THE OECD GOING DIGITAL SUMMIT

A SUMMARY

Paris, France
11-12 March 2019

OECD
BETTER POLICIES FOR BETTER LIVES

This note provides a summary of the Going Digital Summit held on 11-12 March 2019. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD Member countries.

This publication is a contribution to the OECD Going Digital project, which aims to provide policymakers with the tools they need to help their economies and societies prosper in an increasingly digital and data-driven world.

For more information, visit www.oecd.org/going-digital.

#GoingDigital

Note to Delegations:

This document is also available on O.N.E under the reference code:

DSTI/CDEP/GD(2019)2

Introduction

The OECD Going Digital Summit was held on 11-12 March 2019 at OECD headquarters in Paris, France. The Summit was the high-level closing event of the first phase of the OECD Going Digital Project. The Summit brought together high-level government officials, including Mr. Peter Pellegrini, the Prime Minister of the Slovak Republic, and Mr. Richard Raši, Deputy Prime Minister of the Slovak Republic, Ministers and Vice Ministers from over 30 countries, the heads of major intergovernmental organisations, business leaders, representatives of the Internet technical community, civil society and trade unions. In addition to OECD Member countries and the European Commission, partner countries were also present. In total, over 700 people participated in person, while many others followed the proceedings online.

During the Summit, three of the main horizontal deliverables of the Going Digital Project were launched: the synthesis report *Going Digital: Shaping Policies, Improving Lives*, its companion publication *Measuring the Digital Transformation: A Roadmap for the Future*, and the Going Digital Toolkit, an online portal that helps countries assess their state of digital development and formulate policy strategies and approaches in response.

The OECD Going Digital Summit addressed the growing importance of digital transformation for issues across the spectrum of public policy. Discussions were structured along the lines of the seven dimensions of the Going Digital Integrated Policy Framework: 1) enhancing access; 2) increasing effective use; 3) unleashing innovation; 4) ensuring good jobs for all; 5) promoting social prosperity; 6) strengthening trust; and 7) fostering market openness. The key takeaways are outlined below; a more detailed summary of the discussions follows.

Shape policies in the digital age through a holistic, multi-stakeholder and whole-of-government approach

A holistic vision of digital transformation across governments, economies and societies is essential. Participants outlined how digital transformation can boost growth and well-being; create efficiencies in the public sector; support development and gender equality; improve measurement frameworks; and drive new regulatory and public policy approaches. Despite new challenges in the digital age, participants expressed a positive and optimistic view of digital transformation and the ability of public policies to shape inclusive digital economies and societies. The Going Digital Integrated Policy Framework charts the road ahead to help governments – together with citizens, firms and stakeholders – to shape digital transformation through coherent and well co-ordinated policies along the framework's seven policy dimensions.

Bridge divides to allow all people and firms to take advantage of digital opportunities

Targeted public policies have a role to play in ensuring that all people and firms have the opportunity to thrive in the digital age. Policy action can help to ensure that those groups who engage relatively less in digital transformation, including women, the elderly, and those with low levels of income and education, do not find themselves on the wrong side of a harmful digital divide. At the same time, governments can act to improve connectivity in rural areas to ensure that people and firms are also able to effectively use digital

technologies, produce and grow in an interconnected digital economy. Ensuring a strong mix of pertinent skills across all ages, as well as high-quality and affordable broadband in all geographical areas, is crucial to closing connectivity, gender, age, income and educational gaps.

Get ready for a massive training challenge and review education systems to ensure that everyone has the skills needed to thrive in life and work

People need the right mix of skills – foundational, ICT and complementary skills – to thrive in work and life. It is important to improve the accessibility, quality and equity of education for young people and of training systems for adults throughout the life cycle. Better use of digital technologies also holds much promise for making teaching and learning more effective. Reducing skills mismatches is likewise important to improve economic performance and spur technology diffusion. The policy changes needed to make life-long learning a reality for all are comprehensive and require involving a range of stakeholders. The private sector, unions and governments need to co-operate to better understand what skills workers need and to help workers acquire them.

Strengthen trust and open up data to drive digital innovation

To fully embrace and benefit from digital transformation, individuals, firms and governments need to be confident that engaging in digital environments will bring more benefits than downsides. Downsides can arise from various sources of uncertainties affecting digital technologies, data and cross-border flows. The tension between protecting privacy as a fundamental human right and facilitating cross-border data flows to enable data-driven economic and social activities are key questions that must be addressed at the international level. Public policies should focus on enhancing access to and sharing of data, ensuring the interoperability of privacy regimes to facilitate cross-border data flows, and opening government data to boost digital innovation while ensuring that privacy and security concerns are addressed. Stakeholder engagement is crucial for designing and implementing successful policies to increase trust.

Build the evidence base to better design policies in the digital age

Measurement must be a strategic priority to improve evidence-based policymaking in the context of digital transformation. In particular, data as a resource for businesses and an input to value creation needs to be better understood and measured, including across borders. This may require partnerships with businesses that collect relevant data about data flows, while respecting commercial interests and privacy. It is also important to adequately reflect the digitalisation of the economy in economic statistics, measure well-being in the digital age, and design new approaches to data collection.

1. Plenary Session - The Promises of Digital Transformation

Key points

- To make digital transformation work for growth and well-being, all stakeholders must work together to shape it. Policies should seek to: 1) bridge digital divides for people and firms; 2) help empower people to succeed in a rapidly changing digital world of work; 3) strengthen trust and enhance access to data to drive innovation; and 4) build the next generation of data and indicators capable of monitoring and shaping the digital transformation.

- Public policies in the digital age must be people centred. To do so, a coherent and collective vision is needed to ensure that digital transformation is positive and inclusive.

Summary of the discussion

OECD Secretary-General Gurría warmly welcomed all participants to the Going Digital Summit. He highlighted that the digital transformation brings countless opportunities to improve well-being, from health care to education to the environment, while also raising concerns about labour market polarisation and skill mismatches, breaches of privacy and security, growing market power for leading firms, and tax evasion, among others. He underscored the importance of the OECD's Going Digital Integrated Policy Framework, noting it is the first time that a holistic policy approach to the digital transformation has been formulated. He then launched: 1) the *Going Digital: Shaping Policies, Improving Lives* report, which presents a strategy for policymaking in the digital age; 2) the *Measuring the Digital Transformation: A Roadmap for the Future* report, which presents the state of art in digital transformation measurement; and 3) the online *Going Digital Toolkit*, which helps countries assess their state of digital development and formulate policy strategies in response.

Slovak Prime Minister Pellegrini then took the floor. He underscored the importance of digital transformation for his country, in particular its role in improving the lives of all people in the Slovak Republic. He outlined a vision of digital humanism, where digital transformation is harnessed for better lives, and highlighted the importance of international co-operation as a means to ensuring long-term public policy coherence.

UNESCO Director-General Azoulay closed the panel by underscoring the importance of digital transformation, particularly new emerging technologies, such as artificial intelligence (AI), for society. She noted that UNESCO will develop a recommendation on using digital technologies in education, and underscored that digital transformation can be used for development, mentioning a recent initiative to improve coding and programming skills for women in Africa. She also stressed the need for better mobility of students and teachers across the world, including in relation to the international recognition of skills and credentials. She also highlighted the range of opportunities for digital transformation, including with respect to preserving long-term cultural heritage.

