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We test mobile apps and websites.
We call that crowdtesting.

Testing software the crowdsourced way –
How to enhance software quality by utilizing real
people and real devices

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Successful with a strong technical background

Formation	✓ Founded 10/2011 ✓ Origins in the enterprise software testing market (automated testing of service desks)
Business objective	✓ Conducting of functional, exploratory and usability testing ✓ (Delivering testing services from the cloud)
People	✓ Head office in Munich, local offices in NL, UK and HU ✓ Strong experience in project management of usability and functional testing projects
Local coverage	✓ D/A/CH, NL, UK and HU ✓ Others on request ✓ Broad range of different test panels and software testers

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What is Crowd testing?

Crowdsourcing

„ … is a process that involves outsourcing tasks to a distributed group of people. This process can occur both online and offline. The difference between crowdsourcing and ordinary outsourcing is that a task or problem is outsourced to an undefined public rather than a specific body, such as paid employees. " (wikipedia.com).
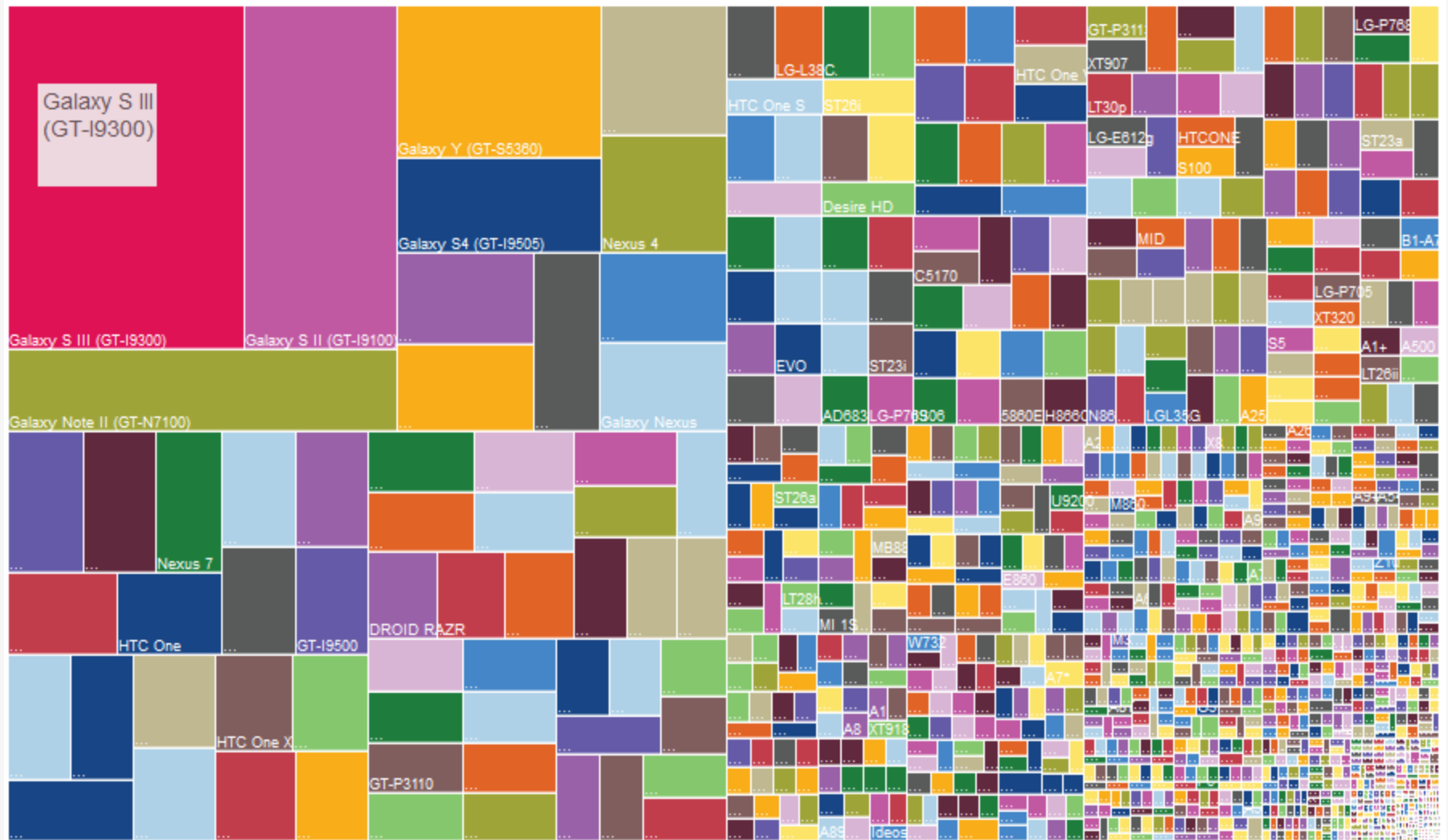
Crowd testing

