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Siemens Advanta Consulting

From Milestones to a Continuous Quality Assurance Flow – Applying DevOps in Industrial Environments

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siemens-advanta.com/consulting

YOUR PRESENTER



Dr. Peter Fassbinder

Principal Expert PLM Process Innovation
Siemens Advanta Consulting

15+ years hands-on experience in Lean / Agile

5+ years transforming industrial & regulated organizations to Continuous Delivery & DevOps

Continuous Delivery & DevOps in Industrial and Regulated Environments
Agile Scaling | Lean & Agile Leadership

Member of Advisory Board: Enterprise:Code 2020

Chairman: Delivery of Things World 2019, Agile PEP Minds 2019, Enterprise:Code 2020

Multiple keynotes, presentations and papers at international conferences

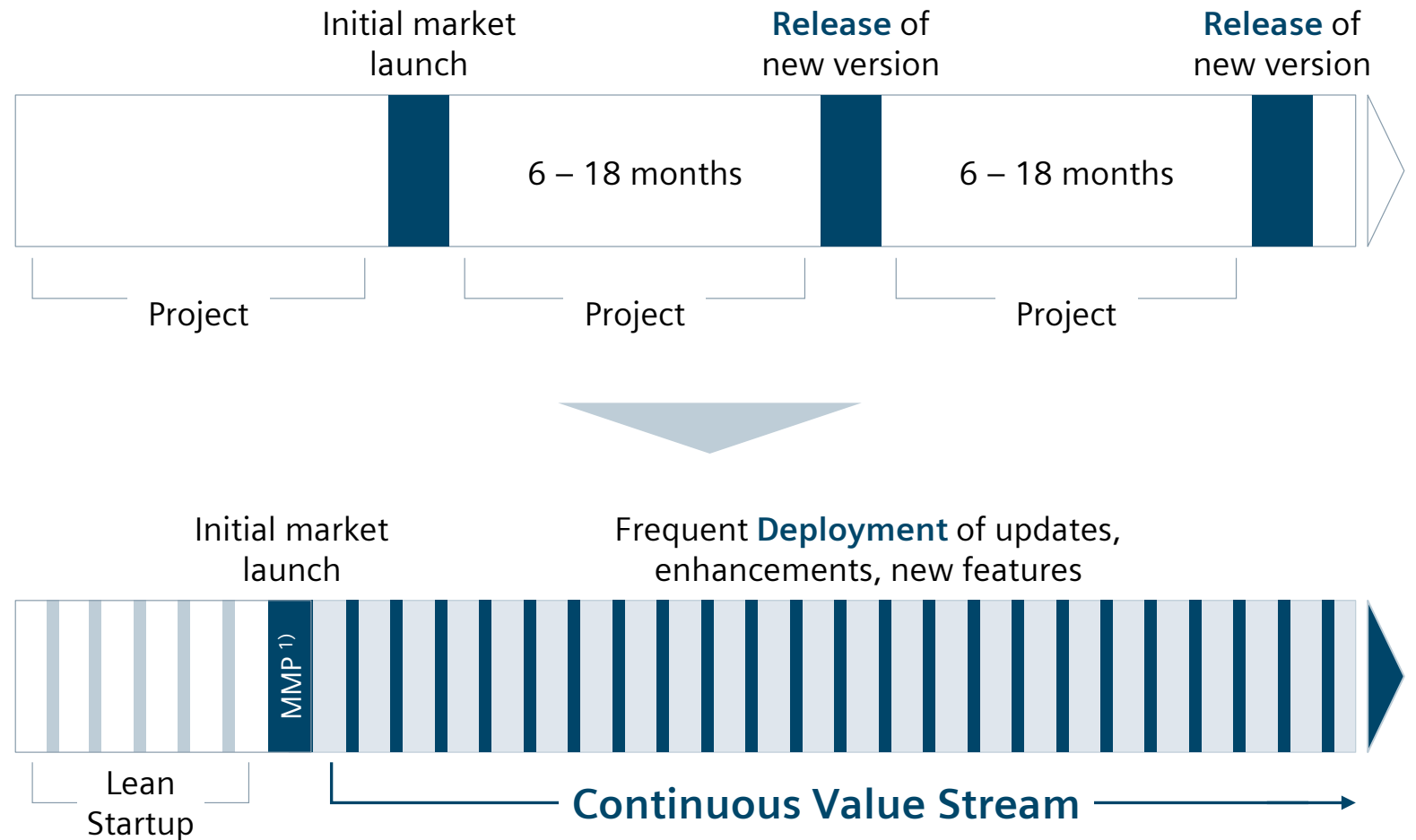
Certified Scrum Master | Certified SAFe Agilist | Certified DevOps Culture Trainer

