

Foreword

At the start of 2015 the OECD began work on a two-year project entitled *Enabling the Next Production Revolution*. The work set out to better understand the economic and policy implications of a set of technologies that are likely to significantly affect production over the medium term.

This work commenced with financial support from the Secretary-General's Central Priority Fund. The project greatly benefitted from voluntary contributions from the governments of Australia and the United Kingdom. Particular thanks are due to the government of Norway, whose support helped to widen the project's scope. Thanks are likewise due to the government of Sweden, particularly the Ministry for Enterprise and Innovation and the national innovation agency, Vinnova, for co-organising and hosting a major conference on the themes in this report, titled *Smart Industry: Enabling the Next Production Revolution*. The conference, held in Stockholm in November 2016, helped to discuss and refine analyses and policy ideas with policymakers, practitioners and academics. The conference was filmed, and the proceedings can be viewed at www.vinnova.se/en/misc/Smart_Industry_Conference/.

Owing to the cross-cutting character of the work on the next production revolution, the chapters of this publication were discussed and declassified by various OECD Committees, including the Committee for Scientific and Technological Policy (which had oversight responsibility for the project); the Committee for Industry, Innovation and Entrepreneurship, the Committee for Digital Economy Policy and the Environment Policy Committee. The comments and inputs formulated by delegates to these OECD official bodies are gratefully acknowledged. Within the OECD Secretariat, the project was led by the OECD's Directorate for Science, Technology and Innovation. A project interim report containing early policy messages was discussed by the OECD Executive Committee and OECD Council and was presented at the OECD's Ministerial Council Meeting of June 2016.

As this report describes, much policy-relevant research on the changing nature of production remains to be done. Further information on OECD work on this subject will be posted at <http://oe.cd/npr-industry>. A number of issues raised in this report in connection with digital technologies will also be examined during 2017 and 2018, with new data, in an OECD project titled *Going Digital: Making the Transformation Work for Growth and Well-being*. Updated information on this project can be found at www.oecd.org/sti/goingdigital.htm.

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Chapter 7 ("The next production revolution and institutions for technology diffusion") was authored by Philip Shapira, Manchester Institute of Innovation Research, Alliance Manchester Business School, University of Manchester, and Jan Youtie, Enterprise Innovation Institute, Georgia Institute of Technology.

Chapter 8 ("Public acceptance and emerging production technologies") was written by David Winickoff from the OECD's Directorate for Science Technology and Innovation.

Chapter 9 ("The role of foresight in shaping the next production revolution") was authored by Attila Havas, from the Hungarian Academy of Sciences, and Matthias Weber, from the Austrian Institute of Technology. Extensive input to this chapter was also provided by Michael Keenan from the OECD's Directorate for Science Technology and Innovation. Duncan Cass-Beggs and Joshua Polchar, from the OECD's Strategic Foresight Unit, kindly commented on this chapter.

Chapter 10 (“An international review of emerging manufacturing R&D priorities and policies for the next production revolution”) was authored by Dr Eoin O’Sullivan, Director, Centre for Science, Technology & Innovation Policy (CSTI), Institute for Manufacturing (IfM), University of Cambridge, and Dr Carlos López-Gómez Head, Policy Links Unit, Institute for Manufacturing (IfM), Education and Consulting Services, University of Cambridge.

Chapter 11 (“The rise of advanced manufacturing institutes in the United States”) was written by William B. Bonvillian, Lecturer at MIT, and the former Director of MIT’s Washington Office.

Chapter 12 (“China and the next production revolution”) was authored by Qian Dai, Programme Officer, Department of International Cooperation, Ministry of Science and Technology of China, and Consultant with the OECD’s Directorate for Science, Technology and Innovation.

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