Software testing / professional QA with „undefined public"?

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Organizational Blindness

Have you really tested everything?

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Device diversity

Do you really have access to every device?
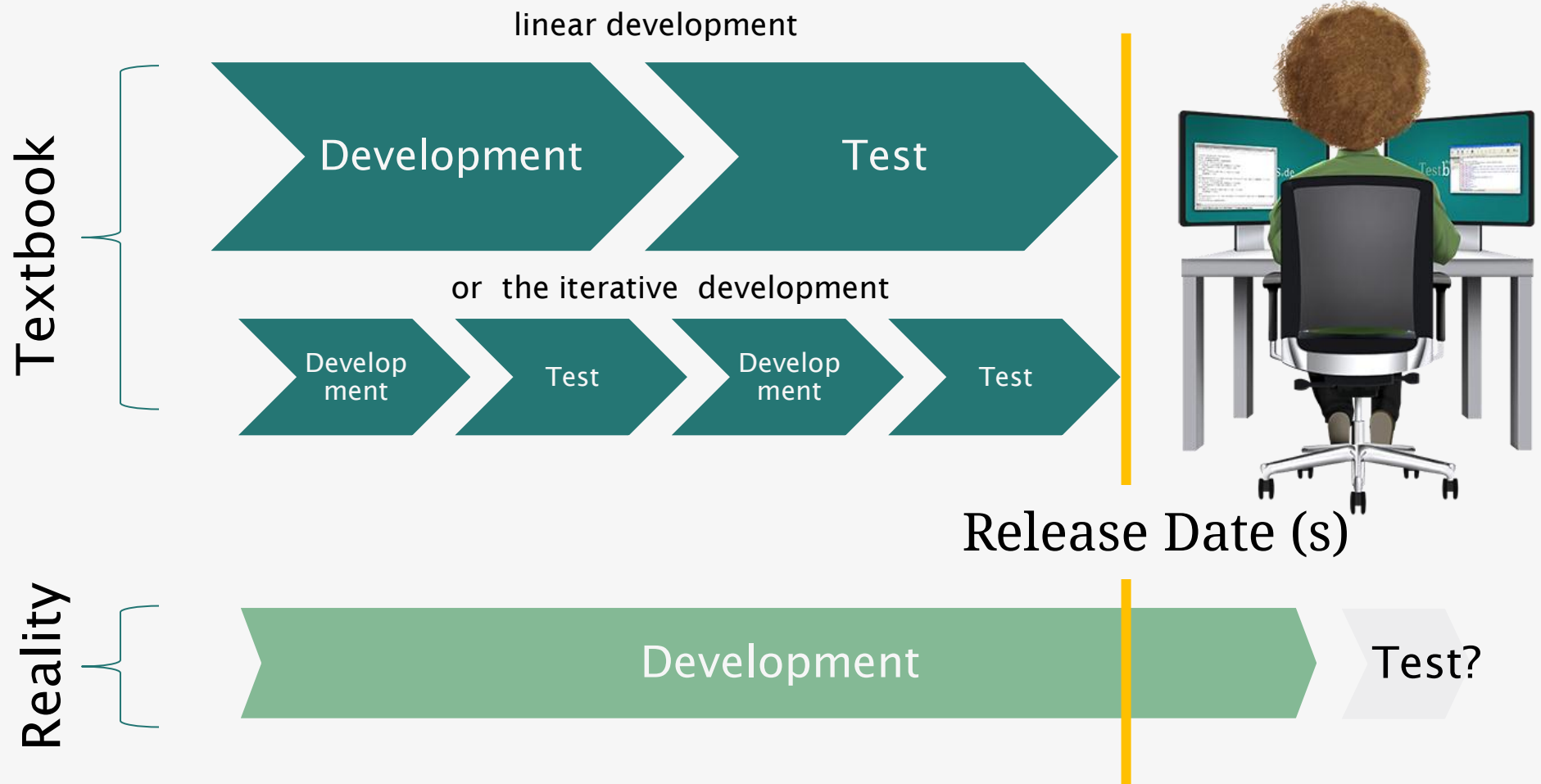
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Target group relevance

