Jornada sobre

Innovación y Tendencias en la Gestión de Requisitos

#gestionrequisitos2016

9 de mayo – Madrid
Sede Madrid Network
organizan:

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Requirements Management - Best practices

XTRONIC

Javier Hernández González

XTRONIC GmbH

Engineering, consultancy, support and software development

- Specialists for requirements engineering and development of extensions for IBM Rational DOORS®

- Personalized solutions with a high innovation capacity throughout the whole development process

- Experienced and qualified development partner

- Founded in 1999

- Headquarter in Böblingen (Germany)

- 110 employees

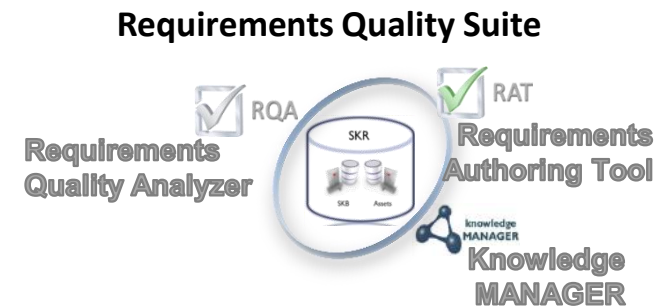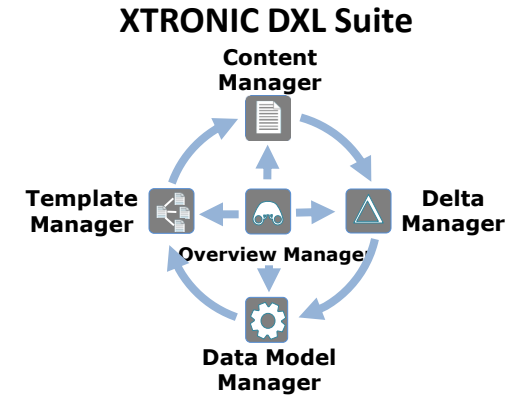- ~ 9,5 million anual turnover

XTRONIC ESPAÑA

Requirements Engineering Consultancy	IBM Rational Products® Licensing and Consultancy	Products

Requirements Engineering Consultancy

- IBM Rational DOORS®

- DOORS NG®

- Development of efficient RM methodologies

  - Template Management
  - Change Request Management
  - Traceability
  - Changes & Delta Documentation
  - Specifications agreement
  - Requirements versioning
  - Quality Analysis

- Support Services

- Migrations

- Trainings

IBM Rational Products® Licensing and Consultancy

- Licenses of IBM Products

- Consultancy and support

  - IBM Rational DOORS
  - DOORS NG
  - Rhapsody
  - Rational Team Concert
  - Rational Quality Manager
  - Urban Code
  - Build Forge
  - Funcional Tester
  - Performance Tester
  - Development & Test Environment

Products

XTRONIC DXL Suite

Content Manager · Template Manager · Delta Manager · Overview Manager · Data Model Manager

Requirements Quality Suite

RQA — Requirements Quality Analyzer · RAT — Requirements Authoring Tool · knowledge MANAGER — Knowledge MANAGER

