



Securing the Future of Industrial Control Systems

The State of Operational Technology and Cybersecurity
2021 Research Findings

Our Panel



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About Research

Methodology

01

Audience

Energy/Utilities, Healthcare/Pharma,
Transportation/Logistics, Manufacturing, Chemical/Petro-
Chemical, Oil/Gas/Refining or Water/Wastewater

02

Research Timeline

February 24 through March 1, 2021

03

Responders

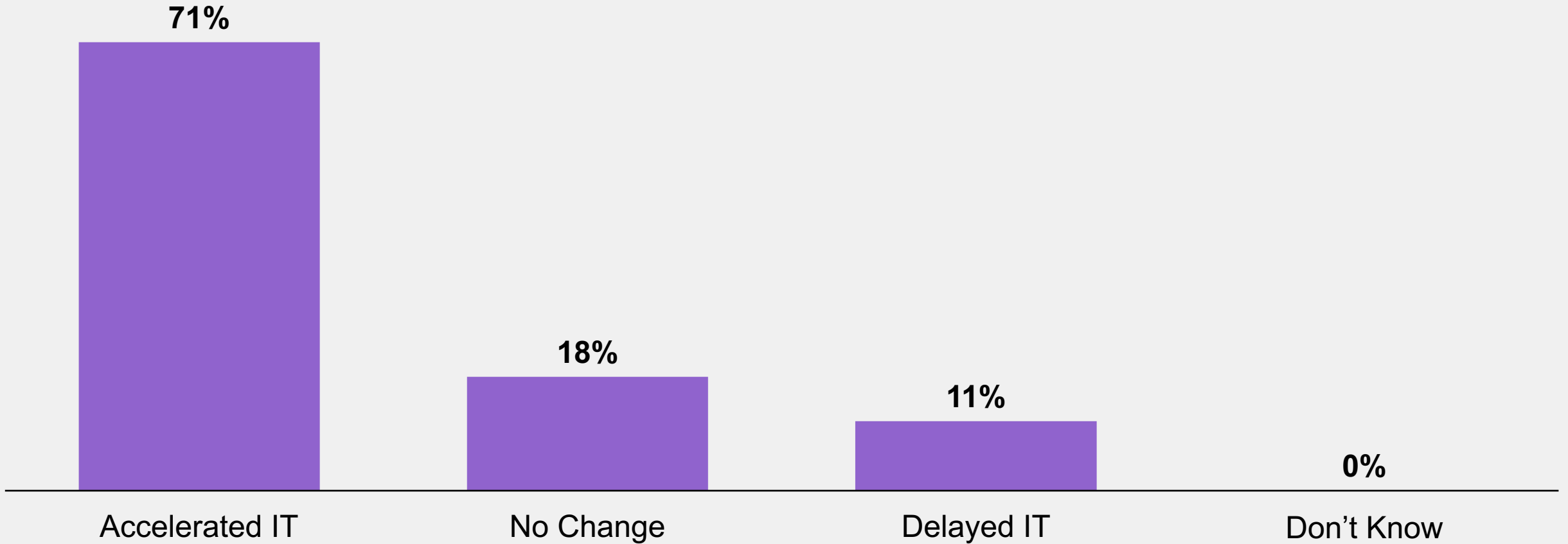
100 respondents from companies with 2,501 or more
employees with Operational Technology primary
responsibility

