



# Inclusive Innovation Atlas

EXECUTIVE SUMMARY

## Executive summary

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## Background, motivation and definition

In recent years, observers everywhere have watched with fascination Asia's rapid economic ascent and its impressive performance on several social indicators. Across Asia, more and more people are not only living longer, they are increasingly able to take part in and contribute to economic and social life. Creating greater participatory opportunities for those who are otherwise economically marginalized through new products and services – also known as inclusive innovation – has been identified as a key factor driving this remarkable success. The potential inclusive innovation bears in a region expected to drive 40% of global consumption by 2040 (MGI, 2019) is massive and is of growing interest to decision-makers in the public and private sectors of so-called developed countries.

In both the political domain and the impact investment community, “inclusive innovation” has become a much-debated phenomenon in recent years. In academic discussions, the term stands side by side with related, yet not identical concepts of “frugal” and “jugaad” innovation (Brem and Wolfram, 2014). In contrast to these concepts, however, the concept of inclusive innovation has remained a somewhat “weakly defined” (Chataway et al., 2013) area of inquiry. As a result, inclusive innovation has represented a difficult-to-measure opportunity for business and society.

This Atlas for Inclusive Innovation set out to amend this persistent fuzziness, first by clarifying our fundamental understanding of what inclusive innovation is and then by providing concrete evidence of triggers, enabling conditions and activities in the field in different countries.

In line with the core proposition of frugal innovation, inclusive innovation thus relates to innovation activities performed with the ambition to provide “**more for more for less**” (Radjou/Prabhu, 2015) – that is, to conceive *more* functional solutions that are accessible to more customers, as they require *less* resources and come at a lower price. At its core, **the concept suggests that serving the needs of the less wealthy – or even genuinely poor – need not necessarily be a matter of charity.** In practice, inclusive ventures as well as established corporates have demonstrated that **innovating for those otherwise excluded from consumption can be a profitable business model.** Where developers address simple, yet prevalent needs

smartly, development costs remain limited and can be swiftly offset by the large numbers of additional customers reached by the newly provided solutions, even if individual margins are low.

More explicitly than frugal innovation which – in a first step – focuses on commercial viability, inclusive innovation is more directly **associated with “doing good” or at least with taking a societal perspective when starting activities**. Indeed, inclusive innovations arguably provide a more lasting and systemic contribution to resolving societal challenges than do traditional charities. In short, **reconciling commercial viability with societal development within one business model is the core proposition of inclusive innovation**. It highlights and heralds the potential of individual entrepreneurship (both private and public) in addressing societal challenges and in contributing to the pervasive delivery of sustainable solutions in the social, economic and environmental domains.

Accordingly, the following report defines inclusive innovation as follows:

As an objective, inclusive innovation seeks to provide sustainable solutions to those who would otherwise remain excluded from access to offers as a result of their social, economic or environmental context. As an activity and business model, it reconciles the goals of commercial viability with sustainable societal development.

## Approach and ambition

By means of a two-step approach, the Inclusive Innovation Atlas offers two important perspectives on the development of inclusive innovation practices. First, it provides evidence of existing activities, cutting through the veil of political rhetoric to look at the genuine impact they have on socioeconomic development. Second, it provides an evidence-based assessment of individual countries’ specific potential to take advantage of inclusive innovation opportunities in the future. Irrespective of the current level of activities, socioeconomic conditions inevitably vary from country to country; these differences can in turn be analyzed with a view to identifying advantages or disadvantages for future inclusive innovation initiatives.

Empirically, insights on the first perspective (activities) are drawn from a broad-based survey of experts conducted in early- to mid-2018. By means of this survey, 77 responses were collected for 21 countries across Asia, compiling close to four answers per country on average. Thus, the Inclusive Innovation Atlas can draw on an unprecedented wealth of country-specific expert assessments from diverse national contexts.

