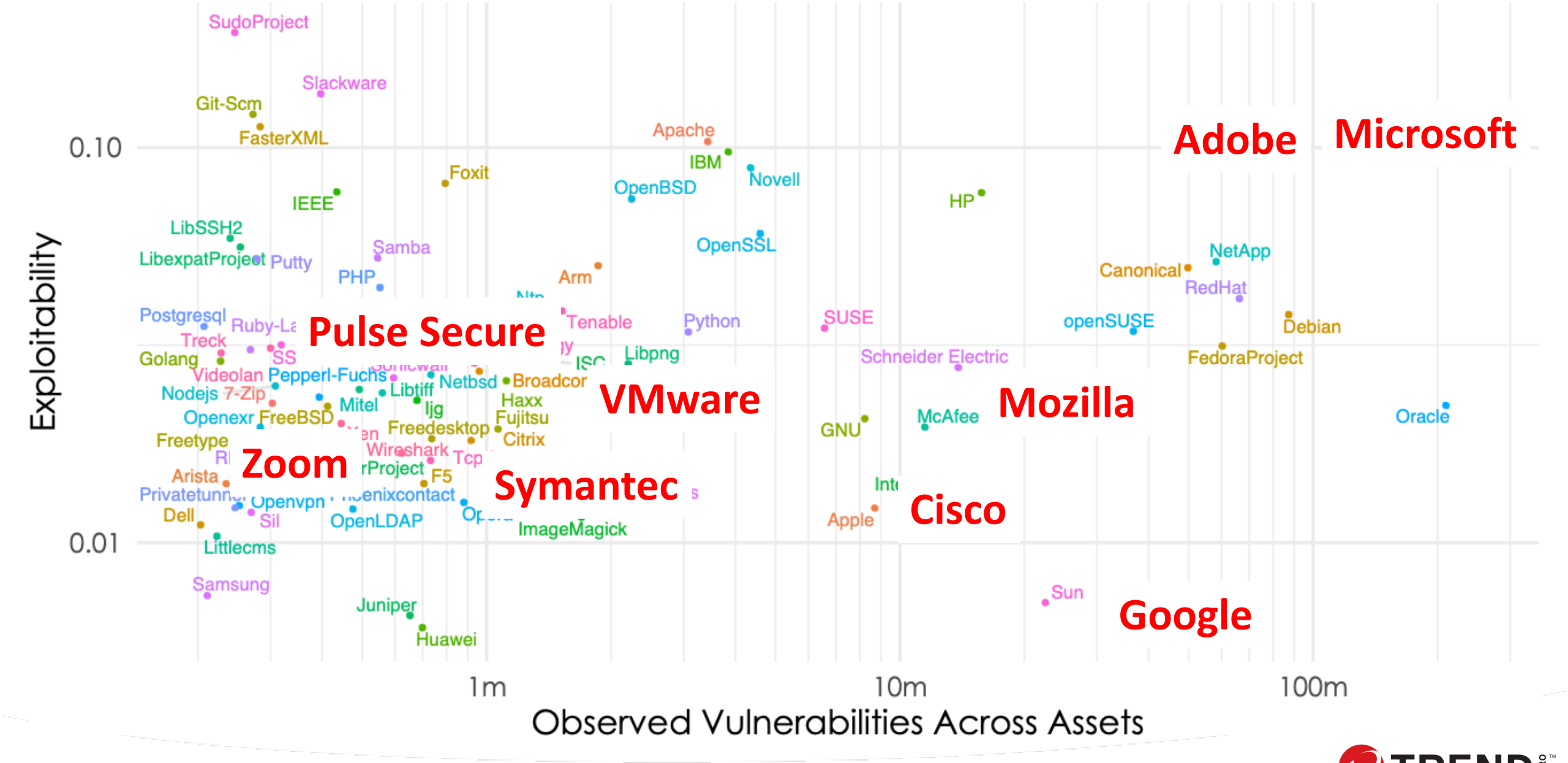
# En reise i nulldags sårbarheter og sårbarheter…og hva du kan gjøre for å beskytte deg mot disse!