Session participants

- Angel Gurría, OECD Secretary-General; Peter Pellegrini, Prime Minister of the Slovak Republic; Audrey Azoulay, UNESCO Director-General.

2. Plenary Session - Strategies for Digital Transformation

Key points

- To realise the promise of digital transformation, governments need a whole-of-government approach and a comprehensive strategy that ensure policy coherence in the digital age. This implies: 1) using an integrated policy framework; 2) co-ordinating across relevant parts of government and with stakeholders; 3) adopting a governance approach that supports effective co-ordination; and 4) successfully implementing and monitoring policies to achieve strategic objectives and measurable targets.

- Countries have different strategic priorities and objectives for digital transformation. Effective engagement of all relevant stakeholders in policy development and implementation was identified as a key challenge.

Summary of the discussion

The aim of the session was to learn more about national digital agendas, priorities and challenges in designing and implementing a whole-of-government approach. Each panellist provided insights on policies in their country. For example, the Slovak Republic created a new government unit to co-ordinate strategy development, implementation, and monitoring. Hungary provides targeted support to better integrate small and medium-sized enterprises (SMEs) in global value chains (GVCs) and raise awareness about the potential of using AI; Canada fosters the use of artificial intelligence (AI), not only in knowledge-intensive services but also in traditional sectors such as agriculture and natural resource extraction.

The panel also highlighted challenges faced when making policies in the digital age, including effective engagement of all relevant stakeholders in policy development and implementation. Understanding the effects of AI across different sectors and pro-actively designing related policy measures was also identified as important, as was ensuring that everyone benefits from and can shape digital transformation, including women. Attracting people with the necessary skills to thrive in digital environments was underscored as essential, particularly in the public sector.

Panellists stressed the role of the OECD in helping countries to make the digital transformation work for all, including by providing good measurement of digital transformation, including guidance on what to measure and how; reviewing national policies and digital agendas; providing insights on key issues such as technology diffusion, skills development, privacy and trust, and better use of data, including open government data, and; making policy recommendations, based on sound evidence, analysis and good practices.

Session participants

- Ulrik Knudsen, Deputy Secretary-General, OECD; John Knubley, Deputy Minister of Innovation, Science and Economic Development, Canada; László György, Vice Minister and Minister of State for Economic Strategy and Regulation, Ministry of Innovation and Technology, Hungary; Richard Raši, Deputy Prime Minister for Investments and Information, Slovak Republic.

3. Plenary Session – Going Digital Stakeholder Session

Key points

- To reap the benefits of digital transformation, the most relevant issues from a stakeholder perspective are to address trust and inclusiveness and maintain privacy. In the context of AI, the panel applauded the OECD's work on AI Principles. "Universal Guidelines for AI" were promoted as a way to help protect fundamental rights, while maximising benefits and minimising risks.

- Many panellists highlighted the significance of data as both a driver and by-product of digital transformation. The role of cross-border data flows in boosting innovation was discussed in relation to new measures to protect personal information, including the new European General Data Protection Regulation (GDPR).

- Panellists noted that the OECD acts as a unique forum that brings together governments, business, organised labour, the Internet technical community and civil society. The OECD was also praised for developing the Going Digital Integrated Policy Framework, which was highlighted as useful in developing national digital strategies for a "just" transition. The panellists also mentioned the OECD's role in providing evidence-based analysis and benchmarking countries according to their stage of digital development.

Summary of the discussion

The panellists focused on the need to promote trust, inclusiveness and privacy for an inclusive digital transformation. Panellists mentioned the importance of the "human element" in digital transformation, and highlighted the opportunities of digital transformation to improve lives through new job creation and the development of innovative business models. Panellists also stressed that the transition to a digital future must be "just", which may be only achieved if social dialogue is systematically included in the policymaking process. The importance of social policies, as well as collective bargaining, was highlighted as important to providing a safety net for those workers negatively affected by digital transformation.

The need to safeguard privacy – a fundamental human right and value – as digital transformation progresses, but particularly with respect to the delivery of digital services, was noted. There was consensus on the importance of trust in digital transformation, as well as the need for an open Internet and the free flow of information. Panellists also advocated for policies that support new local access networks, better spectrum management and the transition to the new generation of Internet Protocol addresses. Concerns were voiced about increasing market concentration and the need for collaboration, including at the OECD. Panellists further affirmed that good national governance should also include all stakeholders through inclusive, democratic and evidence-based policymaking.

Session participants

- Gabriela Ramos, Chief of Staff and G20 Sherpa, OECD; Marc Rotenberg, President, Electronic Privacy Information Center (EPIC) and Steering Committee, CSISAC; Russel Mills, Secretary-General, BIAC; Paul Nowak, Deputy General Secretary, Trade Union Congress (TUC, UK) on behalf of the TUAC; Jane Coffin, Senior Adviser to the CEO, Connectivity & Infrastructure, ISOC.

4a. Parallel Session – Monitoring the Digital Transformation and Measuring Its Impacts

Key points

- Measurement must be a strategic priority for digital transformation in order to ensure future evidence-based policymaking. In particular, there is a need to better understand and value data as an input into business processes and as a resource that flows across borders. This may require partnerships with businesses that enable researchers to gain access to information about data and data flows for statistical purposes, while respecting commercial sensitivities and personal privacy. The roadmap outlined in *Measuring the Digital Transformation: A Roadmap for the Future* is an important tool for determining a medium- to long-term measurement agenda.

- A paradigm shift in the role of National Statistical Organisations (NSOs) is underway, with a move from simply collecting data through surveys to accessing, integrating and analysing data. Balancing both roles is needed to ensure that national statistical organisations remain relevant in the long-term, but the shift may require changes in both skill sets and mind-sets.

Summary of the discussion

The panellists highlighted the importance and challenges of better measuring digital transformation to inform evidence-based policymaking. In particular, they stressed the need to better measure data and data flows, particularly as more consumer products are provided free in exchange for consumer data. As digital activities become more common and intangible assets are more easily traded, their mismeasurement may also affect aggregate measures of economic growth, productivity and trade flows.

These challenges suggest that the role of NSOs must also adapt to meet the measurement needs of the economy. NSOs are embracing a wide range of new sources and approaches – for example, using sensor data, geolocation data and satellite imagery as a means of finding proxy measures for population and household income. However, there remain significant challenges, including with respect to the protection of privacy. However, while in some cases data may be "freely accessible," it can be costly to gather it. Similarly, the analysis of such data using new methods from data science are not currently common in NSOs.

The OECD can play a role by setting standards and monitoring how statistical frameworks are applied in practice to identify issues and areas for further work, and by providing a platform to share experience and tools. The OECD should leverage its strength in bringing together different communities and build partnerships with key market players (e.g. in cloud services), as well as playing a co-ordinating role to make the collection of data from such organisations as efficient as possible.

Session participants

- Andrew Wyckoff, Director for Science, Technology and Innovation, OECD; Anil Arora, Chief Statistician of Canada; Rebecca Riley, Director of Economic Statistics Centre of Excellence, United Kingdom; Paul Schreyer, Deputy Director, Statistics and Data Directorate, OECD; Alessandra Colecchia, Head, Economic Analysis and Statistics Division, OECD.

4b. Parallel Session – Digital Transformation for Development

Key points

- Despite an increase in access to the Internet among people living in low- and middle-income countries, an estimated 3.7 billion people are still offline. To fully capitalise on the potential of digital transformation for development, international donors should support education, as well as research and development, in digital-intensive sectors. In particular, it is critical to develop incentives to promote private sector investment in local areas in developing countries.

