



**cyber  
security**  
by clausohm



**Cybersecurity Measures for Business:**  
**Approaches and security solutions for small and medium-sized enterprises**





Clausohm-Software GmbH develops innovative and intelligent IT solutions that overcome boundaries and allow individuals and organisations to freely develop their potential.





# Software Engineering

Clausohm-Software GmbH is your partner for database development, the mapping of business processes and e-commerce.

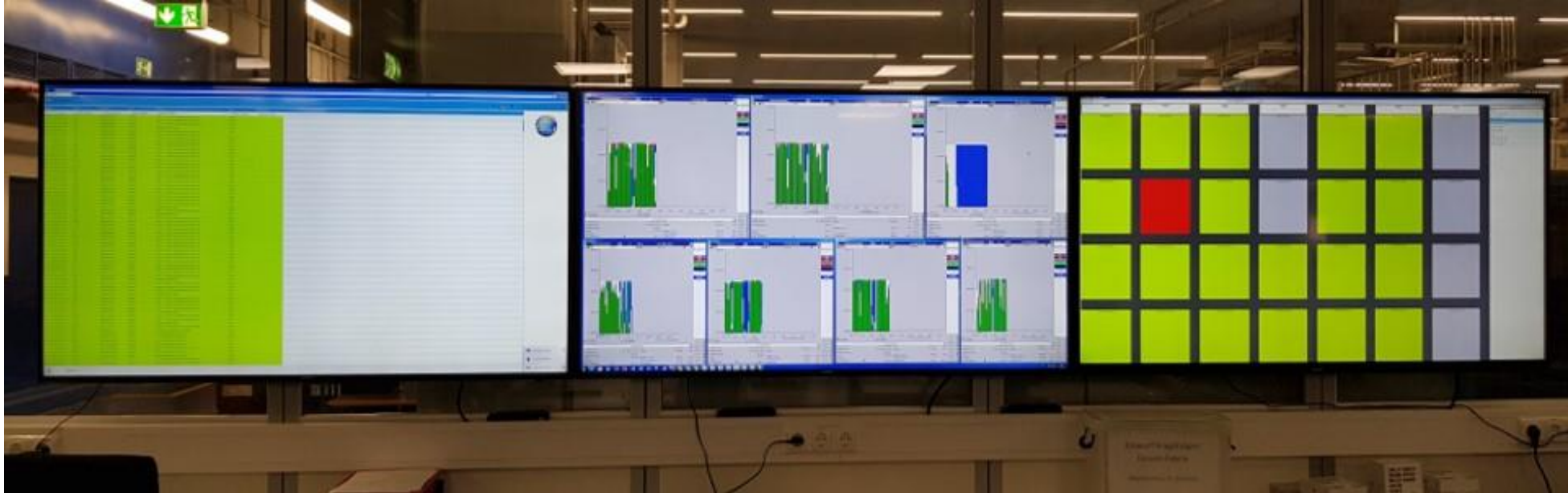
## Software-Development

- Database development SQL
- Backend + Frontend programming (Ajax, Java, JavaScript, C++, VisualBasic, JSON API and HTML 5)
- Web programming + Mobile, RAP, GWT
- Interface management

## Software Quality Assurance

- Test planning and control
- Test analysis and test design
- Test realisation and test execution
- Test evaluation and reporting





## CIRCLE

CIRCLE is a reliable information system used to optimise production processes.

CIRCLE monitors, controls and evaluates your machine, process and product data in the industrial industry. In this way, our software gives you a complete overview of complex production steps and cross-production line data at all times.

