9ICCC

IT security starts here:

At the building structure and its mission critical infrastructure

Joachim Faulhaber & Wolfgang Peter

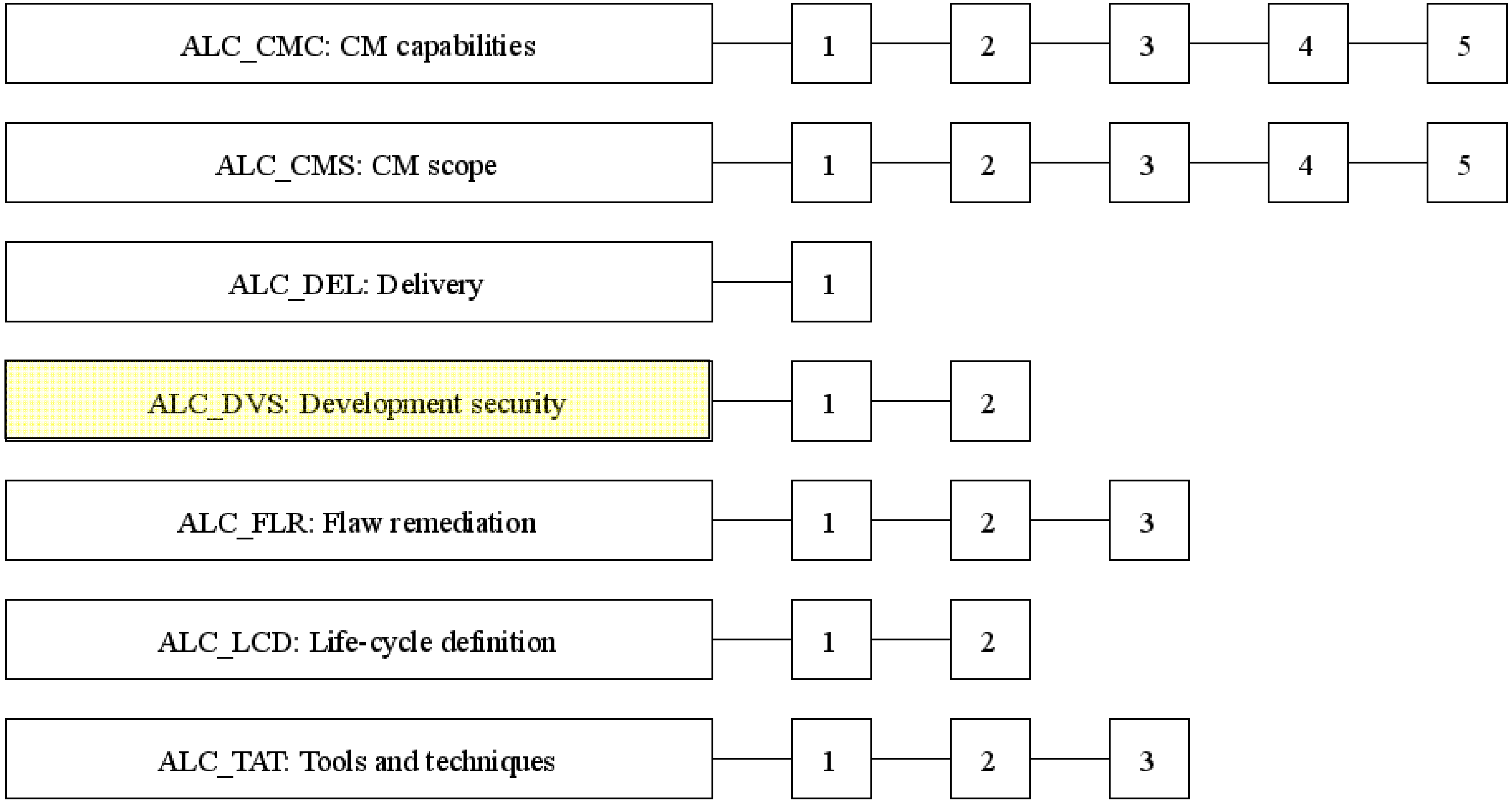
TÜV Informationstechnik GmbH

The Trust Provider

Agenda

- Scope
- Risc potentials
- Physical security requirements
- Application of the criteria catalogue

