



Munich Re Transforms Application Development with Lean and Agile Practices

- Agile and lean ways of working adopted in a development organization spread across multiple time zones
- Collaborative approach succeeds in an environment where development and test is 100% outsourced
- Organization achieves rapid self-sufficiency in new application development practices
- Highly adaptable way of working provides “just right” level of support for projects with diverse needs and varied risk profiles

Creating **winning** teams.

Background Situation and Business Drivers for Change

Munich Re Group operates in all lines of insurance, with around 45,000 employees throughout the world. In the financial year 2012, the group achieved a profit of €3.2bn on premium income of €52bn. With premium income of over €28bn from reinsurance alone, and around 11,000 reinsurance staff, Munich Re is also one of the world's leading reinsurers. Their IT function is spread across multiple sites in the United States, Canada, Germany, Australia and other countries.

In 2008, Munich Re's application development function for reinsurance was re-organized based around functional disciplines ("stove-pipes") with a high rate of outsourcing and off-shoring of development and test. The initial expectation was that the suppliers were the experts, so did not need to be told how to develop applications. After two years of working this way, Munich Re realized that their initial expectations were misjudged – the outsourcing approach, which used a predominantly waterfall process, lacked efficiency and transparency. They needed to define a new standardized process with which they could effectively work with their suppliers.

Initial Steps towards Improvement

In late 2010 Munich Re began the task of defining an in-house process. They began by defining a set of principles which all members of IT senior management signed-up to and which steered later efforts. (See Appendix: Munich Re's Nine Principles). In addition to these principles, they realized that they actually needed to define an approach which provided their people with practical "how to" guidance. They also needed to build in the flexibility to deal with different types of project – projects that had diverse needs and varied risk profiles – i.e. one size would not fit all. At this point Munich Re consulted with its trusted partner, Zuehlke, who recommended that they partner with Ivar Jacobson International (IJI) to implement an innovative practice-based development process based on agile and lean practices.

"IJI was a crucial success factor in Munich Re's definition and implementation of an agile software development methodology for our multi-sourcing organization. They helped us with both deep insights, beyond the obvious and on an abstract level, and hands on support with the day-to-day project work".

Olaf Frank, Global Application
Development Officer

Early IJI Engagement

Always looking to provide practical help and maximize the business value of our work, IJI engaged in early 2011 with two projects which were in obvious difficulty. Facilitation of short duration, high impact workshops enabled us to quickly identify areas for immediate improvement and recommend two new practices, namely use case driven requirements, and iterative project management. IJI provided coaching to the project team members in these new practices, in order to bed down the new practices and ensure the project suffered no productivity dips. There was an immediate improvement in transparency as the business was able to engage in monthly iteration reviews, see visible signs of progress, and provide feedback on the output. Satisfied that the approach was the right one, Munich Re was now ready to scale up the adoption of the new way of working.

Transforming the Wider Organization

In April 2011, in addition to project coaches, IJI provided a change advisor to help Munich Re with the broader organizational change.

A key aspect of the success of the change was collaboration: moving away from stove-piped, waterfall-based processes, to cross-discipline working, regardless of whether the people were internal staff or external outsourced supplier resources. This required a common development approach that people across all disciplines could understand, but with sufficient flexibility to enable “right-sizing” the approach depending on the needs of any given project. It also needed to be lean enough to enable agility, rather than impede it. The solution lay in IJI’s practice-based approach (see Appendix: Lean Practice-Based Ways of Working). IJI helped Munich Re to define 3 different ways of working, each with its own lifecycle & set of practices drawn from a standard practice library; these were:

- **Exploratory:** for high risk profile projects, new development where requirements or architecture are unstable or unknown quantities
- **Standard:** for medium risk profile projects, typical characteristic of projects making bigger changes to applications
- **Small Enhancements:** for low risk profile projects, e.g. maintenance projects.

The practices used within these different lifecycles were:

- Standard IJI Practices: Iterative Essentials, Use Case Essentials, Architecture Essentials and Component Essentials
- Custom built Munich Re practices: Team Essentials, Integrated PMBOK & UP and Funding Essentials.