# Cyber Security

## Continuous Protection

- Penetration tests and vulnerability analyses
- External Monitoring as a Service
- Internal monitoring as a service
- IT consulting

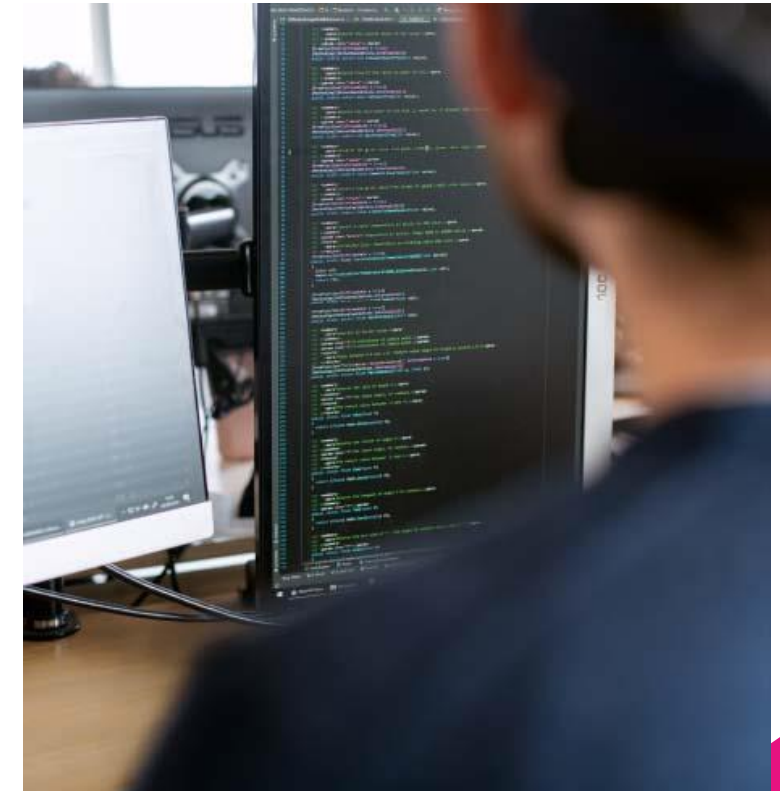


