Performance in a Showcase

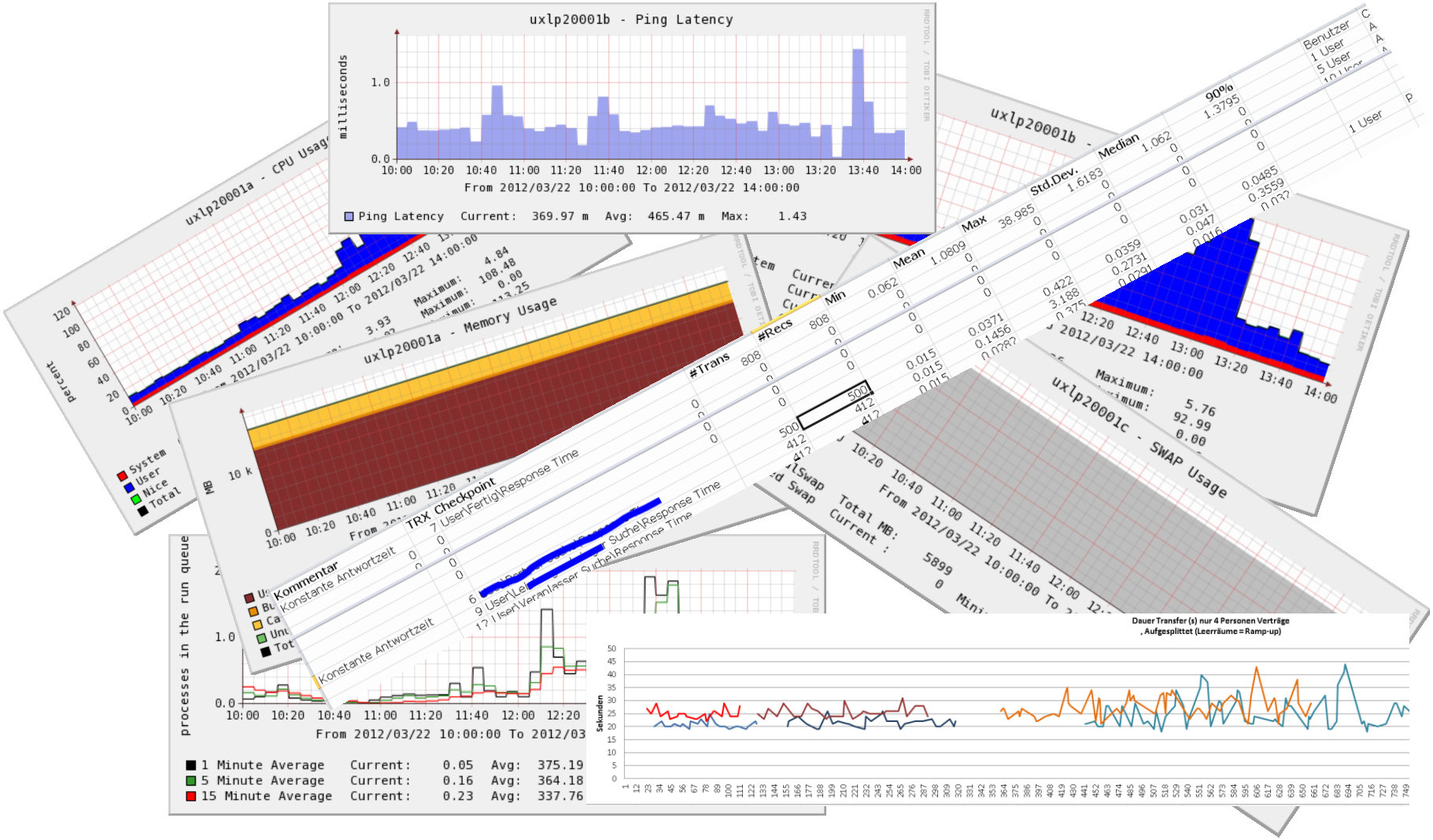
Login into an App Ecosystem

Patrick Eichhorn

Riga 2015

STB
Swiss Testing Board

What you think it is…?



Swiss Testing Board

Agenda

- Performance Definition and its effects
  - Performance is an emotional fact business
  - Stakeholders in Performance Testing
- Performance Process Setup
  - Lifecycle e.g. CMMI and the real world
  - Performance Hype Cycle in a project and for the product
  - Creating Performance Test Strategy (toolbox)
- Performance Attributes Run
  - Evaluation of methods under test (magic quadrant)
  - From UI to Backend – Performance (portfolio optimization)
  - Focussing on heterogene environments, parallelism, scalability, portability
- Performance Evaluation and Acceptance
  - Conclusion and Interpretation of Measures and Metrics
  - Take aways