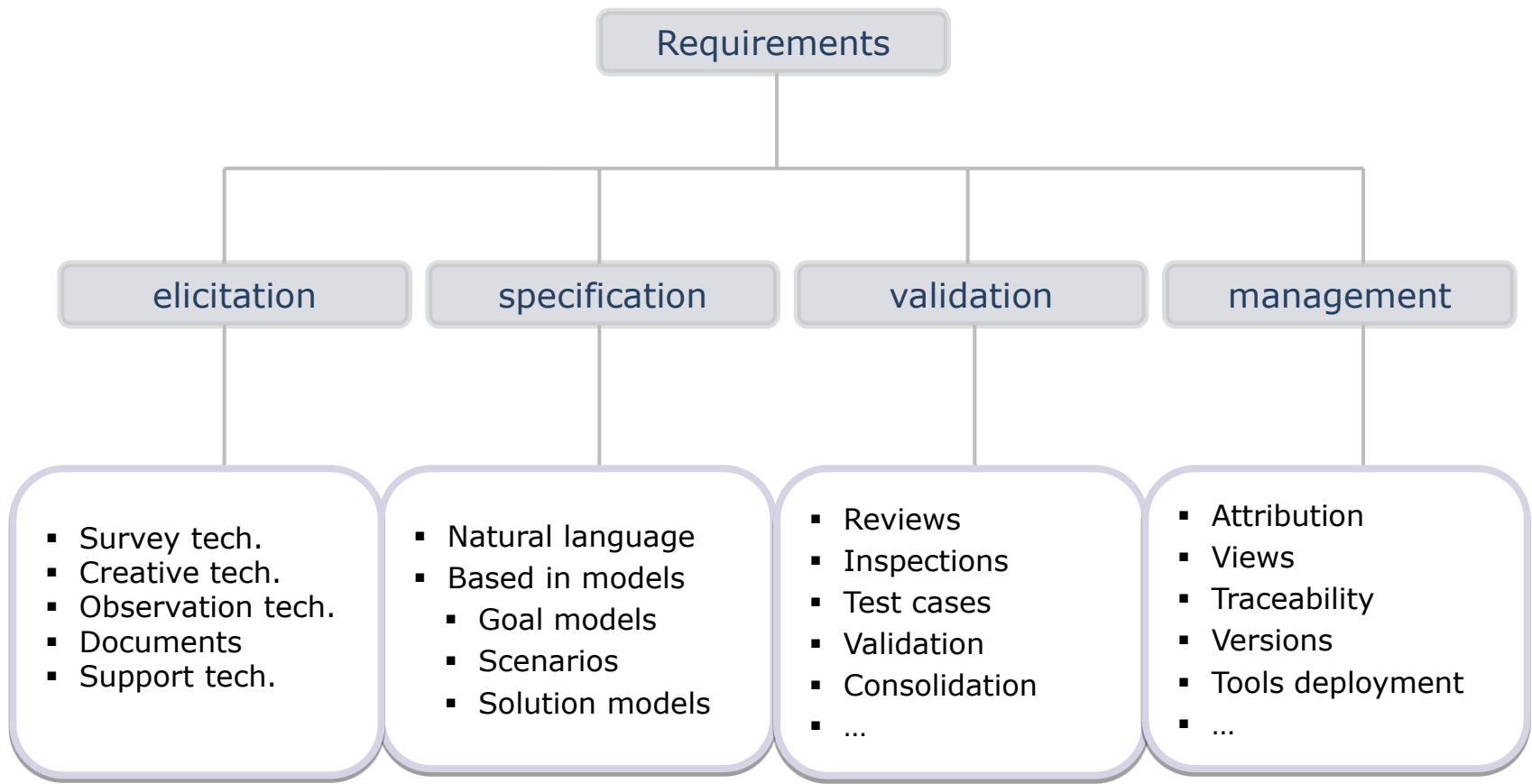**IBM Rational DOORS® Extensions**

Requirements Management – Best practices

The best time to plant a tree was 20 years ago. The second best time is now.

~ Chinese Proverb

# The four main activities of Requirements Engineering

```
                        ┌──────────────────┐
                        │   Requirements   │
                        └──────────────────┘
                                 │
        ┌────────────┬───────────┴───────────┬────────────┐
        │            │                       │            │
  ┌───────────┐ ┌──────────────┐      ┌────────────┐ ┌──────────────┐
  │ elicitation│ │ specification│      │ validation │ │ management   │
  └───────────┘ └──────────────┘      └────────────┘ └──────────────┘
```

elicitation

- Survey tech.
- Creative tech.
- Observation tech.
- Documents
- Support tech.

specification

- Natural language
- Based in models
  - Goal models
  - Scenarios
  - Solution models

