

AK TECHNICAL AUDITING

-----2ND MEETING-----

PRODUCT CONFORMANCE

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Agenda

1. Fields of work
2. Auditing Product Conformity | Overview
3. Auditing Product Conformity | Product Creation Process
4. Bosch development codex guideline
5. Codex questions along the processes
6. Robert Bosch Training
7. Audit Content

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1. Fields of work

DIGITALE TRANSFORMATION

Internet of Things

- Domänen z. B. Smart Mobility mit zunehmender Vernetzung zw. Domänen
- Definition/-Abgleich wünschenswert

Industrie 4.0

- Regelungen noch nicht etabliert

PRODUKTKONFORMITÄT

- Nachweisfähigkeit (Datenbasis /- verfügbarkeit, Kommunikation)
- Social Acceptance
- Produktkonformität (Sicherstellung in 1st line)
- Governance in 2nd line

SW Entwicklung

- Scope für Audit des Entwicklung-Prozesses
- Welche DIIR Standards sind vorhanden / anwendbar

SYSTEM/METHODIK

- Wie wird Fokus für die Revision gesetzt
- Regel- und risikobasiertes Auditieren
- Qualifikation der Auditoren
- Prüfung von Entw. / Produkt-Entscheidungen (Aspekt Risikomanagement)

UMWELT

Energy & Environment Management

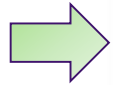
- e. g. resources (energy supply) availability, CO2 footprint

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2. Auditing Product Conformity | Overview

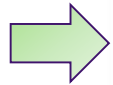
Definition of product conformity

- ❑ A product fulfills its requirements



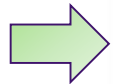
Which kind of requirements are there and how do we know them?

- ❑ Customer/market requirements → from customers/market
- ❑ Legal requirements → constant observation and collection
- ❑ (So far) not codified expectations by various stakeholders (social acceptance) → ???



What might jeopardize product conformity?

- ❑ Errors in requirements management process
- ❑ Faulty V&V
- ❑ Deviation in production process
- ❑ Intentional concealment of deviations (values!)

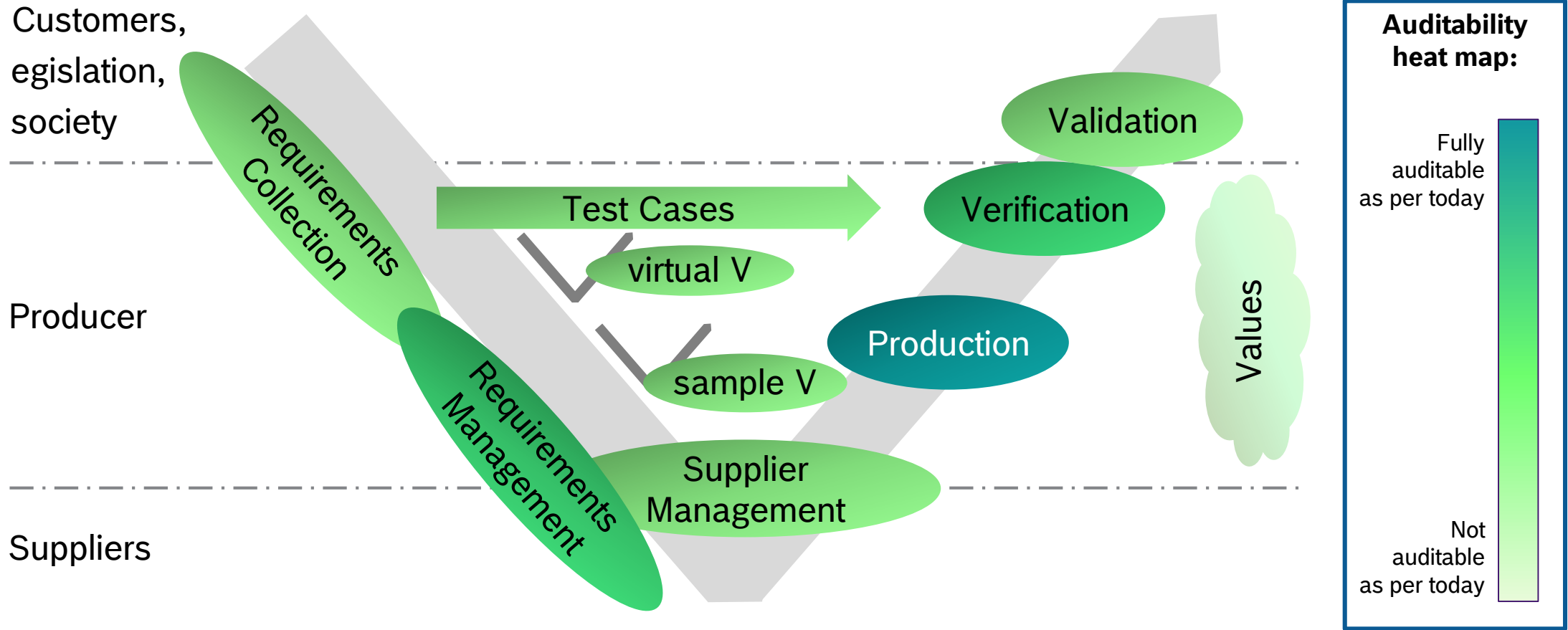


How can product compliance be audited?