Swiss Testing Board

Performance

Login
Logout
Register
Password Change

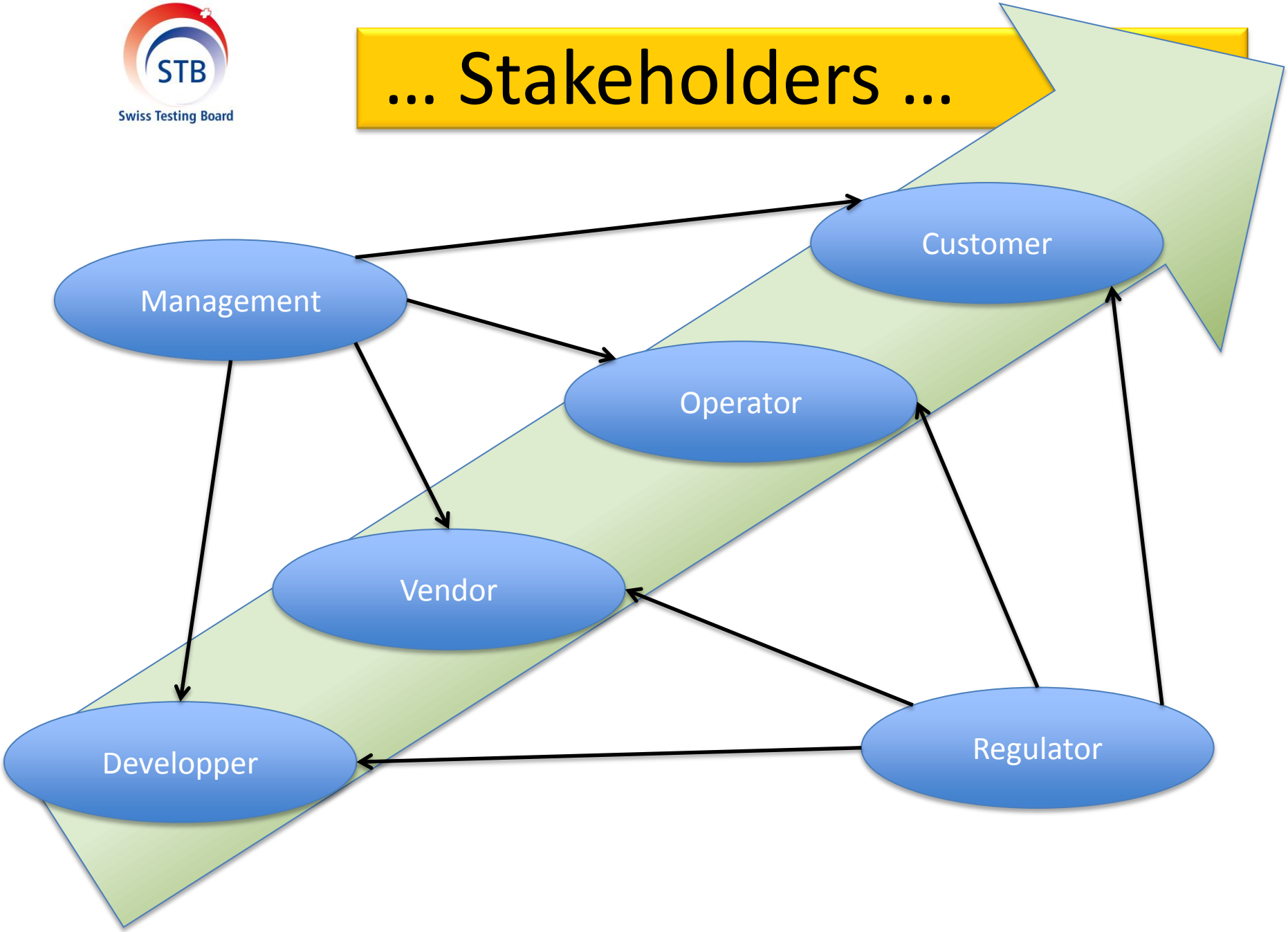
Definition ISTQB:

- A General testing performed to determine how a system performs in terms of responsiveness and stability under a particular workload.
  It can also investigate, measure, validate or verify other quality attributes of the system, such as scalability, realiability and resource usage.

Load testing
Stress testing
Soak testing
Spike testing
Configuration testing
Isolation testing

Swiss Testing Board

… Stakeholders …



Swiss Testing Board

Performance

Login
Logout
Register
Password Change

In the real world, management defines it this way:

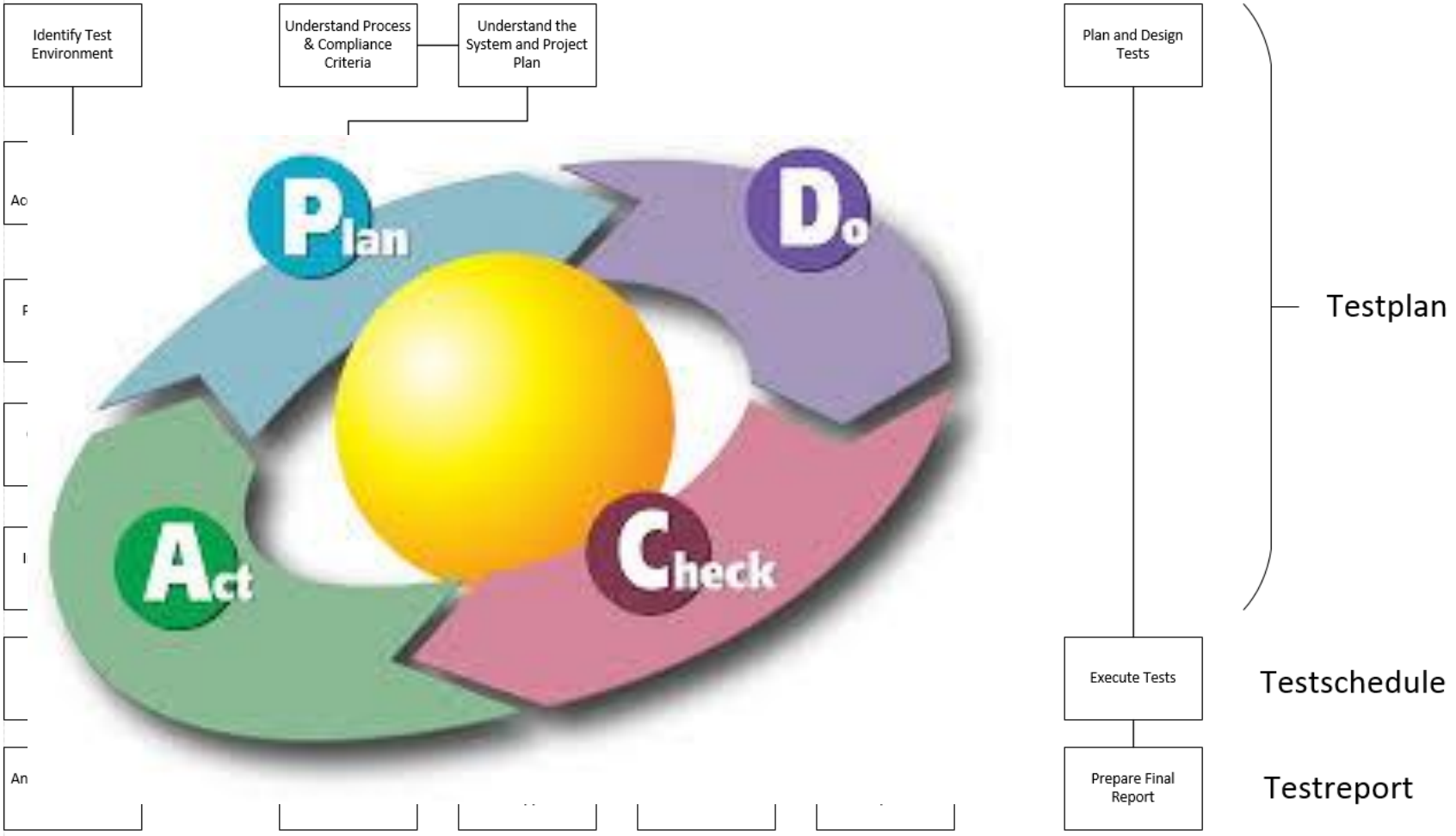
- By same or lower investment, 20% deeper maintenance costs, we got more functionality with 10% decrease of answer times against the former system by same reliability and robustness of the system.

Testmanager is now very happy – at least a clear objective….

