AI/ML in Cybersecurity

Cisco XDR

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AI has been part of the toolbox for 15+ years

2009: Detection – NBA/NBAD

2015: Detection & Threat Intelligence – Security Analytics

2020: Detection & Response – SOAR/Automation

2023: Extended Detection & Response – XDR, Analyst Augmentation

SecOps is all about removing UNCERTAINTY (who, what, where, why)

Traditional AI started with hardest detections first: UNKNOWN-UNKNOWN

Later shifting towards more of KNOWN-UNKNOWN

Challenges: lack of training data, rare events, zero-shot learning

Breakthrough in detections around 2019 with MITRE ATT&CK framework

Generative AI entering in 2023, boosting the analyst, but watch out for adversaries!

AI/ML is deeply embedded in the Security Stack

Detection: LLM+NLU in Email Security

Malware Detection / Threat Intelligence: ML generating rules and IOCs

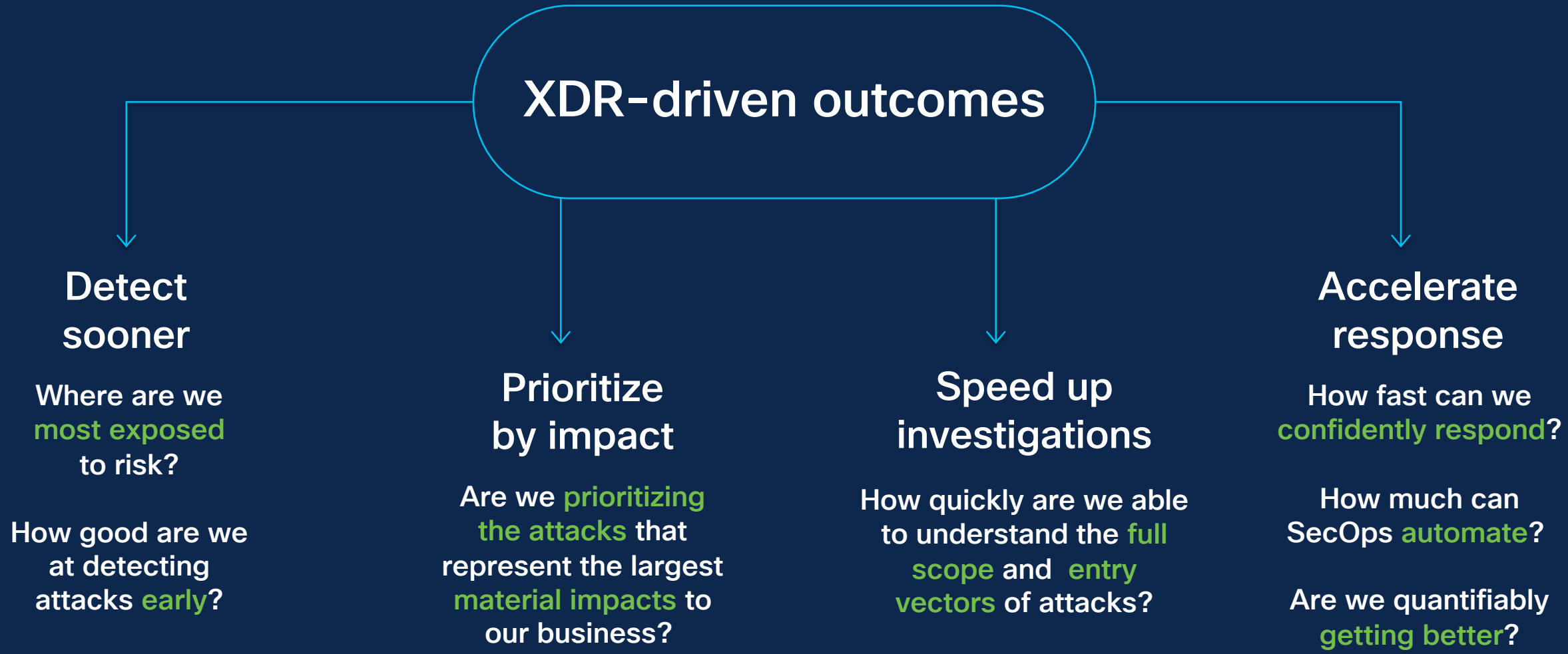
Classification: MITRE ATT&CK TTP attribution

Prioritization: Kenna Vulnerability Risk, XDR Incident Risk

Response Recommendations: User actions prediction

Analyst Augmentation: Incident summarization, LLM dialog

Shift the focus to outcomes



The alert prioritization in Cisco XDR saves us a ton of time and helps us investigate the most important issues first!

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