## Security Checks / Red Teaming

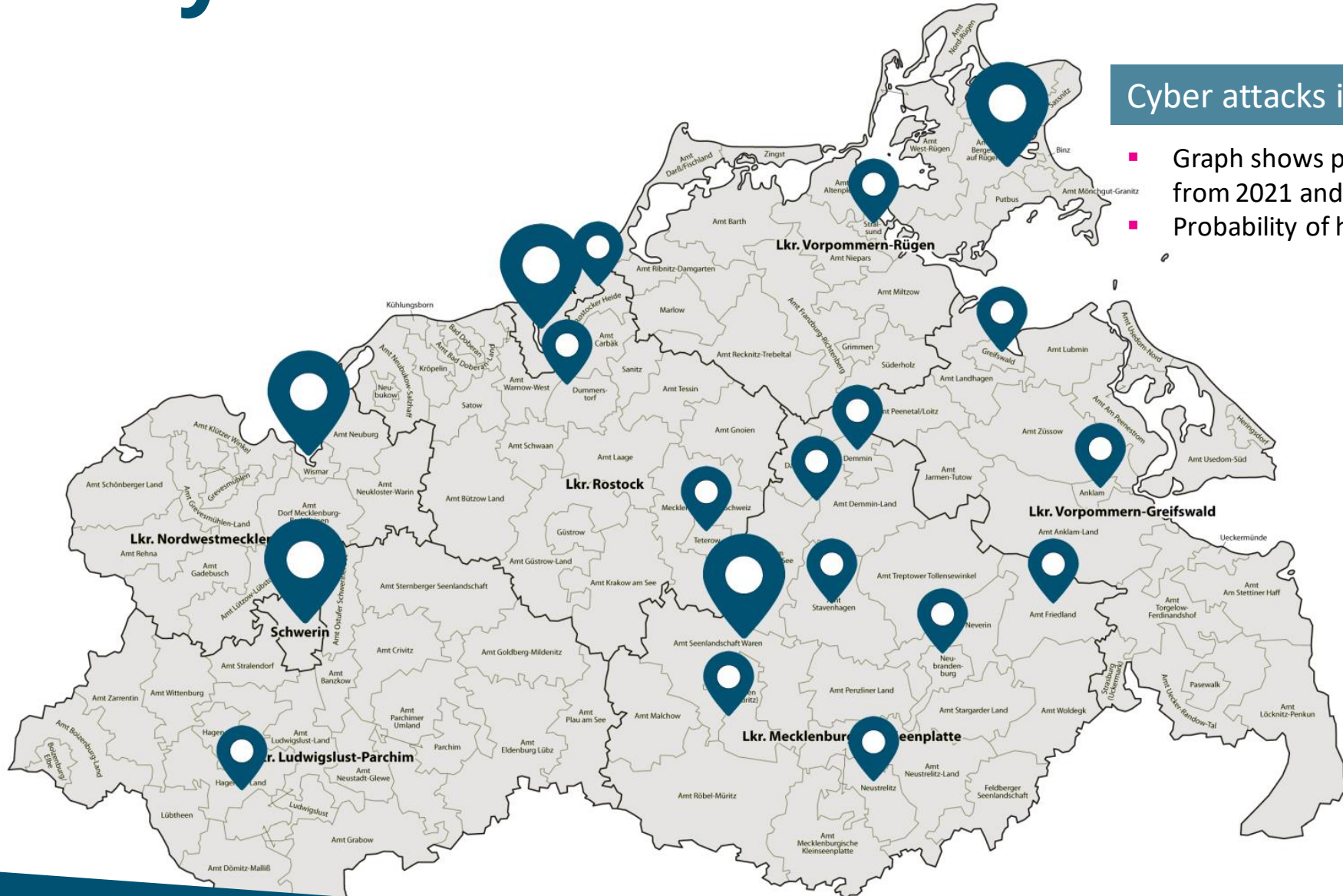
- targeted attack attempts without prior information on the IT infrastructure
- direct attack attempts via social engineering for data access via employee information
- Physical threat assessments of objects