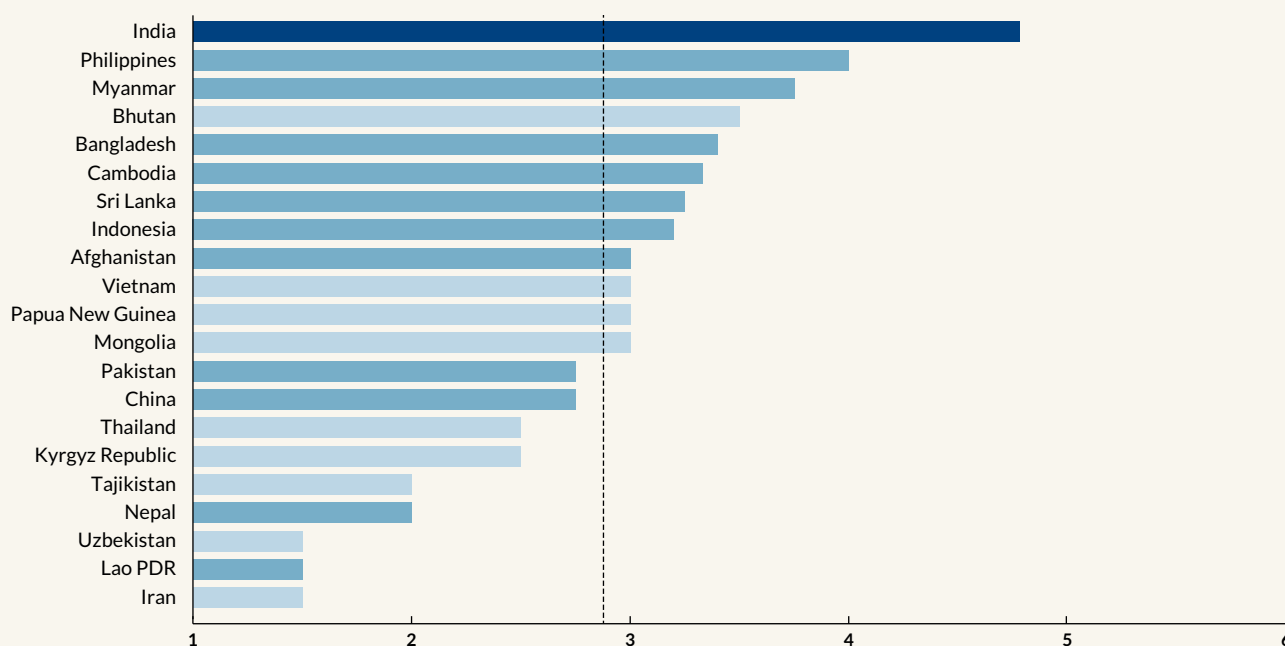
Additionally, insights on the second perspective (potentials) are developed based on an aggregation of specific indicators from a diversity of well recognized sources, including the World Bank Group, the United Nations, the World Economic Forum, the World Values Survey, the International Monetary Fund, Transparency International and the Global Footprint Network. Some of them also include findings from the abovementioned survey. Overall, the Inclusive Innovation Atlas aggregates a total of 72 individual indicators based on a meticulous consideration of conceptual substance and proven empirical relevance.

## Perspective 1: Evidence of existing activities

As Figure 1 illustrates, the Inclusive Innovation Atlas confirms prevailing assumptions that India, the Philippines and Indonesia are countries with an above-average level of inclusive innovation activity. Among these, India stands out as the country with the highest level of activities that can be deemed “inclusive.” Furthermore, the analysis reveals a strong presence of such activities in Myanmar, Bhutan, Bangladesh, Cambodia and Sri Lanka. Interestingly, notable levels of activity are also reported in several countries that have not previously been closely associated with this topic, including Afghanistan, Vietnam, Papua New Guinea and Mongolia.

