Global Entrepreneurship Monitor

GEM 2023/2024

Sustainability and Entrepreneurship Report: Awareness and Actions

Cartier WOMEN'S INITIATIVE

BertelsmannStiftung

SCHWAB FOUNDATION FOR SOCIAL ENTREPRENEURSHIP

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CARTIER WOMEN'S INITIATIVE

The Cartier Women's Initiative is an annual international entrepreneurship programme which aims to drive change by empowering women impact entrepreneurs. Founded in 2006, the programme is open to women-run and women-owned businesses from any country and sector that aim to have a strong and sustainable social and/or environmental impact.

At the heart of the Cartier Women's Initiative is the vision of a world where every woman impact entrepreneur can realise her full potential. The Cartier Women's Initiative has partnered with GEM to generate evidence on the global state of women's entrepreneurship. This is critical for driving collaboration and enrolling more support for women entrepreneurs.

BERTELSMANN STIFTUNG

With its projects, studies and events, the Bertelsmann Stiftung stimulates debate and provides impetus for social change. As part of its project to foster innovation and entrepreneurial dynamism, the foundation, together with its partners, initiated the IMMPACT Guide. This guide provides a model that outlines the key requirements for the Impact Measurement and Management journey, tailored to the different growth stages of startups. It also includes a Lean Impact Journey that provides entrepreneurs with practical tools and valuable insights to help them build and scale their impact-driven startups. GEM is an invaluable resource for gaining deeper insights into the development of entrepreneurs towards sustainability. It also provides the evidence base needed to design more effective support initiatives and policies that can drive the growth of enterprises with social and environmental objectives.

SCHOOL OF MANAGEMENT FRIBOURG

The School of Management Fribourg (HEG-FR) is a business-trilingual public university of applied sciences located in Fribourg, Switzerland. It is certified by the Association to Advance Collegiate Schools of Business and a member of the University of Applied Sciences and Arts of Western Switzerland (HES-SO). Its Institute for Entrepreneurship and SMEs houses the GEM Switzerland Team.

The support and involvement of the HEG-FR in the GEM community is enriched by the collaborative projects undertaken not only with Swiss universities, but also with major international economic players, as well as United Nations institutions and many non-governmental organisations.

One of the forerunners in Switzerland for training and interdisciplinary research in the area of entrepreneurship and small and medium enterprises, the School of Management Fribourg has a particular thematic interest in twin transition, with a specific focus on research in women's entrepreneurship and the impacts of entrepreneurship on the United Nations Sustainable Development Goals.

SCHWAB FOUNDATION FOR SOCIAL ENTREPRENEURSHIP

In partnership with the World Economic Forum, the Schwab Foundation is the foremost global community of pioneering social innovators driving systemic change. Since its foundation in 1998, the Schwab Foundation has awarded almost 500 social innovators, celebrating these leaders and providing them with access to the World Economic Forum's networks, resources and influence.

In 2020, the Schwab Foundation launched the Global Alliance for Social Entrepreneurship as a broader initiative to bring together a coalition of diverse stakeholders. This coalition unites corporations, industry organisations and the public sector to support and scale the impact of social innovators.

The GEM 2023/2024 Sustainability and Entrepreneurship Report highlights the global growth of social entrepreneurship, demonstrating that entrepreneurs are increasingly intentional about minimising environmental impact and maximising social impact in business decisions.

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Acknowledgements

It "takes a village" to produce a GEM report. Over 370 specialists in entrepreneurship research collaborate worldwide in teams to produce the data GEM requires for a global overview on entrepreneurship. This includes data related to sustainability and entrepreneurship, the subject of this report. Our thanks go to all our **GEM National Teams**, the **more than 150 academic and research institutions** that they represent, as well as the more than **150 funding institutions** that support them to carry out GEM research.

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The **School of Management Fribourg (HEG-FR)** supports and empowers leaders and international entrepreneurs to apply actionable executive skills to address global challenges faced in business and society. **HEG-FR** also provided invaluable sponsorship to make this report possible. Warm appreciation to **Rico Baldegger**, former Dean at HEG-FR, for his outstanding support to GEM in this area of activity.

This report has been expertly orchestrated by lead author **Stephen Hill** and the **GEM Global Team**. We warmly thank Steve for his calm, steady manner while expertly dealing with multiple complexities on many levels. We also acknowledge the considerable voluntary efforts of the **GEM National Team co-authors** (named in the individual chapters); their expert contributions and perspectives further enrich the global focus of the report.

Finally, we acknowledge the dedication and hard work of our GEM Global Team: **Francis Carmona**, **Alicia Coduras**, **Henrique Bastos**, **Kevin Anselmo** and most especially **Aurea Almanso**, who steered this first report on sustainability and entrepreneurship to successful completion.

Aileen Ionescu-Somers, PhD
GEM Executive Director

Foreword

Over the past several decades, there has been increasing societal focus on corporate environmental and social sustainability. Companies have been faced with major challenges because of the impact of social and environmental issues on their stakeholders and businesses. To address these, increasing numbers of companies have veered away from primarily philanthropic approaches and instead developed strategies to address risk and grasp related opportunities. There is still a very long way to go before businesses can be as sustainable as possible. However, depending on the company and the industry, significant efforts have been made to prevent short-term profit-making from becoming long-term social and environmental liabilities.

Entrepreneurship offers significant opportunities to make a greater impact in addressing challenges. Much has been researched and written about social entrepreneurship – a specific approach that combines a positive social or environmental goal with economic activity, focusing not on maximising profit but on reinvesting it to achieve a social objective. But what about other entrepreneurs, those operating in the more traditional, profit-driven mainstream?

GEM is well positioned to gauge the extent to which a more forward-thinking strategic business approach to sustainability is taking hold among entrepreneurs during the different phases of the development of their businesses. This report, GEM's first ever in-depth sustainability and entrepreneurship study, presents a bird's eye view of whether and how entrepreneurs are integrating social, environmental and stakeholder considerations into their strategies and operations across regions and continents.

Are entrepreneurs contributing to the Sustainable Development Goals (SDGs)? How is awareness of the SDGs impacting their strategic approaches when it comes to sustainability? To what extent are entrepreneurs acting as change agents that realise and exploit opportunities for sustainable development? These are just some of the questions addressed in this report.

This report is also GEM's first concerted contribution to decision-making related to sustainability and entrepreneurship among policymakers and thought leaders. Given that GEM collects data year on year (and has done so for the past 25 years), this first sustainability-related report encompasses a promise to deliver even more insights as the years go by. This is all the more critical given that the world urgently requires entrepreneurs that create viable market solutions to our greatest sustainability challenges while avoiding the creation of long-term social and environmental liabilities.

May this be the first of many such GEM reports informing policymaking and enabling thought leadership and concerted action in sustainable entrepreneurship!

Aileen Ionescu-Somers, PhD, GEM Executive Director, and the GEM–Global Entrepreneurship Research Association (GERA) Board:
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Executive Summary

Aileen Ionescu-Somers, Maya Dougoud,
Niels Bosma and Stephen Hill

This report presents the Global Entrepreneurship Monitor's (GEM) first-ever evidence-based analysis of the relationship between sustainability and entrepreneurship, based on primary data derived directly from entrepreneurs throughout the world. It analyses the intersection of sustainability and entrepreneurship, with a focus on the dynamics of a joint digital and sustainable transition that highlights synergies in advancing economic resilience, fostering inclusive growth and driving efficiency through technological and ecological innovation. Such an integrated perspective is essential to delineate actionable strategies that align entrepreneurial initiatives with broader sustainability goals.

GEM provides the world's most extensive and sustained research on entrepreneurship, using annual population-based large-scale surveys (some 150,000 respondents per year) to monitor the level and nature of entrepreneurial activity and assess the entrepreneurial ecosystem in each participating economy.[1] Since its inception in 1999, GEM has produced data that inform discussion around the contribution of entrepreneurship to alleviating major social and environmental issues that are also the focus of the United Nations (UN) Sustainable Development Goals (SDGs). GEM first added questions on sustainability to its survey instruments in 2019, then extended these in 2021. The data enable much deeper analysis of the relationship between sustainability and entrepreneurship.

1 Appendix 1 to this report sets out the GEM methodology and introduces the principal GEM variables.

The general business context increasingly points to entrepreneurship as making an important contribution to the urgently required solutions to some of the world's greatest social and environmental challenges. In this report, GEM offers insights that enable policymakers to assess the extent to which a positive relationship between sustainability and entrepreneurship exists within their national context, understand where more work needs to be done and make informed and actionable policy decisions as a result. In this way, policymakers can make a valid national contribution to attaining the SDGs.

An integrated approach

The integration of sustainability and entrepreneurship requires an approach that aligns economic growth with environmental and social resilience. It is critical that policymakers foster a business culture that prioritises sustainability, embedding it as a core value within enterprises. Furthermore, cultivating leadership skills and strategic capacities is essential for navigating the dual transitions towards digitalisation and sustainability. The digital transition plays a pivotal role in this context, offering tools to enhance connectivity, enable collaboration and integrate sustainability practices across diverse sectors. Equally important is promoting frameworks for resource efficiency. By adopting an integrated approach to transitions and promoting entrepreneurship, policymakers will be able to support business in three critical dimensions: financial well-being, sustainability and community involvement.

Financial well-being for businesses is advanced through applying policies that encourage operational and personnel cost reductions alongside strategic financial planning to enhance profitability and economic resilience. Sustainability in businesses is driven by initiatives that reduce environmental impact, promote resource efficiency and incentivise innovation in sustainable practices. Meanwhile, community involvement is strengthened through businesses' engagement with key stakeholders along the value chain. This three-pronged integrative approach positions entrepreneurship as a critical driver of sustainability, bridging the gap between profit-oriented and socially responsible objectives. The research framework established by GEM allows for a comprehensive exploration of the motivations, awareness, strategic integrations, priorities and actions shaping entrepreneurial approaches to sustainability on a global scale. By addressing these dimensions, the study seeks to answer the critical question: *how sustainable are entrepreneurs?*

The intention of this report is to understand the links between sustainability and entrepreneurship. The analysis in Chapters 2 to 5 examines social and environmental sustainability among entrepreneurs in general. Chapter 6 considers a subset of entrepreneurs – those who have a focus on sustainability.

These entrepreneurs meet four sustainability criteria: being motivated "to make a difference in the world"; taking actions to promote sustainability in their business; building sustainability into their business strategies; and prioritising sustainability over profitability or growth. The GEM findings inform this report's timely and much-needed reflections on the field of social entrepreneurship, sustainable entrepreneurship and social innovation.

Are entrepreneurs motivated by concerns about sustainability?

Over the 25 years of GEM research, the data clearly show that motivation is a key driving factor in entrepreneurial activity and important for entrepreneurial success. GEM data for 2019–2023 demonstrate that a notable proportion of both new and established entrepreneurs agree that they are motivated "to make a difference in the world". This can be expressed in many dimensions of entrepreneurial activity, increasing the chances of both social and environmental objectives being met.

It is encouraging that this motivation has been so evident in many different cultures and geographies included in the study. Indeed, there is little indication that purpose-driven entrepreneurship is the unique preserve of better-off economies, since low-income economies such as India and Guatemala were among those with the highest proportions of entrepreneurs agreeing with this motivation.

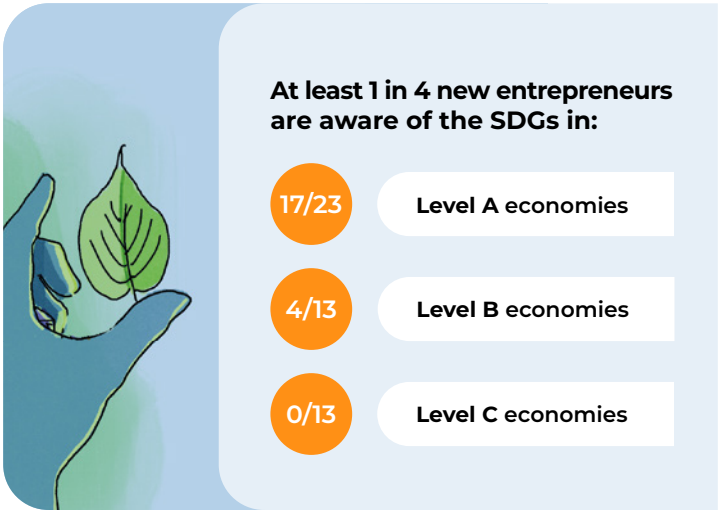
The data also reveal that in many economies the motivation to make a difference was more prevalent in the key years of the COVID-19 pandemic. For example, in 21 of 33 comparable economies, agreement with this motivation was higher in 2021 than in 2019. Arguably, global crises such as the COVID-19 pandemic may have anchored entrepreneurs in these economies even more firmly to the idea that they can make a difference in the world.

Also, certain groups of entrepreneurs – women, younger people and graduates – were more likely to agree with the motivation "to make a difference in the world" (evidenced on p. 39). By encouraging people in these groups to start and run their own business, policymakers are likely to increase purpose-driven entrepreneurship and thereby contribute towards the SDGs.

Are entrepreneurs aware of the UN SDGs and does it matter?

GEM data reveal that entrepreneurs who are aware of the SDGs tend to use these defined goals as a benchmark when setting priorities for their own business. However, awareness of the SDGs among entrepreneurs was at best fragmented across geographies and income groups. There is some evidence that awareness increases with national income levels. For example, on average for 2021–2023, at least one in four new entrepreneurs reported that they are aware of the SDGs in 17 out of 23 Level A (high-income)

economies compared to four out of 13 Level B (middle-income) economies and no Level C (low-income) economies. As more data is collected over time, it will be possible for GEM to identify trends in the level of awareness.



Early-stage entrepreneurs who are aware of the SDGs may be better placed to identify new business opportunities and more incentivised to prioritise their businesses' social and environmental impacts above profitability or growth. In this context, it is interesting to compare the results on awareness of the SDGs with the proportion of new entrepreneurs in each economy that meet the four key sustainability criteria (mentioned earlier).

The highest levels of new entrepreneurs meeting all four sustainability criteria were in the Latin America & Caribbean region, including economies like Brazil and Guatemala; however, it is not possible to compare this to awareness of SDGs since the relevant questions were not included in the GEM Adult Population Survey (APS) in those economies (GEM National Teams could choose not to ask these questions). Almost half of new entrepreneurs in Norway, Italy and Poland were aware of the SDGs, but relatively few new entrepreneurs in these economies (less than one in six in each) met all four sustainability criteria.

Meanwhile, some economies with relatively low levels of SDG awareness among new entrepreneurs – such as Sudan, Chile and Qatar – had relatively high proportions of new entrepreneurs meeting all four sustainability criteria. This may be due to more than one factor. For example, developing countries and emerging economies often experience the most negative environmental and social impacts "on the front line", which in itself promotes a high awareness of the need for more sustainable development. Another possible factor is the nature of existing policies. For instance, countries in the Gulf region have moved of late towards diversifying their economies to lessen their dependence on oil exports, and they are grasping the opportunities that doing business more sustainably offers. Overall, while there is a mixed picture of awareness of the SDGs among respondents, it is also clear that awareness is by no means a prerequisite for action pertaining to the goals.

The picture was not very different for established business owners, who were only somewhat less likely than new entrepreneurs to be aware of the SDGs. However, many of the established business owners who were aware of the SDGs also identified at least one of the goals as a strategic business priority. So, to conclude:

- Awareness of the SDGs is at best fragmented among those starting or running a new business or owning an established business.
- Lack of awareness of the SDGs is not an obstacle preventing new or established entrepreneurs from embarking on actions, strategies or priorities that integrate sustainability considerations.
- Those entrepreneurs who were aware of the SDGs were likely to have identified at least one of those goals as a business priority.

In this report, GEM reveals evidence that awareness of the SDGs among those starting or running a new or established business may help those entrepreneurs to be more strategic and focused about including environmental and social objectives among their business priorities, thereby promoting achievement of the SDGs overall.

Over time, GEM data will enable ever more convincing international comparisons, providing policymakers with benchmarks that can be used to evaluate the impact of their policies.

Are entrepreneurs integrating sustainability into their strategic thinking?

The GEM study examines whether those starting or running a new business and those running an established business are incorporating sustainability into their strategic decision-making. GEM's results show that a majority of both new and established business owners are doing so, although with some variation by national income group and global region. For example, the percentage of new entrepreneurs taking social impacts into account when making strategic decisions exceeded 70% in 42 of 62 economies (see p. 65). Interestingly, entrepreneurs in high-income economies, especially those in Europe, were generally less likely to agree they take social and environmental implications into account in their longer-term strategic thinking, while entrepreneurs in the Latin America & Caribbean region were more likely to agree.

GEM results reveal that most new entrepreneurs tend to prioritise social and environmental impacts above profitability or growth, and this was especially the case among those in the Latin America & Caribbean region, the Gulf and East Asia.

Are entrepreneurs prioritising sustainability?

The priorities of early-stage entrepreneurs matter because they influence business behaviour and, therefore, outcomes. If new businesses in an economy are overwhelmingly and increasingly aiming for social and environmental value creation, this will inevitably help steer the entire economy towards meeting the SDGs. By keeping a "finger on the pulse" of the priorities of entrepreneurs, GEM can help policymakers identify shifts, such as the mainstreaming of sustainability in entrepreneurship.

For entrepreneurs, finding and leveraging the business case for prioritisation of any issue is important, and it is no different for social and environmental issues. Depending on the industry sector or activity, there can be more or less commercial advantage (e.g. in terms of marketing benefits and cost reductions) for a new business that is seen to be prioritising sustainability. There may also be some risks and costs associated with not being perceived to prioritise sustainability.

The report also includes findings on national experts' assessments of the priorities of new businesses, based on GEM's National Expert Survey (NES). In most of the participating economies in 2022 and 2023, new businesses were scored by experts as satisfactory (i.e. with an average rating of 5 out of 10 or higher) in their prioritisation of social contributions and/or good environmental practices. Similarly, the prioritisation of economic performance by new and growing firms was scored as unsatisfactory in a majority of economies in 2023, including the United States, Italy and Spain. Yet, the prioritisation of sustainable new businesses by the government was rated much worse by national experts, especially (but not exclusively) governments in the lower-income groups. Notable exceptions included India and China, both with economies that were growing at the time of assessment – experts in these countries perceived a strong, government-backed focus on sustainability.

Most national experts viewed new and growing businesses as having a substantial focus on sustainability objectives, more so than their respective governments, albeit with exceptions. Therefore, the impetus is coming either from the entrepreneurs themselves or from stakeholders other than the government (such as investors and consumers). The clear policy message is that governments should be taking more of a leadership role in stimulating new and growing businesses on the path towards sustainability.

Are entrepreneurs taking action on environmental and social issues?

The report also examines whether those starting or running a new business and those owning an established business have taken steps to minimise their environmental impacts or maximise their social impacts. The results of successive rounds of the APS since 2021 show that many have. For example, Chapter 5 reveals that for the period 2021–2023, at least half of new entrepreneurs had taken steps to minimise environmental impacts in 41 out of 62 economies. Taking steps to minimise

environmental impacts was somewhat more likely than taking steps to maximise social impacts. This is hardly surprising since it is easier for businesses to measure actions to address environmental issues than actions to make a social impact and there may be more direct benefit from actions to minimise environmental impacts. Established business owners were more likely than those starting or running a new business to have taken steps to minimise their environmental impacts, and there is weak evidence of the reverse in relation to steps to maximise social impacts (again, over time, GEM can reveal more evidence on this).

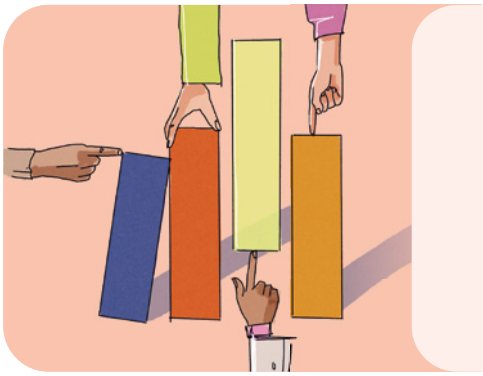
There was a strong (self-)reported incidence of taking action on social and environmental impacts among both new and established entrepreneurs in parts of the Latin America & Caribbean region and in areas of East Asia, especially in Brazil, Indonesia, Panama and China. Countries with relatively few entrepreneurs indicating that they act on environmental and social issues included France, Estonia, the Netherlands and Norway. For policymakers in these countries, it is relevant to dive deeper and investigate what characterises those who take action (and those who do not) in order to identify ways to further stimulate the sustainability agenda among entrepreneurs.

How sustainable are entrepreneurs?

GEM data show the proportion of adults in each participating economy who were starting or running a new business, or owning an established business, and met four key sustainability criteria:

1. motivated to make a difference in the world;
2. had taken actions to promote sustainability in their business in the past 12 months;
3. build sustainability into their long-term business strategy; and
4. prioritise sustainability over profitability or growth.

While the proportions of adults in the APS who were new entrepreneurs and fulfilled all four criteria were highly variable, ranging from an average of 15% in Guatemala to less than 1% in Kazakhstan, in almost half of economies, fewer than 2% of adults were starting or running a new business and met all four criteria.



Percentages of adults who met all four sustainability criteria range on average from:

Results are also given for the proportion of those starting or running a new business who met the four sustainability criteria, in order to take account of where there was a low rate of new entrepreneurship in a particular economy, or a low proportion of entrepreneurs meeting all four criteria, or both. Again there was considerable variation. However, at least 20% of new entrepreneurs met all four sustainability conditions in 34 of the 62 economies that participated in the APS in at least one year between 2021 and 2023. The lowest rates were in Kazakhstan, the Republic of Korea and Poland.

At least 20% of new entrepreneurs met all four sustainability conditions in 34/62 economies in at least one year between 2021 and 2023.

The proactivity of Latin America's new entrepreneurs again stands out, with Panama, Brazil, Guatemala and Puerto Rico having four of the top six averages. There are several potential explanations for why Latin American entrepreneurs in low- and middle-income economies were especially likely to report being focused on sustainability. These include first-hand experience in dealing with some of the adverse impacts of deforestation (which is evident in Brazil) and climate change (which is keenly felt in economies such as Panama and Guatemala), but also high levels of entrepreneurial activity and high proportions of entrepreneurs with a sustainability mindset. A cultural emphasis on collective as opposed to individual benefit may also play a role, as this promotes social welfare more than profitability, despite, in most cases, weak government support and an absence of safety nets.

However, these explanations are at best speculative, and a great deal more research is needed before firm conclusions can be drawn. Specifically, there is a need for more research to understand the reasons why new and established entrepreneurs in the Latin America & Caribbean region were more likely to report that they meet all four sustainability criteria. Understanding the reasons for such findings would increase the potential for other regions to gain from these experiences in order to boost their own sustainable entrepreneurship.

Levels of sustainability in entrepreneurship as measured by the four criteria were typically lower among established business owners than among new entrepreneurs. Although a substantial proportion of established business owners reported meeting the defined sustainability criteria, the overall levels of such business ownership were usually lower than those for new entrepreneurs.

Established business owners must deal with harsh commercial realities, while many of those starting a new business may be basing their responses on intentions rather than actions. However, the relatively low percentage of those running an established business and meeting all four criteria was largely the product of relatively low levels of established businesses, rather than a lack of commitment to sustainability. In 21 of the 62 participating economies, at least 25%, on average, of established business owners met all four criteria.

At least 25% of established business owners met all four sustainability conditions in 21/62 economies.

What is the call to action for policymakers?

SDGs are relevant for all economies, and the SDGs were conceived to allow for a myriad of initiatives, on multiple levels, by policymakers and other stakeholders. Having a global language and goal setting based on the SDGs is helpful, as it provides entrepreneurs with a slightly different incentive structure, depending on their line of business and sector of choice. To effectively advance sustainability and entrepreneurship, policymakers can foster integration of digital and sustainable transitions. Strengthening resource management frameworks is essential to ensure that efficiency and circular economy models are promoted to maximise utility while minimising environmental impact. Policymakers can facilitate these transitions by providing institutional and financial support to entrepreneurs to enable them to adopt innovative practices that align profitability with sustainability.

Policies should also focus on enhancing economic stability by encouraging operational efficiency, labour cost reductions and sound financial planning. Facilitating access to financing mechanisms specifically tailored to transitional initiatives will be critical for businesses as they adapt to emerging challenges. Additionally, fostering environmental sustainability through policies that reduce ecological footprints and incentivise green innovation will ensure long-term resilience in economic ecosystems. In addition, social cohesion should be addressed by promoting community engagement that prioritises equity and public well-being, ensuring that entrepreneurial efforts address societal needs and strengthen local ties.

By adopting an integrative policy framework that aligns all of these objectives, policymakers can provide the support needed for entrepreneurial activity to drive sustainable, inclusive and resilient economic growth, benefiting both present and future generations.

Scenarios

The following scenarios are intended to show policymakers how they might take into account their particular context – that is, in a low- (Level C), middle- (B) or high-income (A) economy – when developing policy to encourage entrepreneurial actions to decrease environmental degradation and increase positive social impacts. Of course, some policies, such as loan guarantees for green investments, may be relevant across all income levels.

Level C economies

In Level C economies, a variety of policies can be implemented to encourage sustainable business practices in small and medium-sized enterprises (SMEs), especially significant in those economies. Examples include government-backed loan guarantees, microfinance and grants, entrepreneurial training programmes that facilitate capacity building and knowledge transmission, partnerships with international organisations and non-governmental organisations, and tax exemptions and incentives targeting green businesses and social enterprises. Infrastructure development and market access are also crucial for SMEs, so enacting policies that promote sustainable market access through eco-labelling or fair trade certifications is key. Finally, sustainable business activities, particularly in rural areas, should be supported by investments in fundamental infrastructure, including transportation and energy. The objective of these strategies is to mitigate financial risks for lenders and encourage sustainable economic practices, thereby enhancing the entrepreneurial contributions to:
SDG 1: No Poverty; **SDG 5: Gender Equality**; **SDG 8: Decent Work and Economic Growth**; and **SDG 11: Sustainable Cities and Communities**.

Level B economies

In Level B economies, strategies that can encourage the adoption of green technology and innovation include tax incentives for green technology, support for research and development, reinforcement of corporate social responsibility (CSR) and encouragement for social businesses. Policies that mandate the integration of environmental and social factors into business operations, require larger companies to undertake sustainability reporting, and promote sustainable supply chains through supply chain certification programmes could be beneficial. Furthermore, policies promoting local procurement can lead to reduced transportation emissions and support local economies, contributing to: **SDG 8: Decent Work and Economic Growth**; and **SDG 11: Sustainable Cities and Communities**.

Level A economies

Level A economies can set a positive example of global sustainability by promoting sustainable consumption and production, setting ambitious carbon reduction targets, supporting global environmental initiatives and regulating high-impact industries (contributing to **SDGs 9**, **11** and **12**). They may also allocate resources to green infrastructure – including renewable energy infrastructures, sustainable public transportation and green buildings – to mitigate environmental damage and generate employment opportunities (contributing to **SDGs 7**, **8** and **9**). Furthermore, they can encourage CSR by fortifying policies that require businesses to account for their environmental and social consequences. By employing these strategies, high-income countries can drive global progress towards environmental and social objectives. The solutions rely on establishing rigorous regulations and incentives, encouraging sustainable lifestyles, regulating high-impact industries, and investing in sustainable practices and green technologies (contributing to **SDGs 8**, **11** and **12**).

Key takeaways

This GEM report demonstrates that, in general, entrepreneurs care deeply about making the world a better place. High percentages of entrepreneurs indicated that changing the world for the better is a key motivation for them. Moreover, a substantial share of entrepreneurs indicated that they are actively working on integrating sustainability into their strategic prioritisation process and subsequent actions. For entrepreneurs to have a global language and goal-setting framework based on the SDGs is a very positive contribution to changing incentive structures. As we have seen, the SDGs in themselves might not be visible to or actionable for entrepreneurs directly, but they support entrepreneurship by facilitating more viable business opportunities.

Policymakers will find significant takeaways from this GEM special report, since the findings signal significant untapped potential. Currently, there is a risk that policymakers are concentrating SDG investment efforts on large firms (to minimise as much harm as possible). This may be to the detriment of new and emerging companies that, unless sustainability is a more central concern, may also end up doing harm. Visionary policymakers would do well to focus much more on how to promote a sustainability mindset among entrepreneurs at all stages and establish mechanisms that empower innovative solutions to address local sustainability challenges, potentially driving significant impact. At the same time, this will have the knock-on effect of making economies and communities more dynamic, even contributing positively to the transitions that larger companies are making.

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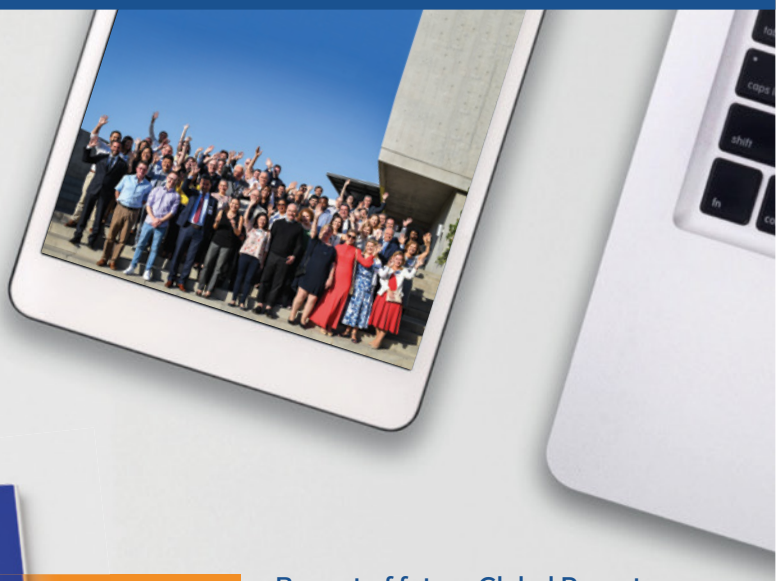

It is difficult for policymakers to make informed decisions without having the right data. The Global Entrepreneurship Monitor (GEM) fills this void. GEM is the only global research project that collects data on entrepreneurship directly from the source – entrepreneurs!

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> "GEM offers academics the opportunity to be part of a prestigious network, explore various dimensions of entrepreneurship and gain a full picture about the entrepreneurial activity of a country."

Virginia Lasio, Team Leader of GEM Ecuador and Professor at the ESPAE Graduate School of Management

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CHAPTER 1

Introduction

Stephen Hill, Aileen Ionescu-Somers,
Viktoriia Apalkova and Maya Dougoud

1

1.1 GLOBAL ENTREPRENEURSHIP MONITOR AND SUSTAINABILITY

The word "sustainability", in everyday usage, is understood as the ability to maintain a process or state of affairs over time. Hence, business sustainability has long been considered as the capacity of any given business to remain in existence and endure.

However, this word has acquired additional and weighty significance in the past three decades. In a ground-breaking report published in 1987, the United Nations (UN)-mandated Brundtland Commission proposed a definition of sustainability related to the environment and global development: "meeting the needs of the present without compromising the ability of future generations to meet their own needs".[2] This definition of sustainability is the focus of this Global Entrepreneurship Monitor (GEM) special topic report.[3] The report:

- examines the nature of the relationship between entrepreneurial activity (defined by GEM as the act of starting or running a new business) and sustainability (as defined by the Brundtland Commission);
- demonstrates that the relationship between sustainability and entrepreneurship is complementary;
- presents primary data that can inform stakeholders about how entrepreneurs react to the new business opportunities created by sustainability;
- shows the extent to which entrepreneurs are running businesses in ways that minimise their environmental impacts and maximise their social impacts; and
- explores the motivations of those starting or running a new business (also referred to as "new entrepreneurs" throughout this report) and those running an established business (also referred to as "established entrepreneurs")[4] as well as their priorities, activities and strategies.

It is important to mention the risk of "social desirability bias" when gathering data on sustainability. In other words, when it comes to caring about the environment and social impacts or issues, in order to conform to expected societal norms, people may tend to assess their own behaviours more positively than is the case in reality. Given the anonymity of participants in the GEM surveys, this bias is somewhat reduced but not entirely mitigated. GEM takes steps to minimise the impact of social desirability bias on results through careful multi-pronged question design and by collecting longitudinal data.

2 United Nations, *Report of the World Commission on Environment and Development: Our Common Future* (United Nations, October 1987).

3 Hence, throughout this report, sustainability is synonymous with sustainable development.

4 Those starting or running a new business are also referred to in this report as new entrepreneurs; GEM defines these as entrepreneurs whose business has paid wages or salaries for 42 months or less. Those running an established business are also referred to in the report as established business owners and established entrepreneurs; GEM defines these as entrepreneurs whose business has paid wages or salaries for more than 42 months.

SDG FOCUS . . .

An entrepreneurial vision for clean energy cities

Entrepreneurial sparks and a commitment to environmental sustainability can serve as a powerful means to unleash change. Ariana Martín can attest to this. In the quaint town of Portugalete, Biscay in the Basque Country (northern Spain), Ariana co-founded Roseo Eólica Urbana in 2020 with a vision to transform urban energy consumption.

After years of professional experience, Ariana enrolled in a master's programme in Entrepreneurship and Business Management at the University of the Basque Country (UPV/EHU). It was there, amid like-minded individuals and innovative discussions, that she found her calling. A project presented by a colleague in the renewable energy sector piqued her interest, leading to the formation of a dynamic team, which included engineers who shared her vision. This collaboration blossomed into Roseo, which provides small-scale wind power solutions for urban environments.

Innovating for a sustainable future

At the heart of Roseo's approach lies a commitment to harnessing wind energy in urban settings. The startup's offerings, the Anemoi service and the Rosbi wind turbine, are designed to allow cities to generate their own clean energy.

Ariana, CEO of the company, emphasises the importance of doing what you love: "It's about pushing the potential of both myself and my team to the limit. Contributing to society with a new way to generate energy is a significant challenge."

This passion is evident in Roseo's innovative solutions that integrate seamlessly into urban landscapes without causing noise or disruption. With society increasingly aware of environmental challenges, Ariana recognises that clean energy solutions are no longer optional but essential.

"Today, public awareness of environmental issues is growing, evidenced by increasing social movements demanding improvements in this area," she notes.

This societal shift, coupled with favourable European policies, has paved the way for Roseo to carve out a niche in the burgeoning market of urban wind energy.

While Roseo's technological innovations focus on renewable energy, the company also faces the modern challenges of digitalisation. By storing information in the cloud, Roseo can streamline decision-making and enhance communication, enabling rapid responses in the fast-paced startup environment.

"Digitalisation is now indispensable," she adds, recognising its role in reaching a wider client base and establishing effective operational processes.

As Roseo Eólica Urbana continues to grow, its story highlights the intersection of entrepreneurship, innovation and sustainability. The founders remain dedicated to their vision of empowering urban areas with clean energy, ensuring that their community not only meets today's energy demands but also paves the way for a more sustainable future.

Learn more about Roseo Eólica Urbana at https://roseo.es. We thank GEM Spain, host of the GEM 2024/2025 Global Report Launch in Bilbao, for providing this material and helping to put our data in a real-world context.

1.2 SUSTAINABILITY AND ENTREPRENEURSHIP

For businesses and individuals engaged in entrepreneurship, sustainability is not merely a corporate obligation but a strategic opportunity. For example, sustainable business models integrate circular economy principles by embedding resource efficiency and waste minimisation at the heart of operations, which benefits the business through cost savings. Resource efficiency, particularly through the use of biodegradable or recyclable materials, and climate resilience strategies are essential tools for entrepreneurs aiming to safeguard their ventures against the risks posed by climate change.

Corporate social responsibility (CSR) extends the impact of this approach by emphasising transparency and community engagement. Entrepreneurs and enterprises alike should commit to environmental, social and governance (ESG) reporting and foster partnerships with local communities to address environmental and social concerns.

Employee and consumer engagement amplify these efforts. By fostering eco-consciousness among employees and educating consumers on the benefits of sustainable behaviour, entrepreneurs can build a culture of responsibility that drives systemic change.

Financial instruments such as green bonds and impact investing provide critical resources that enable entrepreneurs to align their ventures with investor priorities and scale sustainable solutions.

Policymakers complement these efforts by creating an enabling ecosystem for sustainable entrepreneurship. Clear regulatory frameworks, such as emissions caps and waste management laws, set the foundation for responsible business practices. Incentives, including tax benefits, grants and subsidies, encourage entrepreneurs to adopt renewable energy and innovations that enhance sustainability.

The role of academic institutions and universities is indispensable in embedding sustainability into the fabric of society. By incorporating sustainability into curricula and fostering interdisciplinary research, universities can equip future entrepreneurs with the knowledge and skills needed to navigate complex transitions. Sustainability should also be embedded in primary and secondary school curricula.

This integrated approach – spanning entrepreneurship, corporate strategy, employee and consumer commitment, policy design and academic engagement – ensures a cohesive framework for advancing sustainability. Entrepreneurs lead the charge by innovating solutions that balance profit with responsibility. Policymakers provide the structural support to scale these solutions, and universities cultivate the next generation of sustainability-focused leaders. Together, these efforts can drive the development of resilient, inclusive and sustainable economies that benefit current and future generations.

1.3 INNOVATION AND SUSTAINABILITY

Today, there is a wide range of entrepreneurs whose main focus is to develop, fund and implement solutions in response to social or environmental issues. Entrepreneurs drive sustainable change by developing innovative products and services that not only mitigate environmental harm but also respond to evolving consumer preferences for eco-friendly solutions. Green innovations, through investments in clean technologies and renewable energy, allow entrepreneurs to redefine competitive advantage while contributing to a low-carbon economy. Sustainable supply chain practices further enhance this alignment by ensuring responsible sourcing and production processes. Support for academic programmes is also important so that innovation and cultural change are promoted through education. Indeed, much innovation happens through collaboration between small and medium-sized enterprises and academic institutions.

The increasingly strong role played by innovation in addressing social and environmental issues is emphasised and explored in the 2024 edition of the Global Innovation Index report,[5] which focuses on social entrepreneurship. This takes place in not-for-profit initiatives and, increasingly, in companies that blend for-profit objectives with generating a positive impact on society. There is an expanding group of entrepreneurs who are using incremental innovation approaches by

5 "Special Theme 2024: Unlocking the Promise of Social Entrepreneurship", World Intellectual Property Organization, accessed 9 January 2025, https://www.wipo.int/web-publications/global-innovation-index-2024/en/special-theme-2024-unlocking-the-promise-of-social-entrepreneurship.html#h2-the-state-of-social-entrepreneurship.

applying sustainability strategies and principles to the design and implementation of their business in the mainstream, even if the central purpose of the business is not directly linked to a sustainability issue. It is important to note that this report includes analysis relating to all those starting or running a new business as well as established business owners.