- Policy makers, including in the donor community, should make digital transformation a top priority in their agendas and include citizens, firms and all other stakeholders in the discussions, reflecting a multi-stakeholder and whole-of-government approach that pro-actively considers those who will benefit and those who risk being left behind. While there is not a 'one-size-fits-all' approach to digital development, each country should pursue an integrated approach.

Summary of the discussion

Panellists highlighted that despite an increase in access to the Internet among people living in low- and middle-income countries, an estimated 3.7 billion people are still offline. The discussions highlighted that countries differ substantially in their current state of digital development. This relates not only to the level of economic development, structural make-up, trade specialisation, and geography, but also with respect to the characteristics that will be required for growth and social prosperity in the digital age, including a skilled labour force, a dynamic business environment and a reactive and responsible digital government. The panellists further suggested that there must not be a 'one-size-fits-all' approach to digital development, but that each country should pursue an integrated approach.

Discussions centred on the need for the donor community to make digital transformation a top priority in their agendas and include citizens, firms and all other stakeholders in the discussions, reflecting a multi-stakeholder and whole-of-government approach to policymaking that proactively considers those who will benefit and those who risk being left behind. To capitalise fully on the potential of digital transformation for development, panellists also underscored that international donors should support education, as well as research and development, in digital-intensive sectors. Furthermore, the panellists highlighted that it will be critical to develop incentives for the private sector to invest in local areas in developing countries.

The session also featured a video by Desh Deepak Dwivedi, a Youth@IGF Fellow from India, who emphasised the importance of enhanced access and use of ICTs in developing countries. He underlined the need for developing countries to invest more in communications infrastructure and technical skills to adapt to today's digital world.

Session participants

- Jorge Moreira da Silva, Director for Development Co-operation, OECD; Katherine Getao, Chief Executive Officer ICT Authority, Kenya; Lan Xue, Tsinghua University, P.R. of China; Amandeep Singh Gill, Executive Secretary, UN High-Level Panel on Digital Cooperation; Nancy Sundberg, Senior Programme Officer, ITU; Nathalie Munyampenda, Managing Director, Next Einstein Forum.

5a. Parallel Session – Ensuring Connectivity for All

Key points

- Connectivity is the foundation for the digital transformation. High-quality access to communication networks and services at competitive prices is therefore crucial. To ensure connectivity for all, policy makers should ensure competition to drive investment, reduce barriers to infrastructure, ensure an efficient allocation of spectrum, and simplify administrative procedures. As next generation wireless ("5G") networks will require large investments, these traditional telecommunication issues will likely become more relevant.

- As most of the investment in communication networks is made by the private sector, policy makers should seek to provide certainty of investment through longer spectrum licenses, and follow clear public finance rules to only intervene in areas where there is market failure.

- Bridging the rural divide is not only about fairness and inclusiveness, but it is also about fostering productivity and growth, as well as reshaping urban and rural communities. There are ranges of interrelated issues that affect digital transformation in rural areas, including skills gaps, indicating the need for a whole-of-government approach.

Summary of the discussion

Panellists highlighted the fundamental importance of connectivity to digital transformation. Panellists agreed that access to the Internet should be a basic right, which is why enabling infrastructure deployment and fostering competition is essential. However, the panellists highlighted the different measures being taken by countries to achieve universal access. For example, Brazil's focus is on efficient spectrum auctions, ensuring coverage in rural areas, pro-competitive regulation, promoting investment in fibre, 5G and the Internet of Things. In contrast, the European Commission is aiming to promote investment certainty through longer-term spectrum licenses and developing clear rules related to public financing of network expansion.

All panellists noted that successful public policies must be developed and implemented in a multi-stakeholder process in order to bridge digital divides. The panellists further noted that universal access is a precondition for future inclusiveness and productivity. Universal access also fundamentally affects rural and urban areas by improving quality of life and fostering growth. Successful public policies also require a whole-of-government approach. The panel invited the OECD to develop a long-term vision around digital transformation and to highlight best practices.

Session participants

- Diego Molano Vega, Advisor, Digital Transformation of Governments and Companies; Roberto Viola, Director-General, DG Connect, European Commission; Vitor Menezes, Secretary for Telecommunications, Ministry of Science, Technology, Innovation and Communications, Brazil; Peter Wostner, Chair of the Working Party on Rural Policy, Slovenia; Yasmina McCarty, Head of Mobile for Development, GSMA.

5b. Bridging the digital gender divide

Key points

- The session identified a persistent digital gender divide, with fewer women entrepreneurs and patent holders, less access to finance for female-led start-ups, and fewer young women in science, technology, engineering and mathematics (STEM) fields, diminishing women's ability to shape digital transformation.

- Gender divides stem from both systemic challenges and underlying biases about the socio-cultural role of women. While views are slowly changing, systemic challenges persist, including a lack of connected and integrated public policies about gender, parental leave, family-friendly policies and better mentorship for women in STEM fields.

Summary of the discussion

In the 1960s, women were well represented in the computer sciences. However, current evidence from the OECD Going Digital Project finds that while women are approximately as likely as men to use the Internet across the OECD, there remain significant gaps in advanced activities like coding, with more than twice as many young male programmers (aged 16-24) than female programmers able to code across the EU28.

The panel discussed a variety of other examples of the digital gender divide, including with respect to participating in inventive activities, obtaining venture capital and other kinds of financing, and their overall representation in STEM fields. The panel noted that the latter would limit women's ability to shape the progression of digital transformation going forward, including through technologies like AI. The root of the digital gender divide was much discussed. The role of unconscious socio-cultural bias was mentioned several times, and some panellists issued a call to action to address harmful stereotypes of women's role in STEM fields.

The panel discussed policy options to improve gender diversity in STEM and other fields related to digital transformation. Some panellists mentioned the role of affirmative action quotas as a means of giving women more opportunities, while others noted that gender policy is a multi-faceted issue that relates to many aspects of social, family and labour market policy. These public policies must be addressed in an integrated and holistic manner in order to ensure that women are empowered to learn, train and work at all stages of life.

The session also featured a video by Marwa Azelmat, a young IT engineer from Morocco, who highlighted the importance of a multi-stakeholder approach to tackling the digital gender divide. She outlined three main factors: 1) markets, 2) language efficiency (address the campaigns in the local languages), and 3) visibility (make the IT field as visible as possible).

Session participants

- Tarah Wheeler, New America Cybersecurity Policy Fellow; Gabriela Ramos, Chief of Staff and G20 Sherpa, OECD; Maria-Inés Baque, Secretary of Public Management and Innovation, Argentina; Nicola Hazell, Gender Equality Advocate and Founding Director of SheStarts; Janis Karklins, Ambassador of Latvia to the United Nations in Geneva; William Spriggs, Chief Economist, AFL-CIO.

6a. Parallel Session – Fostering Science and Innovation in the Digital Age

Key points

- Science and innovation enable digital transformation, while digital tools have also changed the scientific process. A range of key enablers, including skills, data, stakeholder engagement, trust and R&D investment support scientific discovery, technological development and digital transformation.

- Governments have a key role to play in ensuring that these enablers are in place in order to foster the digitalisation of science and innovation. Public policies can help, including by open data initiatives, public-private partnerships and enabling policy flexibility and experimentation.

