Importance of NESAS for an Operator
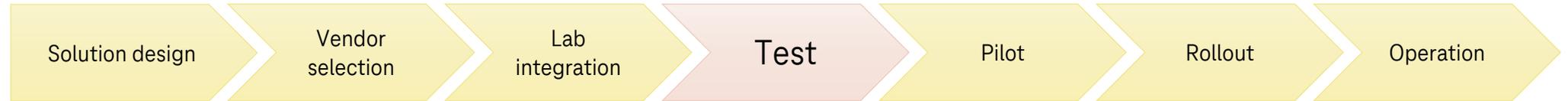
Sven Lachmund, Deutsche Telekom Security

Evaluation of Network Equipment – No NESAS

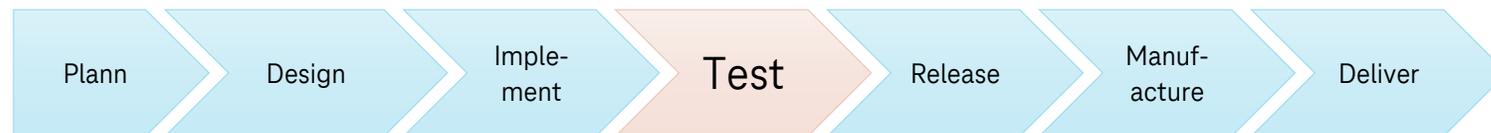High level workflow of technology introduction of an operator

Network operator

Solution design → Vendor selection → Lab integration → Test → Pilot → Rollout → Operation

Without NESAS

- **Operators test on their own**
- **Testing only possible during product integration**

Equipment vendor

Plann → Design → Imple-ment → Test → Release → Manuf-acture → Deliver

High level product development workflow of a network equipment vendor

Evaluation of Network Equipment – with NESAS

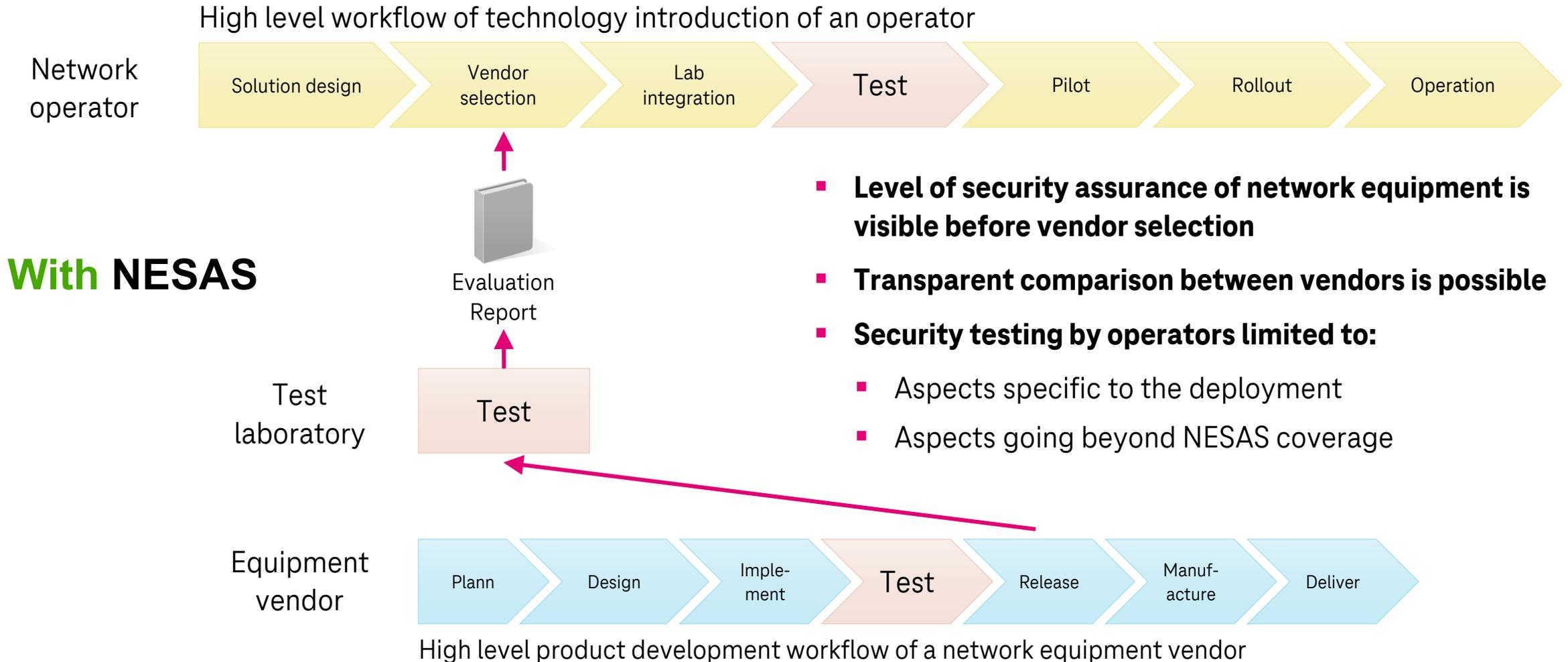High level workflow of technology introduction of an operator

