

SOFTWARE DEVELOPMENT QUALITY

QUALITY ATTRIBUTES

These attributes define quality. They cannot all be maximized because they are conflicting with each other. Trade-offs have to be made to find a global optimum.

PRODUCT QUALITY

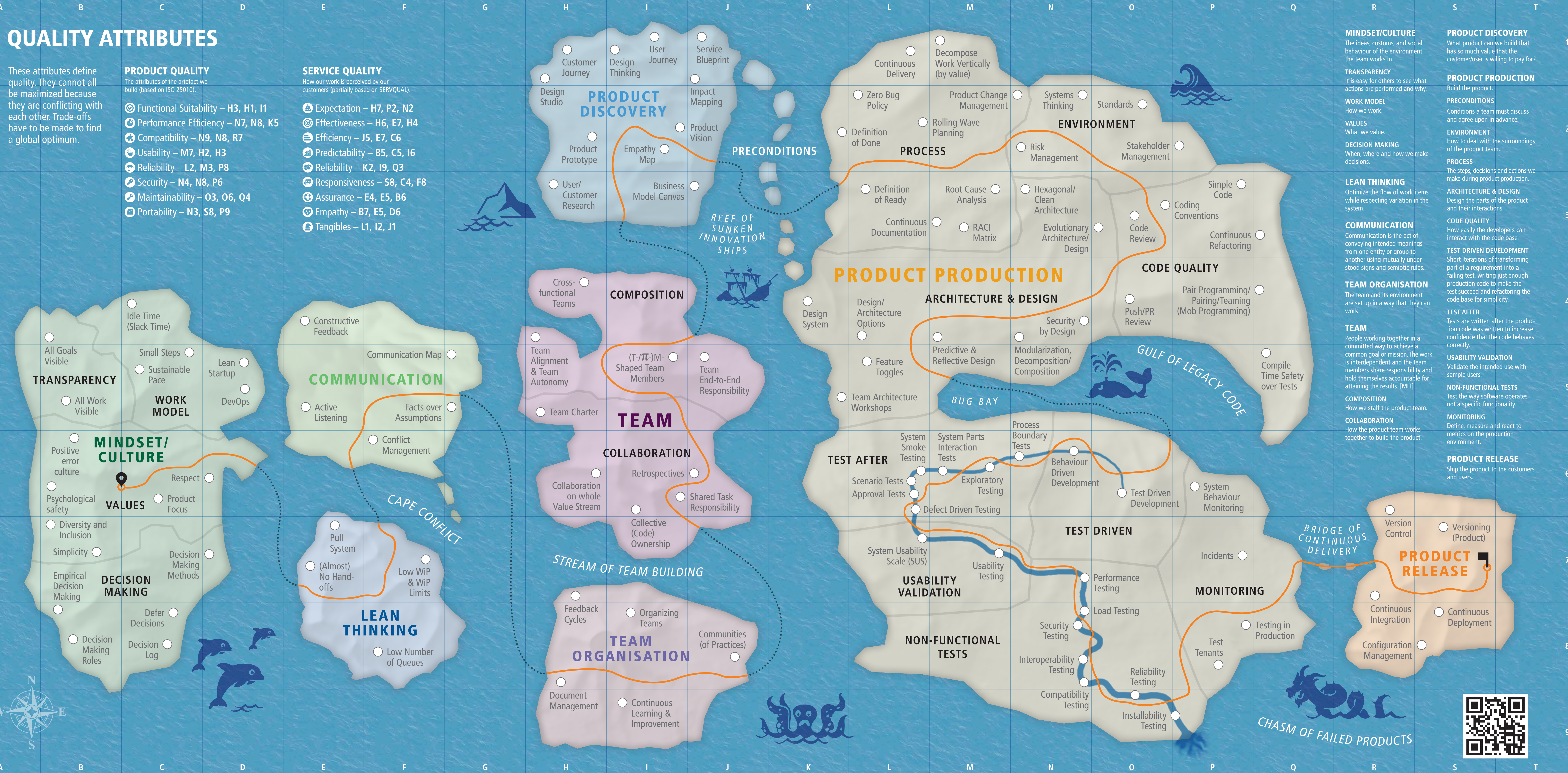
The attributes of the artefact we build (based on ISO 25010).

- 🎯 Functional Suitability – H3, H1, I1
- ⚡ Performance Efficiency – N7, N8, K5
- 🔗 Compatibility – N9, N8, R7
- 👤 Usability – M7, H2, H3
- 🛡️ Reliability – L2, M3, P8
- 🔒 Security – N4, N8, P6
- 🔄 Maintainability – O3, O6, Q4
- 📦 Portability – N3, S8, P9

SERVICE QUALITY

How our work is perceived by our customers (partially based on SERVQUAL).

- 👤 Expectation – H7, P2, N2
- 🎯 Effectiveness – H6, E7, H4
- ⚡ Efficiency – J5, E7, C6
- 📊 Predictability – B5, C5, I6
- 🛡️ Reliability – K2, I9, Q3
- 🗨️ Responsiveness – S8, C4, F8
- 🛡️ Assurance – E4, E5, B6
- 👤 Empathy – B7, E5, D6
- 📦 Tangibles – L1, I2, J1



- MINDSET/CULTURE**
The ideas, customs, and social behaviour of the environment the team works in.
- TRANSPARENCY**
It is easy for others to see what actions are performed and why.
- WORK MODEL**
How we work.
- VALUES**
What we value.
- DECISION MAKING**
When, where and how we make decisions.
- LEAN THINKING**
Optimize the flow of work items while respecting variation in the system.
- COMMUNICATION**
Communication is the act of conveying intended meanings from one entity or group to another using mutually understood signs and semiotic rules.
- TEAM ORGANISATION**
The team and its environment are set up in a way that they can work.
- TEAM**
People working together in a committed way to achieve a common goal or mission. The work is interdependent and the team members share responsibility and hold themselves accountable for attaining the results. (MIT)
- COMPOSITION**
How we staff the product team.
- COLLABORATION**
How the product team works together to build the product.
- PRODUCT DISCOVERY**
What product can we build that has so much value that the customer/user is willing to pay for?
- PRODUCT PRODUCTION**
Build the product.
- PRECONDITIONS**
Conditions a team must discuss and agree upon in advance.
- ENVIRONMENT**
How to deal with the surroundings of the product team.
- PROCESS**
The steps, decisions and actions we make during product production.
- ARCHITECTURE & DESIGN**
Design the parts of the product and their interactions.
- CODE QUALITY**
How easily the developers can interact with the code base.
- TEST DRIVEN DEVELOPMENT**
Short iterations of transforming part of a requirement into a failing test, writing just enough production code to make the test succeed and refactoring the code base for simplicity.
- TEST AFTER**
Tests are written after the production code was written to increase confidence that the code behaves correctly.
- USABILITY VALIDATION**
Validate the intended use with sample users.
- NON-FUNCTIONAL TESTS**
Test the way software operates, not a specific functionality.
- MONITORING**
Define, measure and react to metrics on the production environment.
- PRODUCT RELEASE**
Ship the product to the customers and users.