

WORKING PAPER ECSO-Ukraine collaboration

ECSO and the Ministry of Digital Transformation of Ukraine

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Achieving convergence between Ukrainian and European cybersecurity ecosystems

Political statement

As the President of the European Commission Ursula von der Leyen said in her recent statement: "Ukraine belongs in the European Union" and "Kyiv as the capital of Ukraine is the beating heart of today's European values".

This conviction on the indispensable role of Ukraine in Europe's ecosystems is translated into the country's importance as a valuable partner of the European cybersecurity communities.

The aim of this paper is to highlight the key areas of cooperation between the EU and Ukraine in the field of cybersecurity and to explain how these priorities will be transformed into concrete activities and projects. These chosen activities have been selected based on the input of representatives from both the Ukrainian and European³ ecosystems who took part in the workshop organised by the European Cyber Security Organisation and the Ministry of Digital Transformation of Ukraine on the 30th of May 2023.

The European Cyber Security Organisation (ECSO) – representing the backbone of the European cybersecurity ecosystem and bringing together the full spectrum of European cybersecurity stakeholders – stands in close solidarity with Ukraine and its people in their current struggle.

Since the early days of the war, in collaboration with the European External Action Service, ECSO, through the Cyber Solidarity Campaign, coordinated the support of its Members for Ukraine to strengthen the country's cybersecurity posture. ECSO is now going a step forward and establishing a closer partnership with Ukraine to strengthen the Ukrainian cybersecurity ecosystem and to foster the convergence between the Ukrainian and the European cybersecurity communities.

In this historical moment when Ukraine is facing significant strategic cyberattacks by state and non-state actors, threatening public and private systems, ECSO's Members are proud to support Ukrainian institutions, companies, and critical infrastructures.

ECSO applauds the work done by the European Union and its Countries to support Ukraine and continues to advocate for more **European solidarity in cybersecurity.**

During the war, Ukrainian entities have been gaining unprecedented **experience**, **skills and knowledge** regarding cybersecurity and digital resiliency. The **Ukrainian market**, with all the talent, ideas, and craftsmanship, must also be perceived as a strategic partner for investment and business

¹ https://www.politico.eu/article/ukraine-eu-commission-chief-von-der-leyen-invite/

² https://neighbourhood-enlargement.ec.europa.eu/news/press-statement-president-von-der-leyen-ukrainian-president-zelenskyy-2023-05-09_en

³ Members of European Cyber Security Organisation.

cooperation. Finally, the vibrant communities of Ukrainian researchers and academics open numerous possibilities for cooperation in the field of science and innovation.

ECSO strongly believes that close cooperation in the field of cybersecurity is going to bring **mutual benefits** for both Ukraine and Europe.

Executive Summary

- ECSO Membership is granted to all Ukrainian public and private entities without any fees during this challenging period. Should any organisation wish to join ECSO, they should apply for membership by filling the application form on ECSO's website.
- The partnership between ECSO and Ukraine will focus on 9 priority areas (see figure 2):
 - 1. Creation of a Women4Cyber chapter in UA;
 - 2. Access to the ECSO HR Community;
 - 3. Organising a Cyber Investor's days for Ukrainian start-ups;
 - 4. Access to market (Cyber Solution Days) for Ukrainian SMEs;
 - 5. Access to EU fundings for digital issues;
 - 6. Cooperation between CISOs;
 - 7. Support in the implementation of EU policies on cybersecurity;
 - 8. Exchange of best practices between the EU and UA cybersecurity ecosystems;
 - 9. Supporting the link with public authorities.
- A Memorandum of Understanding between **ECSO** and the **Ministry of Digital Transformation of Ukraine** details the specificities on the collaboration between both parties regarding ECSO's Ukrainian Initiative and the partnership between ECSO and Ukraine.

ECSO Membership

The European Cyber Security Organisation is the point of reference for the European cybersecurity ecosystem. ECSO's Members include large companies, SMEs, startups, investors, universities, research organisations, regions, end users, and Public Administrations from several EU Member States. This representation of key cybersecurity entities allows ECSO to implement activities that cover the most important topics and challenges in cybersecurity. Close cooperation between ECSO and Ukrainian entities will allow the implementation of projects and activities concerning priority areas identified during the first webinar on the ECSO initiative on Ukraine.