Class ALC: Life-cycle support



ALC_CMC: CM capabilities	1	2	3	4	5
ALC_CMS: CM scope	1	2	3	4	5
ALC_DEL: Delivery	1				
ALC_DVS: Development security	1	2			
ALC_FLR: Flaw remediation	1	2	3		
ALC_LCD: Life-cycle definition	1	2			
ALC_TAT: Tools and techniques	1	2	3		

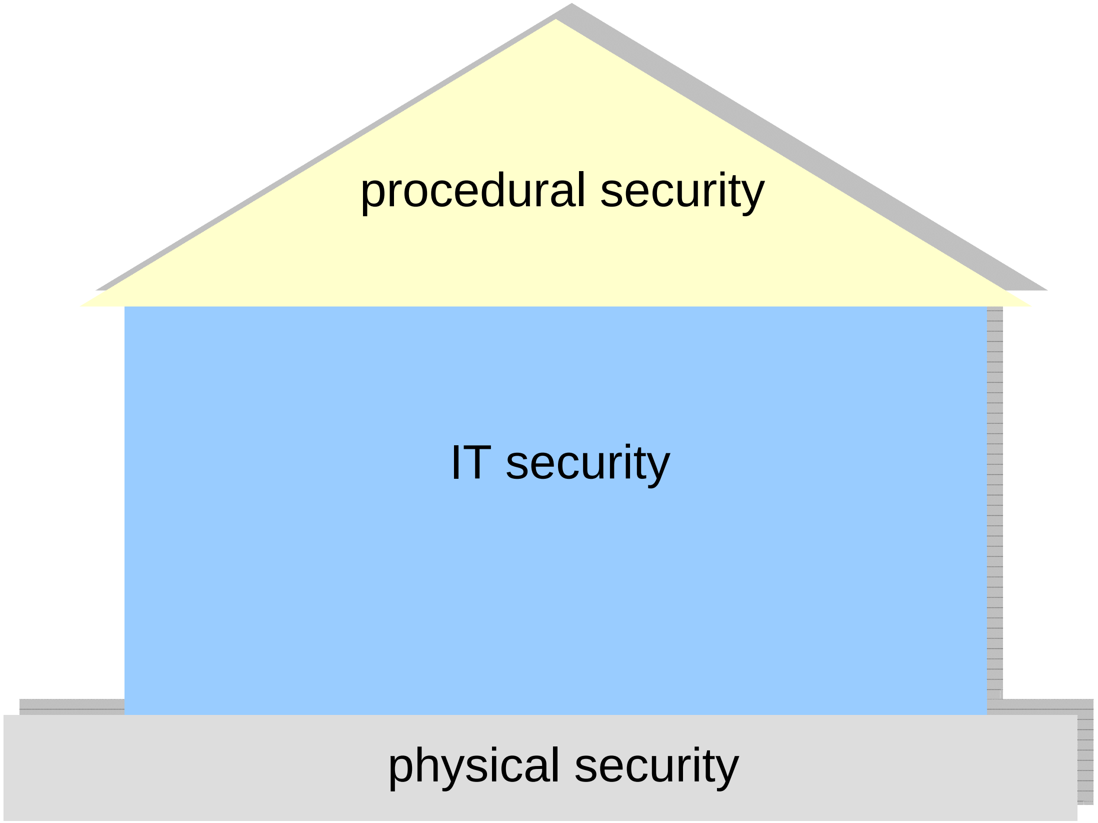
ALC_DVS: Development security

- Objectives

Development security is concerned with physical, procedural, personnel, and other security measures that may be used in the development environment to protect the TOE and its parts. It includes the physical security of the development location and…

