

The Human Factor: The Fundamental Driver of Innovation



The fundamental driver behind any innovation process is the human factor associated with it. We observe that some nations take the lead in innovation capability over others. A major factor for this disparity of innovation prowess is the quality of human capital linked to the innovation activities carried out in these nations. Other factors, such as technology and capital, also influence the innovation process; these directly correlate with the human factor. Hence nurturing human capital at all levels and in all sections of society can be crucial for developing the foundation for innovation.

Across the world, talented human capital is formed in two primary ways. First, each nation creates the infrastructure (by creating schools and colleges and other academic/R&D institutions) to enhance the knowledge of its population in various technological and non-technological fields of study by providing both basic and advanced teaching and R&D facilities. Second, a nation attracts talented human capital from other parts of the world by providing suitable incentives, and then grooms and employs these workers in various innovation activities. The nation that can nurture and attract the best talent becomes the innovation trendsetter. For example, the United States of America has successfully built its innovation ecosystem by attracting the best brains in the world. US universities have been exceptionally effective in their quest to engage some of the most prominent people in the world, and have simultaneously created an ecosystem for entrepreneurs who have been able to establish some of the globe's biggest organizations. The crux of this success has always been the people who have been able to find the right kind of incentives in the US system that allow them to pursue their innovation dream.

In today's world, innovation is a subject of great importance because it stimulates sustainable growth in a highly competitive market. Scholars across the world are studying innovation in great detail and trying to determine the different parameters that influence its behaviour. Actors such as institutions, industry, academia, and

government, along with factors such as R&D, funding, incubation, mentoring, infrastructure, markets, and businesses, have all been identified as crucial to any innovation ecosystem. But at the heart of all innovation lies the human factor, identified as its soul and purpose. The message is very clear: in order to build an innovation-driven nation we need to educate our people well, and to provide them enough resources and incentives to chase their dreams. Innovation will follow. India, with its billion plus population—the youngest population in terms of the number of people below the age of 30—is in a position to create unprecedented opportunities domestically as well as globally to drive future innovations. But this can happen only if India can drive its human capital effectively towards a knowledge economy.

The theme of the current edition of Global Innovation Index is very apt. It tries to capture the nuances of the human factor that is responsible for innovation and growth. The different chapters of this report illustrate how human capital influences innovation trends and how nations in the developing world struggle to innovate to their full potential by providing inadequate infrastructure for education. Chapter 4, for example, presents the case of India, which now has an opportunity to make its education system into a source of high-quality graduates in areas such as engineering, basic sciences, and liberal arts; these highly qualified workers will contribute to India's innovative capacity.

I thank the entire GII team and all other Knowledge Partners in this report for coming up once again with this wonderful edition. I feel humble to have been part of this report for last few years and hope that this edition of the GII, like all previous editions, may strengthen the tools of policy makers across the world to enable them to make the right decisions for stimulating innovation.

Thank you.

CHANDRAJIT BANERJEE
 Director General
 Confederation of Indian Industry

The Connected Human Factor: The Heart of Innovation



Throughout the last decade, the United Arab Emirates (UAE) has made great strides in diversifying its economy, enabling it to establish its next growth chapter through its strategic plan, Vision 2021. The vision calls for the UAE to transform its economy into one where growth is driven by both knowledge and innovation. And with Dubai winning the right to host Expo 2020 and its ambition of becoming the global capital of the Islamic economy, the UAE is on the fast track to achieving its objectives.

It is without a doubt that this year's theme, the 'Human Factor in Innovation', is at the centre of the UAE government's Vision 2021 of becoming a knowledge-based economy. A core pillar of this vision is to actively embed digital solutions in everyday lives to guarantee efficient connectedness among citizens, researchers, entrepreneurs, businesses, and government. Connectivity and broadband have become essential requirements for human well-being, and the people of the UAE are continuously and increasingly inspired by the vision of the nation's leadership as the country progresses towards a 'smart' future. The UAE's Smart Government and Dubai's Smart City initiatives will pave the way for some of the most innovative digital applications available, which in turn will further enable the human factor through better, faster, and smarter communication and knowledge diffusion. That is what a smart city is all about—creating a better life for people in a happier, more connected world.