New market opportunities

The rising awareness of sustainability has significantly shifted both consumer and producer markets. For example, in recent years, the global demand for hybrid and electric cars has surged, while demand for fossil fuel-heavy vehicles, like petrol and diesel SUVs, has declined. This shift has allowed first movers, like Tesla, to become some of the world's most valuable companies. The increasing demand for sustainable goods and services presents new business opportunities for companies that can adapt quickly. These sustainable solutions can also provide competitive advantages, whether through renewable energy production, efficient waste management or other environmentally friendly practices.

Steaming ahead

In 1804, an early example of the inherent link between entrepreneurship, innovation and environmental impact emerged in the form of a 500-guinea wager – a considerable sum at the time – between Samuel Homfray, an entrepreneur and ironmaster at Penydarren in South Wales, and his neighbour and competitor at the Cyfarthfa ironworks, Richard Crawshay. They had argued about whether steam locomotion would ever replace horses for hauling iron and people, with Crawshay declaring this impossible, since smooth iron wheels would simply spin on smooth iron tracks. Homfray enlisted the help of Richard Trevithick, who had built steam engines to pump water out of Cornish tin mines and was keen to extend the use of steam power. The bet was won on 21 February 1804, when Trevithick's steam locomotive hauled 10 tonnes of iron, plus more than 60 people, almost 10 miles along the Penydarren tramway, built for horse-drawn carriages, consuming two hundredweight of coal in the process. This was the world's first use of fossil fuels to haul iron and people on rails. As we now know, this was followed by vast global economic and social development and, a long time later, by the dawning realisation that the world's resources are finite and irreplaceable and that burning fossil fuels has devastating environmental and social consequences.[6]

6 *Anthony Burton, Richard Trevithick: Giant of Steam* (Aurum Press, 2000), chap. 8.

Corporate social responsibility

Corporate social responsibility (CSR) has evolved from a purely philanthropic approach to become a strategic business necessity. Today, CSR means that companies are responsible for the effects of their activities on society and the environment. CSR applies a wide range of aspects that must be taken into account when managing a company, such as protection of working conditions (including occupational health), human rights, the environment and consumer interests as well as ensuring fair competition, proper payment of taxes and transparency. To implement CSR, companies need to take stakeholder interests into account (e.g. those of shareholders, employees, consumers, local communities and non-governmental organisations). CSR focuses on creating shared value for stakeholders and is often integrated into core business strategies. As an extension of CSR, companies are now adopting ESG practices, such as reducing costs, enhancing efficiencies and building consumer loyalty. This shift, driven by stakeholders, highlights the opportunities sustainability presents for long-term success and risk management.

Effective resource management

New businesses prioritising resource efficiency can enhance both profitability, by reducing costs, and sustainability, by reducing environmental impacts. For instance, many food businesses focus on local sourcing to reduce food waste and minimise transportation emissions. This approach not only helps the environment but also serves as a marketing advantage. An example is one of the winners of the 2023 Earthshot Prize, [7] S4S Technologies, an Indian company that contributes to reducing food waste through its solar-powered food dehydrators, which help farmers preserve crops more efficiently. This approach aligns with the goal of creating a waste-free world and demonstrates how resource management can contribute to sustainability and long-term business success.

Risk management

Businesses that integrate sustainable practices are better positioned both to meet stakeholder expectations and to comply with increasingly stringent regulations. These businesses are also better equipped to manage the risks associated with social and environmental issues. For example, companies in the automotive industry that prepared for the rise of hybrid and electric vehicles were better positioned to meet consumer demands and remain competitive. This shows that sustainability and entrepreneurship can be mutually reinforcing. Entrepreneurial innovation drives the development of solutions to sustainability challenges but is also driven by these challenges to provide new products, services and processes. This dynamic is central to this report's premise that entrepreneurial activity can both create sustainable solutions and capitalise on emerging opportunities driven by ESG factors.

1.4 ENTREPRENEURIAL ACTIVITY AND THE UN SUSTAINABLE DEVELOPMENT GOALS

The UN Sustainable Development Goals (SDGs) provide a comprehensive framework for improving the lives of people across the world while minimising human impacts on the planet. The 17 SDGs are set out in Figure 1.1.

This framework provides an excellent basis for incorporating sustainability into entrepreneurial activity. Since GEM's inception in 1999, it has collected data that inform policymakers' understanding of the contribution of entrepreneurship to several SDGs, such as: SDG 1: No Poverty; SDG 5: Gender Equality; SDG 8: Decent Work and Economic Growth; and SDG 9: Industry, Innovation and Infrastructure.

As an example, new businesses provide jobs and incomes, thus contributing to reducing poverty and, in developing countries, staving off the most extreme forms of poverty and hunger (SDG 1). In another example, increasing numbers of new businesses are started by women, thus reducing gender inequality (SDG 5) as well as potentially providing decent work and promoting economic growth (SDG 8).[8] GEM gives strategic priority to producing the Women's Entrepreneurship Report annually, collaborating with several purpose-driven organisations to do so. This report provides an exceptionally detailed update on the evolution of women's entrepreneurship in the world.[9]

Many new businesses provide affordable or clean energy, enhance sustainable cities and communities, advance health and well-being, or provide clean water and sanitation. Not surprisingly, the UN has recognised the

7 "The Earthshot Prize", Royal Foundation of the Prince and Princess of Wales, accessed 9 January 2025, http://www.royalfoundation.com/conservation.

8 See, for example, Gaurav Chiplunkar and Pinelopi K. Goldberg, "Aggregate Implications of Barriers to Female Entrepreneurship", Working Paper No. 28486 (National Bureau of Economic Research, July 2024); these authors show that policies promoting female entrepreneurship can significantly increase female labour force participation, adding to positive outcomes for women, often in the poorest areas.

9 Global Entrepreneurship Monitor, *GEM 2022/23 Women's Entrepreneurship Report: Challenging Bias and Stereotypes* (Global Entrepreneurship Monitor, 2023), https://www.gemconsortium.org/report/gem-20222023-womens-entrepreneurship-challenging-bias-and-stereotypes-2.

FIGURE 1.1
The UN SDGs
Source: https://www.un.org/sustainabledevelopment/news/communications-material/

important role of entrepreneurial activity in achieving the SDGs. In December 2020, the UN General Assembly adopted Resolution 75/211 on entrepreneurship for sustainable development. This resolution emphasises the role of new businesses in creating jobs, addressing social and environmental challenges and driving inclusive growth, all within the context of the UN 2030 Agenda for Sustainable Development.[10] This report will consider the implications of entrepreneurial activity for the SDGs.

10 Global Entrepreneurship Monitor, *Global Entrepreneurship Monitor Luxembourg Report 2023/2024* (Global Entrepreneurship Monitor, 2024), chap. 9.

1.5 SUSTAINABILITY QUESTIONS IN THE GEM SURVEYS

Every year, the large-scale GEM Adult Population Survey (APS), which asks large samples (at least 2,000 adults per economy) in each participating economy about their attitudes on and engagement with entrepreneurship, is complemented by the National Expert Survey (NES), a smaller survey of identified national experts (at least 36 per economy) with questions designed to assess their economy's entrepreneurial environment.[11] These GEM surveys evolve over time to reflect the changing world, but there is also consistency in the questions asked, which is important so that comparisons can be made between economies and over time.

In 2019, GEM revised its approach to exploring motivations for entrepreneurship. Earlier APS questionnaires (and the corresponding annual Global Reports) had focused on the distinction between "opportunity" and "necessity" as primary motives for starting a new business. However, this binary divide no longer reflects the nuances in the motivations behind many contemporary business startups, so a question was added to the APS asking entrepreneurs (those identified to be starting or running a new business and those identified to be established business owners) the extent to which they agree with four carefully defined motivations:

- to make a difference in the world;
- to build great wealth or very high income;
- to continue a family tradition; and
- to earn a living because jobs are scarce.[12]

In 2021, GEM bolstered its focus on understanding the impact of entrepreneurship on sustainability with additional questions in the APS asking new and established business owners the extent to

11 See Appendix 1 for more details.

12 Global Reports since then have analysed these responses according to differences by gender, age and educational attainment.

SDG FOCUS . . .

Transforming adversity into opportunity: How necessity fuels entrepreneurial success

At times, individuals pursue entrepreneurship to meet basic needs or survive in challenging economic conditions. Necessity entrepreneurship can help reduce poverty. In addition, it can contribute to decent work and economic growth and create opportunities for women.

María-José Ibáñez, Professor at the Centrum PUCP Business School in Peru and a member of the new GEM Peru Team, is intrigued to understand necessity entrepreneurship from a research perspective, because at one time she was an entrepreneur herself due to necessity.

María-José was let go from her job in 2015. She entered the job market with much experience and a number of academic titles. However, as a woman and a young person, she was looking for a role that aligned with her aspirations. She therefore founded a construction company focused on energy-efficiency projects in sustainable building.

"I decided if nobody was going to make me a CEO, I needed to become my own CEO," she said.

A few years later, María-José's entrepreneurial journey continued through her involvement with a craft beer company in the south of Chile. Coincidentally, this came about as María-José was interviewing the founder of the company while conducting research for an academic paper.

Based on her experiences, María-José's advice to entrepreneurs who feel they must start a business out of necessity is as follows:

- **Leverage your skills and experience:** Even if you feel that you are starting out of necessity, focus on the skills and experience you already possess. Use them to differentiate your business and add value to your offerings.
- **Stay resilient and flexible:** The entrepreneurial journey can be unpredictable, especially when driven by necessity. It's important to adapt to changes and be willing to pivot when needed.

- **Stay alert to opportunities for improvement:** Even if you start a business out of necessity, it's important to keep an eye out for opportunities to optimise or adjust your business to make it more profitable. Don't get too attached to the original idea if it's not working, and be willing to change when needed.
- **Your original dream doesn't always define your path:** María-José always wanted to work in academia, but circumstances pushed her into entrepreneurship. It ended up being a great experience, and it made her a better professional, teacher and researcher.

"Sometimes, life takes you in unexpected directions, and those turns can help you grow in ways you never thought possible."

which they consider social and environmental concerns when making strategic decisions. They are also asked whether they have taken any steps in the past year to minimise the environmental impacts or maximise the social impacts of their business. Another new question asks entrepreneurs directly whether they prioritise social or environmental impacts over profitability or growth.

Meanwhile, in 2022 the topic of pursuing the SDGs was added to the NES, with experts being asked to rate new firms on a series of statements, which, among other things, cover:

- whether new firms increasingly prioritise their social contribution rather than solely focusing on profit and wealth creation; and
- whether most new and growing firms see environmental problems as a potential opportunity.

This topic and its associated statements were retained in the 2023 NES, and therefore some limited comparisons can be made over this short period (see Chapter 3).

This GEM special topic report presents results from these new questions on sustainability. The new questions in the APS have produced the first comprehensive multinational primary data based on responses from entrepreneurs themselves on the attitudes and actions of entrepreneurs across the world in relation to sustainability.

1.6 PARTICIPATING ECONOMIES

The APS and NES are delivered by GEM National Teams in each participating economy. The members of these teams are drawn mainly from universities and research institutes, and the leading role these researchers play in GEM data collection and analysis not only brings rigour to the results but also contributes to objective monitoring and guarantees an independent perspective in consideration of conclusions and recommendations.

The primary data sources for this report are the APS data for 2019–2023 and the NES data for 2022–2023.

The APS results for 2021–2023 provide a wealth of information gathered directly from entrepreneurs in response to the new questions on sustainability. At the height of the pandemic in 2021, 50 economies participated in the APS and NES, and these represented a little under half of the global population and almost two-thirds of global gross domestic product (GDP). In 2022, 51 economies participated in both GEM surveys, representing almost two-thirds of the global population and nearly three-quarters of global GDP. In 2023, 46 economies took part in both surveys, with a further three participating in the NES only. The 2023 APS participants represented about three-fifths of world population and around seven-tenths of global GDP.

The full list of GEM-participating economies for the 2021–2023 period is provided in Table 1.1. This identifies those economies participating in the APS from 2021 to 2023 and the NES in 2022 and 2023. As noted earlier, new questions on motivation (including motivations linked to sustainability) were introduced in 2019, so the results on motivations in Chapter 2 are based on APS data for 2019–2023. A total of 71 different economies participated in GEM surveys in at least one year between 2019 and 2023.

Table 1.1 groups the participating economies according to national income groups. GEM categorises economies by income level using World Bank data on GDP per capita. In the 2021/2022 and 2022/2023 Global Reports, Level A (high-income) economies had a GDP per capita of more than US$40,000, Level B (middle-income) economies had a GDP per capita between US$20,000 and US$40,000 and Level C (low-income) economies had a GDP per capita of less than US$20,000. In the 2023/2024 Global Report, the boundaries were revised to US$25,000 and US$50,000 for more even distribution of the groups. To enable comparison in Table 1.1, the 2023 participating economies have been re-categorised using the earlier boundaries.

TABLE 1.1
Economies participating in the GEM APS and NES by national income group, 2021–2023

Income group	2021	2022	2023
LEVEL A	**Canada**	Austria	**Canada**
	Finland	**Canada**	**Croatia**
	France	**Cyprus**	**Cyprus**
	Germany	**France**	Estonia
	Ireland	**Germany**	**France**
	Israel	**Israel**	**Germany**
	Italy	**Italy**	**Hungary**
	Japan	Japan	**Israel**
	Luxembourg	**Lithuania**	**Italy**
	Netherlands	**Luxembourg**	Japan*
	Norway	**Netherlands**	**Lithuania**
	Qatar	**Norway**	**Luxembourg**
	Republic of Korea	**Qatar**	**Netherlands**
	Saudi Arabia	**Republic of Korea**	**Norway**
	Sweden	**Saudi Arabia**	**Oman**
	Switzerland	**Slovenia**	**Poland**
	United Arab Emirates	**Spain**	Puerto Rico
	United Kingdom	**Sweden**	**Qatar**
	United States	**Switzerland**	**Republic of Korea**
		United Arab Emirates	**Romania**
		United Kingdom	**Saudi Arabia**
		United States	**Slovenia**
			Spain
			Sweden
			Switzerland
			United Arab Emirates*
			United Kingdom
			United States

Economies listed in bold participated in the APS in all three years from 2021 to 2023.

Economies marked with * participated in the NES but not the APS in 2023.

Some economies have moved between income levels over time: in the chapters that follow, economies are listed by their most recent categorisation.

Income group	2021	2022	2023
LEVEL B	Belarus	Argentina	Argentina*
	Chile	**Chile**	**Chile**
	Croatia	**Croatia**	China
	Cyprus	**Greece**	**Colombia**
	Greece	**Hungary**	**Greece**
	Hungary	**Latvia**	**Latvia**
	Kazakhstan	**Mexico**	**Mexico**
	Latvia	**Oman**	**Panama**
	Lithuania	**Panama**	**Slovak Republic**
	Oman	**Poland**	Thailand
	Panama	Puerto Rico	**Uruguay**
	Poland	**Romania**	
	Romania	Serbia	
	Russian Federation	**Slovak Republic**	
	Slovak Republic	Taiwan	
	Slovenia	**Uruguay**	
	Spain		
	Turkey		
	Uruguay		
LEVEL C	**Brazil**	**Brazil**	**Brazil**
	Colombia	China	Ecuador
	Dominican Republic	**Colombia**	**Guatemala**
	Egypt	Egypt	**India**
	Guatemala	**Guatemala**	**Iran**
	India	**India**	Jordan
	Iran	Indonesia	**Morocco**
	Jamaica	**Iran**	**South Africa**
	Mexico	**Morocco**	Ukraine
	Morocco	**South Africa**	Venezuela
	South Africa	Togo	
	Sudan	Tunisia	
		Venezuela	

1.7 LINKING GEM SUSTAINABILITY QUESTIONS TO GLOBAL FRAMEWORKS

By including questions on motivation, awareness, strategy, prioritisation and actions related to sustainability, GEM complements the SDG framework, a comprehensive global sustainability framework, and relevant international measures such as the Environmental Performance Index (EPI)[13] and the Social Progress Index (SPI).[14] Table 1.2 shows how the GEM sustainability questions align with each of these.

TABLE 1.2
Comparison of GEM sustainability questions with the SDGs and international sustainability indexes

GEM sustainability questions		Alignment with the UN SDG framework	Alignment with the Environmental Performance Index (EPI)	Alignment with the Social Progress Index (SPI)
Motivation to make a difference	Measures entrepreneurial motivation to create social/ environmental impact	Reflects, for example, SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production)	Indirectly linked to environmental leadership	Aligns with the SPI's emphasis on inclusivity and opportunity
Awareness of global goals	Tracks entrepreneurs' awareness and prioritisation of the 17 SDGs	Central to SDG 17 (Partnerships for the Goals) and SDG 4 (Quality Education)	Not directly measured, as EPI focuses on environmental health and ecosystem vitality, but overlaps with SDG-aligned goals such as climate action and resource efficiency	Indirectly aligns with the SPI's focus on social awareness and action
Prioritisation of environmental impacts	Tracks how entrepreneurs consider environmental factors in decision-making	Reflects SDG 13 (Climate Action) and SDG 15 (Life on Land)	Aligns with the core focus of the EPI's ecosystem vitality and environmental health metrics	Overlaps with the SPI's elements on environmental quality and safety
Prioritisation of social contributions	Measures prioritisation of social impact above profitability in business	Reflects SDG 10 (Reduced Inequalities) and SDG 11 (Sustainable Cities and Communities)	Indirectly supports social equity via environmental actions	Central to the SPI's focus on equity, inclusion and access
Sustainability actions taken	Tracks actions to minimise environmental harm or maximise social benefits	Reflects SDG 12 (Responsible Consumption and Production)	Strongly overlaps with the EPI's metrics on sustainability practice	Complements the SPI's goals for sustainable community development
Strategic integration of sustainability	Measures inclusion of sustainability in long-term business strategies	Reflects SDG 9 (Industry, Innovation and Infrastructure) and SDG 12 (Responsible Consumption and Production)	Aligns with the EPI's emphasis on long-term environmental sustainability	Aligns with the SPI's emphasis on community resilience and sustainable growth

13 For more on the EPI, see "About the EPI", accessed 9 January 2025, https://epi.yale.edu.
14 For more on the SPI, see "Global Social Progress Index", Social Progress Imperative, accessed 9 January 2025, https://www.socialprogress.org/social-progress-index.

GEM sustainability questions offer micro-level insights, based on entrepreneurial motivations, priorities and actions related to sustainability. These insights align with the broader, macro-level goals of the SDG framework, such as fostering Decent Work and Economic Growth (SDG 8), promoting Responsible Consumption and Production (SDG 12) and addressing Climate Action (SDG 13). As GEM survey questions focus on entrepreneurs' awareness and prioritisation of environmental and social impacts while the SDG framework operates at a national and global level, GEM's data at the level of entrepreneurs offer a valuable complement to the high-level monitoring of SDGs.

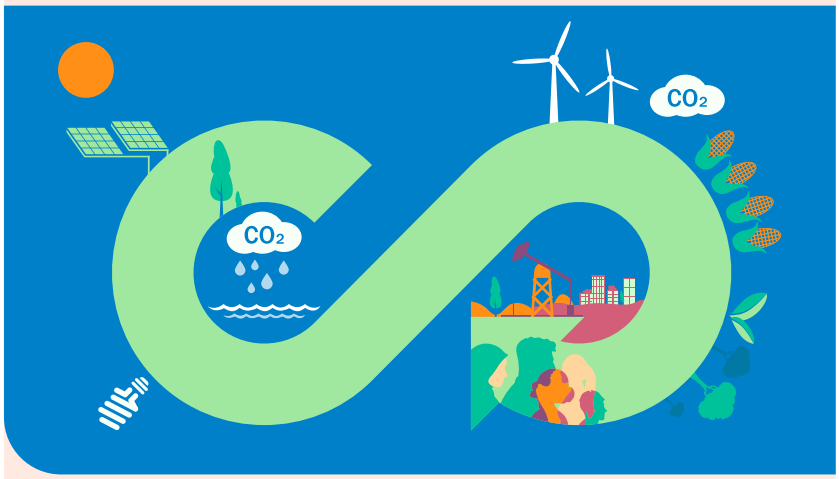
Similarly, GEM data complement the EPI data by capturing environmental decision-making and sustainability actions at the business level that align with the EPI's focus on ecosystem vitality and resource efficiency. GEM's emphasis on the strategic integration of sustainability in businesses aligns with the EPI's emphasis on long-term environmental management, creating opportunities to enhance the breadth of monitoring of environmental issues.

The SPI focuses on themes of equity, inclusion and access, and additional insights in these areas are provided by the GEM data on the extent of entrepreneurs' prioritisation of social contributions above profitability and their actions to maximise social impacts. By examining how entrepreneurs contribute to social well-being through their business, GEM enriches the SPI's understanding of societal progress at a national level.

Overall, the GEM sustainability questions complement these international sources by addressing gaps in entrepreneurial-level data.

SDG FOCUS . . .

Perspectives on the circular economy



The circular economy is a model of production and consumption that involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. This model can be taken into consideration as entrepreneurs address the environmental implications of their business when making decisions.

An example of a company implementing the circular economy is Circle Toys. The startup is addressing the environmental challenges of the Swiss children's toy market by creating a circular platform for used toys. The company collects toys from families and sorts, cleans and resells them through its online store. This approach provides a triple benefit: families declutter while earning store credit, buyers save up to 70% compared to the price of new toys and the planet sees reduced emissions and waste.

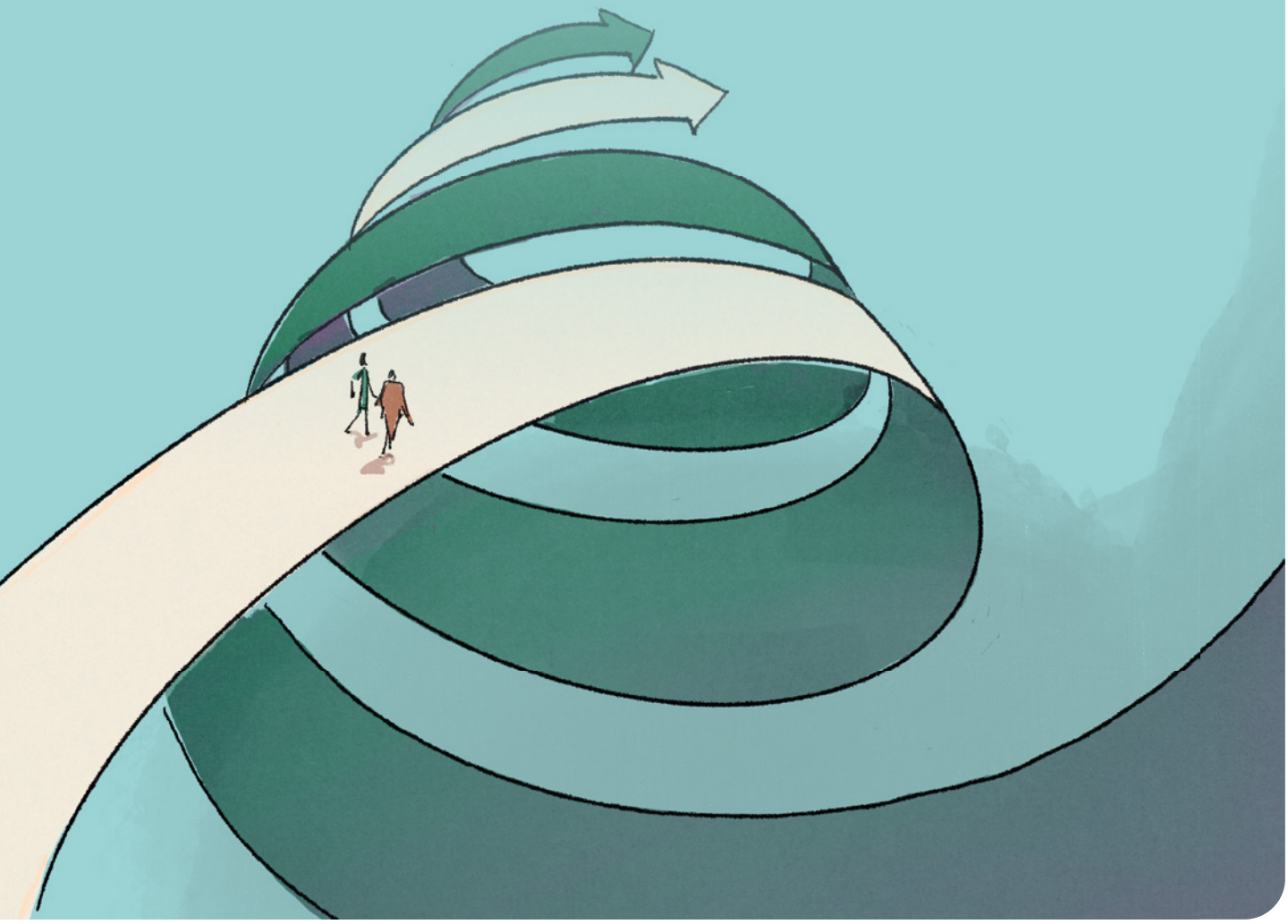
Based on the perspectives we hear from entrepreneurs, here are five questions to consider that will help you identify ways to incorporate the circular economy into your business model:

- Can you design products for durability, repairability or recyclability?
- Can you repurpose or recycle waste materials from the production process?
- Can you collaborate with other businesses to share resources or minimise waste?
- Is there a way to extend the life cycle of your products through refurbishment or reuse?
- Are there incentives for customers to return used products for recycling or repurposing?

CHAPTER 2

Entrepreneurial Motivation and Sustainability

Stephen Hill and Maribel Guerrero



2

"Sustainability is a part of our 'rise' philosophy. You cannot rise if you take more from the community than you put back."

Anand Mahindra, Indian businessperson and Chair of Mahindra Group

2.1 INTRODUCTION

Motivation plays a crucial role in entrepreneurial endeavours, particularly when it comes to sustainability.[15] The ambitions of individual entrepreneurs significantly impact decision-making processes and may, ultimately, determine the very success of an enterprise. A highly motivated individual is more likely to recognise business opportunities and more inclined to act on them. A strong desire for success can outweigh the fear of failure; the Global Entrepreneurship Monitor (GEM) Global Reports have shown this.[16] Strongly motivated people may also be more focused on sustaining growth in the longer term than they are on short-term wins. In addition, enthusiastic individuals may be more creative, and their passion can be contagious and help build a motivated team.

As noted in Chapter 1, in the GEM Adult Population Survey (APS) from 2019 to 2023, those respondents who were identified as entrepreneurs (those starting or running a new business and established business owners) were asked to rate their agreement with four specific motivations for starting their business:

- to make a difference in the world;
- to build great wealth or very high income;
- to continue a family tradition; and
- to earn a living because jobs are scarce.

For each motivation, respondents could choose from responses on a five-point scale: strongly agree; somewhat agree; neither agree nor disagree; somewhat disagree; and strongly disagree.

Of course, these four motivations are neither mutually exclusive nor exhaustive. An individual entrepreneur may agree or disagree with any combination of these. Other motivations may also be important. For example, before this question was formally introduced in the GEM survey, pre-testing showed that there would be little point in including desire for autonomy or independence in the list, since there was almost universal agreement that this was a motivation for starting a business.

The motivation "to make a difference in the world" is fundamental to this special report on sustainability, since it implies purpose-driven entrepreneurship beyond the individual's self-interest.

15 René Bohnsack and Lori DiVito, "Motivations and Entrepreneurial Orientation of Sustainable Entrepreneurs: An Exploratory Study of Sustainable Entrepreneurship Archetypes in the Fashion Industry", in *Sustainable Entrepreneurship*, ed. Adam Lindgreen, Christine Vallaster, François Maon, Shumaila Yousafzai and Beatriz Palacios Florencio (Routledge, 2018), 24–37.

16 See, for example, Global Entrepreneurship Monitor, *Global Entrepreneurship Monitor 2023/2024 Global Report: 25 Years and Growing* (Global Entrepreneurship Monitor, 2023), 39–42.

2.2 MOTIVATION TO MAKE A DIFFERENCE IN THE WORLD

Figures 2.1 to 2.3 show the percentage of those starting or running a new business who somewhat or strongly agreed with the motivation "to make a difference in the world" over the five years since this question was introduced into the APS. The figures are broken down into the three income groups described in Chapter 1: Level A (high income); Level B (middle income); and Level C (low income).

The following are some observations on the data over these five years:

- The variability of responses generally declines as national income level increases, with the responses of Level C economies being more variable than those of Level B economies, which are typically more variable than those of Level A economies.
- Some economies are clear outliers (though it is noted that not all economies have data for each year). For example, Kazakhstan (Level B) and the Republic of Korea (Level A) have particularly low levels of agreement. The highest levels of agreement are within Level C, in India, South Africa and Guatemala.
- Without these outliers, both the highest and lowest levels of agreement with this motivation are in Level C, aside from Romania in Level A.
- The variation between economies in any year is typically greater than the variation within individual economies over the five years.

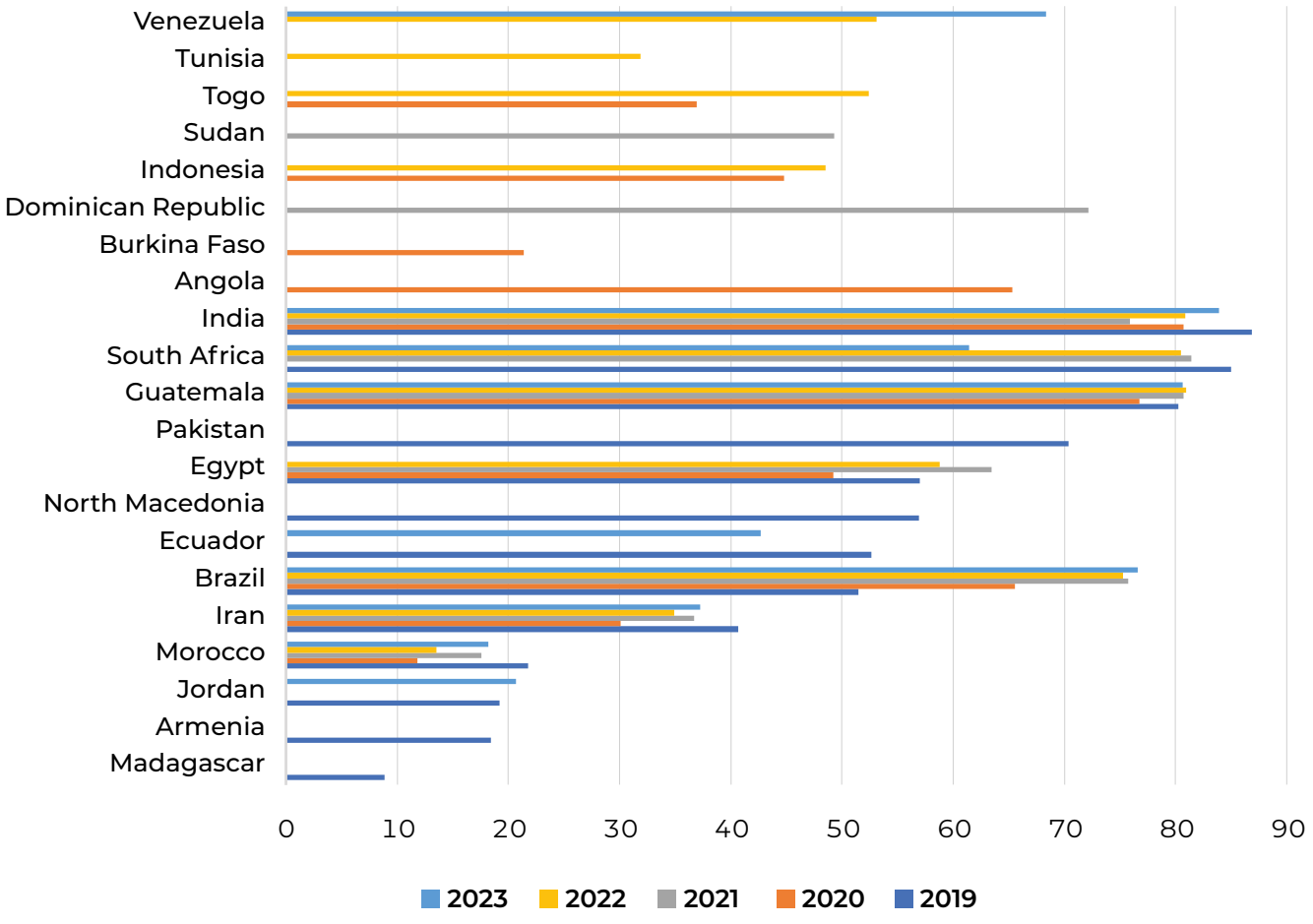


FIGURE 2.1 The percentage of those starting or running a new business and somewhat or strongly agreeing with the motivation "to make a difference in the world", Level C economies, 2019–2023
Source: GEM Adult Population Survey 2019–2023

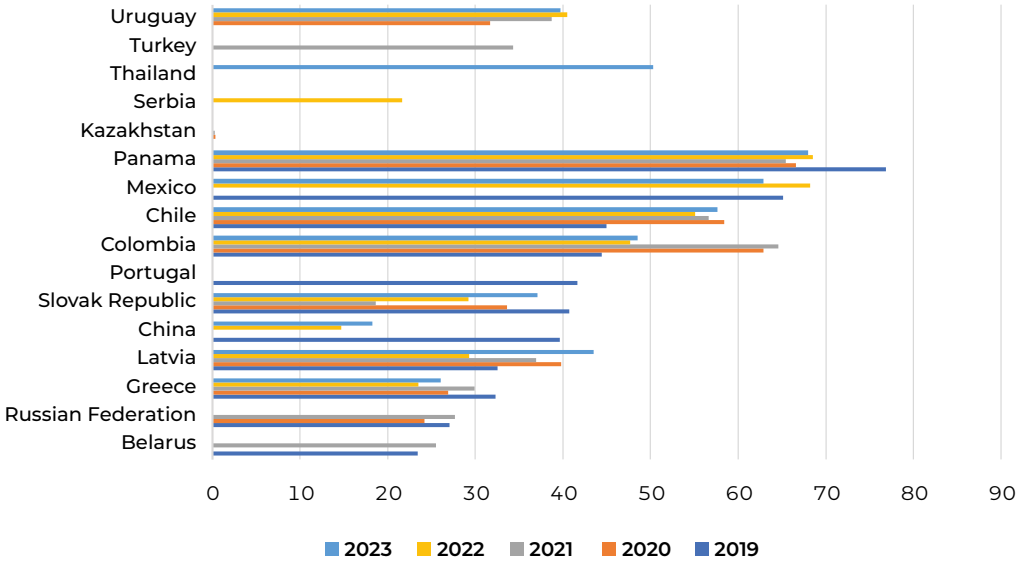


FIGURE 2.2 The percentage of those starting or running a new business and somewhat or strongly agreeing with the motivation "to make a difference in the world", Level B economies, 2019–2023
Source: GEM Adult Population Survey 2019–2023

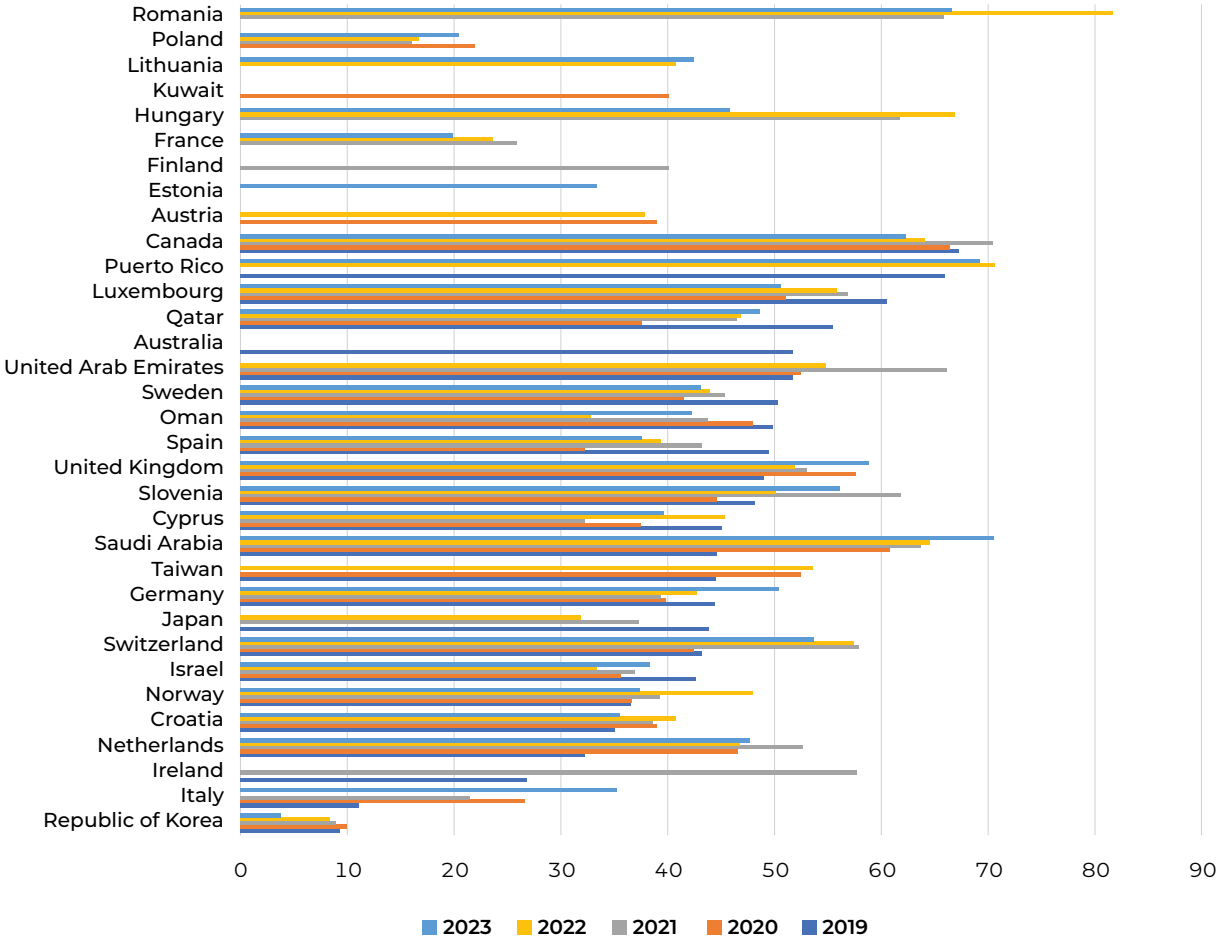
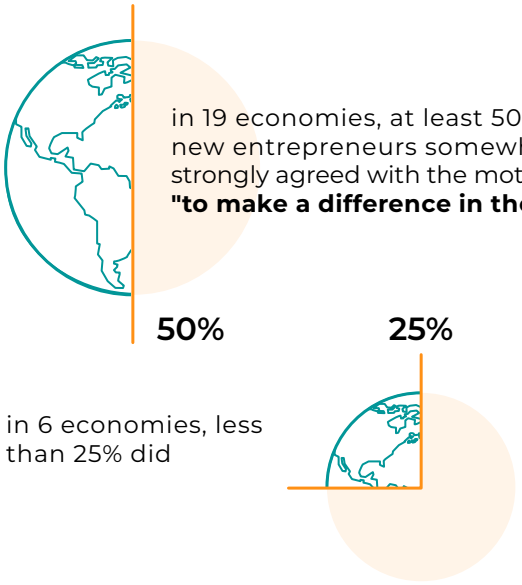


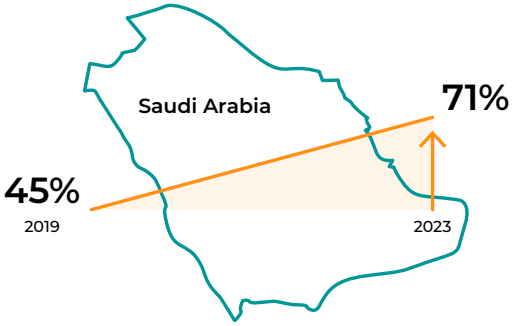
FIGURE 2.3 The percentage of those starting or running a new business and somewhat or strongly agreeing with the motivation "to make a difference in the world", Level A economies, 2019–2023
Source: GEM Adult Population Survey 2019–2023

The number of participating economies with at least 50% of new entrepreneurs somewhat or strongly agreeing with the motivation "to make a difference in the world" has largely been stable overall, with 18 in 2019 and 19 in 2023. This is in spite of the COVID-19 pandemic, which had multiple social impacts during and after 2020 and 2021. In other words, the motivation can be said to have held firm, demonstrating its resilience. However, the number of participating economies with less than 25% of new entrepreneurs agreeing with this motivation has also remained stable overall, with seven in 2019 and six in 2023.

