



Security Conference

DevSecOps in Telco:

Full Lifecycle Management of
Security Tools for Better R&D

Presented by: [Luca Bongiorno](#)

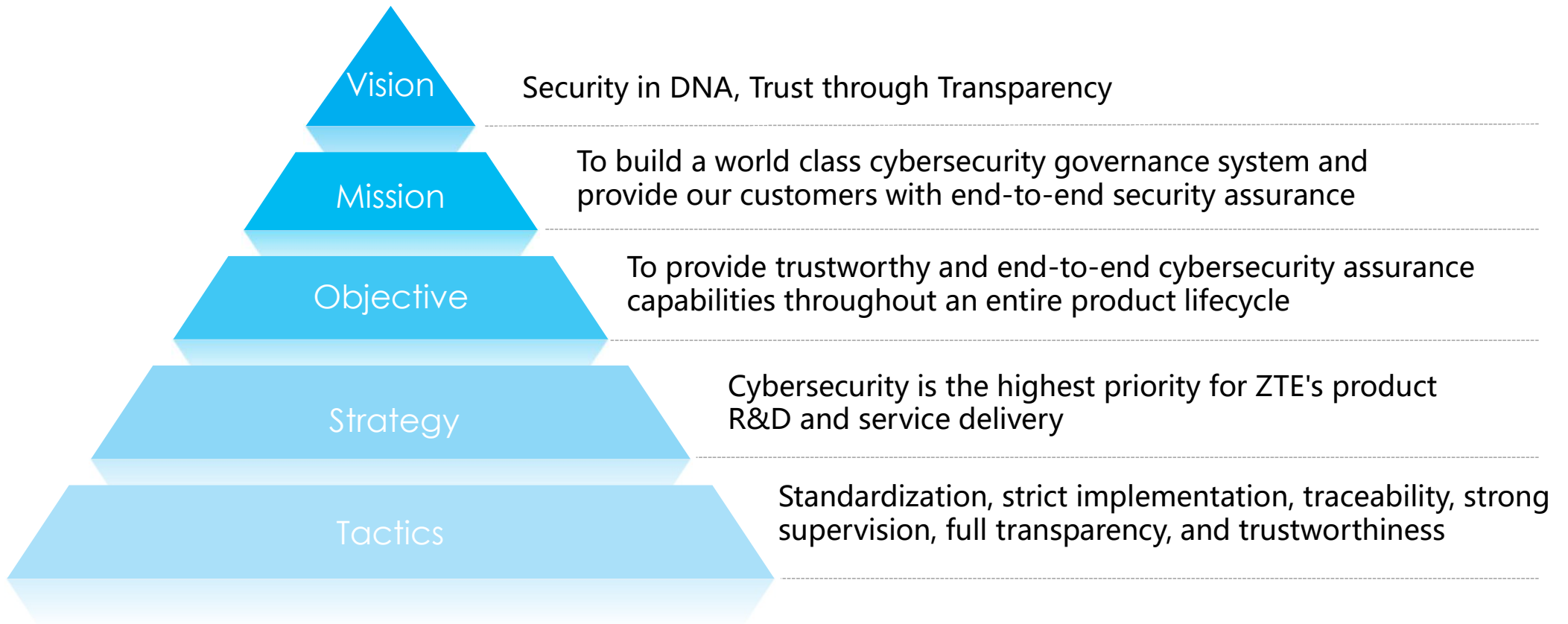


Security in DNA, Trust through Transparency

17 October 2023



Vision and Mission of ZTE Cybersecurity



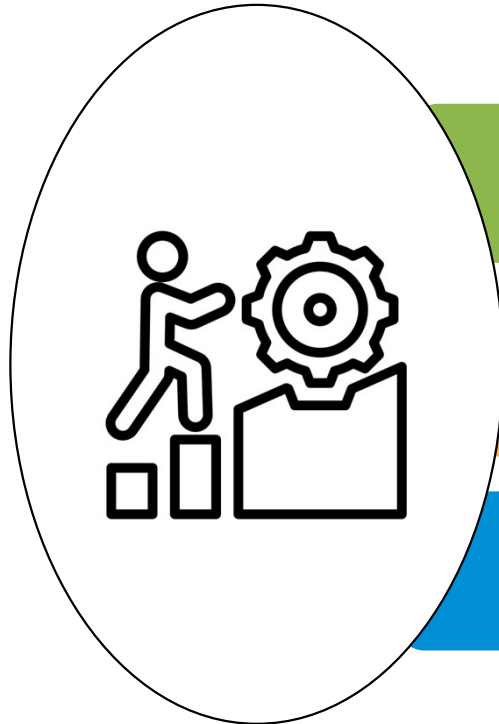
ZTE

Contents

- DevSecOps in ZTE
- Security Tools - Lifecycle Management & Reliable Use
- Telco's Case Study
- Conclusion



