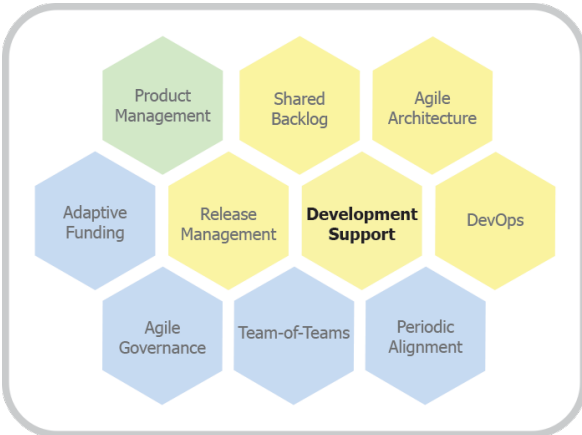




Development Support Essentials

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

Automate and operate environments in support of development teams to optimize the development process.

Activities – the things we do

- **Evolve the Environment:** Support the development, test, and deployment of the software system, including specifying, setting up, making available to teams and ensuring they can access and use it.
- **Support the Environment:** Keep the environment running, help teams to use it well, and optimize and refine its configuration and use based on experience and feedback.

Alphas – the essential elements that we progress

- **Environment:** Includes all the “boxes”, tools, configurations, workspaces etc. needed to support code production and promotion (e.g. dev., test, staging, prod. etc.).

Patterns - supporting practice guidance

- **Environment Team:** In a large-scale agile delivery endeavor involving many independent development teams, significant investment is needed in ensuring that the tools, environments etc. are available to the teams to enable them to effectively collaborate to evolve a large-scale, complex product. This team is dedicated to ensuring that the teams have access to this capability and infrastructure.
- **Automate the Pipeline:** To reduce lead-time, automate the development pipeline as much as possible.
- **Environment as Code:** Scripts and configuration parameters used in automation should be treated like code and version-controlled like any other piece of code in the software system.
- **Manage Testing Debt:** Each team’s Definition of Done should cover all types of testing. The running of tests needs to be planned for, scheduled and supported, so they can be run as frequently as possible.

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/>).
- **Environment Team:** This concept is similar to what Henrik Kniberg calls an Infrastructure Squad (see for example <https://labs.spotify.com/2014/03/27/spotify-engineering-culture-part-1/>), and what Dean Leffingwell calls a System Team (see P.71-73 of *Agile Software Requirements* [Addison-Wesley 2011]).
- **Automate the Pipeline:** See the “Automate Almost Everything” principle on P.25 of *Continuous Delivery* by Jez Humble and David Farley [Addison-Wesley 2011].
- **Environment as Code:** See the “Keep Everything in Version Control” principle on P.26 of *Continuous Delivery* by Jez Humble and David Farley [Addison-Wesley 2011].

Creating winning teams.