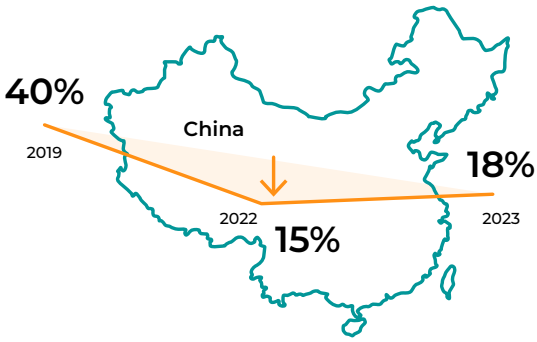
In 2023:



Looking at the same data for the 29 economies that participated in the APS every year since this new question was introduced (i.e. each year from 2019 to 2023) allows for a more in-depth tracing of the evolution of agreement over time. The first observation confirms one of the points already noted: there was much more variation in agreement between economies than within individual economies over time. Change in each of these economies was typically modest, despite the COVID-19 pandemic. Only Saudi Arabia had a proportion that increased yearly: from 45% in 2019 to 71% in 2023. For 16 of these 29 economies, the proportion of new entrepreneurs agreeing with the motivation "to make a difference in the world" was lower in 2023 compared to 2019; for 13, it was the reverse. The largest changes were for Morocco, the Slovak Republic and the Republic of Korea.



Of the economies that participated in the APS more than once but less than five times during 2019–2023, the most significant changes were found in Ireland and Italy, where there were increases. China was at 40% in 2019 and dropped to 15% in 2022, rising only slightly, to 18%, in 2023 – this is of particular concern given the country's size and commercial influence.



2.3 OTHER INFLUENCES ON ENTREPRENEURIAL MOTIVATION

Since motivation impacts new firm behaviour and how businesses contribute to sustainability, it is important to understand whether demographic factors influence motivation.[17] Several questions are relevant. For example, are women entrepreneurs more likely to agree with the motivation "to make a difference in the world"? Are male entrepreneurs more focused on self-serving motivations? Are older new entrepreneurs more likely to start a business to continue a family tradition, or are they largely driven by the shortage of alternative jobs? The scale and depth of the APS results allow for such analyses.

Of the 50 economies participating in the 2019 APS, the proportion of men starting or running a new business who agreed with the motivation "to make a difference in the world" exceeded the corresponding proportion of women entrepreneurs in just 14 economies. In the other 36 economies, women entrepreneurs more often agreed with this motivation. Of the four motivations, female new entrepreneurs were more likely to agree with the motivations "to make a difference in the world" and "to earn a living because jobs are scarce", whereas male new entrepreneurs were more likely to agree with the motivations "to build great wealth or very high income" and "to continue a family tradition".

The relationship between entrepreneurial motivation and age was noted in the GEM 2021/2022 Global Report. In most GEM-participating economies, younger adults were more likely to be starting or running a business than older adults. The analysis also shows that younger entrepreneurs were more likely than older ones to agree with the motivations "to make a difference in the world" and "to build great wealth or very high income", while there was little difference between older and younger entrepreneurs for the motivation "to continue a family tradition". Older entrepreneurs were more likely to agree with the motivation "to earn a living because jobs are scarce", often by a considerable margin, indicating that older individuals may face challenges in the job market and see creating a business as a better option for them.

Finally, the GEM 2023/2024 Global Report reveals differences in motivation between entrepreneurs who are university graduates and those who are non-graduates. The graduates were somewhat more likely to agree with the motivation "to make a difference in the world" and somewhat less likely to agree with "to build great wealth or very high income". However, results were much clearer for the other two motivations: non-graduate new entrepreneurs were much more likely than graduate new entrepreneurs to agree with the motivations "to continue a family tradition" and "to earn a living because jobs are scarce". This may be because non-graduates have fewer job opportunities, or it may be that individuals who intend to follow a family tradition have less incentive, opportunity or social pressure to pursue higher education.

17 According to Nielsen Consumer, 75% of US millennials (born between 1982 and 1994) and US Generation Z (born between 1995 and 2010) are becoming increasingly more eco-conscious as customers, investors and entrepreneurs compared to the baby boomer generation (born before 1982); they are adopting more socially and environmentally aware habits. For further information, see "Was 2018 the Year of the Influential Sustainable Consumer?", Nielsen Consumer, 17 December 2018, https://nielseniq.com/global/en/insights/analysis/2018/was-2018-the-year-of-the-influential-sustainable-consumer/.

2.4 ARE ESTABLISHED BUSINESSES MAKING A DIFFERENCE?

Those running an established business were asked whether they agree with each of the four motivations. Results for "to make a difference in the world" are shown in Figure 2.4 for the 29 economies that participated in each APS from 2019 to 2023.

Overall, agreement with this motive tended to be a little lower and somewhat more stable among established business owners than those starting or running a new business, with Qatar proving a recent exception to the former and Saudi Arabia an exception to the latter. Only four economies – Guatemala, India, Panama and Canada – had levels of agreement that were above 50% throughout the period. Only two economies – Morocco and the Republic of Korea – had levels of agreement below 25% throughout the period. So established entrepreneurs, perhaps because their owners tend to be older, are a little less likely than new entrepreneurs to agree with the motivation "to make a difference in the world".

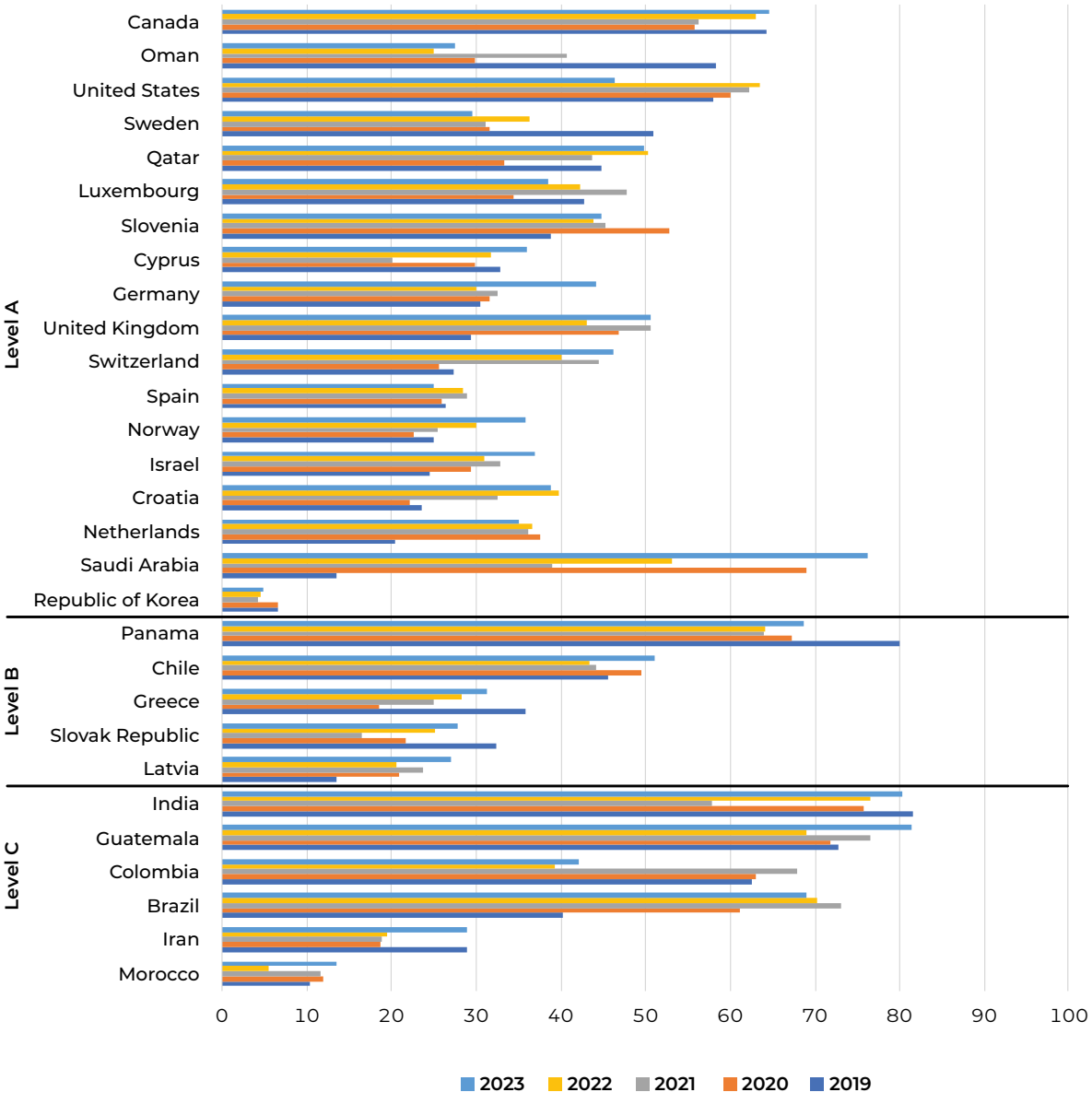


FIGURE 2.4 The percentage of those running an established business and somewhat or strongly agreeing with the motivation "to make a difference in the world", 2019–2023

Source: GEM Adult Population Survey 2019–2023

2.5 CONCLUSION

Over the 25 years of GEM research, it is clear from the data that motivation is a key driving factor in entrepreneurial activity and for entrepreneurial success. With the addition of questions related to sustainability in 2019, the data show that, in the five years since then, a significant proportion of both new and established entrepreneurs agreed with the motivation "to make a difference in the world". Making a difference can be expressed in many dimensions of entrepreneurial activity, which are highly likely to include social and environmental objectives. It is encouraging that this motivation is so clearly evident in many different cultures and geographies. Indeed, there is little indication that purpose-driven entrepreneurship is the preserve of better-off economies, with low-income economies such as India and Guatemala among those with the highest proportions of new and established entrepreneurs agreeing with this motivation.

The finding that this motivation was relatively stable over the five-year period suggests that global crises such as the COVID-19 pandemic do not have a long-term impact on motivation. Arguably, they may create the knock-on effect of anchoring entrepreneurs more firmly to the idea that they, as entrepreneurs, can make a difference in the world.

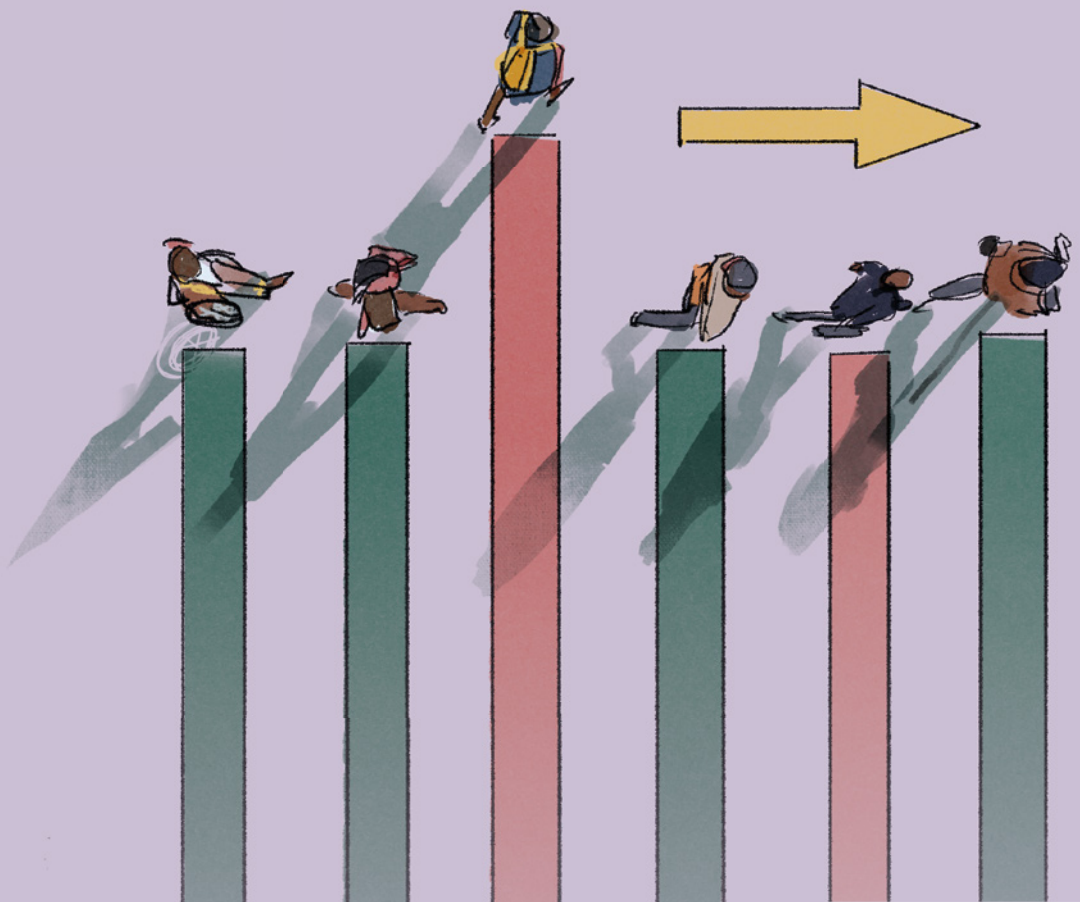
SDG FOCUS . . .

Women, younger people and graduates are more likely to agree with the motivation of making a difference in the world. Continuing to encourage these groups to start and run their own businesses could increase the proportion of purpose-driven entrepreneurship, and thereby contribute to a number of SDGs, including:

CHAPTER 3

New and Growing Businesses: Prioritisation of Sustainability

Stephen Hill and Sreevas Sahasranamam



3

"We know markets can have a transformative effect on society and can build a better world, and investor focus on sustainability issues has never been greater."

Michael Wilkins, Managing Director of Sustainable Finance at S&P Global Ratings

3.1 INTRODUCTION

The priorities of a new and growing business influence numerous outcomes, including its social and environmental impacts. Prioritising sustainability may be a strategic as well as an ethical choice, since aligning business values with wider society can generate both economic and social benefits. The business may be more viable in the longer term because it is prioritising adapting to issues like climate change, resource depletion and social inequality. In turn, a new business that prioritises sustainability may gain commercial advantage by building reputation and brand loyalty. Other commercial benefits may include cost reductions through energy efficiency and waste minimisation; lower capital costs because some investors are attracted by corporate social responsibility; and lower staff costs thanks to employee engagement and retention.

3.2 ASSESSING THE PRIORITIES OF NEW BUSINESSES

As noted in Chapter 1, the Global Entrepreneurship Monitor (GEM) National Expert Survey (NES) is a survey of at least 36 identified national experts in each GEM-participating economy. These experts have a detailed knowledge of the economy through their work as investors, journalists or business academics or even as entrepreneurs themselves. They are asked to respond to a series of statements about carefully defined Entrepreneurial Framework Conditions. Due to the consistency in questions asked, the NES allows for comparisons to be made over time and between countries.

The survey also evolves to reflect changing conditions and priorities. In 2022, new questions were added on pursuing the United Nations (UN) Sustainable Development Goals (SDGs), and these were also included in the 2023 NES. Experts are asked to rate statements such as:

- new and growing firms increasingly prioritise their social contribution rather than solely focusing on profit;
- most new and growing firms see environmental problems as a potential opportunity;
- new and growing firms see paying taxes as part of their social responsibility; and
- national government has specific regulations that support sustainability-focused startups.

Each expert assesses the veracity of the statements on an 11-point Likert scale from completely false (0) to neither false nor true (5) to completely true (10). These ratings are then summarised into five collective scores representing experts' perception of new businesses' prioritisation of social contribution, economic performance, environmental practice and sustainability, and their government's prioritisation of sustainability in new businesses.

A total of 50 economies participated in the NES in 2022 and 48 participated in 2023, with 42 participating in both years and 55 different economies represented overall. Figures 3.1 to 3.5 show national expert scores in the 55 participating economies, averaged for 2022 and 2023. On a scale of 0 to 10, a score of 5 is regarded as satisfactory, with higher scores indicating better than satisfactory, while a score less than 5 is regarded as unsatisfactory.

3.3 PRIORITISATION OF SOCIAL CONTRIBUTIONS AND ECONOMIC PERFORMANCE

Figure 3.1 shows experts' scores on the prioritisation that new and growing businesses give to their social contributions or social responsibility. Of the 55 participating economies, 19 were rated as unsatisfactory and 36 were rated as satisfactory or better. There was some positive association with national income group. In Level C (low-income) economies, around two in three new businesses were rated as unsatisfactory compared to under one in five in Level A (high-income) economies.

Of the 42 economies that participated in both years, 23 had higher scores in 2023 than in 2022 and 17 had lower scores in 2023, although many of these variations were small; two scored the same in both years. So, in a majority of economies, experts' rating of new businesses' prioritisation of their social contribution and social responsibility improved over the two years.

FIGURE 3.1
National expert scores for new businesses' prioritisation of social contribution or social responsibility, averaged over 2022 and 2023

Source: GEM National Expert Survey 2022–2023

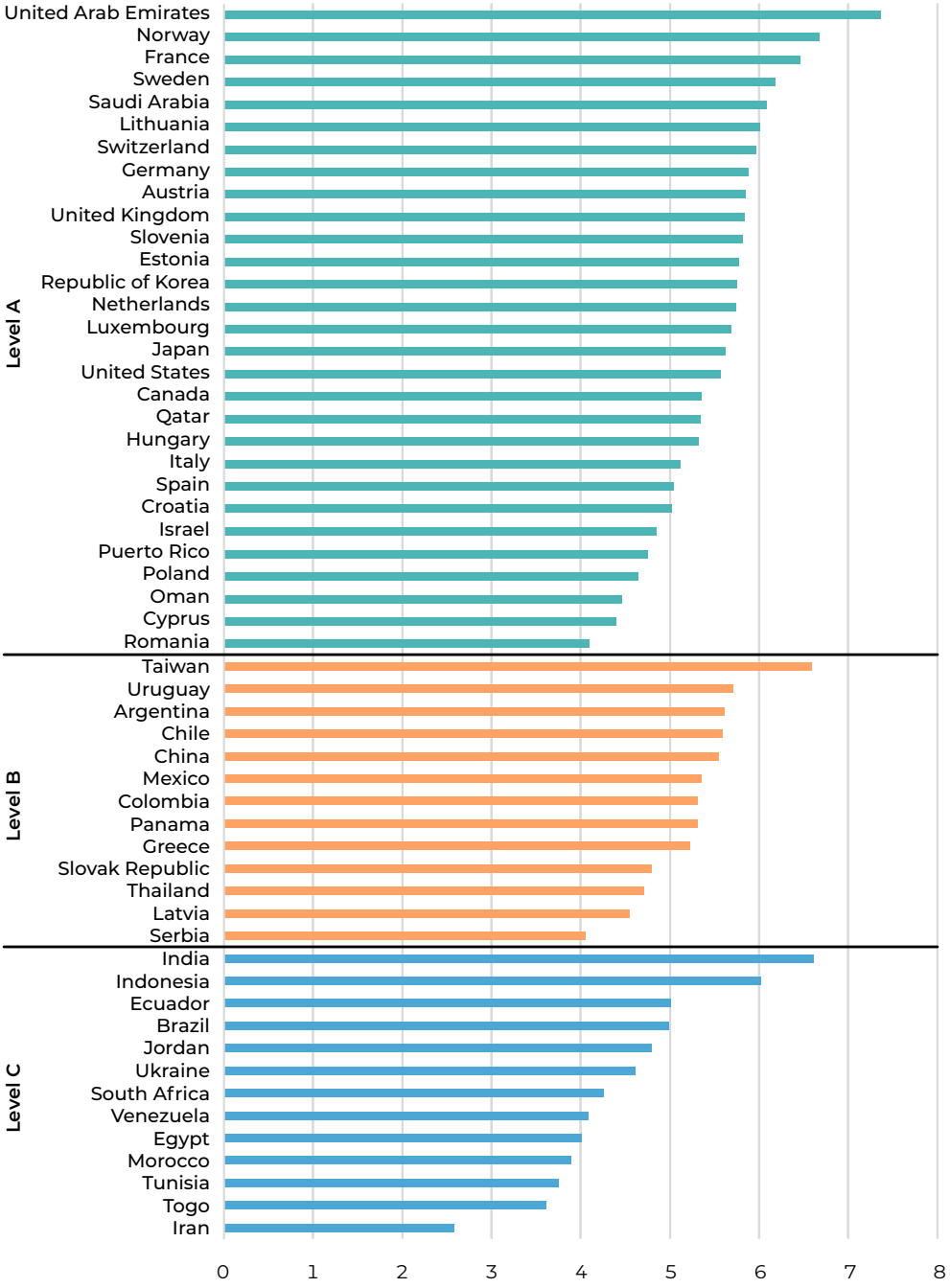
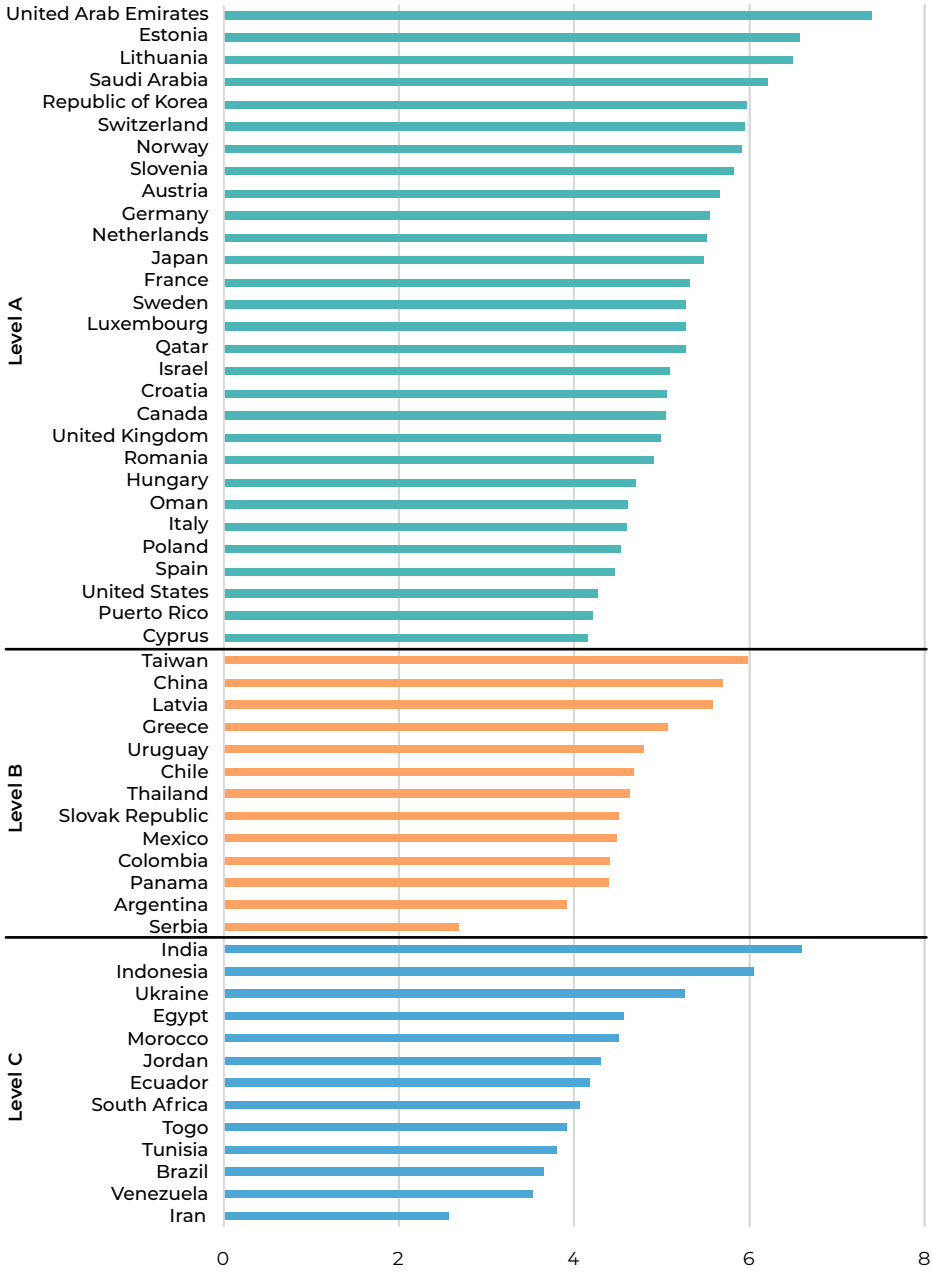


FIGURE 3.2 National expert scores for new businesses' prioritisation of economic performance, averaged over 2022 and 2023

Source: GEM National Expert Survey 2022–2023



While new businesses' prioritisation of social responsibility may have an obvious relationship to the SDGs, their prioritisation of economic performance may be just as important, both directly (e.g. for SDG 8: Decent Work and Economic Growth and SDG 9: Industry, Innovation and Infrastructure), and indirectly, as this can help new businesses to not only survive into the future but also reinvest and enhance their contribution towards the SDGs. National experts' rating of the prioritisation of economic performance by new businesses is shown in Figure 3.2.

Figure 3.2 paints a slightly less positive picture than Figure 3.1. Experts in 27 of the 55 participating economies rated new businesses' prioritisation of their economic performance as satisfactory or better and experts in 28 economies rated this as unsatisfactory.

In terms of national income group, Level A economies were rated more favourably than Level B and C economies: experts rated prioritisation of economic performance as unsatisfactory in around a third (10 out of 29) of Level A economies, compared to three-quarters (nine out of 13) of Level B economies and just under three-quarters (10 out of 13) of Level C economies. Notably, India and Indonesia, both Level C economies, were regarded as better than satisfactory and the United States and two large European economies, Spain and Italy, were among the Level A economies regarded as less than satisfactory.

This finding may be due to entrepreneurs in many low-income economies prioritising factors other than economic performance, or it may be due to them having more limited capacity to set economic performance priorities.

SDG FOCUS . . .

Turning waste into solutions: How Boomera is revolutionising sustainability in Brazil

Frustrated by the environmental impact of waste like cigarette butts, disposable diapers and espresso pods, Henrique Guilherme Brammer Junior started looking for technological solutions. Convinced that there had to be ways to use not only recyclable waste but also more hard-to-recycle products, Henrique founded Wisewaste in 2011 and renamed it Boomera in 2017.

The company created a methodology called the Circular Pack, which gains scale and impact by turning waste into a line of products with a cause, bringing together technology, design, science and social inclusion.

Boomera is based in Brazil, where only 3% of waste is recycled. In the country's largest cities, every citizen produces about 1.2 kg of waste per day and 41% of it ends up in rubbish dumps. Boomera (then Wisewaste) set about creating answers to this problem. It has engineered a recycling option for BOPP, a type of plastic film used in the packaging industry, developed an industrial tarpaulin five times more resistant than traditional tarpaulin and is researching ways to reuse coffee pods to create an alternative plastic resin, as well as to turn disposable diapers into garbage pails and coat hangers. Boomera has also established partnerships with major customers like Procter & Gamble, Adidas, Braskem, Natura and Nestlé to find environmentally friendly solutions for their waste.

With over 120 employees, Boomera is based on a circular economy business model that brings together industry, academia and environmental agents. In 2020, Boomera was chosen by Plug and Play as the startup of June. Regarded as the biggest startup accelerator in Silicon Valley, Plug and Play celebrates innovative solutions for technology, environment and society as a whole. It has been recognised by the World Economic Forum and *Entrepreneur* magazine, as well as by startups, as making America more sustainable. The company has also been recognised with numerous honours and awards for work as an entrepreneur in sustainable development.

After successfully leading Boomera to its current position, Guilherme sold the company to a large group in Brazil. Following this transition, he accepted an invitation to join the World Economic Forum Fellowship Programme. His work focuses on advancing the COP 30 agenda in Brazil in collaboration with the team at the Centre for Nature and Climate.

We thank the Schwab Foundation, one of our report sponsors, for providing this material and helping to put our data in a real-world context.

SCHWAB FOUNDATION FOR SOCIAL ENTREPRENEURSHIP

3.4 PRIORITISATION OF GOOD ENVIRONMENTAL PRACTICE AND SUSTAINABILITY

According to NES data, good environmental practice is increasingly prioritised by new businesses. This was rated as satisfactory or better by national experts in 40 out of the 55 participating economies in 2022 and 2023 (Figure 3.3).

However, the prevalence of unsatisfactory scores had a negative relationship to national income level: in 10 out of 13 Level C economies, new businesses' prioritisation of good environmental practice was rated as unsatisfactory, while this was the case in just four out of 29 Level A economies.

National expert scores for the priority given to sustainability by new businesses are shown in Figure 3.4, which again paints a positive picture. National expert ratings were satisfactory or better in around four-fifths (43 out of 55) of participating economies. The United Arab Emirates, Sweden and Norway had the highest scores, although other European economies, including the Baltic states, also scored well. However, there continues to be some association with national income group, with Level C economies most likely to be rated as unsatisfactory: ratings were unsatisfactory in around two-fifths (six out of 13) of Level C economies, compared to just one of the 13 Level B economies, and about a fifth (five out of 29) of Level A economies.

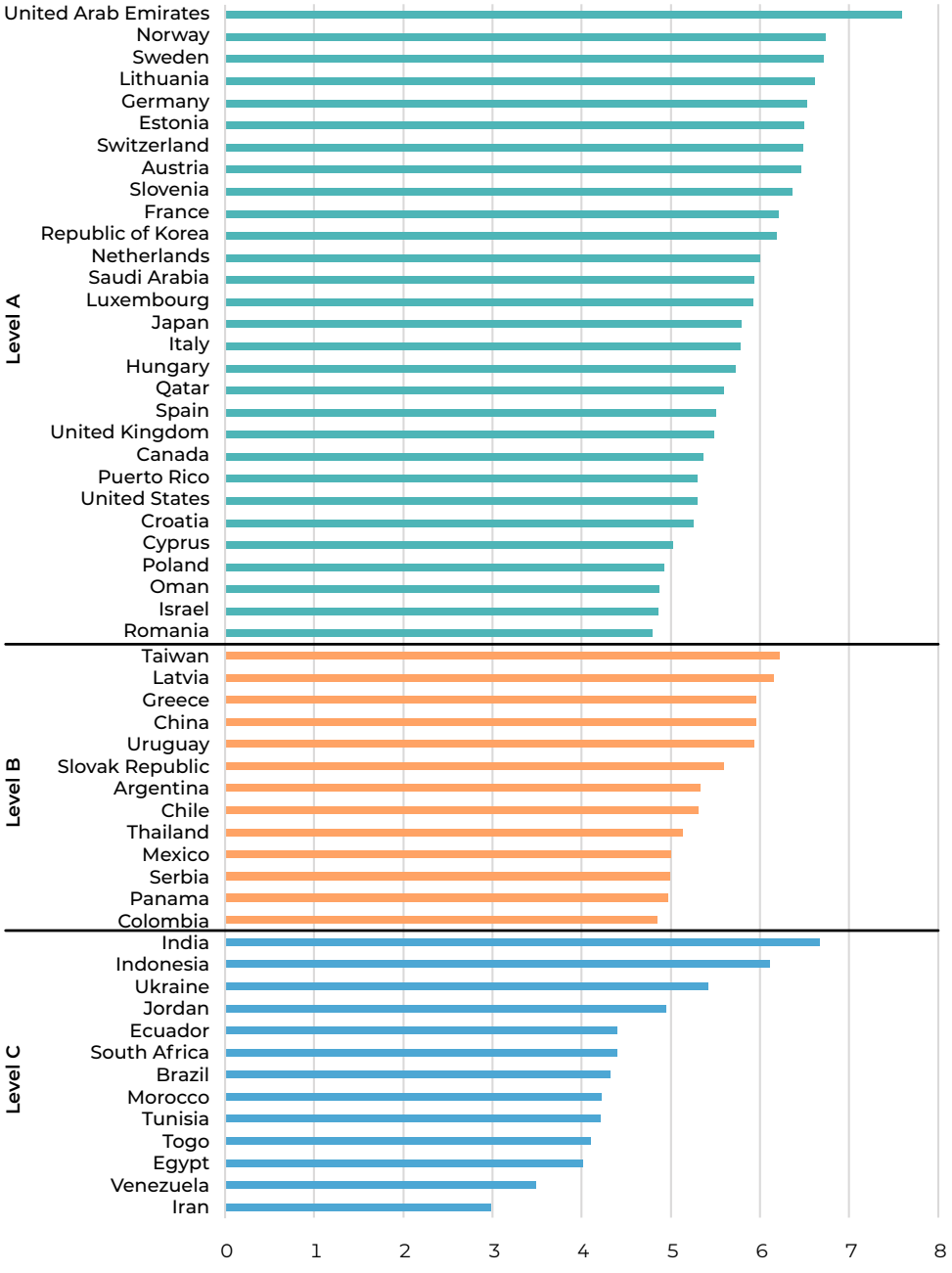
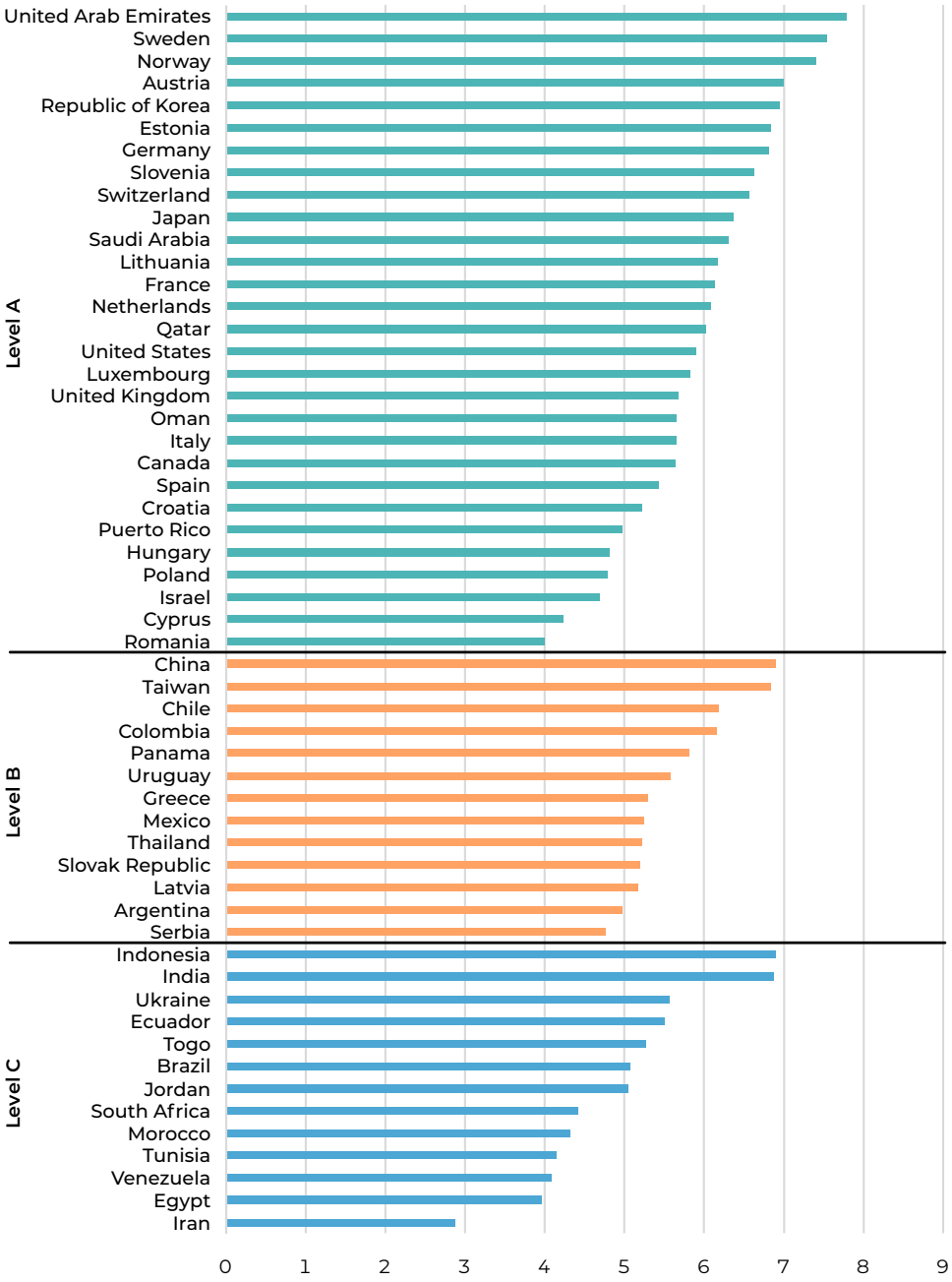


FIGURE 3.3 National expert scores for new businesses' prioritisation of good environmental practice, averaged over 2022 and 2023
Source: GEM National Expert Survey 2022–2023

FIGURE 3.4
National expert scores for new businesses' prioritisation of sustainability, averaged over 2022 and 2023

Source: GEM National Expert Survey 2022–2023



3.5 GOVERNMENT PRIORITISATION OF SUSTAINABILITY IN NEW BUSINESSES

National experts were also asked to rate the priority their government gives to promoting the sustainability focus of new businesses by, for example, introducing policies, regulations or grants to encourage sustainability-focused new businesses. In many of the participating economies, expert scores were much lower than satisfactory (Figure 3.5). Scores were satisfactory or better in just 22 out of the 55 participating economies. There were scores of 6 or above in the United Arab Emirates, India, China, Norway, the Republic of Korea, Saudi Arabia, Qatar and Indonesia.