ECSO's Board of Directors has granted all Ukrainian public and private entities involved with cybersecurity a free ECSO Membership. Ukrainian entities will therefore be able to join ECSO and take part in its activities without paying membership fees during this challenging period.

Should any organisation wish to join ECSO, they should apply for membership by filling this form on ECSO's website.



Figure 1 - ECSO Members by category (currently more than 300 members)

Activities and objectives

In its first phase, for organisations that attain ECSO Membership, the partnership between ECSO and Ukraine will focus on 9 priority areas:



Figure 2 - Activities of ECSO's Ukrainian Initiative

Creation of a Women4Cyber chapter in Ukraine

The shortage of skilled people among the cybersecurity workforce is one of the key challenges for the cybersecurity community worldwide. The gap in the European Union is estimated at between **260.000** and **560.000** cyber professionals⁴.

One of the dimensions of the cybersecurity gap is associated with the lack of participation of women and the underrepresentation of minority groups. Women currently make up **only 24%** of cybersecurity professionals⁵. Ukraine suffers from a similar problem, also having a gender gap to bridge. Only by addressing this talent shortage and achieving higher levels of inclusivity will we be able to deliver better cyber resilience.



Figure 3 - Activities of Women4Cyber

Within the framework of ECSO's collaboration with Ukraine, the creation of a Women4Cyber chapter is seen as a priority and one of the first actions to carry out. Women4Cyber is a non-profit European private foundation with the objective to promote, encourage and support the participation of women in the field of cybersecurity. Women4Cyber today has **20 national chapters and an online community of 35.000+ members**. It runs numerous successful initiatives, including but not limited to, a mentorship programme, an online Academy, and soon a Job Platform in cooperation with ECSO.

Access to the ECSO HR Community

The previously introduced skills-related challenges need to be solved with the application of different multidisciplinary instruments. There is a growing need for cyber skills in Europe and to build up more synergy and coordinated actions between Human Resources (HR) managers and technical experts in cyber to recruit and retain talent. In parallel to the slow recruitment process, the EU urgently needs professionals and skills to prevent cyber-attacks, and protect its economy, infrastructures, and citizens⁶.

To have a positive and lasting impact on the European cyber workforce and skills, concrete actions are needed. As part of its overall mission of contributing to European digital strategic autonomy and

⁴ https://digital-skills-jobs.europa.eu/en/cybersecurity-skills-academy

⁵ https://www.isc2.org/-/media/ISC2/Research/ISC2-Women-in-Cybersecurity-Report.ashx?la=en&hash=4C3B33AABFBEAFDDA211856CB274EBDDF9DBEB38

⁶ Communication from the Commission to the European Parliament and the Council; *Closing the cybersecurity talent gap to boost the EU's competitiveness, growth, and resilience*; 18/04/2023.

to the strengthening of Europe's cyber resilience, **ECSO** is conducting activities that promote gender inclusion, children education (Youth4cyber initiative also supported by an EU-funded project called Super Cyber Kids), and developing a **European expert group of HR practitioners**, the **European HR Community**. This Community is fully committed to help **reduce the workforce gap**, speed up the hiring process in cybersecurity in Europe and connect the Ukrainian workforce to the EU cybersecurity ecosystem and the labour market.

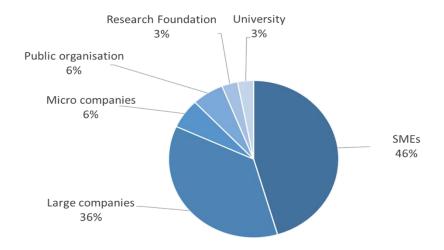


Figure 4 - Composition of the ECSO HR Community

Ukraine has a lot to offer in terms of talent and it entered 2023 with a rapidly growing IT market with over 240,000 tech specialists⁷. Because of the continuous cyber-attacks from Russia, these professionals are acquiring a unique experience and knowledge that will be a resource for Ukraine in the years to come. The European cybersecurity community must join forces with Ukrainian experts and conduct initiatives to widen the pool of talent and train the IT workforce on cybersecurity.