Niels Fredrik Berthelsen

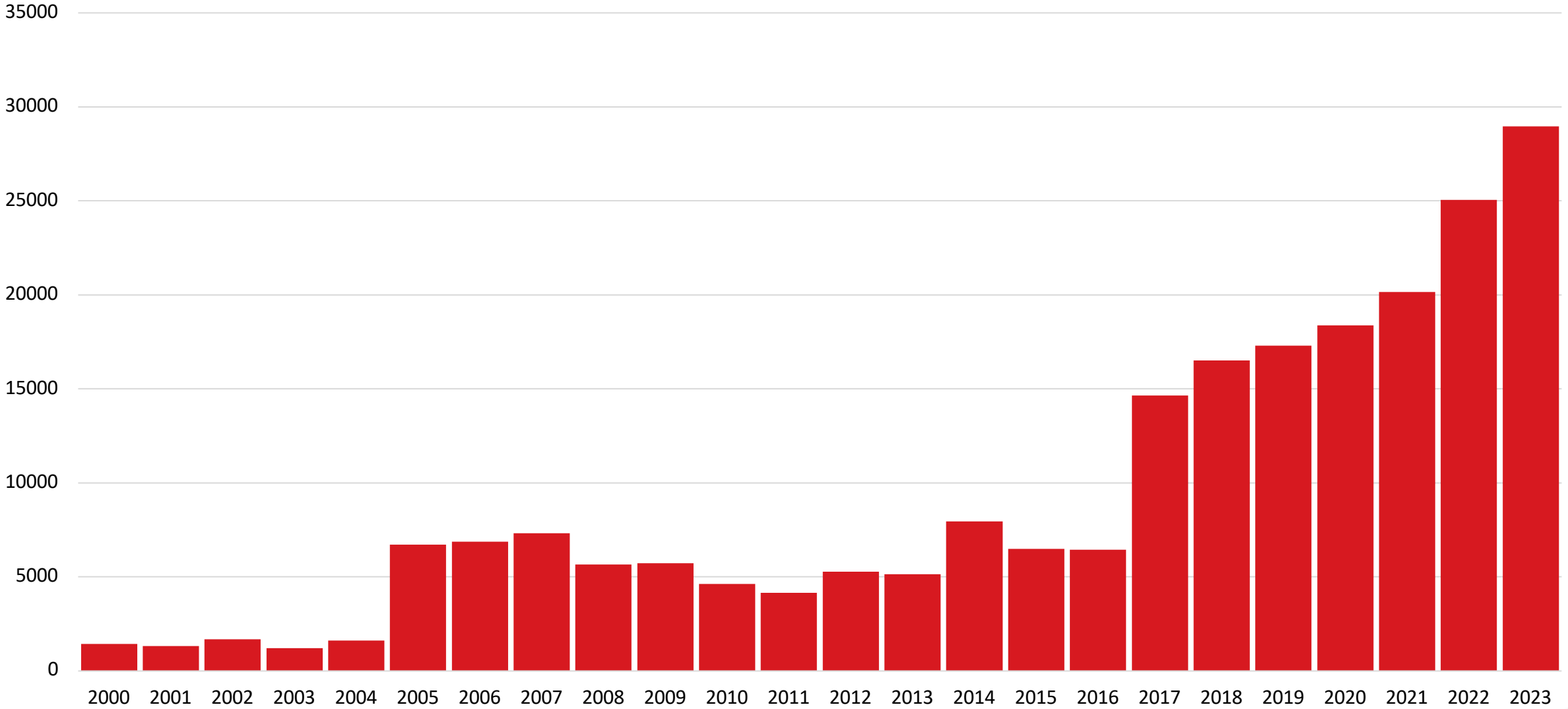
TREND MICRO™



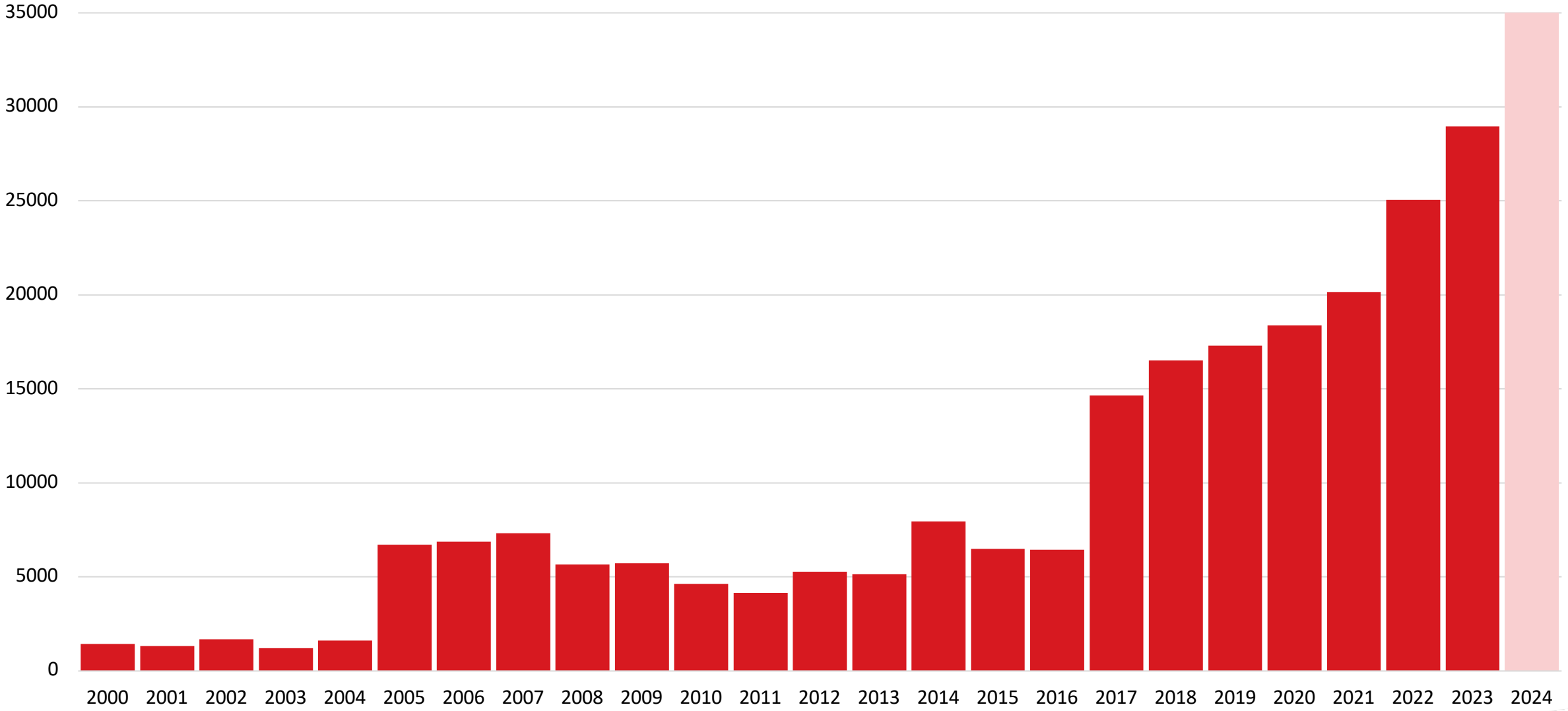


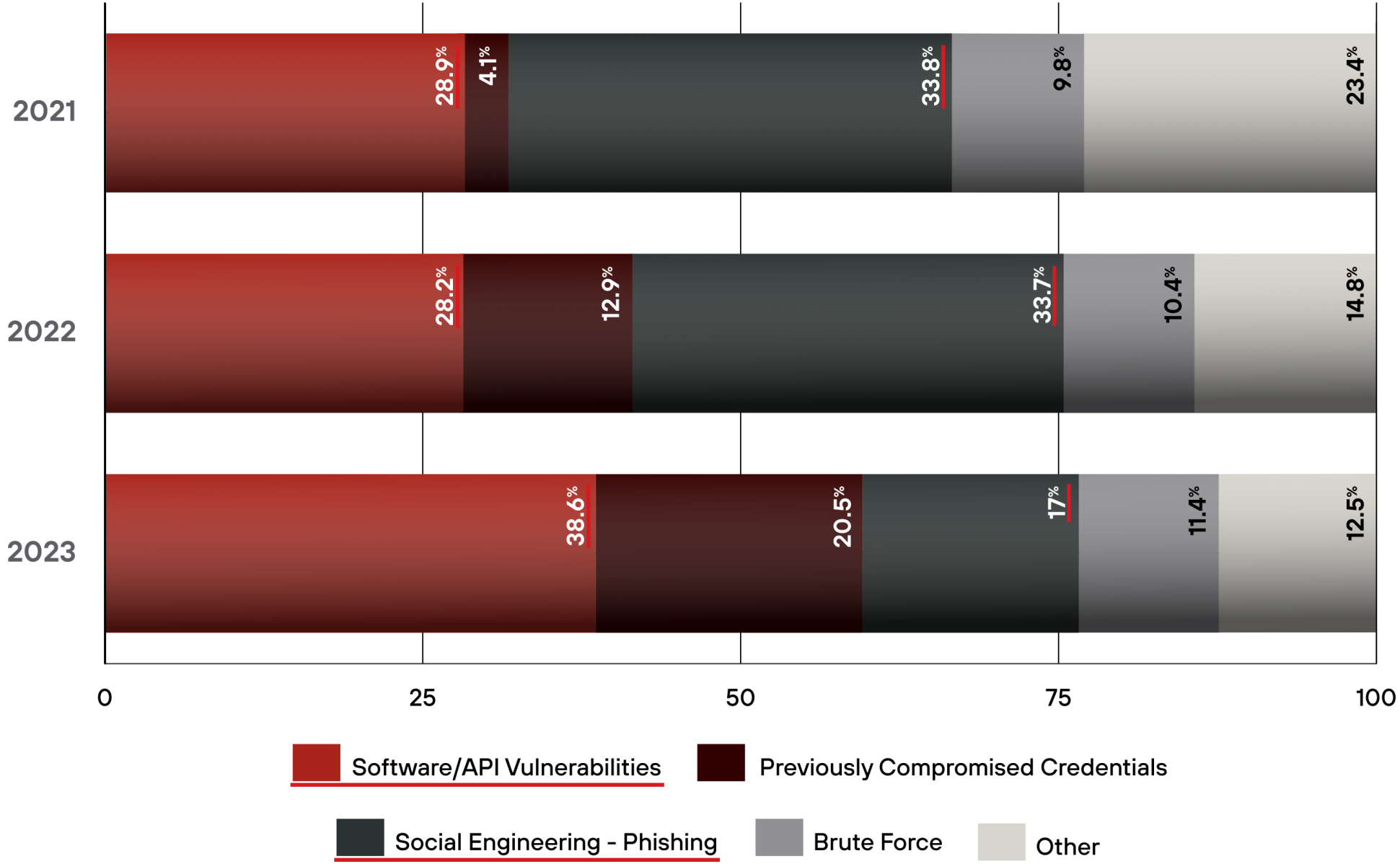

Kenna Security. (2022). *P2P Volume 8: Measuring and Minimizing Exploitability*.