Do you know your target group?

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Insufficient tests in practice

Time pressure, lack of detail and project prioritization

linear development

Textbook

Development → Test

or the iterative development

Develop ment → Test → Develop ment → Test

Release Date (s)

Reality

Development → Test?

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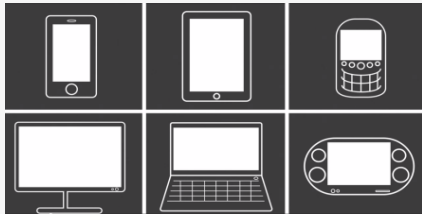
How do we end up with user issues and bugs?

QA, Market Analysis and Time Constraints
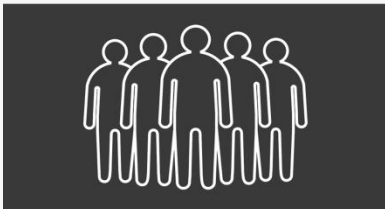
Organizational Blindness
So is everything really fine?
Unbiased users can help you test differently.

Device Diversity
Do you actually have all of these different devices ready to test?

Target Group Relevance
Target groups have different expectations and abilities.

Lack of Resources
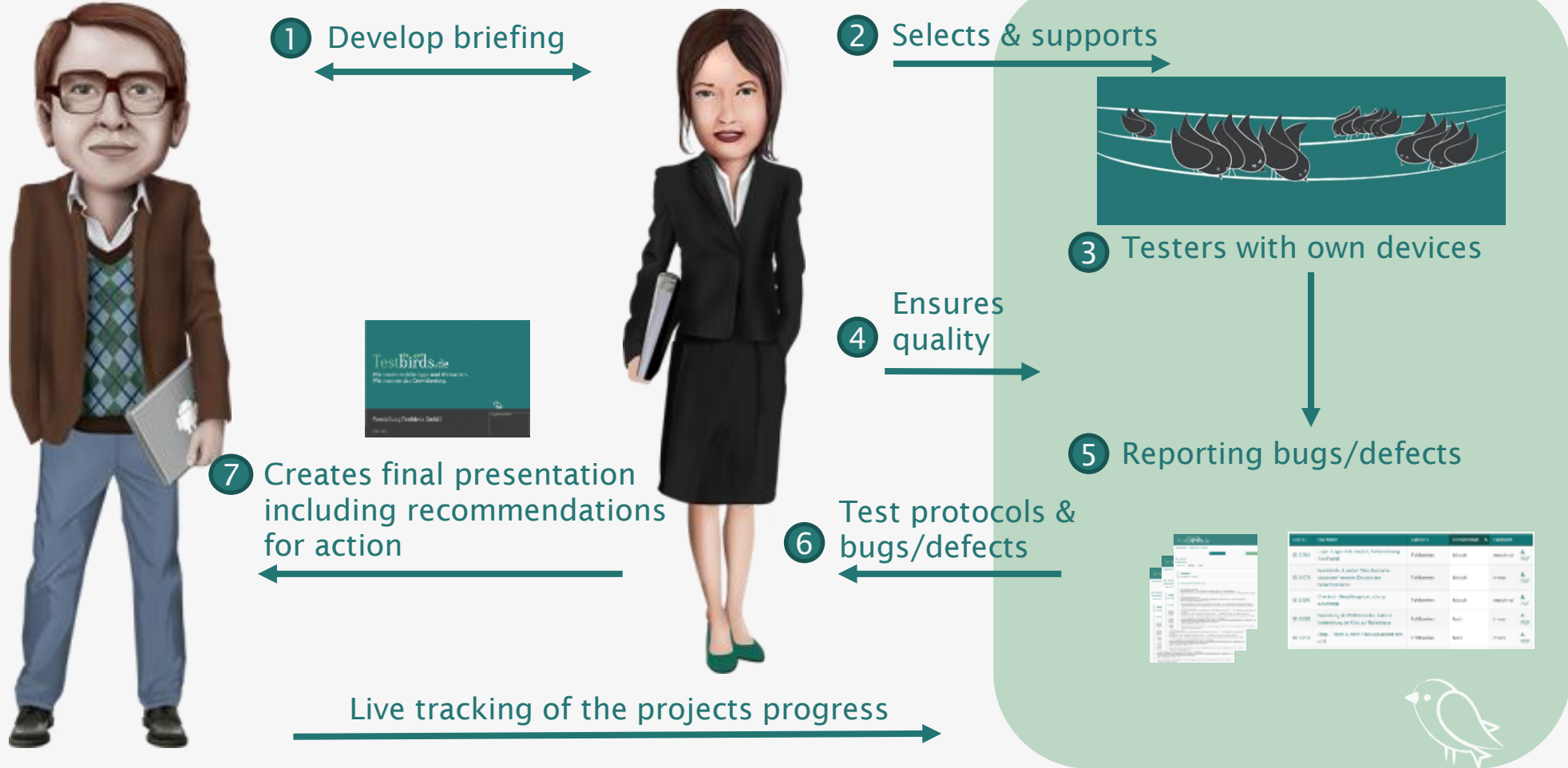Due to time pressure, lack of personal details and priority of other projects.

