

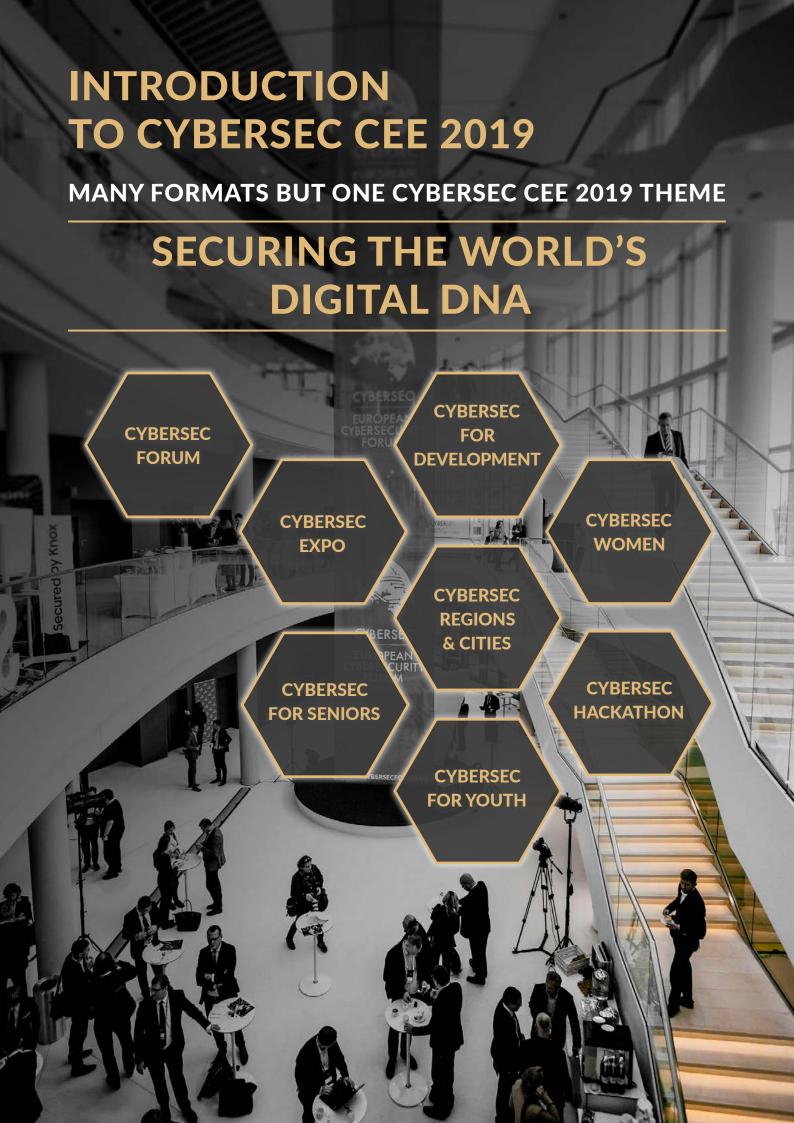
# SECURING THE WORLD'S DIGITAL DNA

KATOWICE, 29-30.10.2019

THE BIGGEST CYBERSECURITY EVENT IN CENTRAL AND EASTERN EUROPE

**CYBERSEC CEE 2019 FOLDER** 





# SECURING THE WORLD'S DIGITAL DNA

#### ... by design and by default

Biological DNA defines the very core aspects of the living world and in that sense gives the world its unique characteristic. As we are now creating the digital world, we can refer to that basics in trying to shape its core, to make it secure, resilient and prosper now and in the future.

Digitalization is an indispensable process penetrating every aspect of our reality, from daily life to economy, states and societies. Therefore, embedding security into that process as well as into more particular solutions is a key, both in terms of our societal functioning and prosperity. If we are thinking about implementing new digital technologies, deploying digital infrastructure or creating cyber products, services as well as crafting decisions, regulations and standards – the DNA refers to how we should design them by having cybersecurity in mind in the whole life cycle. Furthermore, simply being online as an end user, requires from us to have the cybersecurity gene. From now on, cybersecurity should be in our personal and societal digital DNA 'by default' to secure world's digital DNA.

Consequently, embracing, understanding and constantly analysing the world's digital DNA, can help in checking the security status of digital components, tools, and devices as well as regulatory, policy and institutional regimes.