Government support for new business sustainability was seen by experts as unsatisfactory in most economies across every national income group, but this was most prevalent among Level C economies, where all economies except fast-growing India and Indonesia were rated as unsatisfactory.

So, for the period under review, a mixed picture is presented. Experts rated government prioritisation of sustainability among new businesses relatively highly in East Asia and the Gulf, and relatively lowly along the North African coast (Egypt, Tunisia and Morocco) and in Iran, Venezuela and some parts of Europe, including Poland, Cyprus and the United Kingdom. Clearly, cultural differences or recent changes in policy may account for some of these differences; it is too early to identify a trend. However, the scores in individual economies may signal early green or red flags for policymakers.

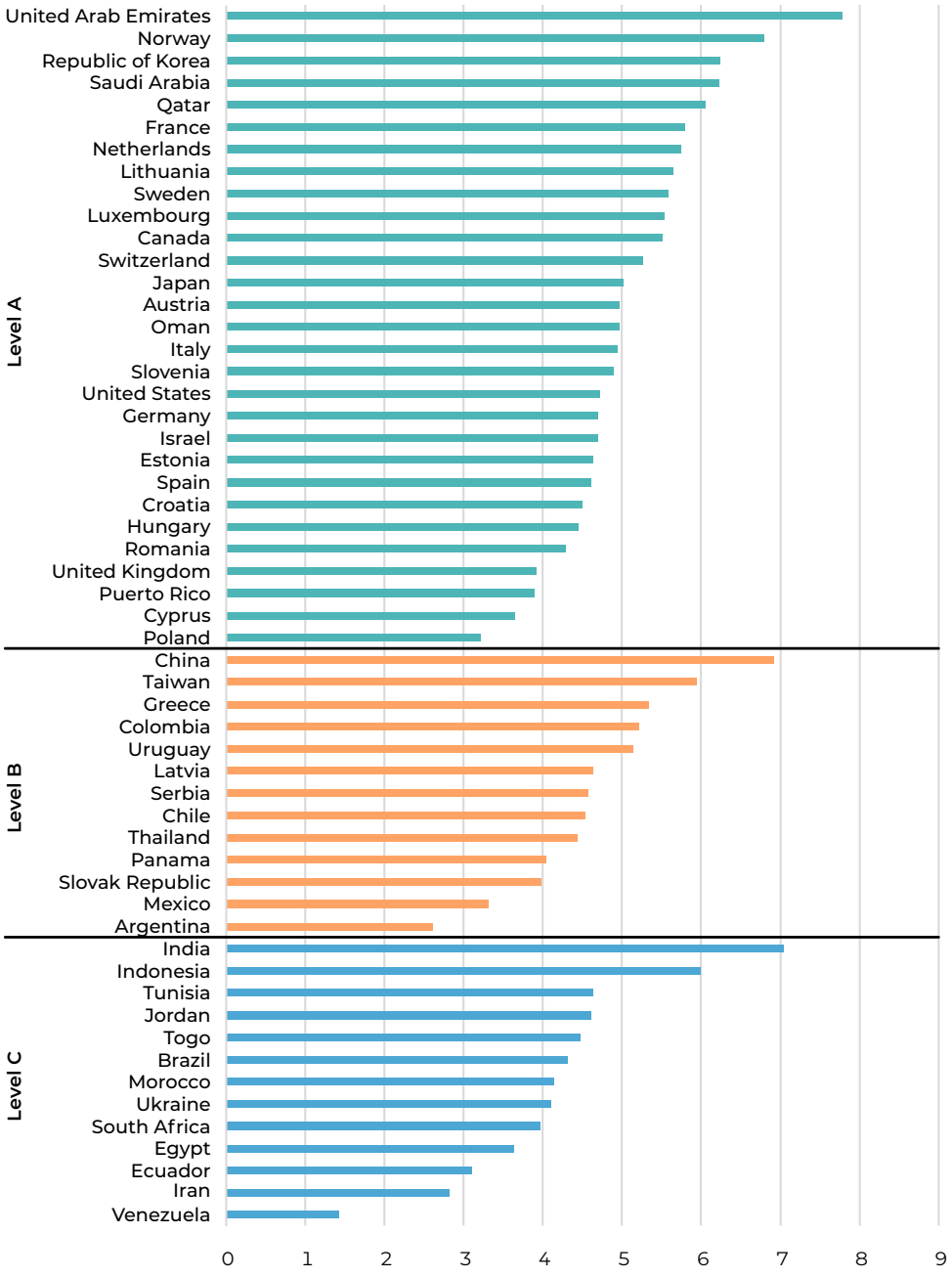


FIGURE 3.5 National expert scores for government prioritisation of sustainability in new businesses, averaged over 2022 and 2023

Source: GEM National Expert Survey 2022–2023

3.6 CONCLUSIONS AND POLICY IMPLICATIONS

The priorities of new businesses matter because they influence business behaviour and, therefore, outcomes. If new businesses in an economy are overwhelmingly, and increasingly, aiming for social and environmental value creation, this will inevitably help steer the entire economy towards meeting the SDGs. By keeping its "finger on the pulse" of the priorities of new entrepreneurs, as perceived by national experts, GEM can keep policymakers informed of this important dynamic and even identify which priorities shift into the mainstream in the long run. For entrepreneurs, the business case for prioritising any issue is important, and it is no different for social and environmental issues. Depending on the industry sector or activity, there may be more commercial advantages (in terms of marketing benefits and cost reductions) for new businesses seen as prioritising sustainability, and there may also be some risks and costs associated with not being perceived as prioritising sustainability.

This chapter has presented results on national experts' rating of the priorities of the new businesses in their economy. In most of the 55 economies participating over 2022 and 2023, new businesses were rated as satisfactory or higher (i.e. scoring at least 5, though it is noted that a score of 5 may not be perceived as satisfactory in some economies) in terms of prioritising both their social contributions and good environmental practices. This suggests that new businesses are likely to contribute to the SDGs – such as SDG 5: Gender Equality; SDG 10: Reduced Inequalities; and SDG 11: Sustainable Cities and Communities – so encouraging people to start businesses is likely to have a positive impact on social and environmental well-being.

Conversely, the prioritisation of economic performance by new and growing firms was rated as unsatisfactory by experts in a majority of economies, including in the United States, Italy and Spain. Moreover, government prioritisation of sustainability in new businesses was rated unsatisfactory by national experts in most economies, especially (but not exclusively) low-income economies. Notable exceptions were India and China, both of which were experiencing notable growth at the time in question; their experts perceived a strong government-backed focus on sustainability.

It is certainly the case that most national experts viewed new businesses as having a greater focus on sustainability than their respective governments have, albeit with exceptions. This suggests the impetus is coming either from the entrepreneurs themselves or from stakeholders other than the government (such as investors or consumers). **The clear policy message from this chapter is that governments should be leading, rather than following, new businesses on the path towards sustainability.** This also applies to international governmental organisations: a recent textual analysis of closing statements from G20 summits across two decades shows that sustainability concerns have gradually been introduced alongside economic matters.[18]

18 Richard Dasher, Amit Kapoor, Navya Kumar, Anshul Sharma and Taneesha Shekhawat, *Navigating Multilateralism: G20's Agenda Evolution and the Rising Global South* (Institute for Competitiveness, 2024), https://www.competitiveness.in/navigating-multilateralism-g20-agenda-evolution/.

SDG FOCUS . . .

What do education entrepreneurs need from policymakers?

Women's entrepreneurship aligns closely with several UN SDGs, including SDG 5: Gender Equality, SDG 8: Decent Work and Economic Growth and SDG 10: Reduced Inequalities.

As part of a special series, we asked women entrepreneurs from different sectors to share their perspectives on how policymakers can best support them. The entrepreneurs are fellows of the Cartier Women's Initiative (CWI), an annual international entrepreneurship programme. Since its creation, the CWI has supported 330 impact entrepreneurs across 66 countries.

Komal Dadlani, 2015 CWI Fellow (Chile), Co-Founder of Lab4U, a company that develops web and mobile technologies to turn smartphones and tablets into science instruments

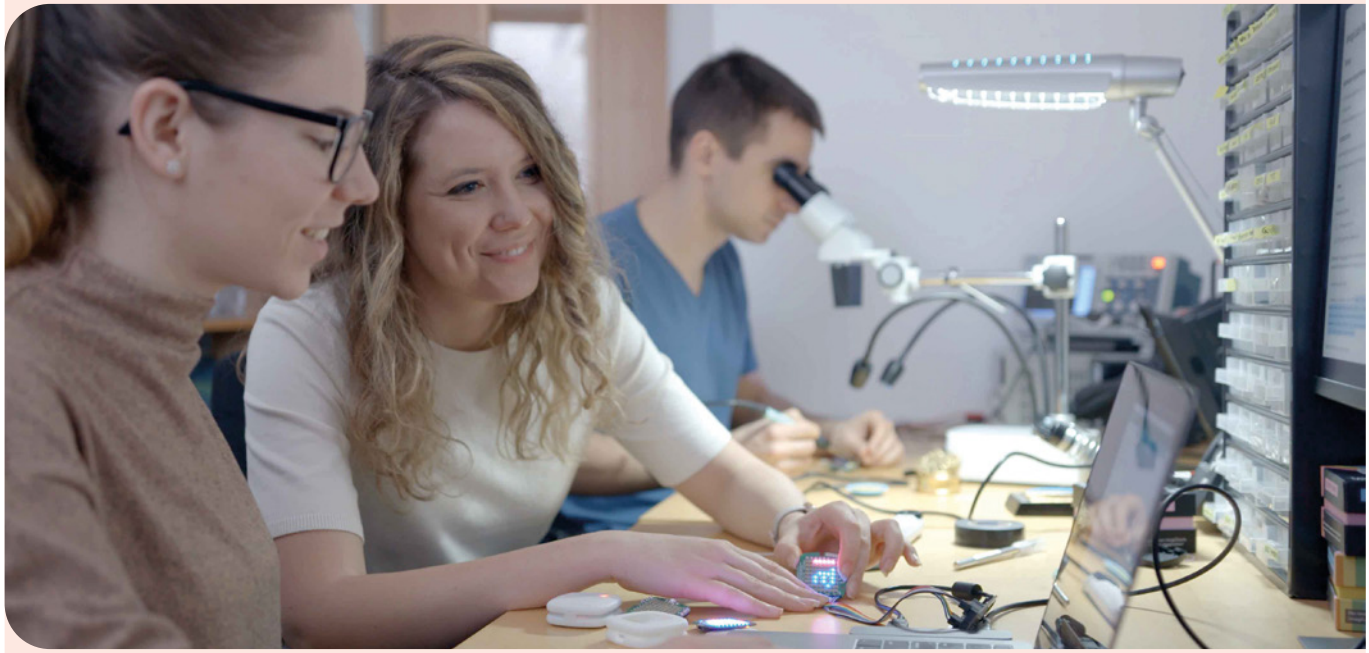
Adopt a long-term vision that supports educational innovation: Impact in education takes time, and a commitment to sustainable investment is essential.

Champion proven pedagogical solutions, even if they haven't yet scaled: Many educational technologies have demonstrated efficacy through rigorous studies, yet they remain stuck in pilot phases. By embracing these innovations, policymakers can empower education entrepreneurs to foster lasting change and equip students with the skills they need for the future workforce.

Nathalie Lesselin, 2023 CWI Fellow (Switzerland), Founder and CEO of KOKORO lingua, a language platform where children can learn foreign languages through videos, games and songs taught by other kids

Collaboration between public and private sectors is essential in education: It's not a competition but a team effort to improve learning outcomes. Quality education requires investment, and every dollar spent on early childhood education can yield a significant return over a lifetime. Policymakers and entrepreneurs need to create efficient pathways for innovative education solutions to thrive and benefit all children.

Research shows that investing in early childhood education can boost a country's gross domestic product by 10% over a 40-year period.



Dora Palfi, 2023 CWI Fellow (Sweden), Co-Founder and CEO of imagi, a company that fosters a love for tech in all kids through fun, inclusive coding. The company's AI-powered platform enables any educator, without prior computer science knowledge, to deliver engaging lessons.

Create flexible regulatory frameworks that scale compliance requirements to fit small providers: Small providers offer educators and administrators personalised support and genuine care. However, they often struggle to access the spaces where decisions are made, missing procurement opportunities due to overly complex privacy and data security policies and lengthy procurement processes. These challenges favour larger companies over smaller, more innovative providers that might deliver better outcomes for learners.

Access to capital, capacity-building programmes and streamlined public procurement processes would help education entrepreneurs meet regulatory standards and scale impact. Additionally, policies that promote collaboration with public institutions and prioritise equity in education will ensure that innovation benefits all learners. With the right support, education entrepreneurs can focus on delivering the best outcomes, not just meeting administrative requirements.

Thank you to the Cartier Women's Initiative (CWI), one of our report sponsors, for providing this material and helping to put our data in a real-world context.

Cartier WOMEN'S INITIATIVE

CHAPTER 4

From Talking the Talk to Walking the Walk

Stephen Hill, Natanya Meyer and Mahsa Samsami

4

> "Going back to a simpler life based on living by sufficiency rather than excess is not a step backward."
>
> **Yvon Chouinard, Founder of Patagonia**

4.1 INTRODUCTION

While Chapters 2 and 3 explored the motivations of new and established entrepreneurs in relation to social and environmental issues and the prioritisation of these issues by new entrepreneurs, this chapter examines sustainability actions. The evidence so far shows that many new and established entrepreneurs are motivated by social and environmental concerns and many new entrepreneurs prioritise such concerns. As yet, there is little evidence of change over time, but as more data are collected in coming years, it will be possible to trace any shifting patterns. But are those motivations and priorities reflected in actions? After all, it is easy to talk the talk, but do entrepreneurs walk the walk?

There are many reasons why there may be a gap between aspirations and actions, particularly in relation to sustainability objectives. The reasons include:

- **Greenwashing:** Entrepreneurs may exaggerate their sustainability credentials to attract or retain consumers or investors.
- **Financial constraints:** Sustainable technologies or processes are often costly, potentially exceeding the budgets of fledgling enterprises.
- **Lack of knowledge or expertise:** Entrepreneurs may lack the skills needed to implement sustainable solutions effectively.
- **Focus on survival:** The primary focus of many new businesses is survival, and this can overshadow sustainability goals.
- **Market demand issues:** If consumers or clients are not actively seeking sustainable products or services, entrepreneurs may prioritise market demands over sustainability.
- **Regulatory and policy uncertainty:** An unclear or complex legal landscape can discourage full commitment to sustainability.
- **Lack of resources:** Fledgling startups, for example, are often resource poor, making it difficult to match aspirations with actions.

This chapter presents findings on entrepreneurs' actions to minimise the environmental impacts and maximise the social impacts of their business. The data are based on questions added to the Global Entrepreneurship Monitor (GEM) Adult Population Survey (APS) in 2021 asking entrepreneurs whether they had taken any steps related to their business's environmental and social impacts in the past year. These questions were included in the APS in 2022 and 2023 to enable tracking over time. A total of 62 economies took part in the APS across these three years. Results are presented as the average for 2021–2023, and separate results are provided for new entrepreneurs and established business owners.

4.2 ENTREPRENEURS' ACTIONS TO MINIMISE ENVIRONMENTAL IMPACTS

Minimising the environmental impacts of a business can include steps such as creating greener products in the design or redesign phase, sourcing sustainably (including local sourcing if possible), reducing inefficiencies in energy or resource consumption, transitioning to more sustainable energy sources, incorporating recycling or use of renewable materials, using biodegradable options and eliminating and minimising toxins.

Figure 4.1 shows the average share of new entrepreneurs taking action to minimise the environmental impact of their business in the past year, together with the corresponding confidence interval – there is a 95% probability that the population falls within this interval. The width of this interval typically reflects the sample size

and, here, the share of new entrepreneurs. So, economies that participated in the APS in just one of the three years between 2021 and 2023 will have the widest confidence intervals, while those participating for three years will have the narrowest. For example, in Figure 4.1, Brazil had a relatively narrow confidence interval since: it participated in the APS in all three years; it had relatively high levels of early-stage entrepreneurship; and most of those entrepreneurs reported they had taken steps to reduce the environmental impacts of their business. In contrast, the Russian Federation had a relatively wide confidence interval since: it took part in the APS only in 2021; it had a relatively low level of early-stage entrepreneurship; and relatively few of those entrepreneurs had taken steps to minimise environmental impacts.

The overall results are positive: on average, for the period 2021–2023, at least 50% of new entrepreneurs reported they had taken steps on environmental impacts in two-thirds (41 out of 62) of the participating economies. The highest rates were in economies in the Latin America & Caribbean and East Asia regions, with Brazil, Indonesia, China and Taiwan each having an average of at least 75%. The lowest rates were in France, Morocco and Tunisia, each with an average of 30% or less.

When looking at the results across different national income groups, the range of averages was greatest within Level C (the low-income group). Just under half (seven out of 15) of the Level C economies had an average of at least 50% of new entrepreneurs reporting that they had taken steps to reduce environmental impacts. Brazil and Guatemala both participated in the research in all three years and both had well over 50% of their new entrepreneurs confirming each year that they had taken such steps.

Meanwhile, two-thirds (10 out of 15) of the Level B (middle-income) economies had an average of at least 50% of their new entrepreneurs adopting some form of environmental impact reduction. Greece, Colombia, Panama and Chile participated in all three years, and each consistently had more than 50% of their new entrepreneurs affirming that they had taken steps to minimise environmental impacts.

Three-quarters (24 out of 32) of the Level A (high-income) economies had, on average, at least 50% of their new entrepreneurs reporting they had taken action on environmental impacts. For seven of these economies, the average was at least 60%.

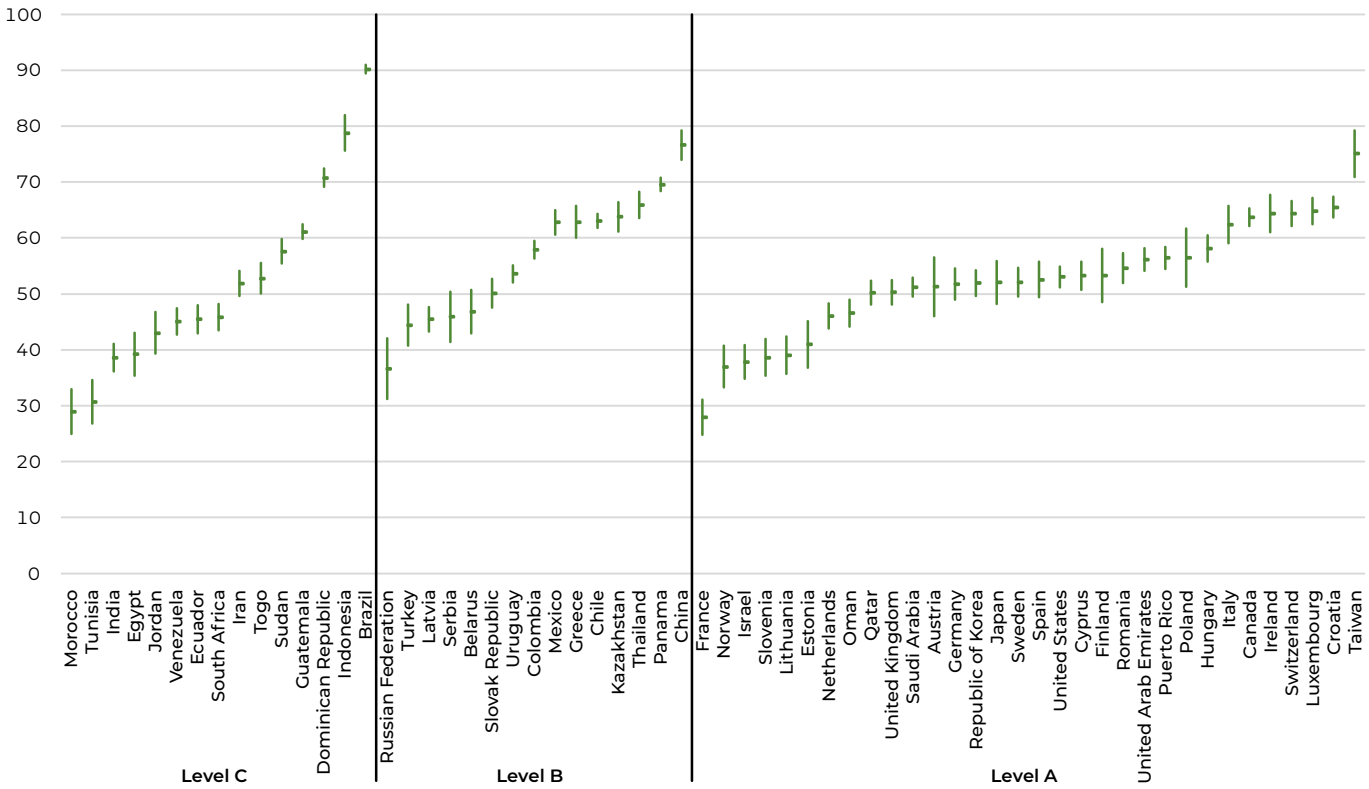
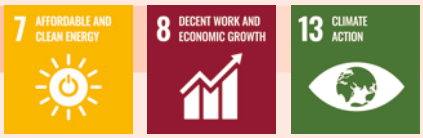


FIGURE 4.1 The percentage of those starting or running a new business reporting they had taken steps to minimise the environmental impact of their business in the past year, averaged over 2021–2023
Source: GEM Adult Population Survey 2021–2023

SDG FOCUS . . .



Prioritising good environmental practice and sustainability

This report explores the prioritisation of good environmental practice as a business responsibility. To provide an example of this, consider the work of Global Himalayan Expedition (GHE), a company focused on adventure tourism. GHE incorporates sustainability through an economic, social and environmental lens.

Adventure tourists go on impact expeditions to remote mountainous locations, specifically in the Himalayan regions in Ladakh or Northeast India. As part of the expedition, they engage in an impact activity, such as solar-based electrification or providing improved cookstoves. Energy access has subsequently created nano-enterprises in these regions, including pashmina wool weavers, handicraft shops, homestays and astro-tourism. Through such expeditions of over 1,300 travellers, together with funding support, GHE has electrified 205 villages, impacting over 130,000 lives and offsetting 120,000 tonnes of carbon.

Such entrepreneurship business models that combine economic, social and environmental sustainability are what's needed to tackle climate change and meet the targets for the United Nations (UN) Sustainable Development Goals (SDGs). Entrepreneurs wanting to play a role in addressing this challenge should consider identifying synergies between business operations and local community needs.

The same question about steps to minimise environmental impact was asked of the established business owners identified in the APS. The averages for 2021–2023 are shown in Figure 4.2. This shows a pattern similar to that in Figure 4.1, for new entrepreneurs. The averages were a little higher for established business owners, though most of the confidence intervals were wider because levels of established business ownership are typically lower than levels of early-stage entrepreneurship.

As was found for new entrepreneurs, economies in the Latin America & Caribbean and East Asia regions had the highest levels of established business owners reporting they took action on environmental impacts, with Brazil, China and Panama all having averages of at least 75%. Serbia, Egypt, Morocco, India and the Russian Federation had the lowest averages, with less than 40% reporting action on environmental impacts.

Looking across the national income categories, the range of averages was lowest for Level A economies. However, Level A had the most significant proportion of economies with an average of more than 50% of established business owners reporting that they had taken steps to minimise environmental impacts. This included 10 economies where the average was over 50% in each of the three years.

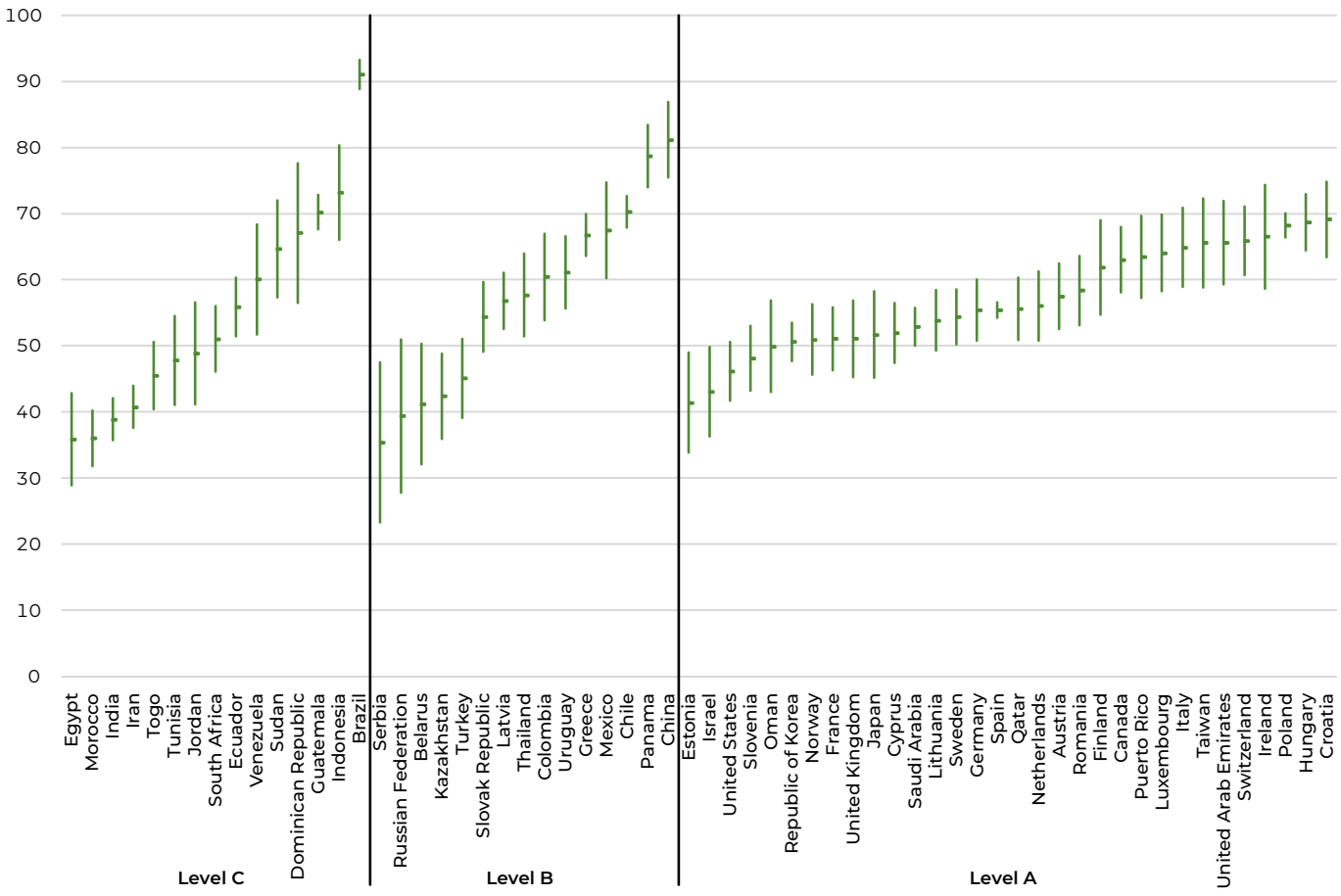
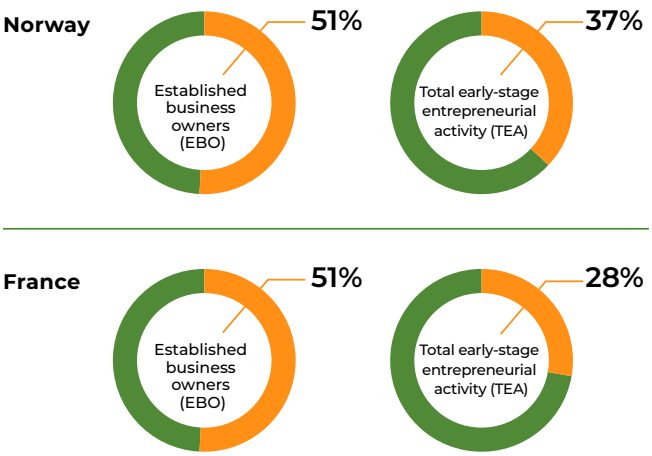


FIGURE 4.2 The percentage of those running an established business reporting they had taken steps to minimise the environmental impact of their business in the past year, averaged over 2021–2023
Source: GEM Adult Population Survey 2021–2023

Finally, it is instructive to compare the average proportions of those starting or running a new business who are taking steps to minimise environmental impacts to the average proportion of established business owners doing the same. Over the three years from 2021 to 2023, average proportions were higher for established business owners in 35 out of 62 economies. Thus, in the majority of participating economies, established business owners were more likely to take steps to minimise environmental impacts than those starting or running a new business. The differences were substantial in some economies. For example, in Norway, an average of 51% of established business owners were taking steps related to environmental impact compared to just 37% of those starting or running a new business, and in France, the corresponding percentages were 51% and 28%.



One potential explanation is that established businesses may have easier access than new businesses to financial resources that can be used to address environmental impacts, as well as more developed organisational structure and stronger incentive to defend their brand and image. Moreover, established businesses, as a result of their prominence and scale, are more likely to encounter regulatory challenges that encourage them to adopt more sustainable practices. Finally, established businesses can have a larger number of stakeholders, including investors, consumers and suppliers, who increasingly demand environmentally responsible behaviour. As public awareness of environmental issues increases, there is a growing impetus among established businesses to reduce environmental consequences in order to maintain public trust and avoid reputational harm.

Established business owners are more likely than new entrepreneurs to be taking steps to reduce the environmental impacts of their business. Therefore, policies to support new businesses so that they survive long enough to become established are likely to be good for the environment as well as the economy.

4.3 ENTREPRENEURS' ACTIONS TO MAXIMISE POSITIVE SOCIAL IMPACTS

Environmental impact is one dimension of sustainability that a new or an established business might take action on. Another is social impact. The related question introduced in the 2021 APS asks about steps taken to maximise the social impacts of the business, citing examples such as:

- ensuring a diverse workforce;
- creating posts for young people who are unemployed or other groups with limited access to labour markets;
- including social enterprises in the supply chain; and
- investing in or otherwise supporting projects or social organisations that develop the community.

For entrepreneurs, taking steps to maximise social impact may not have the same immediate benefits as taking steps to minimise environmental impact – for example, minimising waste is likely to reduce costs, while creating jobs for disadvantaged groups may not have a similarly direct benefit.

Figure 4.3 shows the average percentage of those starting or running a new business who reported taking steps to maximise the social impacts of their business. The highest averages were, again, found in economies in the Latin America & Caribbean and East Asia regions – Indonesia, Brazil, the Dominican Republic and China – whereas the lowest levels were in European economies – France, Estonia and the Netherlands.

There was some association with national income group with respect to the level of averages. For example, no Level B or C economies averaged less than 30% of new entrepreneurs taking steps to maximise social impacts, while this was the case in four economies in Level A. Level B economies have a slightly higher chance than Level A and Level C of having an average of at least two-fifths, but the differences are small.

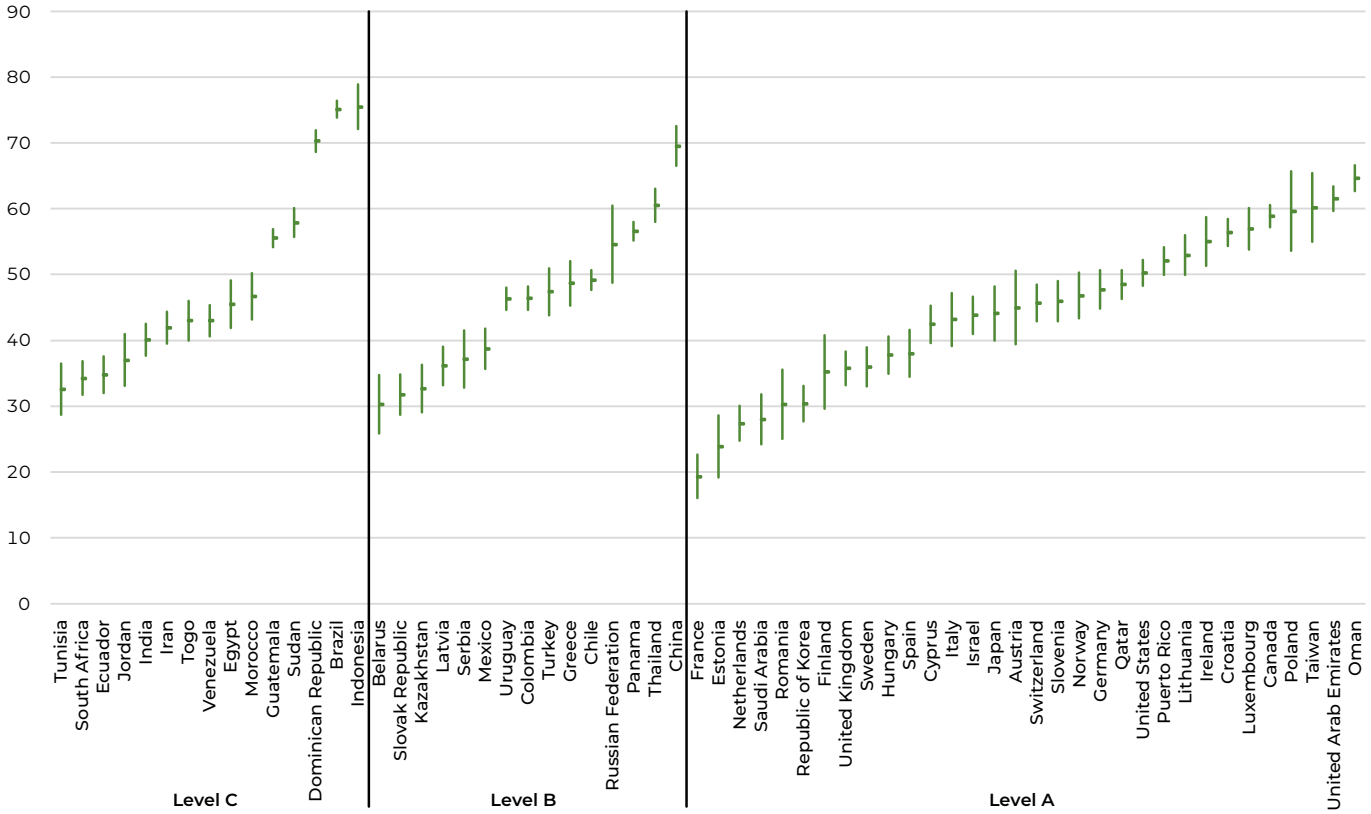


FIGURE 4.3
The percentage of those starting or running a new business reporting they had taken steps to maximise the social impact of their business in the past year, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023

Turning to the results for established business owners, the highest levels reporting that they had taken steps to maximise social impact were in Brazil and Indonesia – both averaging around 75% – with Poland, China, Panama and the Dominican Republic not far behind. At the other end of the scale, 24 economies had an average of less than 40% of established business owners taking such steps – around two-fifths from Level A (14 out of 32) and Level B (six out of 15) and around a quarter (four out of 15) from Level C.

While Figure 4.4 shows a similar pattern as that found for new entrepreneurs (Figure 4.3), this time the averages were typically a little lower: the average for new entrepreneurs exceeded that for established business owners in 37 economies and was lower in 25. While many of the differences were small, some were quite stark. For example in Serbia, an average of 37% of new entrepreneurs had taken steps to maximise social impacts compared to just 17% of established business owners; in Mexico the opposite was the case, as an average of 38% of new entrepreneurs had taken such steps compared to 64% of established business owners. These differences are worthy of further research.

This finding is surprising as it might be expected that established business owners would be more likely than new entrepreneurs to take steps to maximise their social impacts due to availability of higher levels of financial resources, which could make it easier to invest in community development projects, education programmes and purely philanthropic initiatives.

This finding also seems counterintuitive since established businesses could perhaps more effectively introduce and scale social impact initiatives by leveraging their financial and personnel resources and their reach. However, all of this may have been outweighed by new entrepreneurs typically being younger and more likely to be graduates and more socially aware.