Status Quo of DevSecOps in Telco

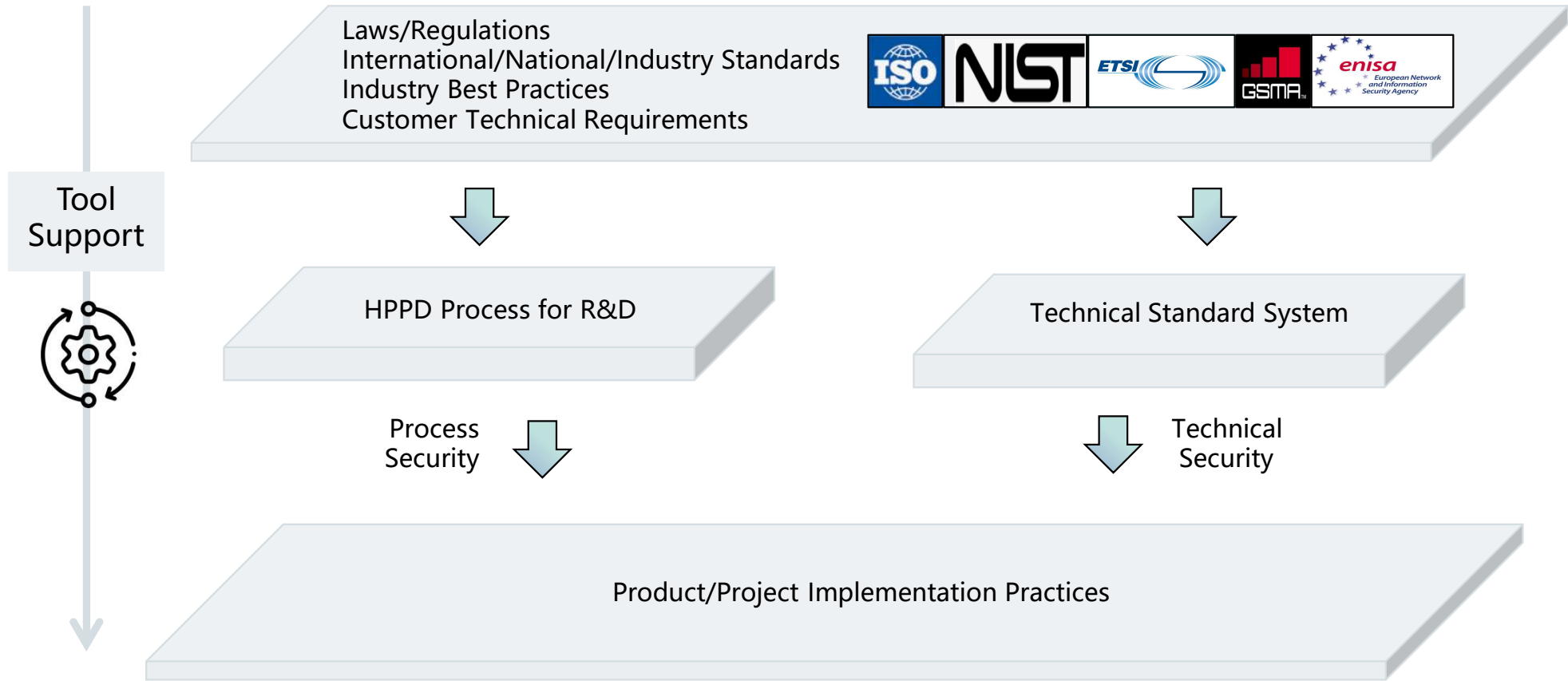


Transitioning from DevOps to DevSecOps brings changes.

ICT complex product categories requires customized pipelines to facilitate automation.

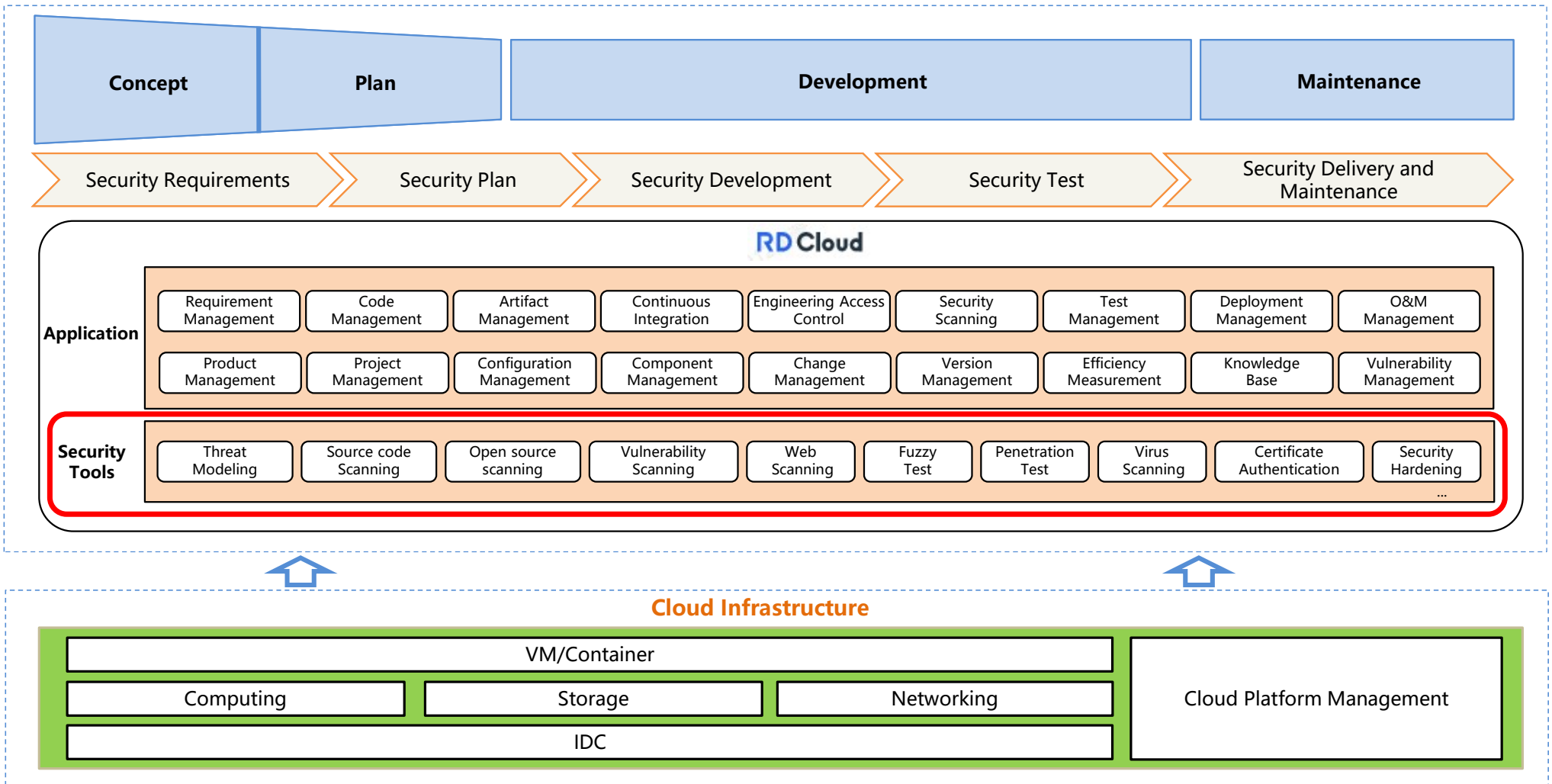
Vulnerability scanning tools only find known Issues. Not all business needs can be covered by current commercial tools.