We at du are proud to play an active role in supporting the achievement of the UAE's vision by accelerating innovation and helping to make it accessible to everyone. Connected innovation—in particular the benefits of connectedness for the human factor in innovation—is at the heart of du and the company's aspirations.

We are working extensively with our partners to create citizen-centric services, smart devices, and connected ecosystems that will benefit our whole community. These solutions are not only in line with the national vision, but will also become the showcase for

international cities aspiring to become digital-enabled. They will empower and facilitate creativity, business acumen, interaction, and the lives of all UAE residents and tourists.

As a key player in the UAE's economy, we are working hand-in-hand with national and international players to ensure that the country's innovation ecosystem is conducive for the next evolution as described in Vision 2021. We have a dream of connected innovation and want to share it with everyone. We owe it to our leaders, our citizens, our customers, our employees, and ourselves to ensure that the country can enjoy the benefits of a knowledge-based economy, powered by connectedness. The GII 2014 report provides tools that we, and every economy wanting to enhance its innovation capacity, can use.

OSMAN SULTAN
Chief Executive Officer
du

Human-Centric Innovation: Inspired Talent Is the Engine of Innovation



Humans have always improved life through innovation. From the discovery of fire to electricity, the Internet and beyond, new thinking is fundamental to social progress and economic growth. At its most effective, innovation is an inherently human endeavour. Successful innovation happens when people with skills, experience, and capabilities come together to understand or predict, and then address, other people's challenges. Talent, like capital and technology, is a key success factor for innovation. Inspiring potential talent will drive innovation and growth.

Education is a fundamental element in innovation and access to both basic and vocational education is key to talent development. Countries should invest more in education, building the human infrastructure to drive innovation and growth. It is equally important for industries and businesses to get involved in enhancing education systems. Advances in information and communication technologies (ICT) in recent years played a crucial role in transforming traditional education and making it more accessible, affordable, and effective globally. To support this, Huawei developed Telecom Seeds for the Future, a programme to develop local ICT talent, promote understanding and interest in ICTs, and develop participation in the digital community. Through this programme we have established 16 training centres where over 10,000 ICT students worldwide have been trained.

Businesses should build platforms for talent to thrive. Solid education sets the foundation for talent's future growth but is only the beginning. Professional practices in businesses and organizations are more important in cultivating talent. At the same time, success of talent brings business success. That is why Huawei is building a global platform for talented people to work and innovate together, share the value created, and realize their dreams.

Under Huawei's talent pyramid model, young professionals can grow on either our management or subject expert tracks. We encourage innovation by electing our

most exceptional thinkers as prestigious Huawei Fellows and our layered reward model with tangible and intangible benefits enables high-performing employees to share in short-term monetary returns as well as long-term incentives. We also tailor policies and training to best suit different cultures and talent types, and we help employees better understand and live our core corporate values.

Global innovation needs global talent. To be successful in business today, when capital, goods, talent, and knowledge move quickly around the world, we need to treat global markets as a single market, building global value chains that integrate the world's best resources. By doing this, local innovation is promoted and used globally, making local innovation truly valuable in the global ecosystem. Huawei has put this theory into practice by integrating the world's top resources. Our 16 R&D centres in resource-rich locations, 28 joint-innovation centres, and more than 40 professional competency centres transform our global value chain into a larger global innovation platform that enables customers worldwide to access innovations from all over the world in the shortest time possible.

We are proud to be a Knowledge Partner for the Global Innovation Index in 2014 and explore the role and highlight the importance of human capital in fostering innovation. Like many institutions around the world, we are focused on finding and sharing best practice and developing and nurturing our most important resource, our people. The 2014 GII report will further the discussions needed among people so we can learn from each other and create an open and effective innovation environment. For Huawei, our commitment helps us deliver a major objective—to enable better connected people, societies, and countries, and ultimately a better connected world.

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Huawei