Noted shift to more VP / Director level titles responding in 2021



Insights for OT Security

Pandemic Impact on IT-OT Convergence



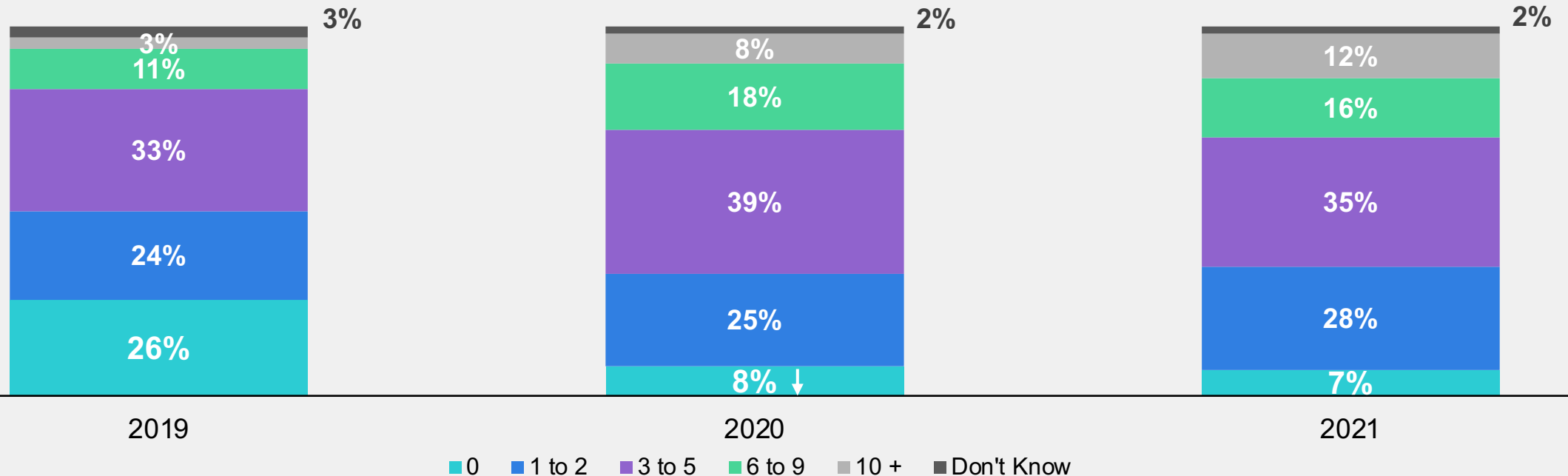
Intrusions—Part of the New Normal

Outages affect productivity, revenue and physical safety



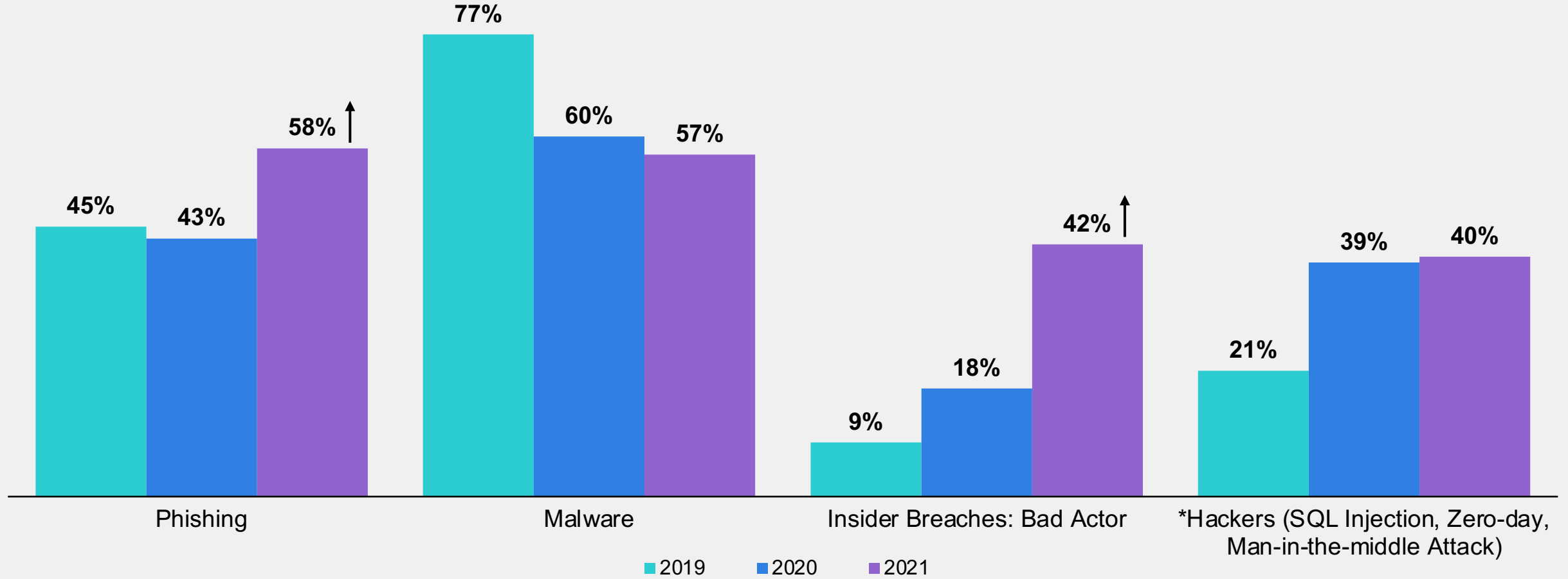
9 out of 10 OT organizations experienced at least one intrusion in the past year and 63% had 3 or more intrusions, which is similar to the results in 2020.