From Up to Bottom, Process Security & Technical Security



*HPPD - High Performance Product Development: ZTE's product development lifecycle processes

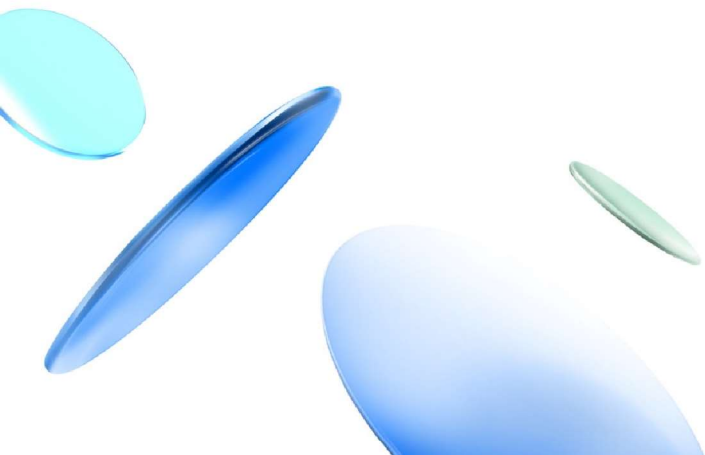
Digital Infrastructure Supports the Entire R&D Process