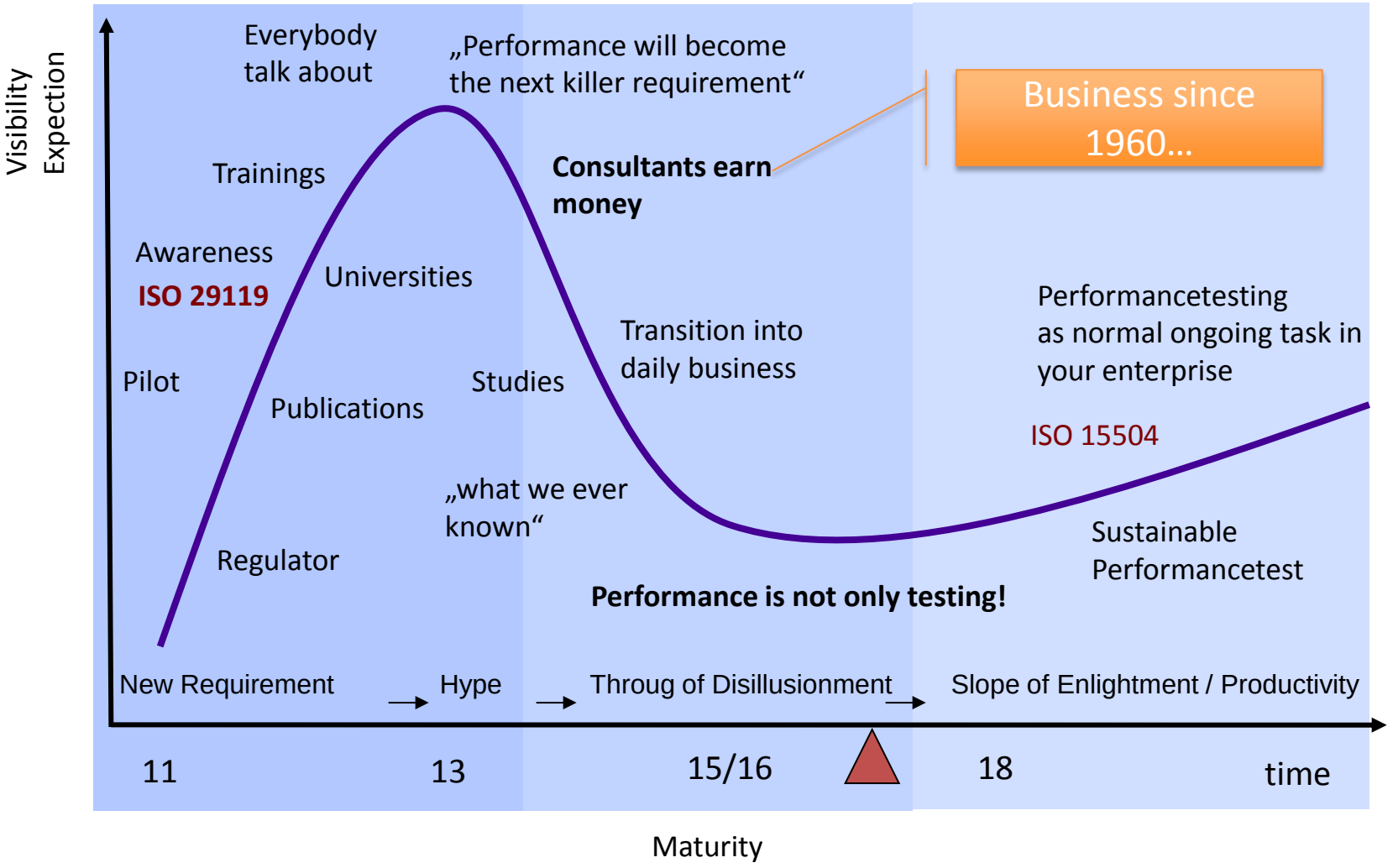
Swiss Testing Board

Process Setup

Login
Logout
Register
Password Change



Testing Hype



Swiss Testing Board

Test-Strategy

Login
Logout
Register
Password Change

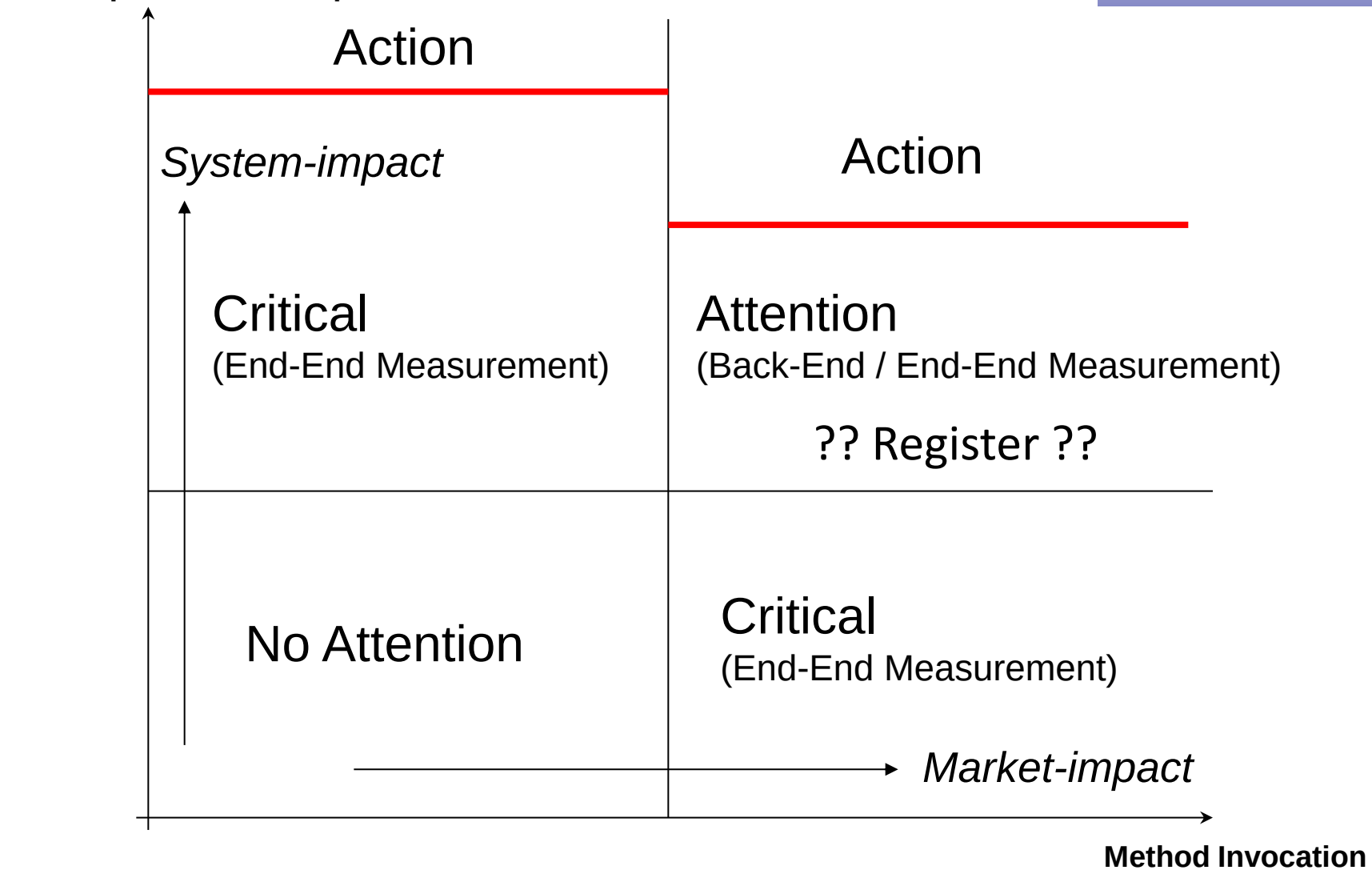
Rating	Green-Factors	Integration	Performance	Usability	Functionality	Control	Continuity	Security	
5		+		+	+	+		+	io @ home
5		+		+	+	+		+	io windows
24	+	+++	++	++++	++++	+++	++	+++	io ios
19	+	+++	+	++++	++++	++	+	+++	io android
14	+	++	+	+++	+++	++	+	++	io commercial
5		+		+	+	+		+	io connect abo
29	+	++++	++	++++	++++	+++	++	++++	Gesamt-system
100.00	3.571429	14.285714	7.14286	21.4285714	21.42857143	10.7142857	7.14285714	14.2857143	Relative Bedeutung