Number of Intrusions in the Past Year



Risk from the Inside

What types of intrusions were experienced?



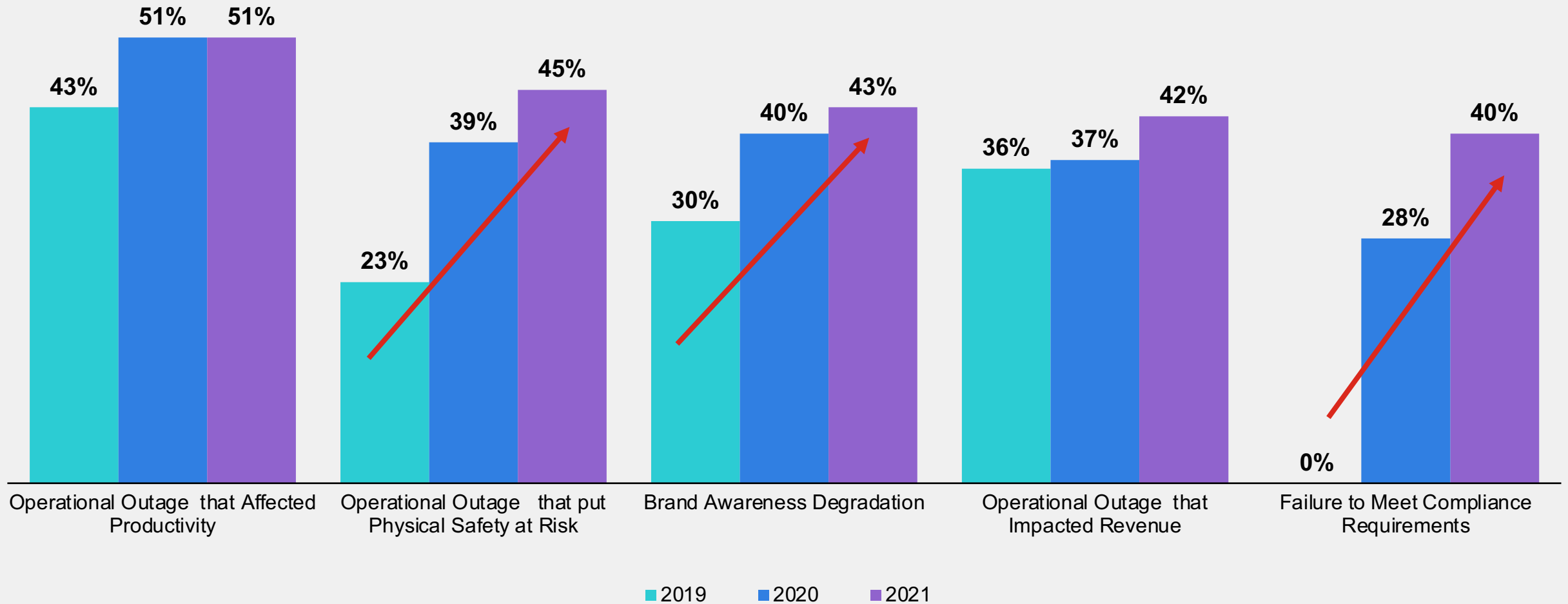
↑↓ indicates significant difference from previous year at 95% CL.

*Answers adjusted in 2020: SQL Injection, Man-in-the-Middle Attack, Zero-Day Attack removed; Hackers (i.e., SQL Injection, Zero-Day Attack, Man-in-the-Middle Attack, etc.) added. Spyware removed. Removable Storage Device/Media added.