#### ... thanks to innovation

In the face of future development of technologies such as artificial intelligence, quantum computing, the Internet of Things or blockchain together with their intersections, this DNA-oriented approach can serve to identify future risks and address them up front to keep the digital realm 'healthy'. Rapid digital transformation will lead to more critical challenges of the future. To secure the world's digital DNA we need to innovate against new emerging threats.

### ... & within multi-stakeholder approach

Securing the world's digital DNA is a responsibility of us all. It requires sharing information, enhancing cooperation between and across public, private, academia and civil society sectors as well as creating platforms of inclusive collaboration. Common deterrence posture and collective defence actions might help to counter malign actions in cyberspace taken by state and non-sector actors. Work among like-minded governments is crucial to foster the incorporation of a secure digital DNA into states apparatus and decision making at the international level.

### ... to preserve free, open and peaceful cyberspace in the years to come

The CEE region – home to one of the fastest developing digital ecosystem in Europe – is demonstrating a strong potential for growth in the digital economy and the political cooperation it shows in the field, makes it a great place for discussing the development and securing of the world's digital DNA.

# FOUR CYBERSEC FORUM STREAMS



## **STATE STREAM**

The creation and implementation of the most important public policies, strategies and regulations to advance secure digital transformation and to protect democracy.

Advancing the Paris Call goals.



### **FUTURE STREAM**

The security challenges of implementing emerging technologies – Artificial Intelligence, 5G, quantum computing, blockchain – for the global economy and information society.



# **DEFENCE STREAM**

The expanding military cooperation and innovation in the defence sector as a response to emerging dimension for cyber and hybrid conflicts.



### **BUSINESS STREAM**

The emerging role of the private sector in keeping cyberspace safe, the main challenges and the regulatory framework.

# CYBERSEC FORUM PROGRAMME COMMITTEE



TO AT A THE OUT OF

top-class experts



representing

12

countries



COL. ROBERT BALA
Director, NATO Counter
Intelligence Centre of
Excellence - Poland



PAUL CORNISH
Former Co-director, Global
Cyber Security Capacity
Centre, University
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DUCARU
Senior Fellow, Hudson
Institute; Former
Assistant Secretary
General for Emerging Security
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AMBASSADOR SORIN



CDR WIESŁAW GOŹDZIEWICZ Former Legal Adviser, NATO Joint Force Training Centre in Bydgoszcz; Expert of the Kosciuszko Institute – Poland



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George W. Bush and Barack
Obama administrations;
Expert of the Kosciuszko
Institute – USA



MARINA KALJURAND
Member, European Parliament;
Commissioner, Global
Commission on the Stability of
Cyberspace; Former Minister
of Foreign Affairs of Estonia

**AMBASSADOR** 



SEAN KANUCK
Director of Future
Conflict and Cyber
Security, International
Institute for Strategic
Studies – USA



Director of the GCSC Initiative and Secretariat; Director Cyber Policy and Resilience Program, The Hague Centre for Strategic Studies; Non-Resident Senior Fellow, Atlantic Council; Author of The Darkening Web - the war for cyberspace – Austria

ALEXANDER KLIMBURG



JARNO LIMNELL
Professor
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CIARAN MARTIN
CEO, National Cyber
Security Centre of the
UK – UK



CHRISTOPHER PAINTER

Commissioner, Global Commission
on Stability of Cyberspace; Former
Coordinator for Cyber Issues, U.S.
State Department – USA



STEVE PURSER

Head of Core

Operations,

ENISA – UK



LUIGI REBUFFI
Secretary General,
European Cyber
Security Organisation
– Italy



RAFAL ROHOZINSKI CEO, SecDev Group - Canada



JANIS SARTS
Director, NATO
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– Latvia



KRZYSZTOF SILICKI
Deputy Director for
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AMBASSADOR MAREK SZCZYGIEŁ International Cybersecurity Policy Coordinator, Ministry of Foreign Affairs – Poland



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Visiting Fellow, Oxford
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Director, Sustainable
& Secure Society
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European Commission
- Netherlands



JEAN-CHRISTOPHE LE TOQUIN President, Cybersecurity and Cybercrime Advisors Network - France



KIM ZETTER Award-winning journalist – USA



IZABELA ALBRYCHT
Chair, The Kosciuszko
Institute; President,
Organising Committee
of the European
Cybersecurity Forum
CYBERSEC - Poland