## Continuous Awareness

- Phishing mail campaigns
- Training measures and use of our AWAP learning platform



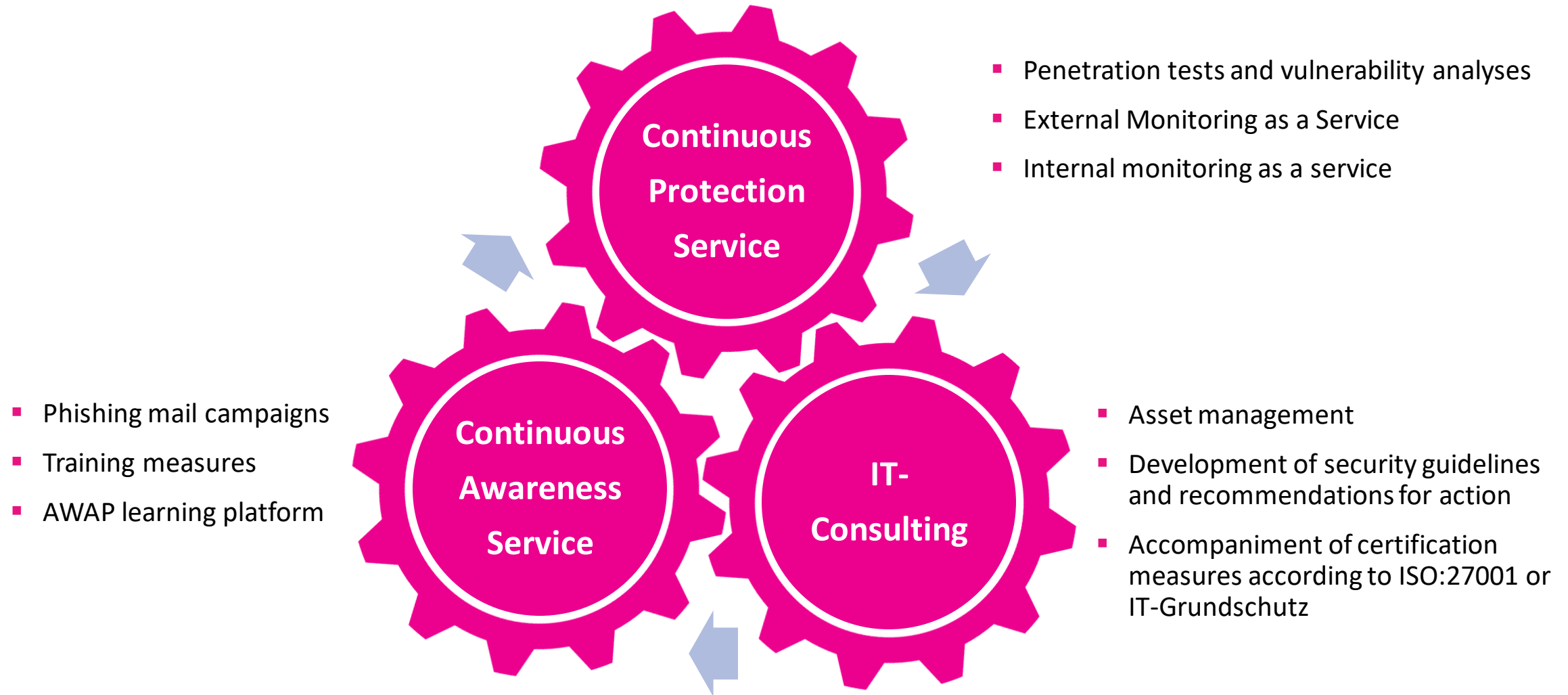
# I Cyber attacks in MV 2021-2023



Cyber attacks increasingly affect small companies

- Graph shows publicly documented cyber attack from 2021 and 2023
- Probability of high number of unreported cases exists

# I Cyber Security by Clausohm for SMEs





# II Challenges for SMEs

Digitalisation in companies is advancing

- Online shops
- Digital warehouse management
- Digital personnel process
- Website
- Subdomains
- E-Mailing
- IT + OT
- Cloud services
- ...





# II Challenges for SMEs

## Specific requirement for SMEs

- Staffing in IT
- Necessary Management focus on IT
- Security training of employees
- IT security vs. day-to-day business



# II Challenges for SMEs



Often existing hazards / vulnerabilities

- Protection of the entire IT network
- Update management
- Data backups
- Emergency management
- Business Continuity Management
- IT security management



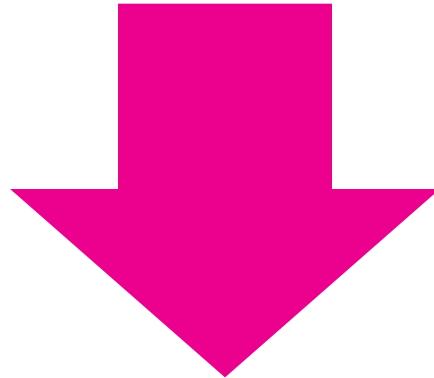


# II Challenges for SMEs

So what to do?