- ❑ Product checks (R: 1st line of defense = operative units)
- ❑ Process checks (R: 2nd and 3rd line of defense)

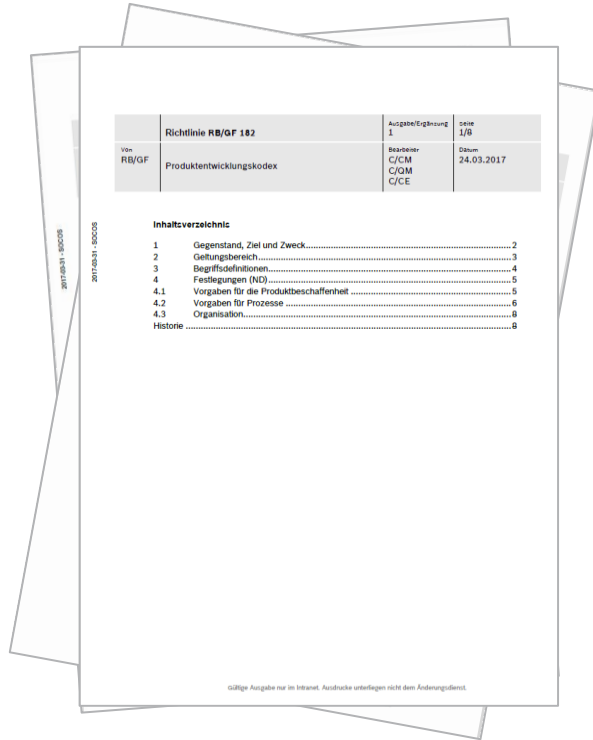
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3. Auditing Product Conformity | Product Creation Process



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4. Development codex guideline



B A S I S

- ▶ Slogan: “Invented for Life”
- ▶ Actions always based on legality
- ▶ **Legality and company values take priority**