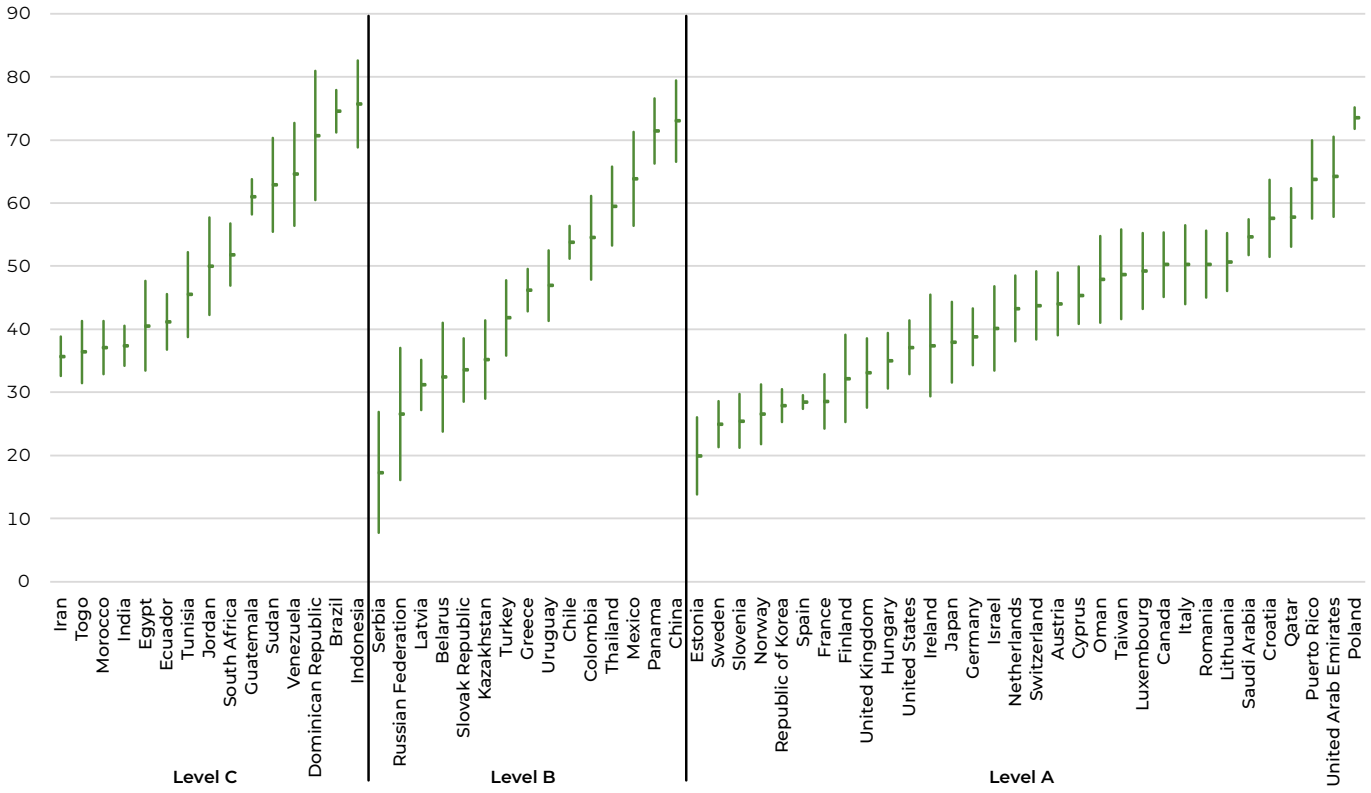


FIGURE 4.4
The percentage of those running an established business reporting that they had taken steps to maximise the social impacts of their business in the past year, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023

4.4 CONCLUSIONS AND POLICY IMPLICATIONS

This chapter examined whether those starting or running a new business and those owning an established business have taken steps to minimise their environmental impacts and maximise their social impacts. The results of successive rounds of the APS since 2021 show that, indeed, many have, although steps to minimise environmental impacts were a little more likely than steps to maximise social impacts. This is hardly surprising since action on environmental issues is more tangible for businesspeople and easier to measure.

Established business owners were more likely than new entrepreneurs to have taken steps to minimise environmental impacts, but there was little difference with regard to taking steps to maximise social impacts.

There is evidence that both new and established entrepreneurs in parts of the Latin America & the Caribbean and East Asia regions are taking the lead. New and established entrepreneurs in Brazil, Indonesia, Panama and China were among the economies most likely to take steps to address both environmental and social impacts. There are some surprises, however – for example, those lagging include France, Estonia, the Netherlands and Norway. These are interesting flags for policymakers, especially in Europe, where there is still ground to cover to encourage more new and established entrepreneurs to align with the sustainability agenda.

SDG FOCUS . . .

What do health entrepreneurs need from policymakers?

Women's entrepreneurship plays a vital role in advancing the UN SDGs, particularly in promoting gender equality and economic growth and reducing inequalities.

As part of a special series, we asked women entrepreneurs from different sectors to share their perspectives on how policymakers can best support them. The entrepreneurs are fellows with the Cartier Women's Initiative (CWI), an annual international entrepreneurship programme. Since its creation, the CWI has supported 330 impact entrepreneurs across 66 countries.

Cécile Réal, 2012 CWI Fellow (France), CEO and Co-Founder of Endodiag, a company that develops non-invasive diagnosis and advanced biopsy tools to fight endometriosis

Support faster adoption of emerging technologies: Health entrepreneurs strive to deliver innovative solutions that improve the lives of patients. However, their path is fraught with challenges beyond typical business hurdles, like research and development, funding and industrialisation. Two major obstacles they face are regulation and reimbursement.

In Europe, regulatory processes have become exclusively focused on safety, often neglecting patient interests. As a result, many medical devices have either failed to reach the market or been withdrawn due to the costly and time-consuming requirements of the new Medical Device Regulation.

Harmonise reimbursement systems: Moreover, reimbursement systems vary across countries, with each nation having its own lengthy approval process. Health entrepreneurs need harmonised and updated systems that accommodate innovations as well as patient needs.

To address the growing challenges posed by an ageing population and shrinking healthcare resources, policymakers must adapt regulations to be more innovation-friendly and support faster adoption of emerging technologies.

Dimple Parmar, 2023 CWI Fellow (India), Co-Founder and CEO of ZenOnco, the world's first integrative oncology health tech platform, created with the vision to save millions of lives from cancer

The healthcare industry, especially in areas like cancer care, is traditional and slow-moving. It takes time for new entrepreneurs to build trust with patients and the public. While significant innovations have occurred in treatments, pharmaceuticals, diagnostics and vaccines, care delivery models have seen little progress. Support from policymakers is essential to drive impactful change.

Incentivise entrepreneurs to develop innovative care models that make healthcare more affordable and accessible, especially in underserved markets: Simplifying licencing processes and regulatory standards can enable entrepreneurs to launch their ventures more swiftly without compromising quality. Public insurance schemes should be more inclusive of new healthcare providers.

Improve public–private collaborations: Grant-based support and public–private partnerships can also help bridge the gap between urban and rural healthcare access. Additionally, allowing private sector involvement in traditionally public activities can enhance efficiency and save more lives in a timely manner.

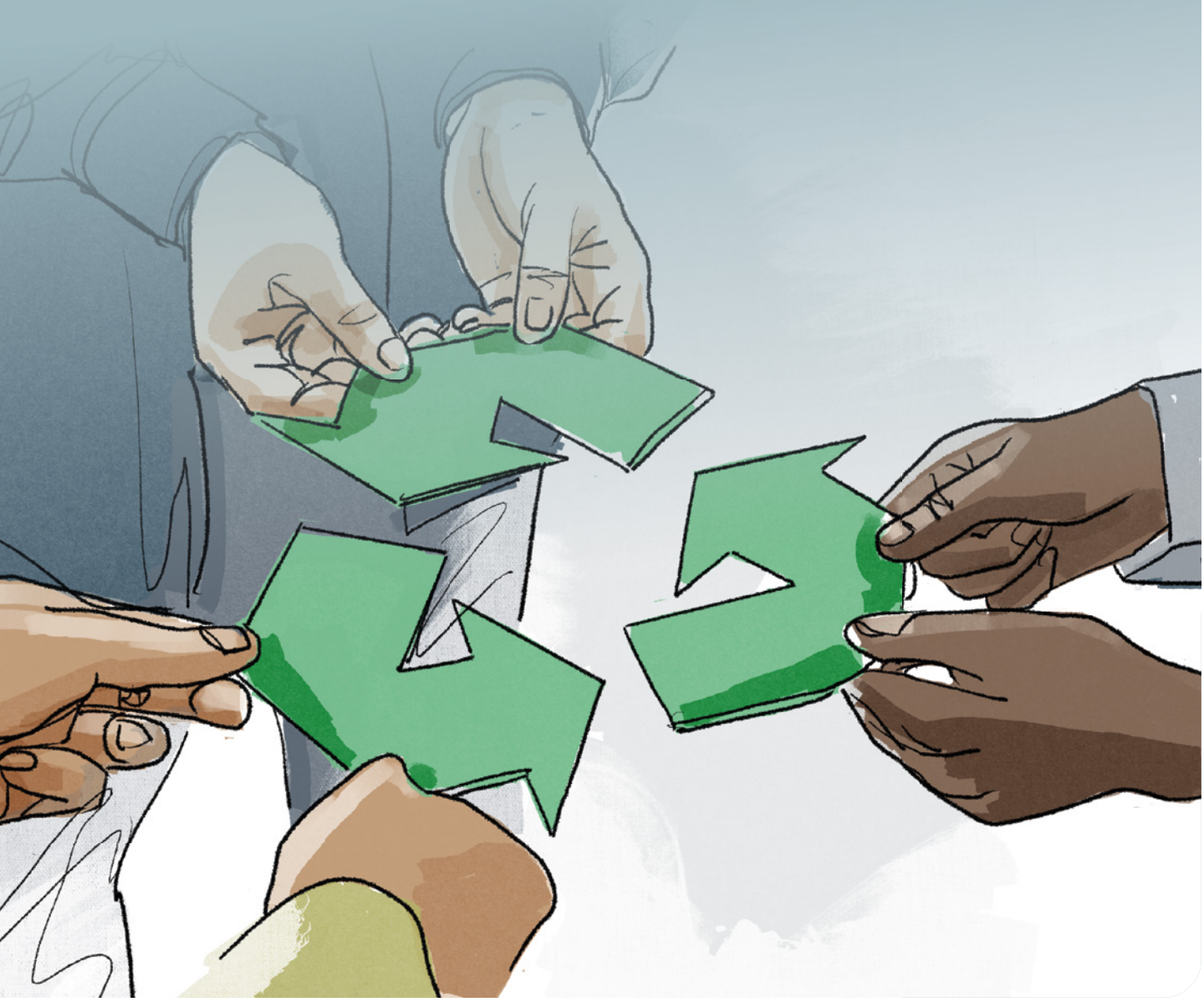
Thank you to the Cartier Women's Initiative (CWI), one of our report sponsors, for providing this material and helping to put our data in a real-world context.

Cartier WOMEN'S INITIATIVE

CHAPTER 5

Strategies and Sustainability

Stephen Hill and Rico Baldegger



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"It's not just about checking the box on corporate social responsibility. It's about hitting our bottom line."

Peggy Johnson, CEO of Magic Leap

5.1 INTRODUCTION

Chapters 2 to 4 examined entrepreneurs' motivations, perceived priorities and actions around social and environmental objectives. This chapter explores how sustainability influences entrepreneurs' strategic decisions. Strategic decisions are those that have long-term implications for the business and are unlikely to be changed in the short term since they are made after careful analysis and evaluation of various alternatives.

As mentioned in Chapter 1, sustainability has become a dominant theme in many current narratives and is a key component in contemporary wisdom. This has direct knock-on effects for stakeholder expectations: a business's customers, investors, suppliers and even employees may be asking how the business plans to contribute to sustainability. Stakeholder expectations will influence how any business regards and integrates sustainability.

There can be significant marketing and brand-enhancing advantages for businesses that can demonstrate a sustainability focus, and there are concrete cost savings to be made from, for example, energy or waste minimisation. Linking sustainability to a brand may be easier and cheaper for a new business than for an established business with an already-entrenched identity. But embracing sustainability can help an established business to transition its identity and ensure that it stays relevant and competitive in a rapidly changing market landscape.

Among the additions to the Global Entrepreneurship Monitor (GEM) Adult Population Survey (APS) in 2021 were questions asking those identified as starting or running a new business and those running an established business whether they always consider social implications when making decisions about the future of the business, providing, as examples of social implications, access to education, health, safety, inclusive work or housing. A similar new question asks entrepreneurs if they always consider environmental implications when making decisions about the future of their business. In addition, a separate new question asks new entrepreneurs whether they prioritise the social/environmental impacts of their business above profitability or growth. Of course these are questions that are easy to respond positively to, but much harder to follow up with concrete action.

The results in this chapter represent averages over the three years of data for the 62 economies that participated in the APS in one or more of these years. Confidence intervals are shown in Figures 5.1, 5.2 and 5.5. There is a 95% probability that the population average falls within this interval. The width of the interval typically reflects the sample size. So, economies that participated in the APS in just one of the three years between 2021 and 2023 will usually have the widest confidence intervals, while those participating for three years will have the narrowest.

5.2 CONSIDERATION OF SOCIAL IMPACTS IN ENTREPRENEURS' STRATEGIC DECISIONS

Figure 5.1 shows the average share of those starting or running a new business who somewhat or strongly agreed that they take social impacts into account when making strategic decisions. Responses were generally very positive, with averages over 70% in 42 of the 62 economies. Agreement was strongest in parts of the Latin America & Caribbean region, East Asia and the Gulf, especially Guatemala, the United Arab Emirates, Taiwan, Puerto Rico and Brazil; it was least strong in parts of Europe and East Asia, including Norway, Kazakhstan and Cyprus.

High averages were found across the three national income levels. Of the 15 Level C (low-income) economies, the lowest average level of agreement was in Iran (62%). Many had much higher average levels of agreement, including Brazil and Guatemala, where the level of agreement was at least 90% in all three years. All of the 15 Level B (middle-income) economies had an average level of agreement of over 50%. Kazakhstan had the lowest average, at just over 50%, while Thailand, Chile, Uruguay, Panama, Mexico and China each averaged at least 80% of new entrepreneurs agreeing that they always take social implications into account in decisions affecting the future of their business. Finally, of the 32 Level A (high-income) economies, only Norway had an average of less than 50% of new entrepreneurs agreeing, and eight had an average of at least 80% agreeing, with both Taiwan and the United Arab Emirates each having averages of more than 90%.

Note that the widest confidence intervals in Figure 5.1 are usually for countries that participated in the APS in only one of the three years; these include Kazakhstan, the Russian Federation and Austria.

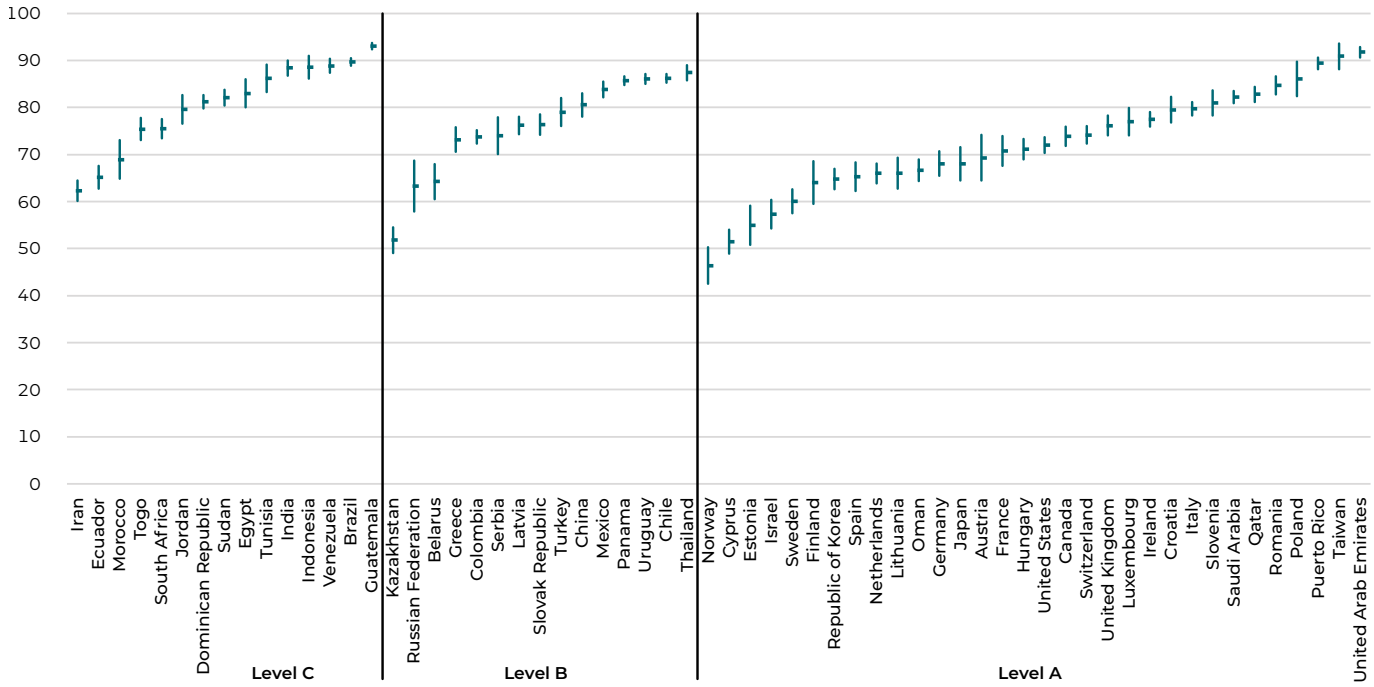


FIGURE 5.1 The percentage of those starting or running a new business who somewhat or strongly agreed that they always take social implications into account when making decisions about the future of their business, averaged over 2021–2023

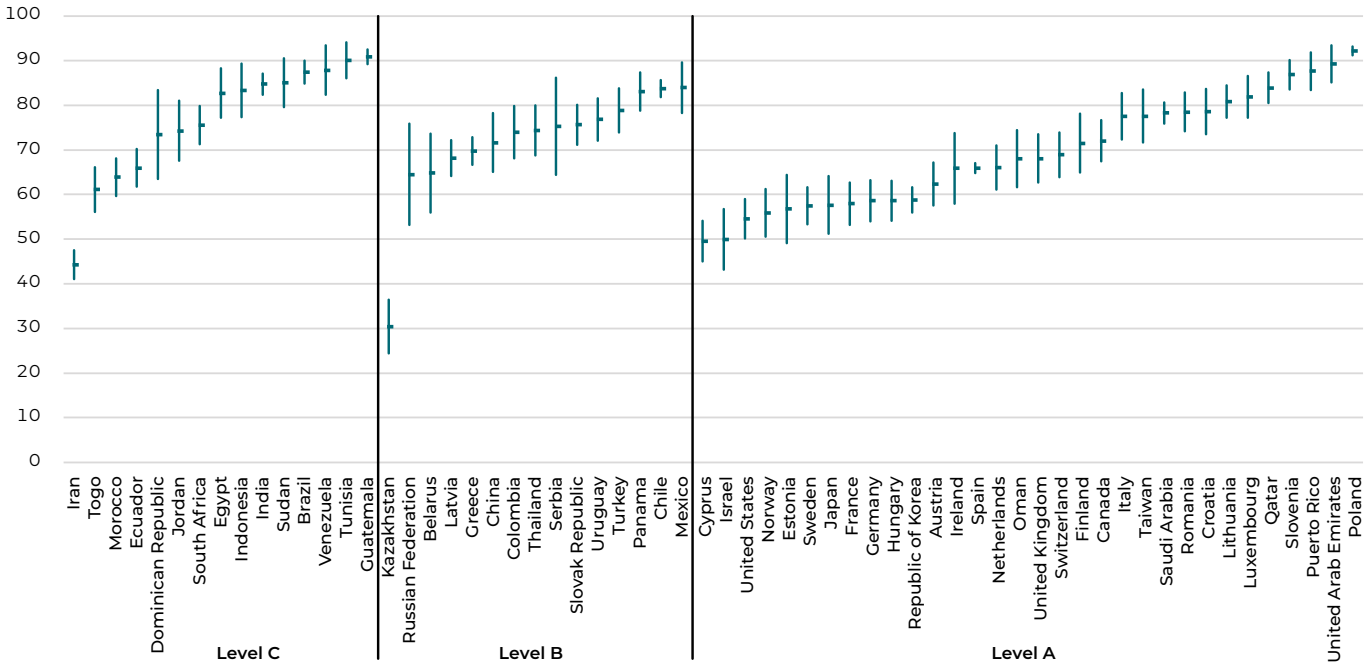
Source: GEM Adult Population Survey 2021–2023

Turning to the results for those running an established business, there were similarly positive results (Figure 5.2). Only two economies – Kazakhstan (Level B) and Iran (Level C) – had on average well below 50% of their established business owners somewhat or strongly agreeing that they always take social implications into account when making decisions about the future of their business. In a further 11 economies – all in Level A – the average ranged from 50% to 60%. However, another 18 economies had an average of at least 80%. These were led by Poland (Level A) and Guatemala and Tunisia (both Level C), each averaging at least 90%.

These results provide strong evidence that in a majority of economies, both new and established business owners are integrating social implications into their long-term decisions. **So encouraging people into new businesses and supporting those new businesses to become established is likely to have benefits for society as well as for the economy.**

FIGURE 5.2
The percentage of those running an established business who somewhat or strongly agreed that they always take social implications into account when making decisions about the future of their business, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023



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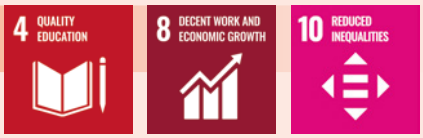


Bridging technology, culture and leadership for a sustainable future

As noted in Chapter 4 of this report, many entrepreneurs are actively working to maximise positive social impact. One such example is Mikaela Jade, a Cabrogal woman of the Dharug-speaking nation, part of the Indigenous groups of the Sydney region in Australia.

Mikaela is the founder of Indigital, an Australian Indigenous company that blends advanced technology with Indigenous knowledge to foster meaningful connections with country, culture and corporations. Indigital's mission is to support First Nations communities in promoting environmental sustainability, creating pathways for skills development, leadership and social impact.

Founded in 2014 on Mirarr country in Kakadu National Park, Indigital has evolved from its beginnings in storytelling through augmented reality to become a trusted intermediary connecting corporations and communities. By igniting and fostering strong relationships between Indigenous communities and companies, Indigital creates an environment where positive social change is possible, care for country is prioritised and cultural wisdom is honoured.

Indigital's key initiatives – Connecting with Country, Caring for Country and Ignite and Inspire – empower organisations to design and implement programmes that create meaningful opportunities for First Nations peoples. These initiatives enable knowledge sharing in ways that uplift communities and foster respect.

Mikaela has a deep passion for merging technology with Indigenous knowledge. She explains: "Country and culture hold stories that are vital to who we are. By combining innovation with tradition, we ensure these stories are told authentically, with respect and meaning, for generations to come."

Mikaela and Indigital have received significant recognition, including the following honours:

- addressed the United Nations (UN) in New York to showcase the impact of technology on Indigenous communities;
- became a member of the World Economic Forum Global Future Council;
- acted as delegate to the UN Permanent Forum on Indigenous Issues;
- included in *The Australian's* 100 Top Innovators List; and
- honoured with the 2022 Schwab Foundation Social Innovator of the Year award.

Indigital is a majority Indigenous-owned and -managed, 100% female-owned business, driven by both profit and purpose. Mikaela concludes: "As we scale, we remain committed to maintaining these values, ensuring our work continues to be inclusive and impactful."

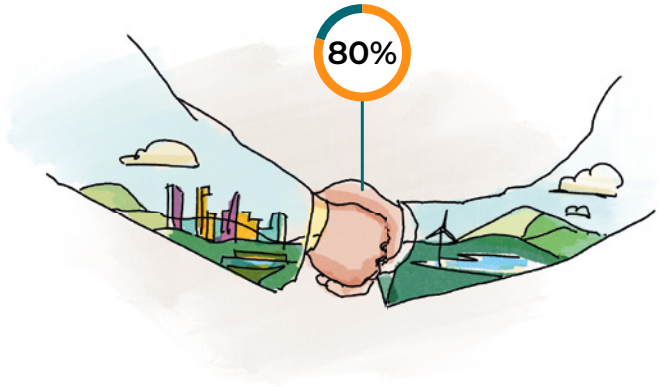
We thank the Schwab Foundation, one of our report sponsors, for providing this material and helping to put our data in a real-world context.

SCHWAB FOUNDATION FOR SOCIAL ENTREPRENEURSHIP

5.3 CONSIDERATION OF ENVIRONMENTAL IMPACTS IN ENTREPRENEURS' STRATEGIC DECISIONS

The share of new entrepreneurs either somewhat or strongly agreeing that they take environmental impacts into account when making strategic decisions is set out in Figure 5.3, while Figure 5.4 shows the same information for those running an established business. Not surprisingly, the overall patterns are very similar. In both cases, agreement levels were typically high. (Note that confidence intervals are not included in Figures 5.3 and 5.4, since these would be similar to those shown in Figures 5.1 and 5.2 given that the sample sizes are the same.)

In 27 out of 62 economies, at least 80% of those starting or running a new business agreed that they take environmental impacts into account when making strategic decisions.



For those starting or running a new business (Figure 5.3), average levels of agreement were around 50% in three economies – Israel, Cyprus and Kazakhstan – and all other economies had substantially higher averages. More than two-fifths (27 out of 62) of the represented economies had an average of at least 80% of new entrepreneurs agreeing that they always take environmental impacts into account when making strategic decisions, although this was more likely in economies in Level A compared to those in Levels B and C. Once more, many economies in the Latin America & Caribbean and East Asia regions led the way – possibly because many of the economies in these regions are already feeling the effects of climate change – while many high-income European economies lagged behind.

Comparing Figure 5.1 to Figure 5.3, overall there appears to be little difference in the proportions of new entrepreneurs who agreed that they always take social implications into account, and the proportions of those same entrepreneurs who agreed that they always take environmental implications into account. Indeed, the correlation coefficient between the two sets of data is very high,[19] suggesting that one is a good predictor of the other. However, there were some notable differences. Norway averaged only 46% of new entrepreneurs taking social impacts into account but 59% taking environmental impacts into account. For Turkey, the corresponding figures were 79% for social impacts and, again, a higher share, 89%, for environmental impacts.

Turning to the data on whether established business owners take environmental impacts into account when making long-term decisions (Figure 5.4), a handful of economies had especially low averages, including Kazakhstan, Iran and Israel, although all three appear to be outliers. Indeed, there were 47 economies where at least 60% of established business owners took environmental implications into account. This was the case for over four-fifths of the economies in Levels C (13 out of 15) and A (27 out of 32) and over nine-tenths (14 out of 15) of the economies in Level B.

For this group of entrepreneurs, as for new entrepreneurs, the averages for taking environmental impacts into account appear to be similar to the averages for taking social impacts into account.

19 For 2023, the correlation coefficient was 0.849.

FIGURE 5.3
The percentage of those starting or running a new business who somewhat or strongly agreed that they always take environmental implications into account when making decisions about the future of their business, averaged over 2021–2023

Source: GEM National Expert Survey 2022–2023

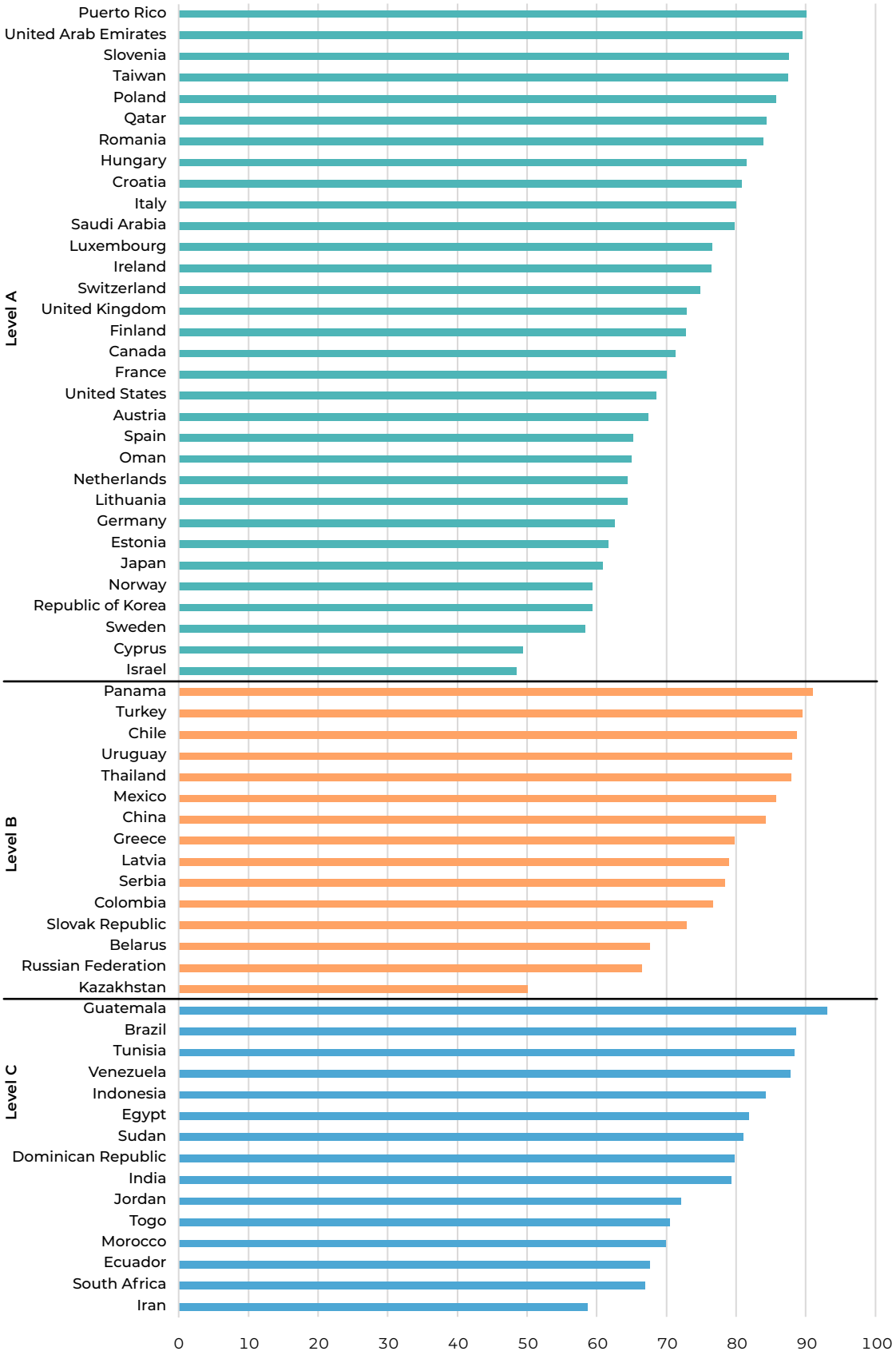
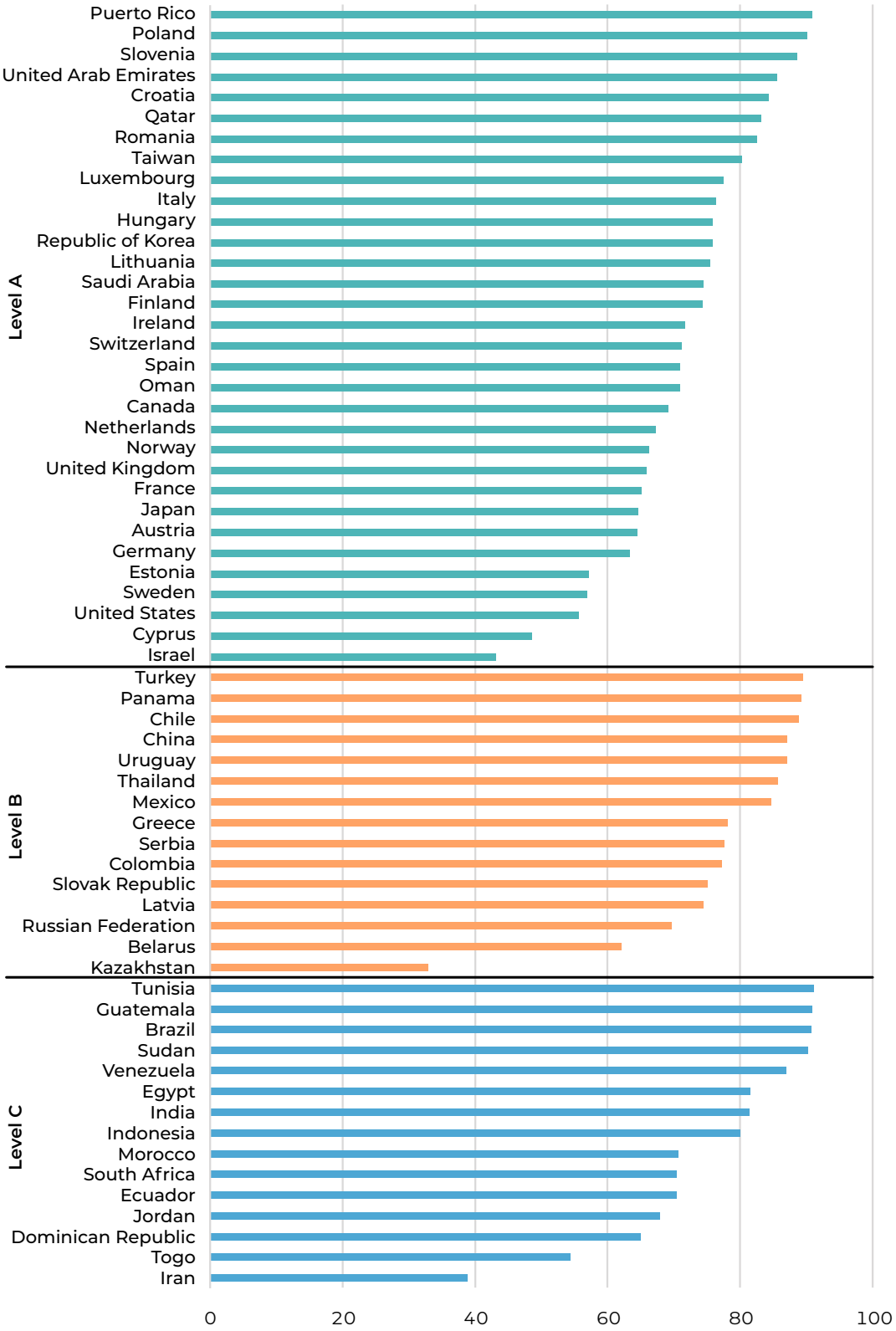


FIGURE 5.4
The percentage of those running an established business who somewhat or strongly agreed that they always take environmental implications into account when making decisions about the future of their business, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023



5.4 SUSTAINABILITY AS A PRIORITY FOR NEW BUSINESSES

Chapter 3, using data from the GEM National Expert Survey (NES), examined national experts' views of the priorities of new businesses in their economy, including the priority they gave to sustainability and the priority they gave to economic performance. This was scored on a scale from 0 to 10, with the midpoint (taken as 5) regarded as satisfactory.

In the 2022 NES, experts in 35 out of 50 economies rated the priority given to sustainability as satisfactory, and the share rose to 39 out of 48 economies in the 2023 survey. The highest scores were for Norway, the United Arab Emirates and Sweden, with some negative association between scores and income group. However, the same national experts scored only 26 out of 50 economies as satisfactory in terms of the priority given by new businesses to their economic performance in 2022, and this fell to 21 out of 48 economies in 2023.

The APS took a more direct approach in 2021 with a new question asking those starting or running a new business whether they prioritise the social/environmental impacts of their business above profitability or growth, with responses being either "yes" or "no". Figure 5.5 presents the results for 2021 and the two subsequent years, showing the average proportion of positive responses for each economy.

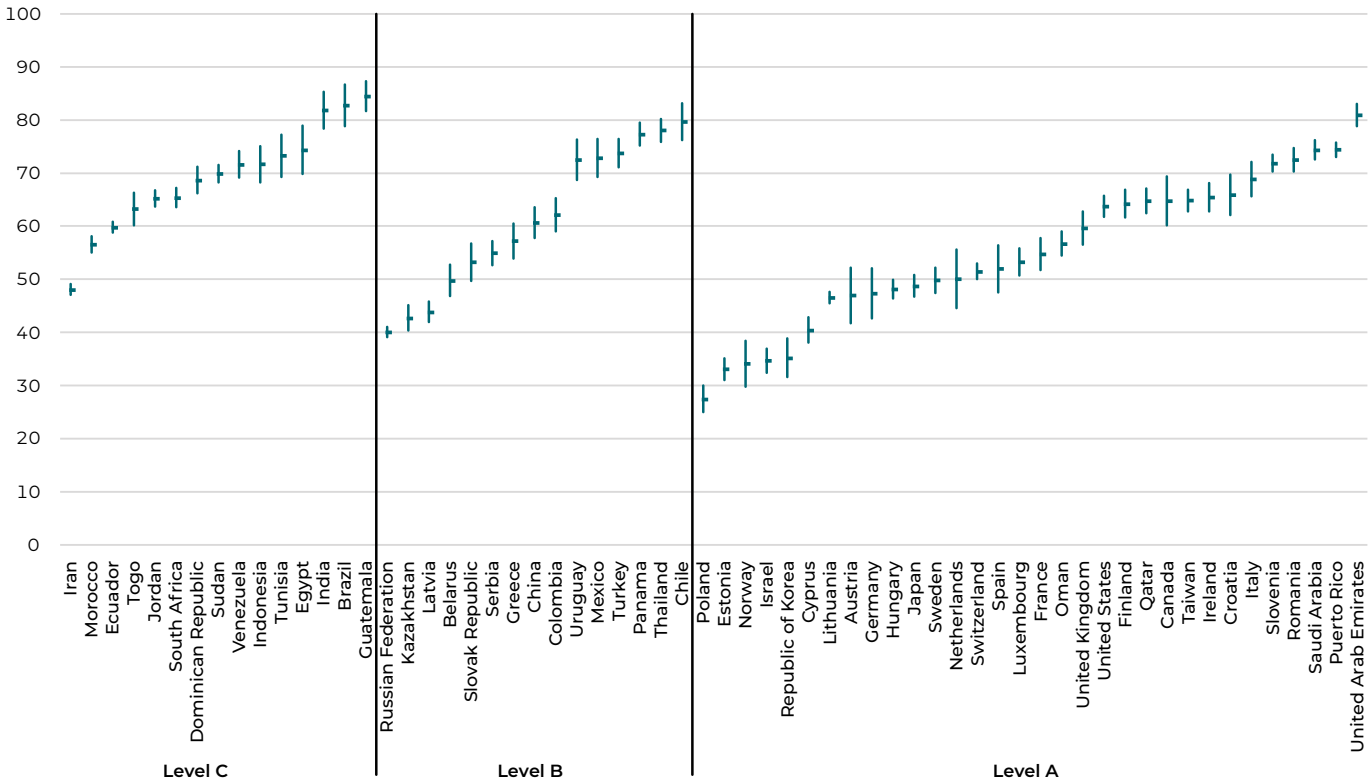


FIGURE 5.5
The percentage of those starting or running a new business reporting that they prioritise social/environmental impacts above profitability or growth, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023

The range of responses increases slightly with income group, and the overall level of agreement appears to decline with national income level. For example, the five lowest averages were in Level A economies: Poland, Estonia, Norway, Israel and the Republic of Korea. There was only one economy in Level C with an average of less than 50%, but this was the case for around a quarter (four out of 15) of economies in Level B and around a third (11 out of 32) in Level A. At the other end of the scale, an average of at least 75% of new entrepreneurs reported that they prioritised social or environmental impacts above profitability or growth in a fifth of Level C economies (Guatemala, Brazil and India) and Level B economies (Chile, Thailand and Panama), but only one Level A economy (the United Arab Emirates). Once again, it was economies in the Latin America & Caribbean region (Brazil, Guatemala, Panama, Chile and Puerto Rico), the Gulf region (the United Arab Emirates) and East Asia (Thailand and India) that had the most positive results.