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The smart solution: Crowdtesting

Customer with new software

Project Manager

Crowd platform

1 Develop briefing

2 Selects & supports

3 Testers with own devices

4 Ensures quality

5 Reporting bugs/defects

7 Creates final presentation including recommendations for action

6 Test protocols & bugs/defects

Live tracking of the projects progress

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Tester & Devices

Our Testbirds Crowd covers all terminal devices and target groups.

Target Groups

✓ Different testing-experience

✓ Students, mothers, managers – we have them all!

Cornelia A. Hausfrau 45 Jahre	Sabine H. Medizin-Studentin 24 Jahre	Hubert S. Teamleiter 52 Jahre
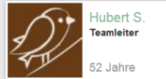
Certified Tester

✓ ISTQB

✓ CAT (Certified agile tester)

✓ Test manager

✓ Project manager

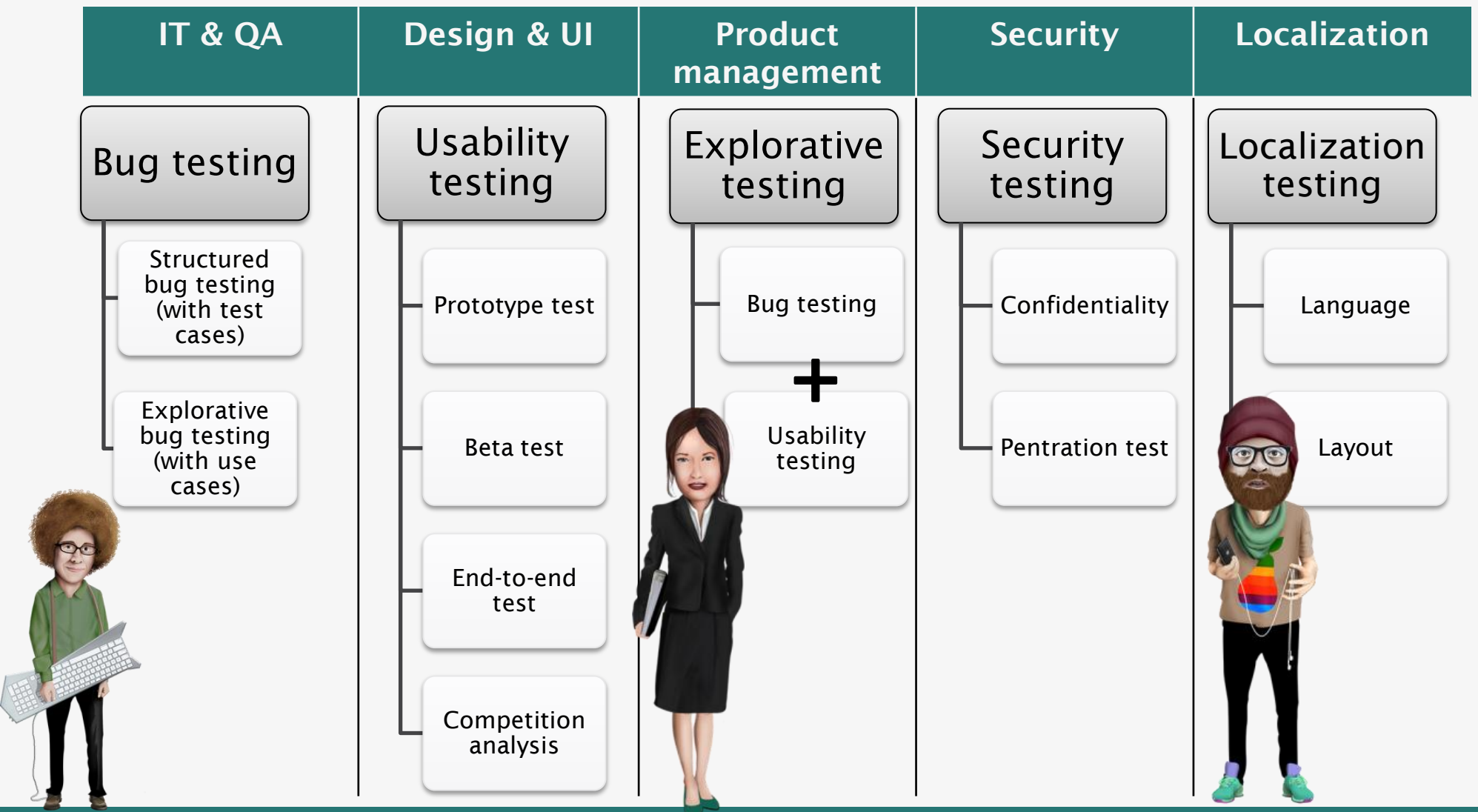|		
Moritz K. Testmanager 38 Jahre	Stefan M. Projektmanager 46 Jahre	Lukas B. Entwickler 27 Jahre

Specialists

✓ IT Systems (ERP, CRM)

✓ eCommerce (administrators)

✓ Domain knowledge (medicine, sales, engineers)

✓ and many more…

Terminal Devices and Systems

✓ All combinations of devices, browsers and operating systems

✓ Mobile: iOS (4, 5, 6), Android, Windows Phone (8), Blackberry OS

✓ Desktop: Windows, Mac OS, Linux, FF, IE, Safari, Chrome, Opera Facebook Apps, Rich Client-Applications, regular Desktop Software and many others

✓ Device is not under lab conditions but under real environments e.g. at home, underground, shopping…

✓ Testers are in different countries: D/A/CH, UK, US, NL, HU plus many more…

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The options of crowdsourced testing

IT & QA	Design & UI	Product management	Security	Localization
Bug testing	**Usability testing**	**Explorative testing**	**Security testing**	**Localization testing**
Structured bug testing (with test cases)	Prototype test	Bug testing	Confidentiality	Language
Explorative bug testing (with use cases)	Beta test	**+** Usability testing	Pentration test	Layout
	End-to-end test			
	Competition analysis			

How can crowd testing help? 2 examples.

