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European Parliament

Cybersecurity: main and emerging threats in 2021 (infographic)

Cybersecurity threats have been on the rise, with the Covid-19 pandemic having a big impact. Check out our infographic to learn more.

The progress of digital transformation has inevitably led to new cybersecurity threats. Cybercriminals take advantage of the Covid-19 pandemic, in particular by targeting organisations and companies working remotely.

Parliament has adopted its position on a new EU directive that reflects how cybersecurity threats have evolved and introduces harmonised measures across the EU, including on the protection of essential sectors.

Read more about how the Parliament wants to boost cybersecurity in the EU

Top sectors affected by cybersecurity threats

Cybersecurity threats in the European Union are affecting sectors vital for society. The top five sectors affected, as observed by the European Union Agency for Cybersecurity (Enisa) between April 2020 and July 2021, are public administration/government (198 incidents reported), digital service providers (152), general public (151), healthcare/medical (143) and finance/banking (97).

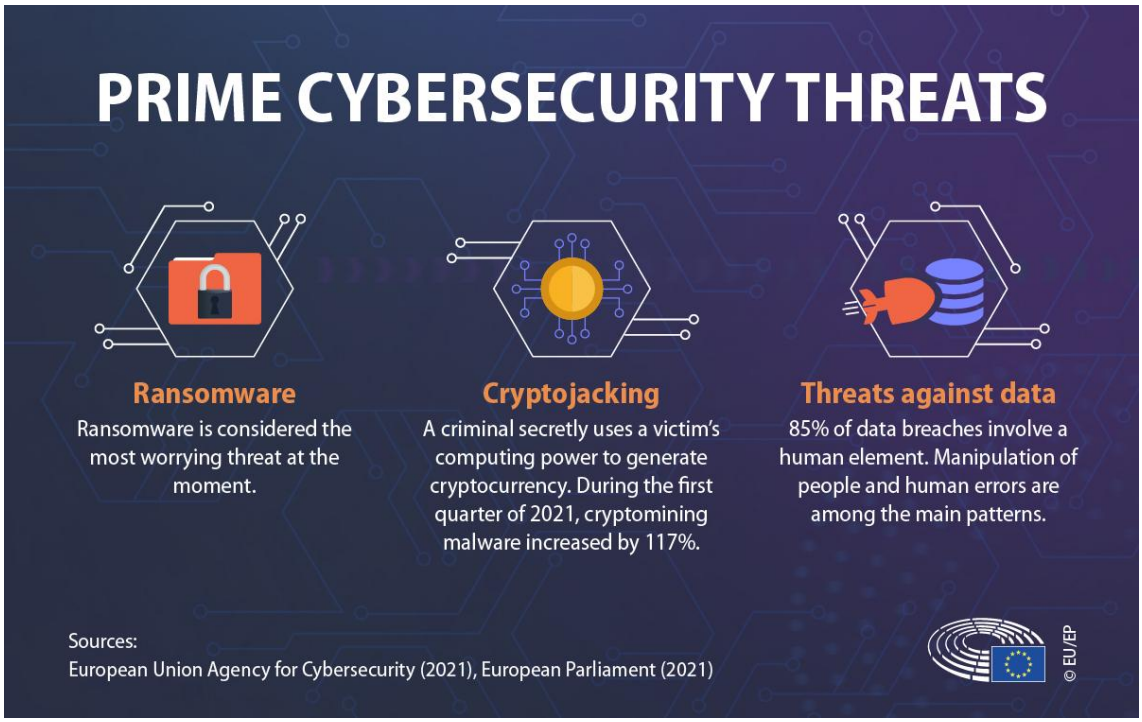
Main sectors affected by cyber threats

Main cybersecurity threats