5.5 CONCLUSIONS AND POLICY IMPLICATIONS

This chapter examined whether new and established businesses incorporate sustainability into their strategic decision-making, based on new questions introduced in the APS in 2021 asking entrepreneurs about their prioritisation of social and environmental impacts when making strategic decisions about their businesses. GEM's results show that a majority of both new and established business owners do consider these impacts, with slight variation by income group and global region. Interestingly, entrepreneurs in many high-income economies, especially in Europe, were least likely to agree they take social and environmental implications into account, while entrepreneurs in many economies in the Latin America & Caribbean region were most likely to agree.

Finally, the chapter showed that most new entrepreneurs reported that they prioritise social/environmental impacts over profitability or growth, especially in the Latin America & Caribbean region, the Gulf and East Asia.

It was noted earlier that encouraging people into new businesses and supporting those new businesses to become established is good news for the environment as well as for the economy. The GEM results presented in this chapter reinforce this message, showing that this is **good news for sustainability.**

SDG FOCUS . . .

Policies encouraging entrepreneurship can contribute to the UN Sustainable Development Goals (SDGs), including **SDG 8: Decent Work and Economic Growth** and **SDG 9: Industry, Innovation and Infrastructure,** while entrepreneurs incorporating social and environmental impacts into their strategies can contribute to **SDG 10: Reduced Inequalities** as well as **SDG 11: Sustainable Cities and Communities** and **SDG 12: Responsible Consumption and Production**.

CHAPTER 6

Measuring Sustainability in Entrepreneurship

Niels Bosma and Stephen Hill

6

> "All company bosses want a policy on corporate social responsibility. The positive effect is hard to quantify, but the negative consequences of a disaster are enormous."
>
> **Noreena Hertz, English academic, economist and author**

6.1 ARE BUSINESSES AIMING FOR SUSTAINABILITY?

There are many possible ways to measure sustainability in entrepreneurship. Examples include measuring a business's environmental impact through its carbon footprint, energy usage per unit of output, waste management or effective use of natural resources, including water. The economic impact of a new business could go beyond traditional measures such as profitability or return on investment to include cost savings associated with minimising resource use. Social impacts could be measured by quantifying notions of inclusion or equity, community engagement, inclusive employment and so on.

Sustainability can be demonstrated in both tangible and intangible ways. This report encompasses results for entrepreneurs whose innovative products or services address social or environmental issues directly (i.e. more radical innovation) as well as those who integrate notions of sustainability into their core business models and practices (i.e. more incremental innovation). Those new businesses that meet certain certification standards, such as Fairtrade or ISO 2600 (social responsibility), could claim to be sustainable businesses. Indicators of economic sustainability should also include any negative impacts on the environment or society that businesses may exert.

At its 66th plenary meeting on 18 April 2023, the United Nations (UN) General Assembly adopted the resolution promoting the social and solidarity economy for sustainable development (A/77/L.60). This resolution provides an official definition of the social and solidarity economy (SSE) and acknowledges that it can contribute to the achievement and localisation of the Sustainable Development Goals (SDGs).

The SSE is characterised by voluntary cooperation and mutual aid, democratic and/or participatory governance, and autonomy and independence. Working across economic sectors, SSE entities underline the primacy of people and social purpose over capital in the distribution and use of profits and assets. They include cooperatives, associations, mutual societies, foundations, self-help groups and voluntary groups.

SDG FOCUS . . .

Integrating sustainability into business models

Entrepreneurs shouldn't view sustainability as merely a box to check. It should be seamlessly integrated into every aspect of business operations.

WEO, launched in 2020, provides continuous, affordable environmental analytics to municipalities, and regional and national governments, using satellite imagery enhanced by proprietary technology. Co-Founders Imeshi Weerasinghe and Charlotte Wairion have integrated sustainability principles into the business in a number of ways.

1. Address a societal problem

The co-founders met at Vrije Universiteit Brussel, driven by a shared commitment to creating positive environmental change. They aimed to apply innovative research for the benefit of communities. During their studies, they recognised the crucial need for timely, affordable and high-quality environmental analytics.

"Our motivation was about making an impact in cities and countries," said Imeshi. "We both have children, and contributing to a sustainable future for them is a key driver for us."

2. Monitor sustainability progress

WEO uses Vested Impact, an AI-driven platform, to review its progress on key sustainability metrics. The platform highlights both the company's strengths and areas for improvement.

Imeshi advises new entrepreneurs to "think about infrastructure-related sustainability issues from the outset because it's much harder to implement them later."

3. Create a culture by leading through example

At WEO, all eight employees are deeply committed to sustainability. This focus extends beyond the company's mission and is embedded in daily practices. For instance, the team avoids flying to events, opting for train travel instead. Employees either use public transport or walk to work, and plastic bottles are not used in the office.

"These aren't formal rules, but they're ingrained in our culture," Imeshi explained. "Charlotte and I lead by example, and because our employees share our values, it's easier to embed sustainability throughout the company."

Imeshi also believes that having a co-founder is a significant advantage. "Two brains are better than one. In sustainability, having multiple perspectives can lead to even better ideas."

4. Leverage programmes

Imeshi encourages startups to explore accelerators that focus on sustainability. "These programmes help you integrate sustainability into your company's culture, systems and processes."

Imeshi also has advice for policymakers. Governments should incentivise startups to adopt sustainable practices. Additionally, they should explore new models for supporting social and impact-driven businesses, potentially through funding mechanisms beyond traditional grants.

Hence, in relation to entrepreneurship, there is a multitude of different aspects of sustainability to take into account before even considering sustainability impact assessment techniques such as life cycle assessment, sustainability balanced scorecards, true pricing, the triple bottom line of social, environmental and economic impacts (usually expressed as people, planet and profits) and the emerging trend towards environmental, social and governance investment. Because there are so many relevant concepts, coming up with a single data set that encompasses these and is accurate, contemporary and comparable data is a daunting task. However, because of its harmonised data collection procedure, the Global Entrepreneurship Monitor (GEM) is able to provide comparisons across countries and track changes over time.

This GEM special topic report has so far focused on aspects of sustainability in entrepreneurship that are reflected in the questions incorporated into the GEM Adult Population Survey (APS) from 2021 onwards and the GEM National Expert Survey (NES) from 2022. In the NES, experts were asked to assess the priorities of new businesses in their economy in relation to social contributions, environmental practices, economic performance and sustainability. To enable further benchmarking, experts were also asked to assess their own government's prioritisation of sustainability in new businesses. In general, these experts held the view that new businesses prioritise sustainability rather more than their governments do.

In the APS, those starting or running a new or an established business were asked if they agree with several motivations, such as "to make a difference in the world", whether they had taken any actions in the past year to maximise their social impacts and minimise their environmental impacts, whether they always take social and/or environmental impacts into account when making decisions about the future of their business, and whether they prioritise social or environmental impacts above profitability or growth. This chapter focuses on those new entrepreneurs and established business owners who were most focused on sustainability – that is, those who met all of the following four conditions:

1. agreed with the motivation "to make a difference in the world";
2. reported they had taken sustainable actions in the past year;
3. reported they had incorporated sustainability into their business strategy; and
4. reported they had made sustainability a primary focus of their business (thus, impact entrepreneurs are included here).

This chapter uses data from three successive years of the APS to derive the proportion of all adults in each economy who reported that they are both starting and running a new business and meet all four conditions. It also considers the proportion of those who meet all of these conditions among the subsample of those starting and running a new business or an established business. So the following sections essentially integrate data from Chapters 2 to 5 into a single measure. The results are averages for 2021–2023.

The findings indicate that GEM has an important role in adding measurable and precisely defined dimensions of sustainability to its widely accepted and much-used measures of the prevalence of new and established entrepreneurship.

6.2 ARE NEW BUSINESSES AIMING TO ACHIEVE ENVIRONMENTAL AND SOCIAL IMPACTS?

Figure 6.1 shows the proportion of all respondents in each participating economy, averaged for the period 2021–2023, who were starting and running a new business and, additionally, met the four sustainability conditions outlined in the previous section.

The corresponding confidence intervals are also shown. There is a 95% probability that the proportion of respondents in the national population who are starting and running a business and meeting all four criteria is within the interval. Note that most economies included in Figure 6.1 participated in GEM in all three years from 2021 to 2023, but some took part in just one or two years. The confidence interval typically narrows as the number of years of participation increases, since the sample size increases.

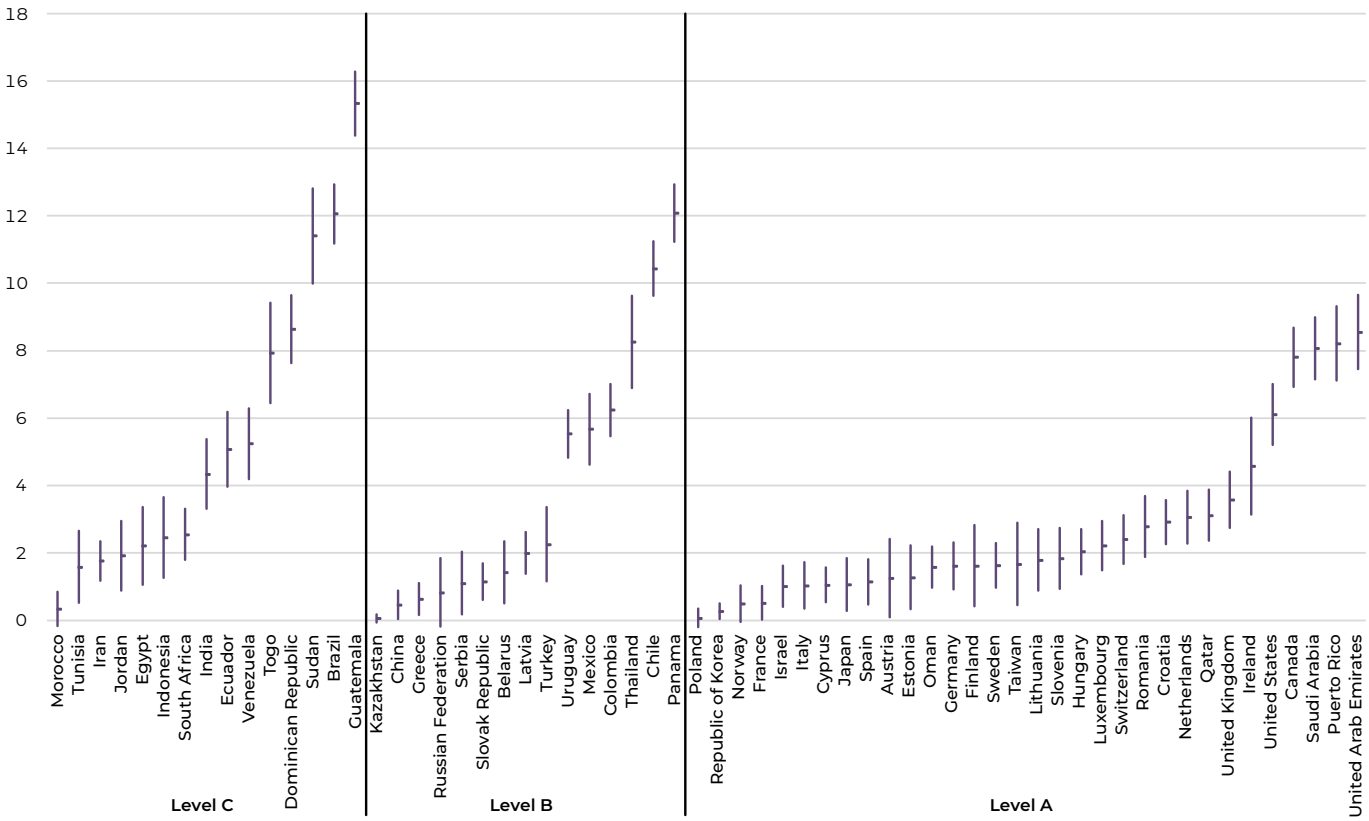


FIGURE 6.1
The percentage of all adults in each economy who started or were running a new business and met all four sustainability criteria, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023

For this measure, both the averages for individual economies and the overall range of averages within national income groups decreased from Level C (low income) to Level A (high income). The highest averages were in Level C, led by Guatemala (15%), Brazil (12%) and Sudan (11%). In Level B, the highest average level was in Panama (12%), followed by Chile (10%). No Level A economy reached 9%; the highest average was in the United Arab Emirates (nearly 9%). At the other end of the scale, less than 2% of all adults were starting or running a new business and met all four criteria in around a quarter (four out of 15) of the Level C economies, just under half (seven out of 15) of the Level B economies and almost three-fifths (18 out of 32) of the Level A economies. So in almost half (29 out of 62) of the economies participating in GEM in the period 2021–2023, less than 2% of adults had started or were running a new business and met all four sustainability criteria.

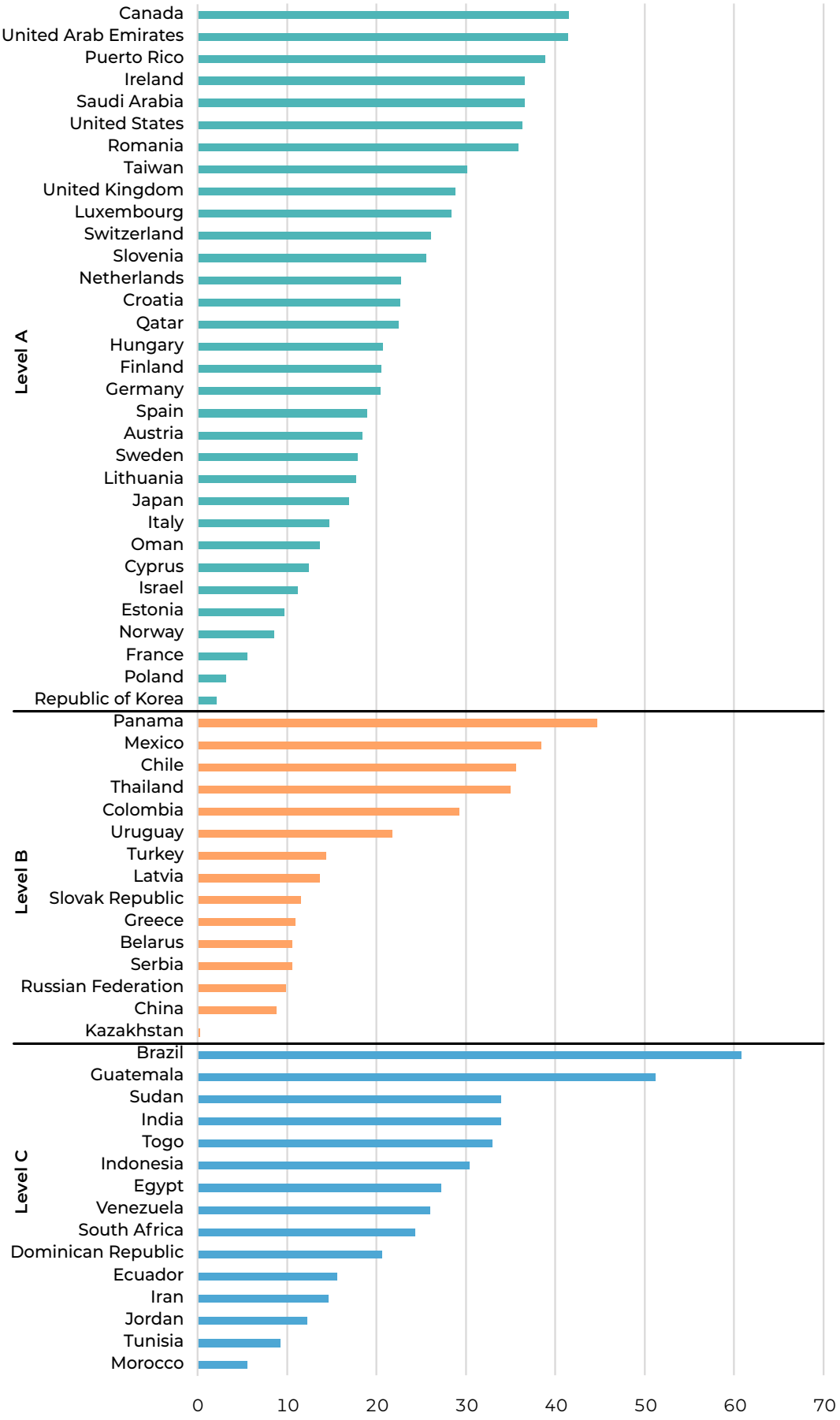
Note that Kazakhstan, Morocco, Poland, the Russian Federation and Norway each had a confidence interval that included zero, so statistically their rate of sustainable entrepreneurship was not significantly different from zero. Conversely, all other participating economies had a rate that was significantly greater than zero.

Geographically, the Latin America & Caribbean region led the way, with 10 out of 11 economies having 5% or more adults starting and running a new business and meeting all four sustainability criteria. This was followed by the Gulf states, with two out of four economies, whereas of the 28 European economies, none had an average rate exceeding 5%. Ireland was closest. Of the Level A economies, both Saudi Arabia (8%) and the United Arab Emirates (9%) scored well, as did Canada (8%) and the United States (6%). So did Puerto Rico (8%), which falls within both Level A and the Latin America & Caribbean region.

Of course, a low prevalence level could reflect a low rate of new entrepreneurship in a particular economy or a low proportion of entrepreneurs meeting all four criteria, or both. To explore this, Figure 6.2 shows those who met all four sustainability criteria as a percentage of new entrepreneurs (i.e. a subset of the total adult sample), again averaged over the period 2021–2023.

FIGURE 6.2
Those who met all four sustainability criteria as a percentage of those who started or were running a new business, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023



In 34 of the 62 participating economies, at least 20% of new entrepreneurs reported that they met all four sustainability conditions. By far the lowest rates of sustainable entrepreneurship among new entrepreneurs were in Kazakhstan, the Republic of Korea and Poland, each with an average of 3% or lower. The Latin America & Caribbean region was a leader in sustainable entrepreneurship in new businesses, with some of the highest averages: Panama, Brazil, Guatemala and Puerto Rico had four of the top six averages. Canada and the United Arab Emirates were the other two economies in the top six.

Once more, Level C had the greatest range, from 6% of new entrepreneurs meeting all four sustainability criteria in Morocco to 51% in Guatemala and 61% in Brazil. The lowest level overall was in a Level B economy, Kazakhstan, with less than 1%, though within Level B the level rose to 45% in Panama. Meanwhile the proportions in Level A ranged from just 2% in the Republic of Korea to 41% in both Canada and the United Arab Emirates.

Europe fared much better than in Figure 6.1, with 11 out of the 28 European economies having an average of at least 20% of new entrepreneurs meeting all four sustainability criteria. This suggests that the low prevalence rates for Europe in Figure 6.1 reflected comparatively low levels of new entrepreneurship in Europe rather than indicating a lack of interest in sustainability among new entrepreneurs.

6.3 ARE ESTABLISHED BUSINESSES AIMING FOR ENVIRONMENTAL AND SOCIAL IMPACTS?

As noted earlier, the GEM APS asks the same questions of those running established businesses, (i.e. those who have paid wages or salaries for 42 months or more). Figure 6.3 shows the percentage of adults in each economy both running an established business and meeting all four sustainability criteria, averaged over the period 2021–2023, alongside the corresponding 95% confidence intervals.

Comparison with Figure 6.1 earlier makes it clear that levels are typically lower for established than for new entrepreneurs, reflecting the fact that in most economies, levels of established business ownership are lower than corresponding levels of new entrepreneurship.

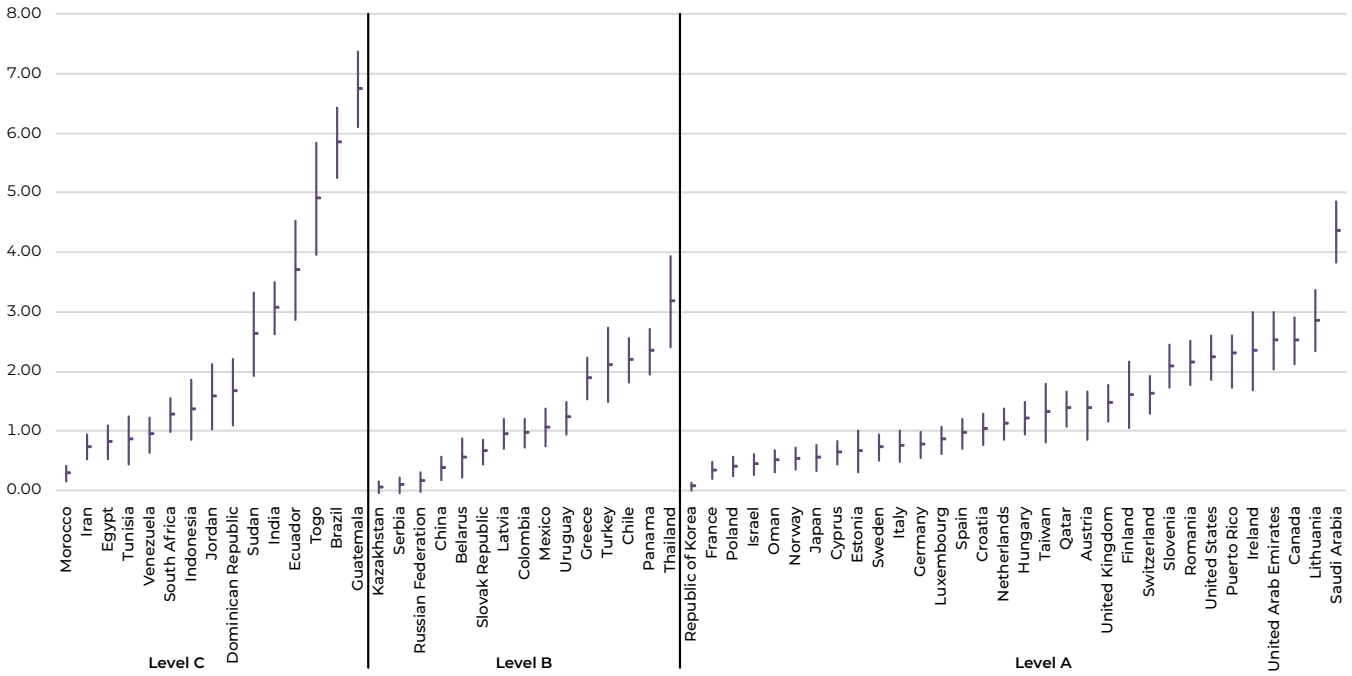


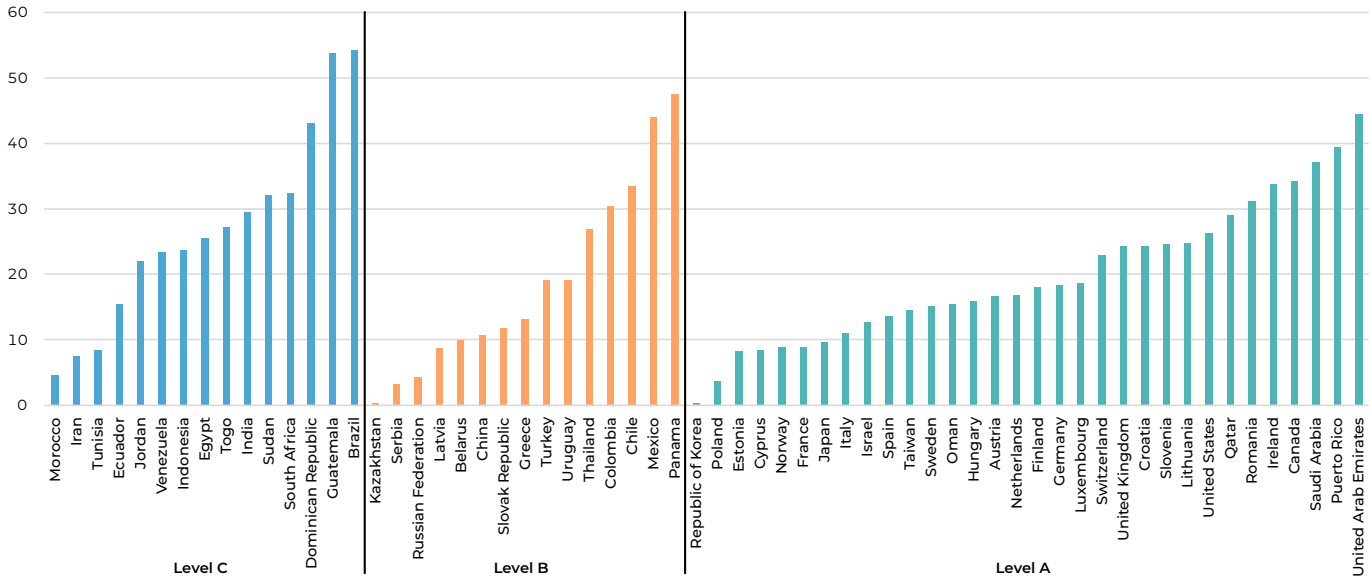
FIGURE 6.3 The percentage of adults in each economy who are running an established business and meeting all four sustainability criteria, averaged over 2021–2023, with corresponding 95% confidence intervals
Source: GEM Adult Population Survey 2021–2023

Once more, income Level C had both the highest rates and greatest variability. In the entire sample of 62 economies, just two economies, both from Level C, had average rates of sustainable established entrepreneurship that exceeded one in 20 adults – Guatemala and Brazil – although both Togo and Saudi Arabia came close. Of the 15 Level C economies, nine had rates of fewer than one in 50 adults, as did 11 of 15 Level B economies and 23 of 32 from Level A.

The final figure (6.4) shows the proportion of those running established businesses who met all four sustainability criteria, and again demonstrates that the low proportion of adults in the previous figure (those both running an established business and meeting all four sustainability criteria) was much more a reflection of low rates of established business ownership than a low propensity of those owners to meet the criteria. Indeed, just 14 of the 62 economies had one in 10 or fewer of their established entrepreneurs meeting all four criteria (three from Level C, five from B and seven from A), while 21 economies had at least one in four of their established business owners meeting all four criteria, (eight from Level C, five from B and eight from C). The highest rates were in Latin America (Brazil, Guatemala, Panama and Mexico) closely followed by the United Arab Emirates. Kazakhstan and the Republic of Korea had the lowest rates.

FIGURE 6.4 Those who met all four sustainability criteria as a percentage of those who started or were running an established business, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023



SDG FOCUS . . .

Impact Measurement and Management: A key to sustainable development for entrepreneurs

As entrepreneurs think about incorporating sustainability into their business strategy, it is important to measure impact.

Impact Measurement and Management (IMM) is an essential tool for ensuring that business activities both achieve short-term success and make a meaningful long-term contribution to solving societal or environmental problems. By integrating IMM into their strategic business operations, entrepreneurs can enhance their competitive advantage, attract investors and drive systemic change.

Bertelsmann Stiftung, an independent foundation, stimulates debate and provides impetus for social change. As part of its project to foster innovation and entrepreneurial dynamism, Bertelsmann, together with its partners, initiated the IMMPACT Guide. This guide provides a model that outlines the key requirements for the IMM journey, tailored to the different growth stages of startups.

IMM goes beyond using sustainability as a marketing tool. It is about relying on solid data and analysis to evaluate and optimise contributions to long-term objectives, such as the SDGs. For entrepreneurs, IMM is not just about measuring impact to attract investors. It can also be used to inform decision-making and to ensure that they are fulfilling their own goals and mission. By acting as a feedback loop, IMM helps companies to continuously improve their practices, refine their strategies and, ultimately, create a more sustainable business model.

Why is IMM critical to sustainable development and business success?

The need for companies to measure their sustainability impact is driven by several key factors, particularly for startups and small businesses looking to provide solutions to social and environmental challenges.

- **Optimising resource use:** By measuring their impact, companies can identify areas where their resources are being used most efficiently and where they can adapt for greater sustainability. This is particularly important for startups with limited resources, as IMM allows them to prioritise actions that deliver the highest social or environmental benefit while maintaining profitability.
- **Avoiding greenwashing:** IMM ensures transparency as it goes beyond superficial claims and provides concrete, verifiable data. This strengthens a company's reputation and builds trust with customers, investors and stakeholders.
- **Building a sustainable competitive advantage:** IMM helps entrepreneurs gain a competitive advantage by demonstrating measurable sustainability results. As consumers become more sustainability-conscious, companies that can demonstrate tangible results will stand out.

- **Attracting environmental, social and governance (ESG) and impact investments:** Measuring impact is fundamental to ESG as well as impact investing, which has become a key consideration for investors. Businesses that can provide clear data on their sustainability efforts are better positioned to attract funding from impact-driven investors.
- **Streamlining reporting:** If IMM is accepted as a standard by impact investors, it could also reduce the time and resources currently needed to prepare impact reporting for different investors. For investors, this standardised framework could help reduce due diligence and transaction costs once the ecosystem accepts these standards.

Methods and approaches to measuring impact

The process of measuring impact can be complex, but frameworks and tools can help organisations make it work:

- **Qualitative and quantitative measurement:** Impact measurement includes both quantifiable outcomes, such as CO_2 reduction, job creation and resource use, and qualitative analyses that capture long-term social effects, such as improved quality of life or community well-being. By combining both types of data, entrepreneurs can provide a more complete picture of their impact.
- **Frameworks and standards:** Frameworks such as the Impact Management Project's five dimensions, the Impact Reporting and Investment Standards and the Social Return on Investment provide clear guidelines for measuring and evaluating sustainability efforts. While these frameworks may seem overwhelming at first, entrepreneurs and startups can adapt them to measure and manage their impact in a way that fits their goals and resources.
- **Technology support:** Emerging technologies, such as big data tools, artificial intelligence and blockchain, help businesses to monitor sustainability data in real time. These tools can track everything from carbon footprints to the social impact of business operations, making IMM more accurate and actionable. For entrepreneurs, leveraging these technologies can streamline the process of measuring and managing their impact, even with limited resources.

Tips for applying IMM

Entrepreneurs can integrate IMM into their business models using the following strategies:

- **Start small and scale up:** Start with a manageable scope of measurements and expand over time. This allows for implementation of the IMM strategy without a large upfront investment. Adjust this over time as the business grows and more data become available.
- **Engage stakeholders early:** Involve all relevant stakeholders – such as employees, customers, suppliers and investors – early in the IMM process. Their perspectives and data can provide valuable insights and add credibility to your findings. Early involvement also promotes greater buy-in within the organisation.
- **Set clear, actionable goals:** Set measurable objectives that are aligned not only with sustainability goals, but also with the company's operational objectives. This will ensure that IMM is not seen as an external 'add-on' but as an integral part of the overall business strategy.

Conclusion: IMM as a strategic advantage for entrepreneurs

As sustainable development becomes increasingly important, IMM is essential to ensure transparency and accountability. For businesses, especially startups and small enterprises, IMM provides a structured framework for measuring and optimising the social and environmental impact of their activities. IMM enables data-driven decision-making and helps to channel direct investment to projects that make a real contribution to solving social and environmental problems. This approach supports continuous improvement and long-term alignment with sustainability goals.

We thank Bertelsmann Stiftung, one of our report sponsors, for providing this material and helping to put our data in a real-world context.

BertelsmannStiftung

SDG FOCUS . . .

What do climate entrepreneurs need from policymakers?

Founded in 2006, the Cartier Women's Initiative (CWI) is an annual international entrepreneurship programme. Since its creation, the CWI has supported 330 impact entrepreneurs across 66 countries. Growing women's entrepreneurship connects to several UN SDGs, so as part of a special series, we asked select CWI Fellows across different sectors to share their perspectives on how policymakers can best support them.

Wendy Owens, 2023 CWI Fellow (USA), CEO of Hexas Biomass Inc, a company that uses low-cost, sustainable, plant-based materials to replace wood and fossil fuel-based raw materials in multiple applications

Phase out subsidies for oil production to stop supporting fossil fuel-based materials: The ages of human existence are marked by materials: iron, bronze, steel and lately fossil fuels. To move to the next materials age, climate entrepreneurs need policymakers to understand that the new bioeconomy is built on sustainable materials produced from land and air.

Encourage investment in renewable biomaterials: Policymakers can support climate entrepreneurs through regulations that encourage investment in renewable biomaterials that do not require subsidies for economic viability.

Include innovators in policymaking: Climate entrepreneurs need policymakers to make it easy for them to be part of policymaking efforts so the voices of young companies without lobbyists are heard over the status quo.

Policymakers hold the key to success for climate entrepreneurs. Everyone needs to work together to ensure the next age of human existence brings material value to the world.

Tracy O'Rourke, 2019 CWI Fellow (Ireland), CEO of Vivid Edge, a company that supplies energy efficiency as a service for large organisations

Support infrastructure investment, especially in national grids: It is crucial to invest in infrastructure to support the growing demand and enable the transition to renewables. Without a solid infrastructure foundation, innovation cannot thrive. Connecting national grids across Europe would allow for the transmission of excess wind and solar energy to where it's needed most. This requires not only investment but also political cooperation.

Incentivise innovative entrepreneurs: Policymakers play a vital role by creating financial incentives like grants, subsidies, tax credits and low-interest loans. It's also essential to raise limits on tax relief for private investors, a key funding source for many entrepreneurs. Policies such as renewable energy mandates and green procurement practices can further support sustainable solutions.

A clear regulatory framework would reduce uncertainty, giving entrepreneurs the confidence to plan long-term, while collaboration between startups and established businesses can accelerate innovation. With the right support from policymakers, entrepreneurs can build a cleaner, more efficient future.

Continued on next page.

Kristin Kagetsu, 2018 CWI Fellow (India), Co-Founder and CEO of Saathi, a company that produces 100% all-natural sanitary pads, offering positive impacts on health, the environment and society

"As a climate entrepreneur, I advocate for regulations that prioritise eco-friendly materials and sustainable business practices."

Financial incentives: To scale their efforts, climate entrepreneurs need access to financial incentives like tax reductions on sustainable raw materials and low-interest loans for businesses focused on sustainability. Carbon and plastic reduction incentives would further promote responsible manufacturing.

Promote educational campaigns that highlight the benefits of eco-friendly alternatives: Government support is essential for distributing eco-friendly products. It is also important to address the intersection of gender, health and sustainability by promoting educational campaigns that highlight the benefits of eco-friendly alternatives.

Implementing procurement policies that prioritise locally produced, sustainable menstrual hygiene products for government institutions is a necessary step. By prioritising long-term policies that support climate entrepreneurs, we can create a more equitable, sustainable future for all.

Thank you to the Cartier Women's Initiative (CWI), one of our report sponsors, for providing this material and helping to put our data in a real-world context.

Cartier WOMEN'S INITIATIVE

6.4 CONCLUSIONS AND POLICY IMPLICATIONS

There is a plethora of ways of defining sustainability in entrepreneurship; however, very few data sources offer internationally comparative data. The APS database, with an annual sample of nearly 150,000 respondents, provides an opportunity to gain new insights through comparative analyses. The data identify those who have confirmed themselves as starting or running a new business or running an established business, and since 2021, the survey has asked about their motivations, actions, strategies and priorities related to sustainability.

This chapter provided results on the proportion of adults in each economy who were starting or running a new business, or running an established business, and who met all four sustainability criteria. It also portrayed those who met all four sustainability criteria as a percentage of new and established entrepreneurs. At least 20% of new entrepreneurs claimed to meet all four conditions in 34 of the 62 economies that participated in the APS during 2021–2023.

As so often in this study, the proactivity of Latin America's new entrepreneurs stands out in terms of sustainability. The Latin America & Caribbean region was a leader in sustainable entrepreneurship among new businesses, having some of the highest averages, including the two highest among Level C economies and the three highest among Level B economies.

There are many potential explanations for why Latin American entrepreneurs in low- and middle-income economies were more likely to have a sustainability focus. These might include first-hand experience in dealing with some of the adverse impacts of deforestation (which is evident in for example Brazil) and climate change (which is keenly felt throughout Latin America alongside high levels of entrepreneurial activity). The results may also reflect the impact of cultural factors that emphasise collective above individual benefit, thereby promoting social welfare over profitability, despite, in most cases, weak government support and an absence of safety nets. But these explanations are at best speculative, and a great deal more research is needed to draw firm conclusions.

Thus, there is a need for more research to understand the reasons why entrepreneurs, both new and established, in the Latin America & Caribbean region were more likely to report that they met all four sustainability criteria. This could inform other regions, allowing entrepreneurs to learn from the experiences of their counterparts in the Latin America & Caribbean region and boost their own sustainable entrepreneurship.

Over time, GEM's primary data on entrepreneurial activities will enable ever more convincing international comparisons, providing policymakers with benchmarks from which they can evaluate the impact of their policies.

CHAPTER 7

Do the United Nations Sustainable Development Goals Influence Entrepreneurs?

Stephen Hill and Aileen Ionescu-Somers

7

"We all want to have something to offer. This is how we belong. It's how we feel included. So if we want to include everyone, then we have to help everyone develop their talents and use their gifts for the good of the community. That's what inclusion means – everyone is a contributor."