- Build up protection

- For IT infrastructure
- For OT infrastructure
- For business processes

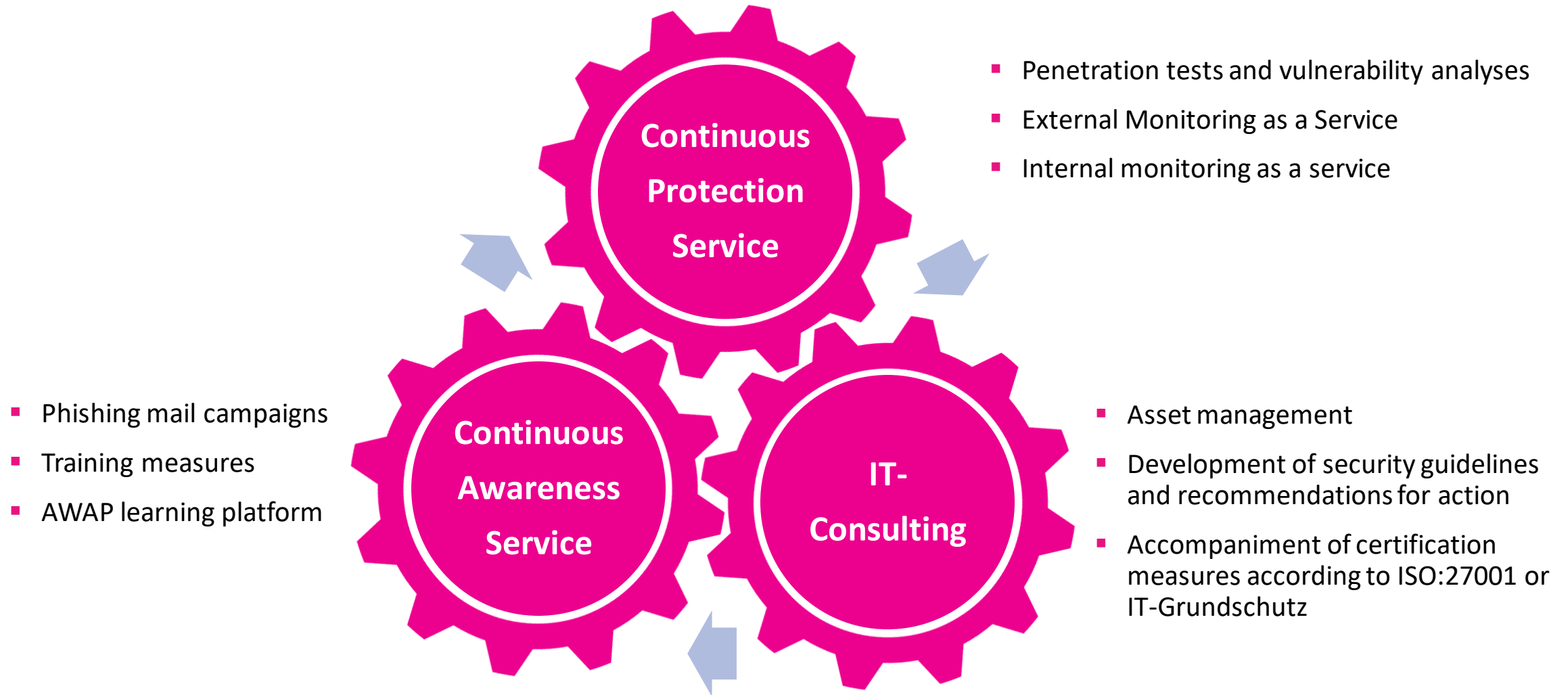


- Related to SMEs

- Workloads must be processable for clients
- The information provided must be usable and comprehensible for the company understandable
- Work packages or step-by-step processing must be created