STOP THINKING PROJECTS

**START THINKING
CONTINUOUS VALUE STREAM**

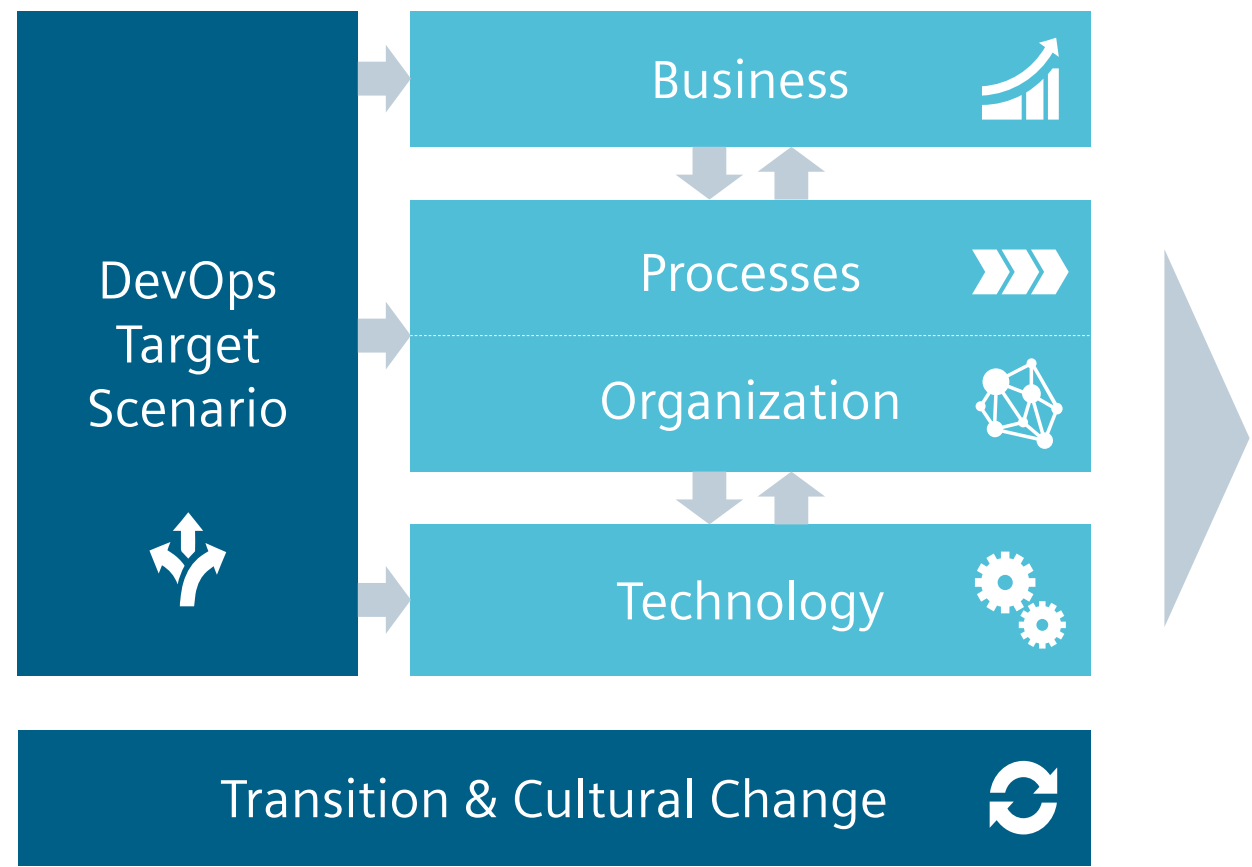
Continuous / frequent deployments implies a shift from projects with discrete releases to a

