



# Security Summit

Streaming Edition Autumn

7 novembre 2024



## Manufacturing Security Summit

Cybersecurity e impatti normativi nel settore Manifatturiero, dalle strategie europee alle prospettive italiane.

Modera: **Paola Girdinio**

Partecipano:

**Giulio Iucci**, Vicepresidente ANIE Federazione

**Lorenzo Ivaldi**, UNIGE

**Andrea Monteleone**, Presidente di ANIE Sicurezza

**Ivan Monti**, Ansaldo Energia

**Alessio Pennasilico**, CS Clusit

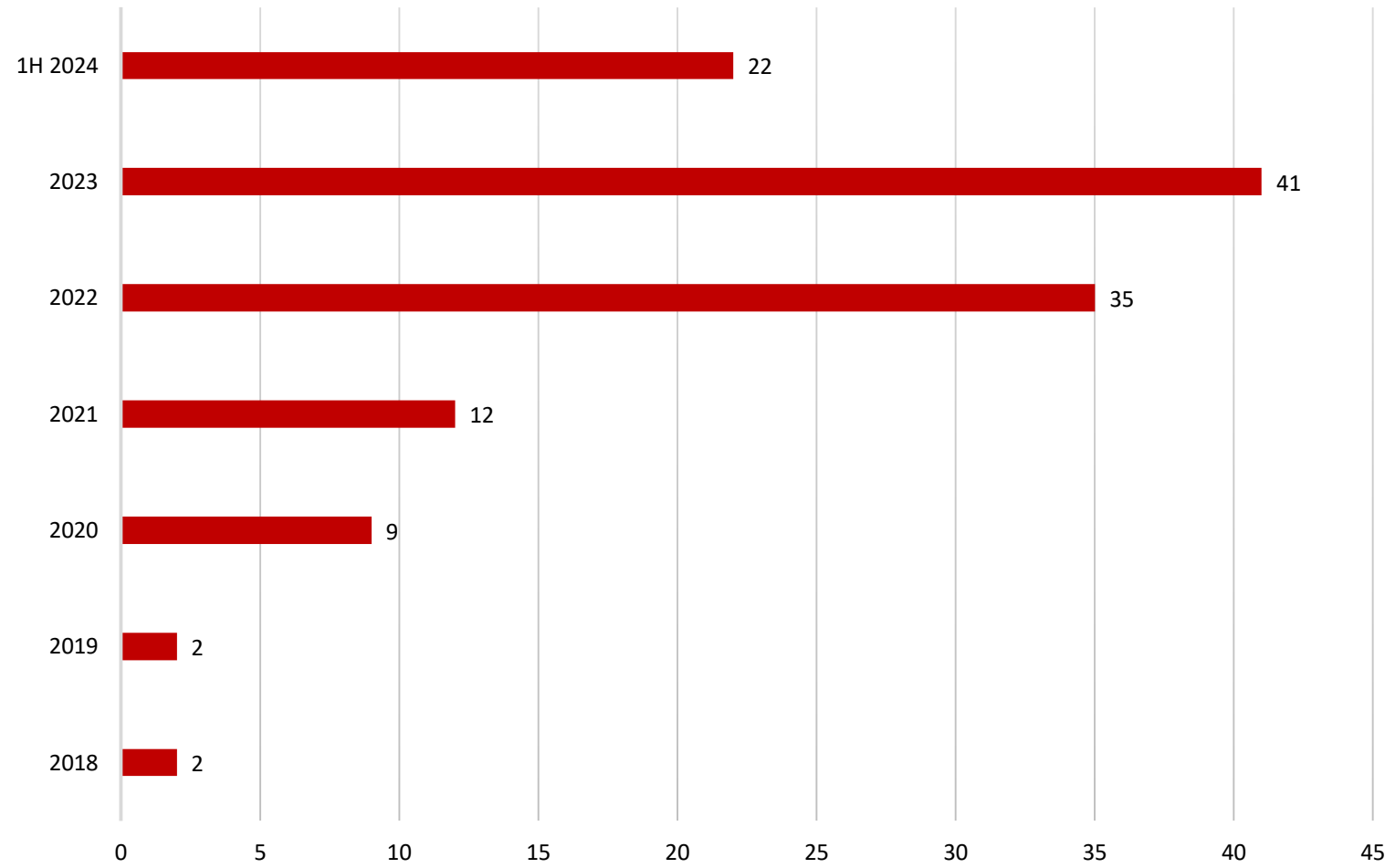
**Valeria Prosser**, E-phors S.p.a

**Massimo Tripodi**, Veracode



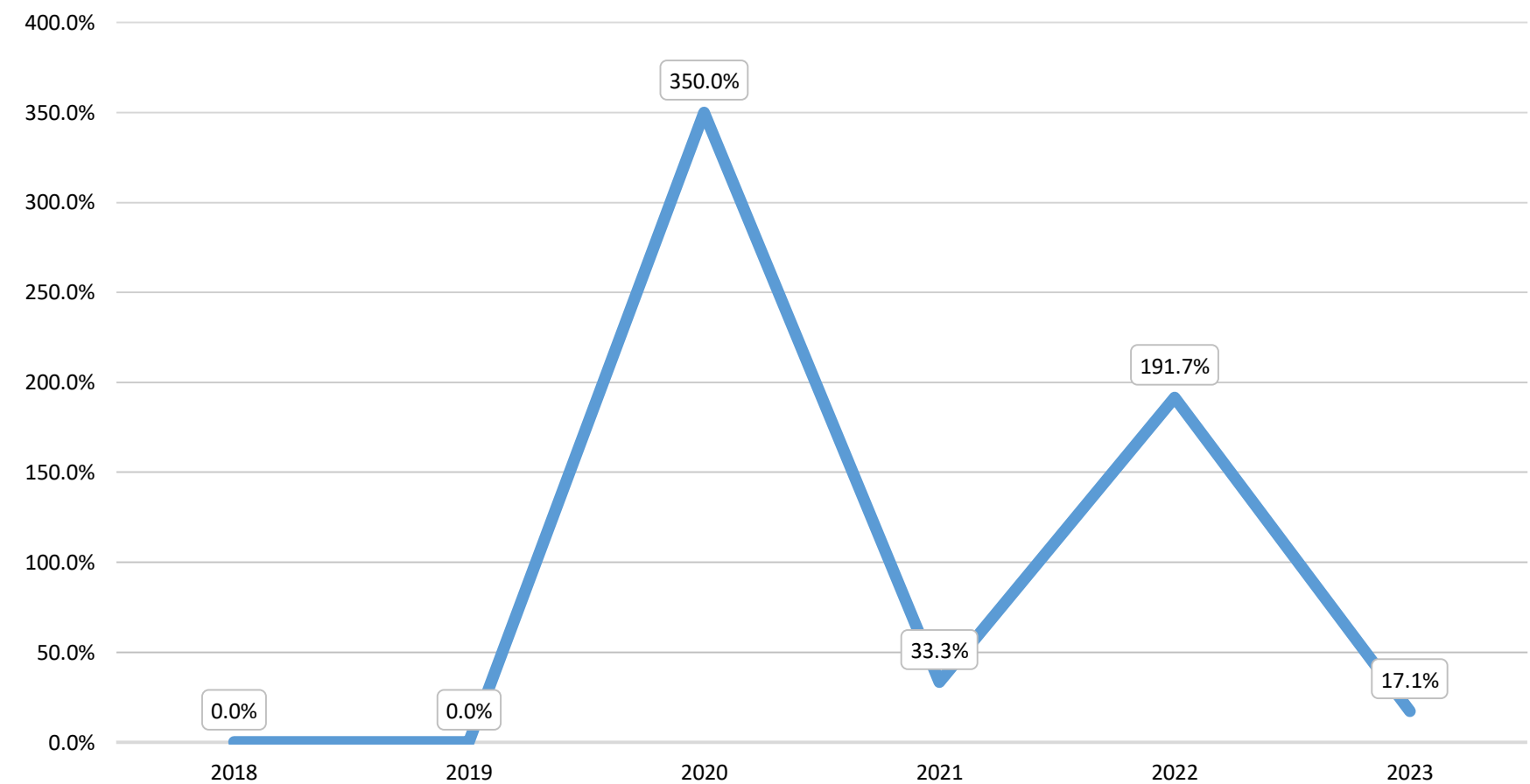
# Dati dal Rapporto Clusit sulla sicurezza ICT in Italia (Ed. ottobre 2024, con i dati da 1.1 al 30.6.2024)

MANUFACTURING ITALIA PER ANNO



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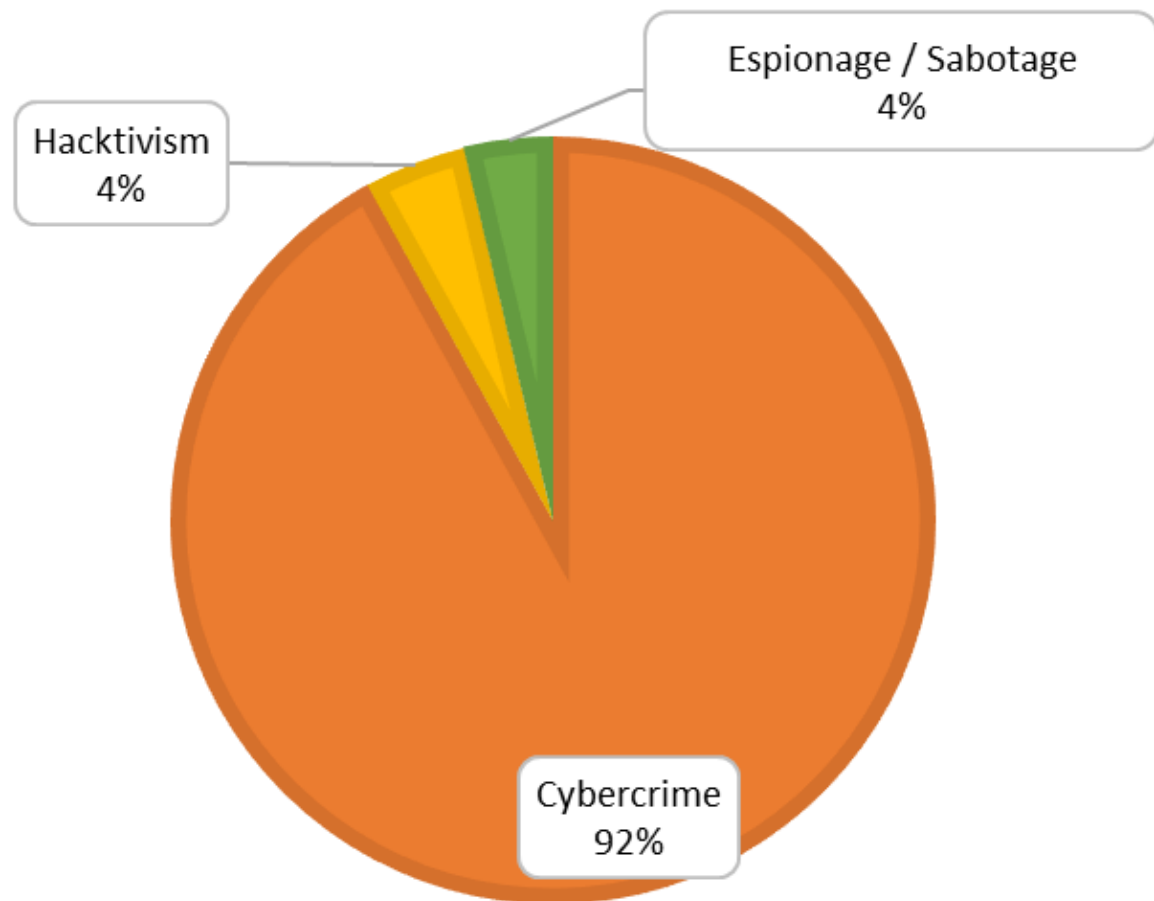
MANUFACTURING ITALIA CRESCITA % ANNO SU ANNO



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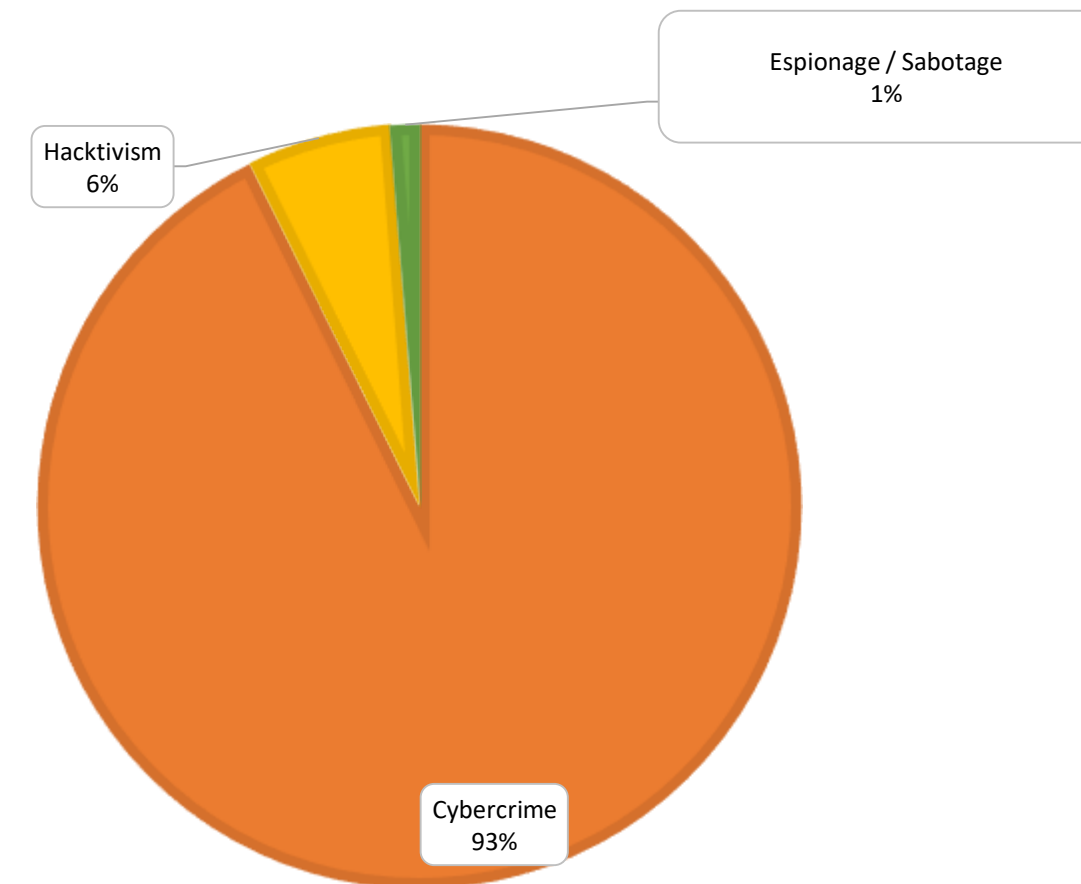
- Crescita con picchi nel 2020 (350%) e 2022 (191%)
- H1 2024 trend sul 17% semestrale (35% annuo proiettato)

