

Towards the ITU Regional Innovation Forum for Europe: "Accelerating innovation, entrepreneurship and digital transformation in Europe."

01 July 2021

Organised by ITU

Event Summary

© 2021 ITU International Telecommunication Union

Version 1.0

TABLE OF CONTENTS

EVENT SUMMARY	3
ABOUT THE EVENT	4
PARTICIPATION AND DOCUMENTATION	4
SESSIONS	5
Opening segment	5
Accelerating innovation, entrepreneurship and digital transformation	6
Closing remarks	12
ITU REGIONAL GOOD PRACTICE REPORT: "ACCELERATING INNOVATION, ENTREPRENEURSHIP A	ND DIGITAL
TRANSFORMATION IN EUROPE."	13
Executive summary	13

EVENT SUMMARY

Towards the ITU Regional Innovation Forum for Europe: "Accelerating innovation, entrepreneurship and digital transformation — Europe" was organised by the International Telecommunication Union (ITU) Office for Europe. This regional event, which was conducted within the framework of the ITU Regional Initiative for Europe on ICT Centric Innovation Ecosystems, was held on **1 July 2021 from 12:00** - **13:30 CEST.** The event was the first step towards <u>the ITU Regional Innovation Forum for</u> <u>Europe</u>, taking place from 22-23 September 2021 as part of the ITU Global Innovation Forum.

The virtual event was followed and viewed by over **300 individuals** via Zoom platform, Twitter and YouTube live streams and supported with English captioning. The full event webpage including agenda and presentations can be accessed <u>here</u>. The recorded live stream on Youtube is available <u>here</u>. A full transcript of the event will also be made available on the event web page.

The event was dedicated to the launching of the ITU Regional Good Practice Report: "Accelerating innovation, entrepreneurship and digital transformation in Europe". The main overview and key findings of the report were presented during the session. Four innovation stakeholders from Albania, Georgia, Serbia, and Sweden presented their countrys' digital transformation journey based on the three engines of growth, as well as presenting their good practices highlighted in the report and the positive impact on the ecosystem development.

ABOUT THE EVENT

The launch of the ITU Regional Good Practice Report: "Accelerating innovation, entrepreneurship and digital transformation —Europe" was organised virtually on **1 July 2021, 12:00-13:30 CEST**. <u>This</u> <u>regional event</u> was organised within the framework of the ITU Regional Initiative for Europe on ICT Centric Innovation Ecosystems.

This launch event aimed to disseminate the research findings of opportunities inherent in accelerating digital transformation in Europe. The event was the first step towards the <u>ITU Regional Innovation</u> Forum for Europe, taking place from **22-23 September 2021** as part of the ITU Global Innovation Forum. The event participants received a better understanding of the critical enablers and linkages needed to foster ICT-centric innovation. This knowledge was amplified by the opportunity to discover the good practices that serve as a basis for strengthening national digital innovation ecosystems all across the European region.

The Regional Good Practices Report: Accelerating innovation, entrepreneurship and digital transformation in Europe was the first report in a series that will focus on good practices from each ITU region. It gives an understanding of the European region's ICT-centric innovation ecosystem and its ICT-centric innovation capacity based on the three engines of growth (technology ecosystem, entrepreneurial ecosystem, and innovation ecosystem). It also provides a comparative ranking of the region's ICT-centric innovation ecosystems and identifies good practices from Europe that can be used to build sustainable digital innovation ecosystems with ITU's digital innovation framework. The event engaged all interested stakeholders at the Europe region level contributing to promoting the ICT centric ecosystems.

Download the report on this link: <u>https://www.itu.int/en/ITU-D/Regional-</u> Presence/Europe/Documents/Publications/GOOD_PRACT.03-2021-PDF-E.pdf

PARTICIPATION AND DOCUMENTATION

<u>Towards the ITU Regional Innovation Forum for Europe: "Accelerating innovation, entrepreneurship</u> <u>and digital transformation — Europe"</u> was followed and viewed by over **300 individuals** through Zoom platform, Twitter Livestream, and YouTube Livestream.

