MEDICI WORKSHOP: SUBMISSION OF OUTCOMES

1) **The impact of digital transitions on society and economy**

2) **MEDICI Framework of Cooperation**

3) **Relevance with the WSIS Action Lines – please specify the Action Lines C1 to C11**

   C1. The role of governments and all stakeholders in the promotion of ICTs for development

   to support the implementation of ICT when ensure the secure environment

   to organise initiatives for further development of complete

   - eGovernment
   - eHealth
   - eLearning
   - eCommerce and banking

   C2. Information and communication infrastructure

   - smart city infrastructure development
   - maintaining of the current infrastructure
   - develop a new one corresponding to the new technologies

   C3. Access to information and knowledge

   - Access to broadband Internet and other platforms that allow information and communication
   - equal access to the formal and informal training
   - secure access
   - AI, IoT, Data Analytics enhance human productivity

   C4. Capacity building

   - digital literacy to become a basic
   - development of new technical and non-technical skills
   - opportunity to knowledge growth

   C5. Building confidence and security in use of ICTs

   - to design and develop security at each level of ICT infrastructure - very important

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- to take into account GDPR rules
- to keep individual liberty

C7. ICT applications: benefits in all aspects of life — E-government

Important aspect of life and development of Smart cities:
- customization and personalization of information
- citizen-centred
- open and collaborative environment

C7. ICT applications: benefits in all aspects of life — E-health

Important aspect of life which support the monitoring and prevention
the Data Science, AI and IoT development increases accuracy.

C8. Cultural diversity and identity, linguistic diversity and local content

- providing access to all population without regards of cultural and ethnical diversity and identity
- bring digital equality
- The most important issue in the digital transformation is to preserve our humanity thanks to an ethical approach

C11. International and Regional Cooperation

- International and Regional cooperation in responding to political issues surrounding denial of access to ICTS and their contents / Monitoring and helping to ensure digital access for each nation's citizens, hospitals and businesses. When this issue occurs at a national level, it immediately impacts that nation's regional partners in every sector.
- This is particularly important due to the global and regional IT connectivity needed for contemporary economies, transport, energy supply, health care, and disaster resilience.

4) Did your workshop highlight any issues related to COVID-19? If yes, please explain.

Yes, the workshop highlighted the opportunities as well as challenges related to digital transformation led by COVID-19 and the prevalence and in many cases the absence of access to digital assets.

For Life During Corona, the gap between regions whose medical facilities can use ICTs for testing, diagnosis and treatment, and regions which cannot, was highlighted as a crisis situation during COVID.

Several aspects of the Life after Corona were mentioned:

- The acceleration of the digital transformation- 5G & cybersecurity, AI and Big data
- Smart cities – rapid growth and related cyber risks
- Globalisation and climate change cooperation
- Health – healthcare as a national resource
- Health - healthcare as a national resource which is reliant on ICTs for medical practise as well as in international cooperation on critical health issues
- Consumers from different generations – for Z gen – Covid-19 is great polarizer

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In addition, it was highlighted on the IoT security vulnerabilities and considerations in smart city after Pandemic topic. The meaningful change in cities during and after the pandemic is digital transformation, smart city rapid growth, and cyber risks. The outcome will be a new kind of resilient city, completely different than what we have seen before. During the COVID19, the nations' daily behaviour changed because most activities have to manage digitally, and it means more cyber risks for people. Based on predictions, cybercrime damages will cost the world more than $6 trillion by end of 2021, exponentially more than the damage inflicted from natural disasters in a year, and more profitable than the global trade of all major illegal drugs combined.

5) Key achievements, announcements, launches, agreements, and commitments

Nowadays there is a recurring buzzword: Digital Transformation (DX or DT) – it is an opportunity or a nightmare? The pandemic strengthened this trend, digital transformation will help to mitigate the effects of the crisis, improve resilience. "Resilience", by the way, another recurring term in the pandemic time. We all agree on the meaning of the term "transformation" but "Digital" has different meanings. A comprehensive definition of the term Digital transformation should be the integration of digital technology into all areas of activity, from business to public sector, fundamentally changing how we operate and deliver value to customers or citizens.

Every area of our life is "touched" by digital transformation. Its impact is dramatically changing life dynamics. The decisions we make entering the digital transformation are an important part of our future existence. Consideration of the consequences is required.

We have to think about what decisions we take in a digital transformation and to try to predict the butterfly effect of them trying to provide the right ethical basis to protect humanity from ourselves.