MANUFACTURING PER ATTACCANTE 2023



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MANUFACTURING PER ATTACCANTE 1H 2024

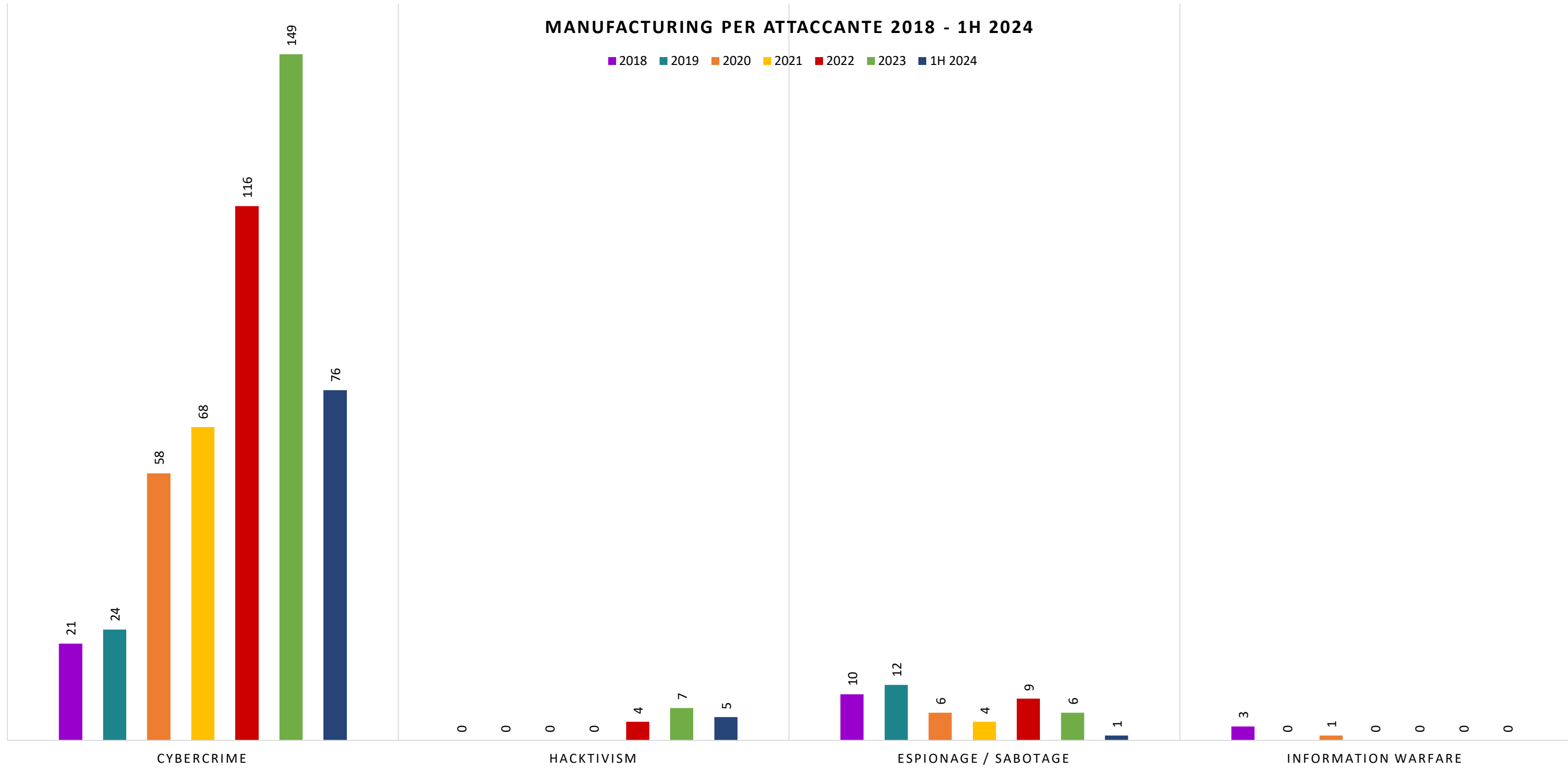


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La minaccia proviene quasi totalmente dal Cybercrime

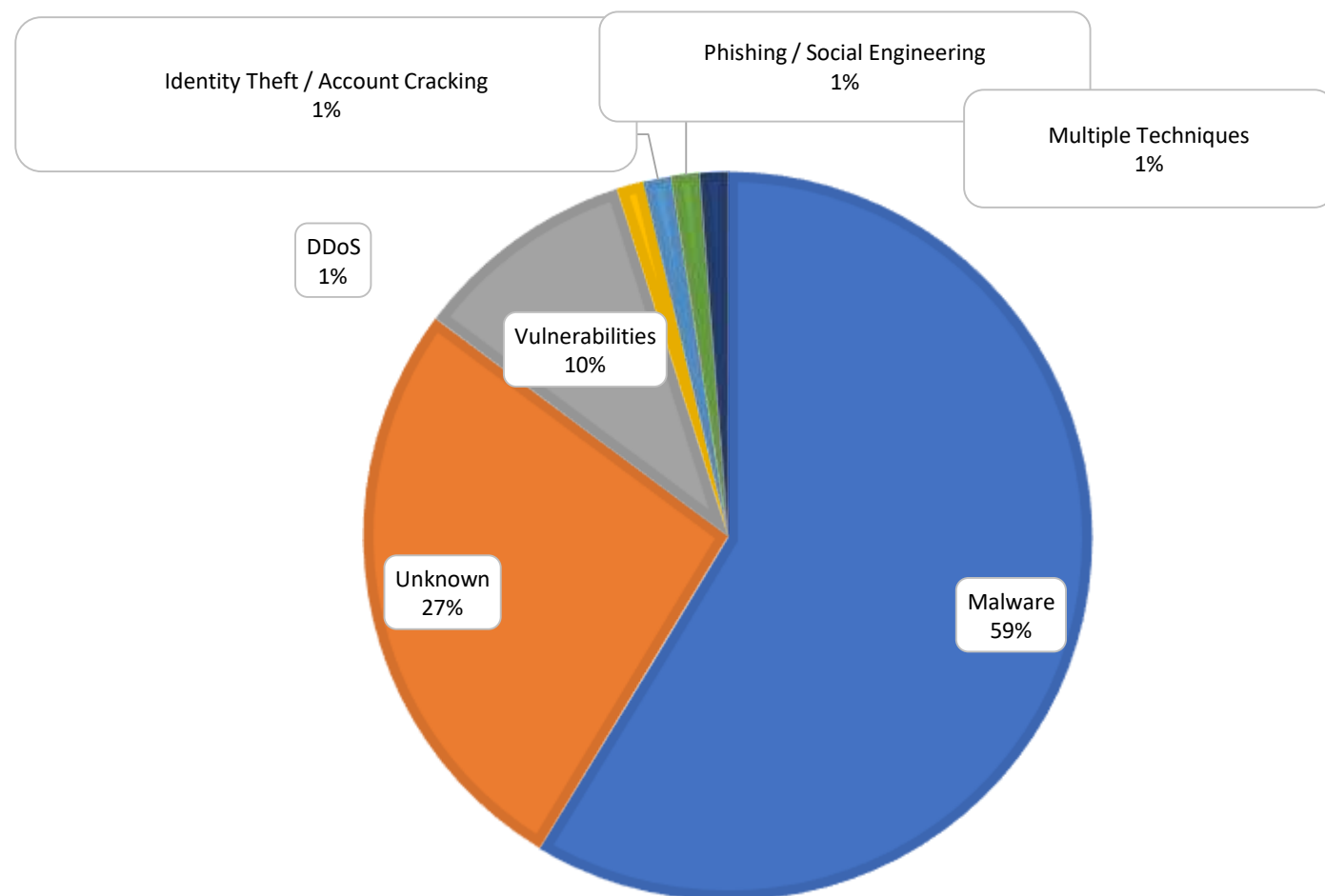
### MANUFACTURING PER ATTACCANTE 2018 - 1H 2024

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 1H 2024



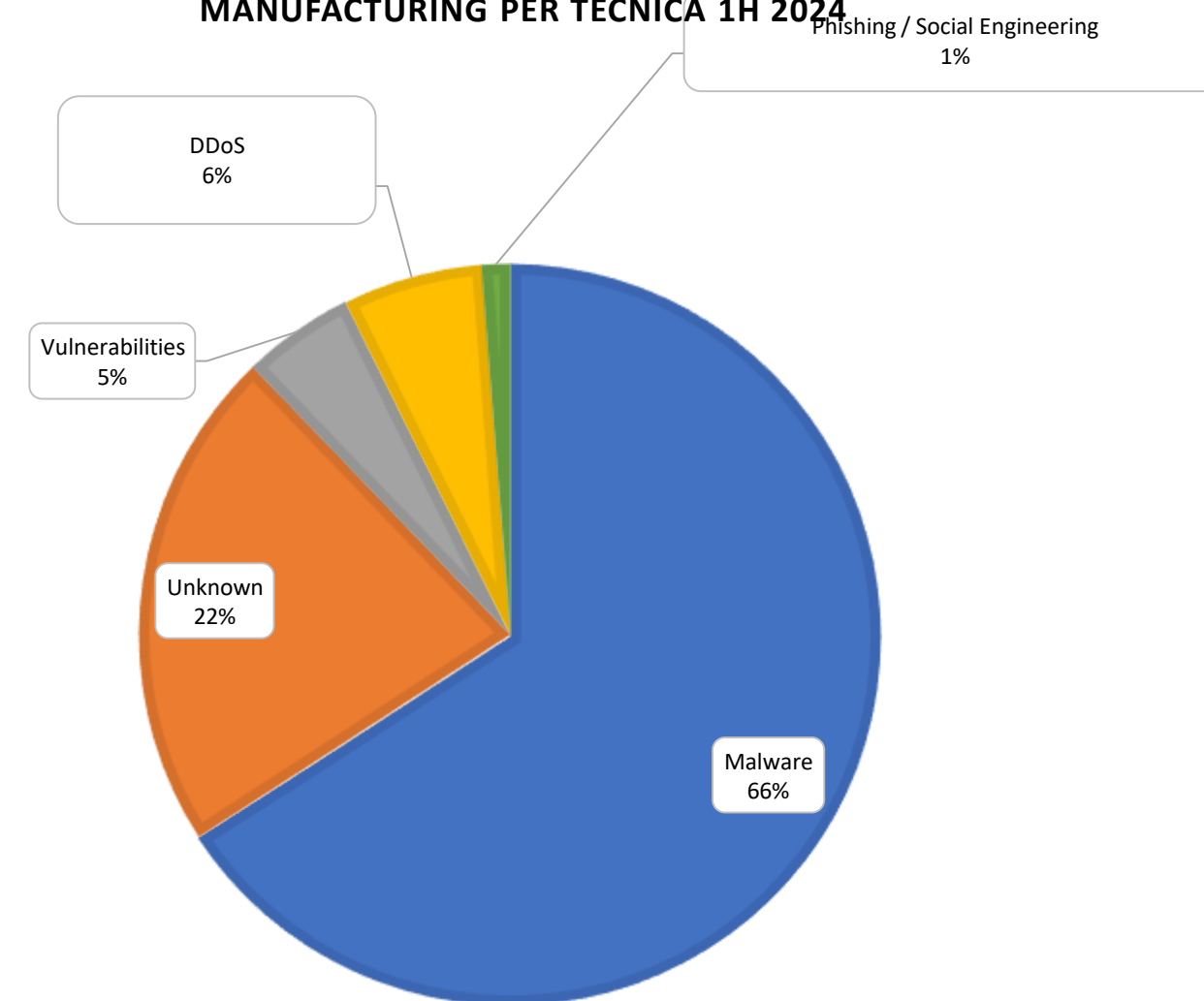
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MANUFACTURING PER TECNICA 2023



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MANUFACTURING PER TECNICA 1H 2024