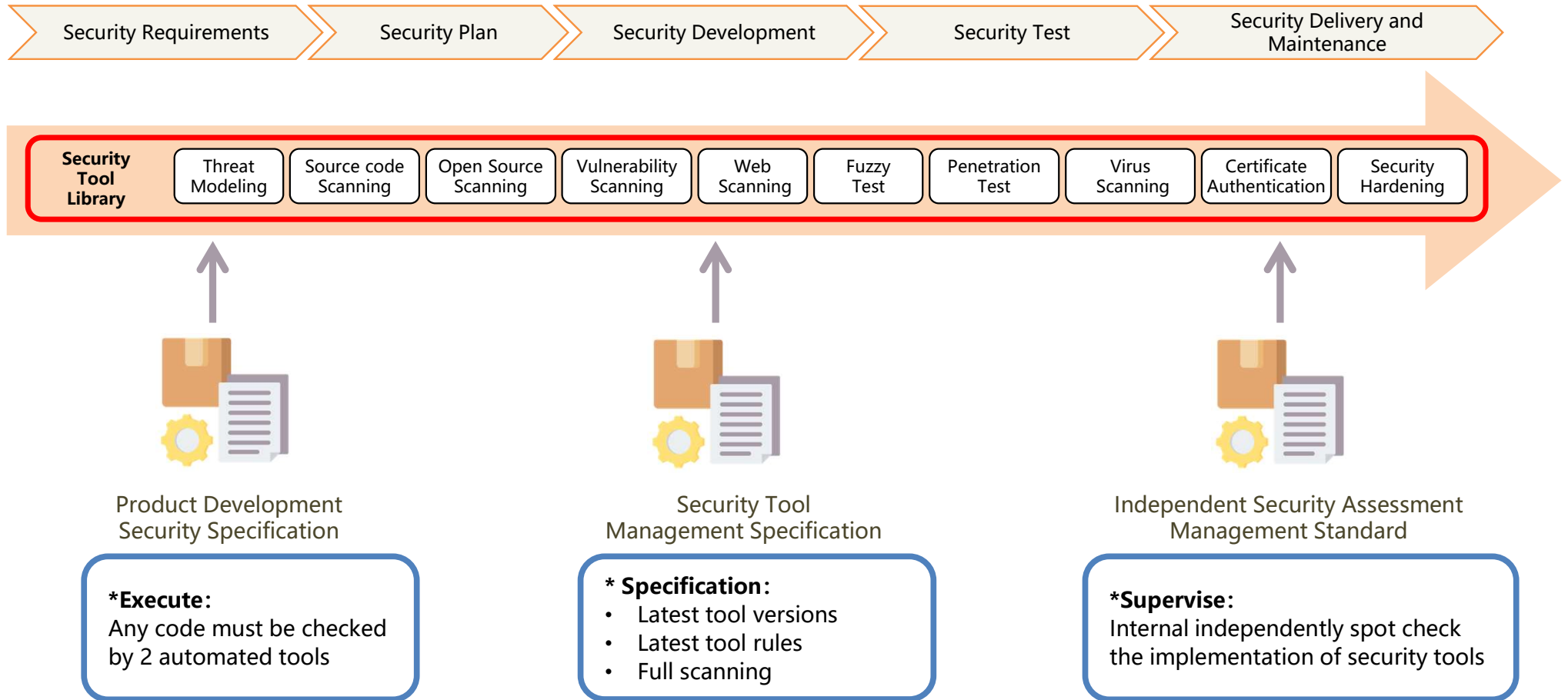
ZTE

Contents

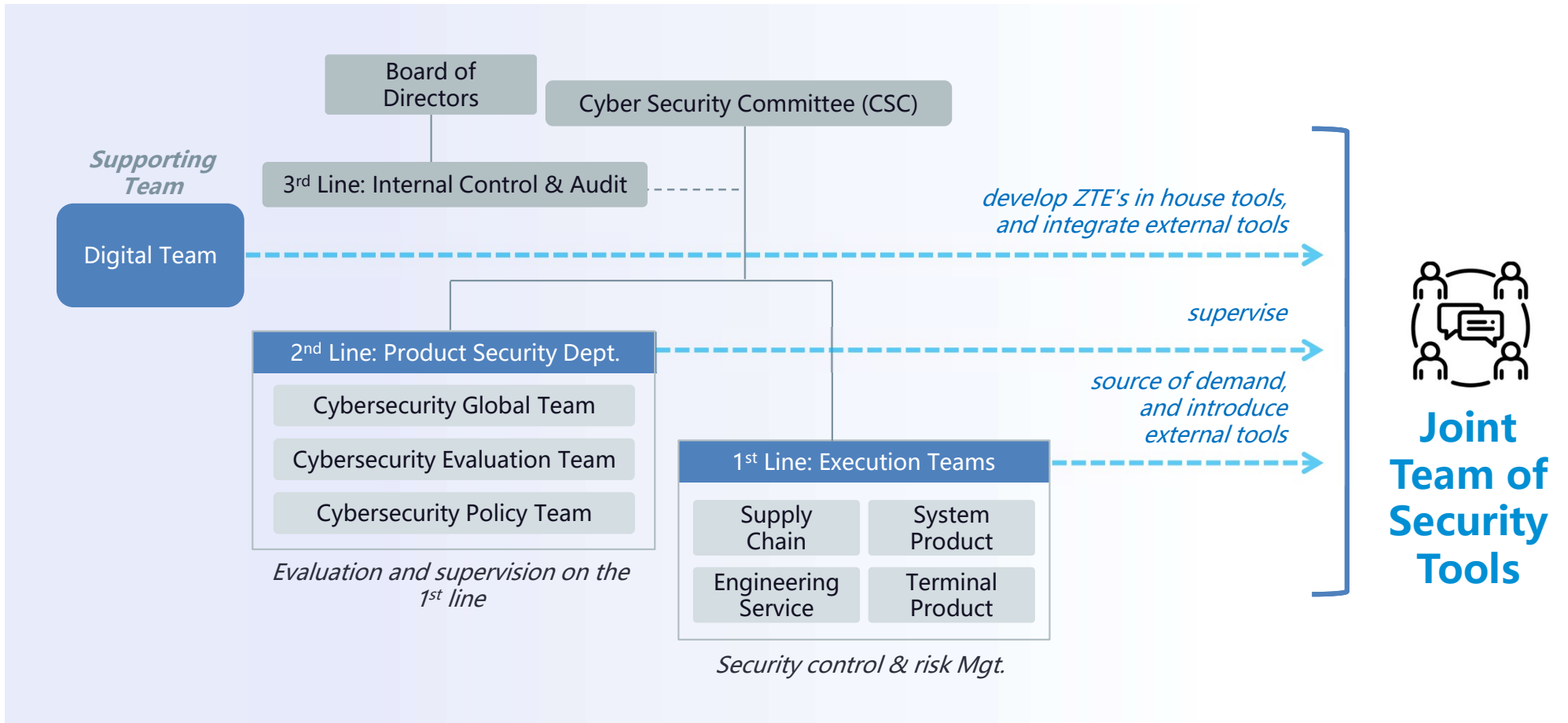
- DevSecOps in Telco
- **Security Tools - Lifecycle Management & Reliable Use**
- Telco's Case Study
- Conclusion