Summary of the discussion

The panel identified a range of key enablers for the cross-fertilisation between digitalisation, science and innovation. In particular, the panel mentioned the role of skills, beginning with primary and early childhood education. In Costa Rica, it was mentioned that primary-level education focuses on skills for the digital age. Australia supports STEM education and aiming to improve the share of women STEM graduates.

Another key enabler was the role of access to high quality and curated data as an enabler of digital innovation, including for the development of new technologies like AI. A panellist mentioned that Chile is supporting the integration of massive datasets from a range of natural phenomena, including astronomical, mining and earthquake data, to support cross-disciplinary scientific work. Stakeholder engagement, including better communication with the larger public, was also discussed by the panel as a key prerequisite for science and innovation in the digital age. Such multi-stakeholder engagement is also necessary to build trust in digital transformation. One panellist mentioned an Estonian initiative that allows all citizens to request all personal data collected by the government.

The panel affirmed that public policies can play a key role in supporting digital innovation. This can include encouraging investment in R&D to develop the necessary skills, knowledge and data. Governments can also support open data initiatives, while also ensuring trust, fostering co-operation between different actors, and enabling policy experimentation through policy sandboxes and testbeds. The panel also mentioned the need for the OECD to contribute to the long-term digitalisation of science by enabling governments to share experiences and best practices. The panel also mentioned the role of the OECD in supporting the evidence base to show the positive aspects of digital transformation to help build trust and social acceptance of digital economies and societies.

Session participants

- Marjory Blumenthal, Senior Policy Researcher, Rand Corporation; Manuel Heitor, Minister of Science, Technology and Higher Education, Portugal; Rene Tammist, Minister of Entrepreneurship and information Technology, Estonia; Luis Adrián Salazar, Minister of Science, Technology and Telecommunications, Costa Rica; Elizabeth Kelly, Deputy Secretary, Department of Industry, Innovation and Science, Australia; Julio Pertuzé, Head of Division, Office of the Economy of the Future, Ministry of Economy, Chile.

6b. Parallel Session – Making Digital Transformation Work for All Businesses

Key points

- The diffusion of digital technologies is uneven, with SMEs less likely to use digital technologies like big data analytics and cloud computing. This gap slows productivity growth, widens inequalities and may contribute to a backlash against technological change.

- Policies should seek to: 1) set the digital transformation at the core of the government agenda, promoting systemic change, including in culture, leadership and governance; 2) encourage and sustain SMEs' investment in R&D and innovation, including through public-private partnerships; 3) create favourable conditions for reinventing business financing; 4) invest in training and skills development; 5) cut red tape and address regulatory burdens; 6) promote entrepreneurship and entrepreneurial mind-sets across all the economy; and 7) consider safety nets to address widespread instability.

Summary of the discussion

Panellists highlighted that while digital transformation holds many promises to spur innovation and generate efficiencies across firms, current gaps in adoption by SMEs, especially of productivity-enhancing technologies like cloud computing, data analytics and blockchain, slow productivity growth and widen inequalities. A range of barriers, including uncompetitive business environments and a lack of access to skills, finance and knowledge, put SMEs at a disadvantage. One panellists noted Luxembourg's SME initiatives, such as developing national strategic infrastructures, providing financial support for R&D and innovation, facilitating public-private partnerships and investing in skills development and continuous training, including for civil servants. The importance of placing digital transformation at the core of government strategies, including through dedicated Ministries, cross-Ministerial co-ordination and national plans, was voiced.

The panel also underscored the importance of systemic change, encompassing culture, leadership and governance change. Entrepreneurship skills were identified as useful for helping the general public master new technologies. Panellists suggested that financing constraints and regulatory hurdles are key obstacles to SME digitalisation, innovation and scaling up. The importance of the links between the digital transformation of large companies and SMEs, including through supply chains, public-private partnerships and acquisition, were also underscored. Panellists also noted that established European SMEs rich in intangibles and know-how are well placed to thrive in the digital age. Moreover, since continuous innovation can lead to creative destruction, social policies become more important to reduce the costs of entrepreneurial failure and ensure ongoing dynamism.

Session participants

- Lamia Kamal-Chaoui, Director, OECD Centre for Entrepreneurship, SMEs, Regions and Cities; Claudia Dörr-Voß, State Secretary at the Federal Ministry for Economic Affairs and Energy, Germany; Marc Hansen, Minister Delegate for Digitisation, Luxembourg; Nicolas Colin, Co-Founder and Director, The Family; Natasha Friis Saxberg, Digital Strategist, Author and Board Member.

7a. Parallel Session – Taxation in the Digital Age

Key points

- The OECD, at the mandate of the G20, is currently working to bring countries to a consensus-based solution to the tax challenges of digitalisation by 2020, with particular focus on the potential re-allocation of corporate income taxing rights. The OECD is actively pursuing a multi-stakeholder approach, including convening a public consultation, in conducting this work.

Summary of the discussion

The OECD summarised the digital tax debate, underlining the need to update international tax rules to be based on where value is created. There are two key and non-mutually exclusive policy pillars under consideration. Pillar 1 involves how existing international tax rules could be modified, with a focus on nexus rules and profit allocation rules, to tax a company when it does not have a physical presence. The Inclusive Framework on BEPS will review proposals on user contributions, marketing intangibles and significant economic presence. Pillar 2 involves the resolution of remaining BEPS issues and exploration of rules designed to give jurisdictions a remedy in cases where income is subject to no or low tax. Pillar 2 advocates for a new rule for taxing rights, under which all companies would be taxed largely in the market jurisdiction.

Some countries suggested an approach focused on market intangibles (Pillar 1), such as the value of a brand name in a country. These intangibles are relevant to both digital and non-digital companies. Marketing intangibles are closely related to the jurisdiction in which the intangible is exploited. Other countries have acted unilaterally to introduce taxes on digital services. Such measures are considered short-term, and can act as an incentive for the discussion at the international level for consensus on reform of international taxation rules.

The panellists were supportive of the consensus-based multi-stakeholder approach from the OECD. The business community were particularly focused on ensuring that profits were only taxed once, ensuring consistency of clarity in definitions, and ongoing tax certainty. The panellists also mentioned that unilateral taxation approaches are cumbersome and raise transaction costs, and that actions that are not co-ordinated may reduce overall taxation revenue. The session ended on a very positive note, in which the panellists stated their optimism that a solution would be found.

Session participants

- Pascal Saint-Amans, Director of the OECD Centre for Tax Policy and Administration; Brian Jenn, Deputy International Tax Counsel, U.S. Department of Treasury, Co-Chair of the Task Force on the Digital Economy; Gaël Perraud, Deputy Director, International Taxation and European Affairs, French Ministry of Finance, Co-Chair of the Task Force on the Digital Economy; Professor Fabrizia Lapecorella, Finance Department, Italian Ministry of Economics and Finance, Vice Chair of the Inclusive Framework on BEPS; Liz Chien, Vice President of Global Tax, Ripple Labs.

7b. Parallel Session – Policymaking in the Digital Age

Key points

- Countries are increasingly recognising the importance of whole-of-government approaches to digital transformation, although the focus of such approaches differ substantially. Policy makers are also increasingly targeting policies toward those actors and groups that require specific support to thrive in the digital age (e.g. those in rural areas, SMEs and people without the necessary skills).

- Policymaking in the digital age relies on trust between citizens and digital governments. The decline in political and democratic freedoms across the world and the lack of transparency in data-driven public services were identified as causes for concern.