Data Center

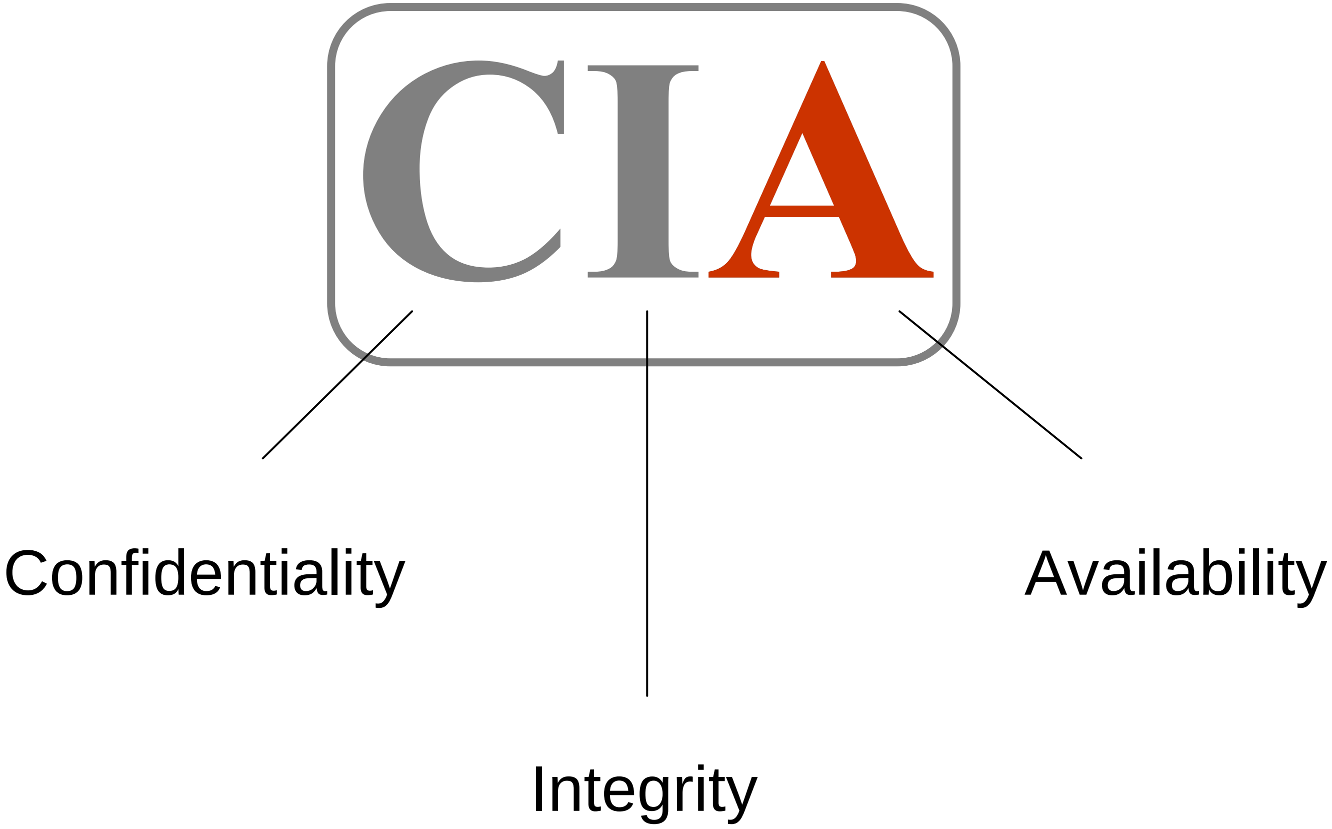
Diversity of security



Physical security standards

- ➢ Depth of coverage between standards about 80%
- ➢ Differences in the methodology
- ➢ Slightly different focuses

