Foreword

The growth in global greenhouse gas emissions and the ensuing climate change have become amongst the most pressing of global environmental problems. The key overarching challenge is how to address this problem successfully and maintain competitiveness; that is, how to integrate environment and economy so as to achieve sustainability and a vibrant economy. The Economic and Social Research Institute of the Cabinet Office, Government of Japan, has engaged in a rolling series of International Collaboration projects, with the objective of bringing together some of the best thinking and research internationally and nationally to inform the choices which Japan faces in this area. Some of the key insights and findings are being published by Edward Elgar in a series of books.

Road transport represents a fast-growing source of greenhouse gas emissions and changing this emissions trajectory is proving difficult. This comprises both a threat and an opportunity. For those in the industry who succeed in developing commercially viable cars that are attractive to consumers and reduced emissions of greenhouse gases, there are great market-expanding opportunities. For those who fail to meet this challenge, market opportunities are likely to shrink, as the world becomes increasingly carbon-constrained. Therefore, I welcome this book, which is the product of the research undertaken as part of the International Collaboration projects. It attempts to provide technology and policy-based solutions to the mitigation of greenhouse gas emissions from passenger cars. The book looks forward and not only presents the technologies in the automobile sector that will be necessary to make automobile transport sustainable, but also discusses an array of policies that can achieve this objective. As such, I hope and expect that it will help improve the quality of the debate as we consider how to move forward in this area, one which is of particular interest for Japan.

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