



Stakeholders

The people, groups, or organizations who affect or are affected by a software system.

Recognized

Represented

Involved

In Agreement

Satisfied for Deployment

Satisfied in Use



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Stakeholders

Recognized

- ☐ Stakeholder groups identified
- ☐ Key stakeholder groups represented
- ☐ Responsibilities defined

1 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Stakeholders

Represented

- ☐ Responsibilities agreed
- ☐ Representatives authorized
- ☐ Collaboration approach agreed
- ☐ Way of working supported & respected

2 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Stakeholders

Involved

- ☐ Representatives assist the team
- ☐ Timely feedback and decisions provided
- ☐ Changes promptly communicated

3 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Stakeholders

In Agreement

- ☐ Minimal expectations agreed
- ☐ Rep's happy with their involvement
- ☐ Rep's input valued
- ☐ Team's input valued
- ☐ Priorities clear & perspectives balanced

4 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Stakeholders

Satisfied for Deployment

- ☐ Stakeholder feedback provided
- ☐ System ready for deployment

5 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Stakeholders

Satisfied in Use

- ☐ Feedback on system use available
- ☐ System meets expectations

6 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Opportunity

The set of circumstances that makes it appropriate to develop or change a software system.

Identified

Solution Needed

Value Established

Viable

Addressed

Benefit Accrued



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Opportunity

Identified

- ☐ Idea behind opportunity identified
- ☐ At least one investing stakeholder interested
- ☐ Other stakeholders identified

1 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Opportunity

Solution Needed

- ☐ Solution identified
- ☐ Stakeholders' needs established
- ☐ Problems and root causes identified
- ☐ Need for a solution confirmed
- ☐ At least one solution proposed

2 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Opportunity

Value Established

- ☐ Opportunity value quantified
- ☐ Solution impact understood
- ☐ System value understood
- ☐ Success criteria clear
- ☐ Outcomes clear and quantified

3 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Opportunity

Viable

- ☐ Solution outlined
- ☐ Solution possible within constraints
- ☐ Risks acceptable & manageable
- ☐ Solution profitable
- ☐ Reasons to develop solution understood
- ☐ Pursuit viable

4 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Opportunity

Addressed

- ☐ Opportunity addressed
- ☐ Solution worth deploying
- ☐ Stakeholders satisfied

5 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Opportunity

Benefit Accrued

- ☐ Solution accrues benefits
- ☐ ROI acceptable

6 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Requirements

What the software system must do to address the opportunity and satisfy the stakeholders.

Conceived

Bounded

Coherent

Acceptable

Addressed

Fulfilled



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Requirements

Conceived

- ☐ Stakeholders agree system is to be produced
- ☐ Users identified
- ☐ Funding stakeholders identified
- ☐ Opportunity clear

1 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Requirements

Bounded

- ☐ Development stakeholders identified
- ☐ System purpose agreed
- ☐ System success clear
- ☐ Shared solution understanding exists
- ☐ Requirement's format agreed
- ☐ Requirements management in place
- ☐ Prioritization scheme clear
- ☐ Constraints identified & considered
- ☐ Assumptions clear

2 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Requirements

Coherent

- ☐ Requirements shared
- ☐ Requirements' origin clear
- ☐ Rationale clear
- ☐ Conflicts addressed
- ☐ Essential characteristics clear
- ☐ Key usage scenarios explained
- ☐ Priorities clear
- ☐ Impact understood
- ☐ Team knows & agrees on what to deliver

3 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Requirements

Acceptable

- ☐ Acceptable solution described
- ☐ Change under control
- ☐ Value to be realized clear
- ☐ Clear how opportunity addressed
- ☐ Testable

4 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Requirements

Addressed

- ☐ Enough addressed to be acceptable
- ☐ Requirements and system match
- ☐ Value realized clear
- ☐ System worth making operational

5 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Requirements

Fulfilled

- ☐ Stakeholders accept requirements
- ☐ No hindering requirements
- ☐ Requirements fully satisfied

6 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

A system made up of software, hardware, and data that provides its primary value by the execution of the software.

