



**FROM RED vs BLUE to RED ♥ BLUE**  
**MITRE ATT&CKcon**

Olaf Hartong & Vincent Van Mieghem

WTHAY?





VINCENT VAN MIEGHEM

RED TEAM SPECIALIST

**Deloitte.**

## ABOUT VINCENT

- Red team operator
- Technical guy
- Focus on AV evasion techniques
- Software engineering background

## HOBBIES

Computers et al.  
Lifting when I get bored

 @\_vivami  
 [github.com/vivami](https://github.com/vivami)  
 [vvanmieghem@deloitte.nl](mailto:vvanmieghem@deloitte.nl)



OLAF HARTONG

SPECIALIST LEADER  
BLUE TEAM

**Deloitte.**

## ABOUT OLAF

Olaf is technically responsible for the Blue Team services within Deloitte NL.

Focus on;  
Incident Response, Threat Hunting, Building SOCs and Purple Teaming

## HOBBIES

Photography, biking, snowboarding

Background in Tele and Data communications and Arts.

Former documentary photographer

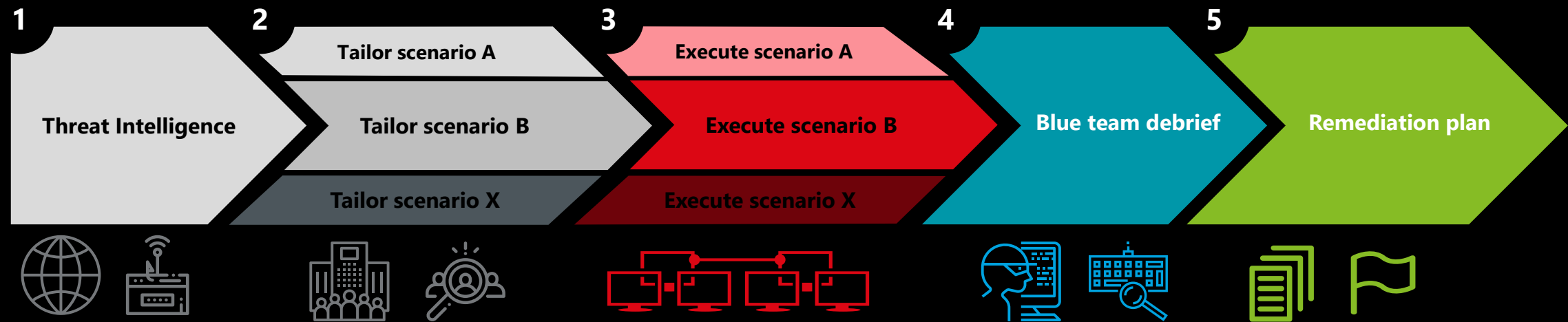
Dad of 2 boys

 [@olafhartong](https://twitter.com/olafhartong)  
 [github.com/olafhartong](https://github.com/olafhartong)  
 [ohartong@deloitte.nl](mailto:ohartong@deloitte.nl)

# OUR DEFINITION OF RED TEAMING

SIMULATING A **REALISTIC ADVERSARIAL  
ATTACK** AGAINST YOUR **ORGANIZATION**

# TI based Red Teaming (TIBER) approach





# RED TEAMING PITFALLS

CAN BE ANTAGONIZING

BLUE TEAM CAN BE TIPPED OFF

THE REPORT MIGHT NOT BE PUT TO GOOD USE

YOU'RE MERELY THERE FOR COMPLIANCE REASONS

THE BLUE TEAM LACKS THE SKILL OR KNOWLEDGE TO FOLLOW UP





**RED vs BLUE**

Key to Fun

**Ages  
10-Adult**

Move hidden  
value pieces  
to outwit your  
opponent and  
capture his flag.

**2 Players**

**MILTON  
BRADLEY  
Company**

SPRINGFIELD, MA 01101  
Made in U.S.A.  
4916

# stratego

fascinating two-handed  
strategy game



SEE BOX BOTTOM  
FOR DESCRIPTION  
OF GAME



# RED + BLUE = PURPLE, COMBINING STRENGTHS



## RED TEAM

Realistic, simulated attack, following the profile of an actual threat actor to the organization. The red team will try and achieve a number of agreed objectives without raising any detection or response.



## PURPLE TEAM

Combining the red and blue team efforts in an interactive setting: by performing an attack while the blue team is actively watching which elements are and are not detected. Afterwards, **both** blue and red team improve their approach and retry.



## BLUE TEAM

Continuous monitoring of and response to indicators of attacks and compromises. To this end, the blue team establishes and improves on detection measures in the IT infrastructure and defines and implements specific "use cases" to monitor for.





WE ALL SPEAK THE SAME LANGUAGE...

