Solution management, DevOps and Dynamics 365

Benedikt Bergmann – 29.01.2020

POWER PLATFORM
COMMUNITY
SWEDEN

Benedikt Bergmann

Bachelor of Science Computer Science

Since October 2014 at Acando (now CGI)
Since October 2017 in Stockholm

Microsoft Consultant
- Dynamics CRM/CE/MDA
- Power Platform
- .Net development
- Angular

First contact with Dynamics ~5.5 years ago

Agenda

- Solutions
  - Unmanaged vs. Managed
  - Update vs. Upgrade
- Environments
- DevOps
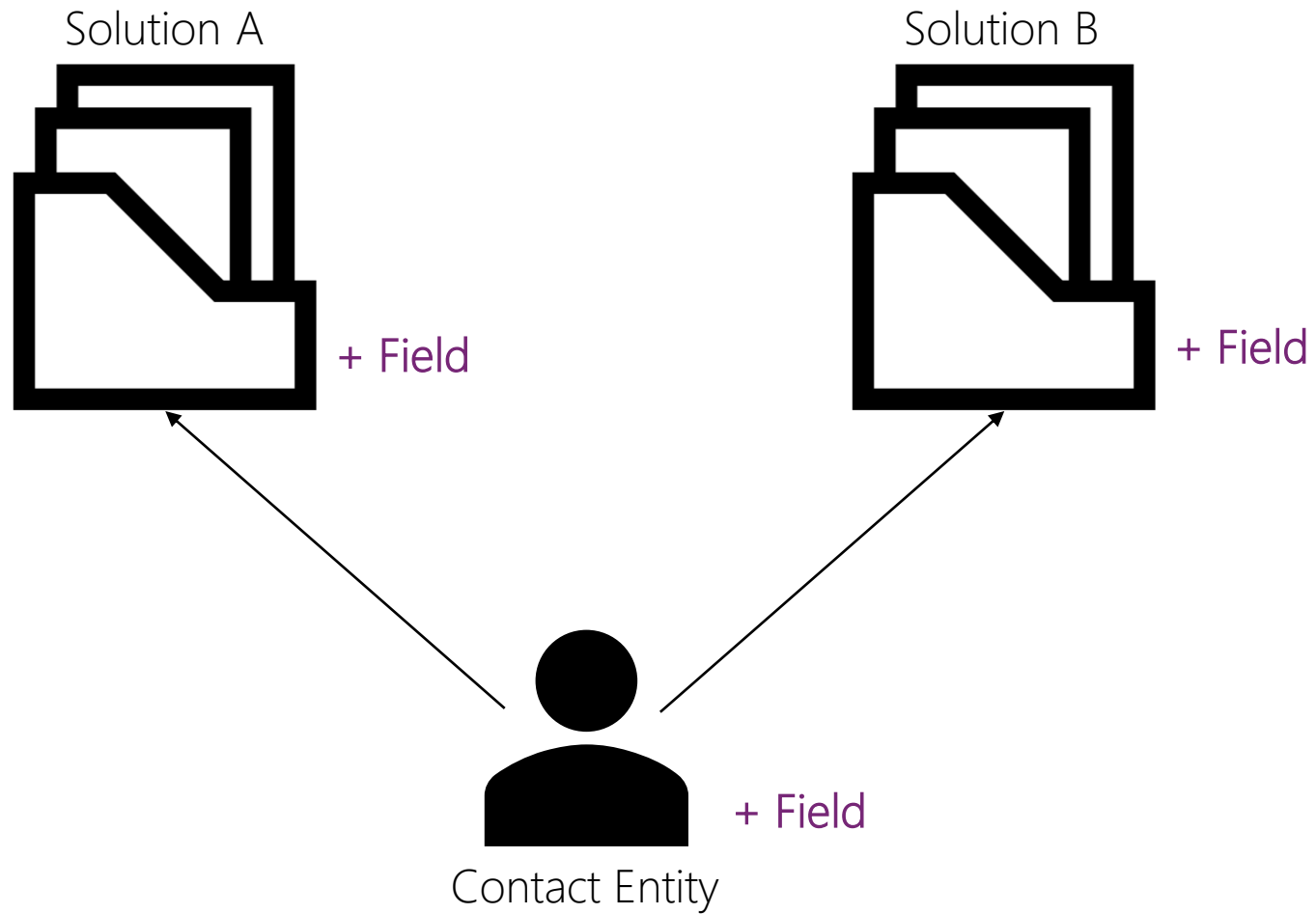- DevOps in the Power Platform
- Azure DevOps