# III Cyber Security by Clausohm for SMEs

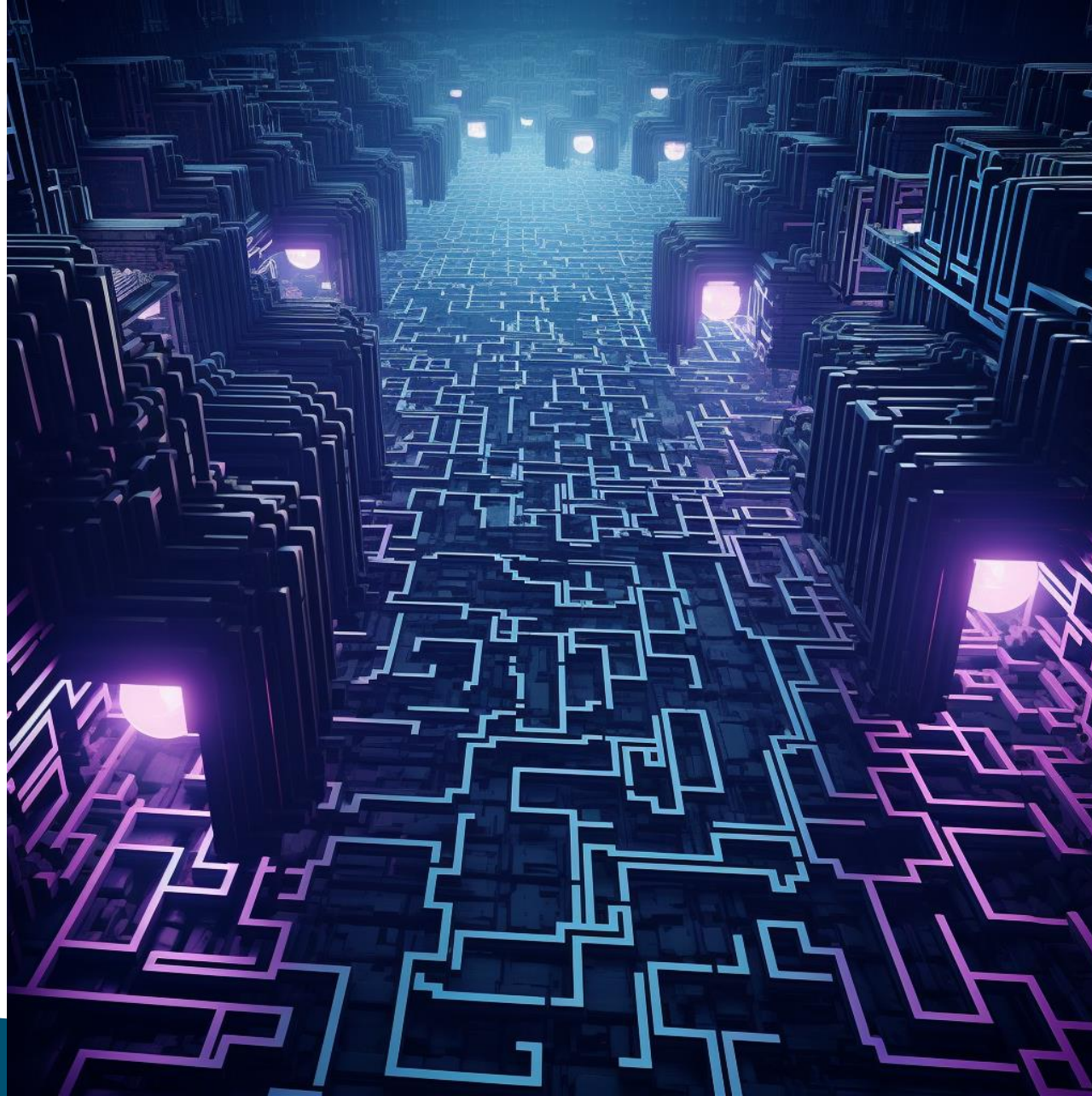




# III Cyber Security by Clausohm

## ■ Your advantages

- employees are more reliable
  - the quality of work increases
- employees feel valued as an important partner for information security
- competitive advantages due to gained trust of customers and business partners
- Maintenance work on IT systems requires less time and takes place in a more planned manner



# IV Continuous Protection Service

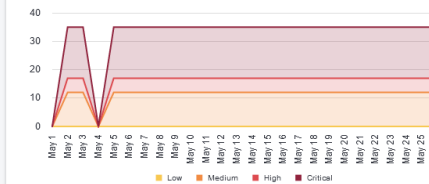
## Structure and Implementation

- Step 1
  - Create a strategy and conduct a continuous vulnerability analysis of the company
    - For IT infrastructure (Internal, External)
    - For OT infrastructure
- Step 2
  - Continuous implementation of penetration tests
  - Preparation of reports with recommendations for action
  - Conduct presentations with advice
- Step 3
  - Integration into a vulnerability management system
    - Carry out vulnerability assessments for all areas
    - Use of dashboards for monitoring
    - Prioritisation and handling of vulnerabilities
    - Processing of vulnerabilities and removing the finding after a new scan