CONTINUOUS VALUE STREAM TO YOUR CUSTOMERS



1) Minimal Marketable Product

Establishing Continuous Delivery and DevOps requires a targeted, organizational transformation



CHANGING
PRODUCT
DEVELOPMENT
FOR A
CHANGING WORLD

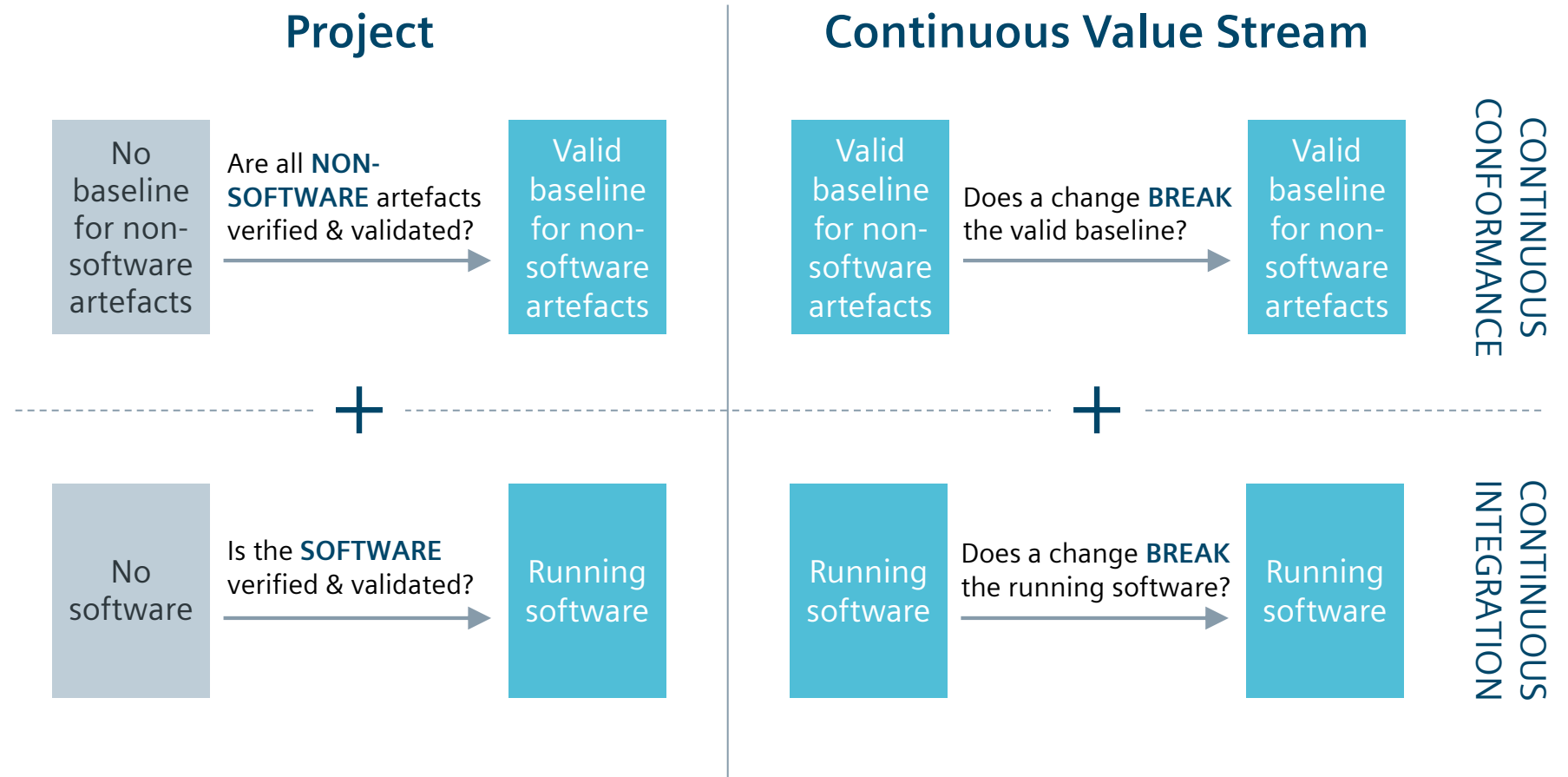
**CONTINUOUS QUALITY
ASSURANCE**

FOR A CONTINUOUS WORLD

GREEN TO GREEN

or continuous
everything

Applying a successful mantra from software – beyond software



Deploying software requires not only Continuous Integration, but also Continuous Conformance