Solutions

- **Only Containers**
- Never use "Include all components"
- Configurable
- Contains "only" customization
- Purpose/Supplier separation
  - Note publisher
- Patching & Cloning

Solutions

Solution A

Solution B

+ Field
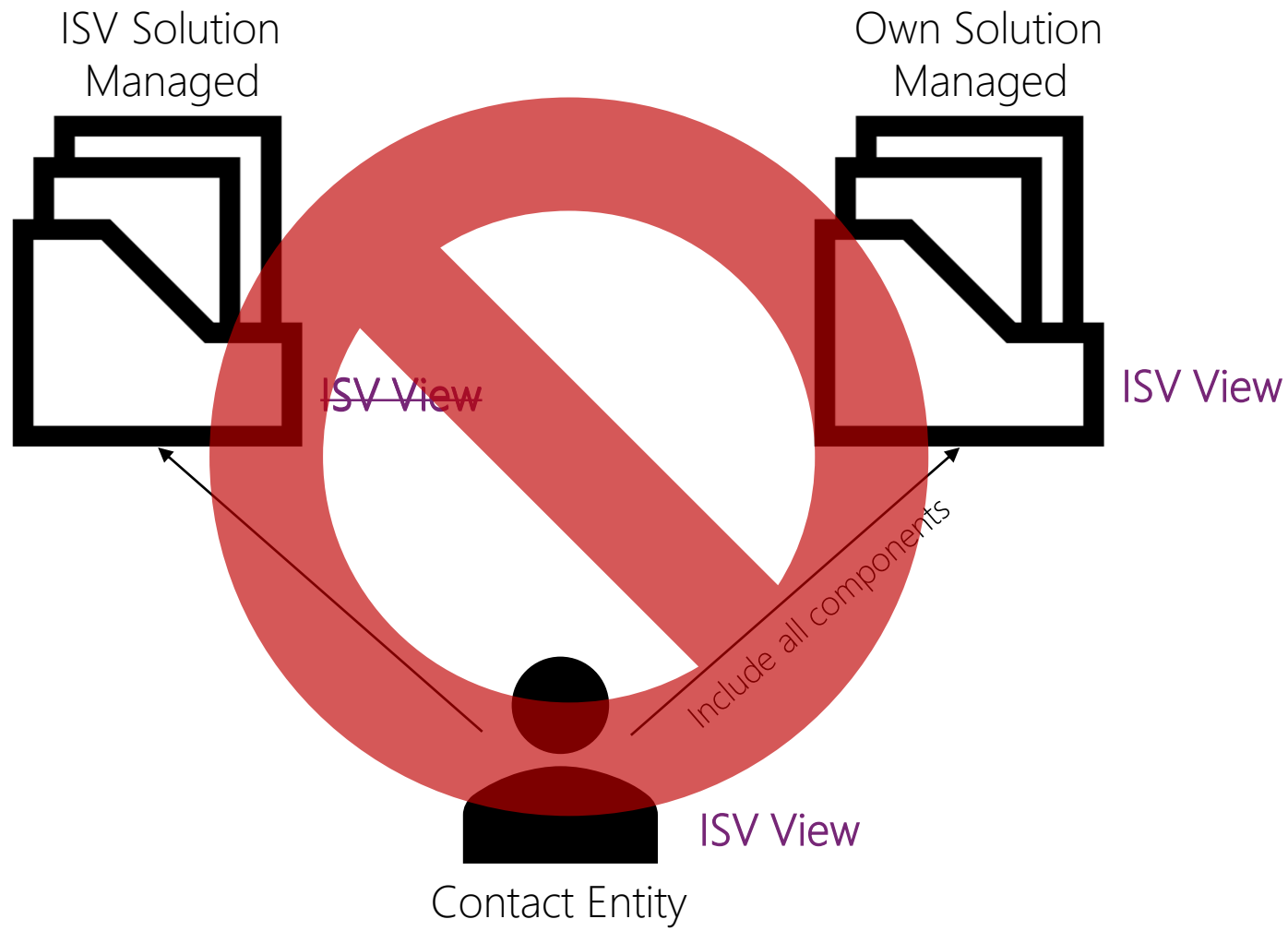
+ Field

+ Field

Contact Entity

Solutions

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Solutions

ISV Solution
Managed

Own Solution
Managed

ISV View

ISV View

Include all components

ISV View

Contact Entity

Solutions

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Solutions

Managed Properties

The following properties will take effect only ~~when~~
the component is exported and imported as ~~part~~
of a managed solution.

Close