RED TEAM

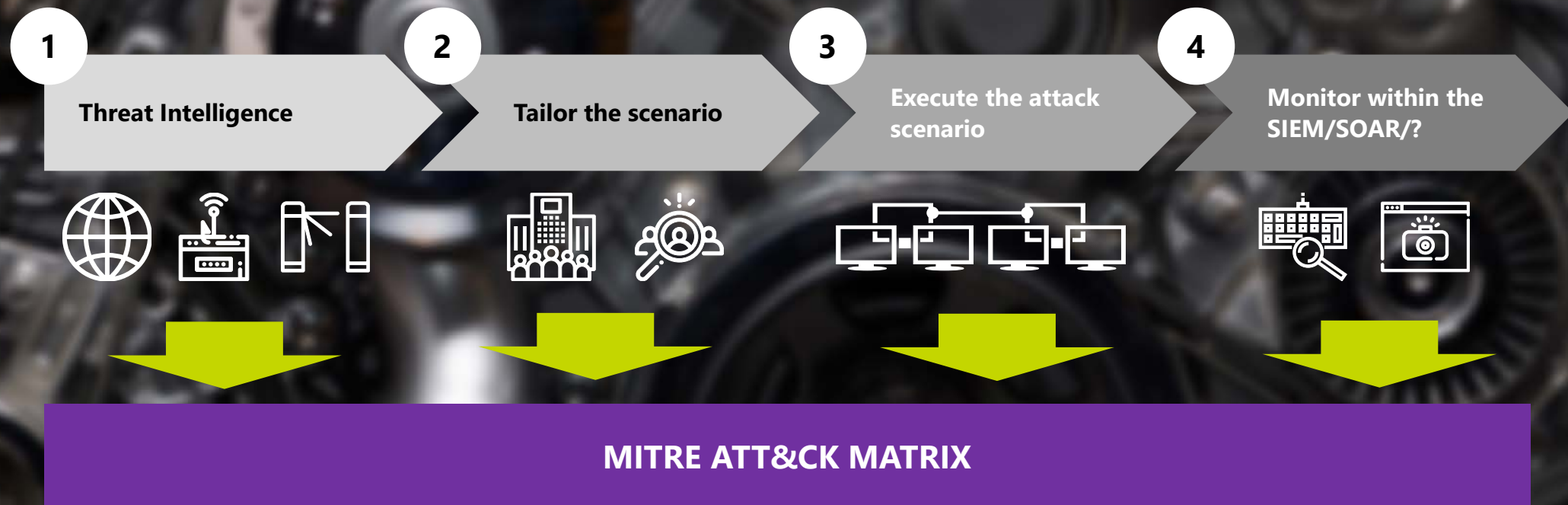
THREAT INTELLIGENCE

BLUE TEAM

MITRE ATT&CK



...WE ALL SPEAK ATT&CK...

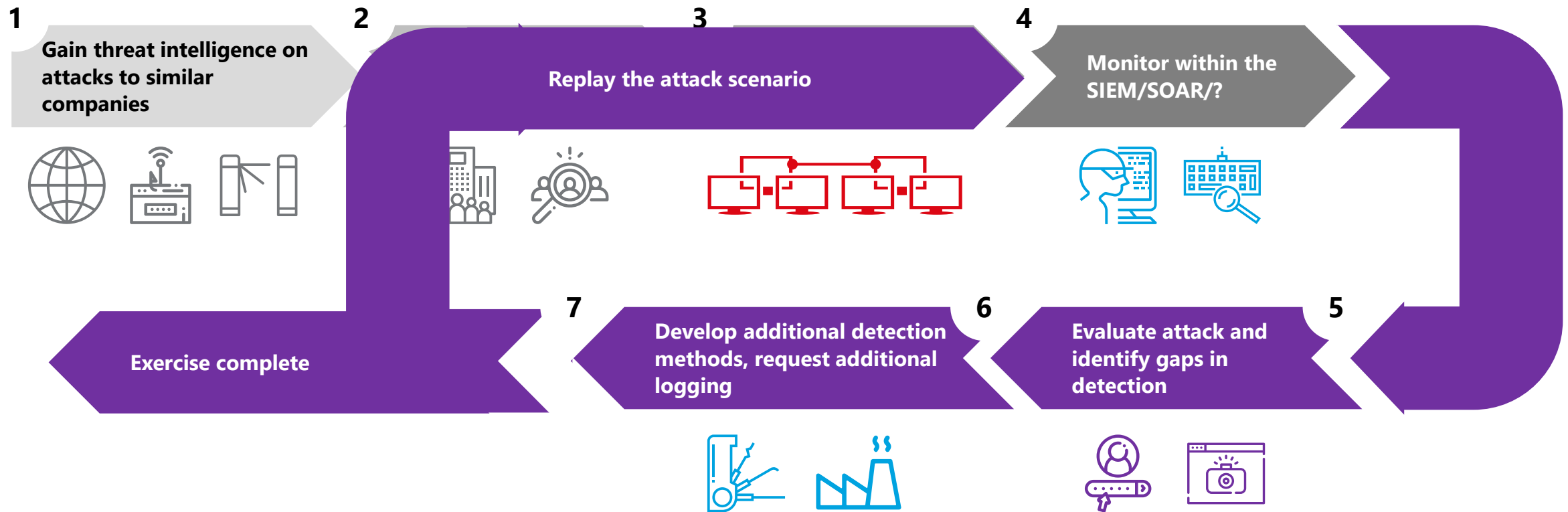




...SO WE DON'T END UP LIKE THIS



# TIBER STYLE PURPLE TEAMING







# OPEN SKIES

WHAT TRACES DO I LEAVE?

HOW DOES A RED TEAM THINK?

CAN I ADOPT MY TTP'S TO FALL OFF THE RADAR?

FOCUS DETECTION BASED ON ATT&CK

SKILL/KNOWLEDGE BOOST FOR BOTH TEAMS



QUESTIONS?

**Deloitte.**