The event was held virtually. Relevant documentation was made available in electronic form on the event web page <u>here</u>. The session was supported with **English captioning**, and the edited caption text is made available on the event page. **Video recordings and presentations** of the event and this outcome report are also available on the event website. The event has also been **livestreamed** on Twitter (click <u>the link to Twitter live stream</u> to view) and YouTube (click <u>the link to YouTube</u> to view). Details about the agenda and speakers can be found on the event's website (<u>the link to the event</u> <u>website</u>).



Figure 1 – Snapshot of the event and virtual group photo

SESSIONS

OPENING SEGMENT

Jaroslaw Ponder, Head, ITU Office for Europe

In his opening remark, Mr Jaroslaw Ponder emphasised the event as an important milestone as it is dedicated to the launch of the ITU Regional Good Practice Report for Europe, which aims at strengthening the engagement of the European innovation community in the implementation of the Regional Initiative for Europe on ICT Centric Innovation Ecosystems.

In the Europe region, there is a gap among countries in mobilising entrepreneurs, entrepreneurial support organisations, academia, public and private sector stakeholders and financiers to foster the country's digital transformation. To overcome this divide, Mr Ponder further highlighted that countries should take advantage of collaboration and exchange of best practices with more developed ICT-centric ecosystems and design new innovative solutions to accelerate digital transformation.

Mr Ponder also used the opportunity to introduce the objectives of the ITU Regional Good Practice Report for Europe. The report aims to support and equip countries with the right tools and knowledge for harnessing their ambitions in fostering digital transformation by providing an overview of the innovation capacity of the European region through ICT-centric innovation activity comparison. It also offers an insight into how good practices can strengthen the capacity to integrate ICT innovation into national development agendas. Mr Ponder closed his remarks by delivering his appreciation to the distinguished speakers who have made themselves available for this important event.

ACCELERATING INNOVATION, ENTREPRENEURSHIP AND DIGITAL TRANSFORMATION

Focus: This session drove a multistakeholder discussion on the good practices highlighted in the Regional Good Practice Report based on the enablers of digital transformation.

Moderator: Valentina Stadnic, Consultant, ITU Office for Europe

Speakers:

- Katarzyna Jakimowicz, Digital Innovation Ecosystem Expert, ITU Office for Europe
- Annie Vashakmadze, Head of Department for International Relations and Relations with Donors, Georgia's Innovation and Technology Agency (GITA)
- Jens von Axelson, Programme Manager, Challenge-Driven Innovation, Vinnova Sweden's Innovation Agency
- Olgeta Dhono, IT Director, National Agency for Information Society (NAIS), Albania
- Ivana Kostić, Co-Founder, Health-Tech Lab, Serbia

Background presentations

<u>Report overview: Katarzyna Jakimowicz, Digital Innovation Ecosystem Expert, ITU Office for</u> <u>Europe</u>

- The report aims to provide evidence-based guidance on measuring innovation capacity in the European region and countries. It provides insights on good practices that innovation champions can replicate in the countries to help mainstream vibrant digital innovation ecosystems conducive to a national digital transformation.
- The report's methodology is based on the ITU Digital Innovation Framework, which has been developed in 2017 and updated in 2020 with a toolkit for developing sustainable ICT-centric ecosystem projects. The underlying idea of the framework is that the ecosystem is a combination of three engines of growth: technology ecosystem, innovation ecosystem, and entrepreneurship ecosystem. The synchronising of these three ecosystems is pivotal in making a thriving ICT-centric innovation ecosystem.
- ITU developed a colour coding system to illustrate the state of innovation capacity at the
 national level. The colour coding system uses three different colours: green indicates strong
 performance and presence of good practices; yellow indicates insufficient performance but
 the presence of some good practices; red indicates poor performance and absence of or very
 few good practices.
- Based on the report's findings, countries in the Europe region show strong performance and presence of good practices (indicated by green) and insufficient performance but the presence of some good practices (indicated by yellow) in the three engines of growth. None of the

countries in Europe perform poorly (indicated by red).¹ There is a distinct division between European Union (EU) countries and the United Kingdom (UK) and non-European Union country performances. The EU countries and the United Kingdom tend to perform better than other non-EU countries.