Mainly one question:

….. What is more important?

Definition

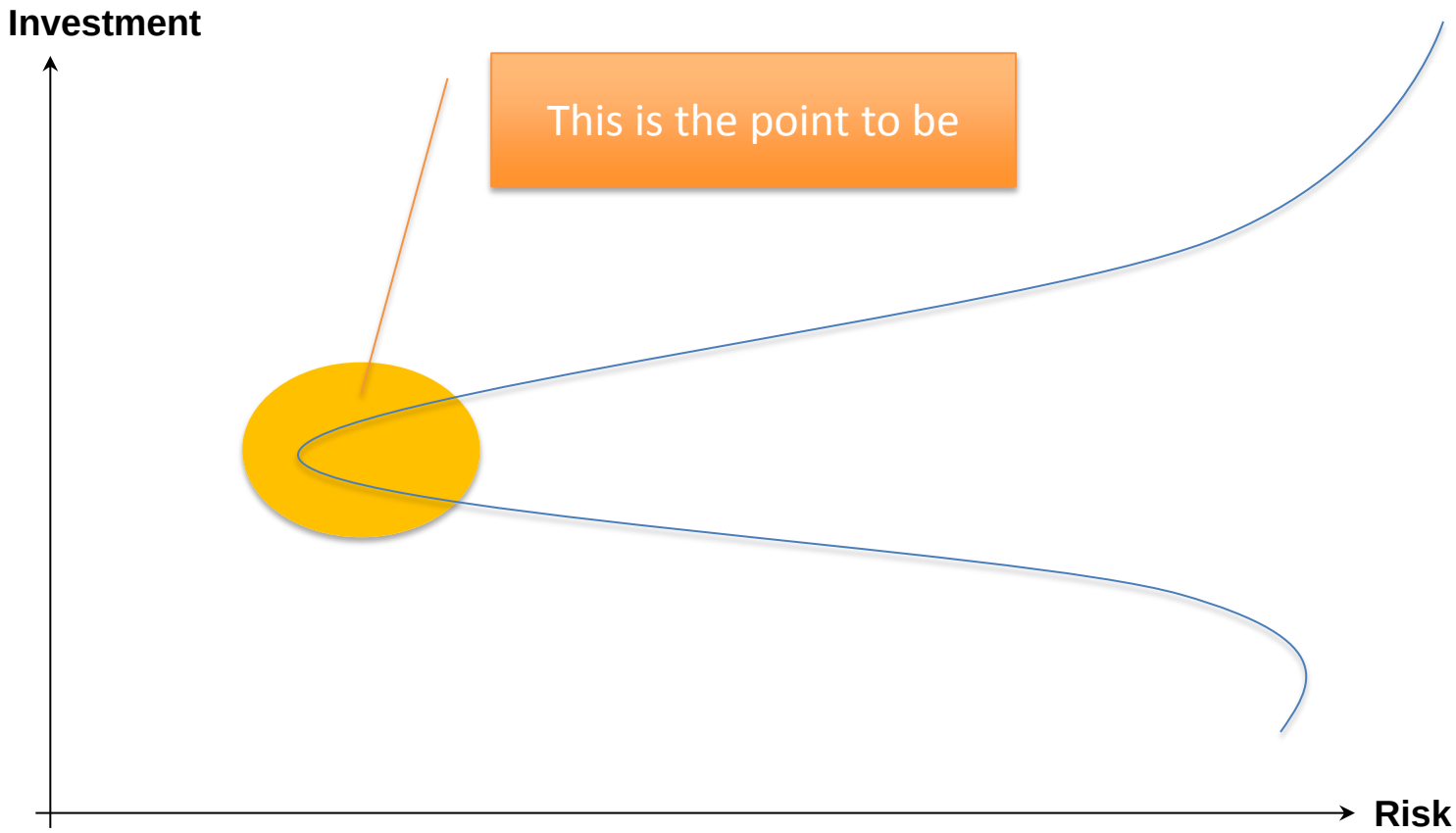
Login
Logout
Register
Password Change



Stop here…

Login
Logout
Register
Password Change

with the critical functions……

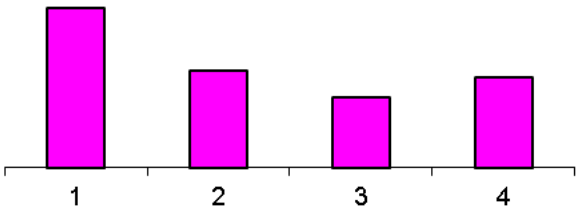


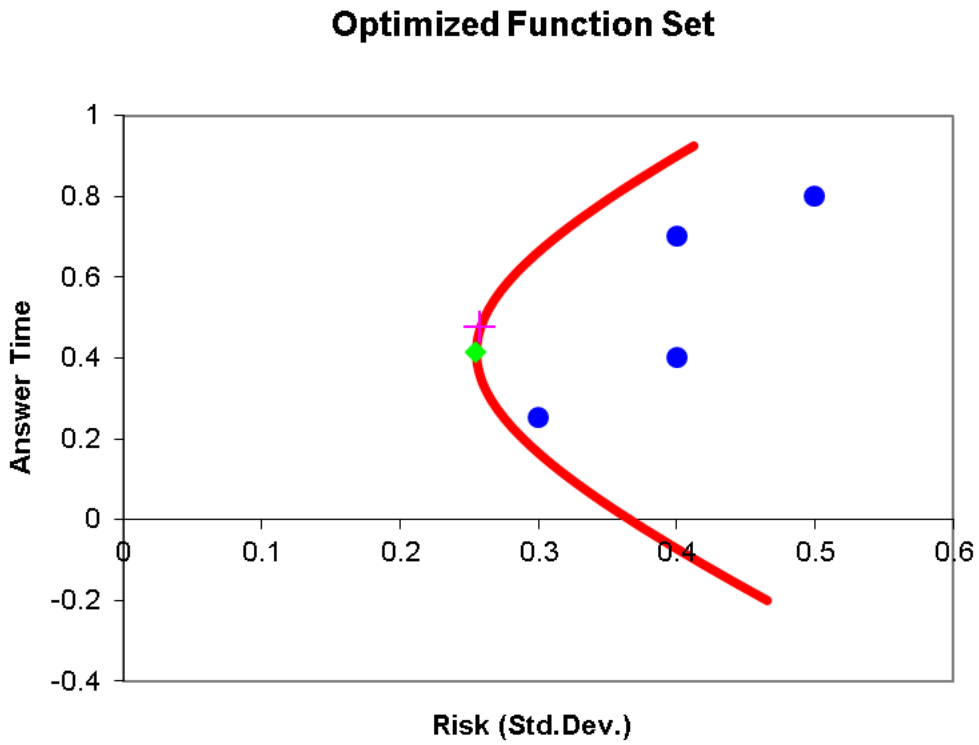
Risk appetite

Login
Logout
Register
Password Change

Correlated function set

	Expected	Std.Dev	
Login	0.25	0.3	
Logout	0.4	0.4	
Register	0.8	0.5	
Password Change	0.7	0.4	
Correlation	0.5		
Rauschen	0.2	about 0	