CONTINUOUS PROGRAM

Ensures DEPLOYMENT INDEPENDENT activities are addressed for the product

CONTINUOUS MARKETING

Ensures MARKETING activities are addressed at appropriate times

CONTINUOUS CONFORMANCE

Ensures the quality of NON-SOFTWARE artefacts

+

CONTINUOUS INTEGRATION

Ensures the quality of the SOFTWARE

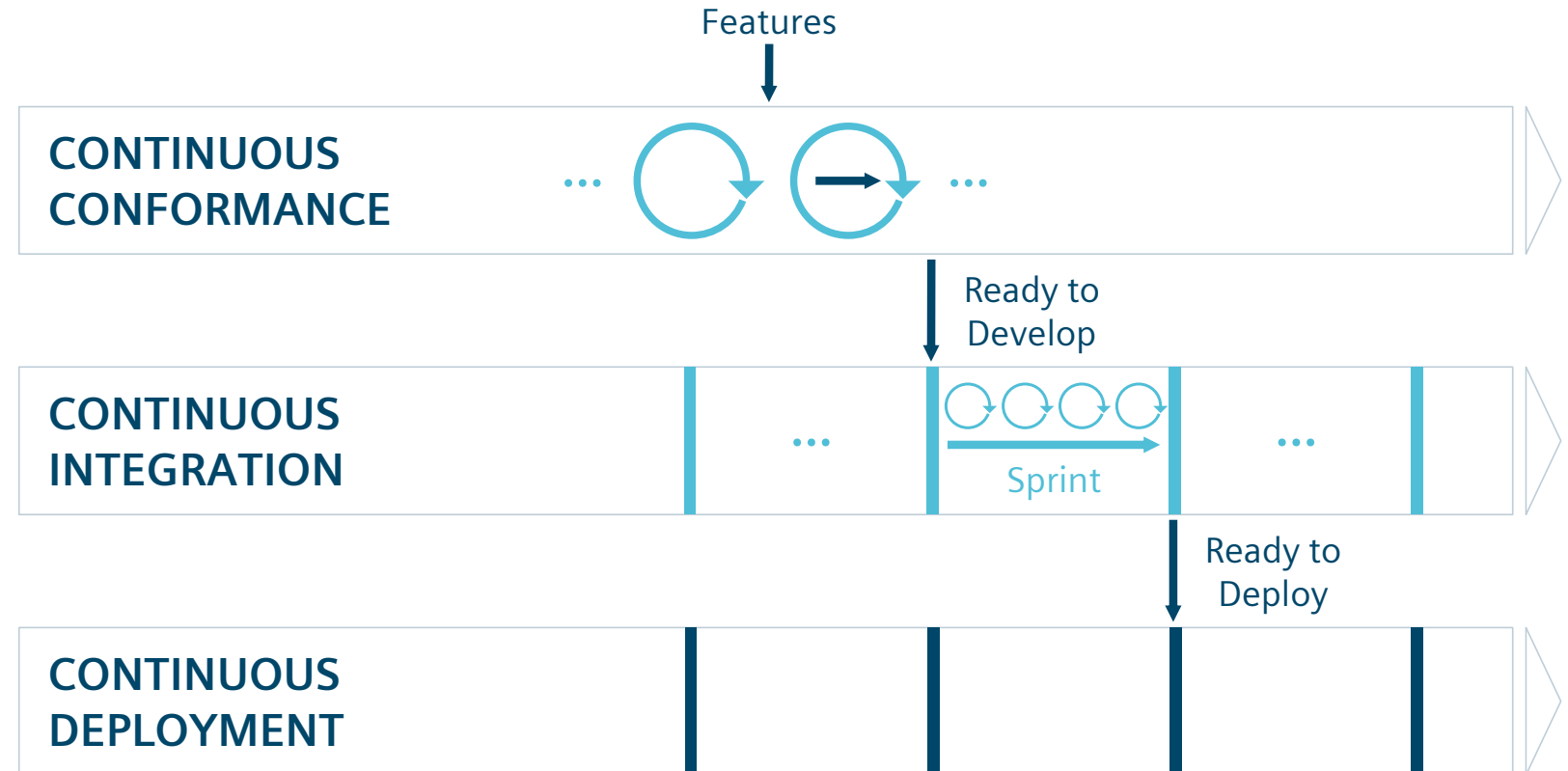