	Hotel booking– Evaluation of 3 prototypes	eHealthplatform – End-to-end testing
Tester	✓ 20 Testers ✓ profile: 50 % female, 50 % male, 25 years and up, large cities, Smartphone)	✓ 30 Testers (profile: 25 % female, 75 % male, 55 years and older, ✓ Type-2-diabetes mellitus)
Devices	✓ Apple iPhone 2G, 3G(S), 4(S) with iOS versions 4.x, 5.0, 5.1 und Beta 6	✓ Blood sugar monitoring devices ✓ Different browsers ✓ Tablets with Android and iOS
Duration	✓ 5 days	✓ 12 days
Results	✓ Management summary ✓ 20 detailed test reports, broad usability feedback and also an specific report stating the optimal solution	✓ Management Summary ✓ Detailed list of all defects ✓ 30 detailed test reports for the eHealthplatform

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Case Study
CeBIT2GO App

- Live version of the CeBIT App:

  - Registering process

  - Events & presentation

  - Fair guide

- 20 testers: iOS & Android

- BugAbility®
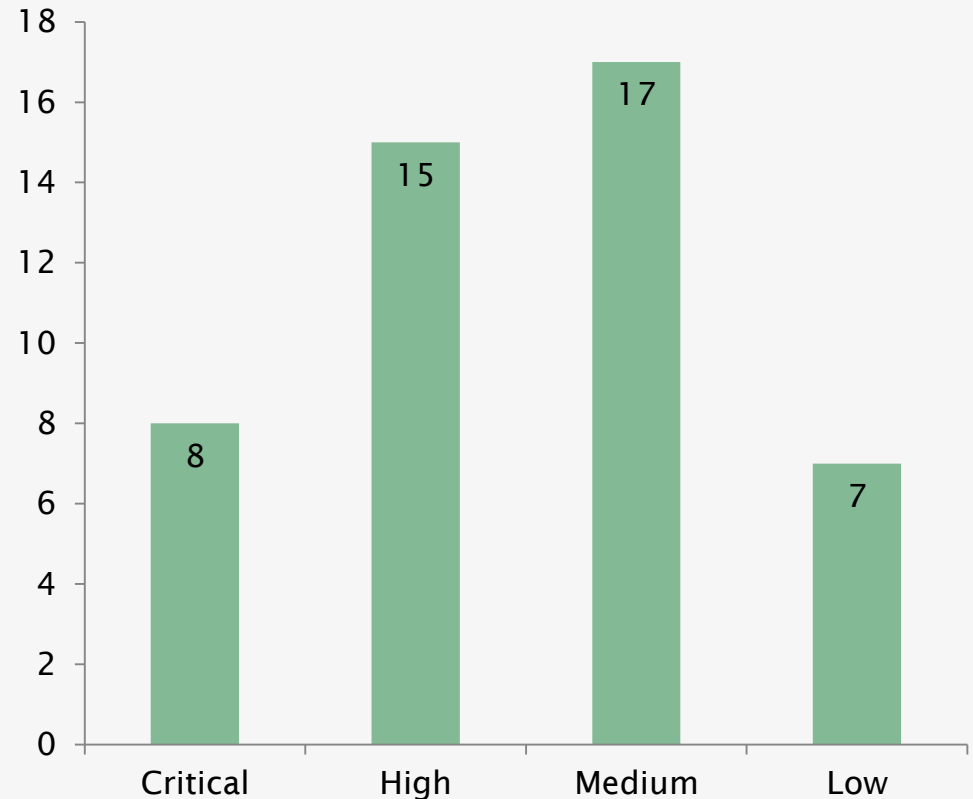
- End-to-end test with test tickets

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Case Study
CeBIT2GO App – Functionality

- Various crashes

- Navigation with no content

- Several buttons without functionality

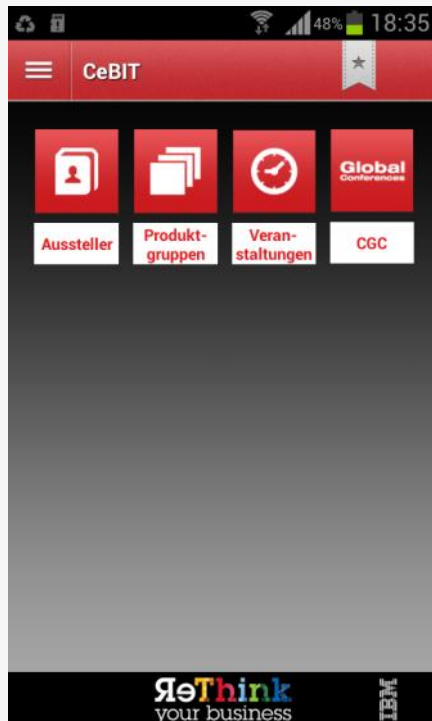- Ticket registration not possible (!)