JOANNA ŚWIĄTKOWSKA
Programme Director,
European Cybersecurity Forum –
CYBERSEC; Senior Research Fellow,
The Kosciuszko
Institute– Poland

# CYBERSEC FORUM AGENDA

#### DAY 1 OFFICIAL CONFERENCE OPENING **OPENING PANEL DISCUSSION:** Transforming cities into cyber-resilient smart metropolises **KEYNOTE PRESENTATIONS** MAIN PANEL DISCUSSION: Secure 5G infrastructure as a backbone of digital transformation **TAILORED SIDE THEMATIC BLOCK:** SESSIONS: interviews **INNOVATION** closed sessions, fireside chats roundtables, working **HYDE PARK** presentations groups, working **STATE STREAM** panel discussions lunches, workshops MAIN PANEL DISCUSSION: Industrial cyberespionage campaigns **TAILORED SIDE** THEMATIC BLOCK: **SESSIONS:** INNOVATION interviews closed sessions, HYDE PARK fireside chats roundtables, working presentations groups, working **BUSINESS STREAM** panel discussions lunches, workshops **INVITATION-ONLY CYBERSEC 2019 BANQUET** DAY 2 **KEYNOTE PRESENTATIONS** MAIN PANEL DISCUSSION: Security among the Alliance, building capabilities together **TAILORED SIDE** SESSIONS: THEMATIC BLOCK: breakfast/lunches, interviews INNOVATION closed sessions. fireside chats roundtables, work-**HYDE PARK** presentations ing groups, working **DEFENCE STREAM** panel discussions lunches, workshops MAIN PANEL DISCUSSION: Geopolitics of cybersecurity - forthcoming implications of the digital cold war **TAILORED SIDE** THEMATIC BLOCK: **SESSIONS:** interviews INNOVATION closed sessions,

fireside chats

presentations

panel discussions

**FUTURE STREAM** 

roundtables, working

groups, working

lunches, workshops

**HYDE PARK** 























cybersecurity enthusiasts





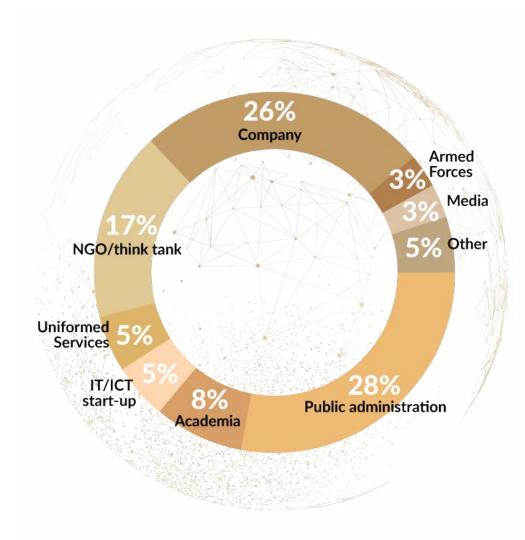
people reached with CYBERSEC 2018 media coverage



of participants rated CYBERSEC as very good



# **AT CYBERSEC 2018**



# TARGET AUDIENCE FOR CYBERSEC CEE 2019

- CEOs, CIOs, CSOs, CISOs, CTOs, CROs
- IT/Security Vice Presidents, Directors, Managers
- Legal Professionals,
   Governance, Audit, Risk,
   Compliance Managers
   & Consultants
- Government and Regulatory Affairs
- National and Local Government Officials incl. the biggest cities in the world (Ambassadors among them)
- Law Enforcement& Intelligence Officers
- Military & MoD Officials
- International Organisations' Representatives from business and public sectors of CEE region.

# **GROWING CYBERSEC FORUM COMMUNITY** SELECTED SPEAKERS

During four editions of CYBERSEC, over 550 speakers came to Krakow to advance global cybersecurity. The takeaways and recommendations were inspired and crafted by many of them, including:

# **CSEU15:**



ALEXANDER KLIMBURG

Director of the GCSC Initiative and Secretariat; Director Cyber Policy and Resilience Program, The Hague Centre for Strategic Studies; Non-Resident Senior Fellow, Atlantic Council; Author of The Darkening Web - the war