CONTINUOUS
DEPLOYMENT

CONTINUOUS
QUALITY
ASSURANCE

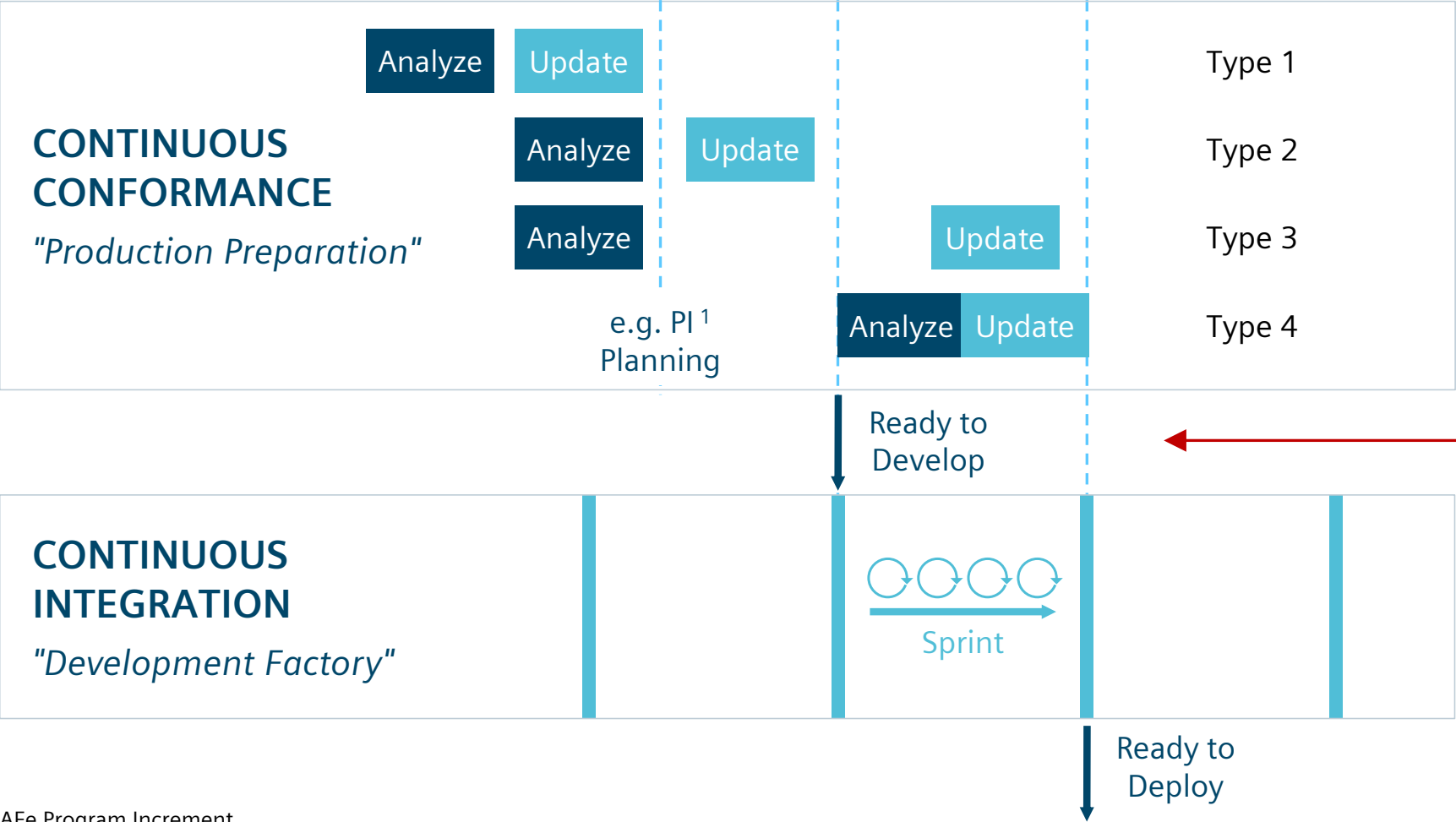
SHIFT LEFT

also FOR NON- SOFTWARE ASPECTS

Shift Left is a key success factor
for all continuous aspects



Continuous Conformance enables high deployment frequencies, while ensuring industrial quality



Ready to Develop
"Quality Gate"

