

Cybersecurity Impacts of the Covid-19 Pandemic in Italy

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- **Covid-19 pandemic and lockdowns**

- Accelerating digitalization¹
- Smart/Agile/ Remote working
- Strong increase of Internet utilization, in particular for e-banking and e-commerce
- Noticeable increase of cyber attacks in the world^{2,3}
(especially for big companies)
 - → Does the same apply to Italy?

- **Why is Italy an interesting case of study?**

- 99.91% of enterprises in Italy are SMEs (Small to Medium Enterprises) and 95% < 10 employees (data from ISTAT⁴ , Italian National Institute of Statistics)
 - Modest revenue-> not profitable for cyber criminals
 - Lesser known companies -> less chance for criminals to know that company

[1] L. Goasdu. *Covid-19 accelerates digital strategy initiatives*. Gartner, 2020.

[2] S. Hakak, W. Z. Khan, M. Imran, K. R. Choo, and M. Shoaib. *Have you been a victim of covid-19-related cyber incidents? survey, taxonomy, and mitigation strategies*. IEEE Access, 8,2020

[3] B. Pranggono and A. Arabo. *Covid-19 pandemic cybersecurity issues*. Internet Technology Letters, 4:e247, 2021

[4] Italia ISTAT. *Enterprises and persons employed, dataset DICA ASIAUE1P*.

OAD 2020: survey of cyberattacks in Italy

- **Questions**

- General company information of the respondents (#employees, turnover, etc.)
- Information on the detected cyberattacks to IT systems
- Information on the implemented security measures (technical, organizational, managerial and governance), with a final automatic macro evaluation of the cybersecurity level
- Why macro and general answers?
 - Privacy
 - Security policies
 - Talk about cybersecurity and one's faults is not an easy task!

- **310 respondents**

- Different merceologic sectors (**30.8% ICT**, 9.6% business' services, 8.7% industrial manufacturers, 7.7 % financial, all the other sectors % = or < 5%)
- Different geographical areas (**45.2% throughout Italy**, 43.3% northern Italy, 7.7% southern Italy and islands, 2.9% central Italy)

- **OAD evolution** with the new Project **OAD Extended 2021-22**

(<https://www.aipsi.org/aree-tematiche/osservatorio-attacchi-digitali/oad-extended.html>)