The diffusion of platforms if on one side creates new opportunities on the other side "kills" a number of existent businesses. The access to global service platforms creates a shortcut between offer and demand cutting out major part of the traditional added value chain. You don't need to invest relevant capitals to feed your business, the key investment is the creation of the digital platform, the asset you own is the number of users both on the offer and demand side. Following the schema of some of the recent revolutions the idea was: digital technology is disruptive cancelling a number of businesses, but new businesses will be created, the key point is that the specific nature of digital technology is actually creating less positions than the one eliminated. In general, to improve our life with technological development, enhancing and visualising communication, services, and processes, as well as stimulating creativity. New skills are developing, new professions are emerging, and others are disappearing, but there is another side - the effect of alienation.

Significant changes and challenges are immersed in education as well. The decisions we make now will be visible in decades. Transformations in education build new environments and methods of teaching and learning. All this is done in the name of improving access to education, personalized and secure training to build more business-ready citizenship.

The outcome in the field of urban settlements will be a new kind of resilient city, completely different than what we have seen before. It means more big data, more cyber risks and attack and more investment on smart cities and emerging technologies such as IoT, AI and blockchain.

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It needs more expertise sessions to find practical solutions instead of theorical for the negative impact of digital transitions on society and economy and make a roadmap, action plan and RM for that. We must keep humans in the loop and carefully consider the social and economic impact due to digital transition.

Panellists Identified some concrete actionable items based on on-line webinars and courses (e.g. ITU Academy) that will directly involve them: a) Improving Awareness & promoting Capacity Building Actions; b) Fostering a Culture of Cybersecurity. Starting from the actual interdisciplinary team it will be opened a call for participation to establish an Interdisciplinary team analysing mid & long-term impacts of DT.

On the occasion of the panel Valmiki Mukherjee, Chairman of Cyber Future Foundation announced the initiative started for Cyber Peace Goals, and the alignment of the Cyber Peace Goals with the Sustainable Development Goals.

6) Main outcomes highlighting the following:

I. Debated Issues
   Please capture highlights of the main issues discussed and interactions with audience

- Key social and economic issues (loneliness, unemployment, "workers' robotisation", etc.)
- Appropriate use of technology: citizens first
- Ensure better connectivity
- Cyber Risks to Watch Out during pandemic for 2021-22 and smart cities security considerations
- Learn from each other in a world of great distrust and fake information
- Ensure cyber resilience in case of natural or human disasters
- How to "survive" in case of cyber disasters, or loss or blocking of access to ICTs

Considering the evolution of Cities, within the general framework of digital transformation, from "Digital" to "Smart" on the occasion of the panel Dr. S. Toporkoff introduced the concept of "Cognitive" City, it expands the concept of the smart city by its constant interaction with its citizens through advanced information communications technologies. A link based on collaboration, interaction, the sharing of information, transparency and skills.

Please highlight key achievements and challenges shared by the audience and/or panellists

Opportunities
- Interrelated changes and economic opportunities
- Technological capabilities of DT/DX – AI, IoT, Data Analytics etc. to improve human wellbeing and enhance human productivity
- Providing digital access to disconnected and underserved population
- Improved recovery activities in case of natural or human disasters
- Digital transformation and cyber pervasiveness could allow for tight "central" control over citizens and limit human rights.
- Continue to move towards international agreement and implementation of U.N. and ITU indications on widespread and free availability of ICTS and contents

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Challenges

- Disruption of existing socio-economic models, established markets, potential average loss of working positions
- Creating digital divide and inequity between have and have nots, both on the personal level and on the supra-national level between countries
- Introducing significant risk and exposure towards cybercrimes, privacy infringements and individual liberty reductions.
- Ensure overall resilience even in case of cyber-tech failures

Identified areas of application for digital transformation opportunities to advance economic outputs

- Effect of digital models towards bringing innovative ideas to fruition, cheaper experimentation, collaboration and dissemination of information resources
- Increasing interaction between people, government, organizations and businesses
- Bringing digital equity and opportunity through careful planning and execution, dispersion of information resources
- Increasing productivity - Automation vs. human intervention
- Reskilling, up skilling workforce – opportunity for knowledge growth
- Replacement of jobs by machines, and freeing up human ingenuity and creativity for greater good
- Balancing Policy and business priorities to expand access to economic opportunities.