# Antall sårbarheter per år

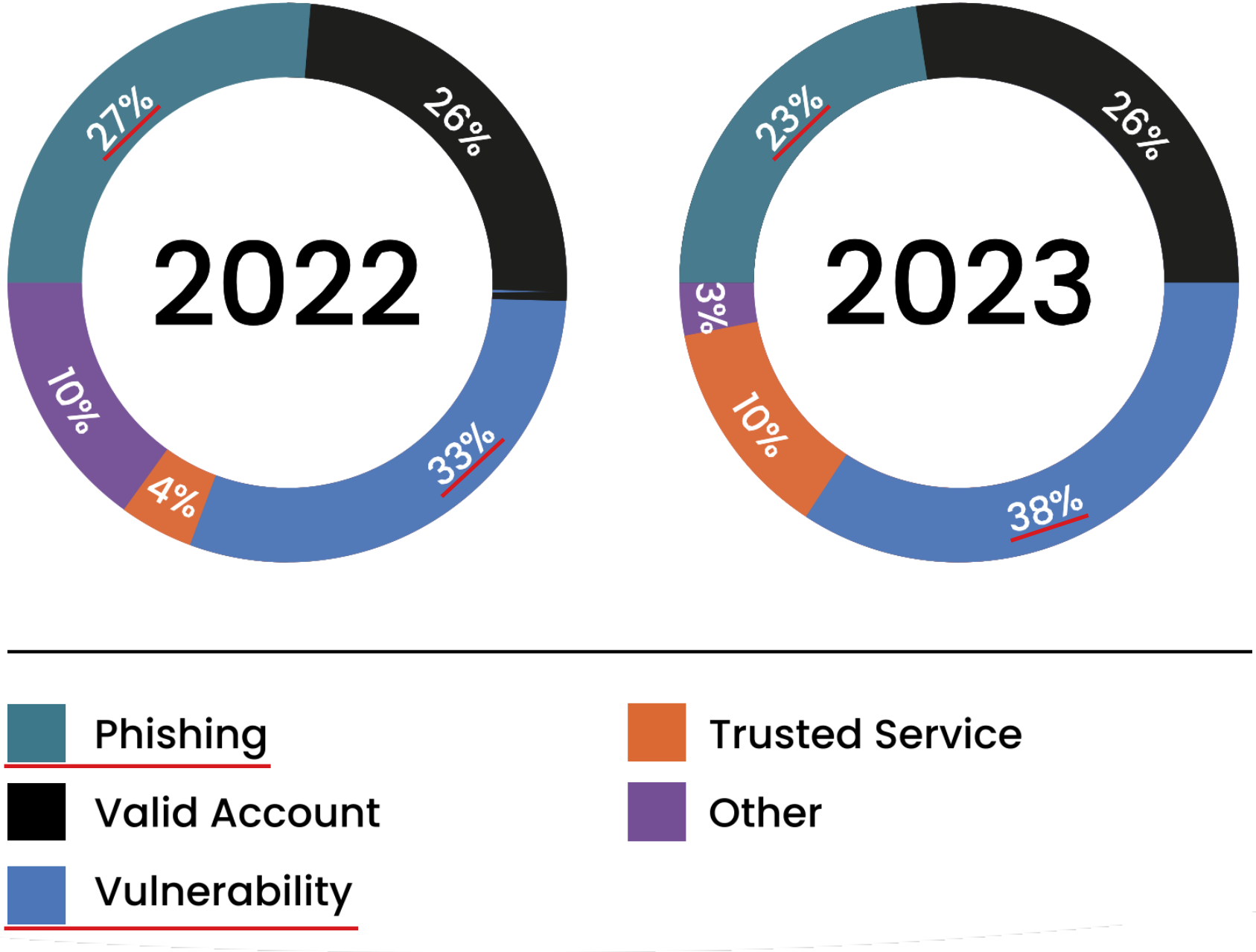


# Antall sårbarheter per år



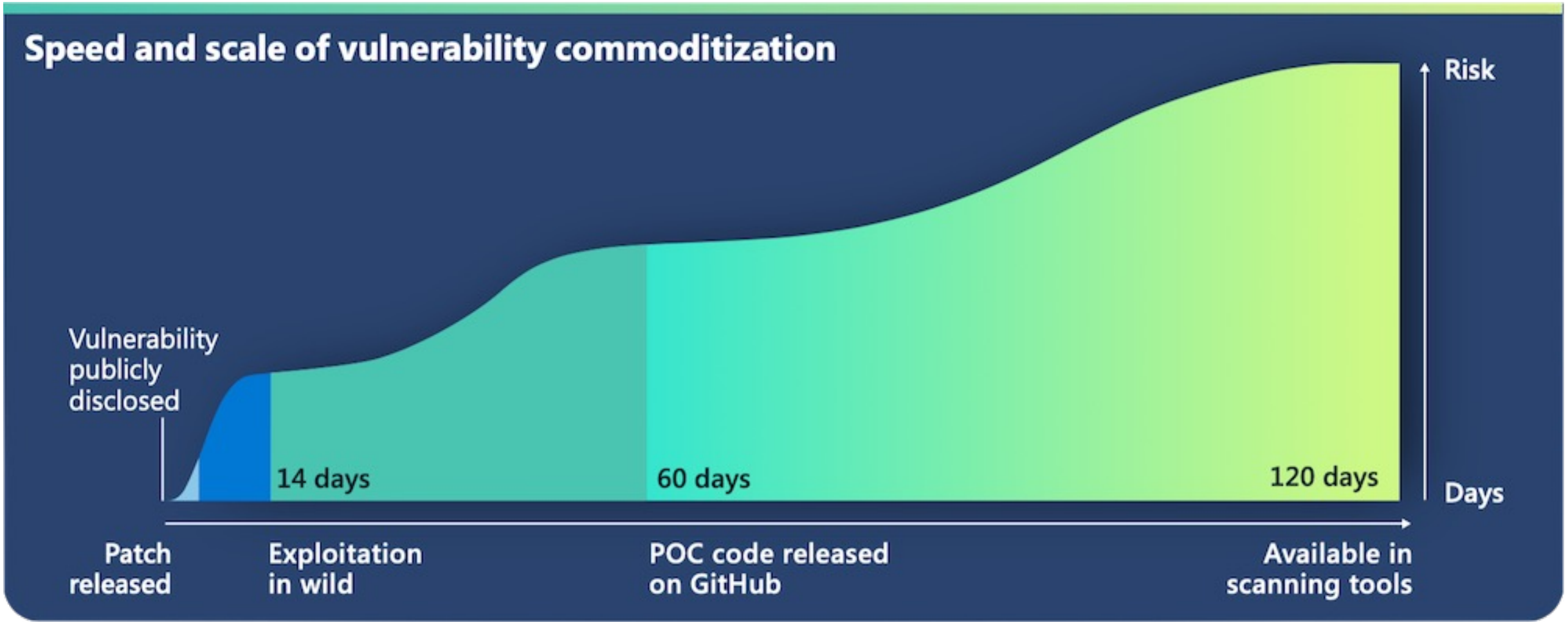



Palo Alto Networks. (2024). *Incident Response Report 2024*.