### Vulnerability Overview

#### Severity Trending



Last Updated: 4 hours ago

#### Vulnerability Trending



#### Top 10 Vulnerabilities

Plugin ID	Total	Severity	Name	Family
172186	2	CRITICAL	Apache 2.4.x < 2.4.56 Multiple Vulnerabilities	Web Servers
171356	2	CRITICAL	Apache httpd SEoL (2.1.x <= x <= 2.2.x)	Web Servers
170113	2	CRITICAL	Apache 2.4.x < 2.4.55 Multiple Vulnerabilities	Web Servers
161948	2	CRITICAL	Apache 2.4.x < 2.4.54 Multiple Vulnerabilities	Web Servers
158900	2	CRITICAL	Apache 2.4.x < 2.4.53 Multiple Vulnerabilities	Web Servers
157288	2	MEDIUM	TLS Version 1.1 Protocol Deprecated	Service detection
153584	2	CRITICAL	Apache < 2.4.49 Multiple Vulnerabilities	Web Servers
153583	2	CRITICAL	Apache < 2.4.49 Multiple Vulnerabilities	Web Servers
104743	2	MEDIUM	TLS Version 1.0 Protocol Detection	Service detection
101787	2	CRITICAL	Apache 2.2.x < 2.2.34 Multiple Vulnerabilities	Web Servers

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[View Data](#)

#### Top 10 IP Summary



# V Continuous Awareness Service



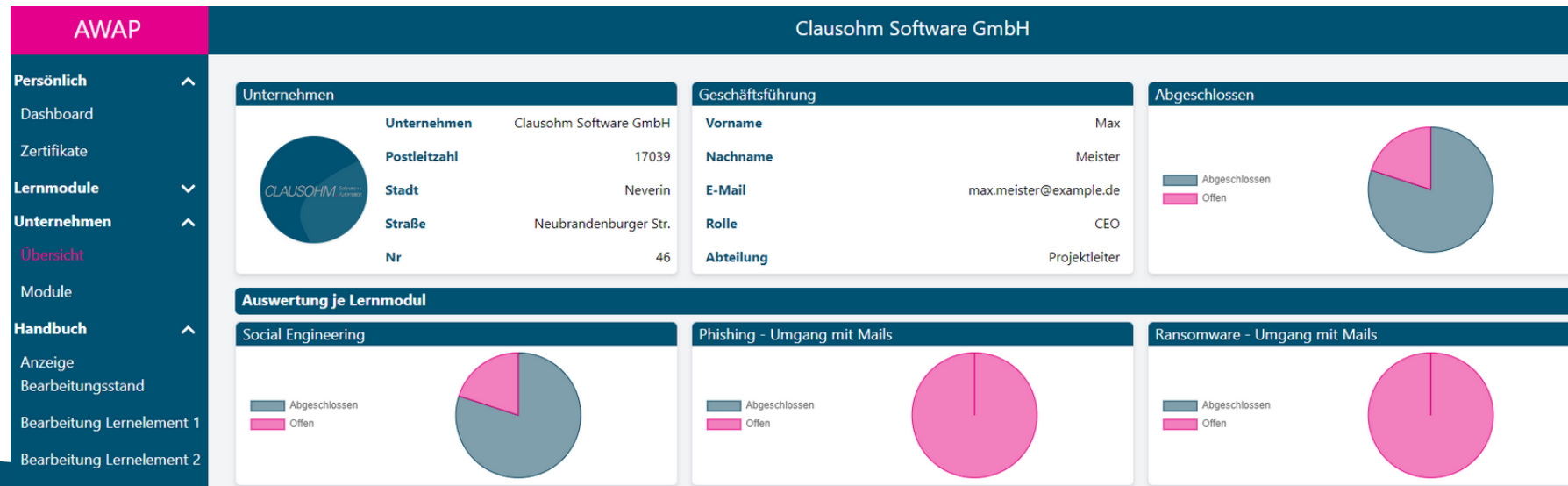
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**AWAP**

**Awareness Plattform**

## Structure and Implementation

- Trainings
  - For employees
  - For executives and management
- Learning platform
  - Use of interactive learning modules