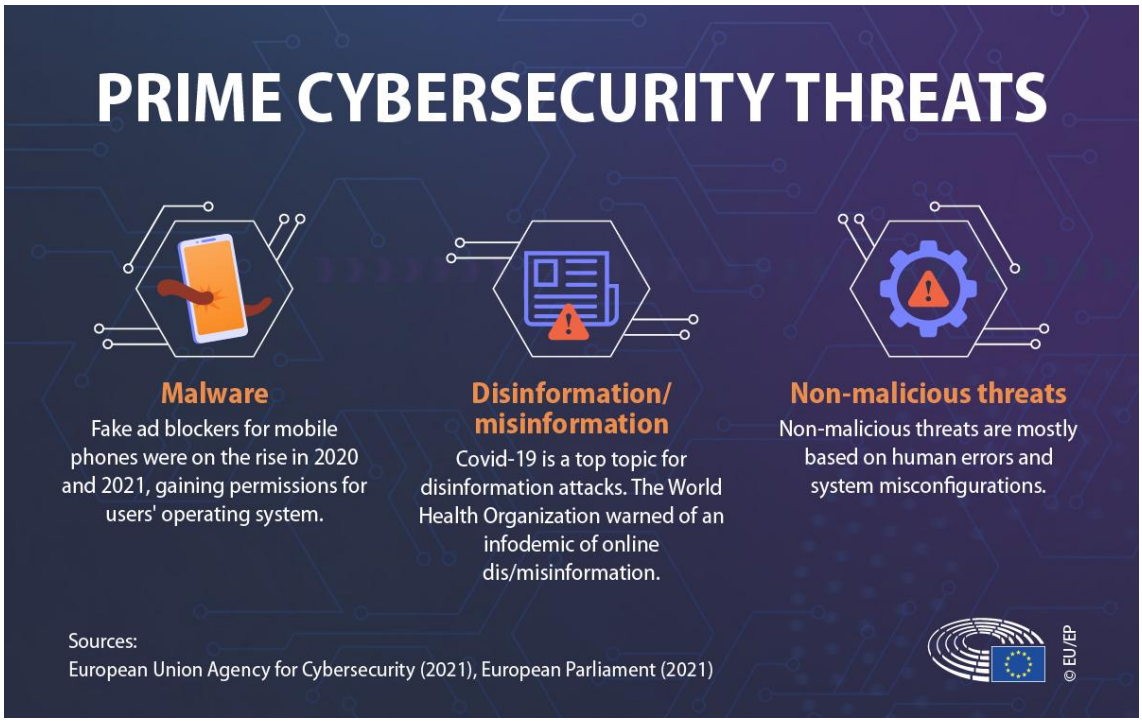
During the pandemic, companies had to quickly adapt to new working conditions – and thus opened new doors and more possibilities for cybercriminals. According to the European Union Agency for Cybersecurity, there are nine prime threat groups:

- **Ransomware** – attackers encrypt an organisation's data and require payment to restore access
- **Cryptojacking** – when cybercriminals secretly use a victim's computing power to generate cryptocurrency
- **Threats against data** – data breaches/leaks
- **Malware** – a software, which triggers a process that affects a system
- **Disinformation/misinformation** – the spread of misleading information
- **Non-malicious threats** – human errors and misconfigurations of a system
- **Threats against availability and integrity** – attacks that prevent the users of a system from accessing their information
- **Email-related threats** – aims at manipulating people to fall victims to an email attack
- **Supply chain threats** – attacking, for example a service provider, in order to gain access to a customer's data

According to the agency's report, 76% of Europeans believe they are facing an increasing risk of falling victim to cybercrime.



Main cybersecurity threats



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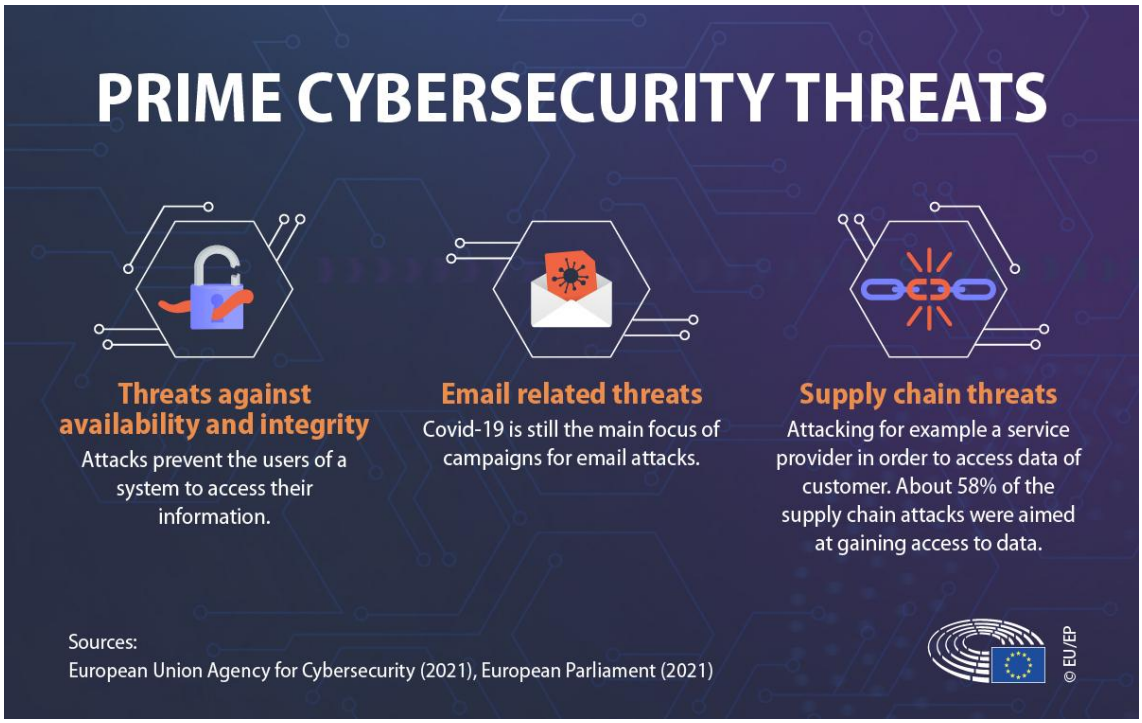

