



Practical guidance and assistance

We are also experienced in the customization of the leading COTS Requirements Management tools including: DOORS, Rationale RequisitePro and Serena Dimensions RM to fulfill an organization's needs.

These activities may include:

- The creation and maintenance of a specific data/project schema
- The definition of an appropriate access rights policy
- The creation of any custom scripts needed to extract relevant data (e.g. the generation of documents or the extraction of KPIs)
- Producing means to present any data in an acceptable format (this may include customized Word or Excel files)
- Ongoing database administration activities

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Where we are

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Competence and Know-how – Available Worldwide

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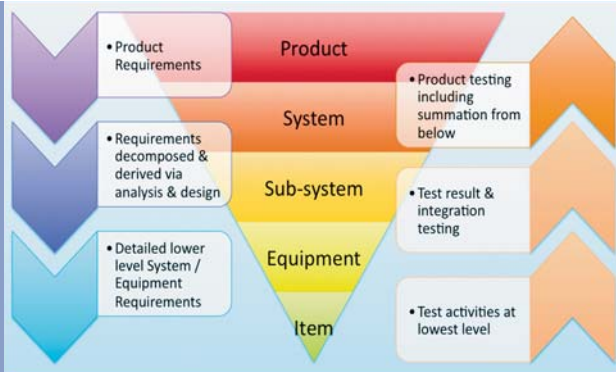
Industrial Services

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Industrial Services

Requirements Engineering





What is Requirements Engineering?

The Requirements Engineering process is typically illustrated by the use of a “V” diagram.

The methodology of ensuring a customer’s needs are clearly identified, fully met by the project/product in development and aims to increase the efficiency by:

- Avoidance of rework
- Ensuring the correct product is delivered without unnecessary “goldplating”
- Managing a more mature entry into service
- Recording lessons learnt and so retaining knowledge for future projects

A cyclical process from initial elicitation, through capture, management, flow-down and verification.

This process is applicable and repeatable at multiple levels throughout a project’s evolution.

To support this we measure the “goodness” of Requirements against **SMART** (Specific, Measurable, Attainable, Relevant, Traceable) criteria.

Facts that speak for themselves

Many studies undertaken have identified risks to projects which have not applied a structured method of Requirements Engineering. One of the most well known is the Standish Group’s Chaos report. This report analysed 365 companies and 8,380 projects.

The recorded causes of project failures or overruns are given below:

Project Impairment Factor	Responses
Incomplete Requirements	13.1%
Lack of User Involvement	12.4%
Lack of Resources	10.6%
Unrealistic Expectations	9.9%
Lack of Executive Support	9.3%
Changing Requirements & Specifications	8.7%
Lack of Planning	8.1%
Didn’t Need it any Longer	7.5%
Lack of IT Management	6.2%
Technology Illiteracy	4.3%

42.3% of the listed failures were directly related to problems with requirements!

Service & Expertise

Voith Engineering Services has Requirements Engineers with proven track records in sectors including: Defence, Aerospace, Communications & Energy Generation.

- The initial definition of the Requirements Engineering process
- Training users in both the application of the Requirements Engineering process and Requirements Management tool
- Undertaking the Requirements Management activities for the customer
- Deploying entire teams to provide Requirements Management and enduser support desk activities as a “turn-key” service

This experience has been gained working on many differing sized projects ranging from multi-national, multi-site projects encompassing the entire supply chain to projects where we work directly with equipment suppliers to ensure they have correctly managed their customer’s requirements.