Truesec. (2024). Threat Intelligence Report 2024.

# Når treffer dritten vifta…?




Microsoft. (2022). *Microsoft Digital Defense Report 2022*.

# Hva er en nulldags sårbarhet?

## En SW-bug som er ukjent for produsenten

Produsenten har hatt “null dager” til å respondere

## Utnyttelse av disse er en sjeldenhet

Nasjonalstater, avanserte trusselaktører og andre tunge aktører er angripere

## De er vanlige

Og verdien av de kan vareriere fra noen hundre til millioner av dollar

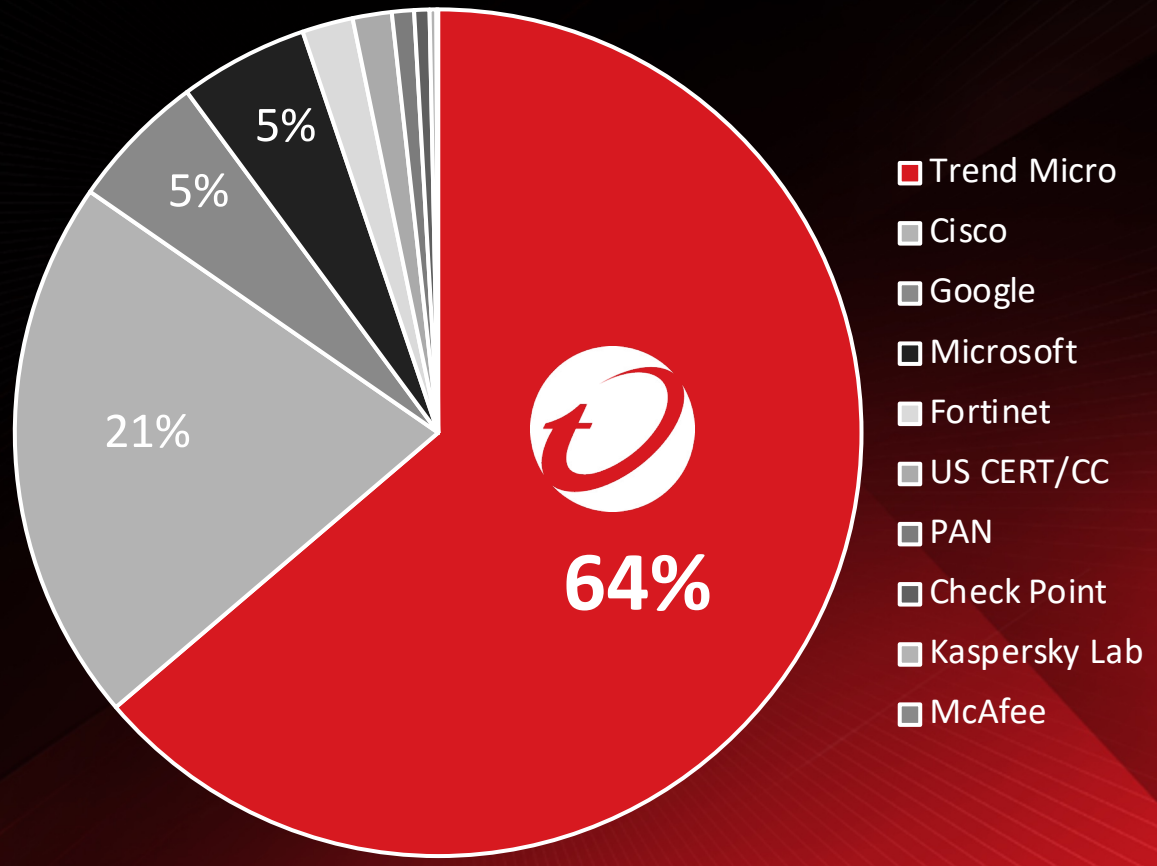
 

# Zero Day Initiative

ZERO DAY INITIATIVE

## #1 Public Vulnerability Disclosure Market

*Quantifying the Public Vulnerability Market, Omdia, May 2022*




*«Å utnytte en nulldagssårbarhet krever store ressurser, enten angriperen finner svakhetene selv, eller kjøper dem. Sårbarhetene kan koste flere titalls millioner kroner»*

Albert-Hoff – leder for Nasjonalt Cybersikkerhetssenter



TREND MICRO

# The Zero Day Initiative

Verdens største produsent-agnostiske bug bounty program

Innkjøper av Zero Days fra uavhengige forskere over hele verden

*Skaper filter for Trend Micro sine produkter

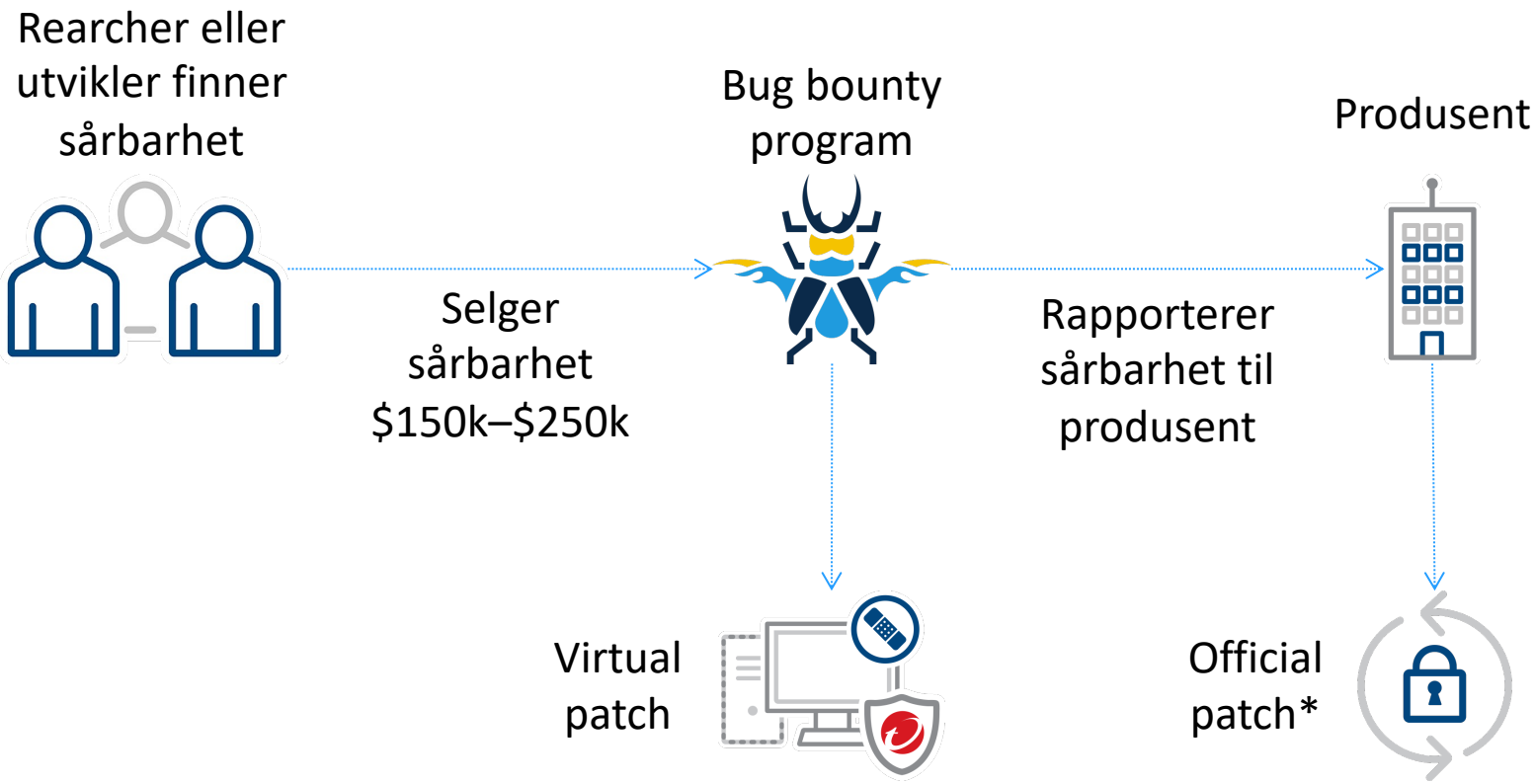
# Sårbarheter kan selges på en rekke måter