In part, these findings can be explained by the fact that political rhetoric on the topic of inclusive innovation is not always related to the intensity of actual activity (Figure 2). In India and the Philippines, a high level of political attention matches an equally high level of entrepreneurial activities. At the other end of the scale, a similar alignment is found in countries such as Laos, Iran and Uzbekistan, where limited entrepreneurial activities are matched by a low level of interest at the policy level. At the same time, some countries display high levels of inclusive innovation despite the absence of or limited political attention paid to the concept. Starting with Papua New Guinea and Indonesia, this group also includes Cambodia, Thailand and the Kyrgyz Republic. Conversely, China’s leadership has recently attributed increased importance to inclusiveness, while actual activities in this domain remain underdeveloped, or have at least escaped the Atlas’ survey.

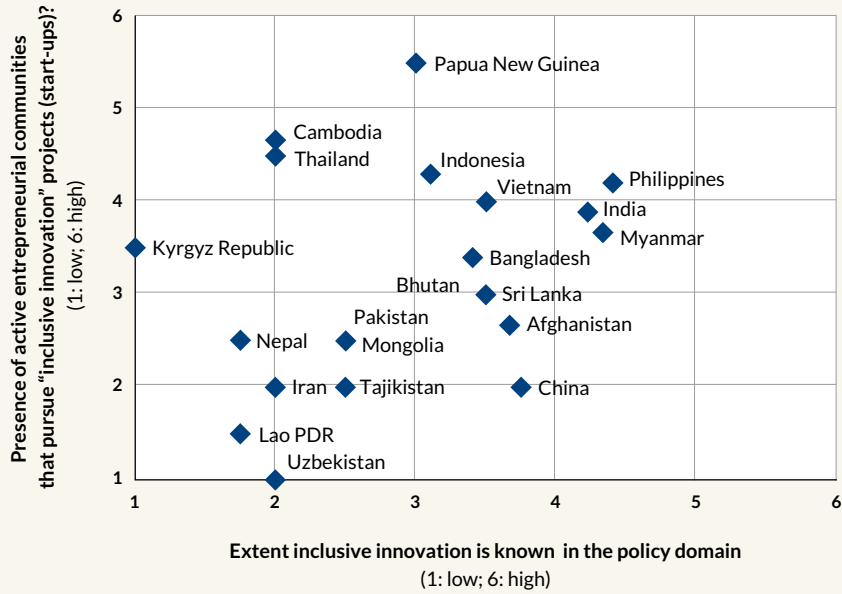
FIGURE 1 Overall level of inclusive innovation activities, from 1 (very low) to 6 (very high)



Source: Fraunhofer ISI analysis based on survey data collected by Fraunhofer ISI and Intellectap

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FIGURE 2 Entrepreneurial activities vs. acknowledgment in the policy domain



Source: Fraunhofer ISI analysis based on survey data collected by Fraunhofer ISI and Intelicap







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## Perspective 2: Evidence-based assessment of future potential

For inclusive entrepreneurship to thrive and succeed, countries must fulfill two main criteria. On the one hand, they must display a certain level of social, economic and environmental challenges that trigger responses in the form of entrepreneurial action. These can be subsumed under the heading of “local challenges.” On the other hand, inclusive innovation depends on a number of factors that permit and enable entrepreneurial responses. These can be subsumed under the heading of “capacity factors.” Local challenges that could trigger inclusive innovation include insufficiently developed infrastructures, an overall lack of socioeconomic development, and disparities that exclude certain parts of the population even in otherwise wealthy countries. Capacity factors include cultural attitudes that favor or inhibit inclusive endeavors, the absorptive capacity of local industry with regard to alternative solutions that quite often involve knowledge transfer, and the quality of the governance and institutions that affect all entrepreneurial activity, including inclusive entrepreneurship.

The following Figure 3 illustrates how these different aspects are considered as sub-dimensions of “local challenges” and “capacity factors.” The subsequent sections provide an overview of the surveyed countries in terms of these two overarching perspectives as well as details regarding the respective sub-dimensions.