Network operator

| Solution design | Vendor selection | Lab integration | Test | Pilot | Rollout | Operation |

With NESAS

Evaluation Report

Test laboratory

Test

- **Level of security assurance of network equipment is visible before vendor selection**
- **Transparent comparison between vendors is possible**
- **Security testing by operators limited to:**
  - Aspects specific to the deployment
  - Aspects going beyond NESAS coverage

Equipment vendor

| Plann | Design | Imple-ment | Test | Release | Manuf-acture | Deliver |

High level product development workflow of a network equipment vendor

Evaluation and Assessment in Combination is Key

Equipment evaluation

Network Product

snapshot in time of the security posture

Dynamicity in development

Release 1   Release 2   Release 3   Release 4

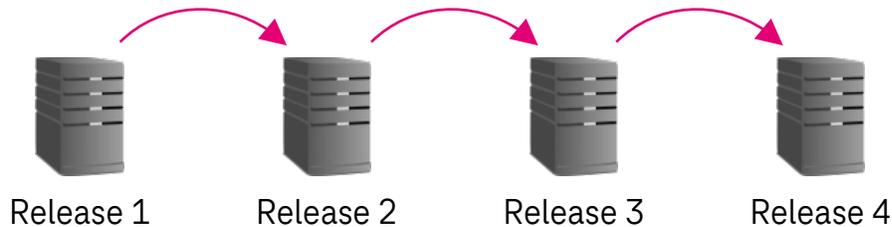frequent updates

Fix of a vulnerability

Evaluation and Assessment in Combination is Key

Equipment evaluation

Network Product

snapshot in time of the security posture

Dynamicity in development

Release 1   Release 2   Release 3   Release 4

frequent updates

Fix of a vulnerability

Evaluation of network equipment

+

Assessment of vendor processess

Assessment of Equipment Vendors' Processes

NESAS

Equipment vendor

Secure development

Maintenance of equipment security
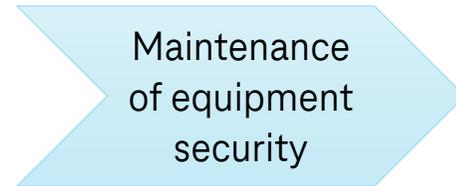
Security in vendor processes built in

- **Encourages security-by-design culture**
- **Vendors demonstrate they develop and maintain products with security in mind**
- **Processes of the vendor have built-in security controls**
  - Product development
  - Product maintenance
- **Assurance covers (excerpt):**
  - Secure implementation
  - Security testing
  - Vulnerability management
  - …

Key Take Aways for Operators

NESAS benefits for operators

- **Visibility of security posture of network equipment during vendor selection phase**

- **Security testing by operators can focus on deployment specifics**

- **Vendor assessment assures vendors have process in place to maintain product security during development and product lifecycle**

What operators should do to benefit from NESAS

- **Demand NESAS in procurement process**