Security Objectives



CIA

Confidentiality

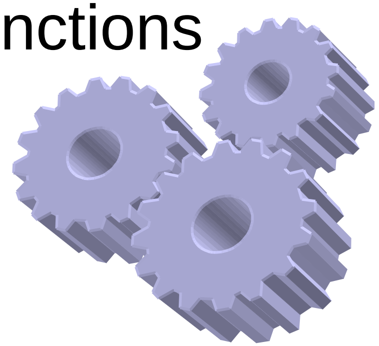
Integrity

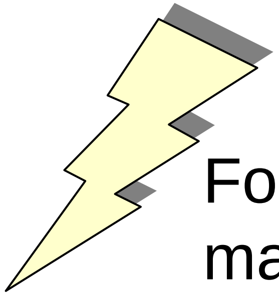
Availability

Risk potentials

Crime

Operating malfunctions





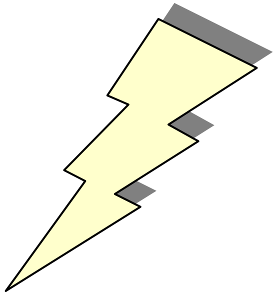
Force majeure

Crime

- Burglary
- Sabotage
- Vandalism
- Attack

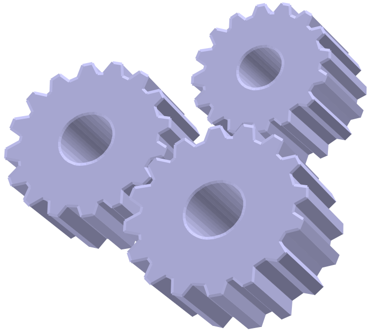
Force majeure

- Fire
- Water
- Corrosive gases
- Explosion
- Rubble loads
- Lightning strikes
- Earthquakes