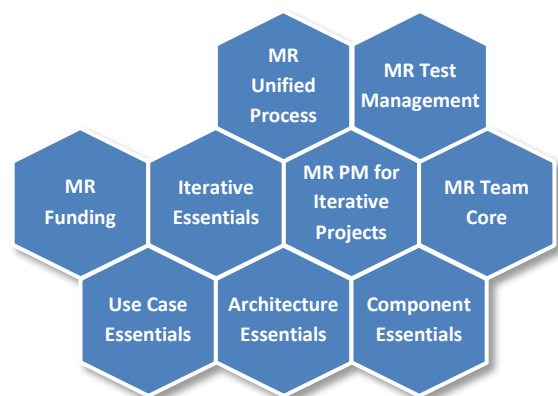


Figure 1: Munich Re's New Ways of Working are Composed of Standard and Custom Built Practices

In addition to defining a new process, Munich Re needed to make it real, to ensure it was adopted by the project teams, with people actually practicing it. This required coaching and support, but needed to be done in a way that did not rely on continued presence of external coaches – Munich Re needed to become self-sufficient in order to truly own its new way of working. The solution lay in IJIs coaching and certification framework. This framework provides structure and guidance, steering coaching activities in specific practices towards positive and quantifiable outcomes. The levels adopted by Munich Re were:

Practitioner:

- Undergone basic training
- Passed written exam
- Practicing under guidance from an experienced coach

Master Practitioner:

- Evidence based
- Demonstrates competence
- Effectively applying the practice

Coach:

- Undergone coach development training
- Demonstrates ability to inspire, motivate and teach others.

“A key success factor of our initiative was quickly reaching self-sufficiency. With intense support IJI helped us to develop our key people rapidly so that we could very early start to drive the change by ourselves”.

Frank Rauch, Senior Project
Manager

In addition to project-based coaching, annual coaching workshops were held – week long, intensive global get-togethers of all the Munich Re coaches – to provide inspiration, motivation and support. The aim was to develop enough internal certified coaches so Munich Re’s communities of practice could be self-sustaining.

IJI also introduced innovative learning ideas and influenced Munich Re’s training and learning approach. A highlight was Munich Re’s creation of a “Domino Simulation” – a simple way for a small group of 8-10 people to have fun, play a game (of dominoes!) and in the process actually experience the benefits of collaborative working and the rapid and regular feedback cycles that are part of iterative development.

Today and the Road Ahead

Today Munich Re has around 20 internal certified agile coaches and is self-sufficient with its new lean and agile way of working, with strong adoption across all disciplines and project types in Europe & North America.

Additional practices are currently under development including Test Management, User Experience and Security, to provide additional support for more complex and specialized projects.

Collaborative development is working well, guided by the practice-based approach. Munich Re now describes its supplier relationships as “Trust Based Partnerships”.

In terms of business value delivered, Munich Re decided not to introduce a formal measurement program, but instead is happy to rely (for now) on subjective evidence of the success of the

transformation. The business now feels that it is “back in the driving seat” and much more in control of what is delivered by IT. There is generally much better transparency and predictability, and it is much easier to recognize when things are going off the desired track, and take the necessary corrective action.

For Munich Re, the key difference between the new and the old ways of working, is that the business and IT now have a clear shared vision of how to develop software systems, and they are moving together towards that vision. They may not be there quite yet, but they know where they want to be, and are on the right track.

“IJI grasped the situation at Munich Re quickly and adapted their solutions to our needs. The supplied concepts and tools were very well aligned with our situation. IJI provided essential assistance allowing us to introduce a comprehensive and sustainable change to our organization”.

Burkhard Perken-Golomb, Topic Leader for
Methods & Standards

[Learn more](#) about IJIs lean and agile transformation approach.

Appendix: Munich Re's Nine Principles

These principles were the foundation of Munich Re's improvement initiative, and served to guide all subsequent work related to application development and process improvement. To help gain buy-in and executive commitment to the change program, they were printed on posters, physically signed, and displayed all around the organizations offices.

Development methodology:

- Iterative and incremental development methodology
- Risk-driven development
- Transparency regarding progress, cost, and quality

Quality:

- Explicit orientation towards quality across all activities and all roles involved
- Explicit quality assurance (e.g. via quality gates)
- Test-oriented development and continuous integration

Tooling and reuse:

- Reuse of software components and platforms
- Ready-made tool support and automation for standard tasks

Learning and improvement:

- Systematic feedback and continuous improvement

Appendix: Lean Practice-Based Ways of Working

A practice defines a simple, lean, light-weight solution to a specific software development problem. It focuses on the essential things (but nothing more!) which need to be done in order to ensure a development effort stays on track.