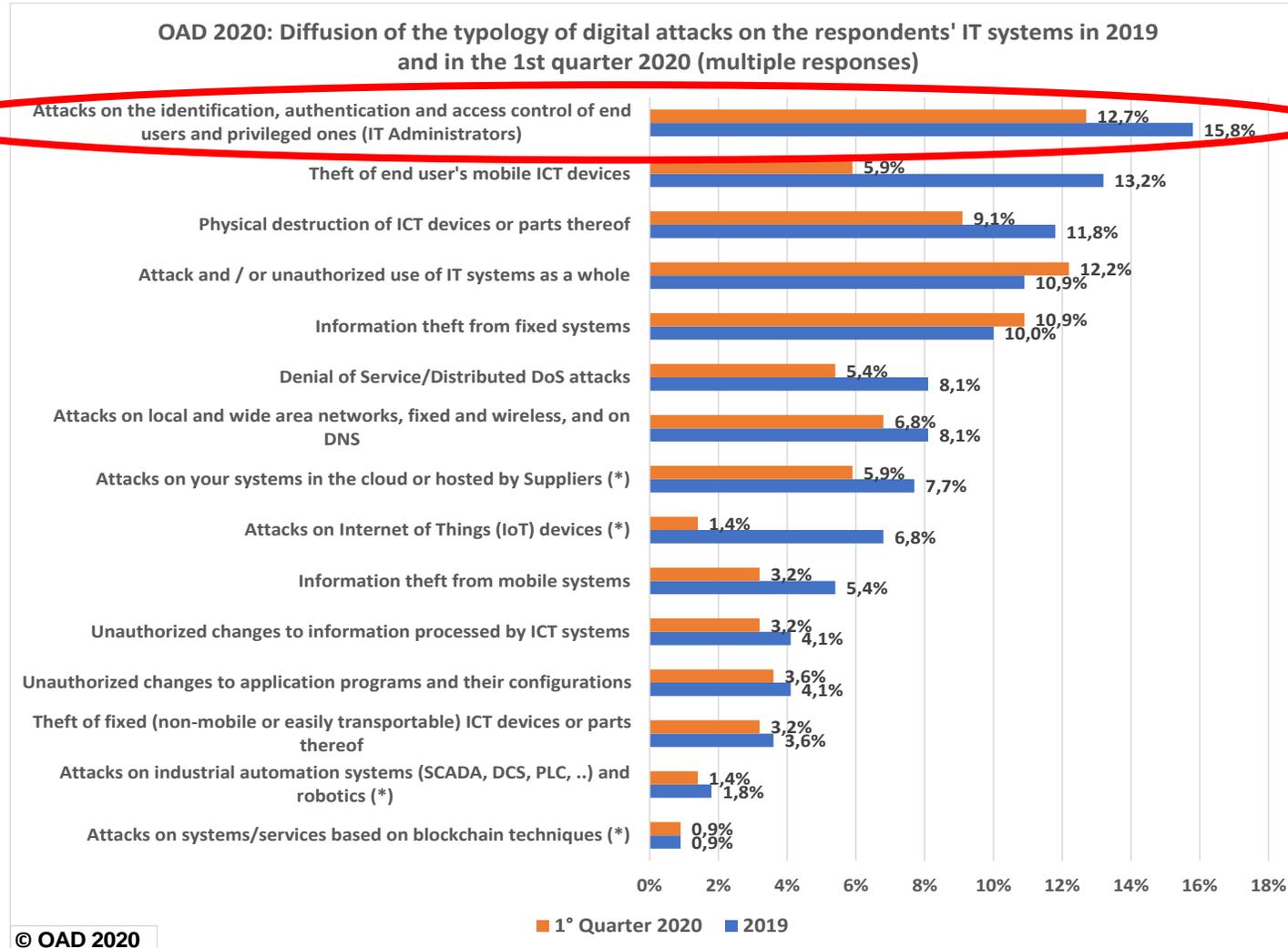


186 A4 pages with an Executive Summary in English



20 A4 pages in Italian

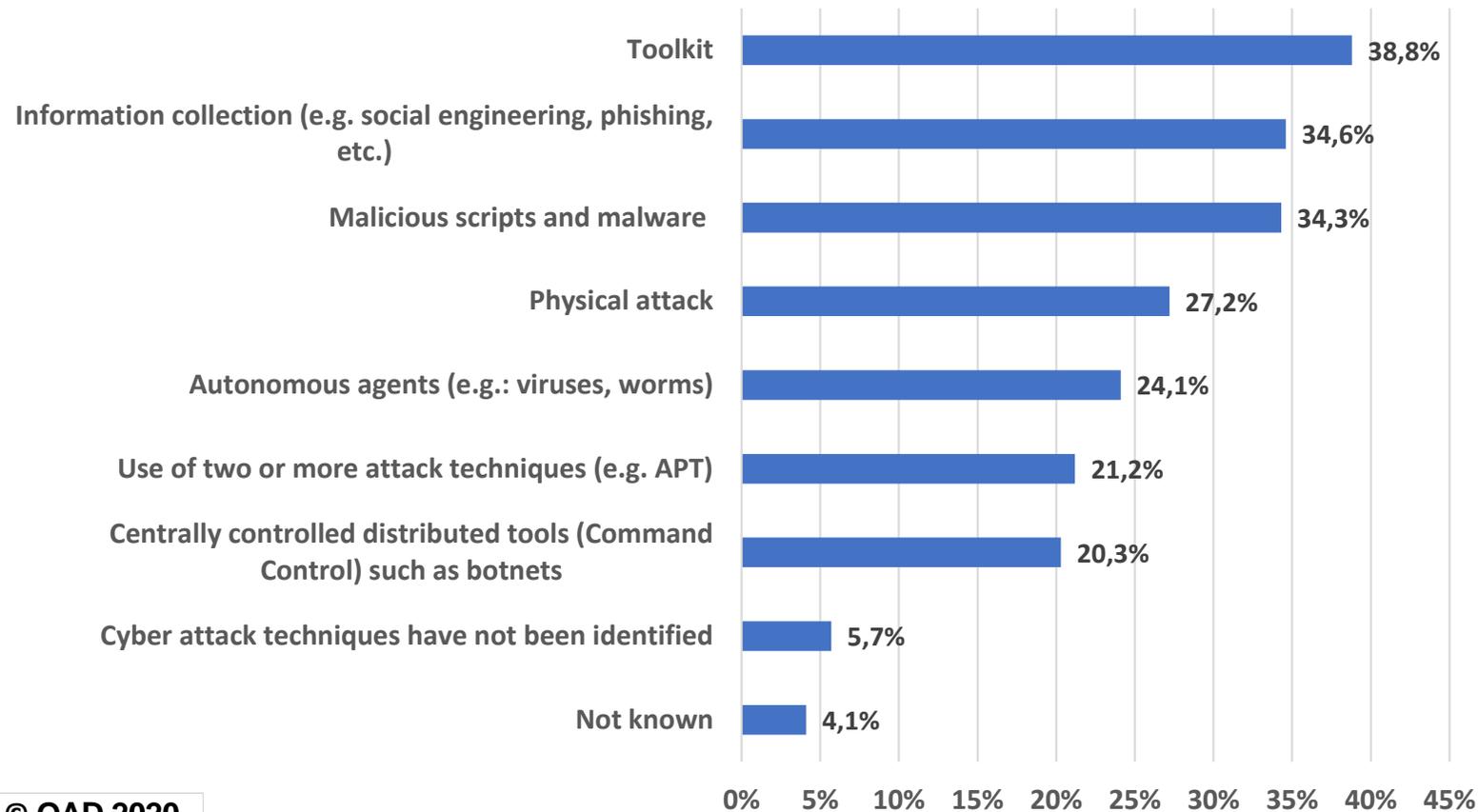
OAD 2020: Widespread of the digital attacks' types