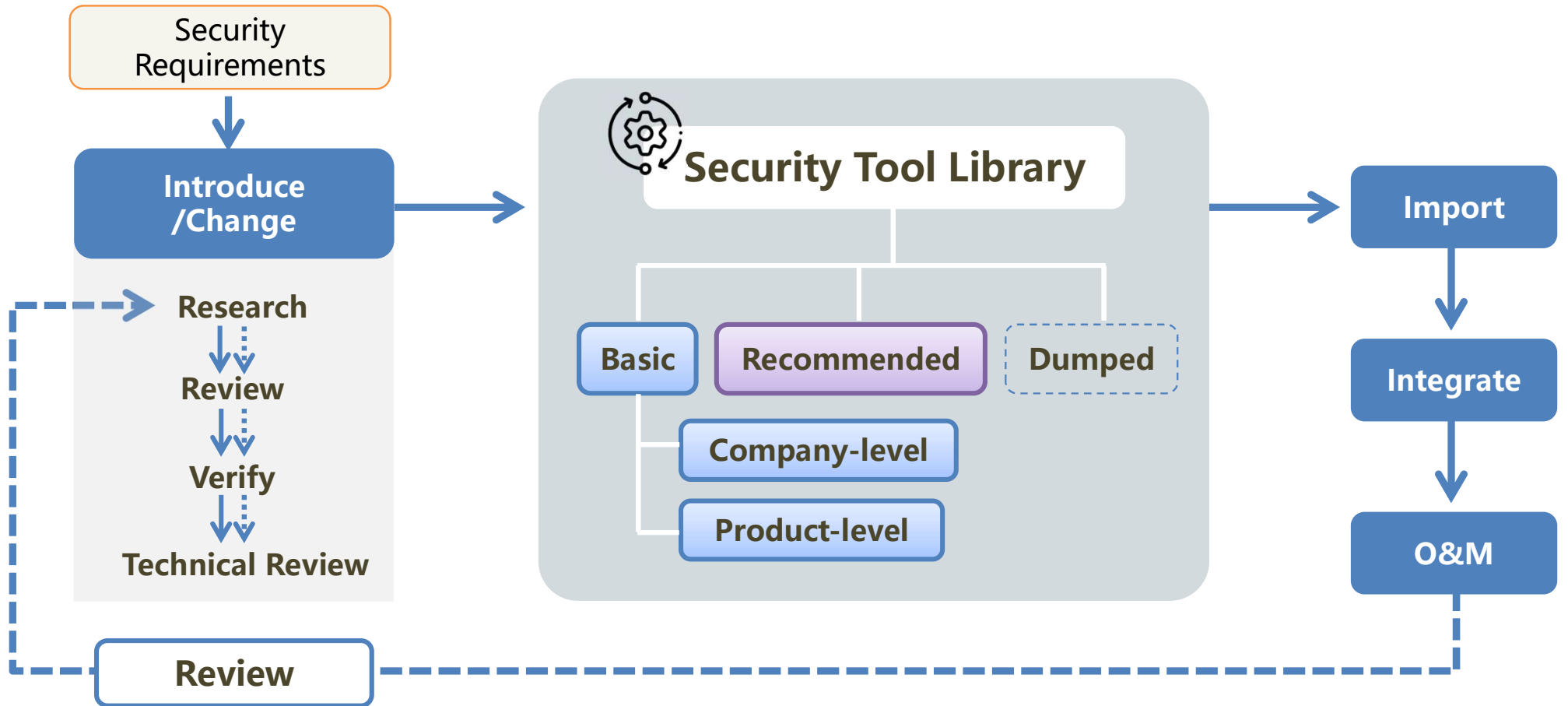
Full Lifecycle Covered, Reliable Use



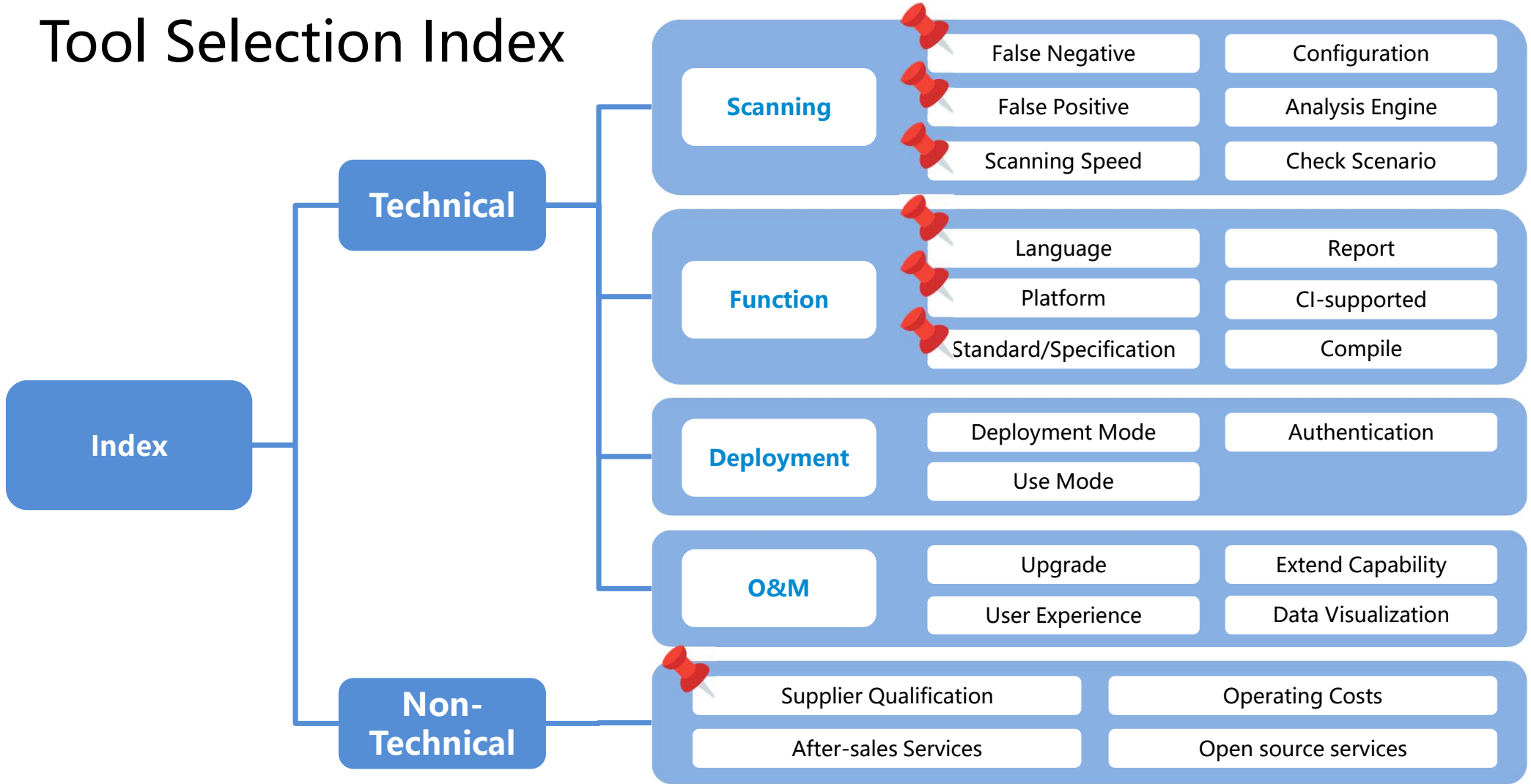
Joint Team for Security Tool Management