Intrusions of Most Concern in OT

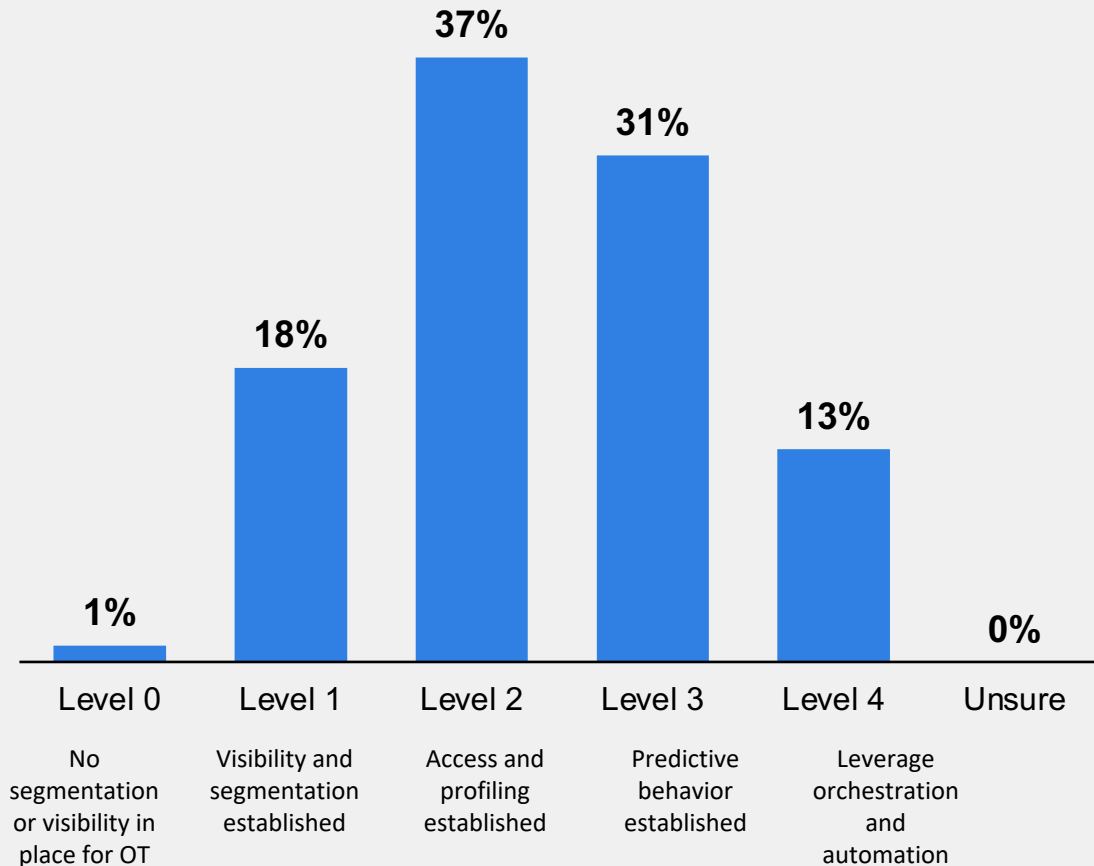
What's the impact to an organization?