- English error messages

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Bugs (Severity)

Severity	Count
Critical	8
High	15
Medium	17
Low	7

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Case Study
CeBIT2GO App – Usability

Negative feedback

✖ Landing page is quite empty and not well used

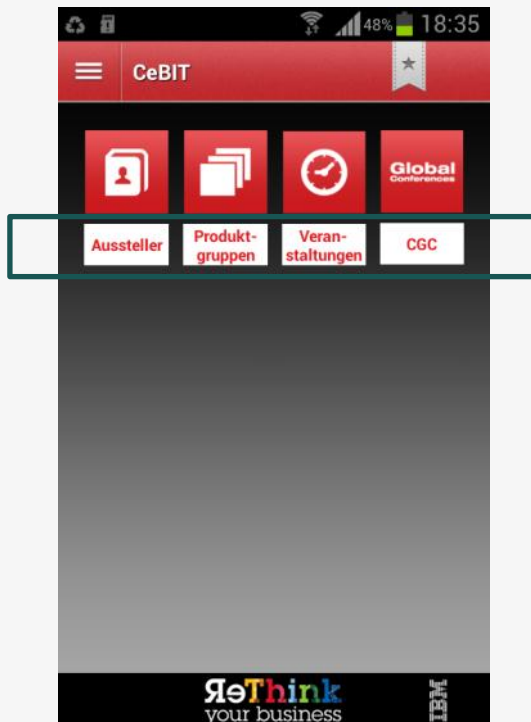✖ Only very specific, no general information is available