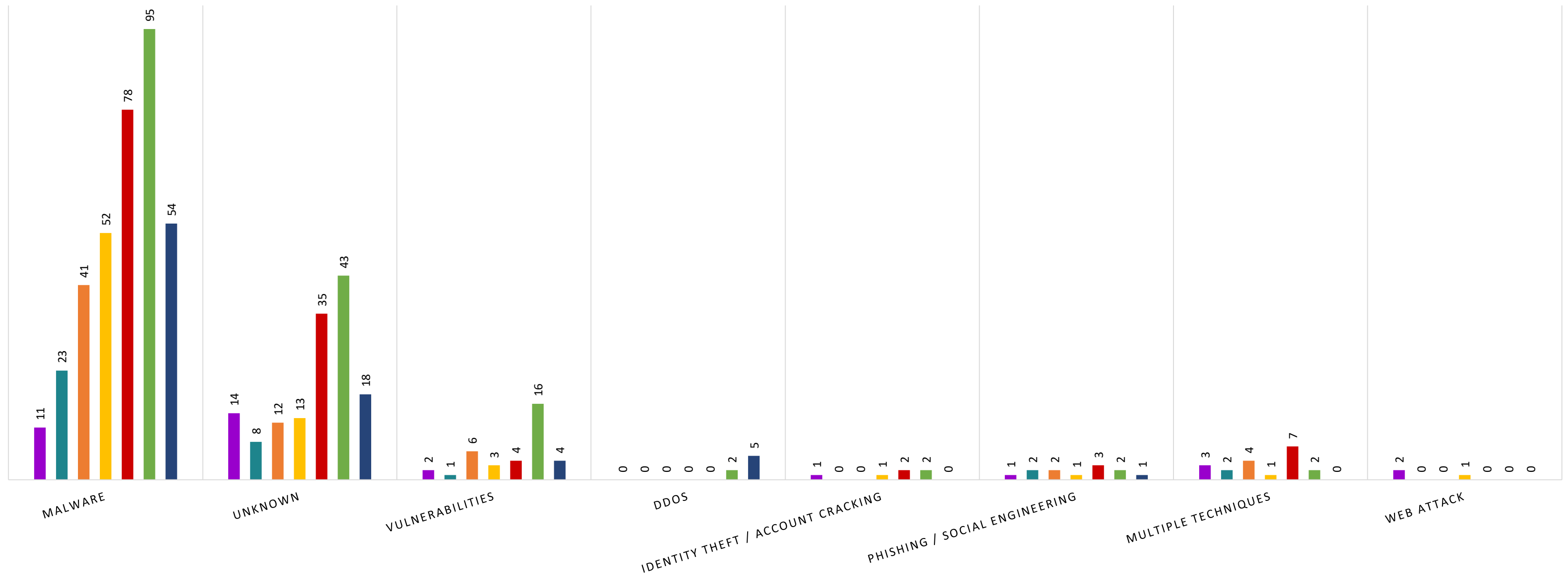


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Tecnica principalmente utilizzata è Malware/Ransomware, poi «Data Breach» (Unknown), a seguire Ddos e Vulnerabilità (0-Days)

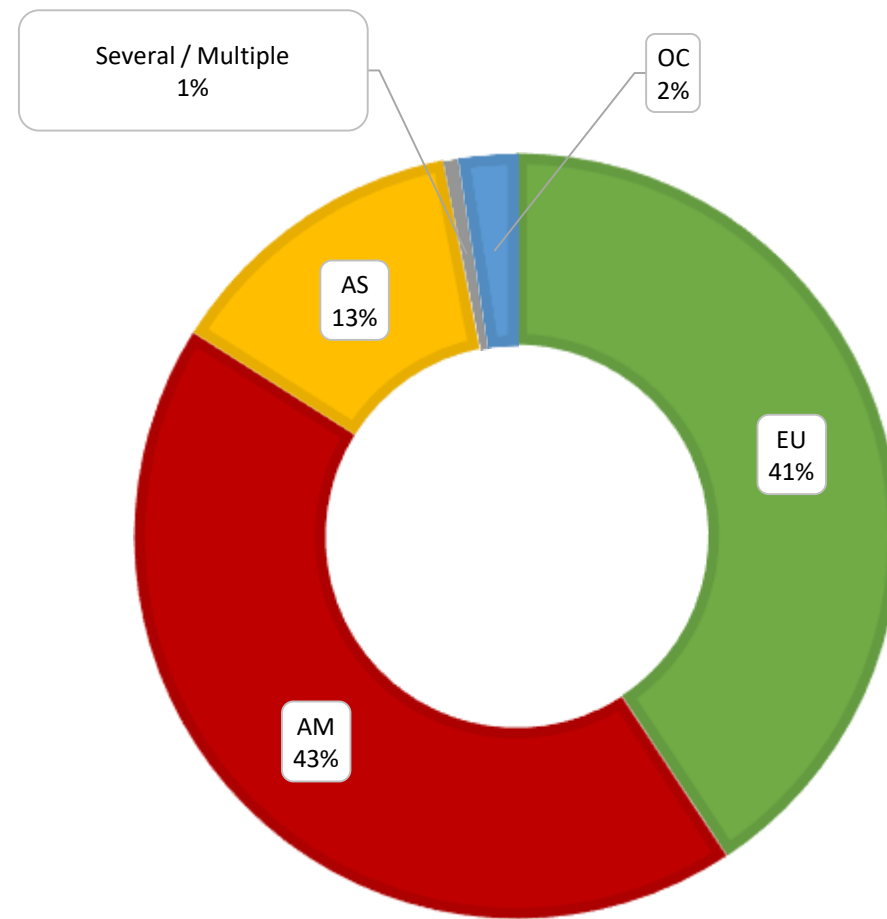
# MANUFACTURING PER TECNICA DI ATTACCO 2018 - 1H 2024

2018 2019 2020 2021 2022 2023 1H 2024



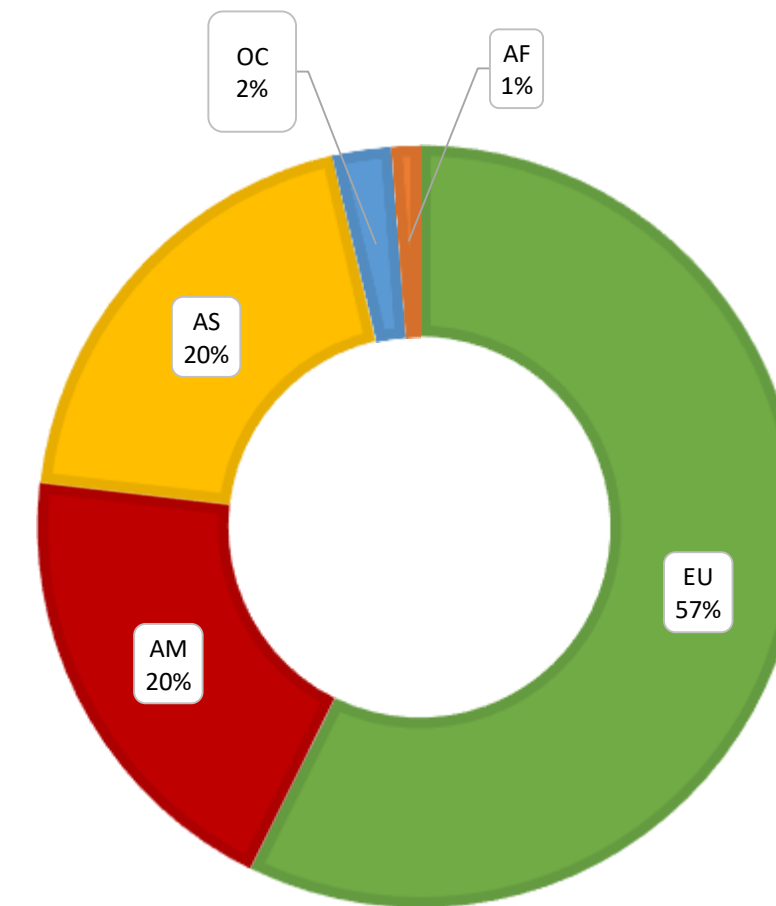
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MANUFACTURING PER GEOGRAFIA 2023



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MANUFACTURING PER GEOGRAFIA 1H 2024



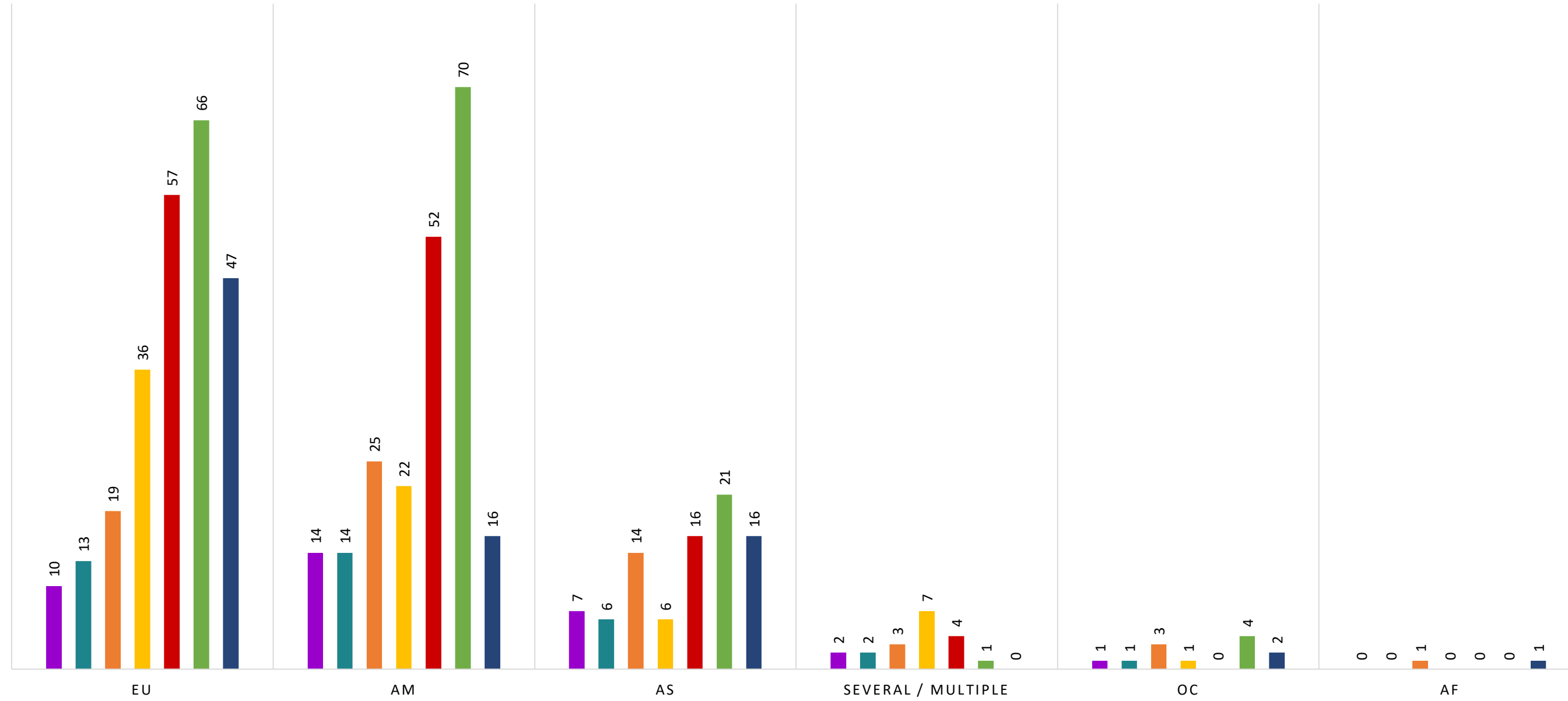
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Target Europei i più colpiti (57% H1 2024), poi Americhe ed Asia parimerito 20% resto è ROW (dati veritieri per il ROW?)



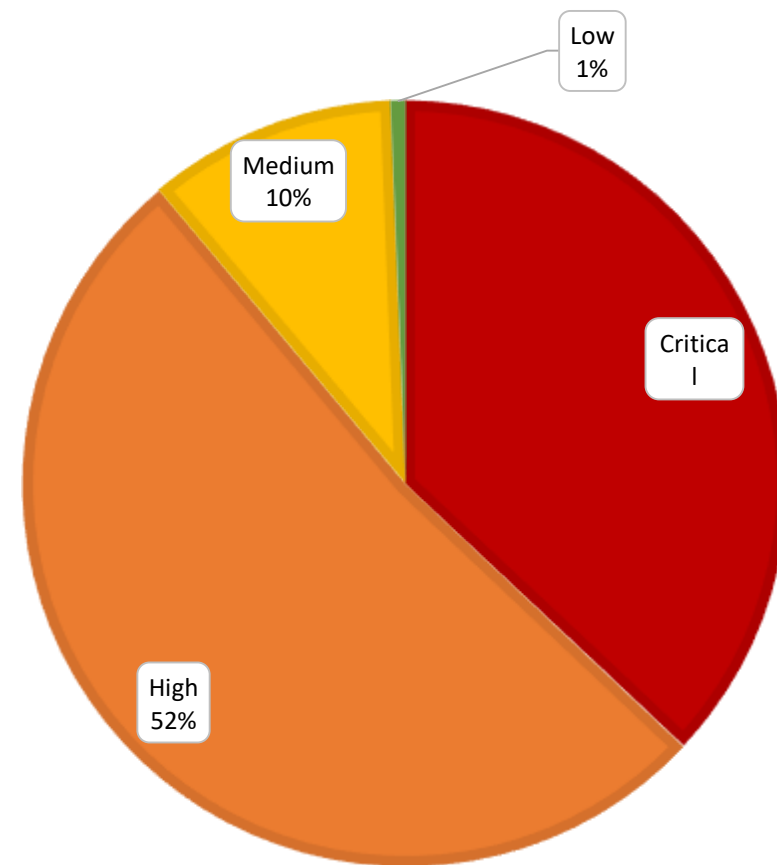
## MANUFACTURING PER GEOGRAFIA DELLE VITTIME 2018 - 1H 2024