Lifecycle of Security Tool Management



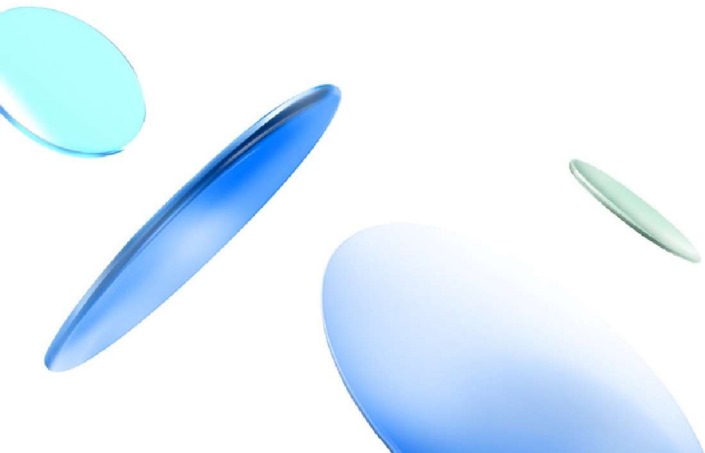
Tool Selection Index



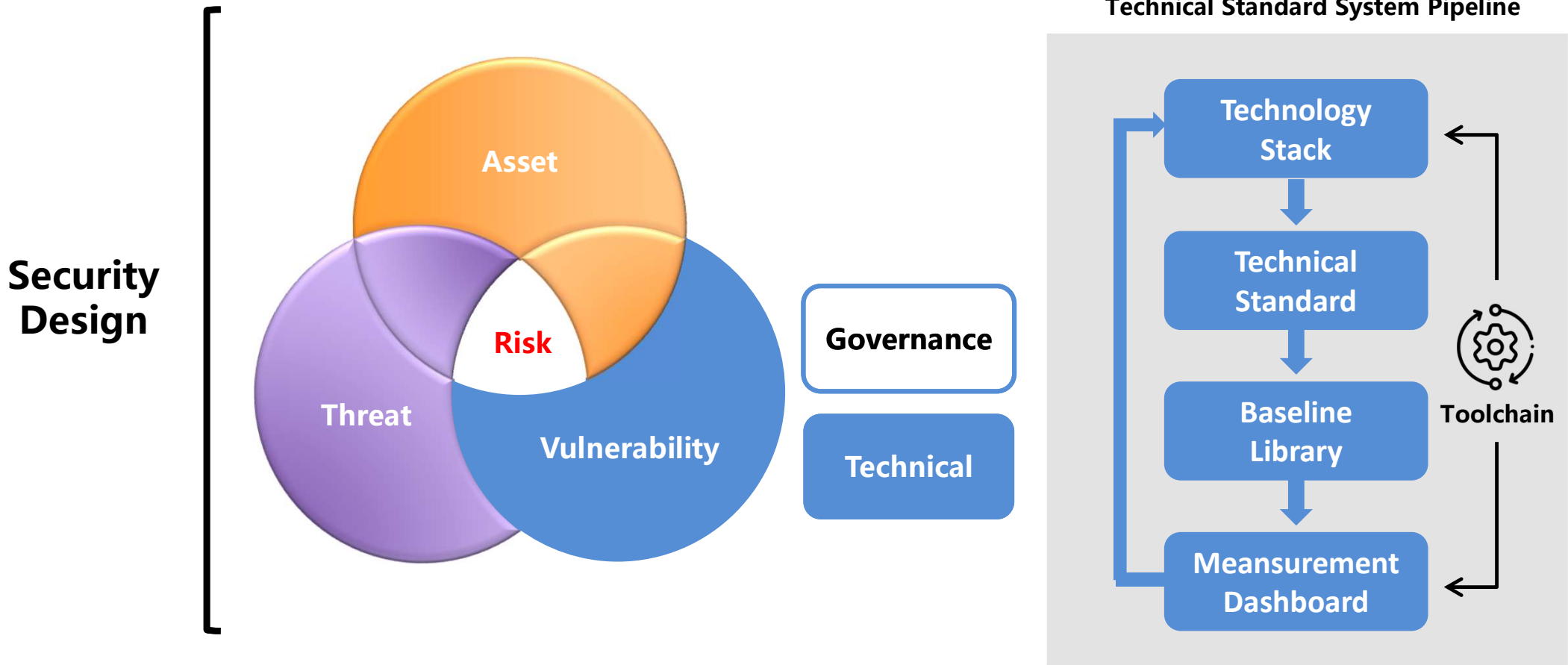
ZTE

Contents

