The interconnected, multidimensional and intergenerational nature of the 2030 Agenda and the Sustainable Development Goals (SDGs) calls for integrated policies across countries and dimensions. The improvements achieved in a particular socio-economic or environmental dimension or SDG could generate a large set of synergies and trade-offs across dimensions (spillover effects), and the large interconnections existing between countries could contribute to amplifying the cross-country or cross-regional effects generated by policies (transboundary effects).

Multidimensional and cross-border assessments of policies has become even more urgent due to the wide range of impacts resulting from COVID-19 containment measures. To move society in the direction of sustainability and design sustainable and resilient recovery plans, policy actions need to be fostered through a set of principles, including – amongst others – inter and intra-generational equity, and based on evidence. However, the gaps in terms of governance and analytical tools to identify and manage spillover and transboundary effects challenge governments in the design and implementation of their strategy towards sustainability.

This report aims at filling some of these gaps by proposing a set of new governance and analytical tools, lessons learnt and good emerging practice to manage spillover and transboundary effects in the implementation of the 2030 Agenda. The ultimate objective is to support practitioners, policy makers and scientists in their work and efforts to design long-term recovery strategies and operationalize a sustainable and resilient future by implementing the 2030 Agenda.

The report is structured as follows:

SECTION 1 focuses on governance challenges. Governments face many challenges when considering the cumulative, inter-related and transboundary impacts of policies and regulatory regimes in the context of the implementation of the 2030 Agenda.

Chapter 1.1 analyses the experiences of OECD countries, since the adoption of the 2030 Agenda, in strengthening and putting in place mechanisms for addressing the transboundary impacts of domestic policies on sustainable development. It aims to identify lessons learnt and good emerging practices that could be relevant for enhancing policy coherence mechanisms, which are adapted to the integrated nature of the SDGs and also respond to the needs of the current COVID-19 context.

Chapter 1.2 proposes a country impact assessment strategy as a key governance tool for the identification and management of spillover effects and transboundary impacts in the context of the 2030 Agenda.

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1 This report is a joint publication by the European Commission Joint Research Centre (EC-JRC) and the OECD.
proposal consists of an operational procedure adopting a pathway of impacts approach, including the interdependencies existing between countries, identified on the basis of evidence and collaboration between countries. In line with SDG 17 principles, the proposed framework could support the design of integrated policies for sustainable development and recovery from COVID-19 by pursuing policy coherence for sustainable development both in sectors and in geographical areas.

Chapter 1.3 focuses on the untapped potential of the 2030 Agenda and the SDGs in articulating transboundary effects of domestic policies on developing countries. It explores the extent to which OECD members are using the SDGs as a critical lever to enhance co-ordination at home by promoting policies that are coherent with sustainable development objectives and abroad by delivering consistent support to sustainable development in partner countries.

Chapter 1.4 presents examples and recent efforts to measure Responsible Business Conduct impacts throughout the global economy in order to help policy makers, businesses and other stakeholders make informed decisions, and elaborates on the relevance of this work for measuring transboundary impacts in SDG implementation.

Chapter 1.5 Discuss the role of private sector and specific focus on three Italian Multinational Enterprises. The three proposed case studies are analysed involving relevant Italian MNEs (Enel, Eni and Tim) that have faced the challenge posed by the nexus between business and human rights in terms of national and global commitment to sustainable development.

SECTION 2 highlights existing methodologies and indicators used to analyse spillover and transboundary effects, and identifies gaps that new tools could help to address. It also presents a number of new methodologies and evidence-based tools that can help policy makers to manage spillover and transboundary effects in 2030 Agenda by identifying interlinkages (synergies, complementarities, trade-offs) between the SDGs and across countries.

Chapter 2.1 explores the conceptual framing and measurement of transboundary impacts across borders in the context of the 2030 Agenda. A new approach is proposed for measuring transboundary impacts using five types of flows, which are described using data for each of them to explore global transboundary dynamics. The chapter also suggests next steps and issues to be addressed in the future.

Chapter 2.2 provides a proof of concept on how to combine multiple datasets in order to build indicators that can assess the transboundary aspects related to the SDGs and targets.

Chapter 2.3 presents a quantitative approach based on the multi-region, multi-commodity economic simulation model MAGNET. It describes how the approach links to the OECD Policy Coherence for Sustainable Development framework and illustrates results of a business as usual reference scenario with two climate and energy sustainable pathways towards 2050, focusing on global transboundary impacts employing the SDG indicator framework.

Chapter 2.4 introduces a systematic and systemic approach that can support the identification and assessment of SDG spill-over effects between the EU and the rest of the world. The approach is
operationalized by focusing on three complementary analytical lenses that help identify transboundary impacts, including synergies, complementarities and trade-offs: (1) drivers of change and global megatrends assessments; (2) environmental footprint approaches; and (3) systems assessments, with a particular focus on the food system. Advantages and limitations of the approach are discussed along with proposed ways forward.

**Chapter 2.5** focuses on the Life Cycle Analysis methodology for assessing the transboundary effects within the environmental assessment of consumption in the context of SDG 12. It applies the use of the Consumption Footprint indicator to assess environmental impacts of EU consumption.

**Chapter 2.6** presents a new approach for measuring environmental impacts of human activity at the country level including both domestic impacts and the transboundary spillover of harms. This new approach aims to respond to three major limitations in existing frameworks and scorecards of national environmental sustainability: (1) the absence of metrics to gauge success on Sustainable Development Goal (SDG) 12 on Responsible Consumption and Production; (2) the lack of a methodologically rigorous way to track the environmental impacts embodied in traded goods, sometimes called “exported pollution,” and the transboundary physical flows of environmental harm from domestic production and consumption; and (3) the absence of a comprehensive and reliable set of indicators related to the decoupling of economic activities from environmental impacts at the country level, such as greenhouse gas emissions and loss of biodiversity. In response, this chapter offers a new structure of data analytics framed by the SDGs and offering new insights using consumption- and production-based accounting.

**Chapter 2.7** highlights the relevance of Policy Priority Inference (PPI) for Sustainable Development (PPISD) initiative implemented by the Office of the United Nations Development Programme (UNDP) in Mexico. The PPI model is adapted to the SDGs and tested with real-world data to identify how its results can inform decision making. Building on the outcomes of the project, the chapter presents various ways in which the PPI model can generate information to help governments optimize progress on the SDGs at the local, national and global level.

**Chapter 2.8** focuses on Systems Thinking and the System Dynamics modeling approaches as effective methodologies to anticipate the behaviour of potentially destructive exponential dynamics. It demonstrates how timely and focused interventions can improve outcomes with implications for the 2030 Agenda as well as transboundary sustainable development.

[A final section identifies and recommends key elements for future research by policy makers and scientists, which would support the transition to a sustainable and resilient future.]