Bug bounty programmer

Meglere(eller statlige aktører)

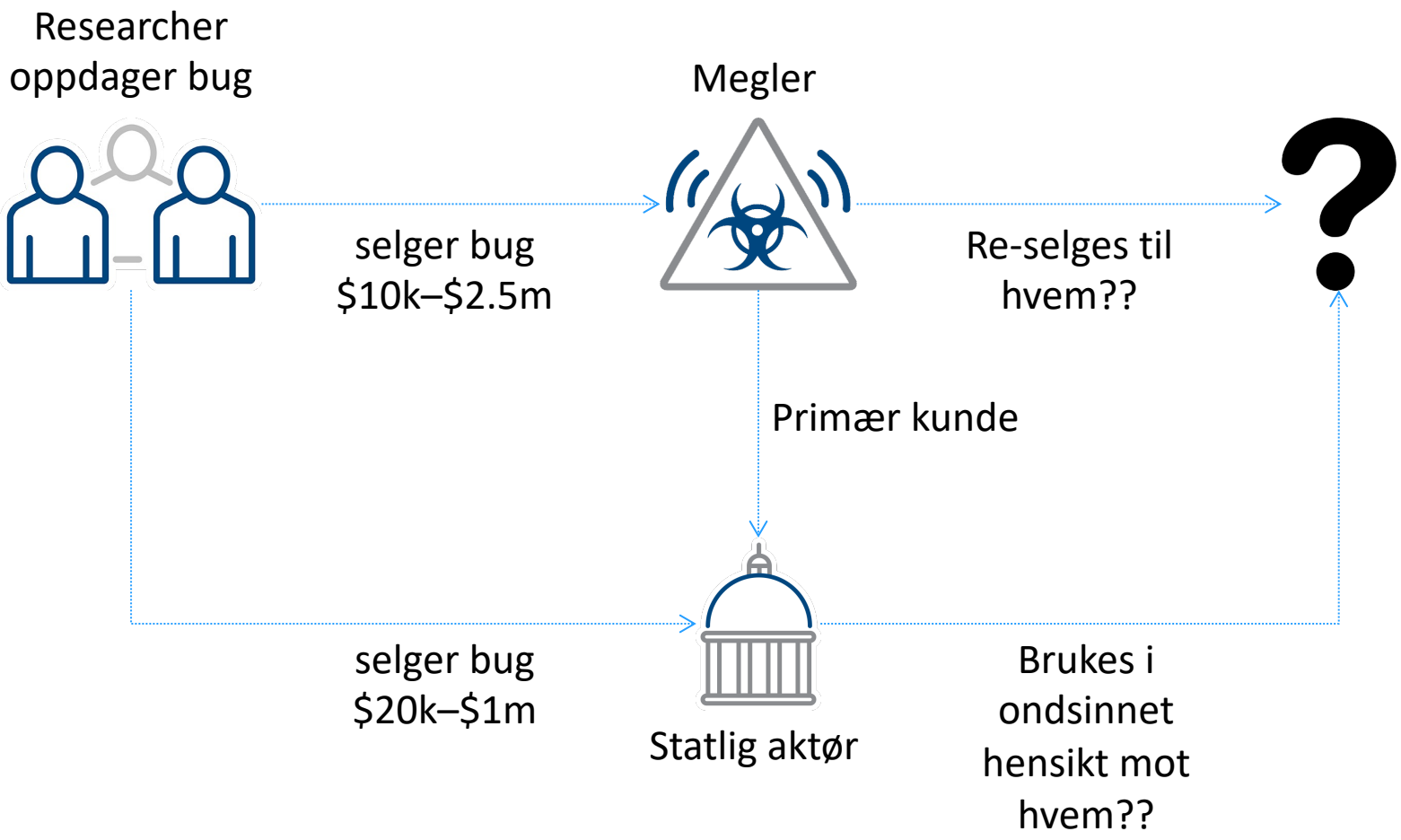

Kriminelle/dark web

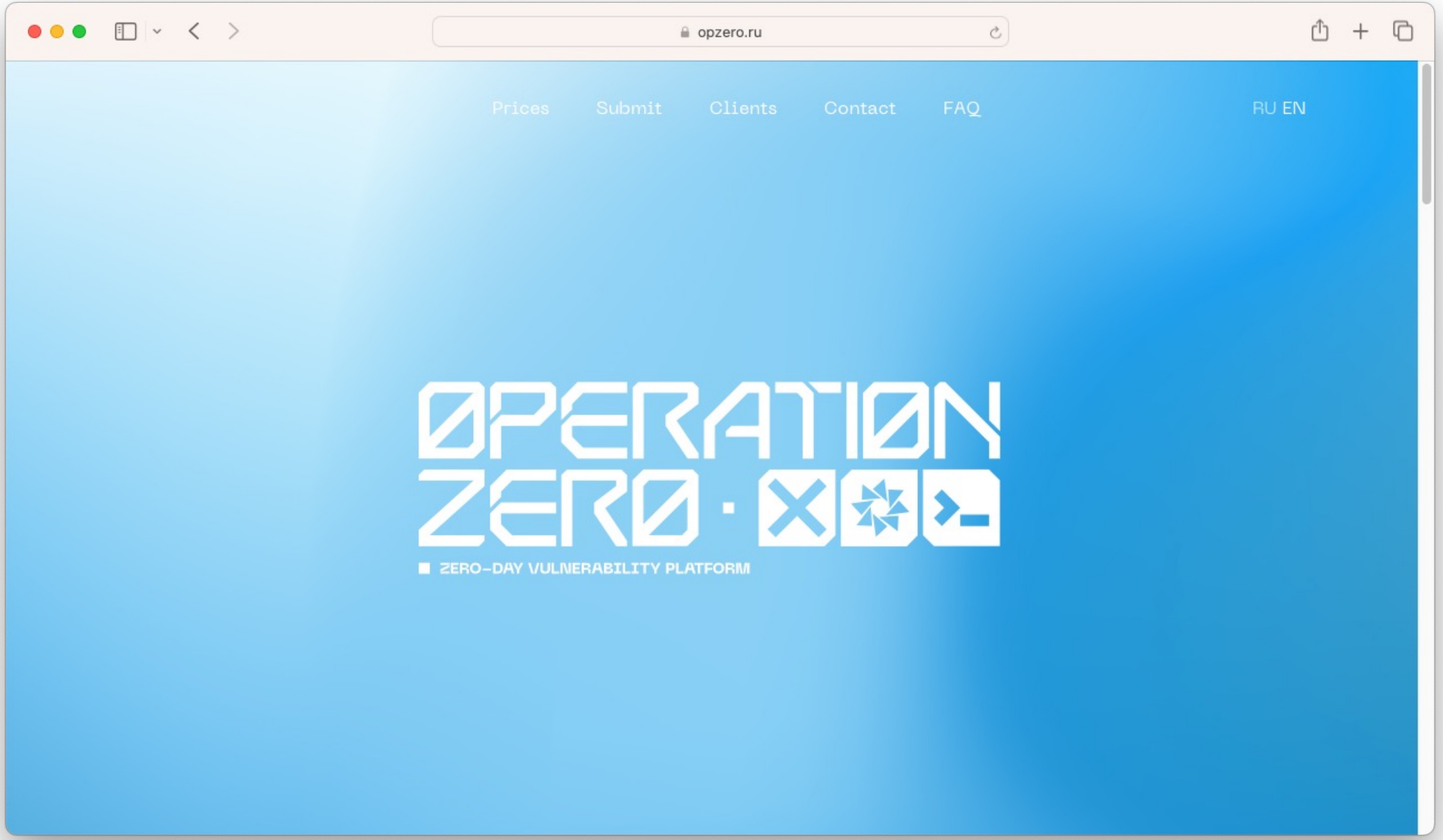
# Hvordan selge til ZDI eller et annet bug bounty program?