Recommendations for action

✓ Add more functionality ,
e.g. search functionality , news feed
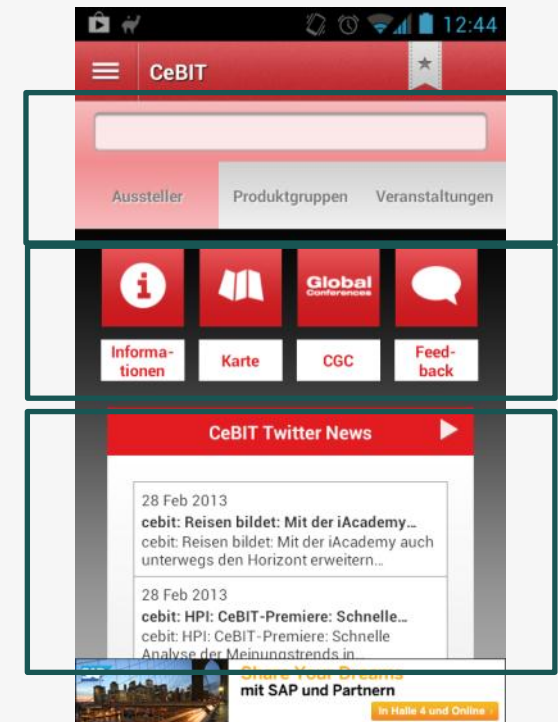
✓ Supplying general information
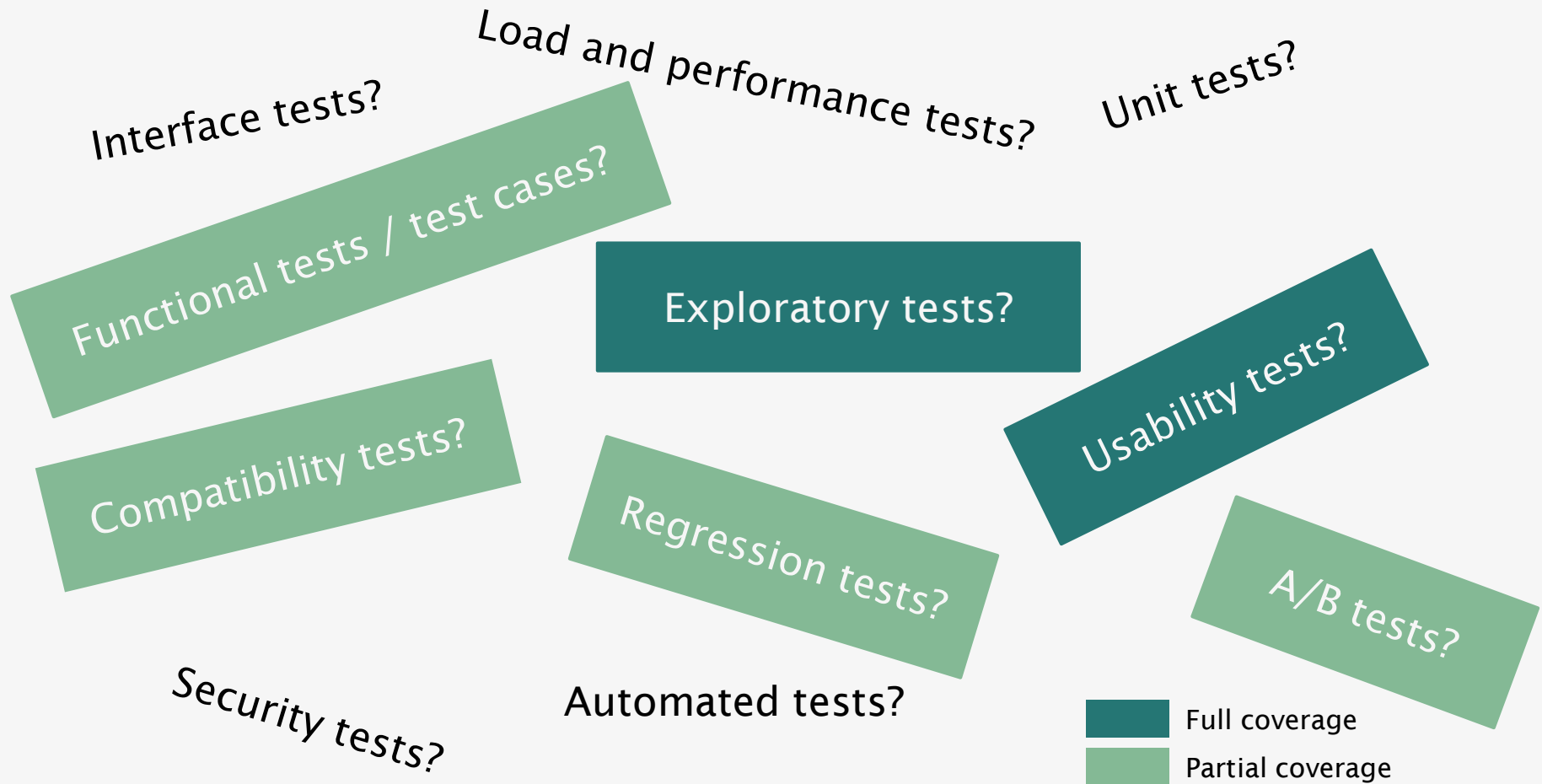
Case Study
CeBIT2GO App

Search functionality

General information

Newsfeed:
Twitter, heise

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Comparison of QA and crowd testing: A Supplement.

Interface tests?

Load and performance tests?

Unit tests?

Functional tests / test cases?

Exploratory tests?

Usability tests?

Compatibility tests?

Regression tests?

A/B tests?

Security tests?

Automated tests?

Full coverage
Partial coverage

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Upshot: Crowd testing is an excellent supplement to QA.

Five statements about crowd testing

1	Crowd testing complements "traditional" QA
2	Crowd testing provides valuable, unbiased and critical user-centric insights to applications
3	Crowd testing has to be used within well-defined testing processes
4	High flexibility, high speed and new test scenarios further improve and accelerate development
5	The Hit-it-all Approach avoids significant error caused by organizational blindness

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Your contact

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Just call me, if you have any questions!

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