European countries' performances on ICT-centric policy and strategy and enablers of digital transformation are also covered in the report. The European Member States generally show moderate performances across seven enablers of digital transformation, which leaves plenty of room for progress.² Among the seven enablers, the markets and networks dimension requires the most attention, which implies collaboration between ecosystems stakeholders and international cooperation and connection to other markets still needs quite a lot of work in most countries.

<u>Vision and strategy: Annie Vashakmadze, Head of Department for International Relations and</u> <u>Relations with Donors, Georgia's Innovation and Technology Agency (GITA)</u>

- Under the supervision of the Ministry of Economy and Sustainable Development of Georgia, GITA is the main coordinator and mediator in the process of implementing national innovation policy. The principal mandate of GITA includes to: a) create an entrepreneurial ecosystem and coordinate its development process; b) stimulate innovation, modern technologies and Research and Development (R&D), facilitate commercialisation and usage of R&D; and c) provide support to innovative startups and their competitiveness growth, facilitate cooperation between the representatives of scientists and business, promote digital literacy all over the country.
- GITA provides various support and opportunities tailored to the development stage of a startup from entities with no idea, having product prototype, to growth focus. For instance, a startup with a prototype can apply for a matching grant, one of Georgia's popular financial access. Legal and International Patents support is provided throughout the maturity level.
- One project highlight from GITA is the Technology Transfer Pilot (TPP) project. The project aims to offer universities and research entities opportunities to commercialise their ideas and apply their research. In this context, GITA facilitates the communication between international universities, identifies existing research projects and defines the level of technology and business readiness, and integrates the selected projects to the commercial market with the support of industrial stakeholders.
- In regards to capacity development, GITA announced a programme to give free training to 3000 IT specialists with certification and employment opportunities embedded in the programme. To accelerate the training and creation of ICT specialists demand, the government provides tax incentives for international ICT companies to enter Georgia.
- One essential component of GITA's programmes is having Silicon Valley as one of the stakeholders. Georgia has been building the bridge to Silicon Valley since 2015 by inviting experts from the famous ecosystem leaders to assess the process of startups acceleration and having local startups pitch in front of them. This results in one important milestone with the

¹ Find the full table of the performance of three engines of growth for ICT-centric innovation of the Europe Region by country in the Regional Good Practices Report: Accelerating innovation, entrepreneurship and digital transformation in Europe, p. 8-11).

² The seven enablers of digital transformation: (a) vision and strategy, (b) infrastructure and programmes, (c) talent and champions, (d) capital and resources, (e) markets and networks, (f) culture and communities, and (g) regulation and policy.

launch of <u>500 Georgia</u>, Georgia's first international acceleration programme, a partnership between 500 (world's leading accelerator), GITA, and Bank of Georgia (who provides access to financial mechanisms).

<u>Infrastructure and programmes: Jens von Axelson, Programme Manager, Challenge-Driven</u> <u>Innovation, Vinnova – Sweden's Innovation Agency</u>

Key points:

- VINNOVA is the Swedish Innovation Agency organised under the Ministry of Innovation. Sweden has quite a broad range of actors in its innovation ecosystem. There are many different enterprises and different organisations that fund innovation in Sweden, which implies the need to be able to cooperate in a broader way.
- Currently, VINNOVA builds its focus on ten different areas of innovation derived from two overarching themes: 1) Societal challenges (sustainable food systems, sustainable industry, sustainable mobility systems, sustainable precision health, and sustainable built environments); 2) Innovative abilities (digital transformation, ecosystem for innovative companies, emerging innovations, future skills supply, and transformative public sector and civil society).
- Challenge Driven Innovation (CDI) is one of VINNOVA programmes with five basic principles that VINNOVA is striving for: 1) Challenge in focus Societal challenges which are approached not only with one solution; 2) Innovation with System perspective Identifying how grant applicants can look upon problems as part of the system, identify the issue within the system, and how to fix it; 3) Cross collaboration A strong existing need for multistakeholder collaboration including private companies, societal actors, universities and research institutes; 4) Long-term funding, which is divided into three steps; and 5) Contribution to SDGs.
- These are the prerequisites to achieve successful forces gathering for a sustainable digitalised society in Sweden: 1) The existence of strategic governance, coordination and collaboration between key actors; 2) Purposeful, powerful and long-term government investments in strategic dialogue and collaboration with business and the public sector to create conditions and to solve societal challenges; and 3) Systematic collaboration for proactivity, renewable capacity and continuous learning in the national concentration.
- Based on the CDI programme, it could be seen that a higher level of coordination is needed, with a mission-oriented programme as an umbrella. Also, top-down perspectives need to be met with bottom-up perspectives, which require a strong ability to cooperate between actors.

<u>Talent and champions: Olgeta Dhono, IT Director, National Agency for Information Society (NAIS),</u> <u>Albania</u>

- The National Agency of Information Society has become one of the umbrella institutions in Albania in developing and implementing projects and key services concerning innovation supports, and from November 2017, adding to its portfolio through the Digital Transformation agenda and has widened the activity in technical and human capacities. Through the Digital Transformation agenda, Albania aims to offer better services to the citizens, businesses, administration.
- One of Digital Transformation main objectives is to have the government's portal operating as a one-stop single access point for citizens to access public services. Around two million users are registered in 1,207 online services currently offered, which made up 95% of all public services. As a result of platform interoperability, 63% of the data are filled automatically in

the application process. The agency aims to eliminate the need for citizens to have accompanying documents and shift the burden to the public administration.

- In the Albanian innovation ecosystem, the government supports innovation through various programmes, such as creating an innovation hub to facilitate idea development processes and collaboration agreements with ICT universities and vocational schools. Albania also aims to create an easy and accessible environment for startups and SMEs through facilitating a one-stop administration process, where business entities can complete virtually the entire cycle it needs, from opening a new business, applications for permits and licenses, paying taxes, submitting balance sheets, and tax payments. Collaborations with local and international companies are also established to support startups and SMEs in building their capacities.
- Tech Space is one of the government initiatives supporting innovation. It is the largest technological lab in Albania, founded by the government in February 2019, which aims to support startups and students to reinforce and encourage them in delivering projects and ideas in ICTs. Tech Space has more than 1200 registered young people and more than 90 startup-business ideas. Tech Space's activities including incubation programmes that provide professional consulting by experts in various areas, job fairs to connect ICT students and private companies, and support to Coding Academy.
- One of Tech Space's program highlights is "Start-up Program 2020-Roadmap to Silicon Valley", which curates 25 startups to be trained through an intensive series of workshops by international experts. The programme provides supervision and mentoring, training, and other specific consultancies depending on the startups' needs. A visit to Silicon Valley, the final part of the programme, has been postponed due to COVID-19.

Culture and communities: Ivana Kostić, Co-Founder, Health-Tech Lab, Serbia

- The ICT-centric ecosystem in Serbia starts with entrepreneurial and innovation ecosystems, where private organisations and NGOs gather organically and, over time, push the national ecosystem to create policies, laws, and strategies in innovation, which boosted the creation of innovation funds in the country. Meanwhile, the national innovation ecosystem is supported by strategies, some of which have been created, and the others are in progress, mainly on entrepreneurship and digitalisation. On the technology ecosystem, significant progress was registered and several cases became widely known from gaming and health industry. Yet, one important aspect for fostering this ecosystem is availability of research and development (R&D) centres of big international companies in the country.
- Health Tech Lab (HTL) is a health-tech ecosystem of Serbia that brings innovation at the intersection of communities of professionals and students from a wide range of technologies and health. It creates, supports and promotes health-tech innovations in Serbia. The establishment of Health Tech Lab is motivated by the recognised needs of long-term and systematic ecosystem support for many promising innovation solutions that had a low chance of surviving.
- Health Tech Lab is governed and supported by multistakeholder actors from NGOs, private
 organisations, the International Advisory Board, which consists of representatives from health
 tech ecosystems of developed countries, and students. The main resources of the lab are local
 and international networks and partners, sponsorships and projects. HTL's key activities
 include meet-ups, conferences, acceleration programmes, matchmaking events, policy
 advocacies, and collaborations with the government.