Summary of the discussion

Panellists noted that many policy frameworks are challenged by digital transformation and that new approaches to policymaking, including performance-based policies, risk-based approaches, policy flexibility and systematic analysis and evaluation, hold much promise to ensure that policies remain fit-for-purpose in the digital age.

Panellists then presented three approaches to digital policymaking. The Norwegian approach features an office of digitalisation, the promotion of curated administrative datasets and digital-first approaches to public services like student loans and driving licenses. The Danish approach features the development of agile regulatory frameworks to foster digital transformation, and public-private collaboration. In contrast, the Italian approach relates to a digital industrial policy, including the automation of manufacturing and product certification, as well as the promotion of smaller firms. All three national representatives mentioned challenges related to the change of mind-sets and breaking down silos in the public sector.

The panel affirmed that supra-national and international standards and legal frameworks are essential to digital transformation, including to articulate a human-centric digital future. Governments have a role to play in promoting the adoption and diffusion of digital technologies (e.g. big data analysis), and panellists stressed that this is also a means of ensuring that firms, people and places are not left behind. The panel also discussed the need for rural access to broadband, and the role of boosting digital skills among the most vulnerable groups, including the elderly. The panel also affirmed that trust is needed for the digital transformation of the public sector, including with respect to cybersecurity. Other challenges faced by governments in the digital age include the decline of political and democratic freedoms, as well as self-reinforcing echo chambers.

Session participants

- Anne Carblanc, Head, Digital Economy Policy Division, OECD; Katrine Winding, Director-General, Danish Business Authority, Denmark; Ann Mettler, Head of the European Political Strategy Centre, European Commission; Paul Chaffey, State Secretary for Local Government and Modernization, Norway; Marco Bellezza, Legal Advisor to the Deputy Prime Minister, Italy.

8. Wrapping Up – Day 1

Key points

- The horizontal and multi-stakeholder approach of the OECD Going Digital project is useful and important for Member countries. Future work from the OECD should focus on implementation and expanding the measurement base. A more concrete understanding of data, particularly through taxonomies, may be needed for future policy action.

Summary of the discussion

The panellists discussed the sessions that had been conducted on the first day of the Going Digital Summit, including the conversations on the digital productivity paradox, widening performance gaps in firms, the diffusion of digital tools, and boosting high-quality broadband coverage to more people and firms. The panellists remarked on the positive and optimistic tone of the discussions, and they appreciated the focus on concrete policy actions. The OECD affirmed that policy implementation would be a key part of the Going Digital project going forward.

The participants affirmed the holistic and multi-stakeholder approach of the OECD Going Digital project, making particular reference to the active inclusion of stakeholders throughout the Going Digital Summit. The "vectors of digital transformation" and the Going Digital Integrated Policy Framework were highlighted as useful for promoting a whole-of-government approach. The horizontal approach of the OECD Going Digital project was also praised, with participants mentioning the wide range of topics covered in just one day.

The participants also underscored the underlying role of data as linking many disparate aspects of digital transformation. They discussed the need to utilise such data for better measurement and monitoring of digital transformation. A more concrete understanding of data, particularly through taxonomies, may be needed for future policy action.

Session participants

- Dirk Pilat, Deputy Director, Science, Technology and Innovation, OECD; Chris Sharrock, Ambassador to the OECD and Chair of the Friends of Going Digital group, United Kingdom; Monica Aspe, Vice-President of External Affairs, AT&T, former Co-Chair of the Friends of Going Digital group.

9. Plenary Session – Jobs in the Digital Age

Key points

- The digital revolution brings with it both opportunities and risks. New technologies can make workplaces safer and cleaner, and improve job quality for workers. However, these technologies also demand new skills, which can leave some workers behind.

- Social skills become more important as digital transformation progresses, yet they remain undervalued. For instance, home healthcare work is one of the fastest growing sectors in many countries. These jobs require high social skills, but currently offer little opportunity for upward mobility.

- To adapt to these digital challenges, we need a cultural shift in values. This change in mind-set should encourage lifelong curiosity, rather than fear of new technologies.

Summary of the discussion

Panellists noted that the digital revolution clearly offers plenty of new jobs, it at the same time it brings with it risks. The new jobs created are clearly not the same as those that disappear, and the new jobs will require collaboration and co-ordination. Some of the challenges facing workers were then identified, particularly for those who are less skilled. Addressing such challenges requires a change in the educational system. By teaching people how to learn, we give them the skills to acquire skills throughout their working life. One panellists suggested that this idea frees people from the idea of a technologically determined future.

Panellists also noted that in many cases social protection systems default toward less protection when confronted by new technologies (e.g. digital platforms), but this need not be the case. Policy makers need to recognise that this is a social choice. The discussions also emphasised that digital transformation is also a cultural transformation. Leadership is needed within firms to shift the work paradigm from one built for the past century to one that is human centred. In addition, while technologies can make workplaces both safer and cleaner, it is still important to ensure adequate employee protection.

Panellists also highlighted the promise of technologies for the public sector. Finland uses technologies to increase efficiency by reducing burdensome work and facilitating job matches. In this way, technology can ensure that workers with diverse skills find the best possible job matches. The session ended with a set of provoking questions about the ability to train all of the workers that need new skills, and how to change the cultural mind-set. In their responses, the panellists emphasised the role of individual curiosity and the ability of policy makers to "set the table" to help stakeholders come together to share experiences and success stories.

Session participants

- Stefano Scarpetta, Director for Employment, Labour and Social Affairs, OECD; Thiébaut Weber, Confederal Secretary, ETUC; Justine Cassell, Human-Computer Interaction Institute, Carnegie Mellon University; David Weil, Dean, Brandeis University; Natasha Friis Saxberg, Digital Strategist, Author and Board Member; Timo Lindholm, Ministry of Economic Affairs and Employment, Finland.

10. Plenary Session – Education and Skills in the Digital Age

Key points

- While there are many uncertainties about the skills people need to thrive in a digital world, we do know that: 1) a mix of skills involving cognitive skills, IT skills, and social and emotional skills are increasingly needed; 2) governments must co-operate with other stakeholders to try to anticipate future skills demand; and 3) the adaptability of both individuals and policies is part of the answer.

- The policy changes that are needed to make life-long learning a reality for all is comprehensive and requires involving a range of stakeholders. Educational institutions have an important to play in developing the needed skills and the capacity and motivation to learn. The private sector, unions and governments can better co-operate to help workers adapt their skills to new needs.

Summary of the discussion

Panellists discussed how new technologies change the world of work and the demand for skills. While many uncertainties about future skills needs remain, we have learned that many occupations are changing. People increasingly need a mix of (hybrid) skills that includes digital skills but also a broad range of other skills, with cognitive and social and emotional skills being very important. Panellists argued that it was also crucial to think about: 1) how people can be better prepared to work with technology and 2) how more jobs that cannot be performed by machines/computers can be created.

Panellists also discussed how to build the foundations for life-long learning. They emphasised the role of initial education to ensure foundation skills and develop the capacity to learn, but also highlighted the efforts required to make traditional education more forward looking and to teach "how to do things." As adults, people need to continue learning. Panellists discussed how to create the motivation to upskill, which depends on several cultural, individual and contextual factors. The flexibility of training provision, portability of training rights across jobs and the certification of skills acquired on the job are three important areas for policies.