validation

- Reviews
- Inspections
- Test cases
- Validation
- Consolidation
- …

management

- Attribution
- Views
- Traceability
- Versions
- Tools deployment
- …

XTRONIC-Academy, Training in Requirements Engineering: The four main activities

Agenda

Use Attributes

Versioning and Changes
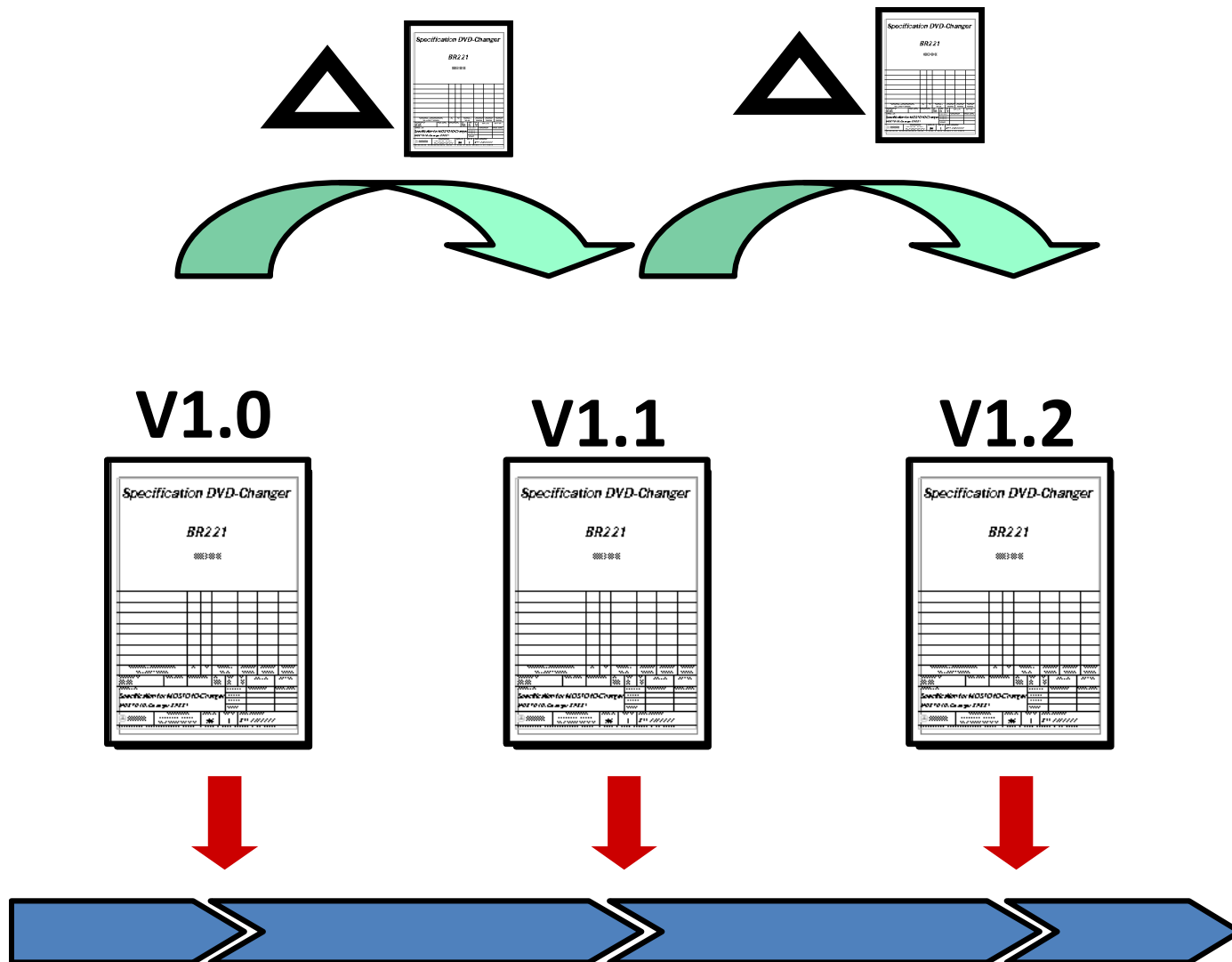
V1.0

V1.1

V1.2
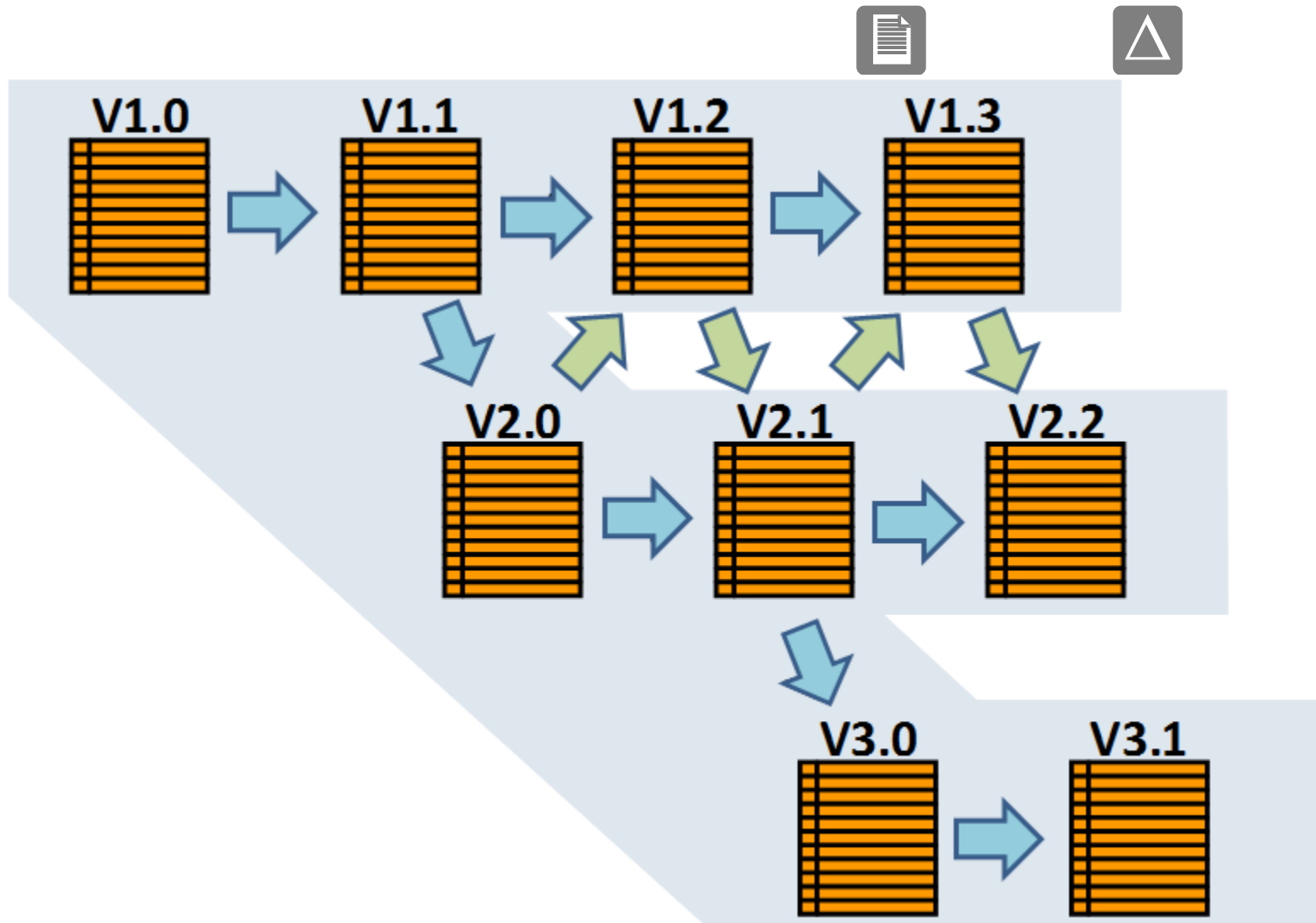
Branching and Merging

Change Management

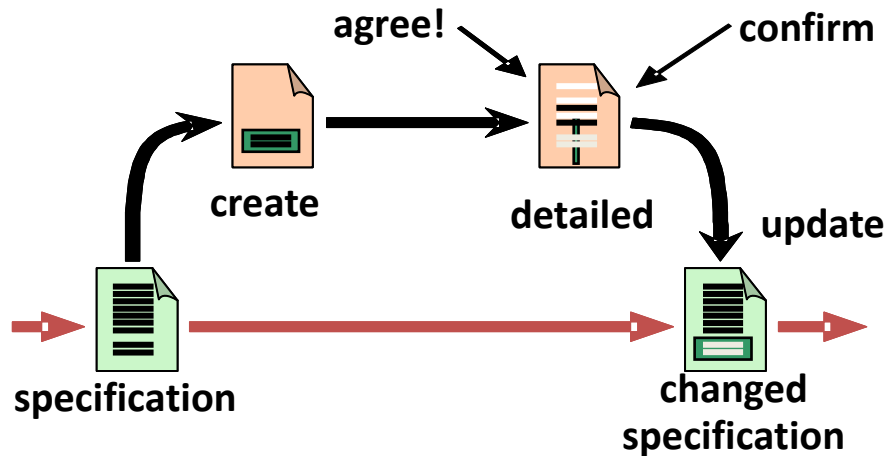Banda Aceh, Indonesia, March 26 2004, http://www.coolgeography.co.uk/