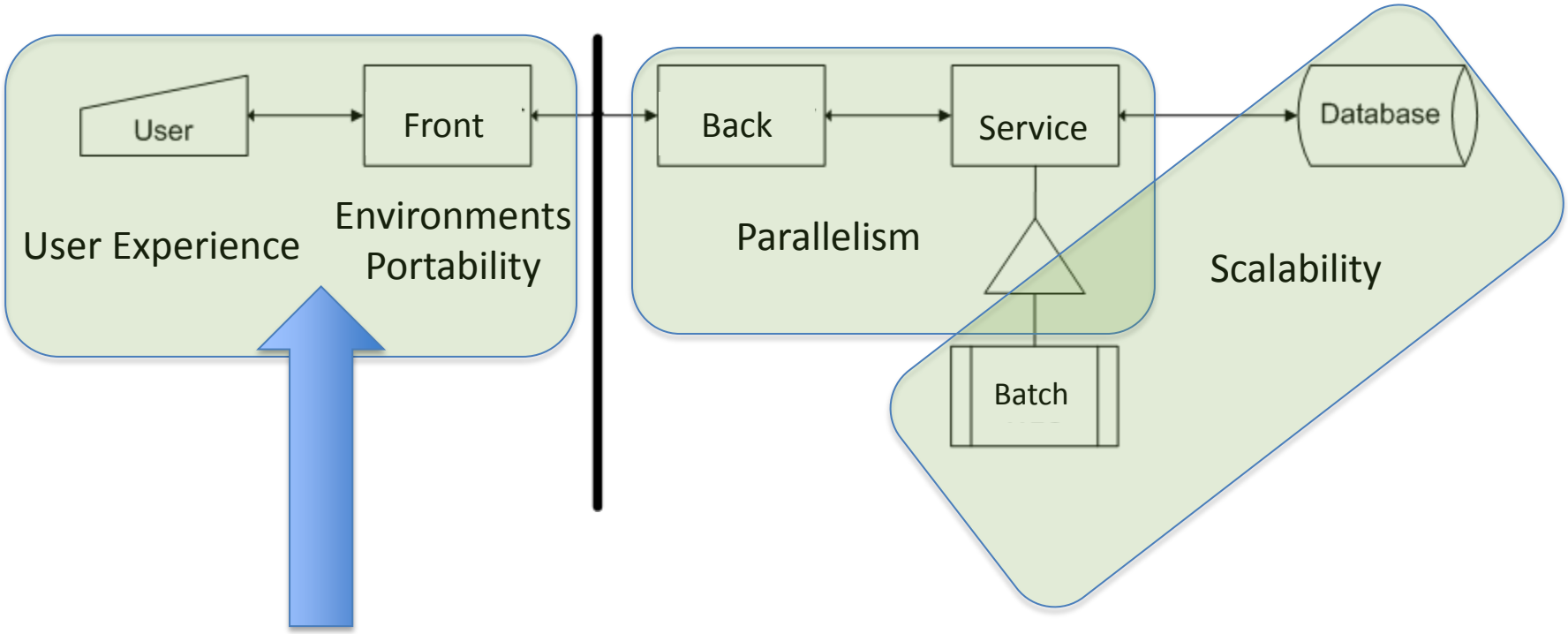


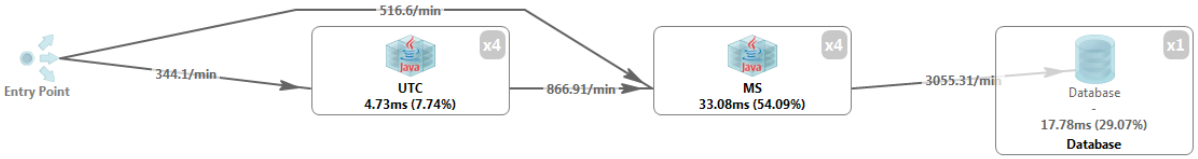
StdDev of measured answertimes = Risk
Expected = Average time in case of Median is in range of StdDev
Acceptance on base of optimized function set