	Analyze	Update
Type 1	✓	✓
Type 2	✓	✓
Type 3	✓	—
Type 4	—	—

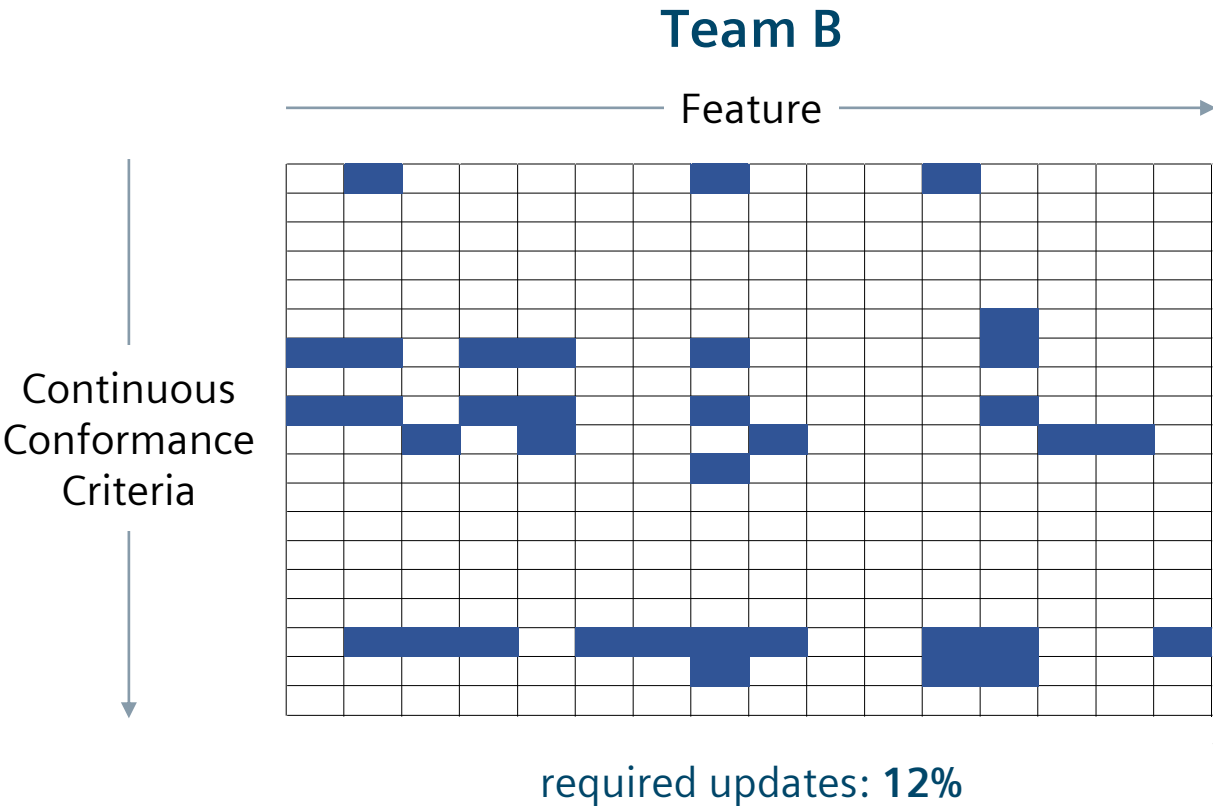
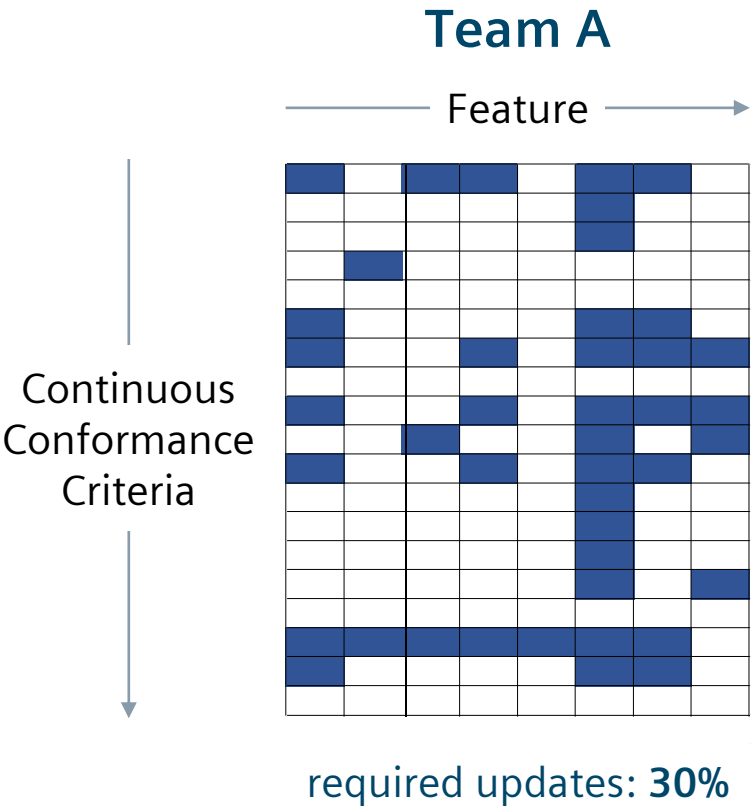
1) SAFe Program Increment

EFFICIENT MANAGEMENT

**OF CONTINUOUS
CONFORMANCE IS KEY**