FIGURE 3 Local challenges and capacity factors as triggers and enablers of inclusive innovation

CHALLENGES			CAPACITIES		
					
POOR INFRASTRUCTURE / HARSH ENVIRONMENT	LOW LEVEL OF SOCIOECONOMIC DEVELOPMENT	PREVALENCE OF VULNERABILITY AND DISPARITIES	CULTURAL / SOCIETAL PREFERENCE FOR CHANGE	ABSORPTIVE CAPACITY FOR INNOVATION	ROBUSTNESS OF INSTITUTION AND GOVERNANCE
Indicator Challenge.1.x	Indicator Challenge.2.x	Indicator Challenge.3.x	Indicator Capacities.1.x	Indicator Capacities.2.x	Indicator Capacities.3.x
Indicator Challenge.1.y	Indicator Challenge.2.y	Indicator Challenge.3.y	Indicator Capacities.1.y	Indicator Capacities.2.y	Indicator Capacities.3.y

Source: Analysis by Fraunhofer ISI

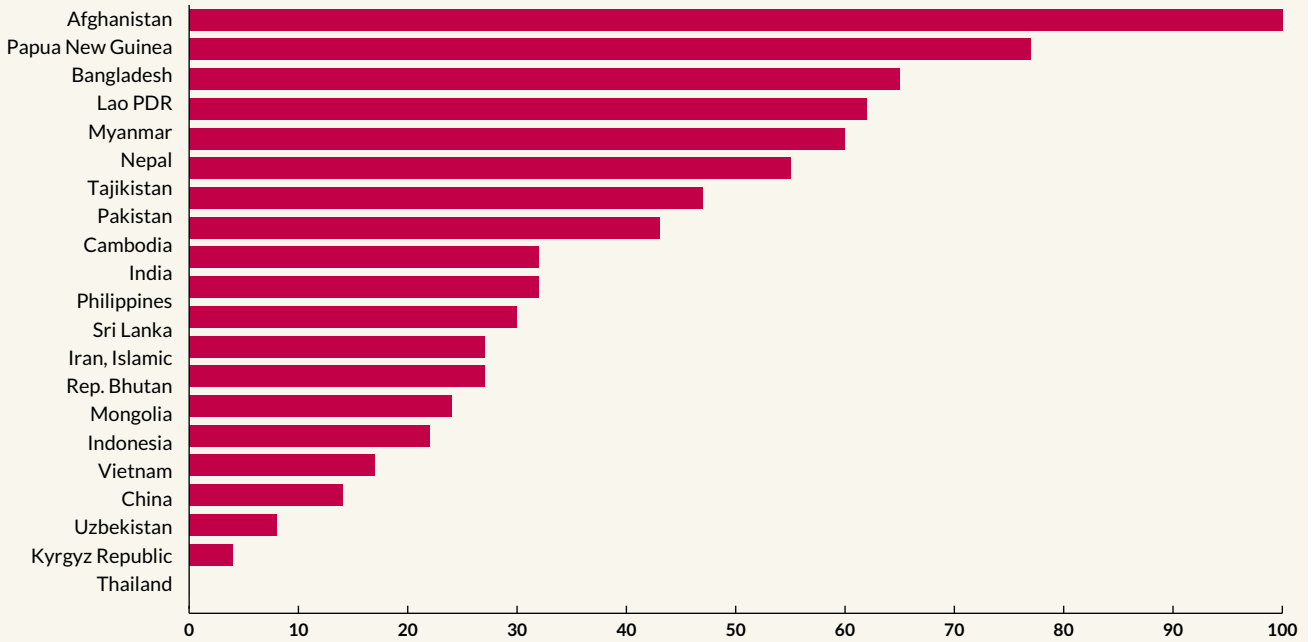
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## Relevant local challenges

Overall, local challenges are most severe in Afghanistan, Papua New Guinea, Bangladesh and Laos, while they are mildest in Vietnam, China, Uzbekistan, the Kyrgyz Republic and Thailand. Quite clearly, the findings indicate that the overall urgency of societal issues and thus, implicitly, the impetus to engage in entrepreneurial responses, varies significantly across Asian countries. Remarkably, most of the countries known internationally as hotspots of inclusive innovation (i.e., India, Indonesia, the Philippines) do not display an above-average severity of challenges, at least within the analyzed group of countries – which, however, excludes Asia's most developed nations. However, countries such as China and Thailand distinguish themselves from most of the others by the relatively mild intensity of their local societal challenges.