Architecture Selected

Demonstrable

Usable

Ready

Operational

Retired



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

Architecture Selected

- ☐ Architecture selection criteria agreed
- ☐ HW platforms identified
- ☐ Technologies selected
- ☐ System boundary known
- ☐ Decisions on system organization made
- ☐ Buy, build, reuse decisions made
- ☐ Key technical risks agreed to

1 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

Demonstrable

- ☐ Key architectural characteristics demonstrated
- ☐ System exercised & performance measured
- ☐ Critical HW configurations demonstrated
- ☐ Critical interfaces demonstrated
- ☐ Integration with environment demonstrated
- ☐ Architecture accepted as fit-for-purpose

2 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

Usable

- ☐ System can be operated
- ☐ System functionality tested
- ☐ System performance acceptable
- ☐ Defect levels acceptable
- ☐ System fully documented
- ☐ Release content known
- ☐ Added value clear

3 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

Ready

- ☐ User documentation available
- ☐ System accepted as fit-for-purpose
- ☐ Stakeholders want the system
- ☐ Operational support in place

4 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

Operational

- ☐ System available for use
- ☐ System live
- ☐ Agreed service levels supported

5 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Software System

Retired

- ☐ Replaced or discontinued
- ☐ No longer supported
- ☐ No authorized users
- ☐ Updates stopped

6 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Team

A group of people actively engaged in the development, maintenance, delivery or support of a specific software system.

Seeded

Formed

Collaborating

Performing

Adjourned



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Team

Seeded

- ☐ Mission defined
- ☐ Constraints known and defined
- ☐ Growth mechanisms in place
- ☐ Composition defined
- ☐ Responsibilities outlined
- ☐ Required commitment level clear
- ☐ Required competencies identified
- ☐ Size determined
- ☐ Governance rules defined
- ☐ Leadership model selected

1 / 5



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09



Team

Formed

- ☐ Enough members recruited
- ☐ Roles understood
- ☐ How to work understood
- ☐ Members introduced
- ☐ Individual responsibilities accepted and aligned to competencies
- ☐ Members accepting work
- ☐ External collaborators identified
- ☐ Communication mechanisms defined
- ☐ Members commit to team

2 / 5



IVAR JACOBSON
INTERNATIONAL
Generated by UI Practice Workbench™

2018.09

Team

Collaborating

- ☐ Works as one unit
- ☐ Communication open and honest
- ☐ Focused on mission
- ☐ Members know each other

3 / 5



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Team

Performing

- ☐ Consistently meeting commitments
- ☐ Continuously adapting to change
- ☐ Addresses problems
- ☐ Rework and backtracking minimized
- ☐ Waste continuously eliminated

4 / 5



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Team

Adjourned

- ☐ Responsibilities fulfilled
- ☐ Members available to other teams
- ☐ Mission concluded

5 / 5



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Work

Activity involving mental or physical effort done in order to achieve a result.

Initiated

Prepared

Started

Under Control

Concluded

Closed



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Work

Initiated

- ☐ Required result clear
- ☐ Constraints clear
- ☐ Funding stakeholders known
- ☐ Initiator identified
- ☐ Accepting stakeholders known
- ☐ Source of funding clear
- ☐ Priority clear

1 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Work

Prepared

- ☐ Commitment made
- ☐ Cost and effort estimated
- ☐ Resource availability understood
- ☐ Risk exposure understood
- ☐ Acceptance criteria established
- ☐ Sufficiently broken down to start
- ☐ Tasks identified and prioritized
- ☐ Credible plan in place
- ☐ Funding in place
- ☐ At least one team member ready
- ☐ Integration points defined

2 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Work

Started

- ☐ Development started
- ☐ Progress monitored
- ☐ Definition of done in place
- ☐ Tasks being progressed

3 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Work

Under Control

- ☐ Tasks being completed
- ☐ Unplanned work under control
- ☐ Risks under control
- ☐ Estimates revised to reflect performance
- ☐ Progress measured
- ☐ Re-work under control
- ☐ Commitments consistently met

4 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09

Work

Concluded

- ☐ Only admin tasks left
- ☐ Results achieved
- ☐ Resulting system accepted

5 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Work

Closed

- ☐ Lessons learned
- ☐ Metrics available
- ☐ Everything archived
- ☐ Budget reconciled & closed
- ☐ Team released
- ☐ No outstanding, uncompleted tasks

6 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Way of Working

The tailored set of practices and tools used by a team to guide and support their work.