# VI IT-Consulting

## Structure and Implementation

### Implementation according to DIN SPEC 27076

- Initial set-up with realistic minimal effort
- Determination of the current state of the company's information security
- visualisation of the most important security risks
- Enables a minimum standard of security

### Establishment of an information security management system

- Creation of a corporate guideline and IT security guidelines for IT use, internet use and data backup, etc.
- Creation of workflows and recommendations for action on security incidents, emergency plans and business continuity management
- Carrying out risk assessments

### Cyber Security Check

- From the professional association ISAC
- Based on IT-Grundschutz



## Guide Cyber Security Check

A Guide for the Implementation of Cyber Security Checks in the Office IT of Companies and Government Agencies

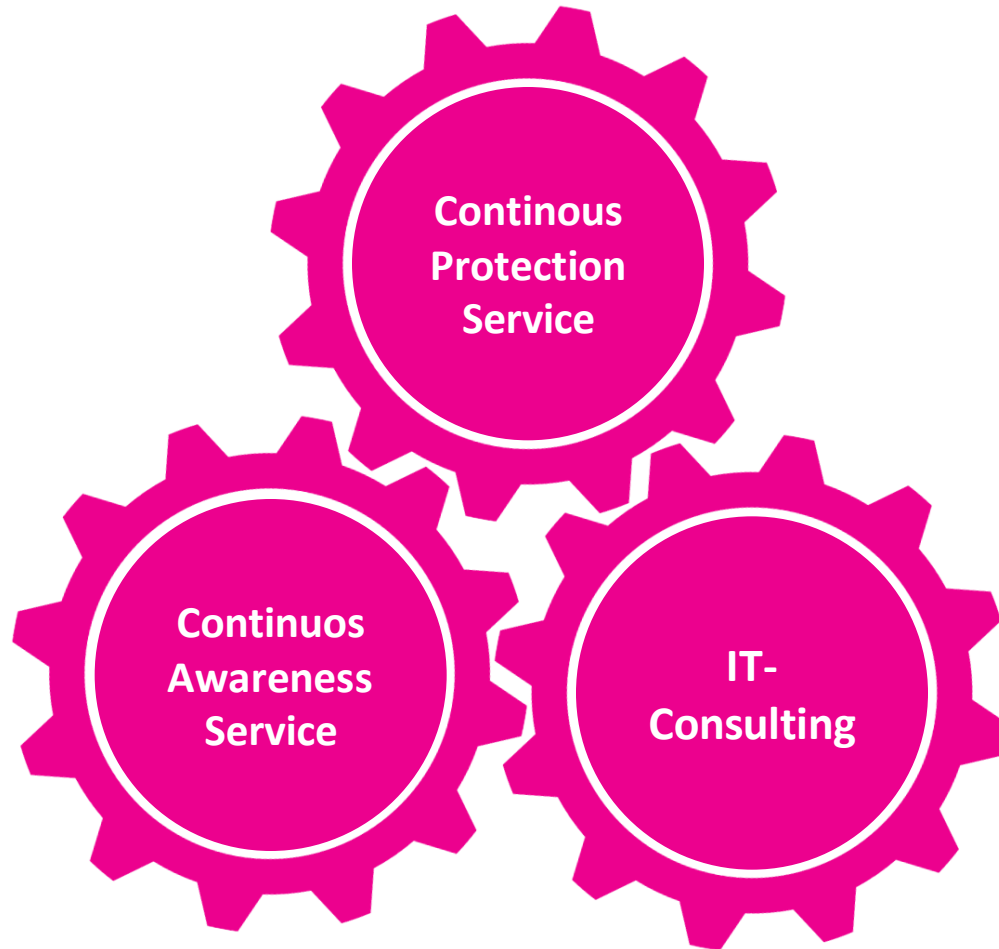
Version 2



dpunkt.verlag



# Cyber Security by Clausohm



## Our next target

- Development of the Security Operations Center(SOC)
  - Highly automated application
  - Rapid detection of threats
  - Fast reaction of the own IT team