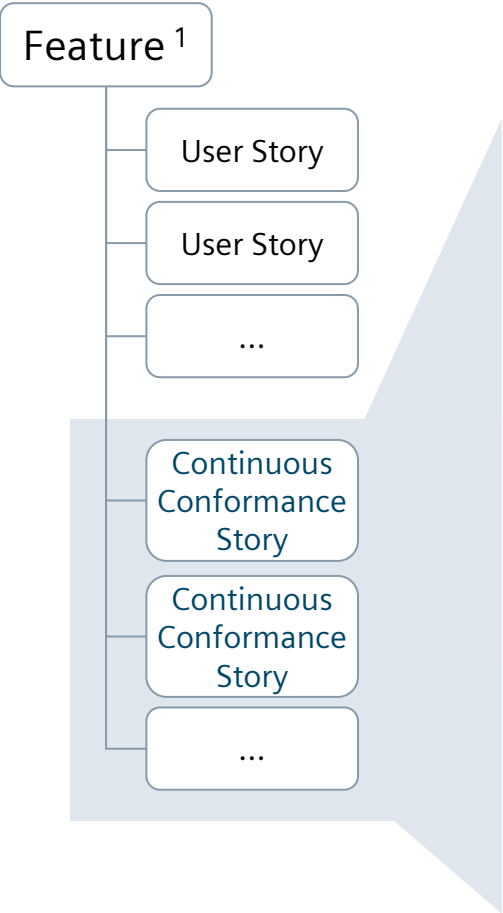
Continuous Conformance is manageable

Example



■ = for this feature the non-software artefact of the Continuous Conformance criteria has to be updated