To do so, ESCO is actively providing numerous tools to empower HR professionals to find the profiles they need, thus facilitating the recruitment process in Europe and in Ukraine. Together with its sister foundation Women4Cyber, ECSO is launching a series of webinars to facilitate the collaboration between its HR and CISOs communities, promote gender balance, deliver targeted **workshops**, create a **job board** and a **talent pool** in an approach called **Road2Cyber**, to support both employers and job seekers.

Organisation of Cyber Investors Days for Ukrainian start-ups

Startups are often seen as the engine of growth. They bring employment, innovation, competitiveness and contribute to economic development. Startups that operate in the cybersecurity field bring one additional and crucial function – they increase the overall level of cybersecurity.

In a recent study on the European Cybersecurity Investment Platform, the European Commission and the European Investment Bank highlight investment challenges that European cybersecurity companies face when compared with their competitors in other parts of the world⁸. One of the greatest difficulties stems from access to market finance.

ECSO has been addressing this challenge with numerous activities aiming at improving the cybersecurity market situation in Europe. With the development of the vibrant community of investors, it

⁷ Cyber/nnov8, *Building tech of tomorrow*, 2023.

⁸ European Commission, European Investment Bank, European Cybersecurity Investment Platform, 2023

strives to not only advise European decision-makers to implement needed structural changes, but also to actively implement projects that support startups. One of the flagship projects in this field is the organization of Cyber Investor Days – the matchmaking events taking place across Europe that bring together investors and startups that specialise in cybersecurity.

Seeing the effect and impact of those events, ECSO prioritises the implementation of activities that would introduce Ukrainian startups to the community of European Investors. That will be done by organising a special online edition of the Cyber Investor Days for Ukrainian start-ups..

As was mentioned before, these activities will bring benefits to both sides – to one side, the strengthening of Ukrainian investors and startups and, to the other, new investment opportunities to European players, as well as early and direct access to innovation.

Why Cyber Investor Days

Several cybersecurity investment deals were initiated and successfully closed as a result of the events, for example:



Figure 5 - Cyber Investors Days: examples of some resulting deals

Access to market for Ukrainian SMEs

SMEs, both cybersecurity providers as well as end users, serve as the backbone of the European economy. Strengthening their capabilities and capacities requires tailored actions and initiatives. ECSO understands this need well and implements multidimensional actions which will be extended to the Ukrainian ecosystem. With the Cyber Solution Days – a brand new format aiming at creating access to market opportunities – ECSO aims to match-make cybersecurity providers with potential clients in an innovative way. ECSO plans to organise an on-line edition of the Cyber Solution Days for Ukrainian SMEs in 2024.

European cybersecurity SMEs very often provide top-notch solutions and products. However, there is room for improvement around purely business-related expertise like marketing, sales etc. These are areas where ECSO sees the need for support and intervention. Knowledge-sharing initiatives and acceleration activities involving both European and Ukrainian players will be conducted as one of the priority projects within the cooperation framework.

In an increasingly digitalised economy, end-user SMEs require robust cybersecurity strategies to secure the functioning of their business. Meanwhile, they struggle in understanding cybersecurity risks and in applying proper mitigation. ECSO engages in awareness-raising campaigns to build greater recognition of cyber security threats as well as supporting the implementation of risk-mitigation solutions. With the upcoming Marketplace initiative, ECSO aims at giving visibility to European cybersecurity solutions and provide an overview of existing offerings on the market. This initiative will enable end-users to quickly understand different solutions that could be implemented in their own environment.

Access to EU fundings for Digital

The European Union runs several programmes to financially support citizens and companies that wish to invest in specific sectors⁹. As a candidate country to the EU, Ukraine has access to part of these funds (mainly Horizon Europe). ECSO will support Ukrainian companies and organisations by providing them with the information on how to access the funds and by organising Info Days to pitch ideas for projects and form consortia with other ECSO Members.