[ON] Allow customizations

☑ Display name can be modified

☑ Can change additional properties

☑ New forms can be created

☑ New charts can be created

☑ New views can be created

☑ Can change hierarchical relationship

☑ Can change tracking be enabled

☑ Can enable sync to external search index

Solutions

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Customization vs. Data

Customization
- Entities
- Fields
- Business Rules
- ...

Data
- Entity Records

Exception
- Environment Variables
- Duplication Detection Rules
- ...

Solutions

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- **Purpose/Supplier separation**
  - Note publisher
- **Patching & Cloning**
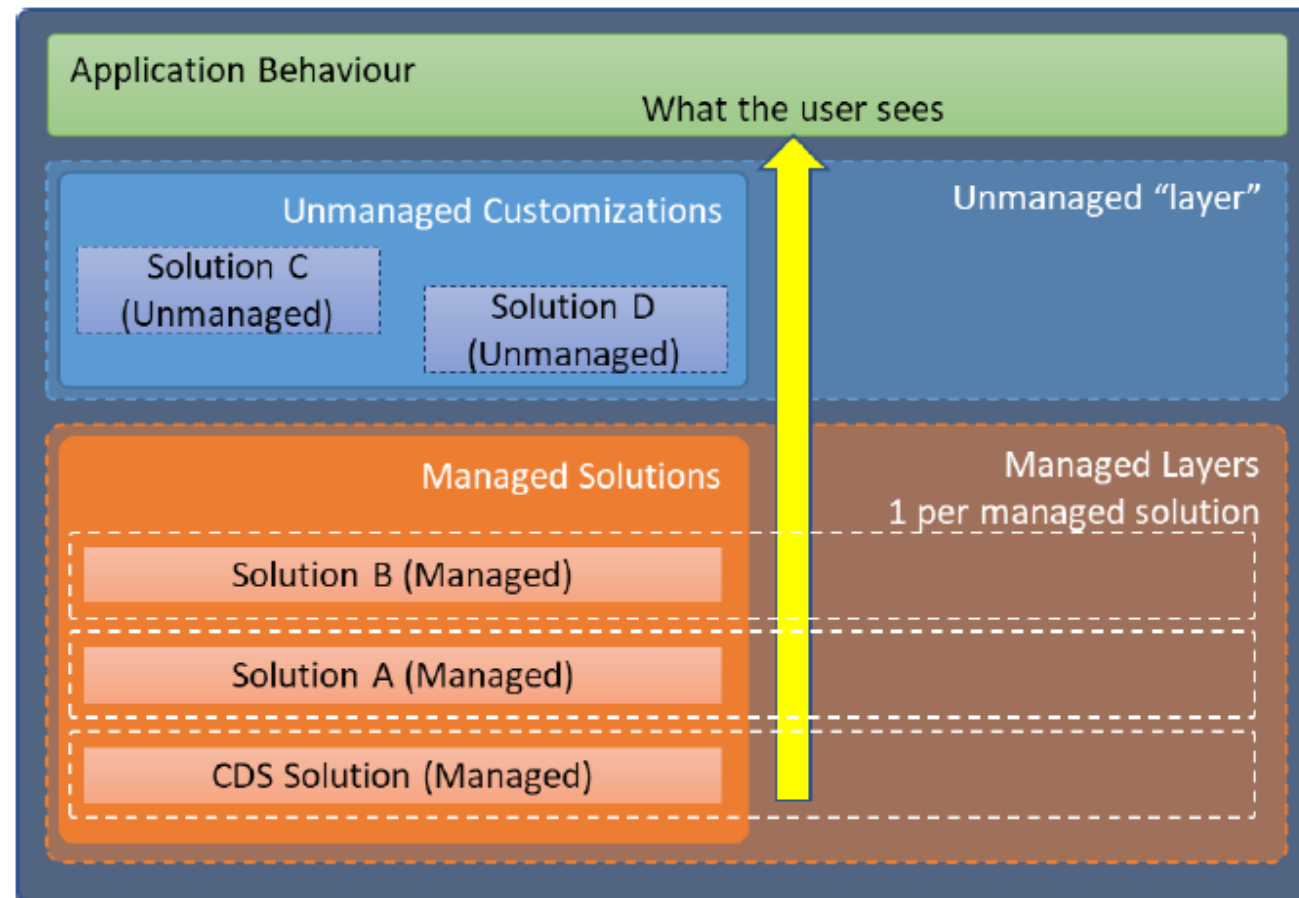
Unmanaged vs. Managed