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 1H 2024



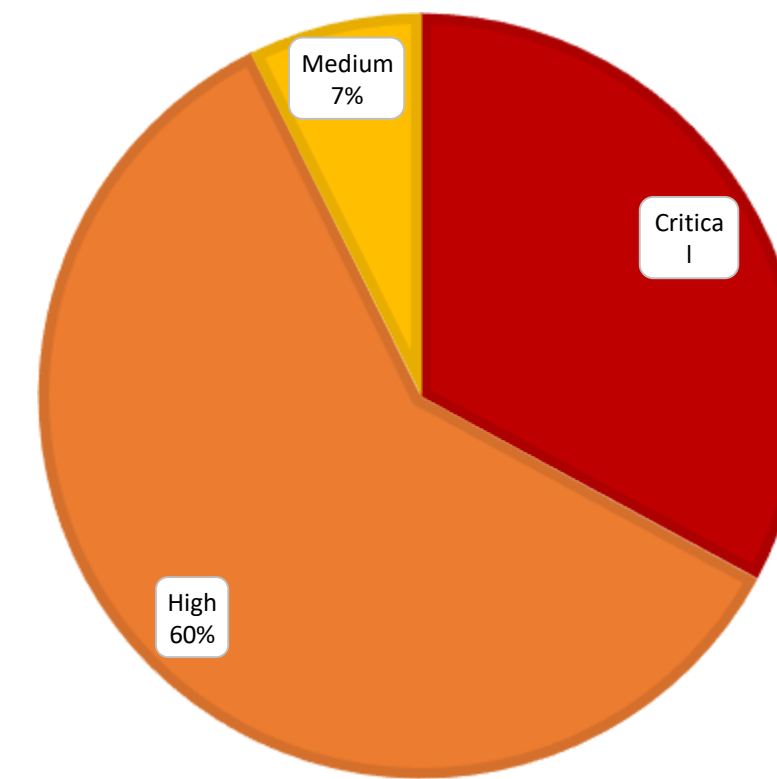
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MANUFACTURING PER SEVERITY 2023



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MANUFACTURING PER SEVERITY 1H 2024

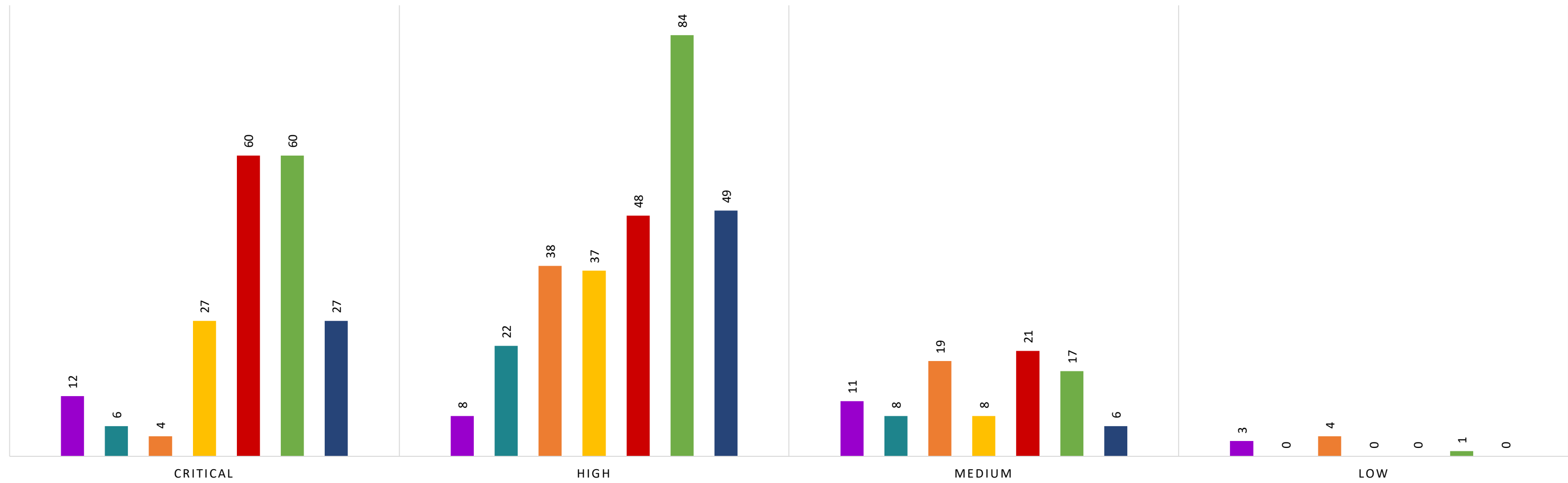


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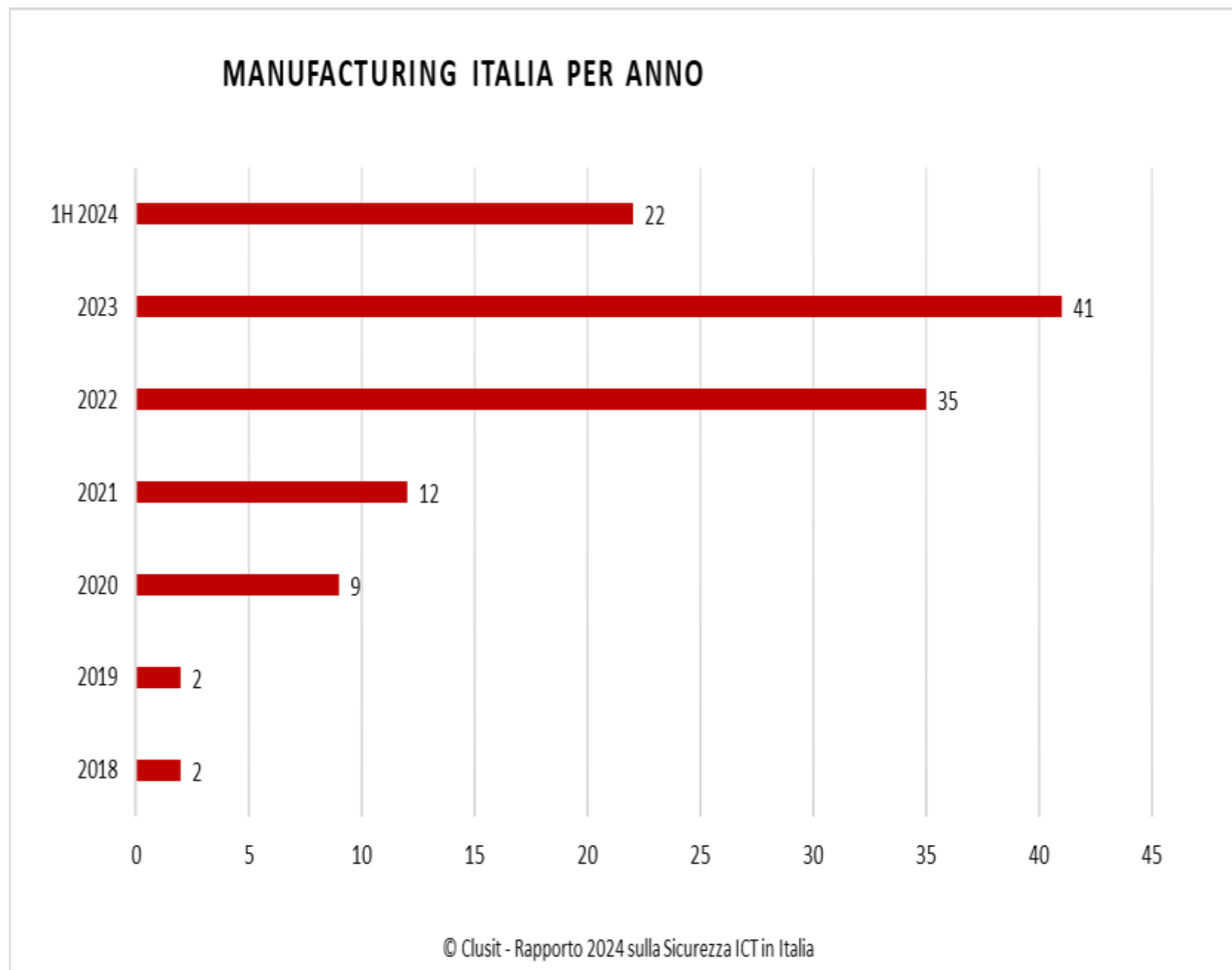
Attacchi con impatti critici al 37% nel 2023, scesi al 33% nel 2024

### MANUFACTURING PER SEVERITY 2018 - 1H 2024

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 1H 2024

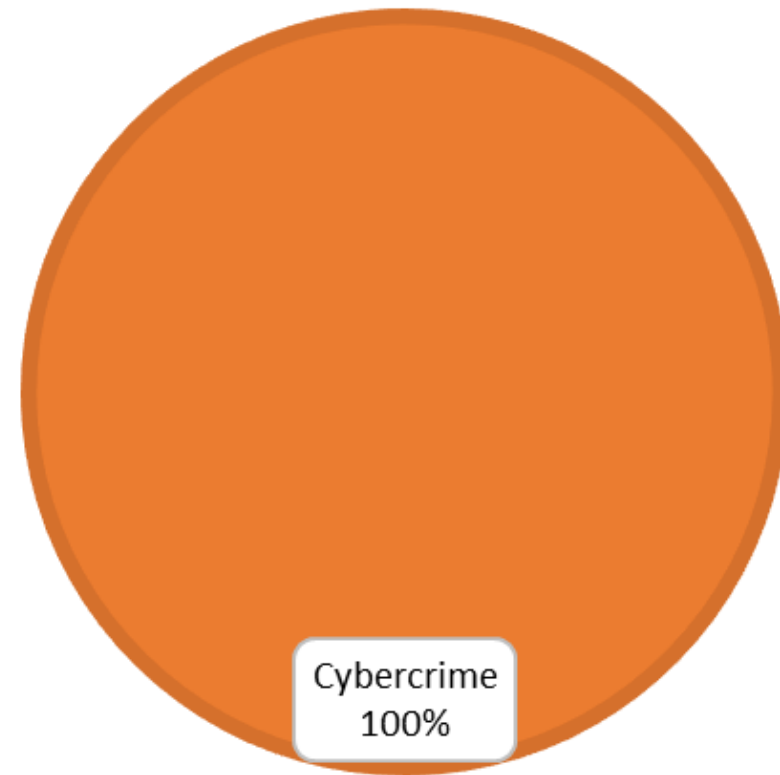


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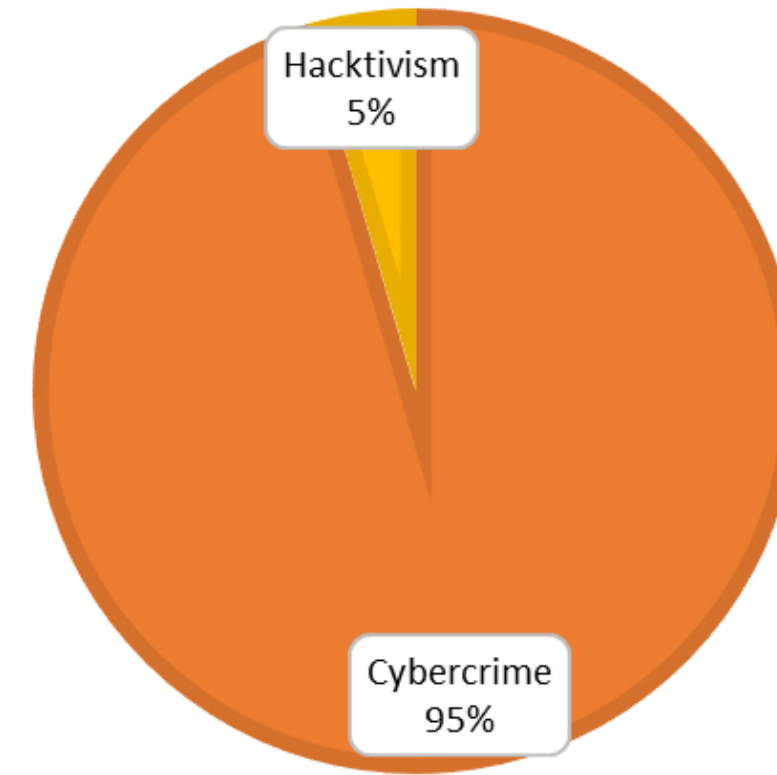
- Irrilevanti in passato, crescita con picchi nel 2020 (+350%) e 2022 (+191%)
- H1 2024 in linea con 2023 con una lieve tendenza al rialzo (17%).

### MANUFACTURING ITA PER ATTACCANTE 2023



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### MANUFACTURING ITA PER ATTACCANTE 1H 24

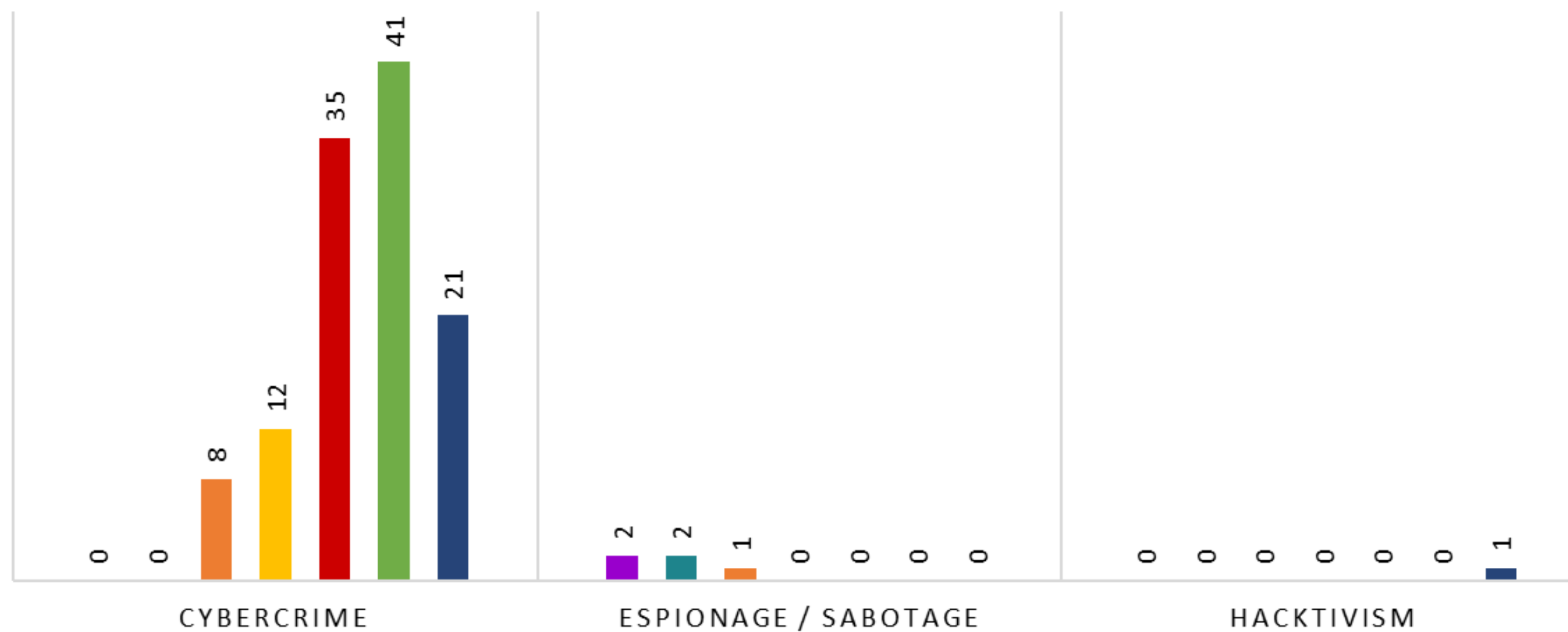


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Senza commenti: 100% causato dal Cybercrime nel 2023, nel 2024 95%