- For the next period, Health Tech Lab aims to build physical space to support innovation development from R&D and prototyping and further support acceleration and mentoring programmes. Internationally, Health Tech Lab is currently developing a model, which ITU awarded recognition, of creating chapters in developing countries and interconnecting these chapters. The first opening of the international chapter will be in Georgia.
- Health Tech Lab is presented as the culture and community good practice. Many startups with
 promising ideas and solutions are at risk of dying if there are no support systems. Hence,
 Health Tech Lab aims to create a supportive ecosystem and a community that could enable
 successful startups with promising solutions. Communication among communities is also very
 important within the ecosystem and within and in between ecosystems.

Questions & Answers (Q&A) session

Georgia has taken further steps to engage with ITU in performing ITU's digital ecosystem assessment. How do you think Georgia can benefit from such a country-tailored assessment in addition to the report we're launching today?

Annie Vashakmadze: I express gratitude to the ITU team that worked on this particular report and for their dedication and all of the processes which were conducted in Georgia, especially virtually, because we conducted several seminars, gathered the stakeholders. This report is an external evaluation of the ecosystem and the Digital Transformation. It is essential to show the stakeholders how they complement each other, how they have increased the opportunities in the ecosystem, and identifying the main enabler to boost the entrepreneurial mindset in Georgian society. This exercise also includes sector-specific evaluation, and the promising sector identified is artificial intelligence (AI).

We are looking forward to this assessment and for the recommendations, best practices, and some specific recommendations for Georgia. Georgia innovation ecosystem is quite young, we have equal opportunity for all sectors, but at this stage, we have identified two priority sectors: fintech and AI. We have future plans to develop the fintech ecosystem and the AI ecosystem in Georgia.

Jens von Axelson, you mentioned that a new programme design is currently being developed for the challenge-driven innovation (CDI). Yet, taking into account that VINNOVA is now focusing on the ten societal challenges and ability areas, how does that affect the structure of the CDI program?

Jens von Axelson: CDI is a general instrument for us to use. Earlier, the first version of CDI focused on four different areas. Now we have ten areas that we are focusing on, which is refocused on SDG Agenda 2030. In a broad sense, where the applicants propose to work on issues that are not on CDI's focus, it would help direct us to look into other candidates addressing more directly the identified focus areas. Here is the connection between these ten areas of focus and CDI as a program instrument. One challenge from this is how to find a way to keep the commitment of applicants and consortiums who are putting a lot of effort to write applications and finding projects but not covered in the focus areas. The approach needs to balance so that the programme can still direct and support them given the challenges.

Albania ranked first in the 2019 Global Competitiveness Report regarding the ease of hiring foreign labour, meaning that the country offers favourable conditions for companies to hire people from abroad. So, Olgeta, how do you see things evolving in the country, and what are the next steps to accelerate this Digital Transformation?

Olgeta Dhono: We are working with a new digital agenda, and we are trying to include the residency project in the Digital Transformation agenda in the coming years, which will encourage business owners and freelancers from all over the world to come to Albania and to grow their companies here. The residency project also can be an important instrument to attract "Digital Nomads" to the country, and this is also another point that we want to have in our focus. In this regard, we are not only working with a digital agenda and strategy but also working with a legal framework at the same time. We are aware that some changes need to be done to make all of the environment and the infrastructure conducive for companies doing business in Albania.

