging technologies.*

*This session will focus on how to harness the potential of these new technologies to unlock its value not just for companies but for the society at large.*

- **Andrea Chiesi**, Director R&D Project & Portfolio Management, Chiesi Group
- **Lloyd F. Colegrove**, Director of Data Services and Fundamental Problem Solving, The Dow Chemical Company
- **Thérèse de Liedekerke**, Deputy Director General, Business Europe
- **Bruce Kramer**, Senior Advisor, National Science Foundation
- **Max Lemke**, Head of Unit for "Technologies and Systems for Digitising Industry", DG Connect, European Commission

13:45 - 14:00

Closing Keynote

14:00

Closing Lunch







## WMF COMMITTEES

### *Program Committee*

- **Rossella Luglietti**, General Manager, World Manufacturing Foundation
- **Dan Nagy**, Managing Director, Inter-Regional Secretariat, Intelligent Manufacturing Systems (IMS)
- **Silvia Pagani**, Director General, Confindustria Lombardia
- **David Romero**, Research Scientist and Scientific Project Manager, Tecnológico de Monterrey University
- **Dong Sub Kim**, Chair Professor and Head of Institute for the 4th Industrial Revolution, Ulsan National Institute of Science and Technology
- **Marco Taisch**, Scientific Chairman, World Manufacturing Foundation
- **Cecilia Ugaz Estrada**, Director, Department of Policy Research and Statistics, United Nations Industrial Development Organization
- **Randy Zadra**, Senior Advisor & Director National Research Council

### *Organising Committee*

- **Roberta Alberti**, World Manufacturing Foundation
- **Mark Casidsid**, World Manufacturing Foundation
- **Elisabetta De Berti**, World Manufacturing Foundation
- **Giacomo Fabbio**, World Manufacturing Foundation
- **Alessandro Ingegno**, World Manufacturing Foundation
- **Rossella Luglietti**, World Manufacturing Foundation
- **Teresa Morin**, Intelligent Manufacturing Systems (IMS)

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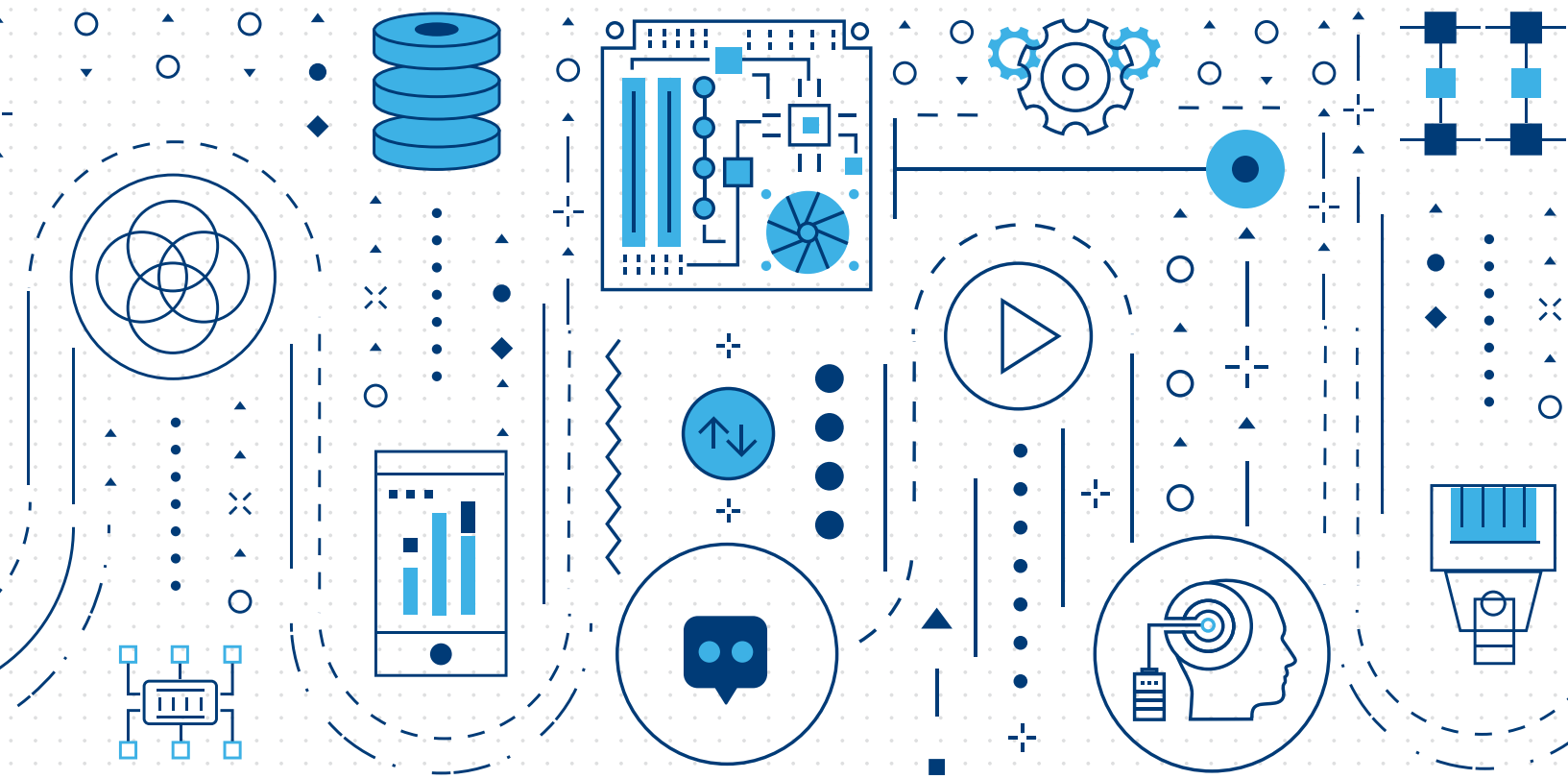
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