Unmanaged	Managed
■ Add components ■ Remove components ■ (Delete components) ■ Export to Unmanaged ■ Export to Managed ■ Can be deleted without uninstalling components	■ Unable to add components ■ Unable to remove components ■ Can not be exported ■ Deleting will uninstall all components

Layering

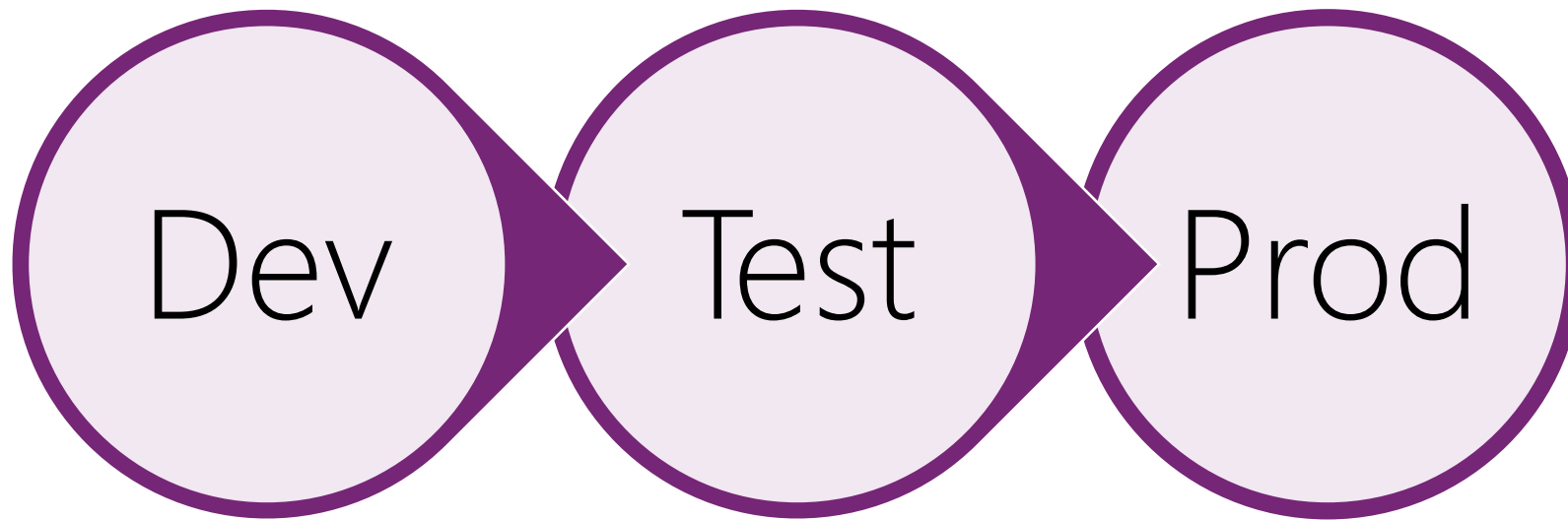# Update vs. Ugrade

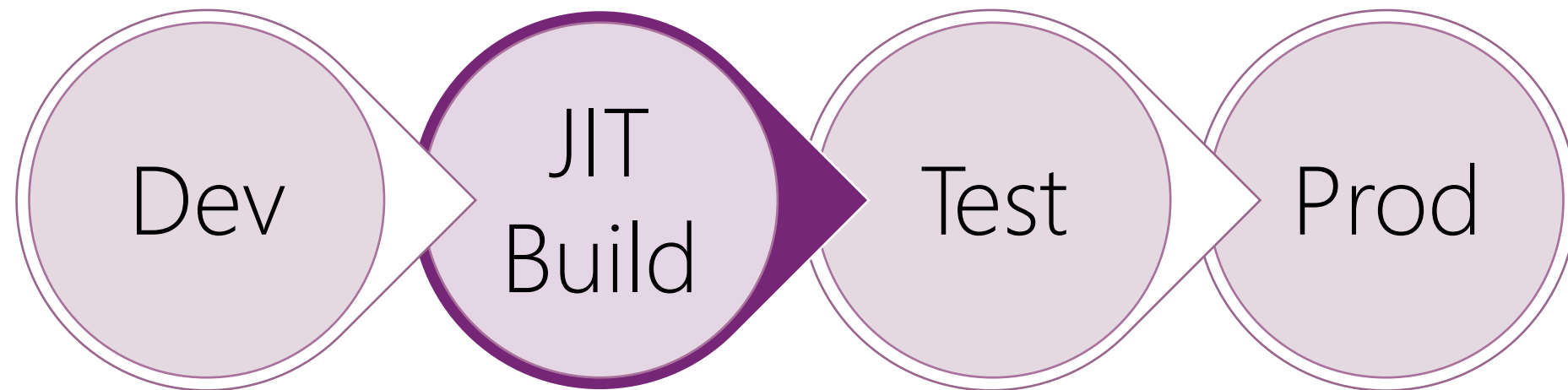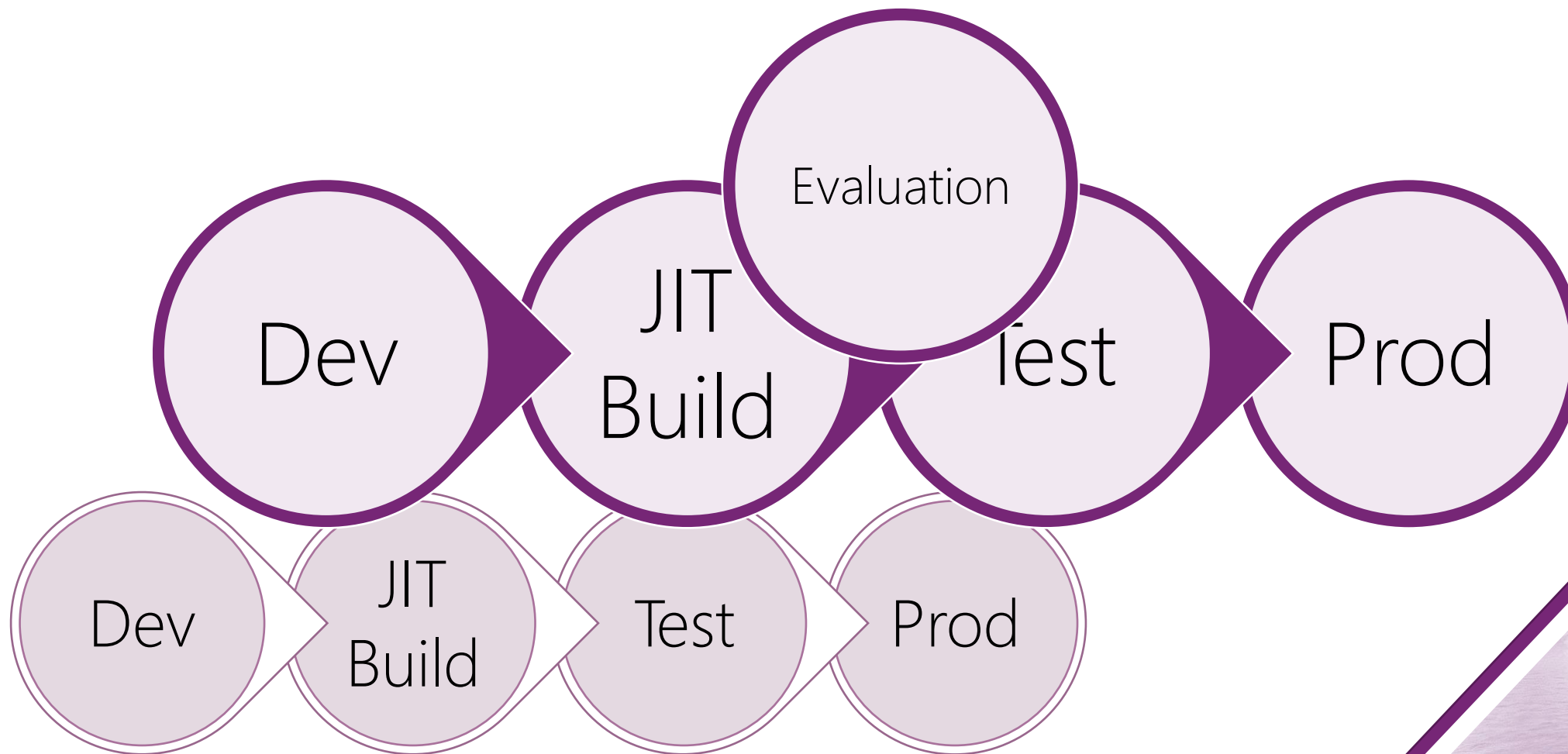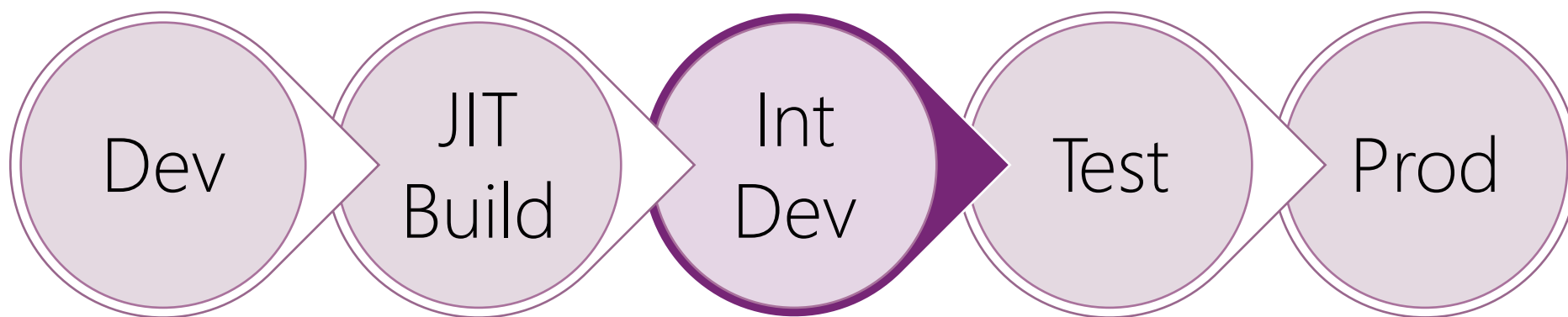| Update	Upgrade
▪ Installs new components ▪ Updates existing components	▪ Installs new components ▪ Updates existing components ▪ Not available when same version ▪ Uninstalls components deleted from the Solution