As you have mentioned, you participated in the ITU innovation challenge last year, and your practice was recognised as a best practice. Could you tell us what made the Health Tech Lab model so unique, and what are the next steps in its development?

Ivana Kostić: Health Tech Lab is at the moment in the first phase and is ICT-based, supporting technologies and innovations in this sector, particularly looking at the technology that could be developed the fastest with the least investments. Also, spreading in different chapters comes with another advantage of interconnecting other developing countries, which is also one of the ITU goals to interconnect and crossing the innovation gap and bridging the existing digitalisation gap. Another advantage is using the mentoring, experience, and knowledge of the developed ecosystems that already have good practices and getting funding from those institutions in developed ecosystems that could benefit everyone.

Do you think that ITU and other organisations could further support your efforts? Could you elaborate on that?

Ivana Kostić: Georgia is the first international chapter, and there is a long way to go. We would also love to have other strong partners, partners that we are collaborating with within the projects that are considering interconnecting and, of course, spreading throughout the developing countries.

ICT challenges could be huge and complex regarding a system perspective, for example, the seven pillars. What could you expect a cooperation project to fix in a few years?

Jens Von Axelson: It is a huge question. We have a little bit of a delay in our 5G implementation in Sweden now due to policy questions and culture questions. It depends on the problem that the project is trying to solve. If you have the seven pillars, another holistic model to use, we use culture, business infrastructure, and technology. Projects that intend to solve policy and culture problems could come up with suggestions but could not come with implementation due to politics and maybe larger questions that need to be addressed by the ecosystem actors themselves. On the other hand, if the problems could be solved by just business models and technology, it is much easier.

Would you be able to tell us what are the main challenges in the process of Digital Transformation in Georgia and the region?

Annie Vashakmadze: Surely challenges exist, but Georgia, for instance, follows a path of Sustainable Development where innovation plays a crucial role, and there are still challenges in Digital Transformation. First, skills development, the need for appropriate entrepreneurial and ICT skills, and the risk of brain drain in this context. The second challenge could be the non-existence of private funds such as venture funds and angel investors for startups, which is also still pervasive in the region. In some countries, these funds are created with diaspora networks and other access to finance mechanisms that depend on the development of the legislation, such as crowdfunding opportunities and innovation procurement. More or less, these are the main challenges in the region, and there are some positive trends nowadays because all of this global connectivity and entrepreneurial networks are increasing, which gives us the expectation for the positive outcomes and developments in the country and the region.

With the current pandemic, what kind of startups have you observed emerging in Georgia since the beginning of the COVID? Anything coming to mind?

Annie Vashakmadze: The artificial intelligence startups and some health techs are existing. We also conducted the hackathon, which we called 'coronathon', held in March 2020, and three winners were identified. One was dedicated to artificial breathing, which was oriented on some urgent issues such as equipment of the hospitals. The second winner, Edu Tech, also touches on important issues that arise from the pandemic because all of our schools and universities were closed, which was crucial to creating digital solutions in Education.

CLOSING REMARKS

AnaMaria Meshkurti, Programme Officer, ITU Office for Europe

Ms AnaMaria Meshkurti concluded the event by thanking all speakers and their institutions for their valuable insights throughout the session, allowing participants to better understand the opportunities and challenges in building an innovation ecosystem. Ms Meshkurti stressed that this session is the first step of the ITU Europe Office's innovation journey this year. She invited all stakeholders to join the upcoming <u>ITU Regional Innovation Forum for Europe</u>, held on 22-23 September 2021 within the 2021 ITU Global Innovation Forum.

This edition of ITU Regional Innovation Forum for Europe, she further explained, will bring together regional stakeholders to share insights and offer much-needed opportunities for leaders and innovators across sectors to pioneer new approaches, share best practices and adopt new solutions across industries and markets. The forum will cover three main areas: the general digital innovation ecosystem, the agricultural digital ecosystem and the ICT accessibility ecosystem.