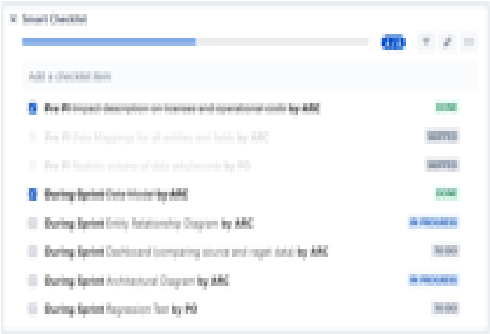
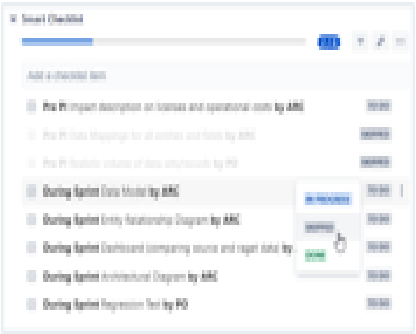
Management of Continuous Conformance in the standard tool chain is critical for success



RTC²



JIRA

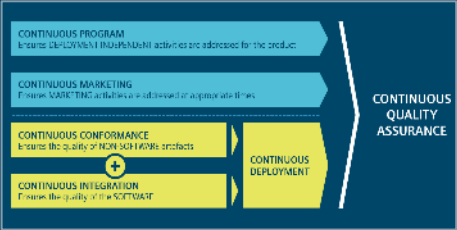


Azure DevOps

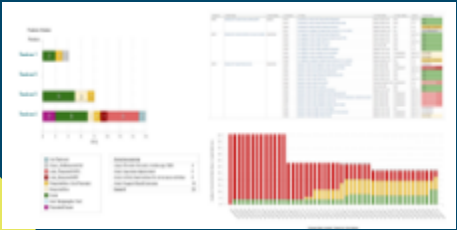


1) Example Requirements Breakdown, 2) IBM Rational Team Concert

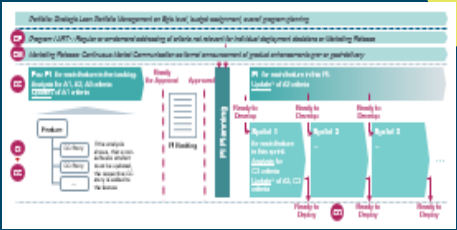
Deployment Strategy
Cont. Conformance Criteria
Other Criteria



Tool Integration
Cont. Conf. & Cont. Integr.
Dashboards



CONTINUOUS
QUALITY
ASSURANCE



Roles & Responsibilities
Meetings
Processes



Vision
Change Management
Coaching & Roll-Out

GREEN
TO GREEN

SHIFT LEFT

SUSTAINABLE
IMPLEMENTATION
ON ALL LEVELS

Our customers want

PRODUCTS that **GET
BETTER EVERY DAY**

they use them!

SAFELY, SECURELY

and with

HIGHEST QUALITY!

– adapted from Jan Bosch



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Whitepaper: *Continuous Delivery and DevOps in industrial environments*

https://www.siemens-advanta.com/system/files/2020-09/Whitepaper_Continuous-Delivery_and_DevOps.pdf



The DevOps Enterprise Journal Spring 2022:

From Milestones to a Continuous Quality Assurance Flow – Introducing the Continuous Conformance Concept

<https://itrevolution.com/free-resources-sign-up/>