The current status of private investment in cybersecurity and effort until now at European level

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Carlos Alberto Silva, Managing Director, Sonae-IM – co-Chair of the ECSO sub-Working Group “Investments and innovative business models”
The cybersecurity market is one of the **fastest growing and more strategic** markets in the world.

**Sources:** Momentum Partners, Visiogain 2018-2028 Market Report, Ace Barometer 2021, Various news sources
### The Cybersecurity Market: Talent and R&D to support EU on its digital sovereignty (2/3)

#### Number of software developers in the world

<table>
<thead>
<tr>
<th>Country</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>25</td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td>US</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Europe</td>
<td>10</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>China</td>
<td>25</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>


### Table 1: Researchers and AI researchers by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Overall number of researchers per 1 million people</th>
<th>Number of data professionals (thousands)</th>
<th>Number of AI researchers</th>
<th>Number of AI researchers per 1 million workers</th>
<th>Number of top AI researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>4 205</td>
<td>14 012</td>
<td>28 536</td>
<td>173,1</td>
<td>5 158</td>
</tr>
<tr>
<td>China</td>
<td>1 089</td>
<td>N/A</td>
<td>18 232</td>
<td>23,2</td>
<td>5 787</td>
</tr>
<tr>
<td>EU</td>
<td>3 452</td>
<td>7 290</td>
<td>43 064</td>
<td>172,9</td>
<td>977</td>
</tr>
</tbody>
</table>

### Figure 4

#### Figure 5

**Top 10% most-cited documents in computer science, 2018**

- Percentage of domestic documents (fractional counts) in the top 10% citation-ranked documents
- Percentage of computer science documents in top 10% cited documents
- Percentage of all publications (excluding computer science) in top 10% cited documents

### Figure 6

**Percentage of domestic documents (fractional counts) in the top 10% citation-ranked documents**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of domestic documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>15%</td>
</tr>
<tr>
<td>Europe</td>
<td>10%</td>
</tr>
<tr>
<td>China</td>
<td>5%</td>
</tr>
<tr>
<td>EU</td>
<td>3%</td>
</tr>
</tbody>
</table>
Europe’s cybersecurity posture is weakened by its still highly complex and fragmented cybersecurity market and the absence of the European champions in cybersecurity.

Sources: Cyber Valleys project, ECSO Market Radar, CBInsights, cybersecurityventures, ChinaDaily
Key challenges to scale up in Europe 1/3

The lack of sufficient dedicated and specialised European investors focusing on cybersecurity companies

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>€ mln</th>
<th>launched</th>
<th>Geographic focus</th>
<th>Ticket size in mln €</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE Capital Partners-Brienne III</td>
<td>-</td>
<td>80</td>
<td>2019</td>
<td>80% local - 20 Int'l</td>
<td>€3-15</td>
</tr>
<tr>
<td>Adara Ventures III</td>
<td>-</td>
<td>80</td>
<td>2019</td>
<td>75% local – 25 Int’l</td>
<td>€0.5-2.5</td>
</tr>
<tr>
<td>eCapital Cybersecurity / IV</td>
<td>-</td>
<td>130</td>
<td>2018</td>
<td>70% local- 30 Int'l</td>
<td>€0.5-7</td>
</tr>
<tr>
<td>TIIN Dutch Security Tech Fund</td>
<td>-</td>
<td>25</td>
<td>2019</td>
<td>100% local</td>
<td>€0.2-2.5</td>
</tr>
<tr>
<td>Sonae-IM</td>
<td>-</td>
<td>100+</td>
<td>2014</td>
<td>100% Int'l</td>
<td>€2-6</td>
</tr>
<tr>
<td>KPN Ventures</td>
<td>-</td>
<td>40</td>
<td>2015</td>
<td>50% local- 50 Int'l</td>
<td>€0.5-2.5</td>
</tr>
</tbody>
</table>
Key challenges to scale up in Europe 2/3

- **Lack of sufficient and specialised growth capital** beyond the Seed and Series A rounds (>10 million EUR)
- **Lack of international marketing and business development skills** specialised in cybersecurity to support and facilitate the growing phase of our competitive companies on a global level.