When examining the specific sub-dimensions, the Atlas finds that Bangladesh, Nepal, India, Afghanistan and Myanmar face the greatest hurdles with respect to environmental conditions and infrastructure. With regard to overall socioeconomic development, the greatest challenges are evident in Afghanistan, Laos, Tajikistan, Bangladesh and Papua New Guinea. In the area of disparities and specific-group vulnerabilities, Afghanistan, Papua New Guinea, Laos, Nepal and Myanmar are least favorably positioned. While the group of countries facing great difficulties in this area is thus to a certain extent consistent across sub-dimensions, differences in emphasis are clearly detectable.

FIGURE 4 Overall severity of local challenges, according to the Inclusive Innovation Atlas



Source: Analysis by Fraunhofer ISI

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### Capacity factors enabling entrepreneurial responses

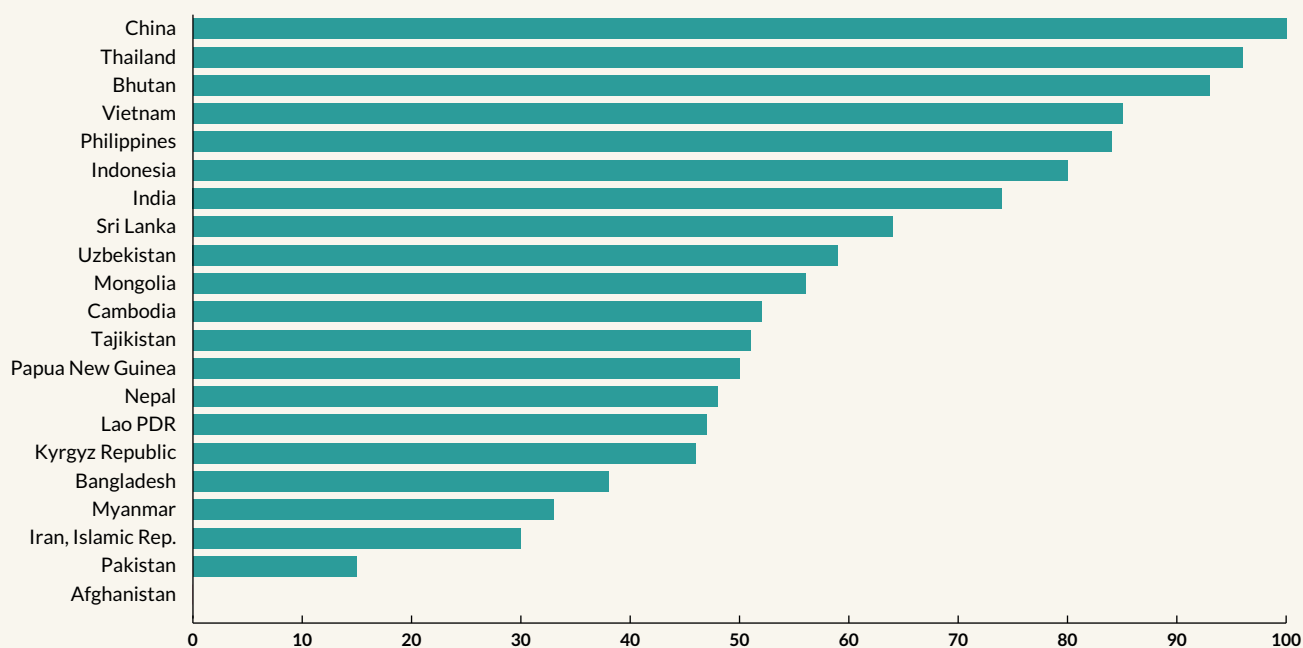
Overall, capacity levels are highest in China, Thailand, Bhutan, Vietnam and the Philippines, and are lowest in Bangladesh, Myanmar, Iran, Pakistan and Afghanistan. Quite clearly, the findings indicate that the overall capacity to permit, enable and appreciate entrepreneurial responses to societal challenges differs strongly across Asian countries. Unsurprisingly, most of the countries known internationally as hotspots of inclusive innovation indeed display comparatively high capacity values. These include India, Indonesia and the Philippines, which collectively trail China, Thailand, Bhutan and Vietnam, countries with notably less severe societal challenges. Conversely, several countries in which severe societal challenges might in theory provide substantial impetus to engage in entrepreneurial responses display very low levels of capacity; this means that inclusive innovation activities there are likely to face greater practical obstacles, both with regard to enterprise creation and ongoing operations. Examples here include Afghanistan, Pakistan, Iran, Bangladesh and Myanmar.