Melinda Gates, American philanthropist

7.1 INTRODUCTION

The United Nations (UN) Sustainable Development Goals (SDGs) increasingly dominate the narrative whenever governments get together to discuss the future of the planet and humanity.[20] The purpose of the SDGs is to promote a significant multi-stakeholder effort to address sustainability issues requiring urgent attention. But do entrepreneurs have enough awareness of the urgent need to integrate sustainability into their business to make a positive difference? The Global Entrepreneurship Monitor (GEM) results presented in Chapters 2 to 6 demonstrate that sustainability, and by implication the SDGs, is an important influence on entrepreneurs' motivations, priorities, strategies and activities. This is true for both new and established entrepreneurs.

This chapter addresses the following questions using the extensive GEM Adult Population Survey (APS) data set to provide quantitative answers:

- To what extent are entrepreneurs' sustainability attitudes and activities aligned with the SDGs?
- How many entrepreneurs are aware of the SDGs, and is their level of awareness a reflection of the general global trend towards embedding sustainability in business thinking and action?
- How many entrepreneurs have identified any of these goals as a priority for their business?

It is useful to examine the association between, on one hand, entrepreneurs' sustainability attitudes and activities and, on the other, their knowledge about the SDGs for the following reasons:

- Entrepreneurs starting or running a new business and those owning an established business who are aware of the SDGs may be better placed to identify new business opportunities that are in line with international development priorities.
- Arguably, entrepreneurs who are more aware of the SDGs are more likely to prioritise addressing the potential environmental or social impacts of their business, since the SDG framework allows for a more strategic approach to sustainability.
- Knowledge about the SDGs may inspire highly aware entrepreneurs to attract impact investors looking for businesses that contribute to the SDGs.
- Ultimately, knowledge about the SDGs can enable sustainability-conscious entrepreneurs to align their business with global development priorities.

However, it is fully recognised that an entrepreneur need not necessarily be aware of the SDGs to be sustainability-conscious and to seek to embed sustainability in their business.

20 For example, in July 2024, the UN's High Level Political Forum on Sustainable Development issued a ministerial declaration ahead of the Summit of the Future, held in September 2024, aiming to boost multilateral efforts to scale up action to achieve the SDGs (see "High-Level Political Forum 2024", United Nations, accessed 9 January 2025, https://hlpf.un.org/2024).

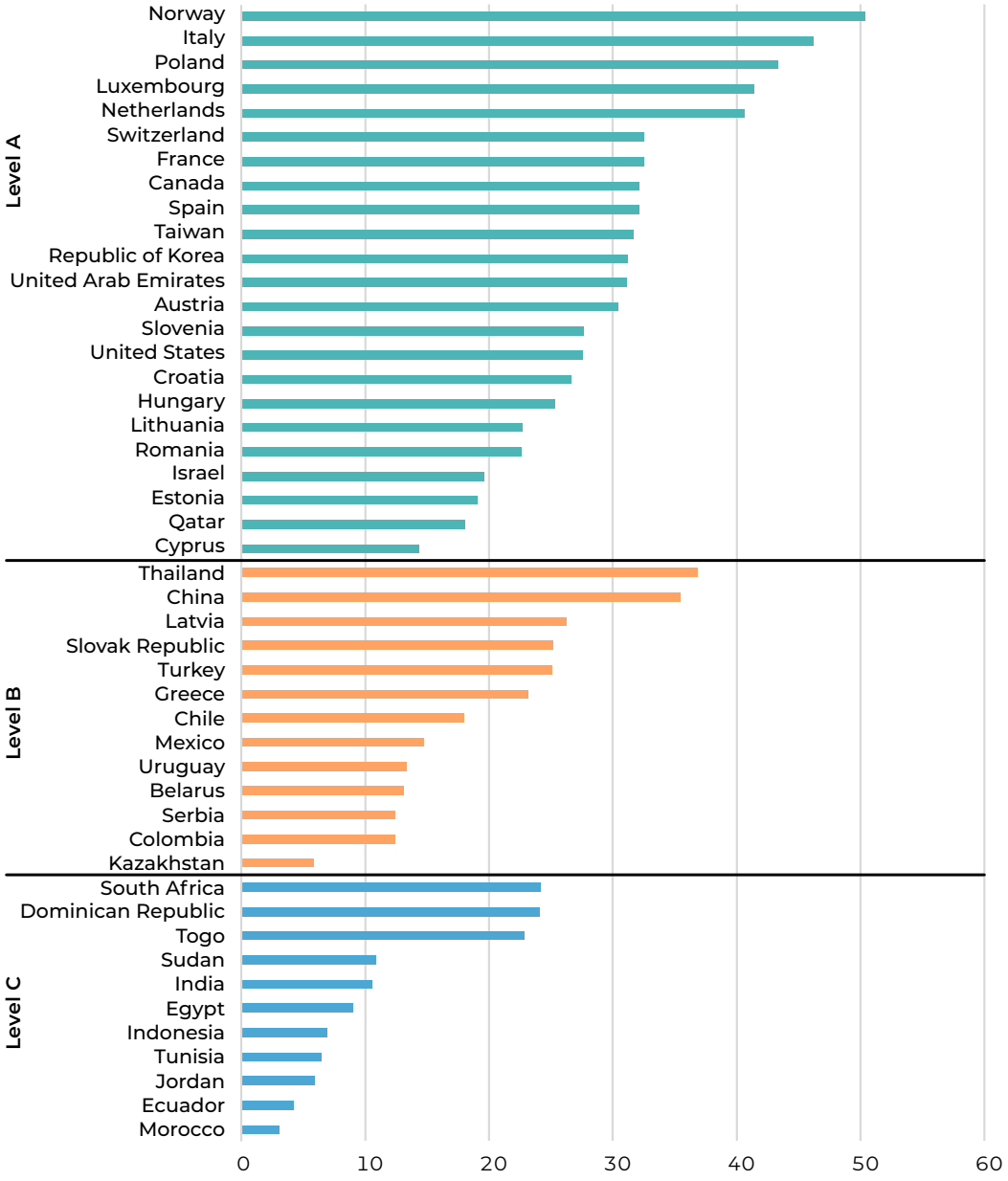
7.2 ARE ENTREPRENEURS AWARE OF THE UN SDGS?

The 2021 APS directly addressed this issue by introducing a simple yes/no question for those identified as entrepreneurs: "Are you aware of the 17 United Nations Sustainable Development Goals?" However, GEM National Teams could choose whether to include this question in their survey. The choice was likely influenced by both cost considerations and the fact that this would lengthen an already extensive questionnaire (thus possibly influencing the response rate) as well as each team's level of interest in the question. Teams in 30 of the 47 economies participating in the APS in 2021 opted to ask this question, as did 34 of the 49 teams in 2022 and 33 of the 45 teams in 2023. Twenty-one National Teams asked this question in all three years. In addition to these 21, eight asked this question in two of the years and 18 in one of the years.

Figure 7.1 presents the results for this question for new entrepreneurs. The results are averaged over the three years from 2021 to 2023 and arranged by national income group, from Level A (high income) to Level C (low income). In general, awareness increased with national income level: at least 25% of new entrepreneurs were aware of the SDGs in almost three-quarters (17 out of 23) of the Level A economies, compared to five out of 13 Level B economies and no Level C economies.

FIGURE 7.1
The percentage of those starting or running a new business and affirming they are aware of the UN SDGs, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023

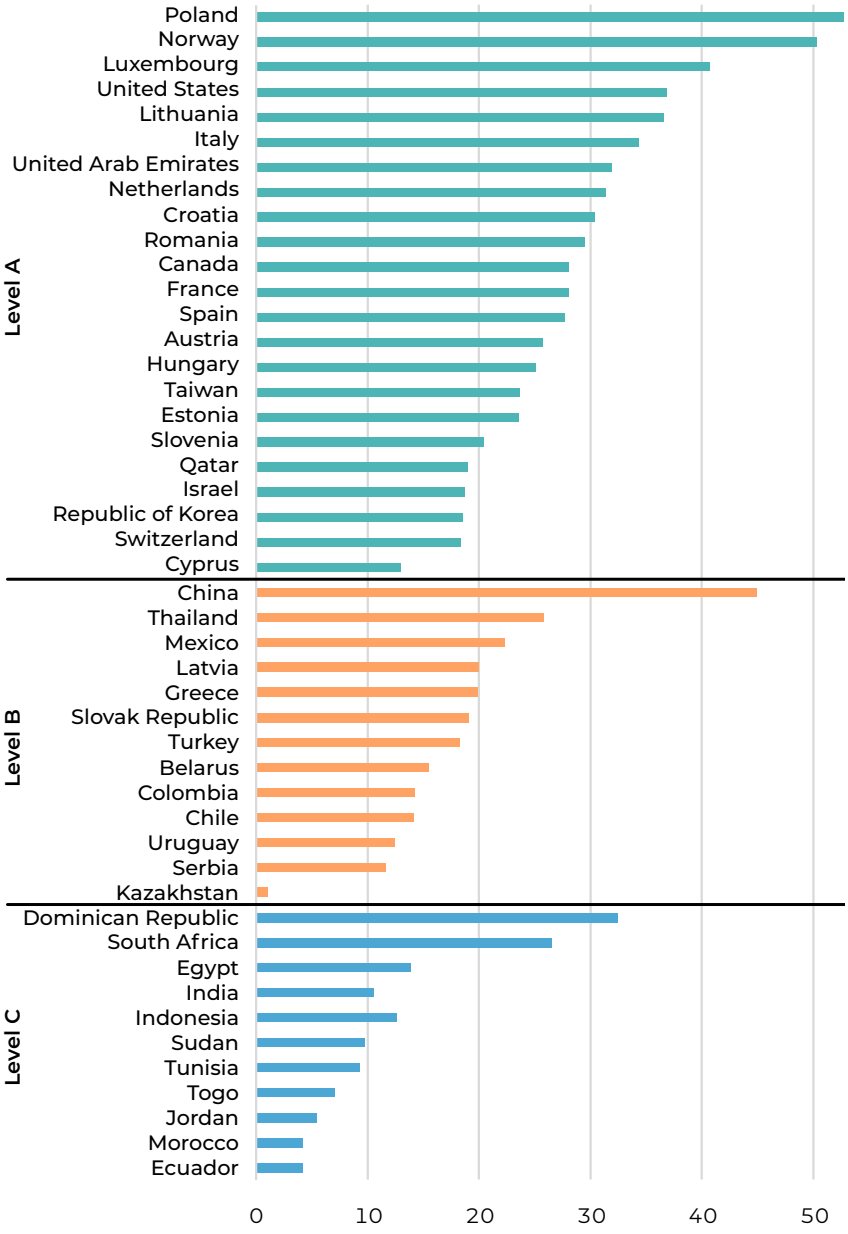


Within Level C, South Africa and the Dominican Republic had the highest rates of new entrepreneurs reporting they are aware of the SDGs (24% for both economies), while Morocco had the lowest rate (3%). Within Level B, Thailand and China had the highest rates (37% and 35%), while Kazakhstan had the lowest (6%). Within Level A, Cyprus had the lowest levels of awareness (14%). Norway, Italy, Poland, Luxembourg and the Netherlands had the highest rates (all averaging over 40% in the three years to 2023).

The same question was asked of those running an established business (Figure 7.2). A similar pattern emerges, with awareness increasing with national income level. Within Level C economies, the Dominican Republic and South Africa had the highest averages by far (32% and 27%, respectively), while Morocco and Ecuador both averaged just 4%. The rates of awareness were a little higher within Level B, with China having an average of 45% and Thailand and Mexico both averaging over 20%. Awareness was higher still among Level A economies, led by Poland (62%), followed by Norway (50%) and Luxembourg (41%). In this group, Cyprus had the lowest average, with just over 13% of established business owners being aware of the SDGs. In 28 of the 47 economies where respondents were asked about awareness of the SDGs in 2021–2023, new entrepreneurs had higher awareness than established business owners, leaving 19 where the reverse was the case. It may be that new entrepreneurs are typically a little younger than those running an established business and that younger people may be more sustainability-conscious, although this could be offset by established business owners having more experience and perhaps a wider world view.

FIGURE 7.2
The percentage of those running an established business and affirming they are aware of the UN SDGs, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023



7.3 ALIGNING BUSINESS PRIORITIES WITH THE UN SDGS

Those who indicated an awareness of the SDGs were asked whether they had identified any of these goals as a priority for their own business. Note that results, and especially differences within those results, should not be given undue significance given the small sample sizes involved. For example, for Norway 59% of new entrepreneurs were aware of the SDGs in 2023; however, just under 7% of Norwegian adults were starting or running a new business in 2023, so only around 4% of Norwegian adults were starting or running a new business and aware of the SDGs. In all other economies, new entrepreneurs were less likely than established business owners to be aware of the SDGs, although some had higher rates of entrepreneurial activity.

Figure 7.3 shows the proportion of those starting or running a new business and aware of the SDGs who reported that they had identified at least one of these goals as a priority for their business, averaged over the three years. There was some variation across economies, with averages of at least 80% in Kazakhstan, China, the United Arab Emirates and Indonesia and a low of 28% in Estonia.

However, levels were generally high, with only eight economies with an average less than 50%: Ecuador from Level C, Columbia from Level B and six from Level A (Estonia, the Republic of Korea, Norway, France, Slovenia and the United States). An average of at least 70% of new entrepreneurs who were aware of the SDGs had identified at least one as a priority for their business in over a third (four out of 11) of the Level C economies, nearly two-fifths (five out of 13) of the Level B economies and around an eighth (three out of 23) of the Level A economies.

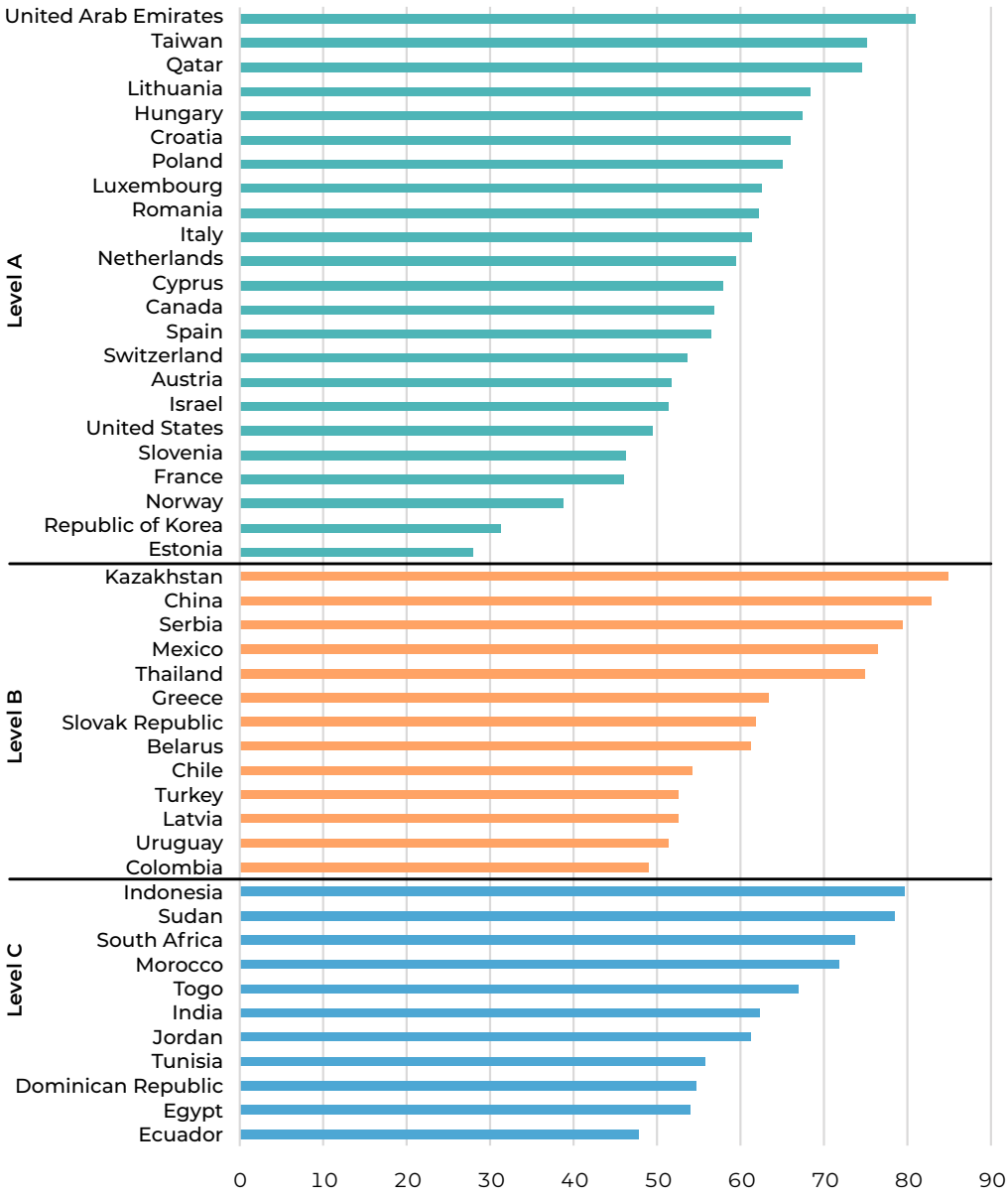


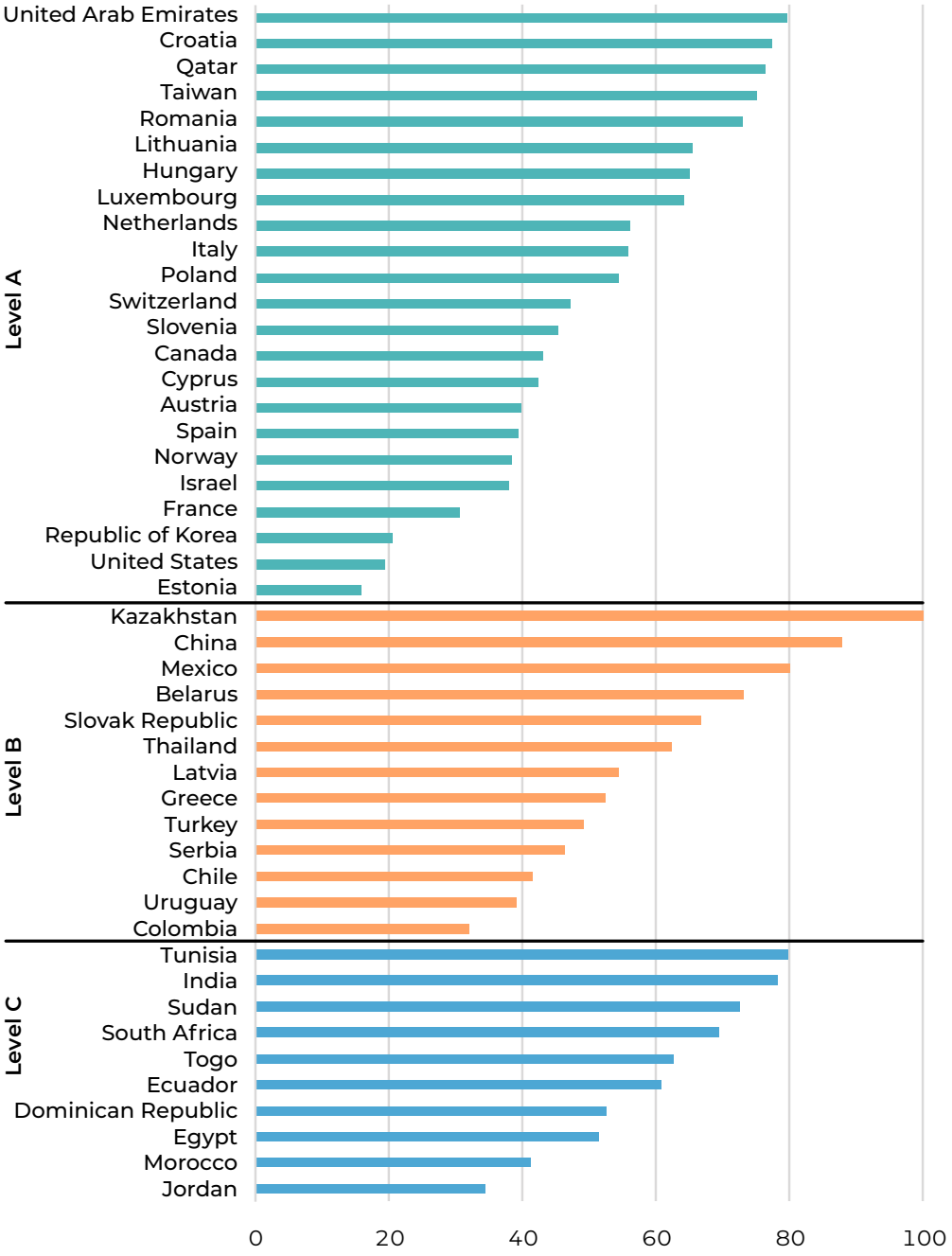
FIGURE 7.3
The percentage of those starting or running a new business and aware of the SDGs who identified at least one of these goals as a business priority, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023

The same question was asked of those running an established business and aware of the SDGs, with broadly similar patterns within national income levels, if slightly lower averages in general (Figure 7.4). This time, just under a fifth (two out of 11) of the Level C economies, almost a third (four out of 13) of the Level B economies and over a fifth (five out of 23) of the Level A economies had an average of at least 70% of their SDG-aware established business owners identifying at least one of the goals as a business priority. The lowest average levels overall were in Estonia, the United States and the Republic of Korea.

FIGURE 7.4
The percentage of those running an established business and aware of the SDGs who identified at least one of these goals as a business priority, averaged over 2021–2023

Source: GEM Adult Population Survey 2021–2023



Figures 7.3 and 7.4 suggest that there is a reasonable chance that new or established entrepreneurs who are aware of the SDGs will identify at least one of these goals as a business priority, especially in parts of Asia and the Gulf (Kazakhstan, China, India, Qatar and the United Arab Emirates). This appears to be least likely in Estonia, the Republic of Korea and the United States.

7.4 CONCLUSIONS AND POLICY IMPLICATIONS

GEM data suggest that many entrepreneurs who are aware of the SDGs may use these defined goals as the basis for at least one of their own business priorities. However, awareness of the SDGs among entrepreneurs is at best patchy across geographies and income groups, though there is some evidence that awareness increases with national income levels. As more data are collected over time, it will be possible for GEM to identify any trends in awareness of the SDGs.

The introduction to this chapter posited that new entrepreneurs who are aware of the SDGs may be better placed to identify new business opportunities and more likely to prioritise their business's social and environmental impacts above profitability or growth. In that context, it is interesting to compare the results in this chapter with those in Chapter 6, which presented the proportion of new entrepreneurs meeting four sustainability criteria (listed in Section 6.1).

First, it is noted that some of the economies in the Latin America & Caribbean region, including Brazil and Guatemala, did not have the SDG-related questions in the APS (as mentioned earlier, GEM National Teams could choose not to include these in the survey). So, while comparison with awareness of the SDGs would have been useful, since the levels of new entrepreneurs meeting all four sustainability criteria were high in many of these countries, such comparison is not possible.

However, where comparison is possible, we find that economies with relatively high awareness of the SDGs among new entrepreneurs, such as Norway and Italy, had relatively few of their new entrepreneurs meeting all four sustainability criteria. Meanwhile, some countries with relatively low levels of SDG awareness among their new entrepreneurs, such as Sudan, Chile and Qatar, had relatively high proportions of new entrepreneurs meeting all four sustainability criteria. This may be due to the fact that developing countries and emerging economies often experience the most negative environmental and social impacts "on the front line", which may lead to better awareness of the need for sustainable development. Another driver may be the recent policies in the Gulf region that promote diversification of economies to reduce dependence on oil exports; in this context, entrepreneurs may be more likely to seek opportunities to do business sustainably.

The picture is not very different for established business owners. They were somewhat less likely than new entrepreneurs to be aware of the SDGs, but many of those who were aware had identified at least one of the goals as a business priority. To conclude:

- Awareness of the SDGs is at best fragmented among those starting or running a new business or owning an established business.
- Lack of awareness of the SDGs is not an obstacle preventing new or established entrepreneurs from integrating sustainability considerations into their priorities, actions and strategies.
- Many of those entrepreneurs who were aware of the SDGs had identified at least one of those goals as a business priority.

CHAPTER 8

Conclusions and Policy Implications

Stephen Hill, Cesare Riillo, Maya Dougoud
and Aileen Ionescu-Somers

8

"Our biggest challenge in this new century is to take an idea that seems abstract – sustainable development – and turn it into a reality for all the world's people."

Kofi Annan, former United Nations Secretary-General

8.1 HOW TO INTEGRATE SUSTAINABILITY AND ENTREPRENEURSHIP

This report underscores the complementarity of entrepreneurial activity and sustainability and suggests that one can drive the other. The shift towards sustainability is creating opportunities for new businesses, often through innovation in products, services and processes. Many new entrepreneurs are pursuing sustainable growth by seeking to make a difference in the world, acting to minimise their environmental impacts and/or maximise their social impacts, and incorporating sustainability into their priorities and their strategies. Some are even doing all of these things.

Policy can play an important role in supporting or reinforcing this complementarity. Policymakers can shape the conditions that encourage sustainable entrepreneurship by, for example:[21]

1. prioritising sustainability as a policy objective, thereby helping to create **entrepreneurial ecosystems that promote sustainability**;
2. encouraging the **creation of new sustainable businesses** and other new ventures to adopt sustainable actions and objectives, hence using entrepreneurship as a driver of sustainability;
3. helping to educate customers and suppliers about green products and services, thereby **promoting sustainable markets**;
4. **including social and environmental criteria in public procurement processes** and applying related sourcing regulations in supply chains;
5. **building competencies in sustainability** that encourage collaboration and knowledge sharing, including between new and established businesses, particularly in relation to innovation and "solutions transfer"; and
6. **developing sustainability impact measures** that are easy to calculate and that enable and encourage new businesses to orientate towards sustainability.

Yet, we suggest that effective policies can be designed that promote both sustainability and entrepreneurship. So, next, we note the intersection between sustainability, entrepreneurship and policymaking for each of the six points.

21 The framework for this chapter was inspired by Rosina Watson, Kristian Roed Nielsen, Hugh N. Wilson, Emma K. Macdonald, Christine Mera and Lucia Reisch, "Policies for Sustainable Development: A Crowdsourced Framework", Journal of Cleaner Production 383 (2023): 135234.

SDG FOCUS . . .

Social enterprise in supply chains

Supply chains are crucial for microentrepreneurs to maximise economic opportunity. Enterprises aiming to embed sustainability into their businesses by ensuring ethical practices, transparency and access to resources that promote fair wages, responsible production and long-term viability are a crucial element in this.

Neelam Chhiber, an industrial designer and social entrepreneur based in Bengaluru, India, is leading the charge in transforming supply chains to foster inclusive and sustainable entrepreneurship. As Co-Founder of Industree Foundation, Industree Skills and Mother Earth, Neelam has pioneered a model that addresses the systemic issues faced by small producers. Industree acts as both an incubator and accelerator, facilitating the aggregation of microproducers into self-owned enterprises while providing essential capacity building, product development for modern markets and access to working capital. Through professional management teams and digital tools, Industree empowers microenterprise leaders to streamline operations, develop new designs, improve productivity and build stronger, more transparent supply chains.

One of the key areas of focus for Industree is ensuring traceability and transparency within supply chains, which are crucial for addressing issues such as substandard working conditions and unfair wages. Industree is developing a digital societal platform that will help track crucial data – such as age, work hours, wages and payments – across the value chain. This platform not only ensures that producers are paid fairly but also provides them with access to resources like raw materials, capital and design. Over the years, in global supply chains, traceability to the raw material source has become key, keeping net zero targets in mind. This has underscored the importance of regenerative supply chains.

Today, frameworks developed through years of work are being scaled nationally by the Government of India in an ambitious Bamboo plantation initiative with equity, climate and gender at its core. Nature-based solutions are being promoted with a million women across 14 states in India.

Industree has seeded the creation of a producer-owned e-commerce portal for traceable handmade products, directly connecting producers to customers and retail markets through Flourish.shop for sales in India and Flourishplanet.com for global sales. These innovations are vital in promoting responsible consumption and production practices, contributing to the sustainability and growth of entrepreneurship in these communities. By focusing on supply chain transparency, Industree is not only empowering producers but also creating a more equitable and sustainable ecosystem for entrepreneurship to thrive.

Neelam, a recipient of the Schwab Foundation 2011 India Social Entrepreneur of the Year award, believes that using a blended capital model to economically and socially empower producers in the farming and creative manufacturing sectors is the way towards inclusive growth.

We thank the Schwab Foundation, one of our report sponsors, for providing this material and helping to put our data in a real-world context.

SCHWAB FOUNDATION FOR SOCIAL ENTREPRENEURSHIP

Creating entrepreneurial ecosystems that promote sustainability

The Global Entrepreneurship Monitor (GEM) has set out the core components of an entrepreneurial ecosystem, referred to as Entrepreneurial Framework Conditions. An ecosystem that promotes sustainability will have framework conditions that consistently and systematically reflect sustainability principles. These might include easier or cheaper access to finance for startups focused on sustainability, entrepreneurial education centred on sustainability, government policies that favour investment in green technologies and knowledge networks that facilitate technology transfer in, for example, waste minimisation or social welfare. Policy should focus on complementarity – for example, support for new ventures in green technologies could provide a boost to the entrepreneurial ecosystem while also promoting sustainability.

This report has provided compelling evidence that entrepreneurs in many of the economies in the Latin America & Caribbean and East Asia regions may be leading the way towards a more sustainable future (at least based on what they self-report), while those in many high-income European economies may be lagging behind. This suggests there are lessons to learn from entrepreneurial experiences in those two regions.

Creating new sustainable businesses

Policymakers should consider establishing green and sustainable finance initiatives to help entrepreneurs secure funding for sustainable projects.[22] This includes green bonds, impact investing and low-interest loans for sustainable business models, government-backed loan guarantees for small businesses with sustainability objectives and priorities, or tax exemptions for new green businesses.

Moreover, this report has consistently demonstrated the self-reported sustainability credentials of many new businesses, so promoting the creation of new businesses would in itself support sustainability.

Successive GEM Global Reports have shown that new ventures have an appetite for innovation in products and processes. Harnessing this innovation in support of sustainability objectives is already giving the world new developments in recycling, energy reduction and waste-minimising technologies. Sustainable new ventures can be encouraged to continue to develop new products that contribute to social welfare, environmental protection and economic resilience, backed by national strategies that align with the United Nations (UN) priorities as expressed in the Sustainable Development Goals (SDGs).[23]

Two aspects are particularly notable. First, among the entrepreneurs participating in the GEM Adult Population Survey (APS), women, young people and graduates were more likely to agree with the motivation "to make a difference in the world". This suggests that policies to encourage these groups to start and run new businesses could increase the prevalence of purpose-driven businesses.[24] Second, the sheer number of entrepreneurs reporting they are motivated by making a difference is encouraging for the future of the planet and society.

22 For example, by increasing transparency on how financial market participants consider sustainability risks, the Sustainable Finance Disclosures Regulation can facilitate the match between sustainable finance and sustainable entrepreneurship, directing investments towards businesses and entrepreneurs committed to environmental and social impact.

23 However, the UN's 2024 report on the SDGs indicates that "only 17 per cent of the SDG targets are on track"; United Nations, *The Sustainable Development Goals Report 2024* (United Nations, 2024), https://mdgs.un.org/sdgs/report/2024/The-Sustainable-Development-Goals-Report-2024.pdf, 2.

24 The OECD's 2023 Missing Entrepreneurs report gives an overview of policies that can unlock the entrepreneurial potential of under-represented groups, including women, young people, seniors, immigrants and people with disabilities (Organisation for Economic Co-operation and Development and European Commission, *The Missing Entrepreneurs 2023: Policies for Inclusive Entrepreneurship and Self-Employment* (OECD Publishing, 2023), https://www.oecd.org/en/publications/the-missing-entrepreneurs-2023_230efc78-en.html).

Promoting sustainable markets

Governments can promote sustainable production and consumption by setting and supporting ambitious targets for carbon reduction and by regulating the industries with the highest environmental impacts, such as air travel or steel production. Government policy, especially in high-income economies, can allocate resources to sustainable public transport, set standards for low-impact construction and regulate to ensure that businesses account for their social and environmental costs and are rewarded accordingly. All of this would create challenges and, perhaps more importantly, opportunities for new and established businesses.

Changing consumer preferences are already creating markets for green goods and services, from electric vehicles to reusable food containers, and many countries have legislation to reduce single-use plastics or to prevent polluting discharges into rivers and seas. Such changes could be supported by better product labelling and certification – for example, through Fairtrade. Changing educational curricula and broadcast regulations can also promote greener consumption through greater awareness.

SDG FOCUS . . .

Empowering refugees through education and technology

Entrepreneurial education can also play an important role in entrepreneurs' integrating sustainability into their organisations (see Chapter 8 of this report). It must be particularly inspiring for young people to learn indirectly from an entrepreneur who is harnessing innovative solutions to address social challenges, such as providing education and opportunities to vulnerable populations, while embedding sustainability into their business practices.

Rudayna Abdo is Founder and CEO of Thaki, a social impact non-profit organisation that delivers learning tools to schools catering to refugee and vulnerable children in the Middle East. Rudayna previously had a successful career in urban planning, tackling housing, land use and urban transportation issues in North America and the Middle East. She leveraged her experiences to launch an organisation that has delivered hope and educational opportunities to tens of thousands of children in the Middle East and North Africa.

Started in 2015, Thaki works in partnership with companies that donate their secondhand electronic devices. These are key to accessing 21st-century skills.

Thaki's mission is to empower refugee and vulnerable children to learn and thrive through self-paced, motivational electronic tools. Its vision is to eliminate inequity brought about by poverty, war and disasters and to foster a world in which everyone sustainably shares resources and helps one another with compassion and benevolence.

We thank the Schwab Foundation, one of our report sponsors, for providing this material and helping to put our data in a real-world context.

SCHWAB FOUNDATION FOR SOCIAL ENTREPRENEURSHIP

Building competencies in sustainability

Education, especially entrepreneurial education, can play a role in promoting sustainability by raising awareness of both sustainability challenges and the business opportunities these bring. This includes education in schools as well as colleges and universities. Technical skills development is also important in providing the foundations for innovative product and process development that can address sustainability challenges.

Cooperation and knowledge sharing can also be important in technological collaboration between businesses, transferring solutions as well as technologies. This report has made clear some of the differences between new and established businesses – for example, in their propensity to act to minimise environmental impacts. These differences mean they require different types of support to build competencies. New businesses could be supported by a policy focus on support for sustainable startups, while established businesses could be encouraged through tax breaks to adopt more sustainable practices.

Developing sustainability impact measures

While most new businesses wish to label themselves as sustainable, being able to demonstrate this using rational and meaningful indicators would lend much-needed credibility to such claims.[25] If policymakers are to support sustainable entrepreneurship, an important first step would be careful definition of what sustainability means in relation to entrepreneurship. Availability of transparent and easily calculated metrics – such as the proportion of recycled content in products or the proportion of recyclables in total energy consumption – could encourage new and established businesses to adopt greener goals.

Objective measures for sustainability are crucial to minimising greenwashing, where companies make misleading claims to present themselves as more sustainable than they really are. This GEM special topic report has leveraged the vast APS database to show the percentage of entrepreneurs in participating economies reporting that they: are motivated "to make a difference in the world"; take actions to enhance the sustainability of their business; build sustainability into their business strategy; and prioritise sustainability over profits and growth. While the data allow for differentiation between economies in terms of the sustainability of new and established businesses, the aggregate and anonymous nature of this data means that no inferences can be made about the sustainability of individual businesses.

25 For example, the European Sustainability Reporting Standards (European Commission) mandate that large and listed companies regularly report on the social and environmental risks they encounter. Other voluntary standards are available, such as the Global Reporting Initiative (see "The Global Leader for Impact Reporting", Global Reporting Initiative, accessed 9 January 2025, https://www.globalreporting.org).

8.2 CONCLUSION

While there is still a long way to go, this report has shown that across the globe, many new entrepreneurs are acting and thinking sustainably, often despite, and perhaps even due to, lack of policy guidance or government support. The key aspect that differentiates GEM data is the ability to track sustainability measures over time and across economies, showing how the perceptions and behaviours of entrepreneurs evolve. This offers policymakers and other stakeholders valuable and unique insight. While this report has presented evidence that the propensity for new and established businesses to take actions that support sustainability is slowly increasing over time, policymakers can and should do more to encourage and support sustainability in new and growing businesses as well as established ones.

The intersection of business, policy and digitalisation underscores the importance of collaboration in advancing sustainability. Public–private partnerships exemplify the potential for joint ventures to mobilise resources and expertise for sustainable and digital development projects. Furthermore, standardisation efforts aiming to harmonise sustainability metrics, digital protocols and certifications facilitate cross-sectoral alignment and efficiency. Open innovation platforms provide spaces for businesses and policymakers to co-create solutions, leveraging digital tools to foster a collaborative ecosystem that accelerates progress.

Entrepreneurship, policy and digital transition must converge to address the complexities of sustainability effectively. While businesses spearhead innovation and operational change, policymakers establish the enabling environment and digital technologies act as a catalyst for efficiency and scalability. Together, their efforts drive the systemic transformation required to achieve a sustainable, resilient and digitally connected future.

Sustainability and entrepreneurship have been shown to be not merely complimentary but mutually reinforcing. The objective of policy must be to leverage this established complementarity to promote and sustain both.