Finally, panellists noted that the fact that low-skilled workers participate less in training is well known and should have already triggered policy action. They stressed the importance of developing new tools and approaches to help people to navigate their careers through uncertainty. The session featured a video by Daniel Bill Opio, a youth leader with the Internet Society Chapter in Uganda. He outlined both the opportunities and challenges faced in the digital age when it comes to education and skills. He stressed that many teachers are ill equipped to reap its benefits, and policies should help teachers to keep abreast with digital technologies to better transmit skills and knowledge to students.

Session participants

- Andreas Schleicher, Director for Education and Skills, OECD; Zee Kin Yeong, Assistant Chief Executive (Data Innovation and Protection), Infocommunications Media Development Authority, Singapore; Sebastian de Toro, State Secretary, Ministry for Energy and Digital Development, Sweden; Geoff Mulgan, Chief Executive, National Endowment for Science Technology and the Arts, United Kingdom; Ann Mettler, Head of the European Political Strategy Centre, European Commission; Enrique Medina Malo, Chief Policy Officer, Telefonica.

11a. Parallel Session – Trade and Investment in the Digital Age

Key points

- The digital era holds many promises for trade, but new challenges have also emerged. Some of these include new concerns about the impact of data protection on trade flows. Other issues for digital trade include legal interoperability, such as for the recognition of e-signatures and e-contracts; barriers to digitally-delivered services; new conditions for entering overseas digital markets; and rising traditional trade barriers and protectionism.

- Maintaining and ensuring market openness in the digital age is key to enabling benefits for firms of all sizes and for consumers. As digital transformation progresses, the opportunity cost of inaction may grow. International trade rules are needed to underpin trade in the digital era.

Summary of the discussion

Panellists highlighted the changing digital trade landscape and new opportunities for firms of all sizes. However, reaping these benefits requires facing new challenges, including complex policy issues like finding a balance between privacy and cross-border data flows, e-signatures, e-contracts, barriers to digitally delivered services, source-code, conditions for entering markets and rising traditional trade barriers and protectionism.

Panellists welcomed global approaches such as the recent launch of WTO negotiations on e-commerce in early March 2019. They also underscored the usefulness of approaches undertaken in free trade agreements, giving concrete examples of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the EU-Japan agreements, and argued that issues raised in these agreements could help inform WTO discussions. Panellists highlighted the difficulty of having both an ambitious agreement in terms of issues covered and including many countries, often at different levels of development or with different approaches. Trade policy plays a particularly difficult role in this environment, as trade negotiation authorities are rarely involved in the development of standards of privacy and data security. However, trade negotiators can help to make national standards interoperable.

The panel also underscored the importance of market openness in the digital age. They underlined how firms, particularly SMEs, are now able to reach global audiences, abstract from analogue issues such as scale, and side-step some of the traditional constraints associated with trading in global markets. The OECD can usefully focus its work on continuing to enable dialogue among different stakeholders, providing analytical inputs into discussions, and collecting new data to feed into the debates.

Session participants

- Ken Ash, Director for Trade and Agriculture, OECD; Marie-Gabrielle Ineichen-Fleisch, State Secretary for Economic Affairs and Chair of the OECD Global Strategy Group, Switzerland; Lenard Koschwitz, Senior Director, Allied for Startups; Asako Ueno, Director, Multilateral Trade System Department, Ministry of Trade and Industry, Japan; Christophe Kiener, Head of Services Unit, Directorate-General for Trade, European Commission; Rory MacFarquhar, Director for Global Economic Policy, Google.

11b. Parallel Session – Competition in the Digital Age

Key points

- In the digital age, competition authorities should consider the facts of the alleged misconduct or merger. This should involve looking beyond short-term price effects to innovation and other long-term effects on consumer welfare. Authorities should consider concerns regarding the abuse of dominance and the risk of a loss of potential competition when a start-up is acquired by a large online platform.

- Such approaches may not be possible within existing competition frameworks. Small changes to notifications thresholds may be required, and more significant changes may also be necessary. It may be necessary to consider the magnitude of the potential harm, and not only the likelihood of harm. It may also be necessary to shift the burden of proof of pro-competitiveness to the acquiring party.

- Competition law alone is not the answer to the competitive concerns in some digital markets, and remedies may not always be effective. Instead, competition policy may need to develop new approaches, such as standardised data portability requirements to incentivise online platforms to compete and to pay users for their data. The OECD can play a key role in helping its jurisdictions develop and co-ordinate pro-competitive regulations.

Summary of the discussion

Panellists underlined the opportunities to improve the effectiveness of merger control and antitrust enforcement, as well as to remove anti-competitive regulations and to be pro-active in developing pro-competitive regulatory regimes, for example enabling data portability. One panellist suggested that there is room for improvement in the way that competition laws have been used to address concerns in digital markets, and emphasised the need to look beyond short-term price effects. Changes to reflect the magnitude of the potential harm, and not only the likelihood of harm, when making merger decisions, may be needed. Pro-active pro-competitive regulations may also need to be developed, for example measures or standards that enable data mobility and interoperability.

Panellists also noted that online platforms have brought the benefits of digitalisation to many people, and competition authorities are not always well-informed about digital markets. Panellists disagreed about whether regulatory action can harm innovation and investment as well as the competitive effects of mandating data portability. Another panellist discussed the features of multi-sided markets, including the lack of a zero price floor and implicit transactions with consumers for data, and noted that the exploitation of market power could motivate agencies to be pro-active in seeking pro-competitive solutions, stressing the need to collaborate with users and businesses.

Session participants

- Antonio Gomes, Deputy Director for Enterprise and Financial Affairs, OECD; Cristina Caffara, Vice-President, Charles River Associates; Amelia Fletcher, Professor of Competition Policy, Norwich Business School; Laurence Boone, OECD Chief Economist; Geoffrey Manne, President and Founder, International Center for Law and Economics; Cecilio Madero Villarejo, Deputy Director-General for Antitrust, European Commission.

12. Plenary Session – The Global Agenda for Digital Transformation

Key points

- International fora, such as the G20, G7, EU and APEC, play an important role in bringing a common understanding to difficult digital policy issues and providing a space for sharing best practice and experiences. Such a common understanding must ensure that digital transformation human-centric, with humans leading technology and harnessing it to achieve societal goals.

- Common standards and rules on issues such as free flow of data with trust and artificial intelligence are necessary for digital transformation. The OECD can work with international fora (including through its work on AI principles) to support this agenda.

Summary of the discussion

Panellists stressed that digital transformation is a global phenomenon that demands international solutions to help countries seize the benefits and manage the risks. They also underscored the need to shape a vision for a digital economy and society that is human-centric, enhances trust, and tackles inequalities. In the case of the EU, one panellist suggested that such issues can be addressed through the Digital Single Market, while another panellist noted that in Japan work is proceeding on how policy can achieve an inclusive society and economic growth through digital technology, so-called "Society 5.0."

Concretely, panellists saw the need for enhanced connectivity, regulatory coherence and in some cases policy coherence, and the importance of breaking policy silos and taking a policy mix approach was highlighted. Panellists also stressed the need to work hand-in-hand with countries and civil society, echoing the general point made by panellists that context and starting points can differ widely across countries and that common understanding must be built around digital transformation policy issues.