# Å selge til en megler av sårbarheter

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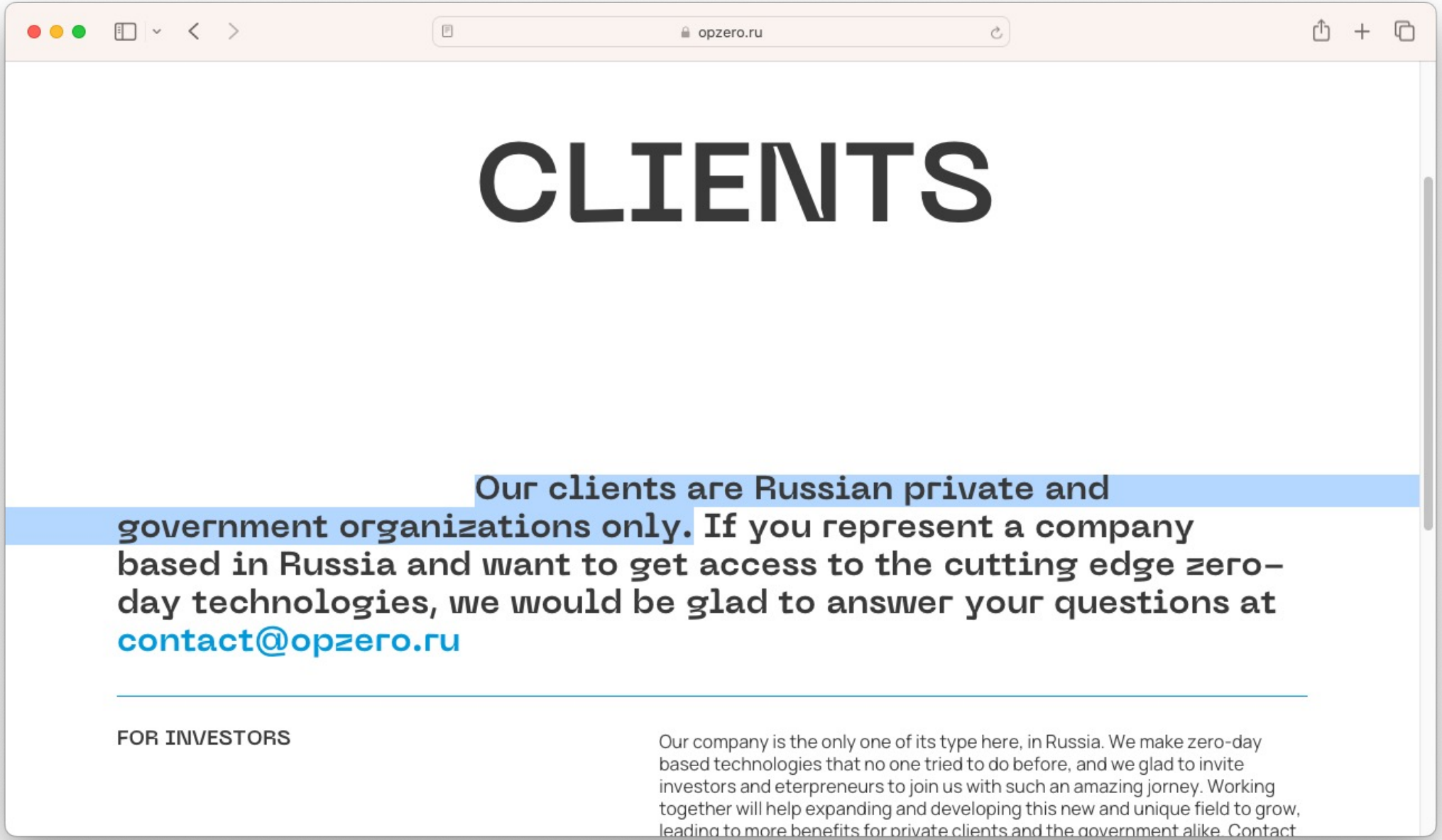
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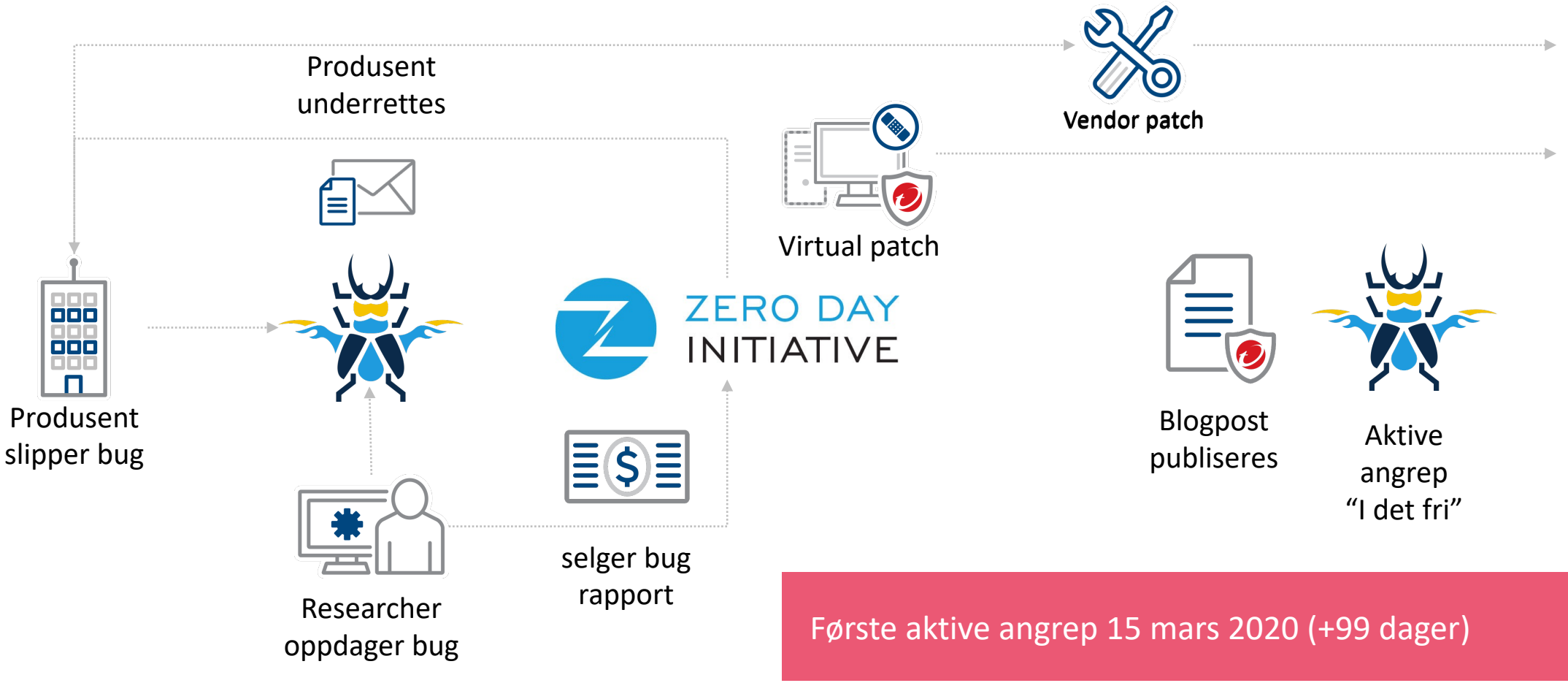
# Case Study—**CVE-2020-0688***

