

Modelling in Requirements

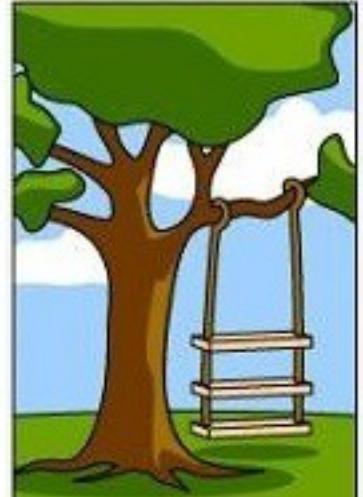
Software Systems – Design – L2T1

Dr. Vadim Zaytsev aka @grammarware, November 2020

Core Lifecycle Elements

- Requirements ←
- Design
- Construction
- Maintenance
- Testing
- Operation





How the customer
explained it



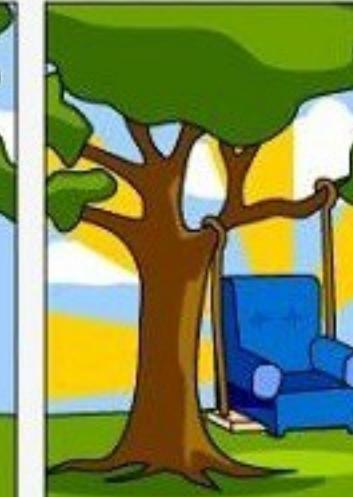
How the Project Leader
understood it



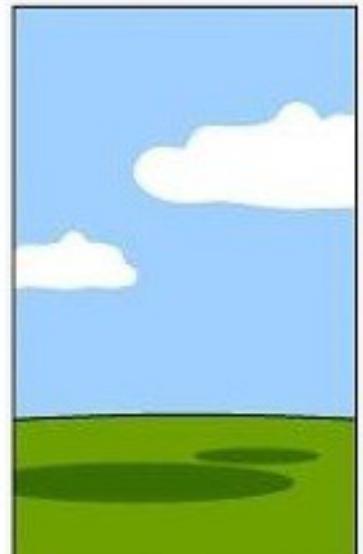
How the System Analyst
designed it



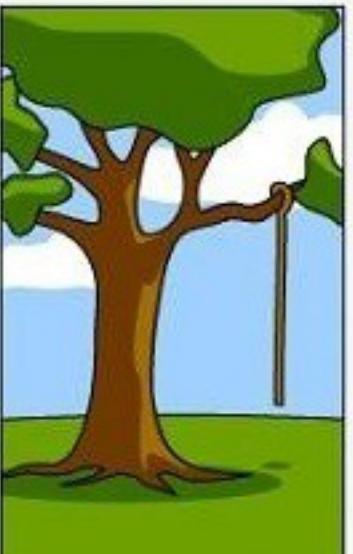
How the Programmer
wrote it



How the Business
Consultant described it



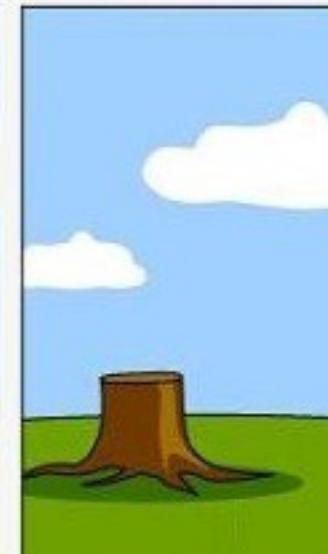
How the project
was documented



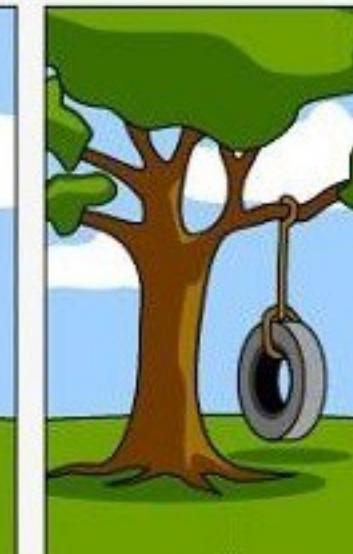
What operations
installed



How the customer
was billed

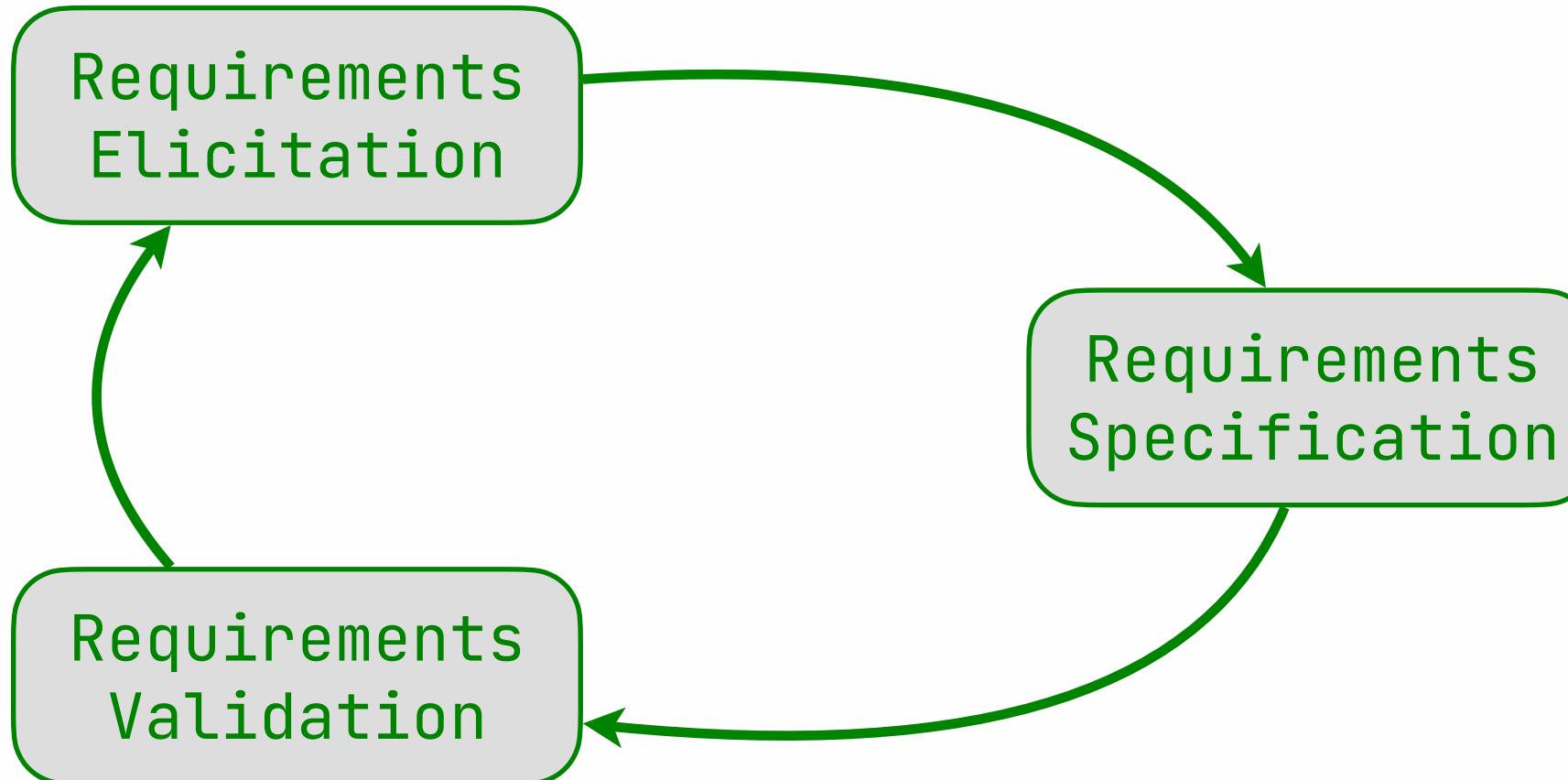


How it was supported