**VC investment ratio between US and Europe higher than a factor of 18**

Source: ECSO Investor Days, Pitch book which considers only deals with disclosed figure (10-15% below comparing to Momentum Cyber-), Crunchbase, HelpNetSecurity, Ace Capital Partners
Key challenges to scale up in Europe 3/3

Lack of sustainable path to scale up and exit/IPO European cybersecurity companies in Europe.

2021 – Oylo (SP) a Barcelona-based industrial cybersecurity services provider, acquired by Rockwell Automation, Inc. (US), global leader in industrial automation and digital transformation - acquisition should close in Q2 2021

2021 – Sqreen (FR) a specialist in application security, acquired by cloud monitoring platform Datadog (US) - Terms of the deal remain undisclosed; acquisition should close in Q2 2021

2020 – Panda Security (SP) specialist in endpoint security acquired by WatchGuard Technologies (US)

2019 – Sentryo (FR) specialist in IoT and industrial control systems for critical infrastructure operators acquired by CISCO (US) for €60 million (not confirmed)

2018 – SecurityMatters (NL) specialist in device visibility, network monitoring, and threat/anomaly detection, acquired by Forescout (US) for $113 million

2015 – Codenomicon (FI) company specialized in secure software embedded in chips and devices, acquired by Synopsis (US)

2013 – Stonesoft (FI) specialist in firewall protection products and a cybersecurity market leader, acquired by McAfee (US) for $389 million

2018 – AlienVault (SP) specialist in unified security solutions for SMEs, acquired by AT&T (US) for $600 million – would go on to consolidate all of AT&T’s cybersecurity business

2019 – Vade Secure (FR) SMEs specialised in email security initiated discussion on 70M€ funding round with General Catalyst (US)

2020 - Avira (DE) anti-virus company acquired by NortonLifeLock (US) for all-cash $360 million

2021 - Alsid (FR) specialist in Active Directory deployments, acquired by Tenable (US) for $98 million in cash - acquisition should close in Q3 2021

2021 - DF Labs S.p.A (IT) specialist in security orchestration, automation and response (SOAR), to be acquired by Sumo Logic (US) company specialised in continuous intelligence

2019 – Sentryo (FR) specialist in IoT and industrial control systems for critical infrastructure operators acquired by CISCO (US) for €60 million (not confirmed)

2018 – SecurityMatters (NL) specialist in device visibility, network monitoring, and threat/anomaly detection, acquired by Forescout (US) for $113 million

2015 – Codenomicon (FI) company specialized in secure software embedded in chips and devices, acquired by Synopsis (US)
Effort until now and link with existing EC initiatives

2016-2020 R&D cPPP on cybersecurity – DG CNECT
→ more than 250 members, 500M€ investment on R&D projects by EC with a minimum leverage factor of 3 from industry= 2bn€

European Innovation Council – Accelerator program/SME Instrument – DG RTD
→ 32 funded projects/ 12,7M€/ 2014-2020 period

2019 Smart Specialisation Pilot Action “Cybersecurity Smart Regions” & INTERREG Cyber– DG REGIO
→ Mapping of 10 regional ecosystems and Business Case for the creation of an inter-regional acceleration programme. A network of Digital Innovation Hubs specialised in cybersecurity will be soon a reality (2021)

2019 Strategic Forum on Important Projects of Common European Interest (IPCEI) – DG GROW
→ EC’ recommendations on Strategic Value Chains recognise the importance of the creation of dedicated fund to support cybersecurity companies

NEXT STEPs: European Cybersecurity Network and a Competence Centre and EC funding (including funding from Horizon Europe, Digital Europe Programme and Connecting Europe Facility for at least 2.5bn€ over 7/year)

These public investments from EU Institutions are not sufficient and Europe is in danger to falling behind in the global race for cybersecurity leadership – a strong public-private cooperation is needed
EU on its digital sovereignty