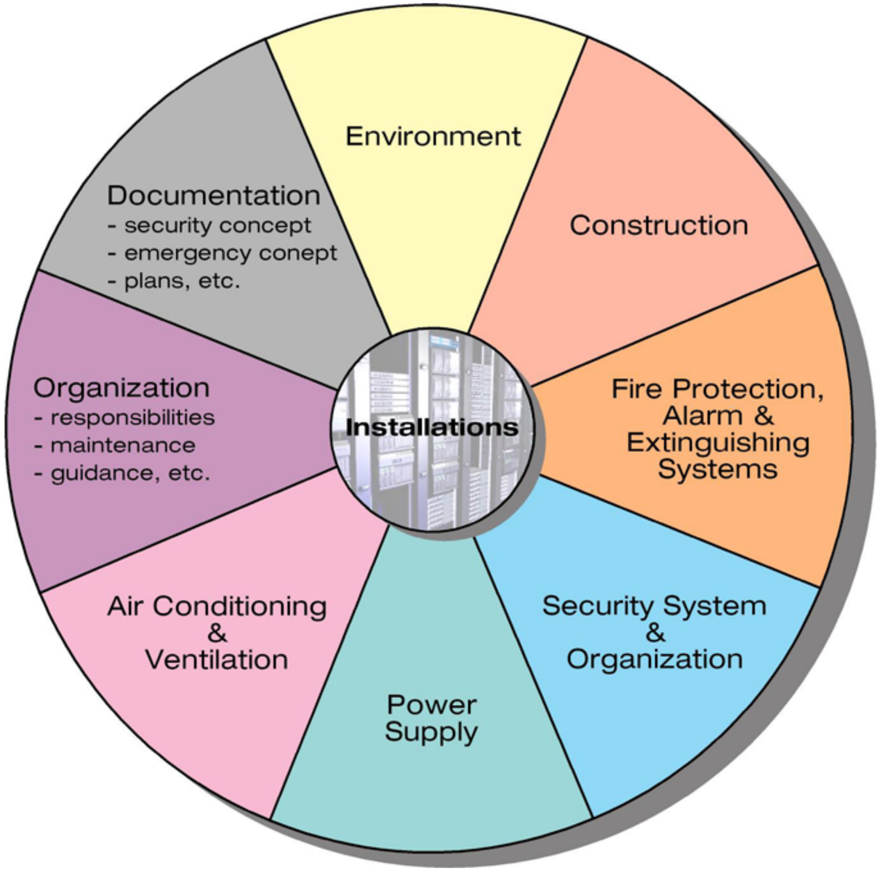


Operating malfunctions

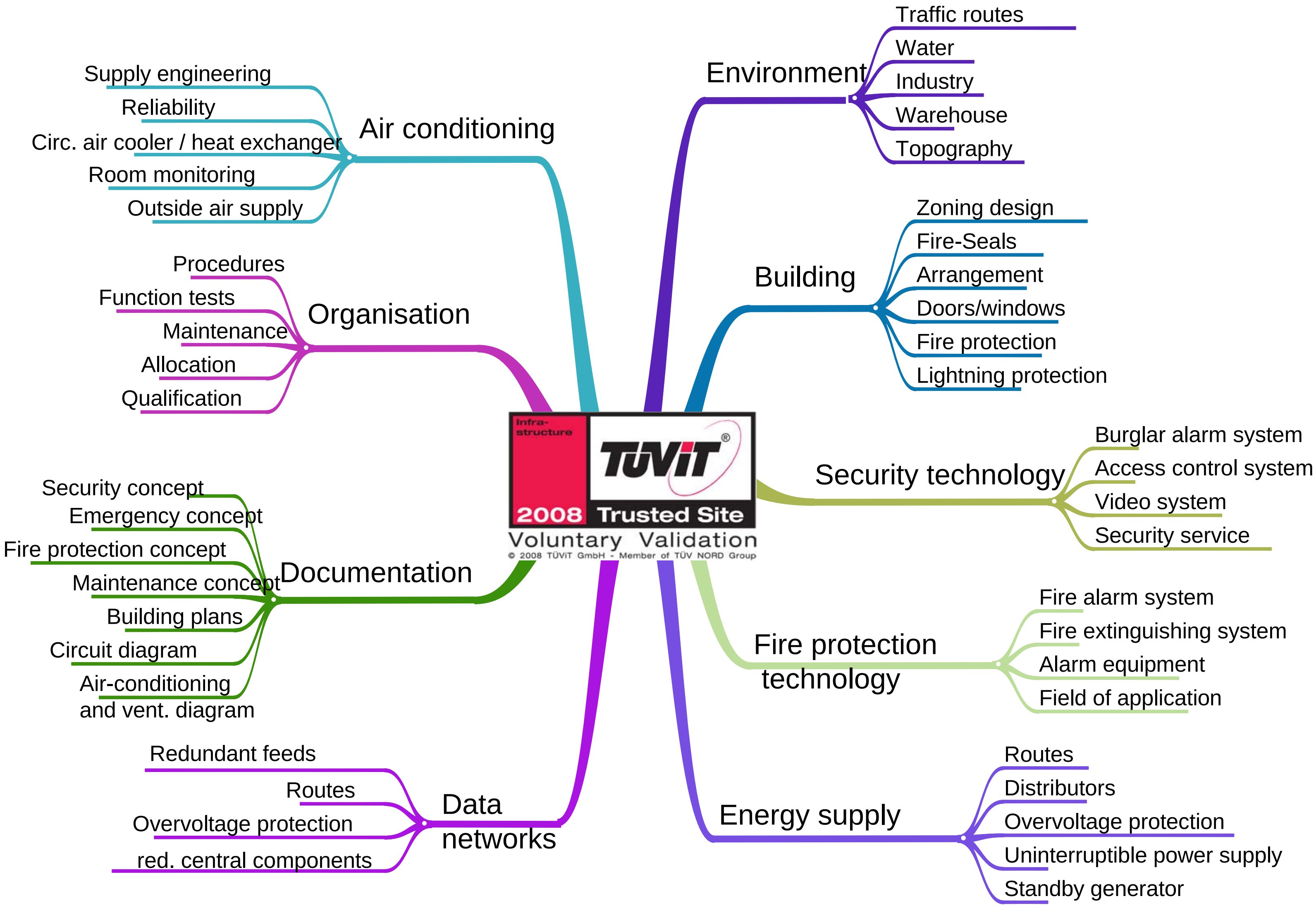
- Lack of electrical supply by
  - Breakdown
  - Switching operations
  - Overloading
- Air conditioning breakdown
- Communication breakdown
- Safety equipment breakdown
- Magnetic stray fields
- Radio frequencies



