We are pleased to present the 2018 edition of the Global Innovation Index (GII) on the theme ‘Energizing the World with Innovation’.

Energy demand is reaching unprecedented levels as a result of a growing world population, rapid urbanization, and industrialization. Higher levels of technological and non-technological innovation are required to meet this demand, both on the production side of the energy equation (alternative sources, smart grids, and new advanced energy-storage technologies) and on the consumption side (smart cities, homes, and buildings; energy-efficient industries; and transport and future mobility). Innovation plays key roles in addressing both sides of that equation. However, technological innovation alone is rarely the solution. Changes in societal norms and cultures along with innovations in organizational processes are also essential.

The GII 2018 analyses the energy innovation landscape of the next decade and identifies possible breakthroughs in fields such as energy production, storage, distribution, and consumption. It also looks at how breakthrough innovation occurs at the grassroots level and describes how small-scale renewable systems are on the rise.

Last year marked the 10th edition of the report. Work in the context of the GII continues on two important fronts: assisting countries to better assess their innovation performance by collecting innovation metrics according to international standards, and helping empower countries to improve their innovation policies while leveraging their strengths and overcoming challenges. On both fronts, national GII events have made substantial progress. First, technical sessions across national capitals with data and innovation experts have elaborated on how to close gaps in countries’ innovation metrics. Second, high-level meetings with a cross-section of innovation stakeholders have expanded on countries’ innovation performance and possible sectoral priorities, often leading to concrete innovation policy agendas.

Despite the decade-long positive influence of the GII, significant progress is needed on key questions related to innovation metrics. How should one better measure innovation and intangible assets in the services sector? How can linkages between innovation actors be better quantified and assessed? How can the more open nature of innovation processes be captured? Discussions in capitals and in academic settings, and related experimentation with new indicators in the context of the GII, offer a welcome opportunity to shape future innovation metrics.

The GII 2018 again includes a ranking of the world’s largest clusters of science and technology activity. As last year, this ranking relies on international patent filings to identify such clusters. This year, the report introduces scientific publishing activity as a second measure of cluster performance. While still a long way from fully capturing innovation performance at the city and regional level, we hope that this big data approach to measurement offers an increasingly useful complement to the country-based ranking that forms the core of the GII.

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We also thank our prominent Advisory Board, which has been enriched by three new members this year: Audrey Azoulay, Director-General, United Nations Educational, Scientific and Cultural Organization (UNESCO); Philippe Kuhutama Mawoko, Executive Secretary, the African Observatory for STI, African Union Commission; and Sergio Mujica, Secretary-General, International Organization for Standardization (ISO).