Change Management

„The Green Wall", March 22 2015, Japan To Build Sea Walls gazettereview.com

Change Management

"What if we don't change at all ...
and something magical just happens."

agree! **confirm**

create **detailed** **update**

specification **changed specification**

Impact analisys Iceberg

New funtionality

New planification, costs, resources

New quality

Visible CR

Conflic with existing requirments

Re-estimate schedule and cost impact

Invisible CR

Overload ressources

Affected components and systems

Is it possible?

Work products to be reviewed

Affected security or quality

Impact in Project, Configuration, Quality plans...

Affected funtionalities

XTRONIC-Academy, Training in Requirements Engineering: Change Management

Traceability

Source
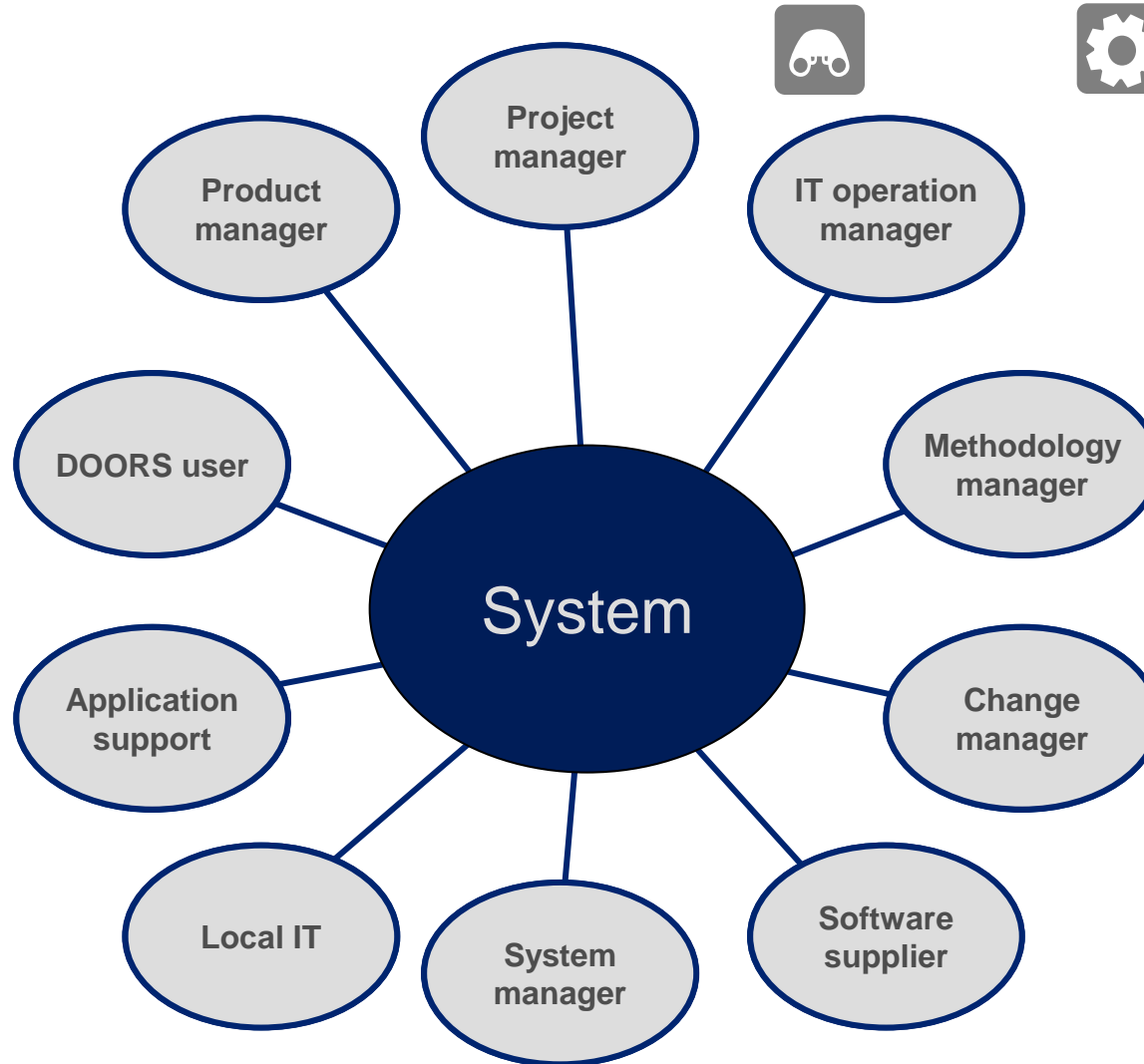
Require-ment

Design

Test

Imple-mentation

Sahara desert, March 2014

Some Benefits

- **Supports impact analysis in change management**
- **All requirements are taken into account during design and implementation**
- **NOK Test points to the problem**
- **Reuse of requirements**
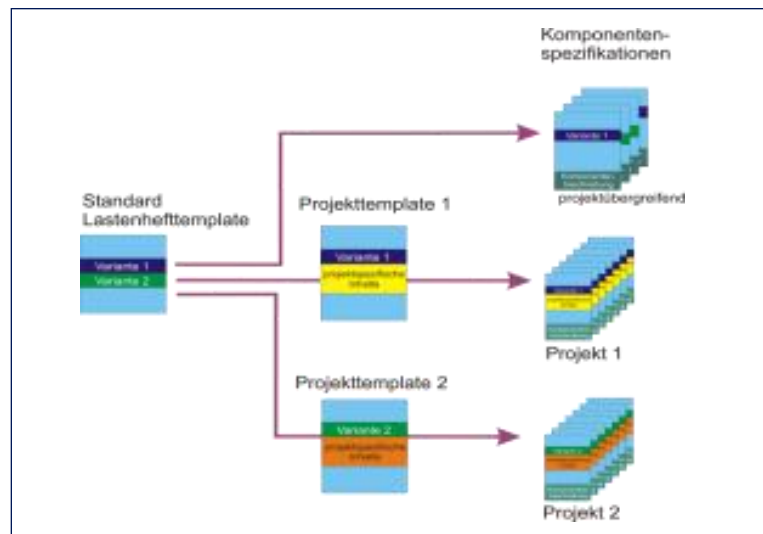- **Compliance with norms and standards**