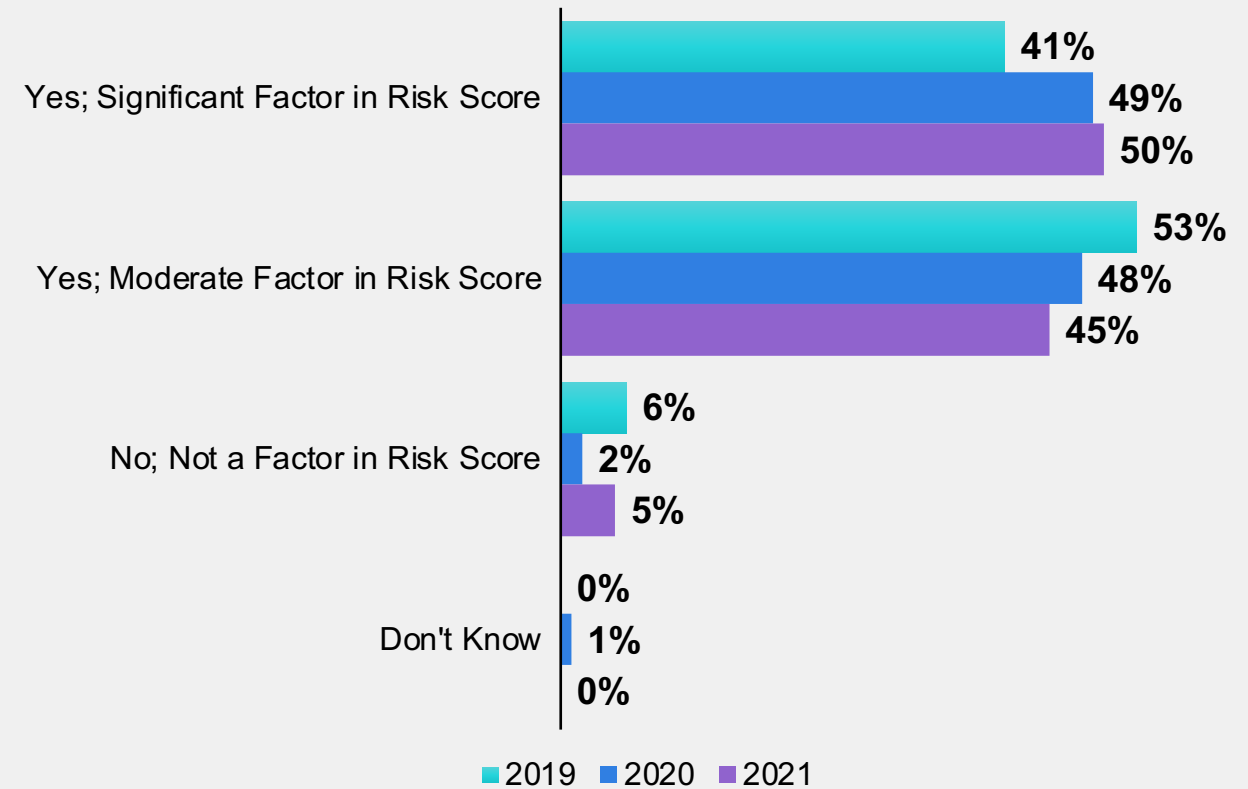
State of the Security Posture

OT consideration in the Broader Risk Score

Maturity of OT Security Posture



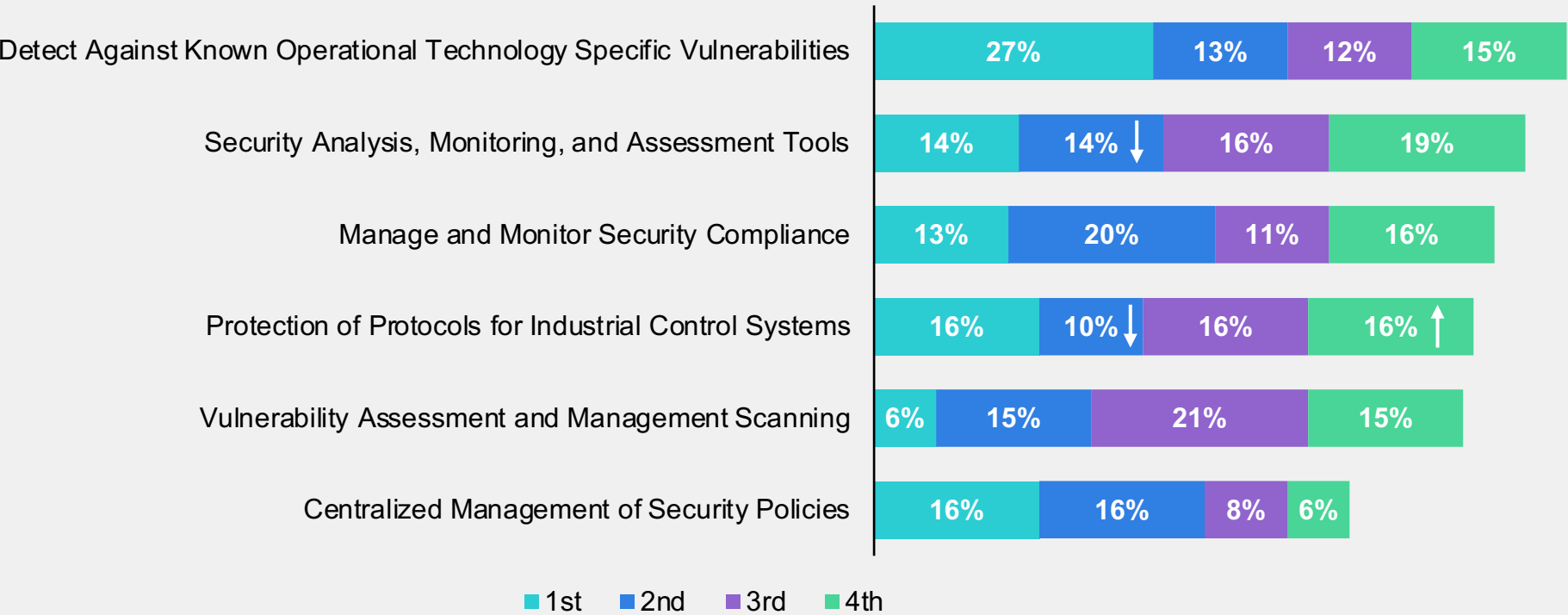
OT Security Posture Included in Broader Risk Score