Each practice consists of things to produce, things to do, competencies required and patterns which can be applied. Practices can be used one by one or in any combination required to suit the needs of an organization or project. Read more about IJI's practice-based approach [here](#).

Practices are combined using a kernel, which provides the means to interlock practices to form a complete method, or way of working. The kernel also provides a simple way to manage and track the progress of a project by monitoring the states of the key project indicators, called "alphas". The practice and kernel concepts have been adopted by the [SEMAT](#) community, with the kernel in the process of becoming an industry standard under the umbrella of the [OMG](#).

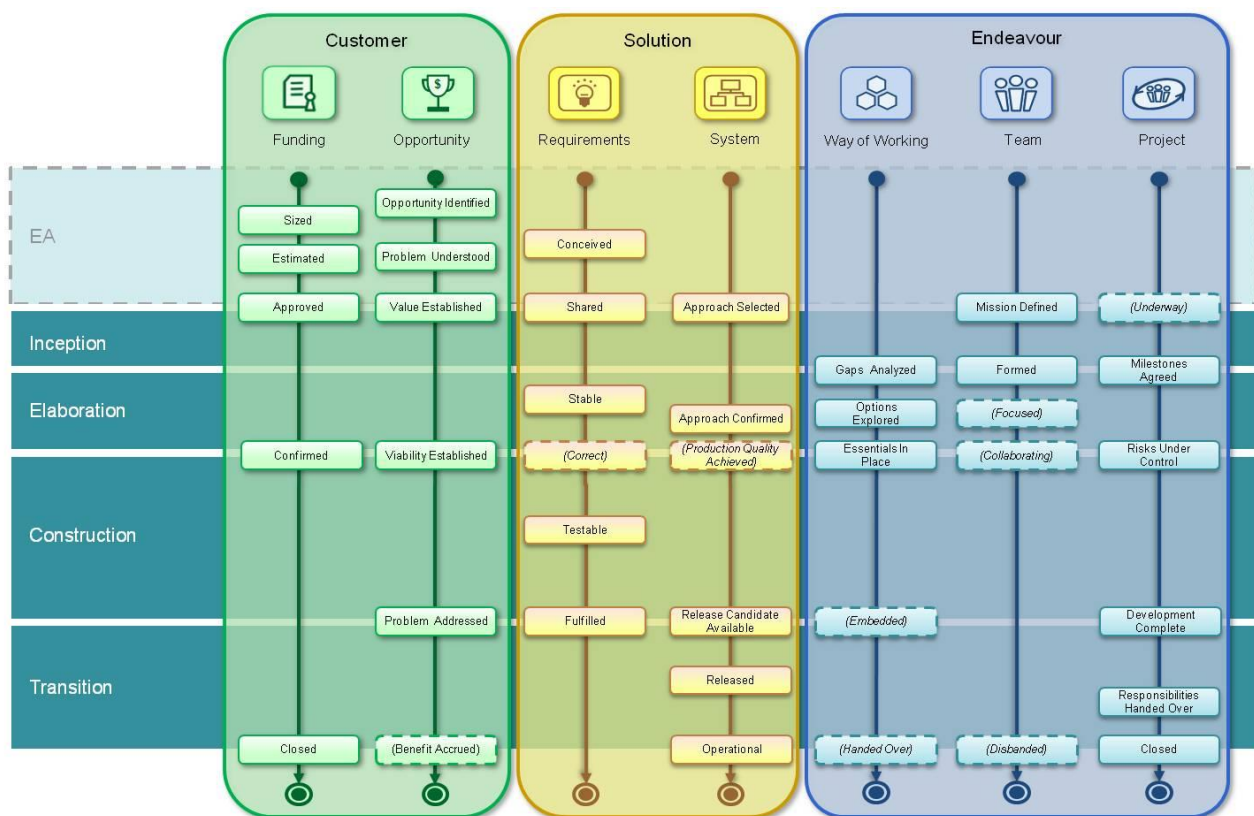


Figure 2: One of the Lifecycles Adopted by MunichRe, showing Key Project Indicators (Alphas) and state progressions.



About Ivar Jacobson International

IJI is a global services company providing high quality consulting, coaching and training solutions for customers seeking the benefits of enterprise-scale agile software development.

We are passionate about improving the performance of software development teams, and maximizing the delivery of business value through technology.

Whether you are looking to transform a single project or programme or your entire organization with lean and agile practices, we have solutions to suit your needs.

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