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Role Management

Use and Manage Templates

When	<Event>	<Component>	Shall	<Action>	<Object>	Time_constraint

The REUSE Company: Pattern Formalization

Specifications Exchange

Base Specification

Content for Supplier A

Status & comments to Supplier A answers

Supplier A writes Status & Comments

transfer with Content Manager

transfer

Content for Supplier B

Status & comments to Supplier B answers

Supplier B writes Status & Comments

transfer
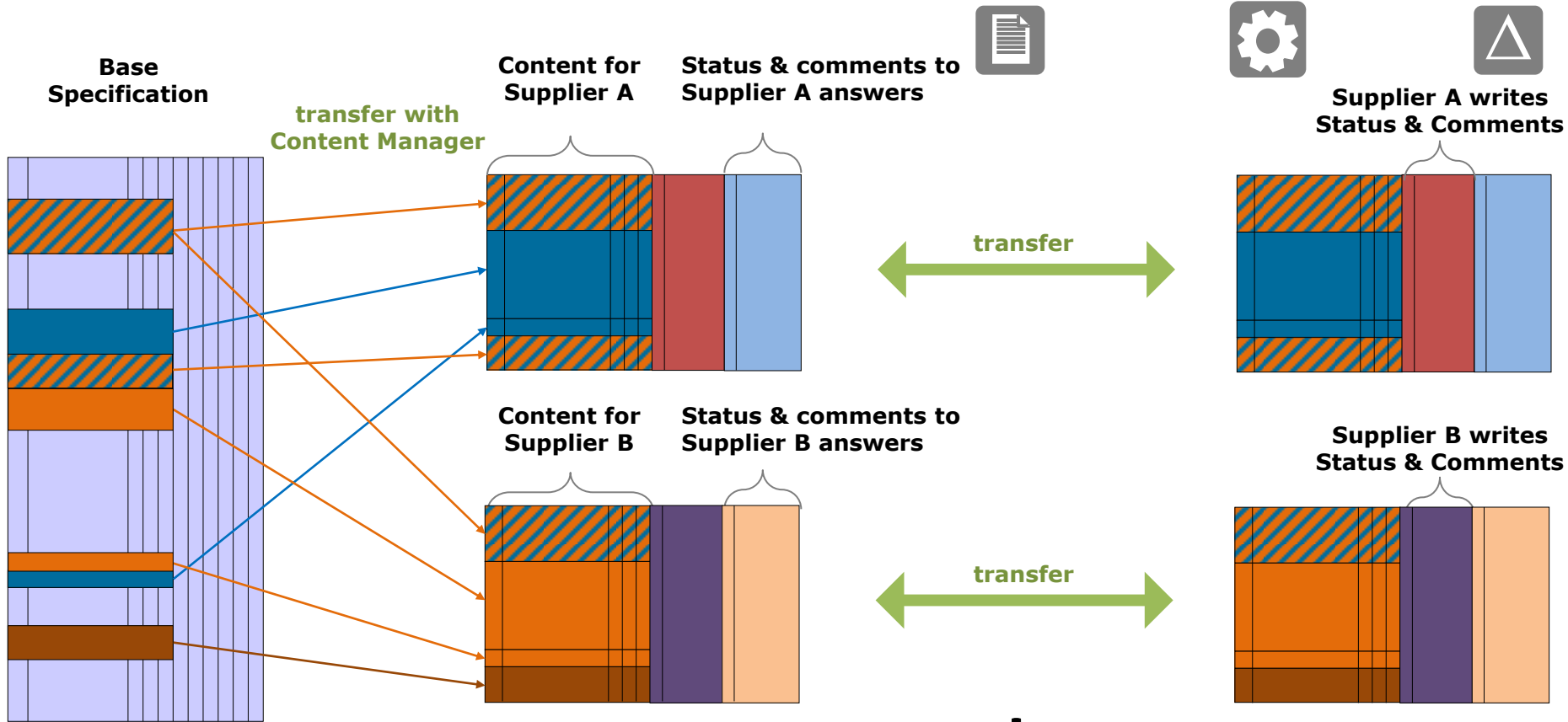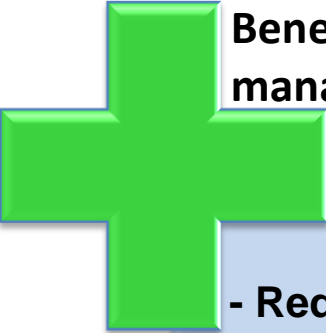
XTRONIC-Academy, Training in Exchanging Process

OEM

Supplier
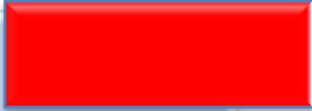
Conclusion

Benefits of effective requirements management

Disadvantages of ineffective requirements management

- Reduce developing time and rework
- Efficiency enhancement
- Improve productivity
- Be earlier to market
- Increase quality
- Ensure collaboration
- Share information
- Save costs
- Guarantee information completeness
- Keep up-to-date information
- Take better business decisions
- Maintain Know-How
- Client satisfaction
- Team satisfaction

- Detect error at later stages of the project
- Lack of access to up-to-date and accurate information
- Hindering communication
- Hindering collaboration
- Increment risks
- Contribute to delays, errors and rework
- Be late to market
- Increment costs
- Increasement of projects fails to deliver the expected value
- Unsuccessful meeting of customer needs

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Requirements Management – Best practices

"TELL ME AND I FORGET,
TEACH ME AND I MAY REMEMBER,
INVOLVE ME AND I LEARN."

~ BENJAMIN FRANKLIN

Franklin, Benjamin, 1706 – 1709, https://www.quotesaga.com

Requirements Management – Best practices

Detalles de Contacto

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