An examination of the individual sub-dimension indicates that the general culture is considered most conducive to inclusive innovation in Bhutan, Vietnam, Cambodia, the Philippines and Mongolia. However, while cultural factors are thus regarded as being reasonably supportive in the Philippines, other nations closely associated with inclusive innovation, including India and Indonesia, still face notable obstacles in this area. The level of absorptive capacity is highest in China,



Indonesia, Thailand, India and the Philippines. Finally, governance practices and institutions are considered to be most reliable in Bhutan, Thailand, Uzbekistan and China.

FIGURE 5 Overall level of relevant capacity, according to the Inclusive Innovation Atlas



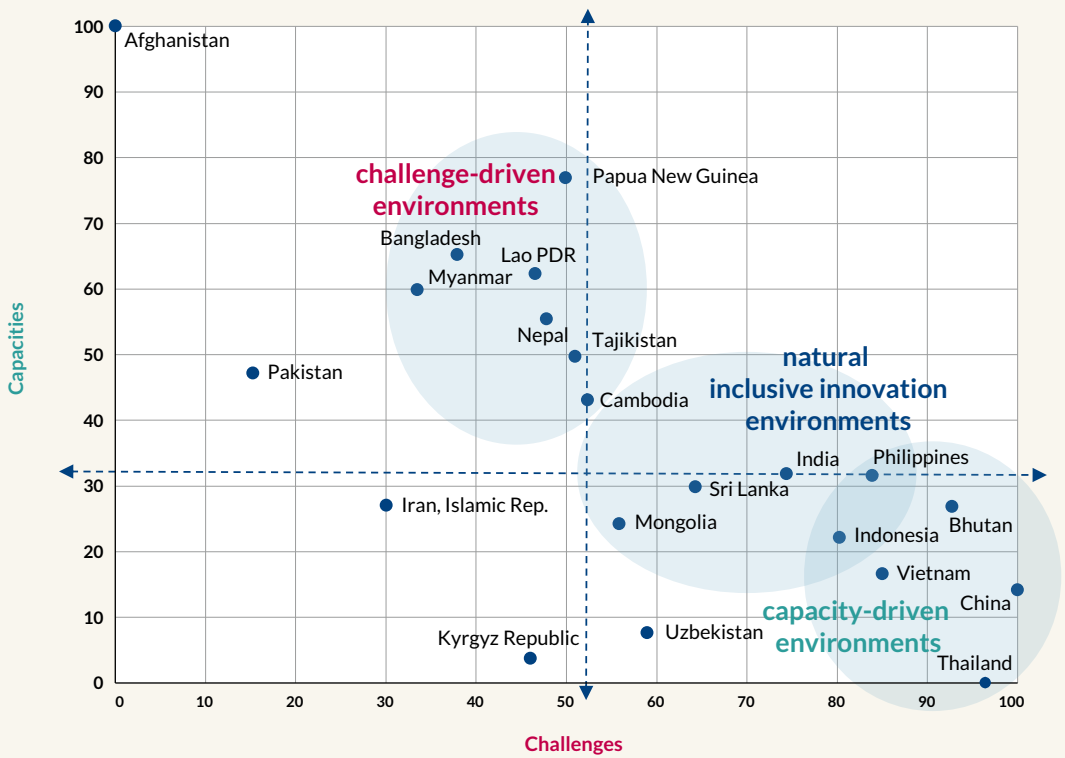
Source: Analysis by Fraunhofer ISI

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## Different types of potential for inclusive innovation

By integrating the perspectives of challenges and capacities, three main groups of countries can be identified with a view to the nature of their future potential for inclusive innovation activities. The first cluster is a group of countries showing significant challenges combined with capacity levels high enough that they are no longer prohibitive. This group of countries can be referred to as environments with challenge-driven opportunities, including Bangladesh, Laos, Myanmar, Papua New Guinea, Nepal, Tajikistan and Cambodia. The second cluster encompasses a number of countries with less severe but still very real challenges, along with somewhat higher capacity levels. This group of countries can be referred to as natural environments for inclusive innovation, including India, Indonesia, the Philippines, Sri Lanka and Mongolia. The third cluster comprises countries with above-average levels of capacity and challenges still significant enough to provide entrepreneurial motivation. This group can be referred to as environments with capacity-driven opportunities, and includes Bhutan, Vietnam, China and Thailand. Arguably, Indonesia and the Philippines could also be considered part of this category.

FIGURE 6 Country clusters defined by opportunities for inclusive innovation



Source: Analysis by Fraunhofer ISI

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### Summary and conclusions

In summary, the Inclusive Innovation Atlas demonstrates that inclusive innovation is a complex phenomenon that requires a good balance of challenges and capacities so as to neither stifle innovative activity altogether nor render an inclusive orientation obsolete due to higher levels of development in local societies and markets. Understanding the contextual factors affecting inclusive innovation in specific countries is of relevance