Panellists identified critical issues that need to be urgently addressed if the digital transformation is to work for all. In particular, they highlighted achieving the free flow of data with trust, directing technology to achieve social goals (such as advancing the United Nations Sustainable Development Goals (SDGs) and tackling climate change), boost development, and increase trust. Panellists stressed the need for international common standards and rules in order for new technologies (e.g. AI) to advance in a way that does not create mistrust. Relevant policy areas include connectivity, education and training, R&D and investment in technology, and sound regulatory and governance frameworks. Panellists agreed that sharing best practices and experiences offers ways forward to solve some of the challenges, and that international fora can also act as incubators for ideas.

Session participants

- Gabriela Ramos, Chief of Staff and G20 Sherpa, OECD; Alexandru Petrescu, Minister of Communications and Information Society, Romania (EU Presidency); Katsuya Watanabe, Vice Minister of the Ministry of Internal Affairs and Communications, Japan (G20 Presidency); Rebecca Fatima Sta Maria, Executive Director, APEC; Antoine Kasel, EU G20 Sherpa, European Commission; Laurent Bili, Director General, Ministry for Europe and Foreign Affairs, French G7 and G20 Sous-Sherpa, France (G7 Presidency).

13. Plenary Session – A Data-driven World – Can We Ensure Privacy?

Key points

- To make digital transformation work for growth and well-being, a multi-stakeholder approach is needed to foster privacy, which acts as an essential pre-condition of trust in the digital age. As users are increasingly vocal about their concerns about privacy, all actors must work together to build trust in digital transformation.

- Privacy should not be seen as an enemy of innovation, but rather as a means to foster innovation and competitiveness. Data sharing, and in particular data portability and data interoperability, for instance through open Application Programming Interfaces (APIs), are needed for innovation, market development and competition in the digital age.

Summary

Data sharing, and in particular data portability and data interoperability, are a condition for innovation and competition in the digital age. Concerns are, however, emerging about restrictions to cross-border data flows such as data localisation requirements, which restrict data access, sharing and re-use within national borders. Participants noted that the potential of digital transformation can only be realised through coherent and interoperable privacy regimes as national approaches differ across countries. While recognising the increasing role of the GDPR in creating an environment of trust, panellists underscored the importance of building on the OECD Privacy Guidelines, which remain relevant today.

Panellists also addressed rising privacy concerns and their role as a barrier to achieving data-driven innovation. As trust is a pre-condition of digital transformation, users must feel empowered by digital environments and confident in their ability to control their data. As more activities are based on the exchange of data, privacy concerns act as a disincentive to use of digital technologies and could have real implications on aggregate growth and productivity. Moreover, panellists also mentioned that concerns about privacy are also relevant to democratic expression and freedom of speech, which may have broader impacts on societies.

Panellists also stressed the need to strike the right balance between privacy and innovation; they encouraged revisiting privacy legislation in this context. Moreover, the private sector expressed a willingness to pursue multilateral approaches to ensure privacy in the digital age, with the goal of avoiding international fragmentation in data protection laws in the future. The OECD can act as a forum for multi-stakeholder engagement by bringing different parties together and sharing experiences in this area.

Session participants

- Steve Lohr, Senior Writer and Reporter, New York Times; Anne Berner, Minister of Transport and Communications, Finland; David Redl, Assistant Secretary for Communications and Information and Administrator, National Telecommunications and Information Administration, United States; Mounir Mahjoubi, Secretary of State for Digital Affairs, France; Malavika Jayaram, Inaugural Executive Director of Digital Asia Hub; Ed Britan, Counsel for Global Privacy Policy at Microsoft.

14a. Parallel Session – Ensuring Well-Being in the Digital Age

Key points

- Digital technologies are a means rather than an end, and digital transformation should be used to improve people's lives, save time and money, improve their health and address their needs. More social engagement is needed to build trust in digital transformation and ensure that people are confident in using digital technologies and operating in digital environments.

- The speed of digital transformation is unprecedented, potentially challenging the resilience of humans and societies. Digital transformation should be people-centred and take a values approach.

Summary of the discussion

Panellists underlined that people must be at the centre of the digital transformation, and welcomed the *How's Life in the Digital Age?* report, which uses the OECD well-being framework to assess the impacts of digital transformation. Panellists identified the range of opportunities arising from the digital transformation, including the ability of governments to break down barriers between ministries, get people online, enable tele-medicine, reduce the cost of living, reduce pollution through connected devices, and develop new digital solutions for civic and political engagement. Challenges were also identified, including with respect to trust, security and environmental sustainability, inequality, mental health and ethical issues as well as disinformation.

One panellist discussed Latvia's approach to reducing digital divides, which involves a public awareness campaign, increased investment in digital education at school, and equipping rural elderly people with digital skills. There was consensus that adequate skills are one key to thriving in the digital age.

Panellists also underscored the need for more early education and actions to address loneliness and social exclusion; a new social contract was raised as a potential way forward. A new social contract could also address concerns about the democratic process and political debates. Panellists then highlighted the importance of ensuring that digital transformation is ethical by design, and recent work from the standards community to create a code of conduct for AI was noted. Algorithmic decision-making and data transfer, sovereignty and ownership are key ethical questions in the future.

The session also featured a video by Imane Bello, a young lecturer in Ethics and Politics of AI at the Institut d'Etudes Politiques de Paris. She stressed the need to adopt a people-centred approach to well-being policies, and noted the importance of three factors: 1) digital literacy, 2) trust, and 3) security.

Session participants

- Martine Durand, Director for Statistics and Data, OECD; Rinalds Mucins, State Secretary, Ministry for Environmental Protection and Regional Development, Latvia; Yael Tzach, Deputy CEO Digital Israel; Sir Peter Gluckman, Chair, International Network for Government Science Advice; Yuko Harayama, Former Executive Member, Council for Science, Technology and Innovation of the Cabinet Office, Japan; John C. Havens, Executive Director, IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems.

14b. Parallel Session – Strengthening Digital Government

Key points

- The digital age offers an opportunity to deliver better public services. However, this requires integrated approaches to digital service delivery across policy areas, and improving skills and willingness to use data and technology. It also requires leadership and adequate governance, including the confidence to explore experimental approaches to different policy areas and involving external stakeholders to build a long-term vision.

- Data governance is core to digital government. Data should be made available and accessible in transparent ways, and actors should be taught to effectively use data. A catalogue of APIs can be a powerful governance tool.

Summary of the discussion

Panellists highlighted the work of the OECD Working Party of Senior Digital Government Officials (E-Leaders) and how the OECD supports governments to evolve from e-government (or the digitisation of existing processes, procedures, services) towards digital government (or the use of digital technologies and data to rethink, reshape and redesign policymaking, internal procedures and service delivery). The panel also highlighted the special role that governments play in bringing together stakeholders, including citizens, government, businesses and academia, to use digital transformation to solve grand challenges like climate change.

The panel then discussed the importance of leadership and talent to support digital transformation of the public sector, and that digital government approaches should emerge from citizen needs. Panellists also stressed the need to ensure that digital public services should be multi-channel and inclusive. The panel agreed that adequate skills to thrive in digital environments are necessary for both public servants and the general population. Open government data was identified as critical, as was improvements in data literacy. A better understanding of data, and its utility to the digital government ecosystem, may be necessary.

Panellists underlined that governance is important to ensure underlying enablers, such as digital identities, and that governance approaches should include top-down steering, funding, leadership and technical capabilities, while also incorporating bottom-up aspects like stakeholder engagement. The panel also debated whether new organisations and structures might be necessary, and that governments may need to take on new roles and experiment with new policy approaches (e.g. regulatory sandboxes).