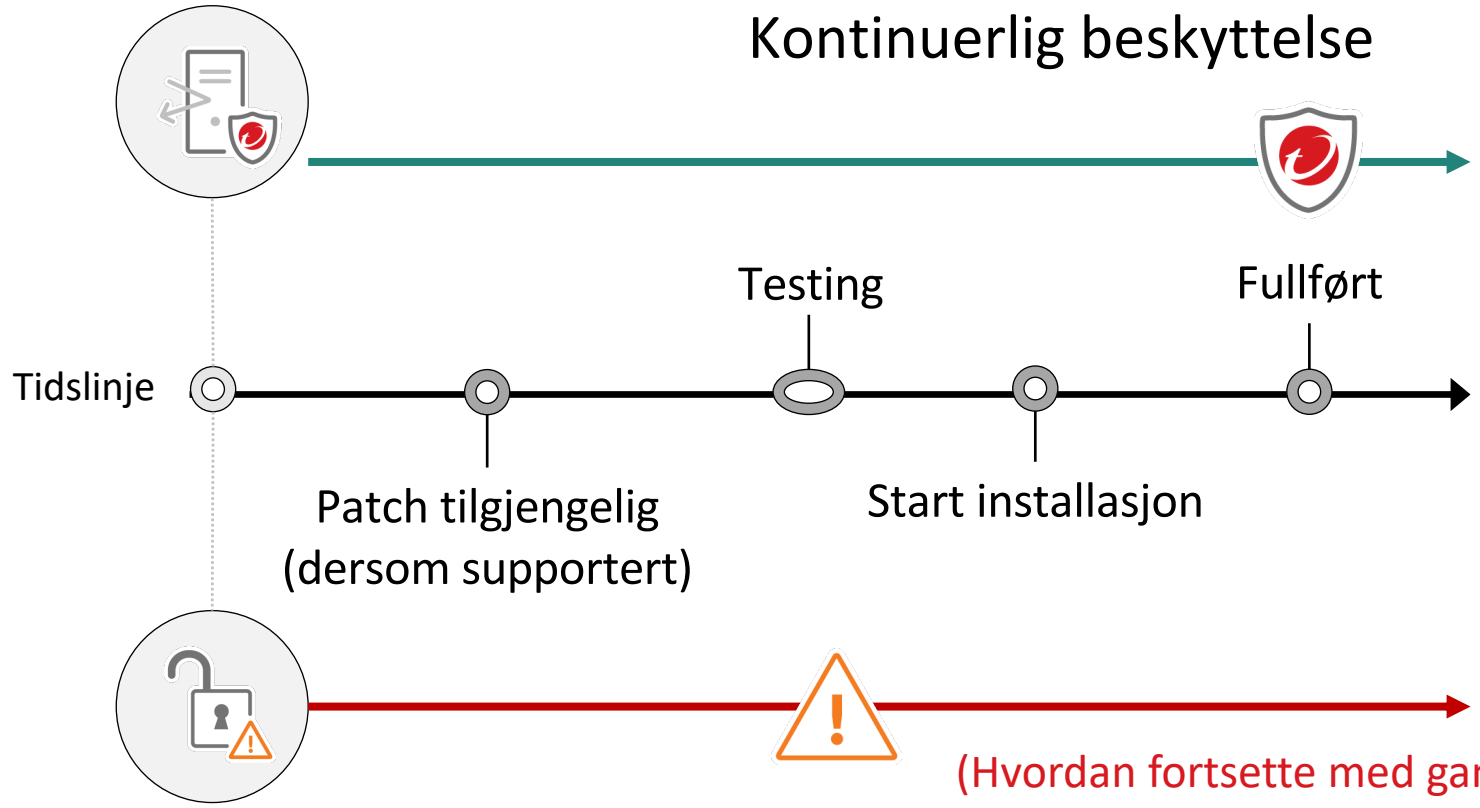



Første aktive angrep 15 mars 2020 (+99 dager)

*Exchange server 2010/13/16/19

# Hvordan > Virtuell patching = beskyttelse mot nulldags sårbarheter/sårbarheter

Virtuell patch tilgjengelig ----→




(Hvordan fortsette med gammalt ræl du ikke blir kvitt….(eller gammal moro du vil ha med videre ☺)