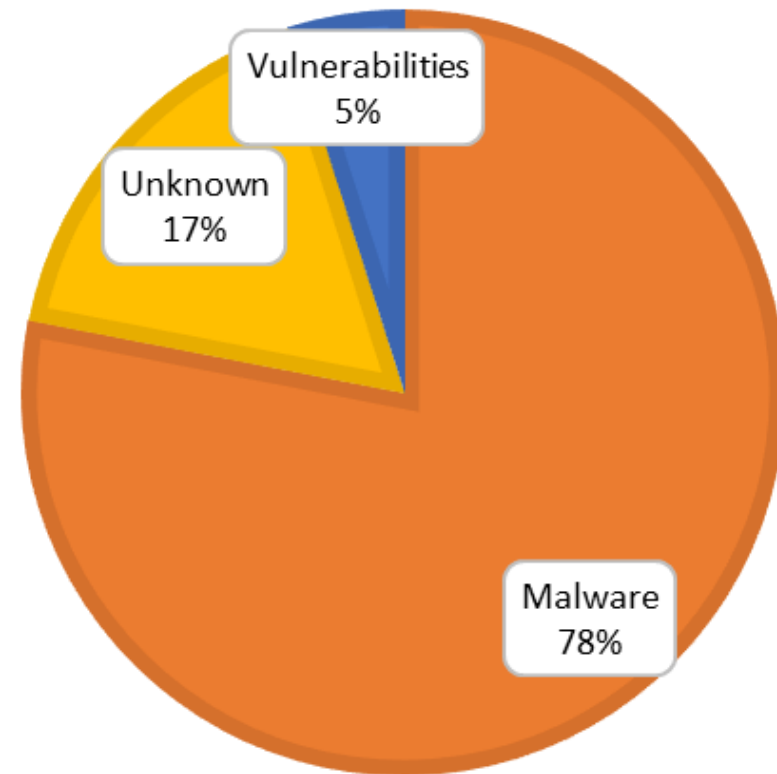
## MANUFACTURING ITALIA PER ATTACCANTE 2018 -1H 24

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 1H 2024



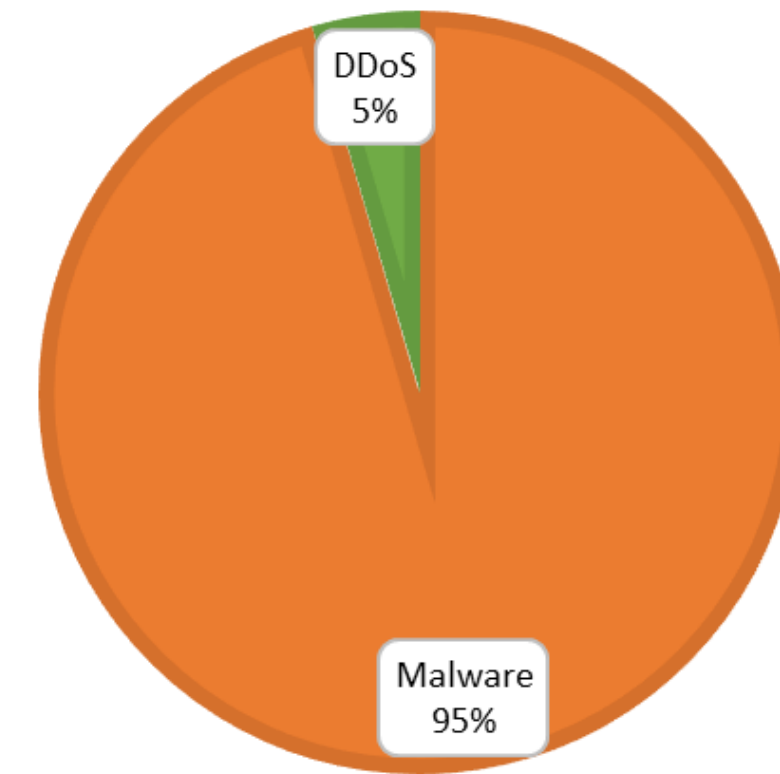
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### MANUFACTURING ITALIA TECNICHE 2023



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### MANUFACTURING ITALIA TECNICHE 1H 2024

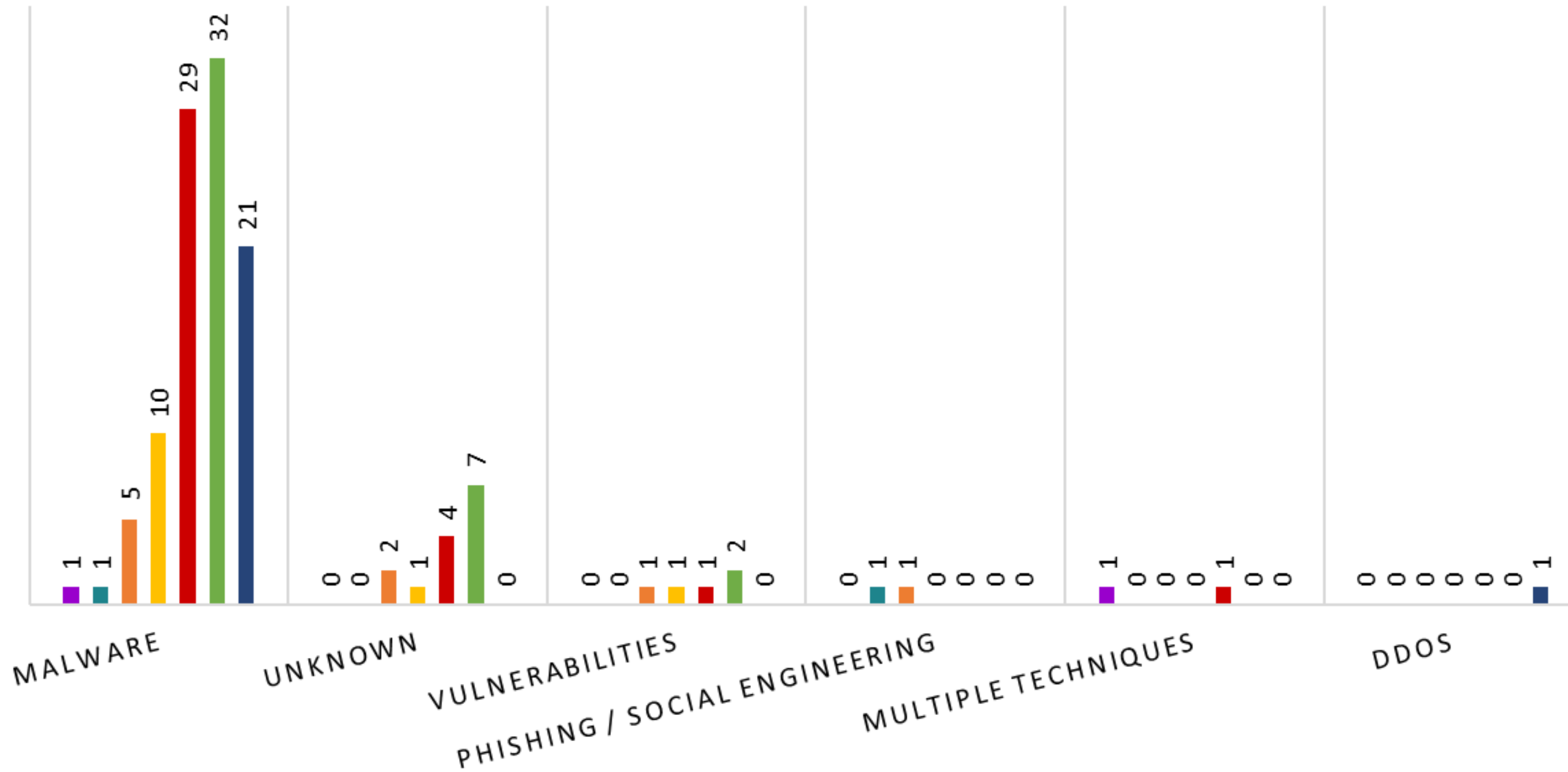


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Come già visto a livello globale, Tecnica principalmente utilizzata (95%) è Malware/Ransomware, poi Ddos in minima parte.

# MANUFACTURING ITALIA PER TECNICHE 2018 - 1H 2024

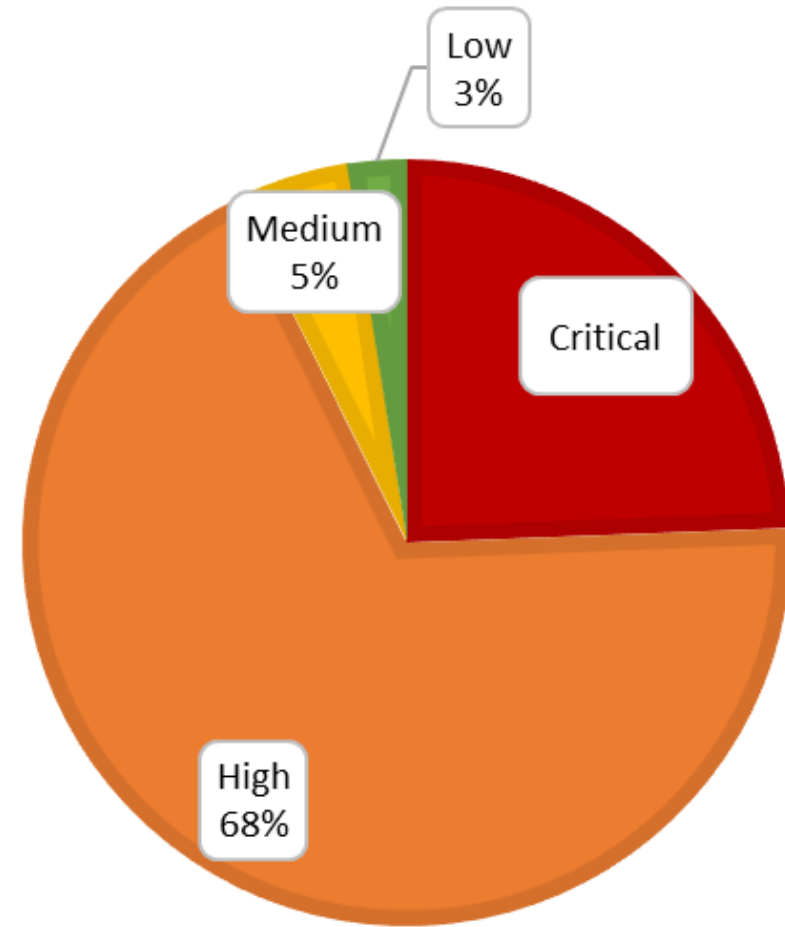
■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 1H 2024



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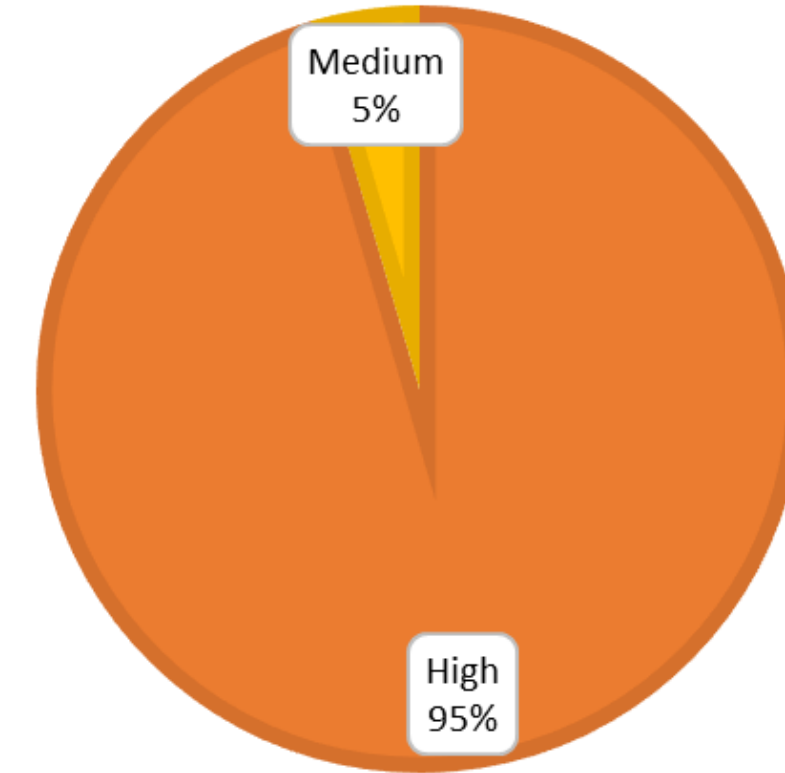


### MANUFACTURING ITALIA PER SEVERITY 2023



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### MANUFACTURING ITALIA PER SEVERITY 1H 24