Ms Meshkurti closed her remark by reiterating her invitation to ITU Regional Innovation Forum for Europe in September and encourage all participants to submit their speakers' suggestions from European innovators and best practices.

ITU REGIONAL GOOD PRACTICE REPORT: "ACCELERATING INNOVATION, ENTREPRENEURSHIP AND DIGITAL TRANSFORMATION IN EUROPE."



Figure 2 The cover page of the Regional Good Practices: Accelerating innovation, entrepreneurship and digital transformation in Europe.

Link to download the report: <u>https://www.itu.int/en/ITU-D/Regional-</u> Presence/Europe/Documents/Publications/GOOD_PRACT.03-2021-PDF-E.pdf

EXECUTIVE SUMMARY

The ITU Europe region is composed of 46 countries and is very diverse, with regional disparities reflected in the stages of development of the countries' ICT-centric innovation ecosystems. Historically, the European Economic Area (EEA) has scored well in digital transformation indicators, – facilitated by the European Commission drive towards the single market1 and digital single market with several regulations, directives and initiatives launched over the last decade. The most recent European Union (EU) Member States are, however, quickly catching up, not only by taking advantage of collaboration and exchange of best practices with the more developed ICT-centric ecosystems, but also by designing new innovative solutions to accelerate digital transformation. Thus, innovation in developing ICT-centric innovation ecosystems enables these countries to leapfrog the stages of development of advanced economies and bridge the persisting digital divide. Some countries, however, are more successful than others.

ICT-centric innovation ecosystems have a critical role to play in fostering digital transformation that leads to economic inclusion, positive externalities and sustainable growth for communities, cities and countries. However, ITU research on innovation shows that there is a digital innovation divide among Europe region countries. Non-Western European economies continue to underperform in some or all of the three engines of growth: the entrepreneurship, innovation and technology ecosystems. Despite

recent efforts, such ecosystems are not yet successful in mobilising entrepreneurs, entrepreneurial support organisations, academia, public and private sector stakeholders and financiers to a degree that is sufficient to foster digital transformation in society. Furthermore, although many Europe region countries have high rankings in certain aspects of innovation, entrepreneurship and technology, the region as a whole is still performing below its potential.

The good news is that all countries have recognised the importance of digital transformation and accelerated the implementation of policies to tackle persistent challenges, including countrywide digital agendas, Industry 4.0 strategies, investments in infrastructure, dedicated digital skills and innovation programmes, and facilitation of a more favourable environment for startups, researchers and innovators. Numerous good practices across the region are available for the benefit of the countries where gaps have been identified.

The COVID-19 pandemic has highlighted the ever-changing nature of the world and therefore the need for ongoing transformation of nations in light of new unexpected challenges. Although replicating and amplifying good practices in Europe can help countries strengthen their digital innovation ecosystems, it does not preclude them from proposing new innovative approaches in anticipation of the future.

This report is divided into five sections:

The Introduction summarises the key findings covered in the report, lays out the report objectives, and provides an overview of the role of innovation in sustainable economic and social development. It also outlines recent ITU work on digital innovation, the key challenges to innovation in the Europe region and the steps that ITU Member States can take to turn their countries into thriving digital innovation ecosystems.

Section 2 sets the stage for a comparative analysis among countries using existing international rankings, indicators and indexes and provides insights into the current status of the enabling environment for innovation capacity, the engines of growth, and digital transformation enablers.

Section 3 highlights good practices in the European region. It provides snapshots of 15 case studies that demonstrate one, two or all three of the building blocks of ICT-centric innovation: guiding innovation dynamics, building innovation capacity, and integrating ICT innovation into key sectors.

Appendix A explains the methodology. It also defines the language used in the report to help readers understand the research and analysis process. Understanding the research methodology is key to deciphering the relative rankings of countries' innovation capacity. This section also explains the three key building blocks of ICT-centric innovation needed to accelerate transformation.

Appendix B provides full case studies of the practices identified in the report. Each practice demonstrates how a barrier has been successfully addressed and its potential to become a working good practice in any ecosystem.