Principles Established

Foundation Established

In Use

In Place

Working Well

Retired



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

Way of Working

Principles Established

- ☐ Team actively support principles
- ☐ Stakeholders agree with principles
- ☐ Tool needs agreed
- ☐ Approach recommended
- ☐ Operational context understood
- ☐ Practice & tool constraints known

1 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09



Way of Working

Foundation Established

- ☐ Key practices & tools selected
- ☐ Practices needed to start work agreed
- ☐ Non-negotiable practices & tools identified
- ☐ Gaps between available and needed way of working understood
- ☐ Gaps in capability understood
- ☐ Integrated way of working available

2 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Way of Working

In Use

- ☐ Practices & tools in use
- ☐ Regularly inspected
- ☐ Adapted to context
- ☐ Supported by team
- ☐ Feedback mechanisms in place
- ☐ Practices & tools support collaboration

3 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Way of Working

In Place

- ☐ Used by whole team
- ☐ Accessible to whole team
- ☐ Inspected and adapted by whole team

4 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Way of Working

Working Well

- ☐ Predictable progress being made
- ☐ Practices naturally applied
- ☐ Tools naturally support way-of-working
- ☐ Continually tuned

5 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJ Practice Workbench™

2018.09



Way of Working

Retired

- ☐ No longer in use
- ☐ Lessons learned shared

6 / 6



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09

MOVE FROM PROCESS TO PRACTICES

- Get started with IJI's Library of Practices
- Ready to go practices to get you up and running quickly

[ivarjacobson.com/
practicelibrary](http://ivarjacobson.com/practicelibrary)

IJI PRACTICE WORKBENCH

- Compose and publish your own methods with IJI's Practice Workbench
- Create print-ready cards or export to HTML

[ivarjacobson.com/
practice-workbench](http://ivarjacobson.com/practice-workbench)

IJI SUSTAINABLE CHANGE FRAMEWORK

- Achieve consistent and lasting adoption of your agile techniques across your broad communities of practices!
- IJI's Framework and Consulting Services can help guide you.

[ivarjacobson.com/
sustainable-agile-transformation](http://ivarjacobson.com/sustainable-agile-transformation)

Card Pack Contents Copyright Statements

© 2018 Ivar Jacobson International SA. All rights reserved.

Ivar Jacobson and IJI Practice Workbench are trademarks or registered trademarks of Ivar Jacobson International SA and/or its subsidiaries.

The OMG and Essence content included is provided under license by the following:

Copyright © 2013-2018 Data Access Technologies (Model Driven Solutions), Florida Atlantic University, Fujitsu, Fujitsu Services, Ivar Jacobson International AB, KTH Royal Institute of Technology, Metamaxim Ltd., PEM Systems, Stiftelsen SINTEF, and University of Duisburg-Essen and © 1997-2018 Object Management Group.

Use of Essence – Kernel and Language for Software Engineering Methods Specification is subject to the Terms, Conditions & Notices found at <https://www.omg.org/spec/Essence/1.1>

The alpha state checkpoint names included in the IJI Essence Kernel are provided under license by SEMAT Inc. under the Creative Commons Attribution CC International Public License:

<https://creativecommons.org/licenses/by/4.0/legalcode>
Copyright © SEMAT Inc. All rights reserved.



Resources

- Essence Standard (OMG), refer to <http://www.omg.org/spec/Essence/1.1/>
- The Essence of Software Engineering: Applying the SEMAT Kernel, by Ivar Jacobson, Pan-Wei Ng, Paul E. McMahon, Ian Spence and Svante Lidman, Addison-Wesley 2013.



IVAR JACOBSON
INTERNATIONAL
Generated by IJI Practice Workbench™

2018.09