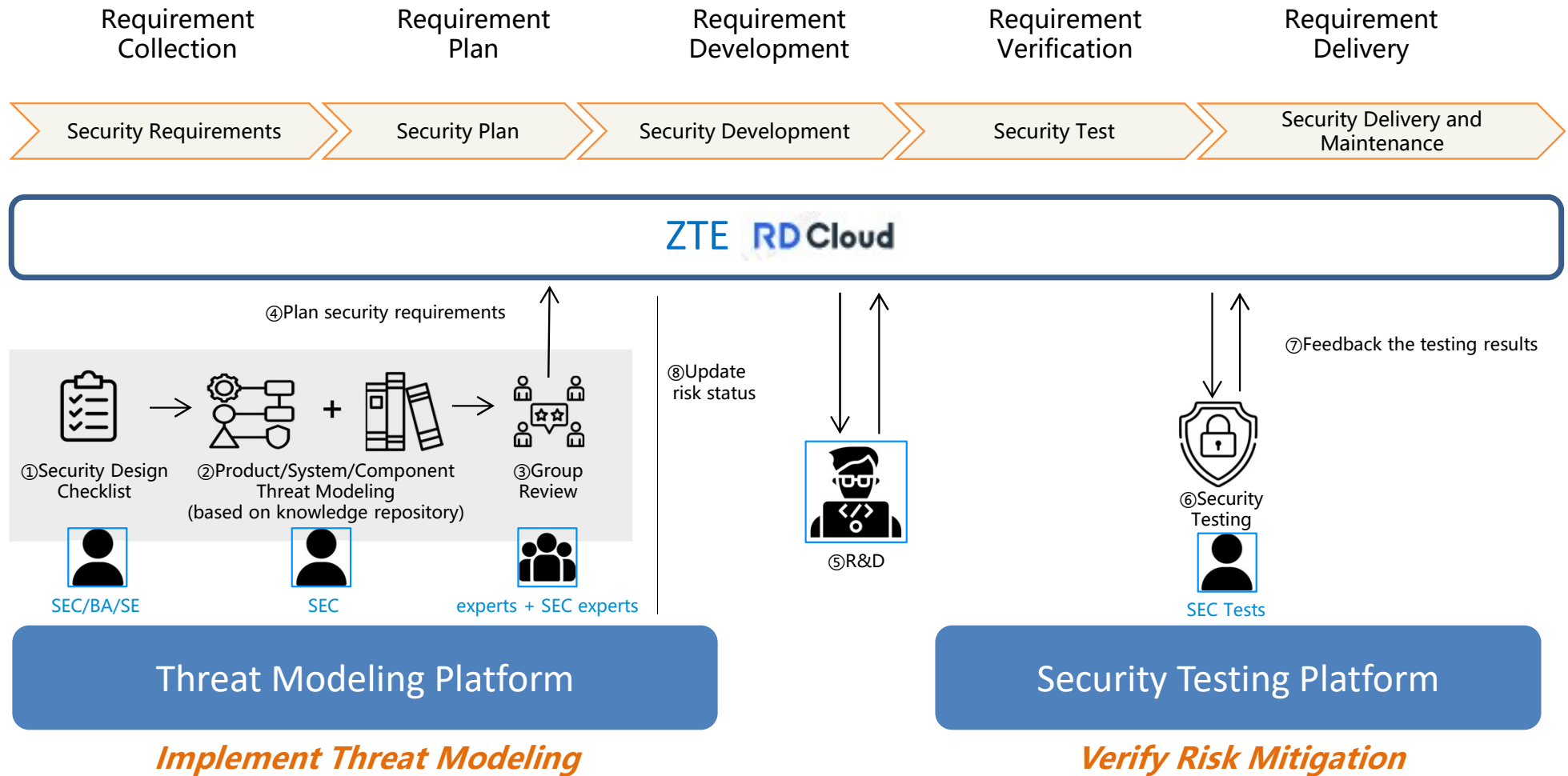
- DevSecOps in Telco
- Security Tools - Lifecycle Management & Reliable Use
- **Telco's Case Study**
- Conclusion