Swiss Testing Board

Overview

Login
Logout
Register
Password Change

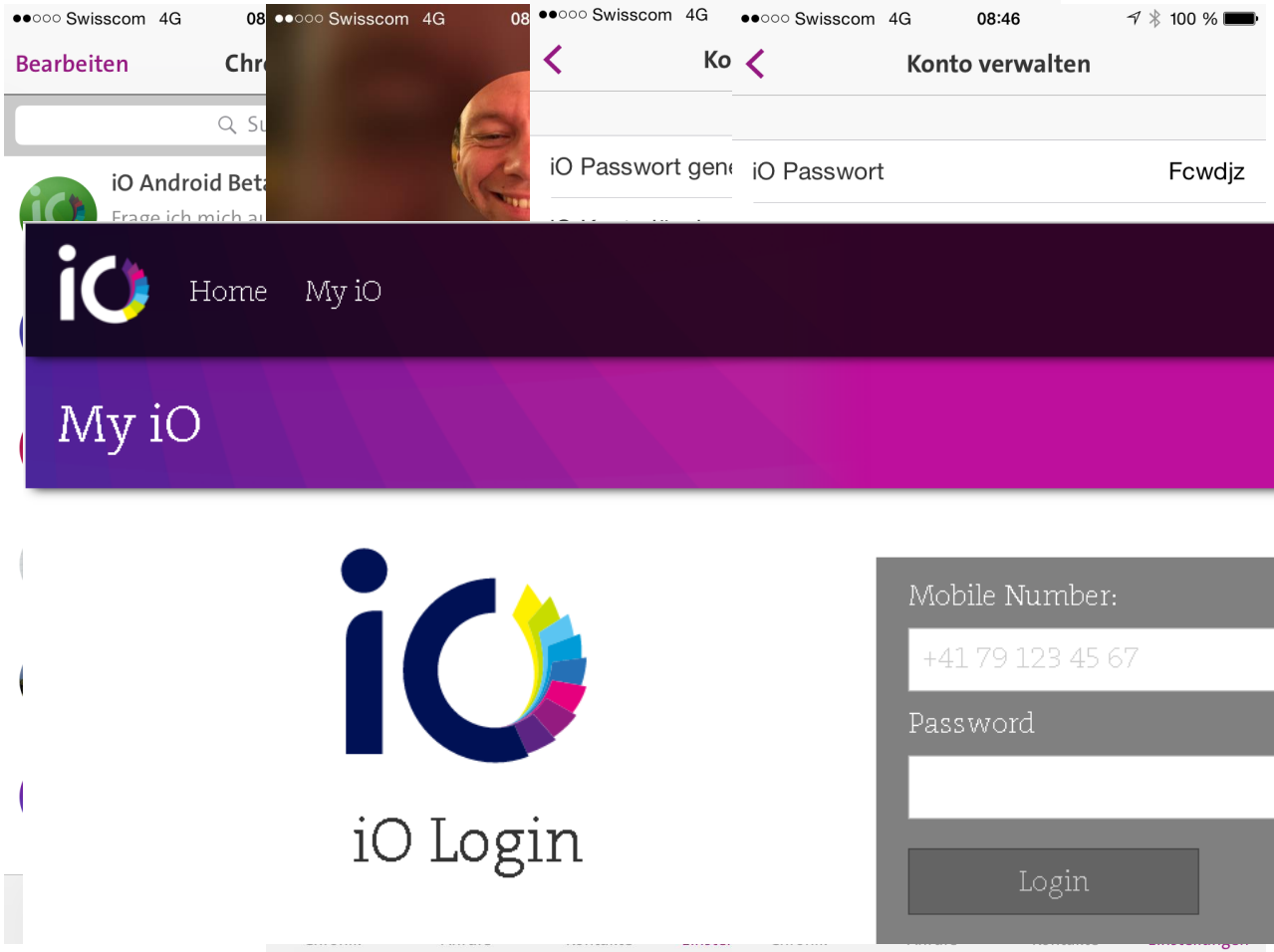




Swiss Testing Board

User Experience

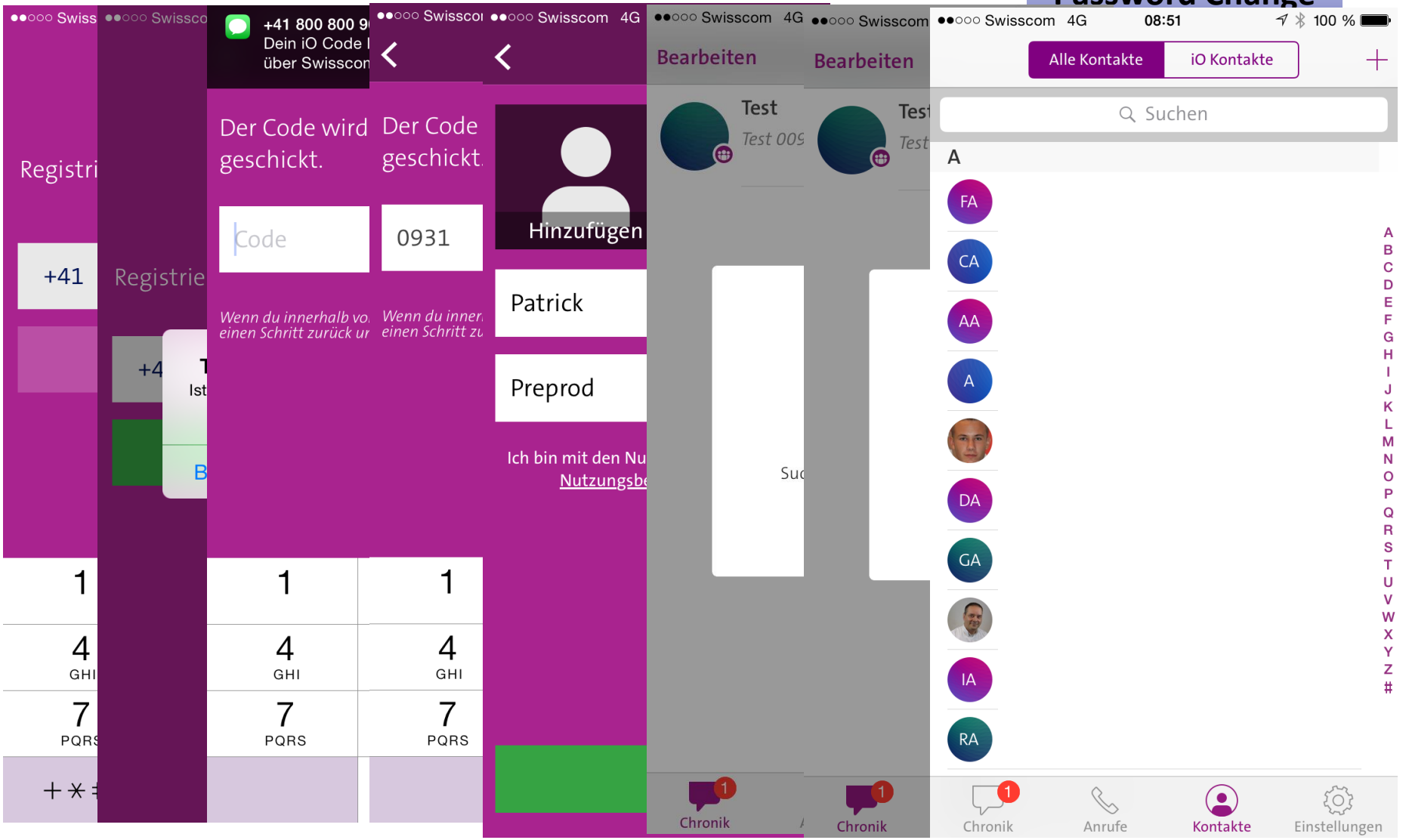
Login
Logout
Register
Password Change



Swiss Testing Board

User Experience

Login
Logout
Register
Password Change



Swiss Testing Board

Take away…

Login
Logout
Register
Password Change

Dont's

- Functional tests under load
- Demonstrate accurate performance (Targeting)
- Non production like environments (not data!)
- Monitor the hell
- Bash the system
- Starting tests too early
- Pressing tests through
- Endurance of one hour
- Follow the method
- Assurance understanding your needs…

Thanks

Patrick Eichhorn

- **BSc in Economics**
- **MAS Business Information Mangement**
- **Experience in Medtech, Pharmaceutical, Banking and Telco Industries since 20 years**

Patrick.Eichhorn@swiss-testing-board.org

@linkedin