II.   Quotes

"It is evident that digital transformation it is not a process "one size fits all", each specific sector and even activity requires a particular approach and custom solution; this starting from the three main branches: citizens, companies, public administrations." (Alfredo M. Ronchi – MEDICI Framework, Italy)

"Following the schema of some of the recent revolutions the idea was: digital technology is disruptive cancelling a number of businesses, but new businesses will be created, the key point is that the specific nature of digital technology is actually creating less positions than the one eliminated." (Alfredo M. Ronchi – MEDICI Framework, Italy)

"New technologies are influenced by and themselves influence political, economic, social, cultural systems and also ethical values. Digital transformation needs to be values-driven values to save and improve lives, empower people to take their destiny in their hands, increase peace by connectivity and transparency. In short: digital transformation is ethically negative if it increases dependency, vulnerability and domination.

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It is ethically positive if it increases freedom, peace, education security, community, identity and spirituality, in short to become truly human." (Christoph Stückelberger – Globethics.Net, Swiss)

"*Think Vision; Think Collaborative and Citizens; Think about reproducing, adapting and improving; Think Developing skills, Think sustainable, inclusive, cognitive*" (Dott. Sylviane Toporkoff President & Founder Global Forum, France)

"*Cognitive city expands the concept of the smart city by its constant interaction with its citizens through advanced information and communication technologies*" (Dott. Sylviane Toporkoff President & Founder Global Forum, France)

"*The dynamics of our time are big, things are happening faster, this is growing exponentially in recent decades. The reason is the invention and launching of computers, the global network and its services*." (Eugenia Kovatcheva, PhD, University of Library Studies and Information Technologies, Bulgaria)

"*Every area of our lives is "touched" by the digital transformation. Significant changes and challenges are immersed in education as well. The result of their solutions is not seen immediately, but after a decade. Transformations in education are both in the environment and in the methods of teaching and learning. All this is done in the name of improving access to education, personalized and secure training to build more business-ready citizenship*." (Eugenia Kovatcheva, PhD, University of Library Studies and Information Technologies, Bulgaria)

"*Digital transformation and cyber security go hand in hand. We cannot realize the benefits of digital transformation without securing the digitally connected components of cyber space. The challenges associated with cyber threats to digital assets make everyone connected to this ecosystem vulnerable, so we must introduce a global regime of cyber peace to ensure there is an expectation of law and order in the cyber world. The cyber peace goals must align with the sustainable development goals so that we can ensure their maximum impact. At this year's WSIS Forum the Cyber Future Foundation along with its fellow cyber peace partners Cyber Peace Institute and Cyber Peace Foundation propose the adoption of the Cyber Peace Goals to which will ensure digital transformation positively impacts everyone*" (Valmiki Mukherjee, Chairman & Founder, Cyber Future Foundation)

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*"**Cyber-insecurity** - The digital transformation can also be used to remove and destroy the capacities it was meant to bring about, including the digital transformation itself."* (Lynn Thiesmeyer, Professor Emerita and Adjunct Professor at the Faculty of Information Studies, Keio University, Japan)

"The lack of international agreement on standards and countermeasures is hampering approaches to the growth of government-based cyber-insecurity, yet their implementation will be even more difficult unless we begin considering it now." (Dr. Lynn Thiesmeyer, Professor Emerita and Adjunct Professor at the Faculty of Information Studies, Keio University, Japan)

"Smarticipation concept to make an interactive connection between people and governments for access to information and increase public knowledge." (Mahdi Bina, Head of Smart city Council at Canada InnoGate Solutions, Canada)

"The outcome will be a new kind of resilient city, completely different than what we have seen before. It means more big data, more cyber risks and attack and more investment on smart cities and emerging technologies such as IoT, AI and blockchain." (Mahdi Bina, Head of Smart city Council at Canada InnoGate Solutions, Canada)

"Digital transformation is the key of any technological progress of our times. This rapid change of technologies brings serious difficulties to users, business and societies. Still the benefits are enormous." (Dimitris Androutsopoulos, Co-founder and CEO, Net Technologies Finland Oy, Finland)

"Digital transformation, the cornerstone towards resilient and safe societies and businesses."

(Dimitris Androutsopoulos, Co-founder and CEO, Net Technologies Finland Oy, Finland)

"Countries need to provide legal basis for smooth digital transition and to regulate their impact on society and economy" (Dr. Pavan Duggal Advocate, Supreme Court of India, Chairman International Commission on Cyber Security Law)

"As countries have to increasingly start working together for addressing legal and policy issues concerning impact of digital transition on society and economy, cyber resilience and digital transformation will be only mantra way ahead." (Dr. Pavan Duggal Advocate, Supreme Court of India, Chairman International Commission on Cyber Security Law)

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III. Overall outcomes of the session highlighting
- **main conclusions reached during the discussion**
- **the vision for implementation of WSIS Action lines beyond 2015**

Panellists Digital transformation through different key topics ranging from socio-economic to ethic aspects outlining trends & outcomes.