Comprehensive security for all physical aspects of data centers



TSI requirements



Infra-structure TÜViT 2008 Trusted Site

Voluntary Validation

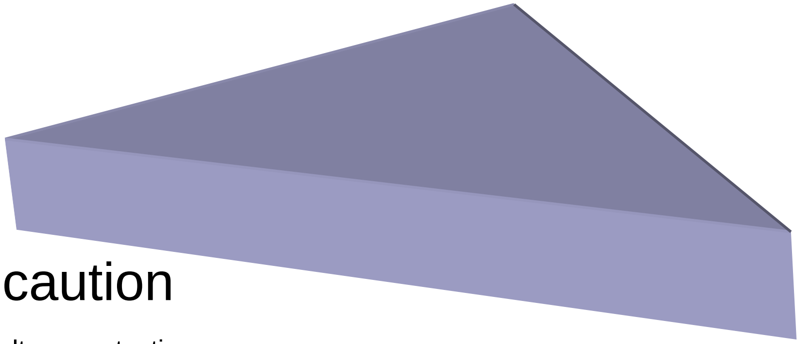
© 2008 TÜViT GmbH - Member of TÜV NORD Group

- Air conditioning
  - Supply engineering
  - Reliability
  - Circ. air cooler / heat exchanger
  - Room monitoring
  - Outside air supply
- Organisation
  - Procedures
  - Function tests
  - Maintenance
  - Allocation
  - Qualification
- Documentation
  - Security concept
  - Emergency concept
  - Fire protection concept
  - Maintenance concept
  - Building plans
  - Circuit diagram
  - Air-conditioning and vent. diagram
- Data networks
  - Redundant feeds
  - Routes
  - Overvoltage protection
  - red. central components
- Environment
  - Traffic routes
  - Water
  - Industry
  - Warehouse
  - Topography
- Building
  - Zoning design
  - Fire-Seals
  - Arrangement
  - Doors/windows
  - Fire protection
  - Lightning protection
- Security technology
  - Burglar alarm system
  - Access control system
  - Video system
  - Security service
- Fire protection technology
  - Fire alarm system
  - Fire extinguishing system
  - Alarm equipment
  - Field of application
- Energy supply
  - Routes
  - Distributors
  - Overvoltage protection
  - Uninterruptible power supply
  - Standby generator

Cornerstones of infrastructure measures

Fire alarm
Temperature sensors
Access control
etc.

Detection



Precaution

Overvoltage protection
Intrusion detection
UPS
etc.