Environments

Environments

Dev → JIT Build → Test → Prod

Environments
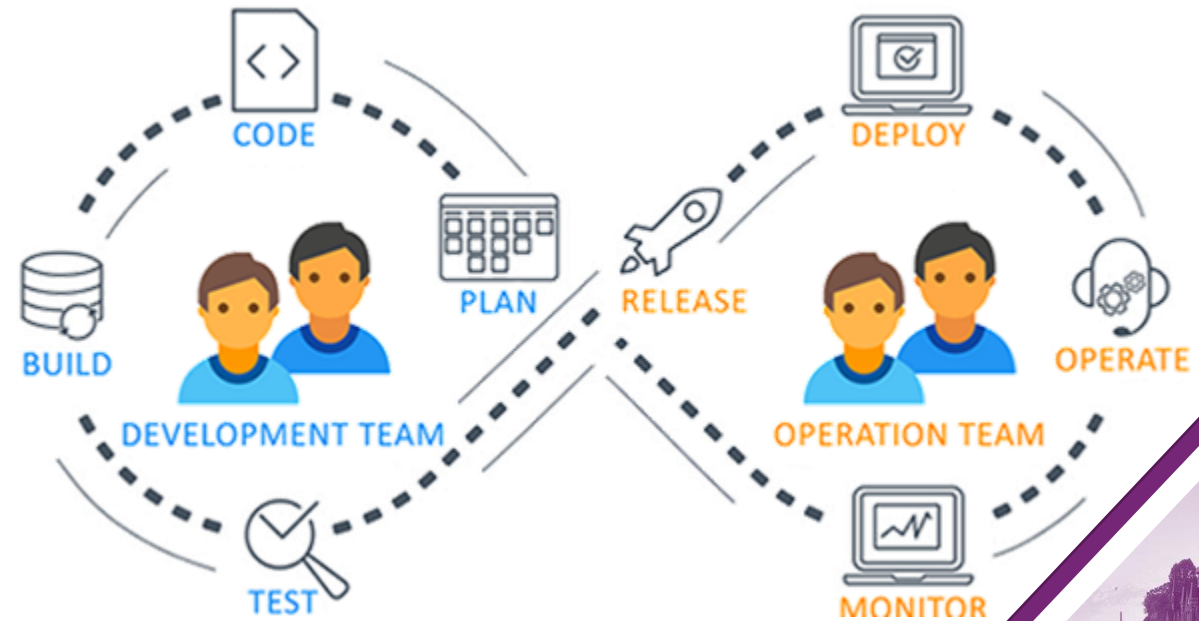
Environments

Dev → JIT Build → Int Dev → Test → Prod

What is DevOps?

- Development & Operations
- Set of practices
- Union of
  - Process
  - People
  - Working Product
- Enables
  - Continuous Integration
  - Continuous Delivery