**PAUL NICHOLAS** 

Senior Director, Global Security Strategy and Diplomacy, Microsoft



PETER ROUND

Managing Director, PKR Solutions Limited; European Defence Agency



KARSTEN GEIER

Head of the Cyber Policy Coordination Staff in Germany's Federal Foreign Office

# **CSEU16:**



**JAMIE SHEA** 

Former Deputy Assistant Secretary General for Emerging Security Challenges, NATO



**NIGEL INKSTER** 

Director, Transnational Threats and Political Risk, International Institute for Strategic Studies; Former Director of Future Conflict and Cyber Security, International Institute for Strategic Studies; Former Assistant Chief and Director of Operations and Intelligence British Secret Intelligence Service (MI6)



**TUNNE KELAM** 

Member of the European Parliament, Committee on Foreign Affairs, Subcommittee on Security and Defence



**LUIGI REBUFFI** 

Secretary General and Founder, European Cyber Security Organisation

# **CSEU17:**



**BEATA SZYDŁO** of the Republic of Poland



SIR JULIAN KING European Commissioner for Security Union



MICHAEL CHERTOFF

Co-founder and Executive Chairman; Chertoff Group, Former U.S. Secretary of Homeland Security



**AMBASSADOR** MARINA KALJURAND

Chair; Global Commission on the Stability of Cyberspace, Former Minister of Foreign Affairs

# **CSEU18:**



KATIF MOUSSOURIS

Founder & CEO, Luta Security



JOHN FRANK Vice President. EU Government Affairs, Microsoft



ANTONIO MISSIROLI

Assistant Secretary General for Emerging Security Challenges, NATO



PABLO CHAVEZ

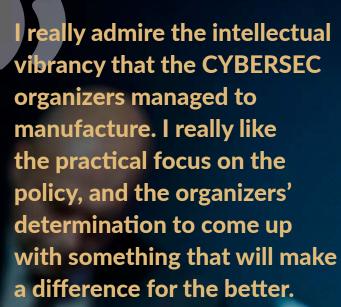
Vice President. Global Public Policy and Government Relations, Google Cloud

It is my privilege to be here and it's Cisco's honour to be part of this event which is so critical for us as we sit here today in the digital economy.

### **EDNA CONWAY**

Chief Security Officer, Global Value Chain, Cisco Systems

JOINED CYBERSEC COMMUNITY IN 2018



# **PAUL CORNISH**

Former Co-director, Global Cyber Security Capacity Centre, University of Oxford JOINED CYBERSEC COMMUNITY IN 2017

ATTENDED CYBRESEC TWICE





#### Challenge to be addressed:

The demand for cybersecurity professionals is growing exponentially and the global market has an insatiable thirst for new talents. Predictions saying about up to 6 million new workplaces and a fast evolving IT security field need to be acknowledged by companies and the academic sector. In addition, other stakeholders have to actively engage in building the workforce which will be able to secure our digital future and the world's digital DNA.





### **Response by CYBERSEC:**

To address the shortage of cybersecurity specialists on the CEE market, based on our last year's experience, we decided to launch, as part of CYBERSEC CEE, CYBERSEC Hackathon with the goal of attracting youngsters, students and junior IT employees into the cybersecurity market.

CYBERSEC Hackathon is a 24-hour challenge during which participants will have to complete cybersecurity tasks and programming exercises as well as solve riddles and logical quests based on the following four main principles:



#### **GAMIFICATION**

stimulate young people by allowing them to be players



#### **EVERYONE IS A WINNER**

show appreciation to every participants and give them "cool" awards



#### **ENGAGE BEFORE THE EVENT**

communicate with the audience beforehand; start the storytelling; give them introductory tasks; ask them about their preferences



#### **COOPERATE WITH THE INDUSTRY**

include experts from cybersecurity companies; make them mentors and partners for young participants

# CYBERSEC REGIONS & CITIES

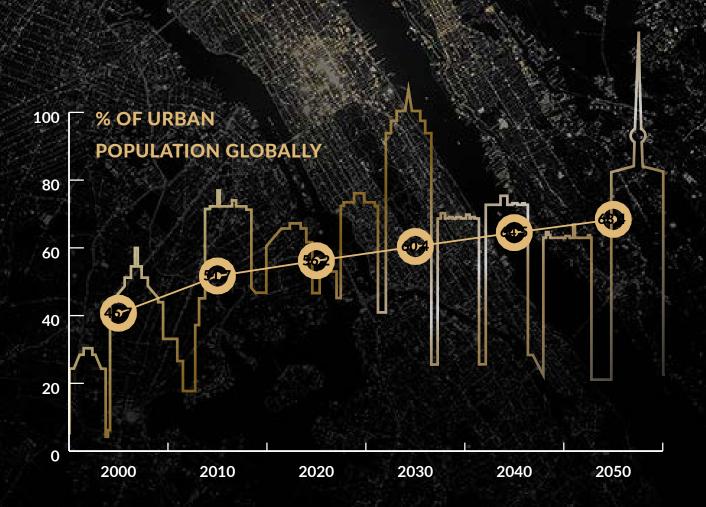
#### Challenge to be addressed:

Today 55% of the world population lives in urban areas, with United Nations predictions showing that by 2050 this percentage will rise up to 68%. Cities and urban communities are at the forefront of the digital revolution and very often serve as test beds for emerging technologies and cybersecurity solutions, as they help them face key urban challenges, from transportation and power supply to civic engagement. Regions and cities have it all to be the leading competence and innovation centres for cybersecurity. Local ecosystems allow for real and efficient cooperation between the triple helix of government (both regional and national), university centres for research and innovation, large international companies, local SMEs and startups. Additional support from the venture capital community is also a feature of these ecosystems. In turn, an innovative sector of products and services to secure the world's digital DNA can develop on this foundation. Some regions and cities have already established regional cybersecurity hubs but others need to be incentivised and inspired to follow the trend.

#### Response by CYBERSEC:

We will invite representatives of selected innovation centres for cybersecurity to Poland to establish cooperation links and best practice sharing mechanisms with CEE regions and cities that are now lagging behind in building Digital Innovation Hubs for cybersecurity. We have to make the urban digital transformation human-centric and secure-by-design to ensure that in the times to come our world's digital DNA is properly secured. That is why decision-makers at the regional level have to work hand in hand with industry leaders to build smart, secure and safe cities and regions – the foundational tissues of the world.

The CYBERSEC CEE format for regions & cities will provide a suitable platform to approach business sector, academia and local and regional governments to ensure they continue to be the places for people and technologies to thrive.

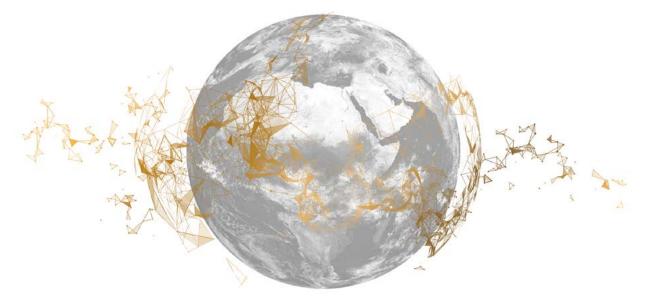




#### Challenge to be addressed:

The rapid rise of a cross-border digital realm has been an incredible enabler for countries and citizens world-wide – be it in the economic, political or social sphere. Nowadays, digital technologies already provide billions of people with an access to basic services such as healthcare, education, banking or even government-related services, therefore contributing to raising the development level of the countries they are deployed in. Upcoming new technologies such as artificial intelligence (AI) or Internet of Things (IoT), increase the potential that digital transformation entails. Due to their cross-sectoral character digital tools can transform an economy and a society more deeply and more quickly than previously, making them particularly suited for contributing to the fulfilment of United Nations' Sustainable Development Goals (SDGs).

Cyberspace therefore provides a necessary platform for spreading innovation, fostering economic growth, and empowering citizens. However, the increasing number and variety of challenges linked with the development of cyberspace should not be overlooked. The devastating global impact of cyber-attacks – such as NotPetya – warrants a stronger international cooperation in building cyber resilience.



#### Response by CYBERSEC:

Bolstering the debate on reinforcing cyber capacities in developing countries is in the common interest. Our first CYBERSEC for Development working session will widely discuss the possibilities to support capability building through best practices sharing and know-how transfer between public as well as private actors. It will bring together government representatives, law enforcement agencies, cybersecurity experts and companies who will share and exchange practices and experiences related with digital transformation and cyber capacity building. The objective of CYBERSEC for Development is to foster and support cybersecurity capability building efforts undertaken around the world by providing countries with a platform to exchange ideas, learn from mutual experiences, and discover emerging technical and regulatory tools and solutions developed by both the public and private sectors.