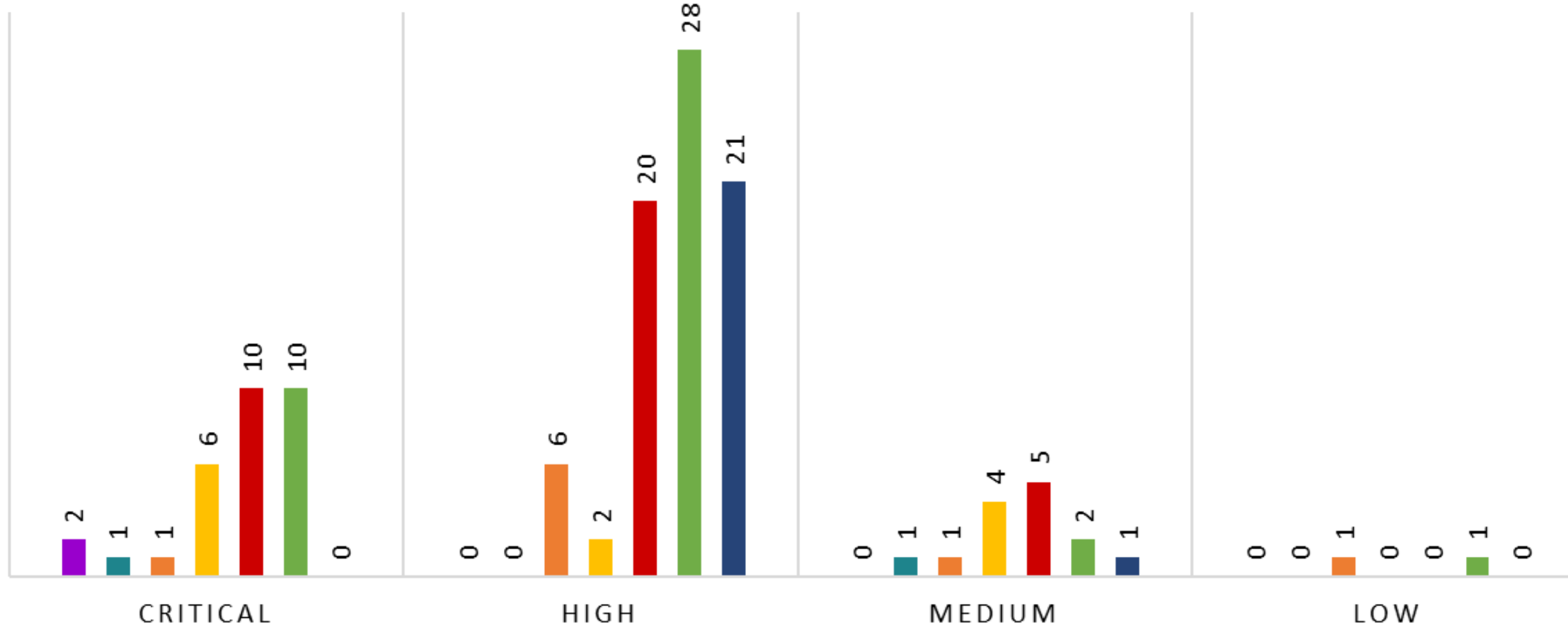


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Anche da noi, attacchi con impatti critici vicini 1/4 nel 2022 e nessun critico nel 1H 2024 (speriamo di arrivare a fine anno).

## MANUFACTURING ITALIA PER SEVERITY 2018 - 1H 2024

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 1H 2024



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Ed alcuni dati dal Report  
Dragos ICS/OT CyberSecurity  
Year in Review 2023  
  
(approfondimento Ransomware)



# A proposito di Ransomware con impatto ICS/OT

OT CYBERSECURITY • YEAR IN REVIEW 2023



## Key Ransomware Findings



↑  
**50%**

Ransomware attacks against industrial organizations **increased 50 percent** over last year.



**28%**

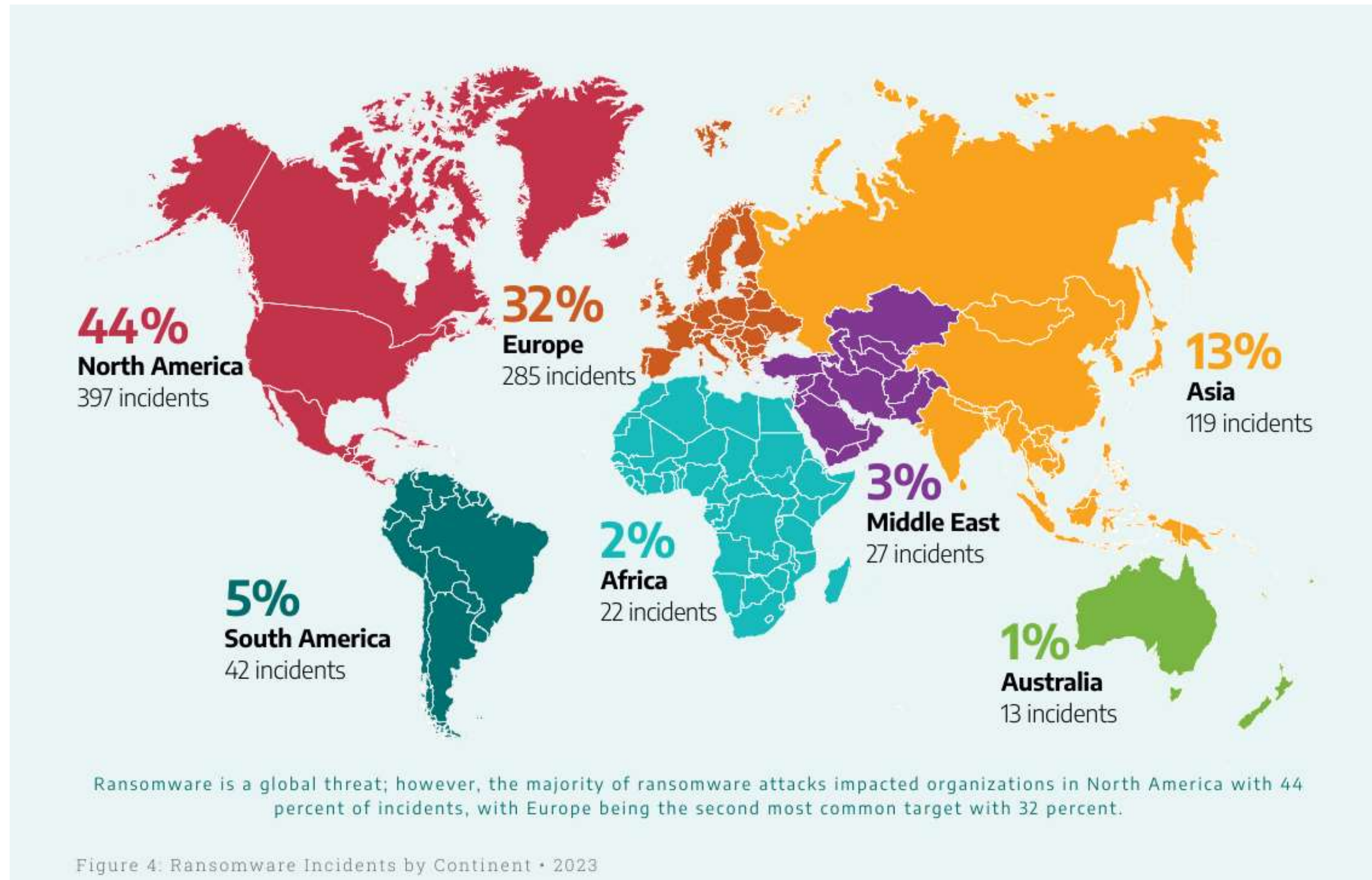
Dragos tracked **28% more ransomware groups** impacting ICS/OT in 2023.



**70%**

of all ransomware attacks targeted **638 manufacturing entities** in **33 unique manufacturing subsectors**.

# Ransomware con impatto ICS/OT per area geografica



44+5=49% Americhe  
32% Europa  
(stimiamo 3-4% Italia)

13+3+2+1=19%  
MEA/Asia/Oceania

# Ransomware con impatto ICS/OT per settore

71% attacchi con impatto MFG in 104 Settori e a seguire i produttori di OT con il 13%



The most common sector impacted in 2023 was manufacturing, with 71 percent of ransomware incidents. The industrial control systems sector, which is made up of companies that develop OT equipment and applications, was the second most impacted sector with 13 percent.

Figure 5: Ransomware Incidents by Sector • 2023

# La nota più dolente e' la segmentazione

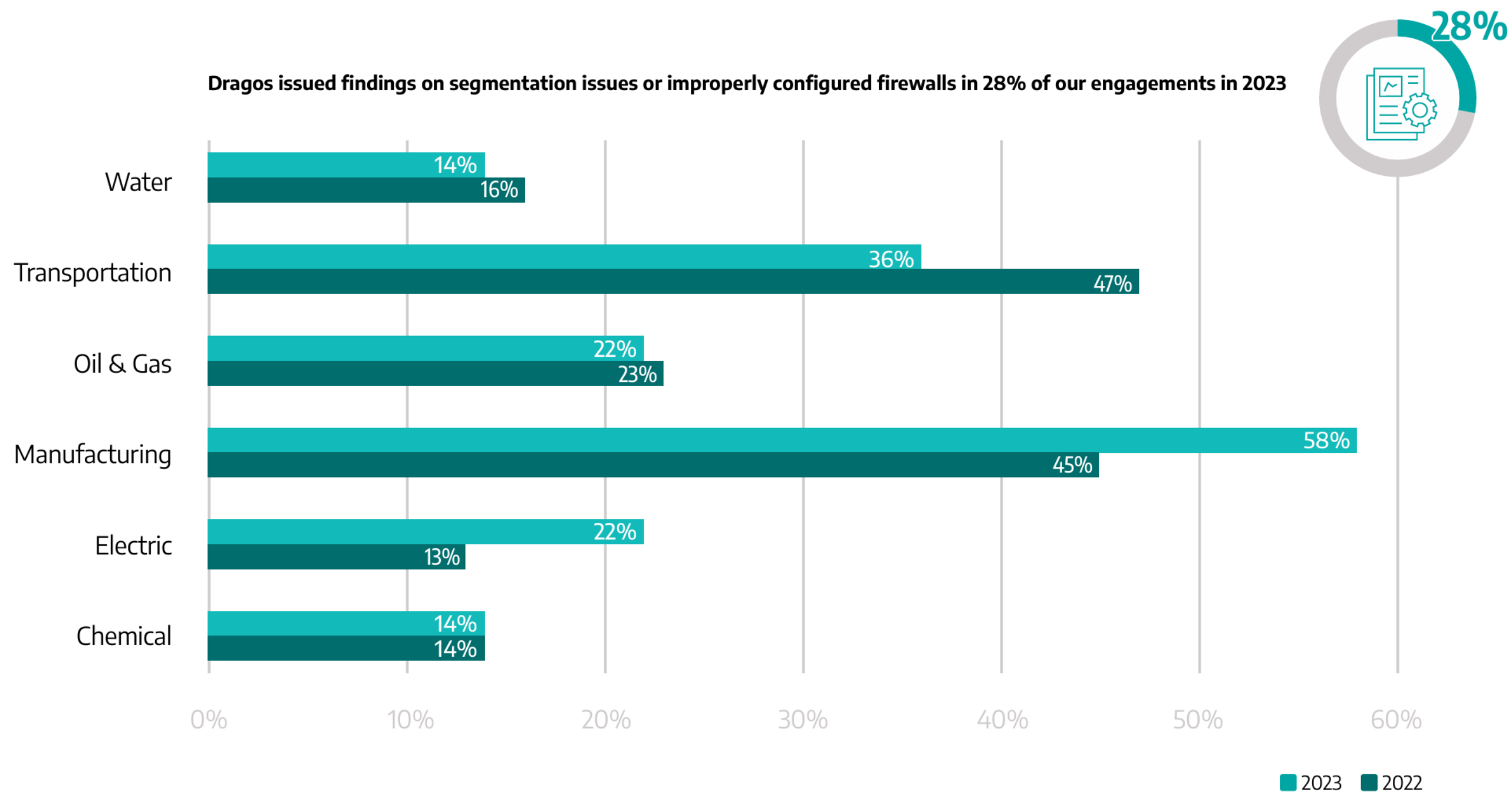


Figure 6: Reports Containing Segmentation Findings

# Alcuni dati dal Microsoft Digital Defense Report (Oct.2024)








# Identity attacks in perspective

Password-based attacks continue to dominate, but can be thwarted by using strong authentication methods.