(*) not all the IT systems of the respondents use these types of solutions/systems.

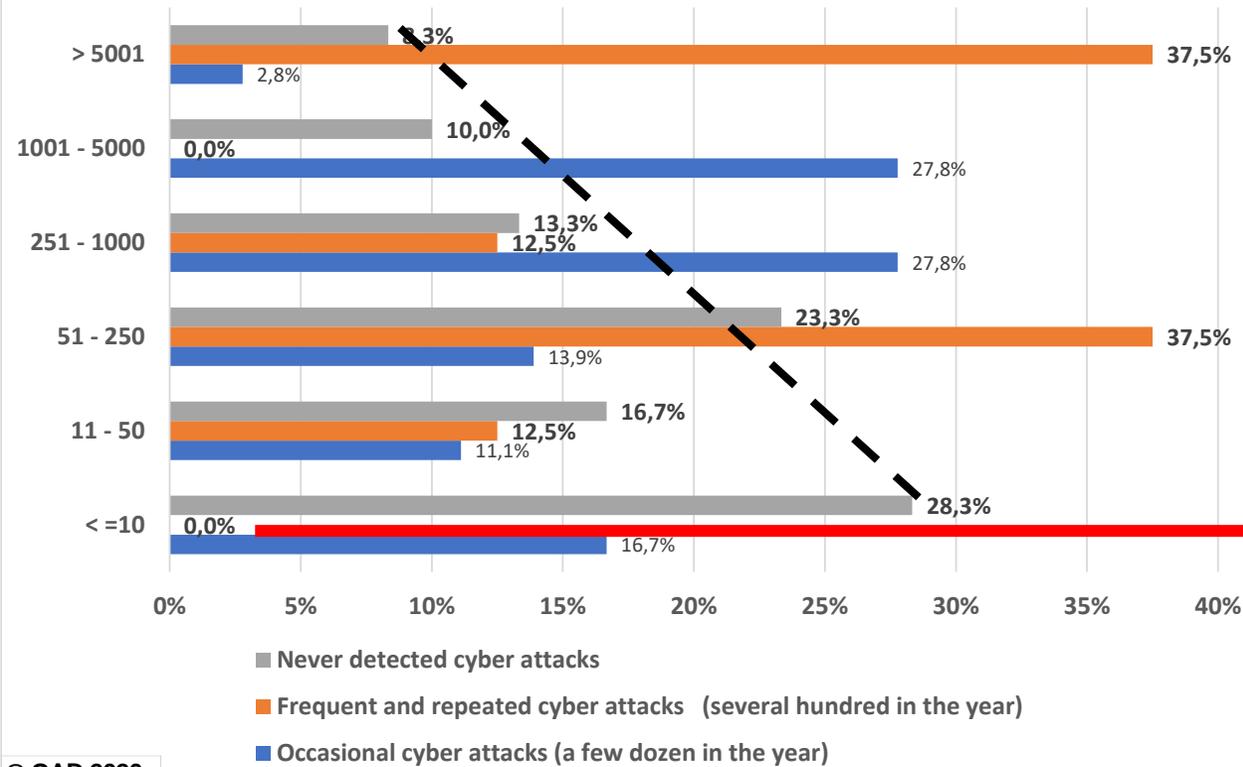
OAD 2020: Diffusion of the attack techniques detected