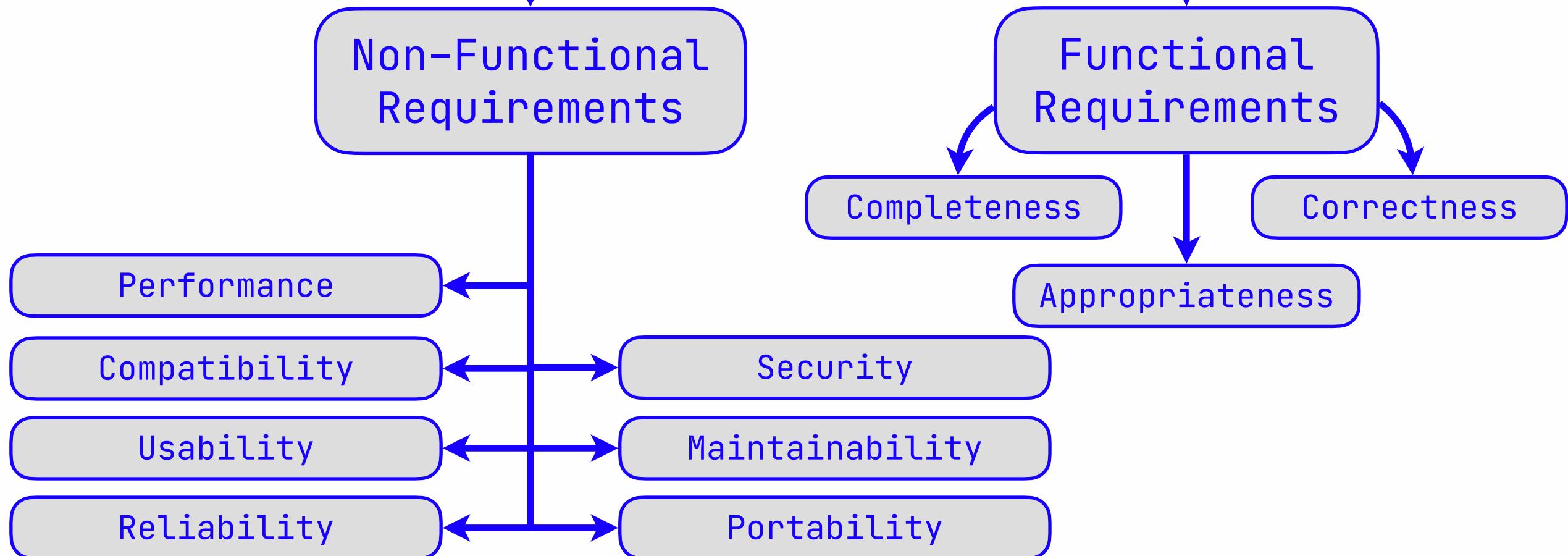


What the customer
really needed

Requirements Engineering



Requirements

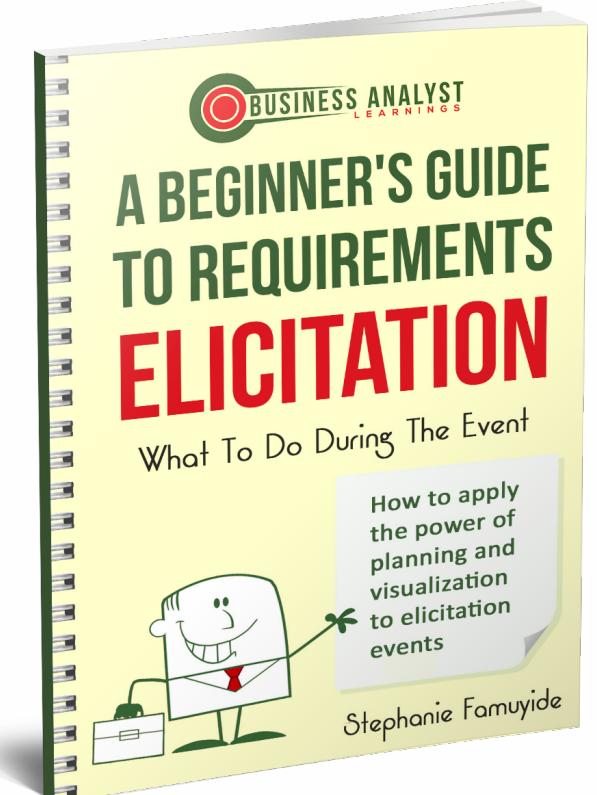
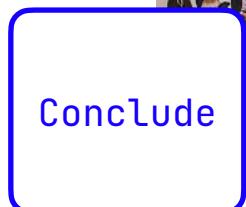
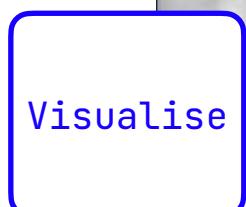
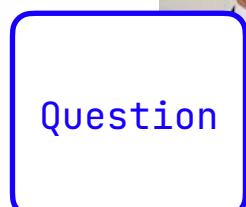


Stakeholders

- Anyone **concerned** about the system
- Anyone **influencing** the requirements
 - users
 - operators
 - acquirers
 - owners
 - suppliers
 - developers
 - builders
 - designers
 - maintainers
 - testers
 - fans
 - . . .



Requirements Elicitation



Requirements Specification

- Business [[WP](#)]
 - benefits and roles
- User [[WP](#)]
 - negotiated commitment
- Product [[WP](#)]
 - scope, functionality, constraints
- System [[WP](#)]
 - interfaces, NFRs, environment

Good Requirements Specification

- Correct (and understandable)
- Complete (and traceable)
- Consistent (and unambiguous)
- Prioritising (and ranking)
- Verifiable (and testable)
- Modifiable (and design independent)
- Unassuming (and explicit)

Requirements Validation

- Feasibility study
 - go/no-go decision
- Prototyping
 - PoC, pilots, etc
- Reviews
 - walkthrough
- Test case/data generation
 - alarming if impossible

Conclusion

- Functional and non-functional requirements
 - dependent, conflicting, interacting
- Requirements ...
 - Elicitation
 - interview
 - Specification
 - good spec
 - Validation

Topics/slides Disclaimer

- Good ✓

- watch before Q&A
- embrace reality
- try out at labs
- ask for feedback
- apply to project
- dig deeper
- recall from slides

- Bad ✗

- slides over videos
- assumptions
- blanks
- timing