Digital transformation leads the society is to increase productivity, to entertain virtually, to be connected from distance. It is a bright side of the process. There is another one - losing our humanity and the lack of international agreement on standards and countermeasures is hampering approaches to the growth of government-based cyber-insecurity.

Digital transformation should be considered with sufficient thought to cyber security as it ensures that the connected assets and the data associated with the digital transformation is put to productive use by the users. Adjust region policies and processes to address the cybersecurity and privacy risk mitigation challenges during and after Pandemic & Implement updated mitigation

Obstacles
- Political: shorter mandates than evaluation cycles,
  treating free and full ICT access as a resource for elites only
- Sociological
- Financial
- Monitoring and evaluation
- Technology

7) Main linkages with the Sustainable Development Goals (please specify the SDGs)

Goal 3: Ensure healthy lives and promote well-being for all

Digital transformation as a tool develops services which ensure well being

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Every area of our lives is "touched" by the digital transformation. Significant changes and challenges are immersed in education as well. The result of their solutions is not seen immediately, but after a decade. Transformations in education are both in the environment and in the methods of teaching and learning. All this is done in the name of improving access to education, personalized and secure training to build more business-ready citizenship.

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

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Digital transformation in action increase productivity and ensure equal access to work. New jobs emerge and people have to develop new competences.

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

There is a strong need to check overall resilience in case of natural or human disasters

Goal 11: Make cities inclusive, safe, resilient and sustainable

There is a strong need to check overall resilience in case of natural or human disasters

Towards smart and safe societies, which is on the top of the list of priorities, the need for applying the most advanced secure network with such features that match the user requirements, is mandatory. Similarly, networks and applications have to guarantee the resilience of the critical infrastructures, such as energy plants and pipelines, airports and harbours, railways and industrial areas.

Critical communications have been used for many years for public safety. From the old narrow band legacy networks, such as TETRA, to the current trend of 5G (like the new one in Finland), organizations and users get full of benefits. Connecting public safety networks offer the opportunity to the LEAs to better serve the citizens. Cooperation between public safety authorities is vital. Common operations are helping against organized crime.

The last 3 years, Police Authorities of Norway, Sweden and Finland are capable of common operations since network interoperability has been achieved between the 3 networks.

New broadband technologies offer unique features. Images and videos are improving surveillance, search and rescue and emergency situation handling.

IoT solutions offer new power in interconnecting and controlling various units of any critical infrastructure. Decision making is heavily supported by AI-based tools. New algorithms will support vital functions while 5G offer to users a variety of new smart apps.

Goal 16: Promote just, peaceful and inclusive societies

For the achievement of all three goals (9,11,6), common standards and laws have to be established especially in cybersecurity
As Dr. Lynn Thiesmeyer says: the digital transformation is a tool and a process that not only can empower and liberate nations and their capacities but can also be used to remove and destroy those capacities, including the digital transformation itself. In addition to working directly against Sustainable Development Goals 9, 11, and 16, these actions deny both domestic and international freedom of communication, knowledge and economic activity among ordinary citizens as well as between the nation and its economic partners.

8) **Emerging Trends related to WSIS Action Lines identified during the meeting**

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According to (inter)national standards (HQE, LEED) and evaluation criteria, define your project with 6 core values:

This session deals with technologies, human factors, social issues, privacy, security, capacity building, e-services, education and cultural aspects, economy, working positions and more.

Increased values to take into consideration:

- proximity of services, health, risks, carbon footprint, acting on employment, education, culture, housing comfort...
- to give back to citizens a more pleasant living environment and to reinforce the resilience of cities in the face of tensions due to climate change, human and natural disasters.

9) **Suggestions for Thematic Aspects that might be included in the WSIS Forum 2022**

Emerging jobs trends after 2 years under the COVID-19, re-skilling and up skilling to match new positions

Digital transformation in education for Z generation and their perspectives, opportunities and drawbacks

Digital transformations and Smart cities; from Vulnerable to Valuable; goodbye privacy?

Artificial Intelligence, Machine Learning, new frontiers, opportunities and drawbacks

Ethical and business standards for international cooperation in the Cyber-pandemic and Cyber-insecurity

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