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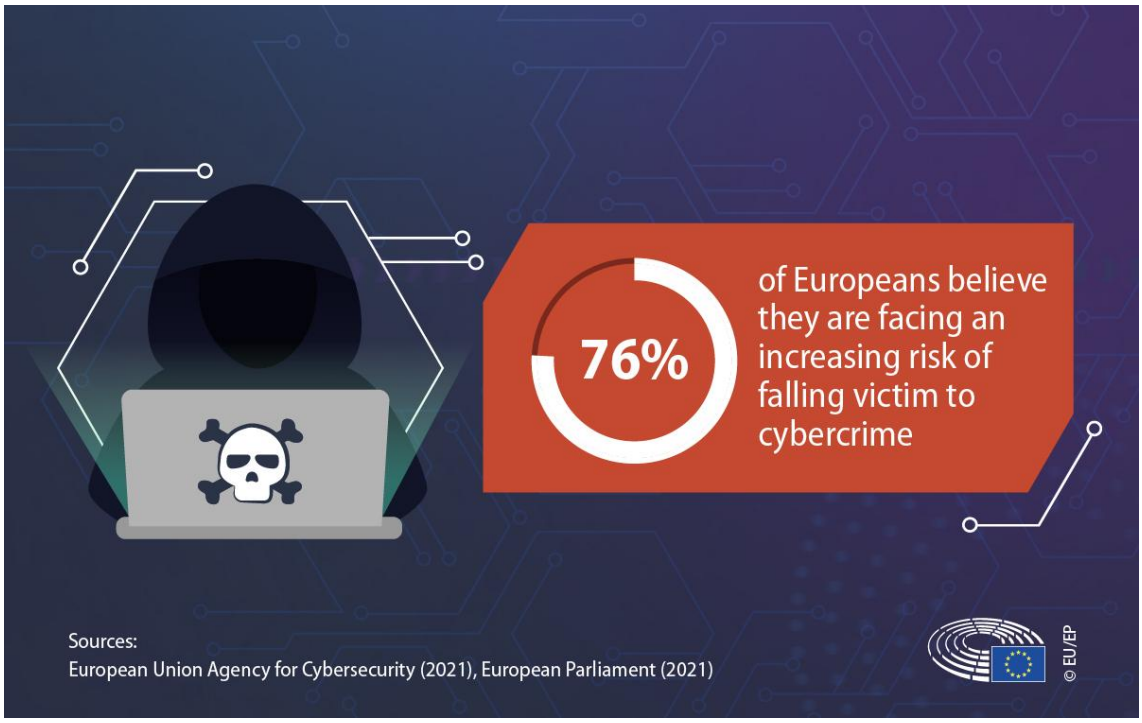

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Ransomware

Ransomware is considered the most worrying threat at the moment. It is malicious software designed to prevent a user or organisation from accessing files on their computer. The attackers demand a ransom payment to reestablish access.

Data quoted by the EU Agency for Cybersecurity shows that the highest ransomware demand grew from €13 million in 2019 to €62 million in 2021 and the average ransom pay doubled from €71,000 in 2019 to €150,000 in 2020. It is estimated that in 2021 global ransomware reached €18 billion worth of damages – 57 times more than in 2015.

The average downtime of attacked organisations was 23 days in the second quarter of 2021. In 2021, a corporate ransomware attack occurred about every 11 seconds.


RANSOMWARE
Ransomware is malicious software designed to prevent a user or organisation access to files on their computer. The attackers demand a ransom payment to enable access again.
Highest ransom demands grew
2019 €13 million
2021 €62 million
Average ransom pay doubled in one year
2019 €71,000
2020 €150,000
How much does ransomware cost the world?
It's estimated that by 2021 global ransomware damage costs would reach €18 billion
The global information security market is worth: around €130 billion
57 times more than the amount in 2015
Average downtime of attacked organisations
The period the targeted organisation is paralysed during a ransomware attack
15 days
23 days
In first quarter of 2020
In second quarter of 2021
Prediction of ransomware attacks by 2021: attacks on companies every
11 seconds
All sums have been rounded after converting US dollars to euros based on the average exchange rate in December 2021
Sources:
European Union Agency for Cybersecurity (2021), European Parliament (2021)
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Ransomware