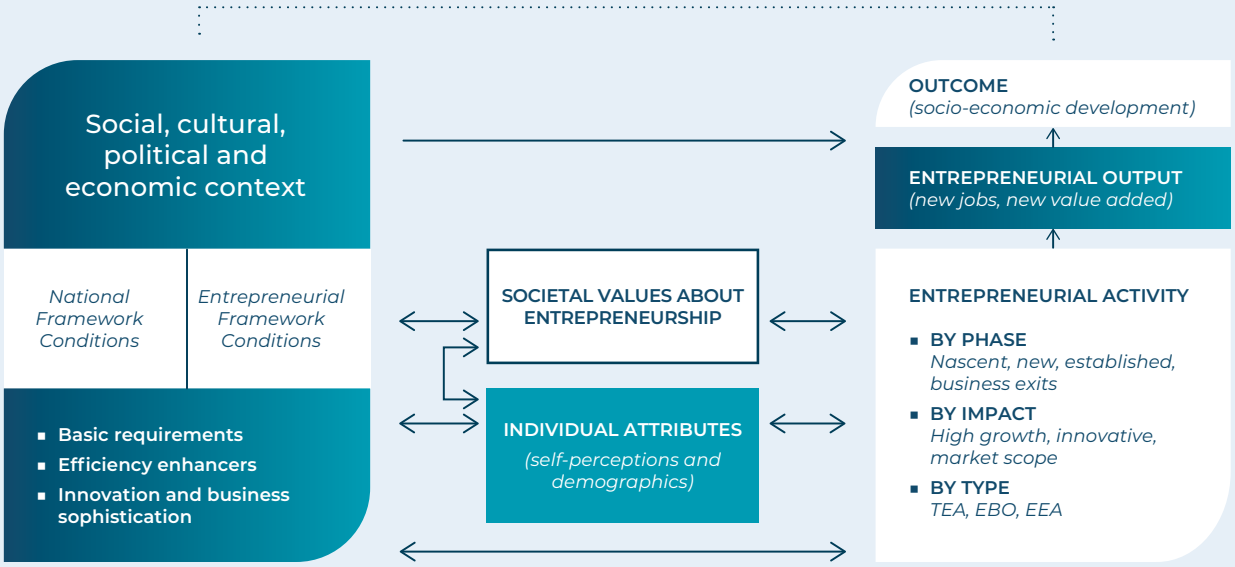
Appendix 1

THE GEM CONCEPTUAL FRAMEWORK AND METHODOLOGY

The Global Entrepreneurship Monitor (GEM) is a long-term multinational research study of entrepreneurship, conducted annually using population-based data to carefully measure the level of entrepreneurship in each participating economy. GEM defines and measures early-stage entrepreneurship as the act of starting or running a new business. Note that it is the act of starting that is the key differentiator: simply thinking about starting a business or planning to do so at some point in the future is not counted according to the GEM measure of entrepreneurial activity.

The GEM Conceptual Framework is illustrated in Figure A1.1, which sets out the relationship between the decision to start a new business and the entrepreneurial environment that impacts that decision and its implementation, both directly (via access to resources) and indirectly (via social priorities and values). The relevant environment can be local, regional or national or a mixture of all three, depending on the nature of the new business and its scale.

Figure A1.1 The GEM Conceptual Framework



The decision to start a business is then set within a social, economic and political context, which conditions that decision in terms of variables, including choice of sector, scale of operations and levels of ambition and innovation. These variables in turn influence the impacts of the new business on other factors, such as number of jobs, levels of value-addition and ultimately economic development. At the same time, multiple acts of starting new businesses may begin to shift social values, creating more positive attitudes to entrepreneurship and, in turn, influencing potential new entrepreneurs.

THE GEM METHODOLOGY AND MEASURES OF ENTREPRENEURSHIP

GEM uses two principal research instruments: the Adult Population Survey (APS), a random sample of at least 2,000 adults per economy, and the National Expert Survey (NES), with at least 36 national experts per economy. The APS identifies the (usually small) proportion of adults who are starting or running new businesses. GEM refers to this as the level of Total early-stage Entrepreneurial Activity, or TEA. Although the majority of surveyed adults are not currently starting a business, they still provide highly valuable information as a result of questions asked in the APS. Their responses provide insights into their awareness of

entrepreneurship and of local business opportunities, their view of their own competency to start a business, their perception of how easy it is to start a business and whether the fear of failure would stop them from doing so. They are also asked whether they intend to start a business in future.

In each participating economy, the APS is supervised by a GEM National Team, usually made up of academics at top universities, and sometimes by some other organisations with interest and expertise in entrepreneurship. These organisations work closely with GEM to ensure that the same questions are asked in the same way in each participating economy so that answers can be compared across economies and for the same economy over time. After the Global Report is published each year, National Teams usually produce and publish their own National Reports. These are customarily shared on the GEM website (www.gemconsortium.org). Each year, new questions in the APS reflect a changing world; for example, by asking about the impacts of increasing energy prices or of the awareness of the United Nations Sustainable Development Goals.

There are many ways to assess the level of entrepreneurial activity in an economy. Most official statistics count new business or tax registrations as a measure of entrepreneurial dynamics. These are certainly useful, but only to the extent that all new businesses register. In many economies, especially less developed ones, new firm registrations can actually be a small proportion of new business startups. This can be due to several reasons; for example, a business may start off informally and very small, an owner may be waiting to see if the business works or the process of registration may be expensive, difficult or excessively bureaucratic. Another measure is the number of self-employed, but many self-employed people work only for themselves and may not even perceive initially that they are actually running a business. Examples include journalists, musicians and some taxi drivers. The GEM approach circumvents the challenges of collecting comprehensive data both by being population-based and by assuring anonymity, thus capturing activity in the informal economy in a way that official statistics cannot. This is a major differentiating factor for GEM when compared to other studies.

The way GEM uses APS data to estimate key entrepreneurial variables is set out in Figure A1.2. As noted, GEM defines an early-stage entrepreneur as an individual starting or running a new business. The APS includes a question about whether the individual has expended resources (including their own time) in trying to start a business, through looking for premises, developing a business plan, etc. If the answer is affirmative, a follow-up question asks whether that business has paid any wages or salaries, including to the owner, and if so, for how long. If those wages have not yet been paid for three months, then GEM classifies this as a nascent business and the individual as a nascent entrepreneur. If wages have been paid for three months or more but for less than three and a half years, then GEM categorises this as a new business and the individual as a new business owner. The sum of nascent entrepreneurs and new business owners is the Total early-stage Entrepreneurial Activity (TEA). If wages have been paid for three and a half years or more, then according to GEM the business is no longer new but established and the individual is an established business owner.

Figure A1.2 The entrepreneurial process and GEM indicators

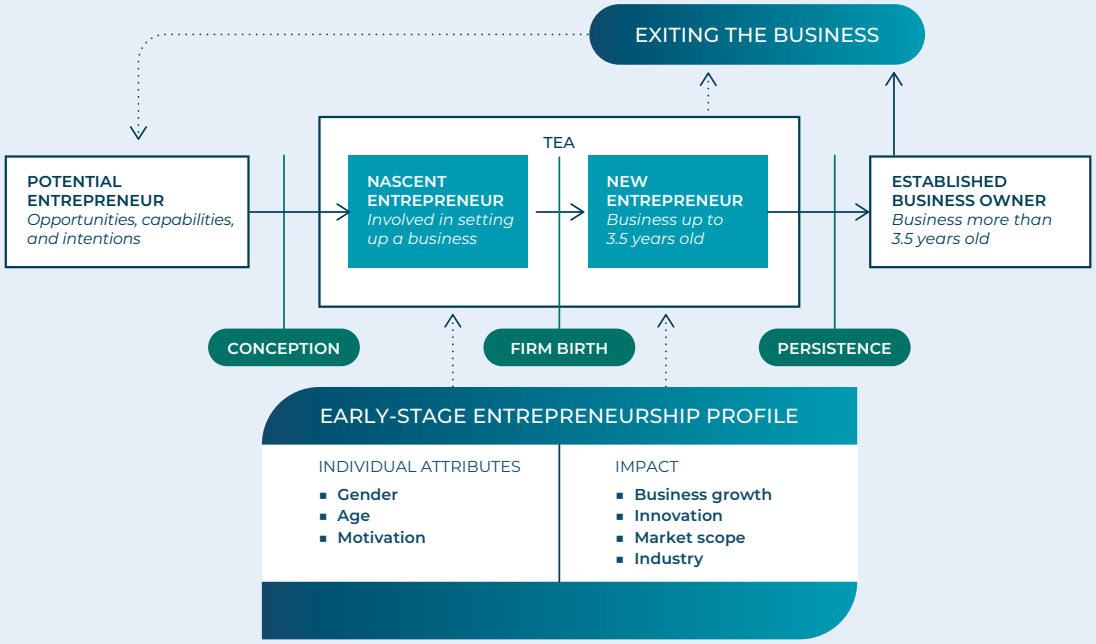


Figure A1.2 illustrates the entrepreneurial pipeline, beginning from the time that potential entrepreneurs perceive new opportunities that they consider they can grasp to when they start expending resources to become nascent entrepreneurs, then become a new business and eventually become an established business. Of course, at any stage the entrepreneur can exit the business, which may or may not continue without them. The figure also shows the major GEM measures of entrepreneurial activity. Centre stage is TEA, which as noted is the proportion of adults in a participating economy who are starting or running a new business, seen in this figure as the sum of nascent entrepreneurs plus owner-managers of a new business, or new business owners.[1] Other relevant entrepreneurial variables include the level of established business ownership (EBO) and the level of business exits, both expressed as a proportion of the adult population. Each is important, especially in relation to the level of TEA. For example, a high ratio of TEA to EBO may indicate difficulties in transitioning new businesses into established ones, sometimes because of an unsupportive entrepreneurial environment, while a high ratio of TEA to business exits may suggest a growing entrepreneurial base.

The decision to start a new business inevitably takes place within a context that can support or constrain the new startup and its subsequent development. To assess the quality of each national entrepreneurial business context, GEM has specified different dimensions of the entrepreneurial environment common to all contexts (referred to as Entrepreneurial Framework Conditions) and surveys a group of national experts in each country to assess the quality of each framework condition. These assessments are then harmonised to provide a single figure for the quality of that entrepreneurial environment. This consistent quantitative data allow for the comparison of national entrepreneurial environments at the same time and for the evolution of a national entrepreneurial environment to be traced over time. The NES provides a crucial complement to the APS. Taken together, these unique surveys provide a detailed assessment of both the level of entrepreneurial activity in each economy and the quality of the entrepreneurial ecosystem within which that activity takes place.

1 Double-counting is avoided by subtracting the very few doing both.

Appendix 2

TABLE A2.1 The percentage of new entrepreneurs who somewhat or strongly agree with the motivation "to make a difference in the world" (2019–2023)

Country	Income group	2019	2020	2021	2022	2023
Angola	C		65.3			
Armenia	B	18.4				
Australia	A	51.7				
Austria	A		39		37.9	
Belarus	B	23.4		25.5		
Brazil	C	51.4	65.6	75.7	75.2	76.5
Burkina Faso	C		21.4			
Canada	A	67.3	66.5	70.4	64.1	62.3
Chile	B	44.9	58.4	56.6	55.1	57.6
China	B	39.7			14.7	18.2
Colombia	C	44.4	62.9	64.6	47.6	48.5
Croatia	A	35.1	39	38.7	40.8	35.5
Cyprus	A	45.1	37.5	32.2	45.3	39.7
Dominican Republic	C			72.1		
Ecuador	C	52.7				42.7
Egypt	C	57	49.2	63.4	58.7	
Estonia	A					33.4
Finland	A			40.1		
France	A			25.8	23.7	19.9
Germany	A	44.4	39.8	39.4	42.8	50.4
Greece	B	32.3	26.9	29.9	23.5	26.1
Guatemala	C	80.2	76.7	80.7	80.9	80.6
Hungary	A			61.7	66.9	45.8
India	C	86.8	80.7	75.9	80.9	83.8
Indonesia	C		44.7		48.5	
Iran	C	40.6	30.1	36.7	34.9	37.3
Ireland	A	26.9		57.8		
Israel	A	42.7	35.6	36.9	33.4	38.3

TABLE A2.1 (continued)

Country	Income group	2019	2020	2021	2022	2023
Italy	A	11	26.6	21.5		35.3
Japan	A	43.9		37.3	31.9	
Jordan	C	19.2				20.7
Kazakhstan	B		0.4	0.3		
Korea (Republic of)	A	9.4	10	9	8.4	3.9
Kuwait	A		40.1			
Latvia	A	32.5	39.8	36.9	29.3	43.5
Lithuania	A				40.8	42.4
Luxembourg	A	60.5	51.1	56.9	55.8	50.6
Madagascar	C	8.8				
Mexico	B	65.1			68.2	62.8
Morocco	C	21.8	11.8	17.6	13.5	18.2
Netherlands	A	32.3	46.6	52.7	46.8	47.7
North Macedonia	B	56.9				
Norway	A	36.6	36.7	39.2	48.0	37.4
Oman	A	49.9	47.9	43.7	32.8	42.3
Pakistan	C	70.3				
Panama	B	76.8	66.6	65.4	68.5	68.0
Poland	A	65.4	22	16	16.7	20.5
Portugal	B	41.7				
Puerto Rico	A	65.9			70.6	69.3
Qatar	A	55.5	37.6	46.5	46.9	48.6
Romania	A			65.9	81.7	66.6
Russian Federation	B	27.1	24.2	27.6		
Saudi Arabia	A	44.6	60.8	63.7	64.6	70.6
Serbia	B				21.6	
Slovak Republic	B	40.7	33.6	18.7	29.2	37.1
Slovenia	A	48.2	44.6	61.8	50.2	56.1
South Africa	C	85		81.4	80.4	61.4
Spain	A	49.4	32.3	43.2	39.3	37.6
Sudan	C			49.3		
Sweden	A	50.3	41.5	45.3	44.0	43.1
Switzerland	A	43.2	42.5	57.9	57.4	53.6

TABLE A2.1 (continued)

Country	Income group	2019	2020	2021	2022	2023
Taiwan	B	44.5	52.5		53.6	
Thailand	B					50.3
Togo	C		36.9		52.4	
Tunisia	C				31.8	
Turkey	B			34.3		
United Arab Emirates	A	51.7	52.4	66.1	54.8	
United Kingdom	A	49	57.6	53	51.9	58.8
United States	A	66.4	68.2	71.2	69.3	63.7
Uruguay	B		31.7	38.7	40.5	39.7
Venezuela	C				53.1	68.4

TABLE A2.2 National experts' assessment of the priority given by new and growing firms to (a) their social contribution, (b) their economic performance, (c) their good environmental practice, (d) their sustainability, and by their governments to (e) supporting new businesses' sustainability

Country	Income group	Social contribution	Economic performance	Good environmental practice	Sustainability	Government support for sustainability
Argentina	B	5.6	3.9	5.3	5.0	2.6
Austria	A	5.9	5.7	6.5	7.0	5.0
Brazil	C	5.0	3.6	4.3	5.1	4.3
Canada	A	5.4	5.0	5.4	5.6	5.5
Chile	B	5.6	4.7	5.3	6.2	4.5
China	B	5.6	5.7	6.0	6.9	6.9
Colombia	B	5.3	4.4	4.8	6.2	5.2
Croatia	A	5.0	5.1	5.3	5.2	4.5
Cyprus	A	4.4	4.2	5.0	4.2	3.6
Ecuador	C	5.0	4.2	4.4	5.5	3.1
Egypt	C	4.0	4.6	4.0	4.0	3.6
Estonia	A	5.8	6.6	6.5	6.8	4.6
France	A	6.5	5.3	6.2	6.1	5.8
Germany	A	5.9	5.5	6.5	6.8	4.7
Greece	B	5.2	5.1	6.0	5.3	5.3
Hungary	A	5.3	4.7	5.7	4.8	4.5
India	C	6.6	6.6	6.7	6.9	7.0
Indonesia	C	6.0	6.0	6.1	6.9	6.0
Iran	C	2.6	2.6	3.0	2.9	2.8
Israel	A	4.9	5.1	4.9	4.7	4.7
Italy	A	5.1	4.6	5.8	5.6	4.9
Japan	A	5.6	5.5	5.8	6.4	5.0
Jordan	C	4.8	4.3	4.9	5.0	4.6
Korea (Republic of)	A	5.7	6.0	6.2	7.0	6.2
Latvia	B	4.5	5.6	6.2	5.2	4.6
Lithuania	A	6.0	6.5	6.6	6.2	5.7
Luxembourg	A	5.7	5.3	5.9	5.8	5.5
Mexico	B	5.4	4.5	5.0	5.2	3.3
Morocco	C	3.9	4.5	4.2	4.3	4.1
Netherlands	A	5.7	5.5	6.0	6.1	5.7
Norway	A	6.7	5.9	6.7	7.4	6.8
Oman	A	4.5	4.6	4.9	5.6	5.0

TABLE A2.2 (continued)

Country	Income group	Social contribution	Economic performance	Good environmental practice	Sustainability	Government support for sustainability
Panama	B	5.3	4.4	5.0	5.8	4.1
Poland	A	4.6	4.5	4.9	4.8	3.2
Puerto Rico	A	4.7	4.2	5.3	5.0	3.9
Qatar	A	5.3	5.3	5.6	6.0	6.1
Romania	A	4.1	4.9	4.8	4.0	4.3
Saudi Arabia	A	6.1	6.2	5.9	6.3	6.2
Serbia	B	4.1	2.7	5.0	4.8	4.6
Slovak Republic	B	4.8	4.5	5.6	5.2	4.0
Slovenia	A	5.8	5.8	6.4	6.6	4.9
South Africa	C	4.3	4.1	4.4	4.4	4.0
Spain	A	5.0	4.5	5.5	5.4	4.6
Sweden	A	6.2	5.3	6.7	7.5	5.6
Switzerland	A	6.0	5.9	6.5	6.6	5.3
Taiwan	B	6.6	6.0	6.2	6.8	6.0
Thailand	B	4.7	4.6	5.1	5.2	4.4
Togo	C	3.6	3.9	4.1	5.3	4.5
Tunisia	C	3.8	3.8	4.2	4.1	4.6
Ukraine	C	4.6	5.3	5.4	5.6	4.1
United Arab Emirates	A	7.4	7.4	7.6	7.8	7.8
United Kingdom	A	5.8	5.0	5.5	5.7	3.9
United States	A	5.6	4.3	5.3	5.9	4.7
Uruguay	B	5.7	4.8	5.9	5.6	5.1
Venezuela	C	4.1	3.5	3.5	4.1	1.4

TABLE A2.3 The percentage of new entrepreneurs (%TEA) and established business owners (%EBO) who report they have taken steps in the past year to (a) minimise the environmental impacts (S1) and/or (b) maximise the social impacts (S2) of their business (averages for the period 2021–2023)

Country	Income group	%TEA S1	%EBO S1	%TEA S2	%EBO S2
Austria	A	51.3	57.5	45.0	44.0
Belarus	B	46.8	41.2	30.3	32.4
Brazil	C	90.2	91.1	75.1	74.6
Canada	A	63.7	63.0	58.9	50.2
Chile	B	63.0	70.3	49.2	53.8
China	B	76.7	81.2	69.6	73.0
Colombia	B	57.9	60.4	46.4	54.5
Croatia	A	65.5	69.1	56.4	57.6
Cyprus	A	53.3	52.0	42.5	45.4
Dominican Republic	C	70.8	67.1	70.3	70.7
Ecuador	C	45.5	55.9	34.8	41.2
Egypt	C	39.3	35.9	45.5	40.6
Estonia	A	41.0	41.4	23.9	19.9
Finland	A	53.3	61.9	35.2	32.2
France	A	27.9	51.1	19.3	28.6
Germany	A	51.8	55.4	47.7	38.8
Greece	B	62.9	66.8	48.7	46.2
Guatemala	C	61.1	70.2	55.6	61.0
Hungary	A	58.1	68.7	37.8	35.0
India	C	38.6	38.9	40.1	37.4
Indonesia	C	78.8	73.2	75.5	75.7
Iran	C	51.8	40.8	41.9	35.7
Ireland	A	64.4	66.5	55.0	37.4
Israel	A	37.8	43.1	43.8	40.2
Italy	A	62.4	64.9	43.2	50.3
Japan	A	52.1	51.7	44.1	38.0
Jordan	C	43.0	48.9	37.0	50.0
Kazakhstan	B	63.8	42.4	32.7	35.2
Korea (Republic of)	A	51.9	50.6	30.4	27.9
Latvia	B	45.5	56.8	36.2	31.2
Lithuania	A	39.1	53.9	53.0	50.7
Luxembourg	A	64.8	64.1	57.0	49.2
Mexico	B	62.8	67.5	38.7	63.9

TABLE A2.3 (continued)

Country	Income group	%TEA S1	%EBO S1	%TEA S2	%EBO S2
Morocco	C	29.0	36.0	46.7	37.1
Netherlands	A	46.0	56.0	27.4	43.3
Norway	A	37.0	51.0	46.8	26.5
Oman	A	46.6	49.9	64.6	47.9
Panama	B	69.6	78.7	56.6	71.4
Poland	A	56.5	68.2	59.7	73.5
Puerto Rico	A	56.5	63.5	52.1	63.8
Qatar	A	50.2	55.6	48.5	57.7
Romania	A	54.6	58.4	30.3	50.3
Russian Federation	B	36.6	39.4	54.6	26.6
Saudi Arabia	A	51.2	52.9	28.0	54.6
Serbia	B	45.9	35.4	37.1	17.3
Slovak Republic	B	50.1	54.4	31.8	33.5
Slovenia	A	38.6	48.1	46.0	25.5
South Africa	C	45.9	51.0	34.3	51.8
Spain	A	52.6	55.4	38.0	28.4
Sudan	C	57.6	64.7	57.9	62.9
Sweden	A	52.1	54.4	36.0	25.0
Switzerland	A	64.4	65.9	45.7	43.8
Taiwan	A	75.1	65.6	60.2	48.7
Thailand	B	65.9	57.7	60.5	59.5
Togo	C	52.8	45.5	43.0	36.4
Tunisia	C	30.7	47.8	32.6	45.5
Turkey	B	44.4	45.1	47.4	41.8
United Arab Emirates	A	56.2	65.6	61.6	64.2
United Kingdom	A	50.3	51.1	35.8	33.1
United States	A	53.0	46.2	50.3	37.1
Uruguay	B	53.6	61.1	46.3	46.9
Venezuela	C	45.1	60.1	43.0	64.6

TABLE A2.4 The percentage of new entrepreneurs (%TEA) and established business owners (%EBO) who agree that they always consider (a) social implications and/or (b) environmental implications when making decisions about their business

Country	Income group	%TEA social	%EBO social	%TEA environmental	%EBO environmental
Austria	A	69.3	62.3	67.4	64.4
Belarus	B	64.2	64.8	67.6	62.1
Brazil	C	89.7	87.5	88.6	90.6
Canada	A	73.8	72.1	71.2	69.1
Chile	B	86.2	83.8	88.6	88.8
China	B	80.6	71.6	84.2	87.0
Colombia	B	73.7	74.0	76.6	77.2
Croatia	A	79.5	78.6	80.7	84.2
Cyprus	A	51.5	49.6	49.4	48.5
Dominican Republic	C	81.2	73.5	79.7	64.9
Ecuador	C	65.1	66.0	67.6	70.4
Egypt	C	83.0	82.8	81.9	81.4
Estonia	A	54.9	56.8	61.6	57.1
Finland	A	64.1	71.5	72.7	74.3
France	A	70.8	58.0	70.0	65.0
Germany	A	68.1	58.6	62.6	63.3
Greece	B	73.2	69.8	79.8	78.1
Guatemala	C	93.1	90.8	93.0	90.9
Hungary	A	71.1	58.6	81.4	75.8
India	C	88.4	84.8	79.2	81.3
Indonesia	C	88.6	83.3	84.1	80.0
Iran	C	62.3	44.2	58.7	38.8
Ireland	A	77.5	65.9	76.4	71.7
Israel	A	57.3	50.0	48.5	43.2
Italy	A	79.7	77.6	80.0	76.3
Japan	A	68.1	57.7	60.8	64.5
Jordan	C	79.6	74.3	72.1	67.8
Kazakhstan	B	51.8	30.4	50.1	32.9
Korea (Republic of)	A	64.8	58.8	59.4	75.8
Latvia	B	76.2	68.2	78.9	74.4
Lithuania	A	66.0	80.8	64.3	75.4
Luxembourg	A	77.0	81.9	76.5	77.5
Mexico	B	83.9	84.0	85.6	84.5

TABLE A2.4 (continued)

Country	Income group	%TEA social	%EBO social	%TEA environmental	%EBO environmental
Morocco	C	69.0	63.9	69.9	70.6
Netherlands	A	66.0	66.1	64.3	67.2
Norway	A	46.4	55.9	59.4	66.1
Oman	A	66.6	68.0	65.0	70.8
Panama	B	85.7	83.1	91.0	89.1
Poland	A	86.1	92.2	85.7	90.0
Puerto Rico	A	89.4	87.7	90.1	90.7
Qatar	A	82.8	83.9	84.3	83.1
Romania	A	84.7	78.5	83.9	82.5
Russian Federation	B	63.3	64.5	66.4	69.6
Saudi Arabia	A	82.2	78.3	79.7	74.5
Serbia	B	74.0	75.3	78.3	77.6
Slovak Republic	B	76.4	75.6	72.8	75.0
Slovenia	A	81.0	86.9	87.5	88.5
South Africa	C	75.5	75.6	67.0	70.4
Spain	A	65.3	66.0	65.2	70.9
Sudan	C	82.1	85.1	81.0	90.1
Sweden	A	60.1	57.5	58.3	56.9
Switzerland	A	74.2	68.9	74.8	71.1
Taiwan	A	90.9	77.6	87.4	80.3
Thailand	B	87.4	74.4	87.8	85.6
Togo	C	75.4	61.1	70.4	54.3
Tunisia	C	86.2	90.1	88.3	91.1
Turkey	B	79.0	78.9	89.5	89.4
United Arab Emirates	A	91.8	89.3	89.5	85.5
United Kingdom	A	76.2	68.1	72.9	65.8
United States	A	72.0	54.6	68.5	55.6
Uruguay	B	86.1	76.8	87.9	87.0
Venezuela	C	88.9	87.9	87.8	86.9

TABLE A2.5 The percentage of adults who are new entrepreneurs or established business owners (and corresponding percentages of each) and who report that they:
- agree with the motivation "to make a difference in the world";
- have taken action in the past year to minimise environmental and/or maximise social impacts;
- always consider social and/or environmental implications when making decisions; and
- prioritise sustainability over profitability or growth

Country	%adults (TEA)	%adults (EBO)	%TEA	%EBO
Austria	1.2	1.4	18.4	16.6
Belarus	1.4	0.6	10.6	10.0
Brazil	12.1	5.8	60.8	54.2
Canada	7.8	2.5	41.5	34.2
Chile	10.4	2.2	35.5	33.5
China	0.5	0.4	8.8	10.6
Colombia	6.2	1.0	29.3	30.4
Croatia	2.9	1.0	22.6	24.2
Cyprus	1.1	0.6	12.4	8.4
Dominican Republic	8.6	1.7	20.6	43.1
Ecuador	5.1	3.7	15.5	15.4
Egypt	2.2	0.8	27.2	25.5
Estonia	1.3	0.7	9.7	8.3
Finland	1.6	1.6	20.5	18.1
France	0.5	0.3	5.6	9.0
Germany	1.6	0.8	20.4	18.4
Greece	0.6	1.9	10.9	13.2
Guatemala	15.3	6.7	51.2	53.7
Hungary	2.0	1.2	20.7	15.9
India	4.3	3.1	33.9	29.5
Indonesia	2.5	1.3	30.4	23.7
Iran	1.8	0.7	14.7	7.6
Ireland	4.6	2.3	36.6	33.7
Israel	1.0	0.4	11.2	12.7
Italy	1.0	0.7	14.7	21.9
Japan	1.1	0.5	16.9	9.7
Jordan	1.9	1.6	12.2	21.9
Kazakhstan	0.1	0.1	0.3	0.4
Korea (Republic of)	0.3	0.1	2.1	0.4
Latvia	2.0	0.9	13.6	8.8
Lithuania	1.8	2.9	17.7	24.7

TABLE A2.5 (continued)

Country	%adults (TEA)	%adults (EBO)	%TEA	%EBO
Luxembourg	2.2	0.8	28.3	18.7
Mexico	5.7	1.1	38.4	44.0
Morocco	0.3	0.3	5.6	4.6
Netherlands	3.1	1.1	22.7	16.8
Norway	0.5	0.5	8.5	9.0
Oman	1.6	0.5	13.6	15.4
Panama	12.1	2.3	44.7	47.6
Poland	0.1	0.4	3.1	3.7
Puerto Rico	8.2	2.3	38.8	39.4
Qatar	3.1	1.4	22.4	29.0
Romania	2.8	2.1	35.8	31.1
Russian Federation	0.8	0.1	9.9	4.3
Saudi Arabia	8.1	4.3	36.5	37.2
Serbia	1.1	0.1	10.5	3.2
Slovak Republic	1.1	0.6	11.6	11.8
Slovenia	1.8	2.1	25.5	24.6
South Africa	2.5	1.3	24.3	32.3
Spain	1.1	1.0	18.9	13.6
Sudan	11.4	2.6	34.0	32.1
Sweden	1.6	0.7	17.9	15.2
Switzerland	2.4	1.6	26.1	22.9
Taiwan	1.7	1.3	30.1	14.5
Thailand	8.3	3.2	35.0	26.9
Togo	7.9	4.9	32.9	27.3
Tunisia	1.6	0.8	9.2	8.4
Turkey	2.3	2.1	14.4	19.1
United Arab Emirates	8.5	2.5	41.4	44.5
United Kingdom	3.6	1.5	28.8	24.2
United States	6.1	2.2	36.2	26.4
Uruguay	5.5	1.2	21.8	19.2
Venezuela	5.2	0.9	26.0	23.4

TABLE A2.6 The percentage of new entrepreneurs (%TEA) and of established business owners (%EBO) who are aware of the United Nations Sustainable Development Goals (SDGs) and the percentage of these who have identified at least one SDG as an objective for their business

Awareness of SDGs					
Income group	**Country**	**%TEA**	**Income group**	**Country**	**%EBO**
C	Morocco	3.0	C	Ecuador	4.1
	Ecuador	4.2		Morocco	4.2
	Jordan	5.9		Jordan	5.4
	Tunisia	6.5		Togo	7.0
	Indonesia	6.9		Tunisia	9.3
	Egypt	9.0		Sudan	9.7
	India	10.6		Indonesia	12.6
	Sudan	10.8		India	10.6
	Togo	22.9		Egypt	13.9
	Dominican Republic	24.0		South Africa	26.6
	South Africa	24.2		Dominican Republic	32.4
B	Kazakhstan	5.8	B	Kazakhstan	1.0
	Colombia	12.4		Serbia	11.6
	Serbia	12.4		Uruguay	12.4
	Belarus	13.1		Chile	14.1
	Uruguay	13.3		Colombia	14.2
	Mexico	14.8		Belarus	15.5
	Chile	18.0		Turkey	18.2
	Greece	23.1		Slovak Republic	19.0
	Turkey	25.1		Greece	19.8
	Slovak Republic	25.2		Latvia	20.0
	Latvia	26.2		Mexico	22.3
	China	35.4		Thailand	25.8
	Thailand	36.8		China	44.8
A	Cyprus	14.3	A	Cyprus	12.9
	Qatar	18.0		Switzerland	18.4
	Estonia	19.0		Korea (Republic of)	18.5
	Israel	19.6		Israel	18.7
	Romania	22.6		Qatar	18.9
	Lithuania	22.7		Slovenia	20.4
	Hungary	25.3		Estonia	23.5
	Croatia	26.7		Taiwan	23.6

TABLE A2.6 (continued)

Awareness of SDGs					
Income group	**Country**	**%TEA**	**Income group**	**Country**	**%EBO**
A	United States	27.5	A	Hungary	25.0
	Slovenia	27.6		Austria	25.7
	Austria	30.4		Spain	27.6
	United Arab Emirates	31.1		France	28.0
	Korea (Republic of)	31.2		Canada	28.0
	Taiwan	31.6		Romania	29.4
	Spain	32.1		Croatia	30.3
	Canada	32.1		Netherlands	31.4
	France	32.4		United Arab Emirates	31.9
	Switzerland	32.5		Italy	34.3
	Netherlands	40.6		Lithuania	36.6
	Luxembourg	41.4		United States	36.8
	Poland	43.3		Luxembourg	40.7
	Italy	46.2		Norway	50.3
	Norway	50.3		Poland	61.8

TABLE A2.6 (continued)

Have identified at least one SDG as an objective					
Income group	Country	%TEA	Income group	Country	%EBO
C	Ecuador	47.7	C	Jordan	34.4
	Egypt	54.0		Morocco	41.3
	Dominican Republic	54.7		Egypt	51.5
	Tunisia	55.7		Dominican Republic	52.6
	Jordan	61.3		Ecuador	60.7
	India	62.3		Togo	62.7
	Togo	66.9		South Africa	69.5
	Morocco	71.7		Sudan	72.6
	South Africa	73.7		India	78.2
	Sudan	78.4		Tunisia	79.7
	Indonesia	79.6	B	Colombia	32.0
B	Colombia	48.9		Uruguay	39.1
	Uruguay	51.3		Chile	41.4
	Latvia	52.5		Serbia	46.4
	Turkey	52.5		Turkey	49.2
	Chile	54.2		Greece	52.4
	Belarus	61.2		Latvia	54.3
	Slovak Republic	61.8		Thailand	62.3
	Greece	63.4		Slovak Republic	66.8
	Thailand	74.8		Belarus	73.1
	Mexico	76.4		Mexico	80.1
	Serbia	79.3		China	87.9
	China	82.8		Kazakhstan	100.0
	Kazakhstan	84.9	A	Estonia	15.9
A	Estonia	27.9		United States	19.4
	Korea (Republic of)	31.2		Korea (Republic of)	20.6
	Norway	38.7		France	30.6
	France	45.9		Israel	38.0
	Slovenia	46.2		Norway	38.3
	United States	49.4		Spain	39.3
	Israel	51.4		Austria	39.7
	Austria	51.6		Cyprus	42.4

TABLE A2.6 (continued)

Have identified at least one SDG as an objective					
Income group	**Country**	**%TEA**	**Income group**	**Country**	**%EBO**
A	Switzerland	53.6	A	Canada	43.1
	Spain	56.5		Slovenia	45.4
	Canada	56.8		Switzerland	47.3
	Cyprus	57.9		Poland	54.5
	Netherlands	59.4		Italy	55.8
	Italy	61.3		Netherlands	56.1
	Romania	62.1		Luxembourg	64.2
	Luxembourg	62.6		Hungary	65.0
	Poland	65.0		Lithuania	65.5
	Croatia	65.9		Romania	73.0
	Hungary	67.4		Taiwan	75.2
	Lithuania	68.3		Qatar	76.3
	Qatar	74.6		Croatia	77.3
	Taiwan	75.1		United Arab Emirates	79.6
	United Arab Emirates	81.0			

ABOUT GEM

Entrepreneurship matters! It drives societal health economic growth. Innovation is unleashed. Jobs are created. New opportunities come to fruition. Some of society's greatest challenges are addressed (such as the United Nations Sustainable Development Goals).

During its 25+ years of existence, Global Entrepreneurship Monitor (GEM) has repeatedly provided valuable insights on how best to foster entrepreneurship to propel prosperity. GEM is a networked consortium of National Teams, primarily associated with top academic institutions, that carries out survey-based research on entrepreneurship and entrepreneurship ecosystems around the world. It is the only global research source that collects data directly from entrepreneurs. Based on these entrepreneurs' insights, GEM publishes the annual Global Report as well as a range of National Reports and special topic reports.

The go-to source for policymakers

Governments increasingly need credible data to make key decisions that stimulate sustainable forms of entrepreneurship. Official statistics, like the number of registered businesses, capture a very small part of the picture. Stakeholders need to understand on-the-ground perceptions directly from entrepreneurs. Thus, by using GEM research, government officials make better-informed decisions to help entrepreneurs and entrepreneurial ecosystems thrive.

Many other stakeholders also benefit:

- Academics are able to apply unique methodological approaches to studying entrepreneurship at the national level.
- Sponsors advance their organisational interests and gain a higher profile.
- International organisations incorporate or integrate GEM indicators into their own data sets and/or use GEM data as a benchmark for their own analyses.
- Entrepreneurs have better knowledge on where to invest and how to influence key stakeholders.

25+ years of impact

GEM has been generating impact for more than a quarter century! This means:

- 25+ years of data, allowing longitudinal analysis in and across geographies on multiple levels;
- up to 170,000+ interviews annually with experts and adult populations including entrepreneurs of all ages;
- data from 120 economies across five continents;
- collaboration with 370+ specialists in entrepreneurship research;
- involvement of 150+ academic and research institutions; and
- support from 150+ funding institutions.

In the world of university research, 25+ years is a very long time! Most common are short-lived projects dictated by the longevity of PhD theses. GEM has created both immediate and generational benefits. Not many research projects can make a similar claim!

The beginning

Professors Bill Bygrave of Babson College and Michael Hay of London Business School co-created GEM in the late 1990s. Did they dare to imagine that this "light bulb" research idea would last so long? They were particularly visionary academics, so the answer is a resounding "Yes!"

GEM's first annual study covered 10 countries. Since then, some 120 countries have participated in the research. This enabled GEM to become the richest source of reliable information on the state of entrepreneurship and entrepreneurial ecosystems across the globe.

Moving forward

GEM has become much more than a project. It is a networked organisation. Currently, there are 60+ National Teams comprised of hundreds of passionate researchers. Moving forward, GEM aims for a long-term future. The data generated will never lose relevance as economies seek to grow and thrive, and as the world seeks innovative solutions to some of the greatest threats facing the world. GEM will undoubtedly continue to be a fundamental study for generating knowledge about new ventures and their subsequent economic and social impacts around the world. Join us on the journey!

GEM Key Definitions, Abbreviations and Indicators

APS	Adult Population Survey
CSR	corporate social responsibility
EPI	Environmental Performance Index
ESG	environmental, social and governance
GDP	gross domestic product
GEM	Global Entrepreneurship Monitor
NES	National Expert Survey
SDG	Sustainable Development Goal
SME	small and medium-sized enterprise
SPI	Social Progress Index
SSE	social and solidarity economy
UN	United Nations

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*** GRIPs = GEM Research & Innovation Projects**

Sponsor GEM

Most stakeholders want to advance entrepreneurial activity. But it is difficult to make informed decisions without having the right data. GEM fills this void. Watch this short video to learn why many organisations – such as Babson College, Cartier Women's Initiative, Fribourg School of Management, Shopify and the Women Entrepreneurs Finance Initiative – sponsor GEM, the world's longest-running study of entrepreneurship.

(Click on the image or go to https://www.youtube.com/watch?v=UAFWuMSUxJE.)

Entrepreneurship fuels economic growth, drives innovation, creates jobs and tackles global challenges. Global Entrepreneurship Monitor (GEM) has repeatedly provided valuable insights on how best to foster entrepreneurship to propel prosperity.

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GEM began in 1999 as a joint project between Babson College and London Business School. Today there are 60+ National Teams. Join us on the journey of shaping entrepreneurship worldwide!

GEM Global Entrepreneurship Monitor