## CYBERSECURITY EDUCATION

#### Challenge to be addressed:

Young people are particularly exposed to aggressive expansion of Web threats; therefore, it has become necessary to more effectively raise their awareness of what cyberattacks in cyberspace they can expect and to develop their abilities to react and to use Internet resources and functionalities in a safe way. Over two-thirds of hacking attacks and data breaches are still caused by human error. What is more, an explosive growth of the ICT sector and the pressing need to build a cybersecurity system have led to an exponential rise in demand for STEM professionals and employees. The future of the cyberworld and its secured DNA require a sustained education for new generations and a continuous effort to develop their digital competences.





#### **Response by CYBERSEC:**

CYBERSEC for YOUTH is an educational workshop programme directed at people aged 13–19 that is designed to increase their online security in relation to data privacy and protection of IT systems and IT devices. Simultaneously, the intermediate goal of the project is to improve the security system of the Web that young users are surfing now and are going to use in the future, also in their professional lives. CYBERSEC for YOUTH is also meant to inspire young Poles to learn about STEM and to choose a related educational path, to develop their scientific interest in ICT, and to present successful professional careers in ICT and cybersecurity industries.



### NARROWING THE DIGITAL DIVIDE

#### Challenge to be addressed:

Even though older people engage with the Web more and more every year, the number of seniors who use modern communication technologies is still very low in Poland. They are among the age cohorts which are at the highest risk of both digital exclusion, resulting in numerous impediments to social participation, and of being targets of attacks by cybercriminals, often a consequence of lacking awareness or robust knowledge of how to stay secure. The needs of older age groups keep being neglected in cyberspace.





#### **Response by CYBERSEC:**

CYBERSEC for SENIORS is a workshop programme for people aged 55+ that aims to overcome seniors' resistance to using Internet resources and modern technologies, and at the same time to form cyber-savvy browsing habits. We hope to use this initiative to raise awareness among the elderly regarding their security and cyberthreats in order to enable them to protect themselves against Web frauds and gain necessary knowledge of high-quality and accessible public e-services. CYBERSEC for SENIORS supports the empowerment of older age groups in the virtual world by overcoming their reservations, distrust, and excessive caution in using new technological affordances and at the same time develops safe habits and heightened threat awareness.



#### Challenge to be addressed:

Inclusiveness is a key factor in security issues. Diversity in cybersecurity contributes to the efficacy of teams and sustainability of solutions, making it both a national security and a business imperative. The representation of women in cybersecurity has an alarmingly low rate of around 11%, this critical gender imbalance has prevented cybersecurity from developing full scale. A growing number of companies and organizations are recognising the importance of having inclusive and diverse teams in order to tackle current digital threats. But there is still a limited number of universities offering careers in cybersecurity or encouraging a greater participation of women in engineering careers.

Therefore it is much to do and the strong advocacy of women and men is a key element to diminish this gap and achieve a more equal and thus a more effective cybersecurity field.





#### **Response by CYBERSEC:**

That is why two years ago we launched the CYBERSEC WOMEN initiative and this year we will introduce it in a revamped CYBERSEC CEE format, in the centre of the region where the spirit of great women can be felt like nowhere else. Marie Skłodowska-Curie once said: "Nothing in life is to be feared, it is only to be understood. Now is the time to understand more so that we may fear less". Now the European Commission initiatives focus on boosting participation of women in digital and technology sectors by recommending actions to create national strategy blueprints. The EC is also supporting ECSO's Women 4Cyber Initiative which was co-founded by one of CYBERSEC originators – Izabela Albrycht.









The European Cybersecurity Forum is one of the most important platforms that give power to our voices, that help us inform and gain knowledge about key issues from deep cryptography and quantum computing all the way to the strategic policies that our government must adopt in order to advance our economies.

## **MELISSA HATHAWAY**

President, Hathaway Global Strategies, LLC; former Cybersecurity Advisor, George W. Bush and Barack Obama administrations; Expert, The Kosciuszko Institute

JOINED CYBERSEC COMMUNITY IN 2016 ATTENDED CYBERSEC THREE TIMES

I am a loyal participant of CYBERSEC and I have always appreciated the combination of enthusiasm, professionalism and dynamism at these conferences.

### AMBASSADOR SORIN DUCARU

Senior Fellow, Hudson Institute; Former Assistant Secretary General for Emerging Security Challenges, NATO

JOINED CYBERSEC COMMUNITY IN 2015
ATTENDED CYBERSEC FOUR TIMES





# SECURING THE WORLD'S DIGITAL DNA

KATOWICE, 29-30 OCTOBER 2019

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