to all stakeholders considering any engagement in such activities. In order to ensure long-term success with beneficial outcomes, policymakers, entrepreneurs and civil society organizations alike must tailor their inclusive innovation efforts to the needs of each local environment and its organizational or regulatory framework. While capacity-driven environments may appeal naturally to corporates, natural inclusive innovation environments may be a good match for impact investors, and challenge-driven environments may still require a slightly different impetus typically found among humanitarian support organizations or other NGOs. Strengthening measures that raise awareness of inclusive innovation and bring together potential partners will prove important here.

At the same time, there are diverse combinations of findings on the six sub dimensions that identify potential in the Inclusive Innovation Atlas. This clearly demonstrates that no single country is alike. Capacity-driven environments may

harbor more difficulties than initially expected, and challenge-driven environments may offer more niches for commercially viable activities than anticipated based on aggregate figures. The Inclusive Innovation Atlas is therefore most useful in practice if all the information regarding a specific country of interest is considered in detail, read against the grain of other situations and, then, subsequently, followed up by in-depth discussions with local experts and practitioners. Efforts to improve comprehensive data collection across cultural contexts will prove important in order to provide reliable evidence-based information for those tasked with making budgetary or planning decisions regarding inclusive innovation activities.

Finally, the study also suggests that countries such as Germany and economic regions such as the EU could benefit from exploring the how, why and where of inclusive innovation that is pursued in Asia. Such considerations can help decision-makers in Europe more broadly make informed decisions about how to promote inclusive innovation at home as part of a larger effort to create greater social, economic and environmental sustainability for everyone. Given the portfolio of technologies and high-end premium products already established in European countries, these states would be well-advised to draw on their strengths in terms of technology development while promoting resource-efficient services and products that can be used by a larger share of the population. This involves developing policies that encourage the development of smart solutions and products with limited resource inputs that are developed with environmental and social stability in mind.

## Publication details

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