Telco's Case 1: Technical Standard System Toolchain



Telco's Case 2: Threat Modeling Implementation & Verification

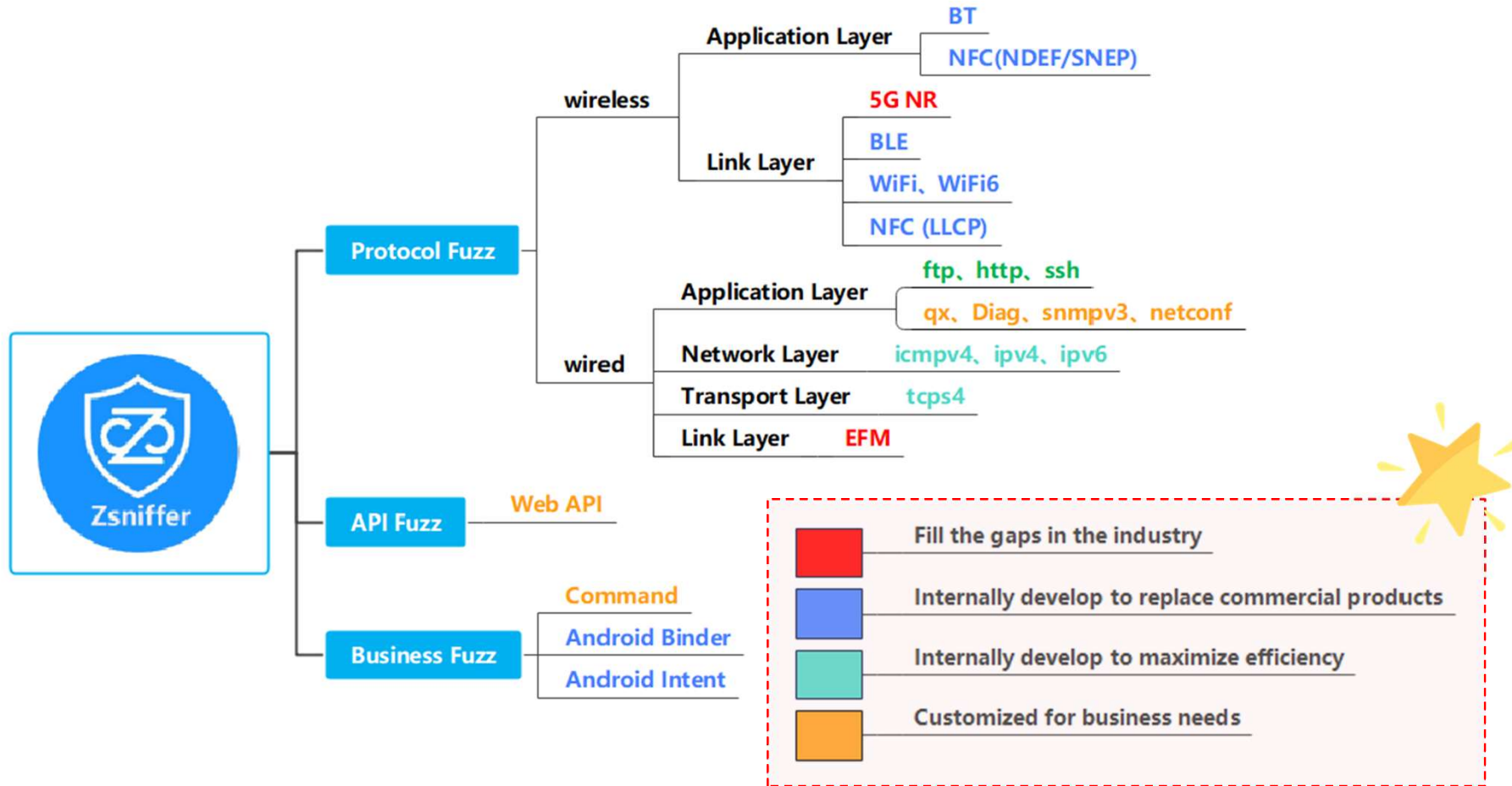


Telco's Case 3: Customized CI Pipeline

Target	Scope of Protection	Verify CI	Gate CI	Merge CI	Version CI
Module /Component	Code Submission	√			
	Code Programming	√			
	Code Compile	√	√	√	√
	Code Static Scanning	√	√		√
	Code Duplication	√			
	Cyclomatic Complexity	√		√	
	Incremental UT/FT Coverage	√			
	UT/FT/CT Pass Rate	√	√	√	√
	ST Pass Rate		√	√	√
Version	System Scanning				√
	Virus Scanning				√
	Autoregression				√
	Open Source Scanning				√
Product	Joint Products Autoregression				√

*Note: The scope of protection items can be customized chosen according to requirements.

Telco's Case 4: ZTE's in-house Fuzzing Tool



Zsniffer

Black gray box fuzz test platform



Product introduction

Product advantages

frequently asked questions



📄 Changelog

📞 Contact us

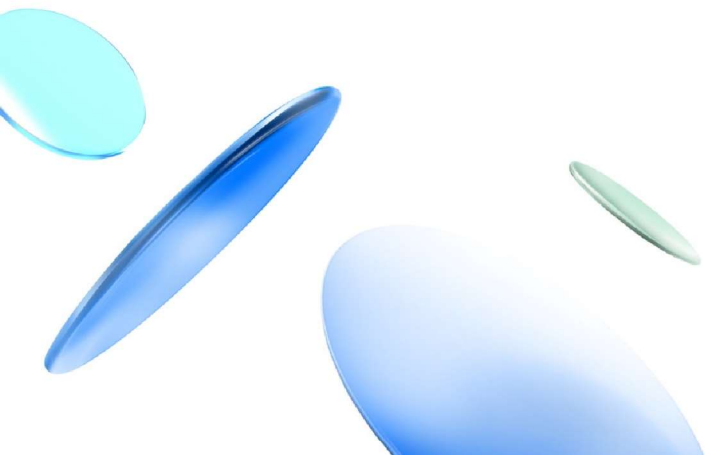
👥 Join us

- Front page
- API
- Wire protocol
- Wireless protocol
- Business fuctions
- 5G NR protocol
- project management
- System administra...
- Rights management
- System monitoring
- System tools

ZTE

Contents

- DevSecOps in Telco
- Security Tools - Lifecycle Management & Reliable Use
- Telco's Case Study
- **Conclusion**



Using Tools for Efficient and Secure R&D



**Efficiency
Improvement**



**Secure by Design
Secure by Default**

Security in DNA, Trust through Transparency

THANKS