DevOps in the Power Platform 1/2

- Configuration Entities
  - Environment Variables

- Automated access
  - Team assignment
  - Sharing Apps

- Different Types of users
  - Non-Interactive Users
  - Application Users

DevOps in the Power Platform 2/2

- Notification per environment
- Activity Logging
- Data Loss Prevention (DLP) policies
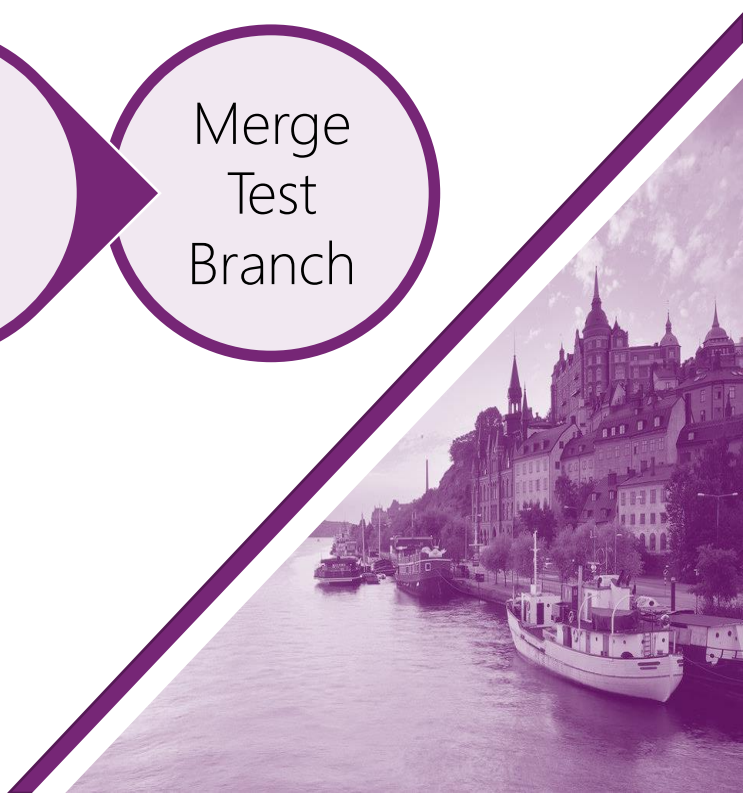- Center of Excellence ToolKit
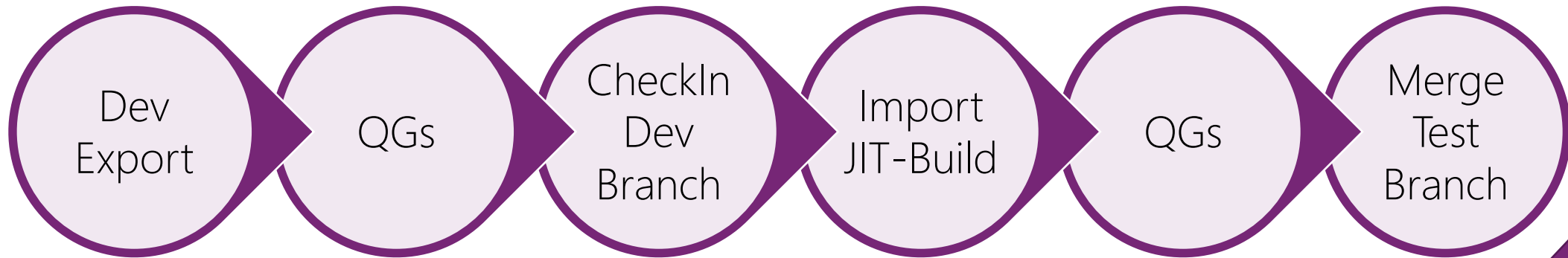- Azure Application Insights

Azure DevOps

- Automated Testing
  - Unit Tests
  - UI Tests (EasyRepro)
  - Integration Tests
- Automated Deployment
- Source Controle centric
- Link to WorkItem

Azure DevOps – Flow

Dev Export → QGs → CheckIn Dev Branch → Import JIT-Build → QGs → Merge Test Branch

Demo

Thank you

Twitter: https://twitter.com/BergmannBene
LinkedIn: https://www.linkedin.com/in/benedikt-bergmann
Mail: benedikt@familj-bergmann.se
Blog: http://benediktbergmann.eu