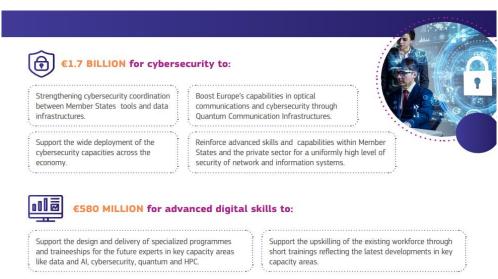


Figure 6 - Digital Europe Programme, funds for cybersecurity and digital skills.

Cooperation between CISOs

CISOs are on the frontline of cybersecurity: they are essential for establishing a more cyber resilient society. ECSO is currently managing a community of more than 380 CISOs at the EU level. These CISOs exchange best practices, recommendations, alerts, and information among peers daily. The ECSO CISO community will be glad to welcome fellow CISOs from Ukraine and increase its collective experience and knowledge.

Ukrainian CISOs will benefit from and contribute to the ECSO CISO community by having access to dedicated webinars. This cooperation can evolve into some even more mature and practical forms of collaboration, including more regular info exchange on the cybersecurity threat landscape.



Figure 7 – Evolution of the ECSO CISO Community

⁹ https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes en

Support in the implementation of EU Policies on cybersecurity

As a candidate country for the EU Membership, Ukraine must transpose into national law all the Acquis Communautaire; Chapter 10 of the acquis is about Information Society and Media, and it includes cybersecurity legislation¹⁰.

The ECSO Policy Task Force is a group of ECSO Members that monitors the EU legislation on cyber-security. The objective of the ECSO Policy Task Force is to anticipate and understand upcoming legislation on cybersecurity and provide the policy makers at the EU level with an informed and comprehensive opinion from the EU cybersecurity ecosystem.

By becoming Members of ECSO, Ukrainian organisations and companies will be able to have direct access to EU policy makers in Brussels and obtain timely briefings on the state of development of several EU legislations on cybersecurity like the Cybersecurity Act, the NIS2 directive, the Cyber Resilience Act, the Cyber Solidarity Act, DORA, etc. They will also gain the unique possibility of discussing implementation aspects with peers. ECSO plans also to organise a dedicated webinar on the key cybersecurity files to be attended by the Ukrainian representatives of the public sector.

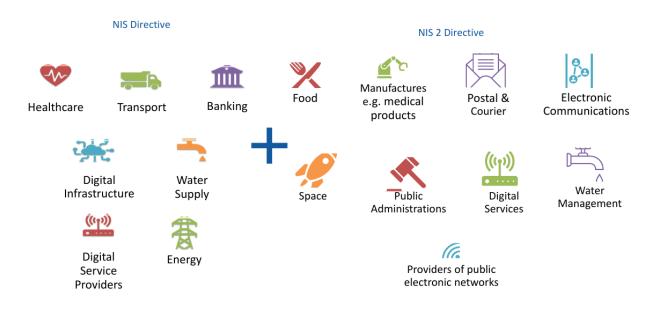


Figure 8 – Critical infrastructure under the scope of the NIS2 directive

Exchange of best practices between the European and the Ukrainian cybersecurity ecosystems

Building the cybersecurity system requires engaging all key stakeholders and covering very different aspects: from industrial policy, information exchange, cooperation, research and development, technology development, and policy framework to education, awareness, and many others. Europe has been gaining experience in all these subject-areas for years. ECSO plays an important role in those efforts by contributing with an input which is based on the public-private model. Cooperation with both private and public Ukrainian entities will enable ECSO to share its experiences and learned lessons from all the years of the organisation's existence. Based on their needs and requests, ECSO will provide Ukrainian partners with advice and support in all ecosystem-building challenges.

¹⁰ https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/conditions-membership/chapters-acquis_en

Supporting the link with public authorities

Due to its origins¹¹, and good track record of valuable activities, ECSO enjoys the reputation of being a trustworthy partner of the European institutions. ECSO contributes daily to key cybersecurity developments at the EU level. As a consortium leader for the ECCO (European Cybersecurity COmmunity) project – an initiative supporting the European Cybersecurity Competence Centre and the network of National Coordination Centres – ECSO now plays an important role in assisting EU players and Members States in the creation of cybersecurity communities.

Contact persons

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¹¹ ECSO was established as a contractual partner to the European Commission for the implementation of the public-private partnership on cybersecurity in 2016.