Technology to Protect OT Environments

Detection a top priority but what about response and recovery

Most Important Security Solutions Features (ranking)



In Top 3

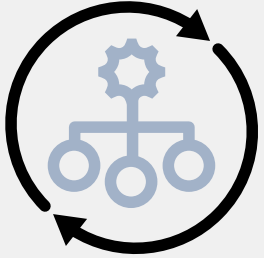
2021	2020	2019
52% ↑	38% ↓	61%
44% ↓	58%	44%
44%	42%	50%
42%	49%	44%
42%	37%	41%
40%	32%	27%

↑↓ indicates significant difference from previous year at 95% CL.

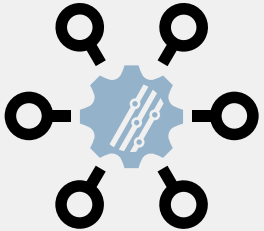


A Look at Bottom-tier and Top-tier Organizations

Is there a best practice? Comparing those with no intrusions and those with 10 or more intrusions.



Are more likely to use **orchestration and automation** and have **security tracking and reporting** in place.



Are more likely to have **100% centralized visibility** in their security operations center.

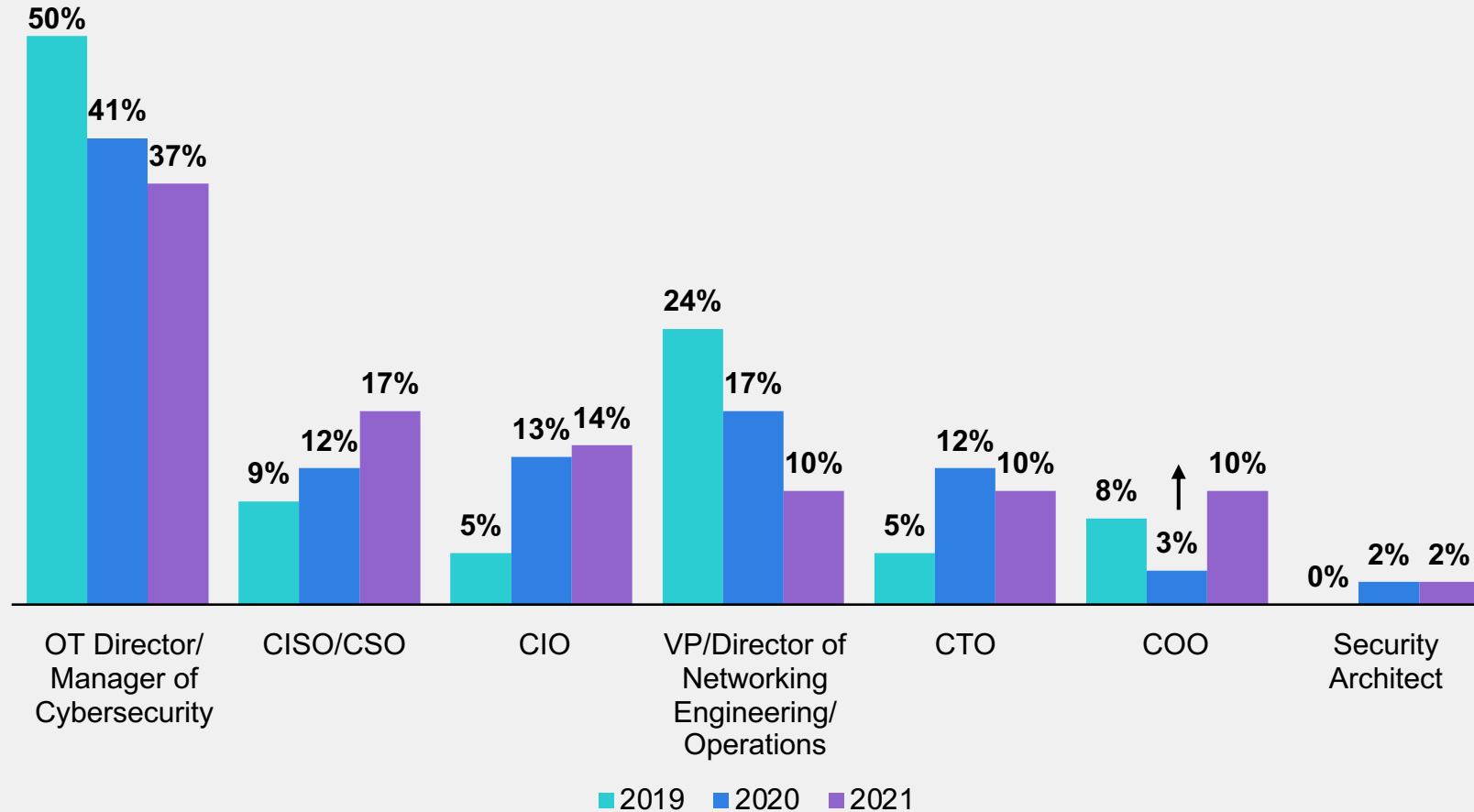


