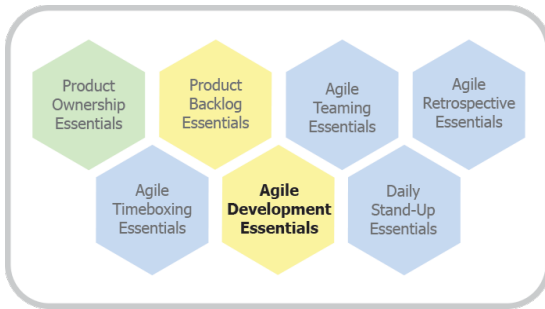# IVAR JACOBSON INTERNATIONAL

Agile Development Essentials
Part of the IJI Agile Essentials Practice Pack

Agile Essentials practices provide a starter kit that describes key common aspects of team-based development. Each practice contains cards that provide succinct advice on how to successfully adopt and apply the practice.

Practice Overview

Add value to a product by incrementally extending it, ensuring it is usable, releasable and maintainable.

Activities – the things we do

- **Evolve a Releasable Product:** Increase the value of a product by one small increment while ensuring that it remains usable, maintainable and of production quality.

Alphas – the essential elements that we progress

- **Product Backlog Item:** Something to build into the product to enhance its value.
- **Software Change:** A change to the code made for a known purpose and tested before it is integrated.

Work Products – the concrete things that we work with

- **Test Case:** Defines test inputs and expected results to evaluate whether the system works correctly.

Patterns - supporting practice guidance

- **Cross-Functional Team:** The team contains all the specialist skills needed to get the whole job done.
- **Minimal Design:** Agile development teams think hard about design, but focus on adopting the simplest approach possible to achieving the known things that must be achieved next.
- **Fast Feedback Loops:** Key to agile development is getting as much feedback as possible early, as possible, in order to converge on an accurate solution.
- **Shared Ownership:** The team takes shared responsibility for the product, and no parts of the software system can be considered "no go areas" for any team members.
- **Build Quality In:** Quality is planned, designed and built in.
- **Manage Technical Debt:** Each such item of technical debt should be logged, and its subsequent removal prioritized against the adding of more user-requested value into the product.
- **Automate as Much as Possible:** If a software system is evolved one increment at a time, while ensuring its quality, many actions need to be repeated frequently and should therefore be automated.

Resources - referenced external sources of information and content

- This practice description uses the OMG Essence standard, with key concepts like Activities, Work Products, Alphas and Patterns being defined by this standard (http://www.omg.org/spec/Essence/).
- *Build Quality In* is in Mary & Tom Poppendieck's Lean Software Development (Addison Wesley 2003).
- *Automating as much as possible* is based on is the Continuous Delivery principle "Automate Everything" (see for example http://devopsnet.com/2011/08/04/continuous-delivery/).
- *Technical Debt* is a term coined by Ward Cunningham (see http://en.wikipedia.org/wiki/Technical_debt)
- On *Minimal Design* see for example http://guide.agilealliance.org/guide/simple-design.html.

Creating winning teams.