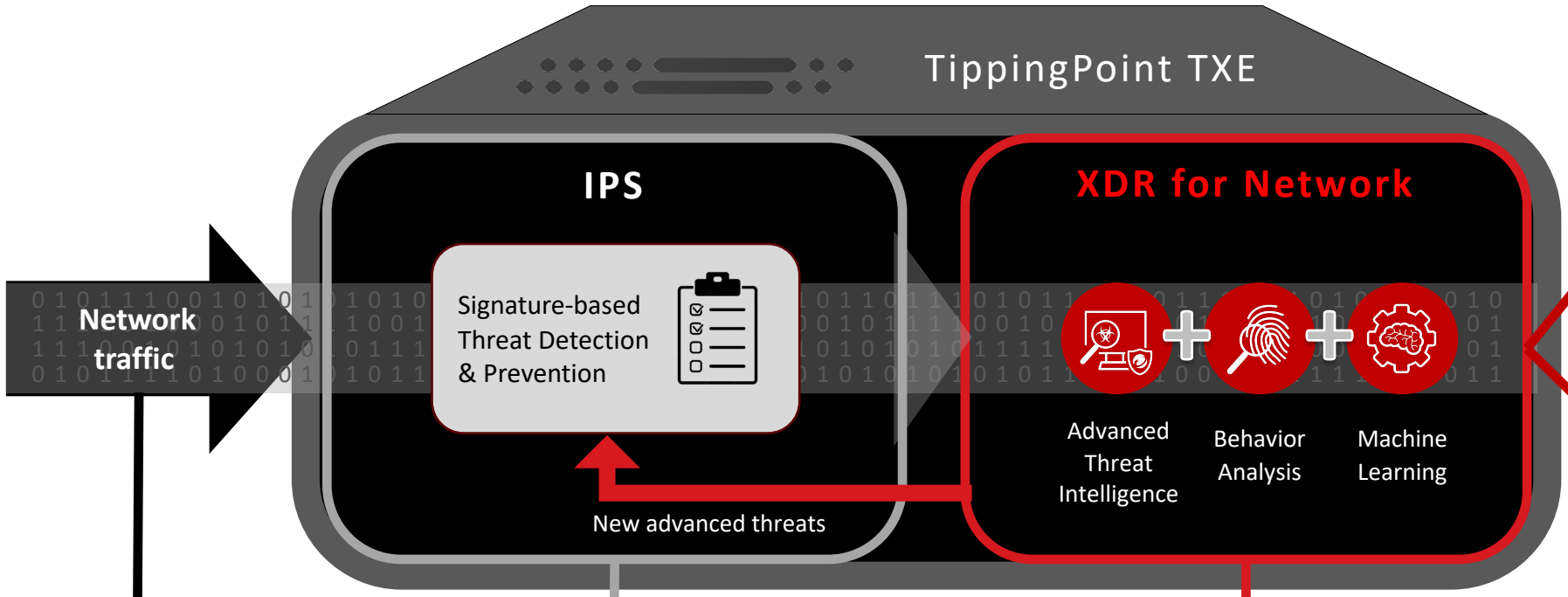
# Hvordan >>>>>> Trend Micro TippingPoint

- The IPS is a “flat” network device
  - Transparant (lag 2)
  - Does not establish connections
  - Does not set up HTTP connections
  - Does not take part in network routing decisions
  - Does not modify frames as they pass through it

# Hva er TippingPoint

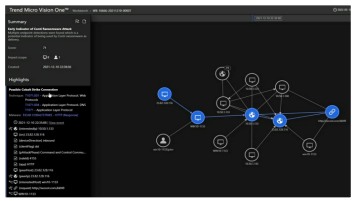
- Kan installereres uten redesign av nettverket eller nedetid
- Sjekker all trafikk som går gjennom den “by default”
  - Trenger minimal config
  - Kan kjøres inn I oppsett I løpet av en 1 dag

# Arkitektur




Network visualization and triage based on historic telemetry and IOCs

Cross-layer correlation for visibility into overall attack surface across a full ATT&CK framework



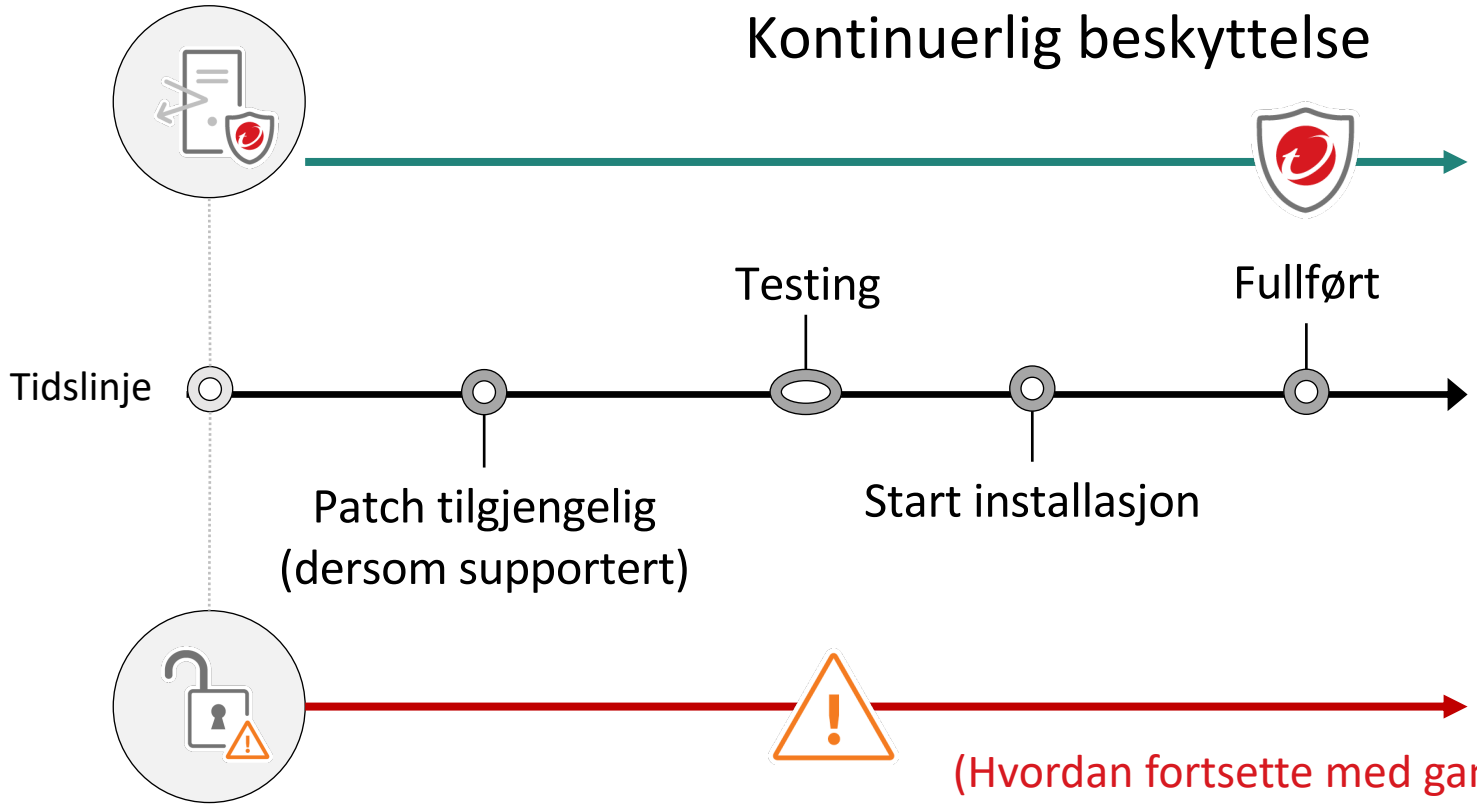
High performance network defense

Detect and block known vulnerabilities ,malware, C&C, and lateral movement techniques

Detect network anomaly and unknown & advanced persistent threats

# Hvordan >>>>>>> First Price og Eldorado-utgaven = XDR, MDR

Virtuell patch tilgjengelig ----→




(Hvordan fortsette med gammalt ræl du ikke blir kvitt….(eller gammal moro du vil ha med videre ☺)

# Hva bør du gjøre, ikke gjøre eller håpe på…?

## Ingenting. Gå videre I livet og glem det

Aksepter risikoen og gå videre I livet. Knapt nok et bra alternativ, men et alternativ!

## Fiks problemet. Patch det

Gitt at det finnes en patch tilgjengelig da…

## Alternative metoder

Open source, “compensation control”, mer tilfeldig virtuell patching

## Ikke råd til at personlig data, helsejournaler eller strøm, VVA og fiber tas ut

**Trend Micro Tippingpoint** for kritisk infrastruktur og nulldags sårbarheter og **XDR** for virtuell patching av sårbarheter

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