Session participants

- Irène Hors, Deputy Director, Directorate for Public Governance, OECD; Diego Piacentini, former Government Commissioner for the Digital Agenda, Italy; Siim Sikkut, Government Chief Information Officer, Estonia; Anna-Maija Karjalainen Director-General for Digital Government/Government Chief Information Officer, Ministry of Finance, Finland; Elijus Čivilis, Vice-Minister of Economy and Innovation, Lithuania; Darja Isaksson, Director-General Vinnova, Sweden.

15a. Parallel Session – Realising the Promise of Blockchain

Key points

- Despite the huge amount of interest and investment, blockchain is nascent and may only be fully mature in another decade. Many technical and governance questions remain to be addressed before full-scale adoption.

- The decentralisation that underpins blockchain (both in terms of storage and decision-making) may require new rules. Governments aim to provide regulatory certainty, but should take care to develop rules and frameworks that are fit-for-purpose over the long-term and are technology neutral.

- How the real world interacts and is represented on blockchain networks will be a key consideration. This means that blockchain's success rests on good analogue governance to ensure the accuracy of data. Traditional means like audits and trusted third parties should be used, but in the future AI and pattern matching may play a role in ensuring that the data recorded on blockchain is correct.

Summary of the session

The panel noted that blockchain represents an important shift in the way that data can be used to represent real-world assets in a transparent and trusted way. While there are relatively few scaled commercial examples, blockchain holds promise in a range of applications including financial transactions, GVCs (e.g. shipping records, responsible trade in minerals), public services, the authentication of voting records, and distribution of foreign aid funds, among others.

The panel noted, however, that the recording of data related to physical goods on blockchains relies on the accuracy and verification of data included on the blockchain. One panellist suggested that blockchain works well as a verifying authority where a centralised intermediary connects different parties or actors, but can also as a bottleneck. Important questions around interoperability, government access to encrypted information, the nature of digital assets, and standards for public blockchain projects were also raised.

The panel noted that there is no consensus on public policy approaches for blockchain, but that promising efforts have been made at the intergovernmental level. The panel highlighted that care should be taken to ensure that public policies are consistent in the long-term and that they raise awareness among the broader public in order to build trust in blockchain over the long-term. One panellists presented a private and permissioned blockchain called InfraChain that has been adopted by over 40 other countries. It aims to accelerate the adoption of blockchain by creating a community-driven permissioned blockchain network that ensures trust, accountability and legal certainty to a greater degree than wholly public networks.

Session participants

- Greg Medcraft, Director for Enterprise and Financial Affairs, OECD; Allison Berke, Executive Director, Stanford Cyber Initiative; Jonathan Ivelaw-Chapman, Chief Operating Officer, Responsible Business Alliance; Tom Kettels, Operational Lead, InfraChain, Digital Luxembourg.

15b. Parallel Session – Artificial Intelligence: The Way Forward

Key points

- AI allows better and more efficient decisions that free up people's time for more creative work, boosts the productivity for firms, and helps manage help large and complex problems such as natural disasters and health issues.

- OECD and partner countries share many values, and the OECD plays a unique role in helping countries and stakeholders to work together to enable the responsible diffusion of AI for growth and well-being. The OECD is also instrumental in the development of frameworks that promote transparency, accountability, and inclusivity and skills for both people and firms.

- Looking ahead, a key challenge will relate to the translation of high-level guidelines into practical and implementable measures that can be monitored. International co-operation will continue to remain relevant in the long-term.

Summary of the discussion

Panellists noted that the rapid development of AI may challenge the application of public policies. The panel affirmed the importance of a multi-stakeholder, risk-based approach for AI policies that favours innovative and iterative approaches. It also stressed the importance of agreeing on fundamental values at the international level.

One panellist discussed Poland's AI policy priorities in the broader EU context. Poland's priorities include: 1) access to and sharing of data needed for AI; 2) public-private partnerships for investment; iii) education and skills, including attracting and retaining AI talent; and iv) legal and ethical aspects of AI. Another panellist discussed the US approach, which involves: 1) investing in AI R&D; 2) removing barriers to AI innovation in the US while respecting civil liberties and other rights; 3) investing in people and workforce.

Japan's AI ambitions include improving disaster management, notably through an AI system that analyses information on social networks in real time to help local governments determine how to allocate support. The Japanese government is also developing its AI strategy to: 1) promote human-centric AI; 2) use AI to solve social challenges; and 3) leverage AI to contribute to the SDGs. Belgium's AI policy is underpinned by an emphasis on privacy, anti-discrimination, and human rights.

Some panellists expressed worries that facial recognition could be used in an opaque manner for national security as well as an increasing reliance on large technology companies who provide the computing power required for AI to create value. They also underlined the need for: 1) a baseline comprehensive data protection law; 2) standards for government use of AI (e.g. open procurement standards); 3) democratic values; and 4) more research.

Session participants

- Steve Lohr, Senior Writer and Reporter, New York Times; Katsuya Watanabe, Vice Minister, Ministry of Internal Affairs and Communications, Japan; Karol Okonski, Secretary of State for Digital Affairs, Poland; Fanny Hidvegi, AccesNow, Belgium; Adam Lusin, Director, State Department Economic Bureau Multilateral Affairs Office, United States; Margarete McGrath, Chief Digital Officer, Dell Technologies.

16. Steering Towards a Better Digital Future

Key points

- The OECD Going Digital project shed light on a range of different aspects of digital transformation. The quality of the outputs benefitted from the cross-disciplinary, multi-stakeholder and horizontal approach. Going forward, the project should seek to elaborate the Going Digital Toolkit, advance the measurement agenda, and analysis inequalities associated digital transformation.

Summary of the discussion

The panellists congratulated the OECD for the comprehensiveness and high quality outputs of the Going Digital project. They also expressed appreciation for its inclusive and cross-disciplinary approach, involving numerous stakeholders, Committees and Directorates.

This concluding session explored some of the highlights from discussions that had been held on Day 2 and, more importantly, elaborated on what actions and measures need to be taken going forward in Phase II of the project. The panellists emphasised the importance of trust by design when talking about frontier technologies, such as AI. These are rapidly evolving technologies, and they have multiple policy implications. They stressed the need to radically rethink how policies are formulated and delivered, and emphasised the importance of a human-centric approach. For this to be achieved, the panellists agreed that drawing on lessons from Member countries would serve as a best practice exercise.

The Going Digital Toolkit was identified as a key output of the project whereupon policy benchmarking could be achieved, as well as to shed light on policy areas in need of refinement. One panellist described the Toolkit as a dynamic and powerful tool for country assessment, and suggested that it should be an essential part of Phase II of the project. It will be particularly helpful for capacity building in governments.

The panellists agreed that more work on measurement – particularly in terms of data governance, privacy and security – is needed as the project moves forward. Panellists also underscored the need to address a growing number of inequalities in society.

Session participants

- Andrew Wyckoff, Director for Science, Technology and Innovation, OECD; Wonki Min, Vice-Minister of Science and ICT, Korea and Chair of the Committee on Digital Economy Policy; Pierre Habbard, General Secretary, TUAC; Makoto Yokozawa, BIAC; Pablo Molina, Georgetown University; Constance Bommelaer de Leusse, Senior Director, Internet Society.