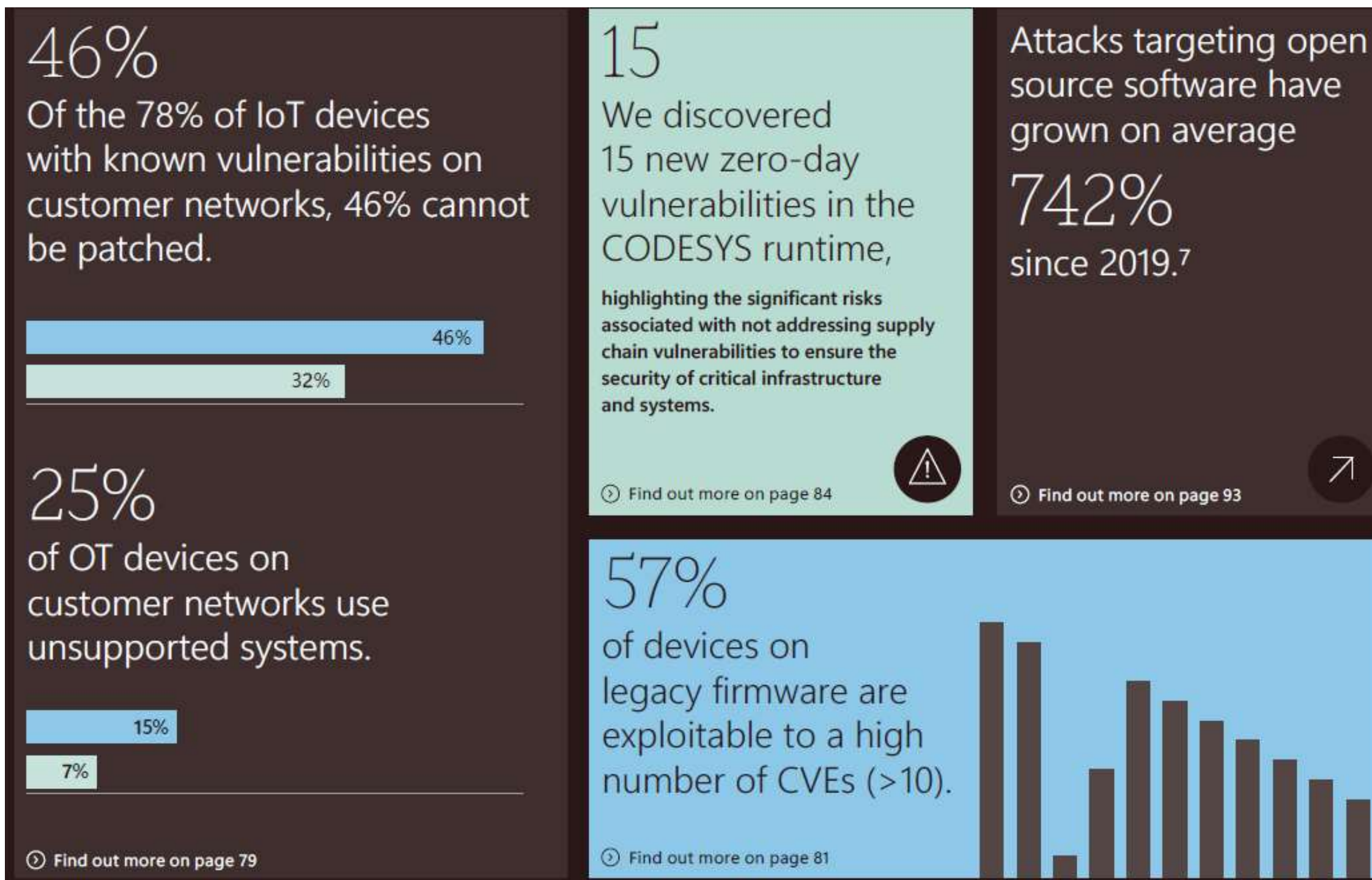
<math><1\%</math>  
of attacks

Less than 1% combined

 <h3>MFA attacks</h3> <ul style="list-style-type: none"><li>SIM swapping</li><li>MFA fatigue</li><li>AitM</li></ul>	End-run MFA protection by intercepting security codes using stolen phone numbers, barraging users with MFA notifications until they approve, and capturing first and second factor credentials using fake replicas of legitimate websites.
 <h3>Post-authentication attacks</h3> <ul style="list-style-type: none"><li>Token theft</li><li>Consent phishing</li></ul>	Infiltrate a user's account after they authenticate by stealing a legitimate token created on their device and moving it to a device under the attacker's control, by searching source code repositories for Open Authorization (OAuth) tokens and other non-human credentials, or by tricking the authenticated user into granting permissions to malicious apps.
 <h3>Infrastructure compromise</h3>	Often silently executed by professional groups or nation-state-backed threat actors with sophisticated operations, making them very hard to detect. Threat actors may compromise an on-premises federation server and copy its private signing key to forge tokens, compromise a privileged cloud user and add new federation contracts, or compromise a non-human workload identity and create new credentials with elevated privileges.

Source: Microsoft Threat Intelligence

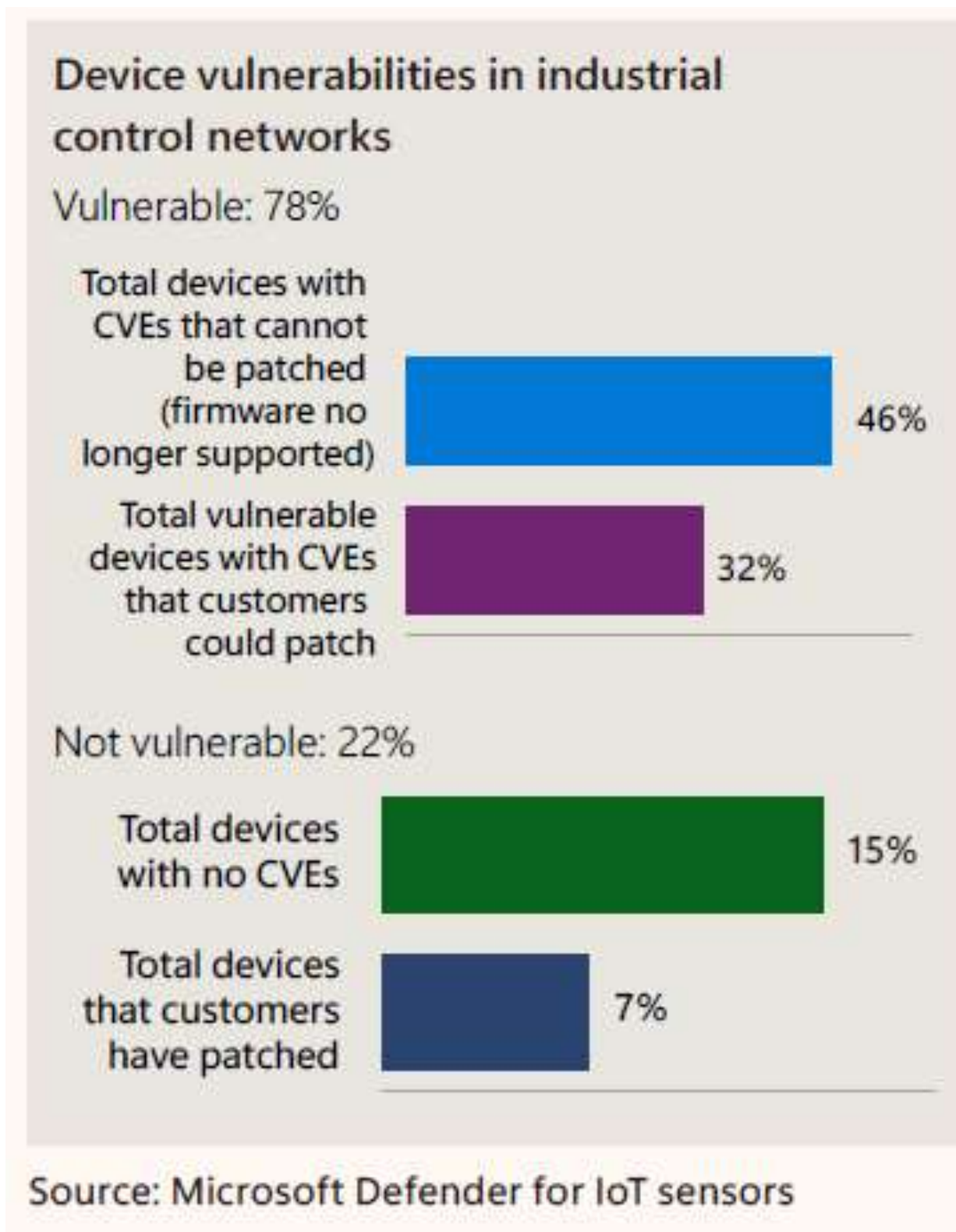
# OT/IOT/IIoT esposti (Dati 2023)



- 78% IoT con Vulnerabilità conosciute, con 46%, quasi la metà, senza possibilità di patch (ovvero il 36%)
- 25% dei dispositivi OT usa SW non supportato (senza possibilità di patch)
- 96% applicazioni usa SW componenti Open Source,
- +742% dal 2010 di attacchi su SW Open Source
- 57% firmare devce OT esposto a più di 10 CVE

# Device ICS/OT vulnerabili e non vulnerabili (PLC ecc.)

- 78% IoT con Vulnerabilità conosciute:
  - 46%, quasi la metà, senza possibilità di patch (ovvero il 36%)
  - 32% potrebbe avere patch (il 25%)
- 22% risulta non vulnerabile:
  - 15% senza CVE conosciute
  - 7% con patch applicate



# Alcuni dati dal SANS ICS/OT CyberSec Survey (Oct.2024)



# SANS ICS/OT CyberSec Survey - Demographics

Intervistati oltre 500 CISO che gestiscono oltre 1760 Impianti industriali/Utility

78 CISO Europei (10%) con 190 Impianti (18%)

Oltre 60 categorie industriali

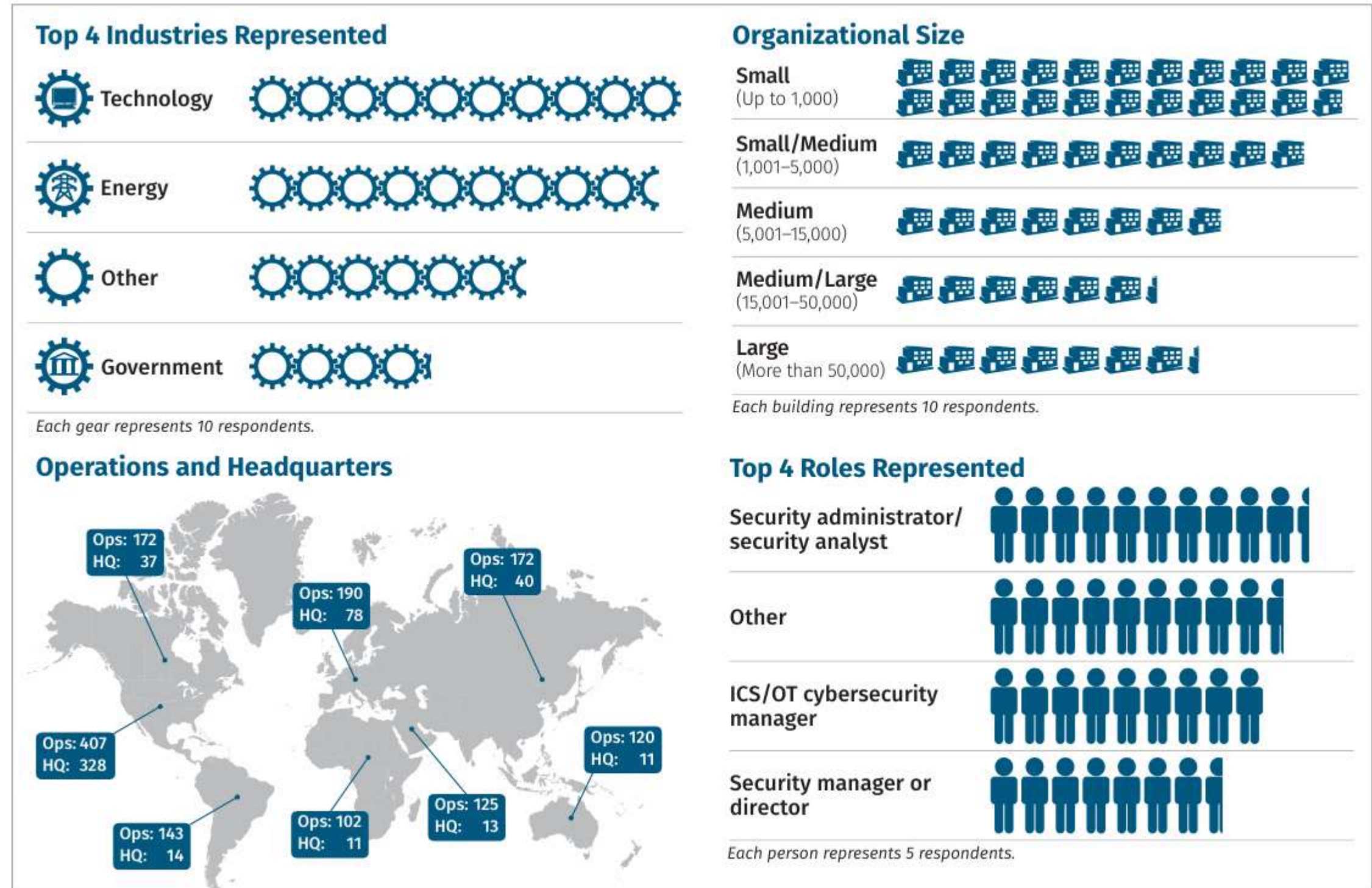
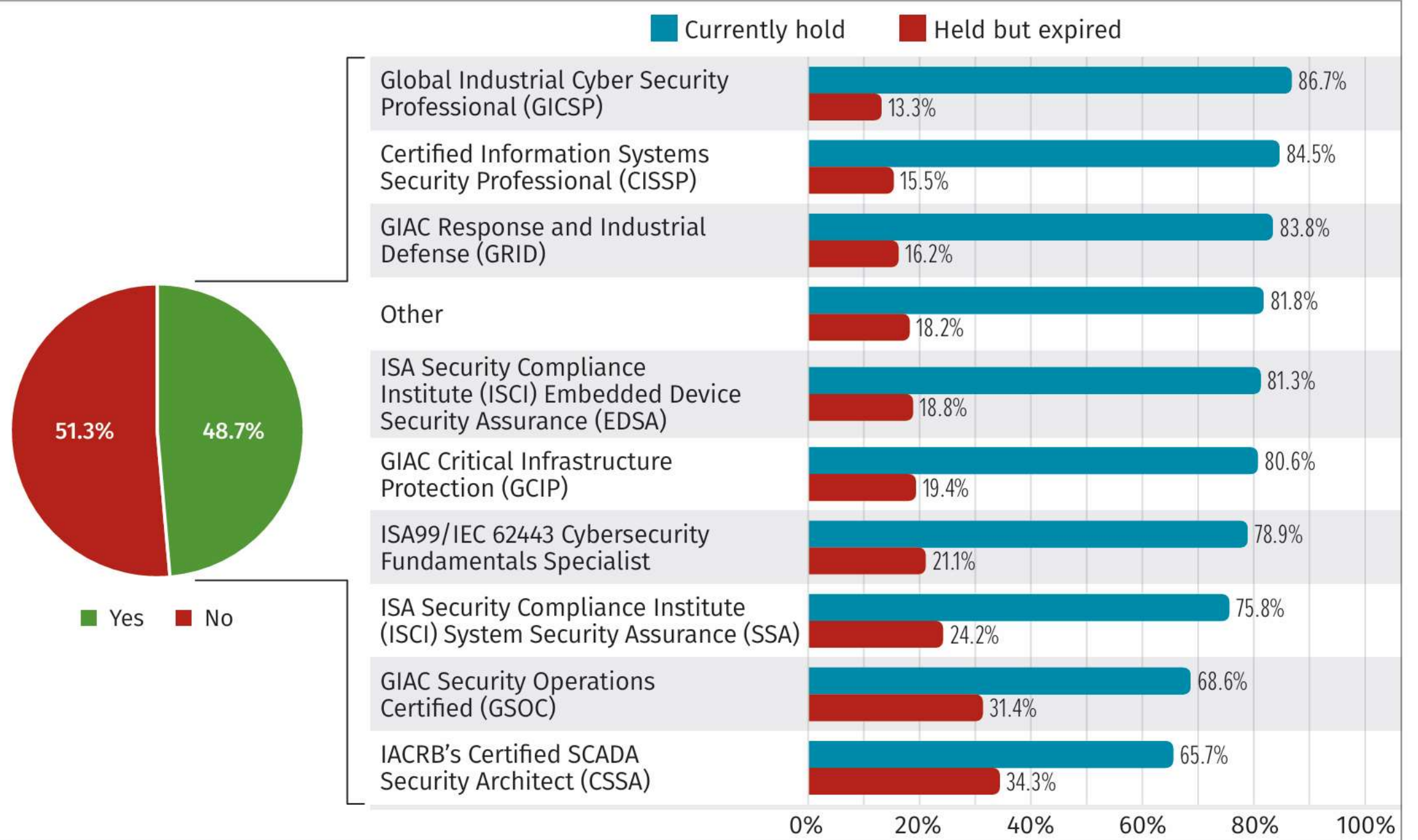


