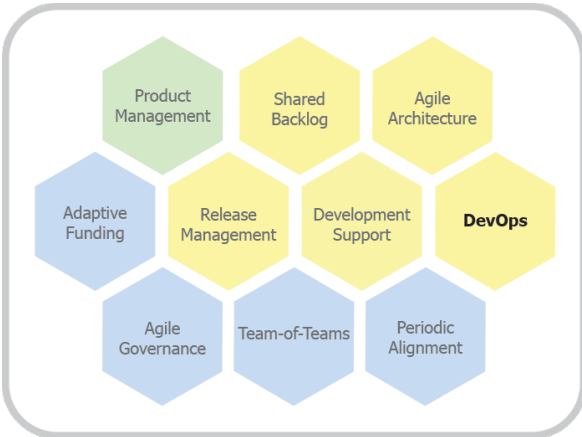# IVAR JACOBSON INTERNATIONAL

DevOps Essentials
Part of the IJI Agile at Scale Practice Pack

Agile at Scale practices provide a starter kit that describes key common aspects of scaled agile development. Each practice contains cards that provide succinct advice on how to adopt and apply the practice

Practice Overview
Dev and Ops work together to improve responsiveness to customer needs and to transition releases to live operation frequently, smoothly and safely.

Activities – the things we do

- **Monitor and Respond:** Focus on the rapid detection and resolution of any and all sources of user dissatisfaction with the operational system.

Competencies – the capabilities we need

- **Operations:** The ability to operate systems, including monitoring and maintaining systems to maximize availability and performance and make new deployments safely and without operational disruption.

Alphas – the essential elements that we progress

- **Production Issue:** Any production system issue or potential enhancement that is detected through operational use, monitoring or end-user feedback.

Patterns - supporting practice guidance

- **Joint Rapid Response Team:** Dev and Ops team members work together as a rapid response team to fix Production Issues. The team is responsible for all aspects of the end to end process, from diagnosis, through solution design, development and test to deployment of the code that fixes the issue. A team may be formed on an as-needs basis or as a permanently on-call team with rotating membership.
- **End-to-End Optimization:** Use systems thinking to measure and optimize the full "end-to-end" process, from detection of need to live change that meets the need.
- **Design for DevOps:** Deployability and operability are made key architectural concerns.
- **Master Deployment through Repetition:** Deploy more and more frequently - from once per week to multiple times per day - by investing in automation and close collaboration between Dev and Ops.
- **Blameless Post-Mortem:** Have an open, all-inclusive post-mortem after every incident or deployment, and agree specific changes to improve the process in future.

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⊡ 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/).
- **DevOps:** The term "DevOps" was popularized through a series of "DevOps Days" starting in 2009 in Belgium. [https://en.wikipedia.org/wiki/DevOps].
- **End-to-End Optimization:** See for example "The First Way" in Section 5: "Systems Thinking" in *The Top 11 Things You Need To Know About DevOps v1.0* by Gene Kim [www.itrevolution.com].
- **Master Deployment through Repetition:** See for example Principles of Software Delivery: "Create a Repeatable, Reliable Process for Releasing Software" and "If it Hurts, Do It More Frequently and Bring the Pain Forward" P.24-27 of *Continuous Delivery* by Jez Humble and David Farley [Addison-Wesley 2011]

Blameless Post-Mortem: See "DevOps Patterns Area 2: Create Production feedback into Development" in *The Top 11 Things You Need To Know About DevOps v1.0* by Gene Kim [www.itrevolution

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