Were more prepared, earlier, to **accommodate work from home** driven by the pandemic.

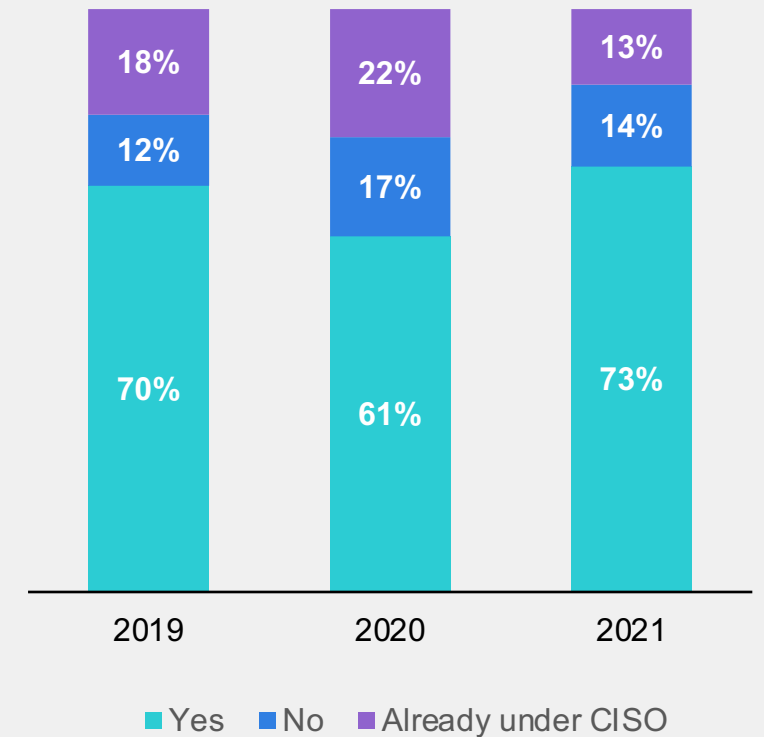
Who is leading the OT cybersecurity?

With 73% planning to roll OT cybersecurity under the CISO in the next 12 months, this should continue to increase

OT Cybersecurity Responsibility



Cybersecurity to be Under CISO in Next 12 Months



Where do we go from here?

The A-B-Cs for continuous cybersecurity

A

Always understand your risks and the factors that make up the risk

B

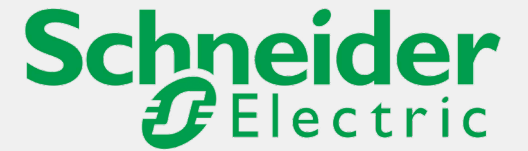
Build a bias for detection, response and recovery given there is already a strong preventative bias

C

Cybersecurity resilience is a continuous team sport, not a destination



The Value of a Partner Ecosystem



Q&A

For more information,
visit [Fortinet.com/OT](https://fortinet.com/OT)



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