Figure 1. Survey Demographics

# SANS ICS/OT CyberSec Survey – Le certificazioni

Do you hold or have you held any ICS/OT cybersecurity-related certifications? If so, which ones?  
Select all that apply.



# SANS ICS/OT CyberSec Survey – Da dove arriva l'attacco ?

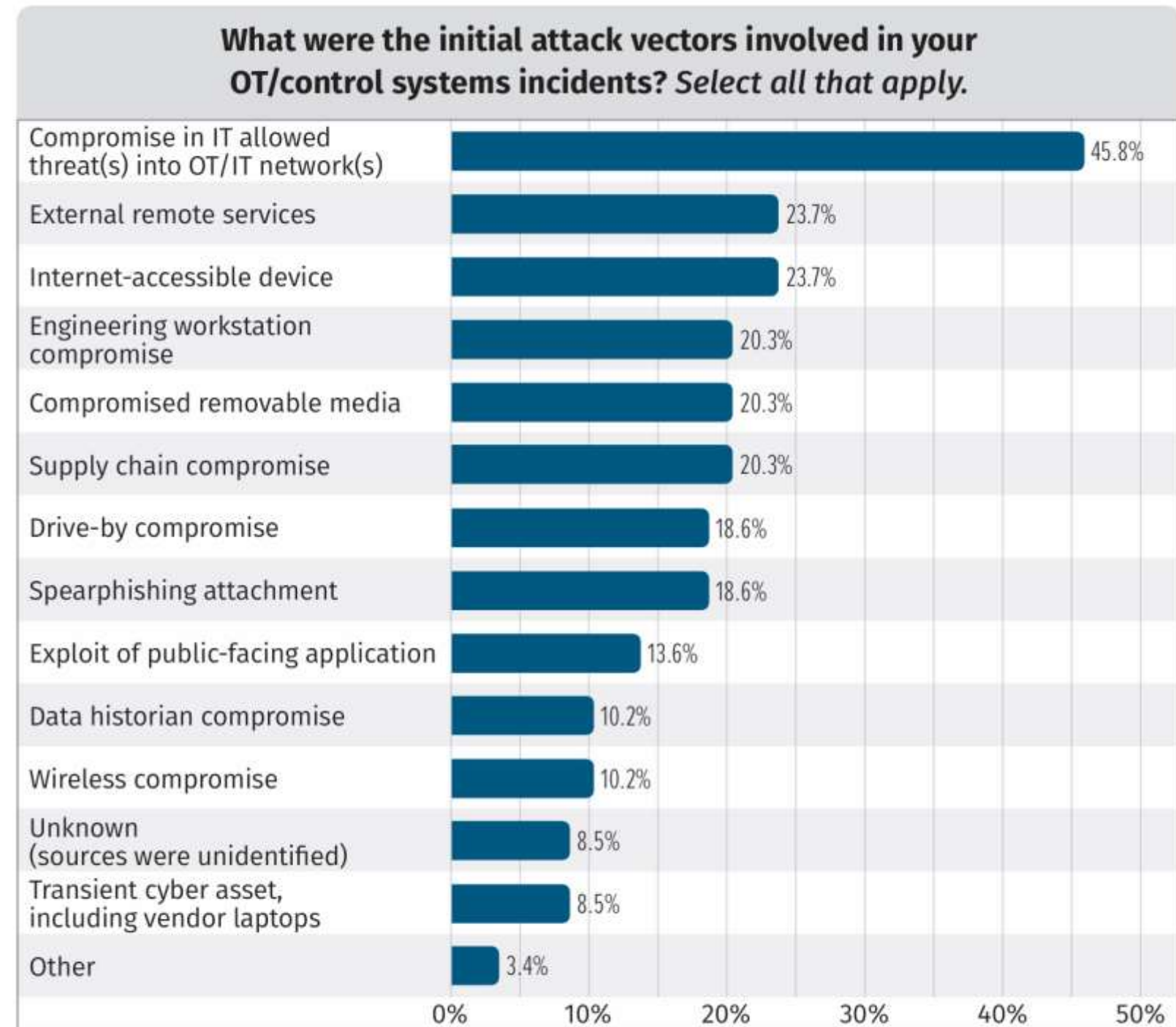


Figure 12. Initial Attack Vectors

# SANS ICS/OT CyberSec Survey – In cosa investire?

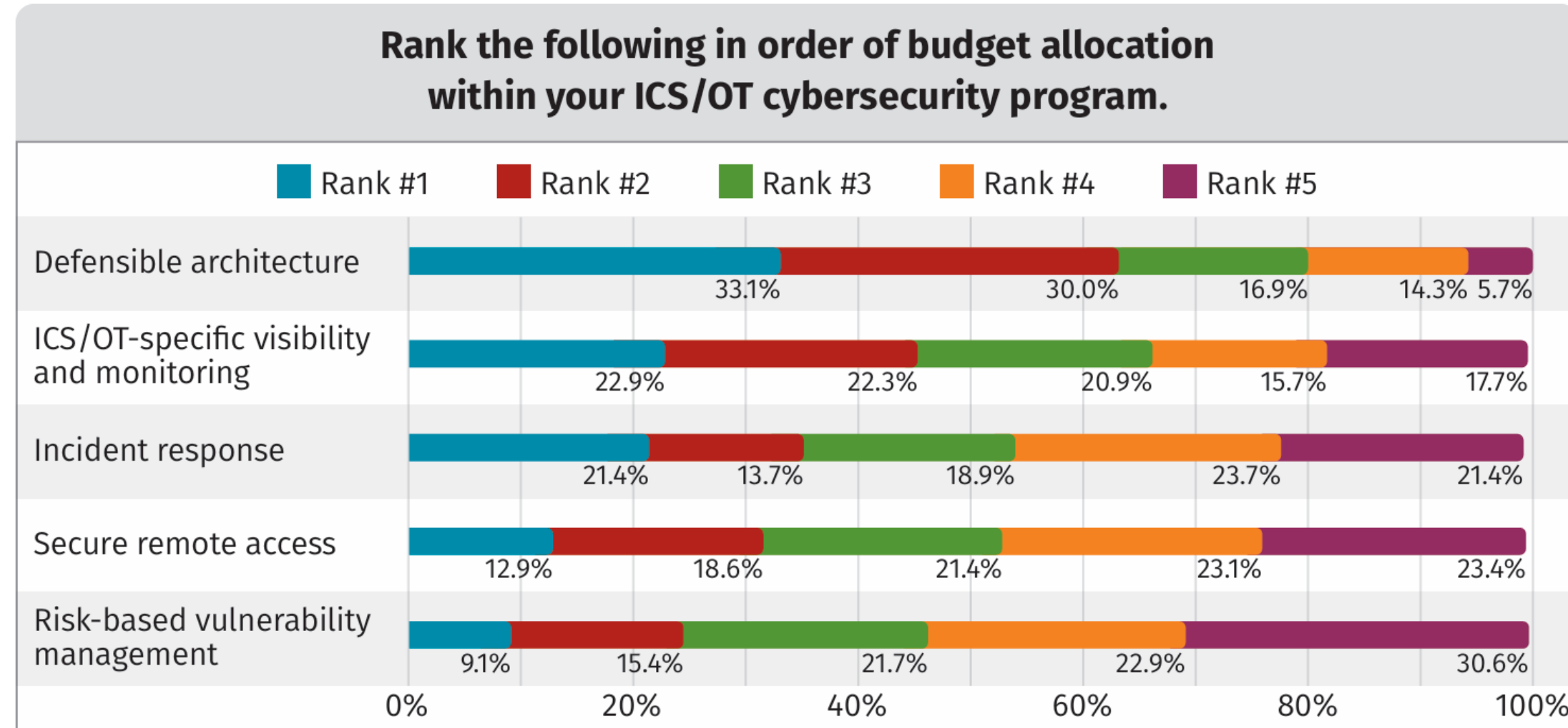


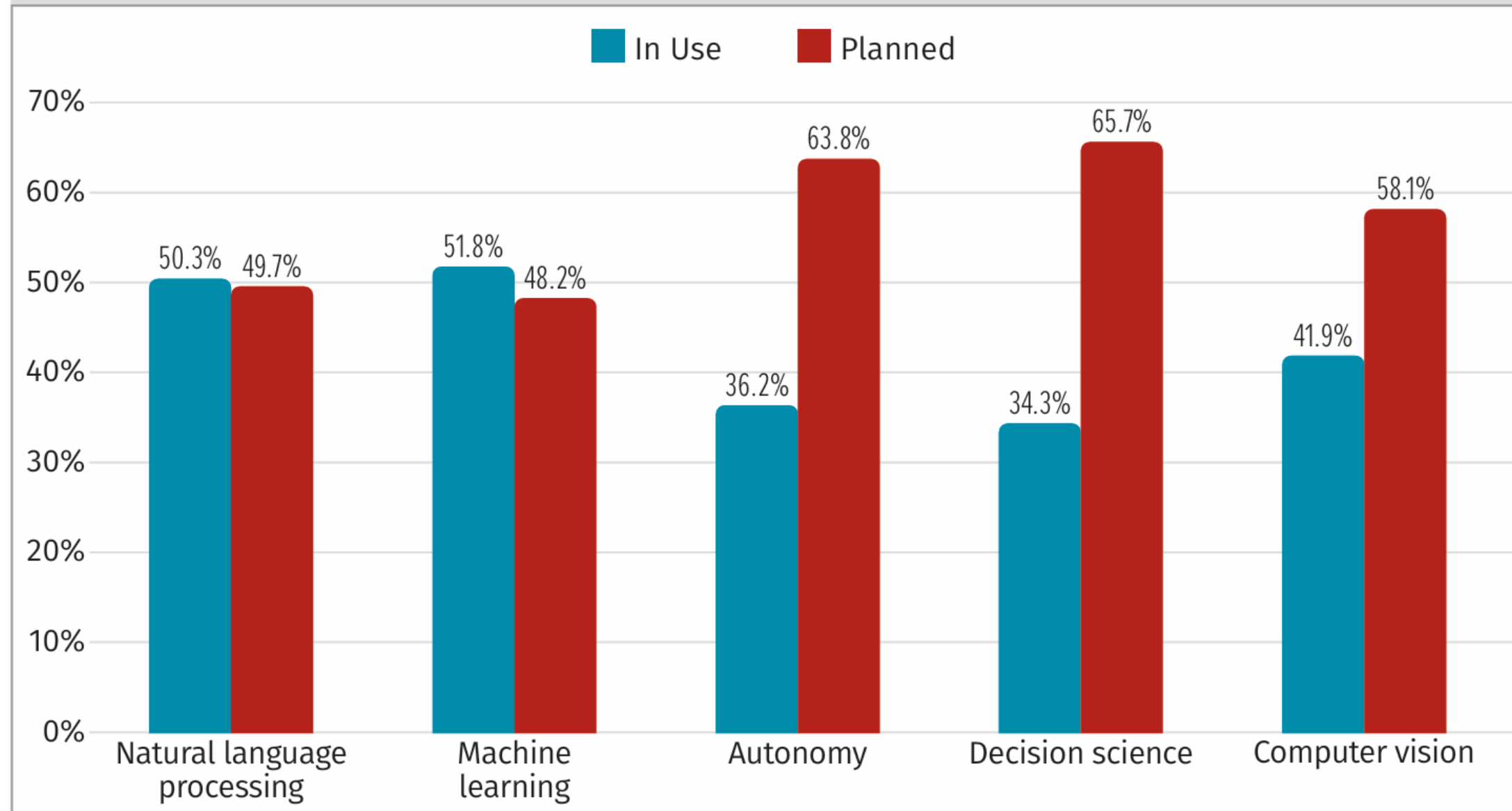
Figure 7. Priority Level of the SANS Five ICS Cybersecurity Critical Controls, Based on Budget Spend

network identify



# SANS ICS/OT CyberSec Survey – Il ruolo dell'AI

What AI technologies or solutions do you currently have in use in your industrial organization? What new AI technologies or solutions is your organization looking to deploy in the next 18 months? *Select only those that apply.*





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