But also
planning
certification

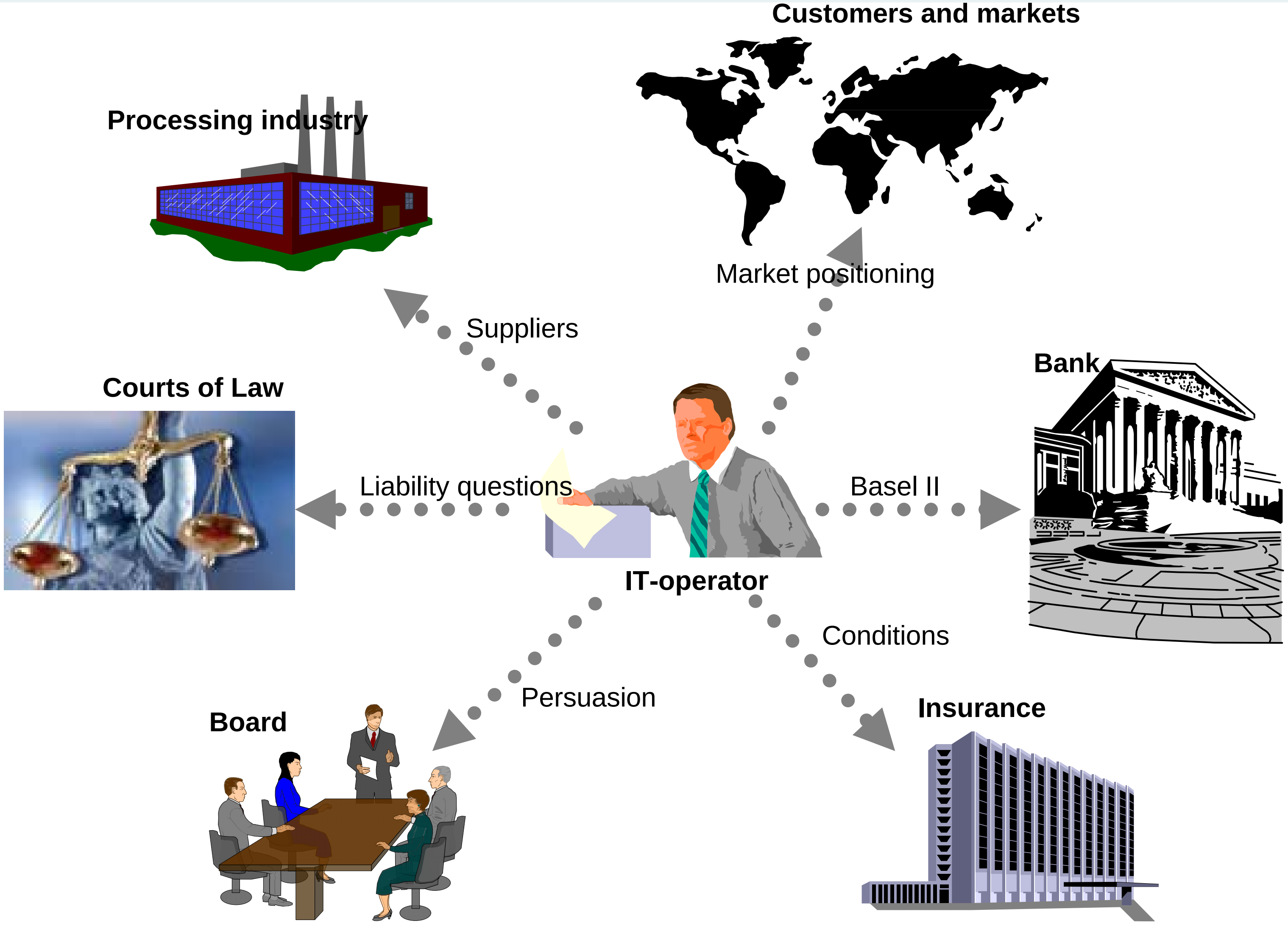
Reaction

Alarm relaying
Fire extinguishing systems
Starting standby generator unit
etc.

Evaluation result

- Level1: medium protection requirements (according to the BSI infrastructure requirements of the baseline protection manual)
- Level2: extended protection requirements (extended requirements to all above mentioned aspects)
- Level3: high protection requirements (complete redundancy of essential components, no single point of failures, climate limits according to EN 1047-2)
- Level4: very high protection requirements (advanced access control, no adjacent hazard potentials, with minimal intervention time)

Creating trust



Customers and markets

Market positioning

Processing industry

Suppliers

Courts of Law

Liability questions

Bank

Basel II

IT-operator

Conditions

Persuasion

Board

Insurance

Excerpt of TSI certified datacenters

M
Munich
Airport

Leistung aus Leidenschaft.
Deutsche Bank

BAYER
Bayer

WINCOR
NIXDORF

Summary

- The matter of physical security
- Methodology & structural approach
- Application of parts of the criteria to CC site visits

TÜV Informationstechnik GmbH

Member of TÜV NORD Group

Joachim Faulhaber
Deputy Division Manager
TÜViT, Certification

Wolfgang Peter
Director Evaluation Body for IT Security
TÜViT, Information Security

Langemarckstr. 20
45141 Essen, Germany

Phone:	+49 201 8999 – 584
Fax:	+49 201 8999 – 555
E-Mail:	j.faulhaber@tuvit.de
URL:	www.tuvit.net