Faced with the "technological war" being waged by the United States and China, Europe must now lay the foundations of its sovereignty for the next 20 years – Thierry Breton, Commissioner for Internal Market*

Ursula von der Leyen, President of the European Commission, has identified digital policy as one of the key political priorities of her 2019-2024 term in office and pledged that Europe must achieve 'technological sovereignty' in critical areas. (Source: here)

The European Parliament has expressed deep concern about the security threats connected with growing Chinese technological presence in the EU and has called for possible action at EU level to reduce such dependence. (Source: here)

*Source: Thierry Breton, 'Europe: The Keys To Sovereignty', LinkedIn, 11 September 2020, Link: https://www.linkedin.com/pulse/europe-keys-sovereignty-thierry-breton/?trackingId=DBm8jJfNUNAN56jFGwn6A%3D%3D
Europe urgently needs to act now to consider cybersecurity as a holistic ecosystem to keep its leadership position and avoid losing further ground against other superpowers that are seeking supremacy in this sector.

Only by reinforcing the whole investment chain can Europe obtain and retain strong and strategically important independent cybersecurity ecosystems.
Why a dedicated Pan-European cyber-focused funding platform

• The EU needs stronger industrial and technological presence in strategic parts of the digital supply chain → Europe needs tech sovereignty where it matters

• Cybersecurity is a booming need, but a complex market (technical/ economical / national sensitiveness) that cannot be managed adequately by traditional wide ICT funds.

• Challenges in the European market
  • limited awareness / understanding of cybersecurity potential amongst traditional private investors and public financing entities
  • lack of technological expertise in private investors to assess the potential of cybersecurity solutions

• Cybersecurity is (generally) a global market: new solutions by local companies compete with foreign companies often funded by large investors supporting marketing/business development activities

• European companies are at a stage of development where volumes of investments make a difference and are not competing on a level-playing field comparing to US/Israel
6 main principles & objectives of the dedicated Pan-European cyber-focused funding platform

- Stimulate the emergence of new pan-European cybersecurity specialised Funds and GPs
- Focus on Series-A and growth stage companies
  - The investment perimeter should include technology and products as well as applications
- Create more specialised investment capacity to attract large international “limited partners” on the European market
- Be supported by a dedicated pan-European Investment Support Programme
- Leverage on the Smart Specialisation Platform Cyber Valleys and encourage the creation of a pan-European “Cybersecurity Accelerator” programme
- Support the creation of synergies in relevant R&D&I funding schemes across Europe to facilitate a smoother access-to-market.

Initial evidence of the need for at least €1bn investment/up to 5 years (Fund-of-Funds)

→ Further investigation is needed on financial & governance scheme of a dedicated investment platform

→ What is the best way to go?
Release of the ECSO Letter-of-Intent to EC Commission

- **Addressed to:**
  - Margrethe Vestager, Executive Vice-President
  - Margaritis Schinás, Vice-President
  - Thierry Breton, Commissioner for the Internal Market

- **Calling on the EC and all relevant EU institutions for political support to:**
  - Promote investment in European cybersecurity startups & SMEs
  - Design and implement a dedicated Investment platform (FoF) of at least **€1bn investment/5y**

- **Signatories commit to**
  - Establish and contribute to a working group coordinated by ECSO
  - Ensure a regular assessment of the achievements and progress made on the matters agreed in the letter
  - Adopt the appropriate measures to adequately design and implement the European cybersecurity investment platform

- We have seen incredible growth in the number of signatories from September to November 2020, going from 8 to 50
Final Takeaways

1. Europe faces a fragmented market that results in a lack of national champions to compete with in the global market

2. While Europe is well-placed in R&D investment, the lack of support at the growth stages is becoming an obstacle to the EU’s cybersecurity leadership

3. The increasing number of European initiatives are a strong step forward

There has been a growing momentum in strengthening the European cybersecurity dynamic but more must be done to follow through with current trends.

Additional signatories can adhere to the Letter-of-Intent at any time and ECSO is always happy to accept new members so we encourage you to join!
JOIN US!

APPLY FOR MEMBERSHIP TODAY!

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