OAD 2020: average of diffusion of attack techniques used for the most serious types of cyber attacks detected by respondents in 2019 - 1st quarter 2020



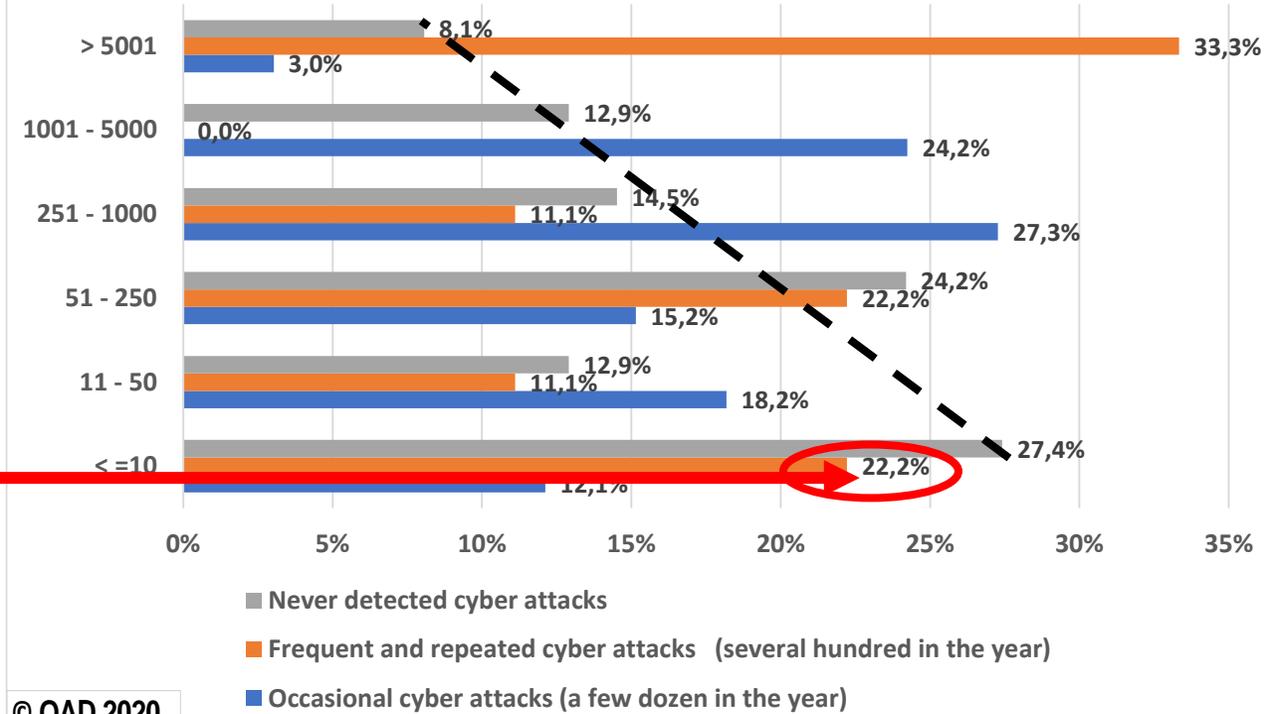
OAD 2020: Cyberattacks wrt. the organization dimension

OAD 2020: Breakdown of cyber attacks in 2019 by company size (number of employees) of the respondents



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OAD 2020: Breakdown of cyber attacks in the first quarter 2020 by company size (number of employees) of the respondents



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<u>Financial Cyber Crime</u>	1 gen - 30 apr 2020	1 gen - 31 dic 2019	1 gen – 31 dic 2018	1 gen – 31 dic 2017	1 gen – 31 dic 2016
Fraudulent Transactions	€ 20.200.000,00	€ 21.333.990,00	€ 38.400.000,00	€ 20.839.576,00	€ 16.050.812,50
Sums Recovered	€ 8.700.000,00	€ 18.000.000,00	€ 9.000.000,00	€ 862.000,00	nd
Arrested	n.a.	n.a.	n.a.	25	25
Reported	n.a.	n.a.	n.a.	2.851	3.772
Recovery / fraud	43,06%	84,37%	23,44%	4,14%	

THANKS FOR YOUR ATTENTION and ...

- These slides are downloadable from the web sites of AIPSI (www.aipsi.org) and OAD (www.oadweb.it)
- Free download of the Report 2020 OAD and its synthesis: <https://www.oadweb.it/it/oad-2020/per-scaricarela-sintesi-del-rapporto-2020-oad.html>
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