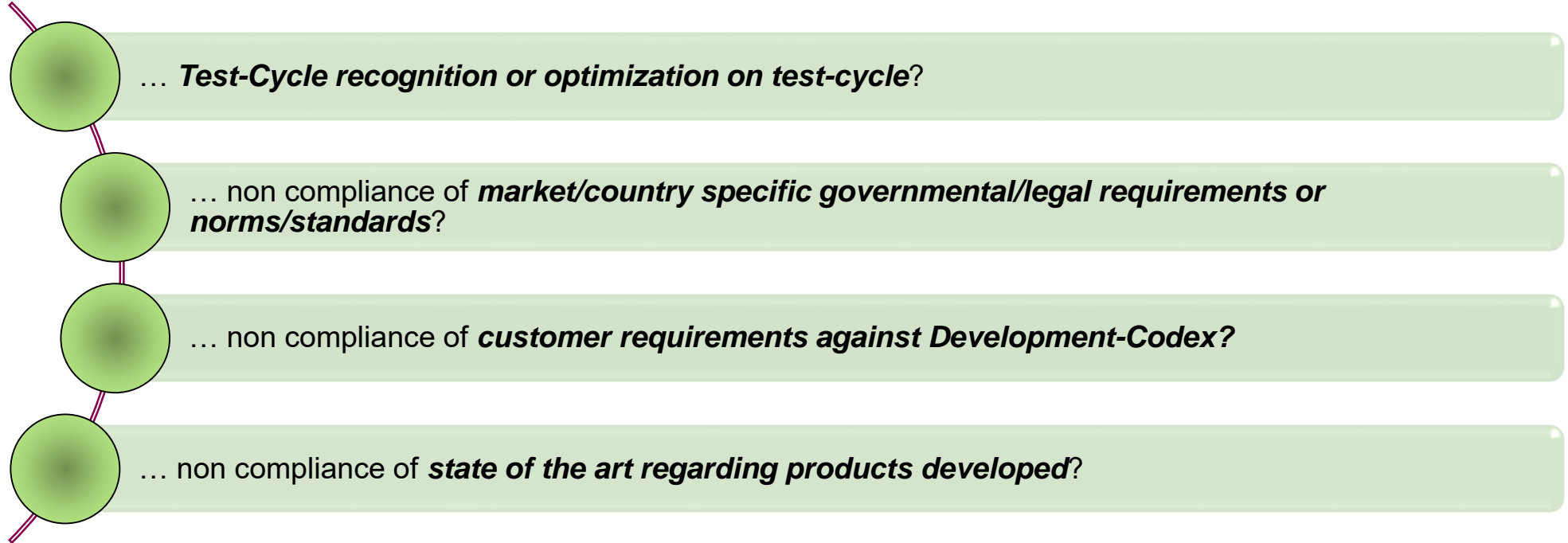
PRINCIPALS

- ▶ Developing functions for **cycle/test recognition not permitted** (neither in a company platform nor in functions/software implemented at customer request).
- ▶ The application must function in such a way, that under product operating conditions during the entire work/program map area the **warranted characteristics are met**.
- ▶ **Human life is protected and environment and resources are preserved to the greatest possible extent. Optimization purely to the cycle is not permitted.**
- ▶ Principles apply to all products (incl. services) in all phases of product development.

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5. Codex questions along the processes

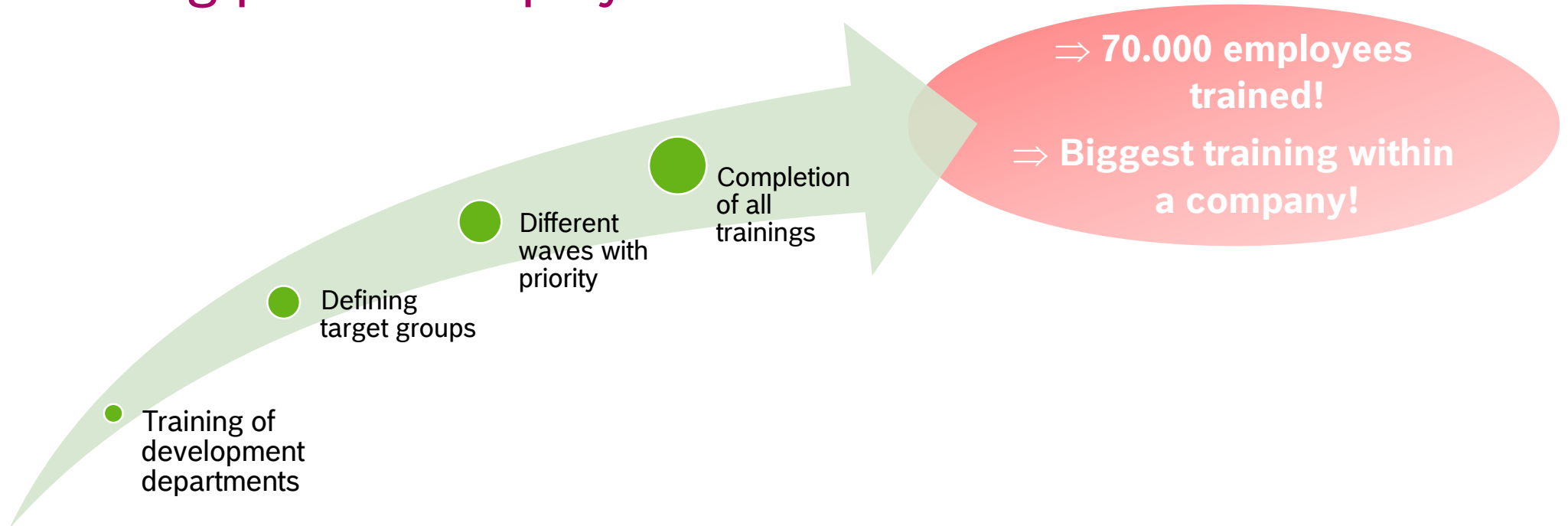
Is there any indication for...



Products shall comply with the applicable legal requirements in the respective target market.

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6. Training plan for employees



- ❑ Content: Background, guideline explanation in detail, examples with focus on target group, discussion in deep
- ❑ Target: Detailed understanding for development codex

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7. Audit Content

Workplan for Auditor

Are employees trained according to the development codex?

- Group defined
- Training conducted

Is the development codex integrated into the development and sales process description?

- Defined permanent organizational structure
- Identification of relevant legal requirements in target markets
- Defined processes for final and regular assessments with regards to compliance
- Changes introduced in the processes after introduction of development codex

Project Management / Quality Gates

- Are legal requirements part of the product specification and are discussed with customers?
- Do products meet legal requirements and meet requirements promised to customers?
- Are no test detection methods in place and products are not optimized regarding test situation?
- Are measures in place to prevent any unlawful use?

The image shows a detailed workplan table for an auditor. It consists of multiple overlapping sheets of paper, each with a grid of columns and rows. The columns likely represent different audit areas or tasks, and the rows represent a timeline or sequence of activities. The text within the cells is small and difficult to read, but the overall structure is that of a comprehensive project plan or audit schedule.

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END