

Rational Unified Process

Methodology is a set of models, methods, practices and tools.

The methodologies classified as

- «Heavy»/«Formal» : RUP, MSF
- «Light»/«Flexible» : Scrum, Agile, eXtreme Programming

Rational Unified Process

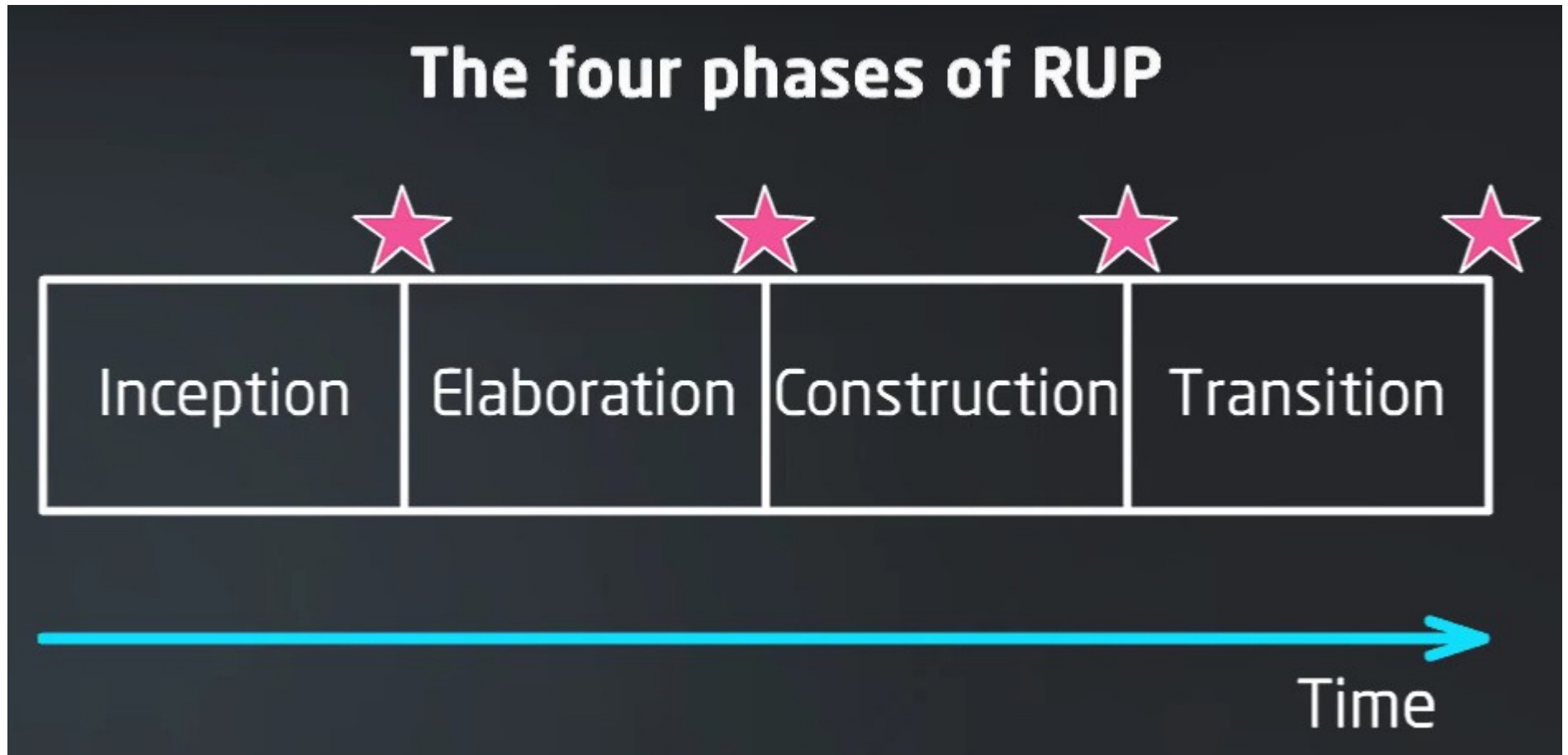
RUP — approach, which is

- Iterative
- Architecture centered
- Use-case based

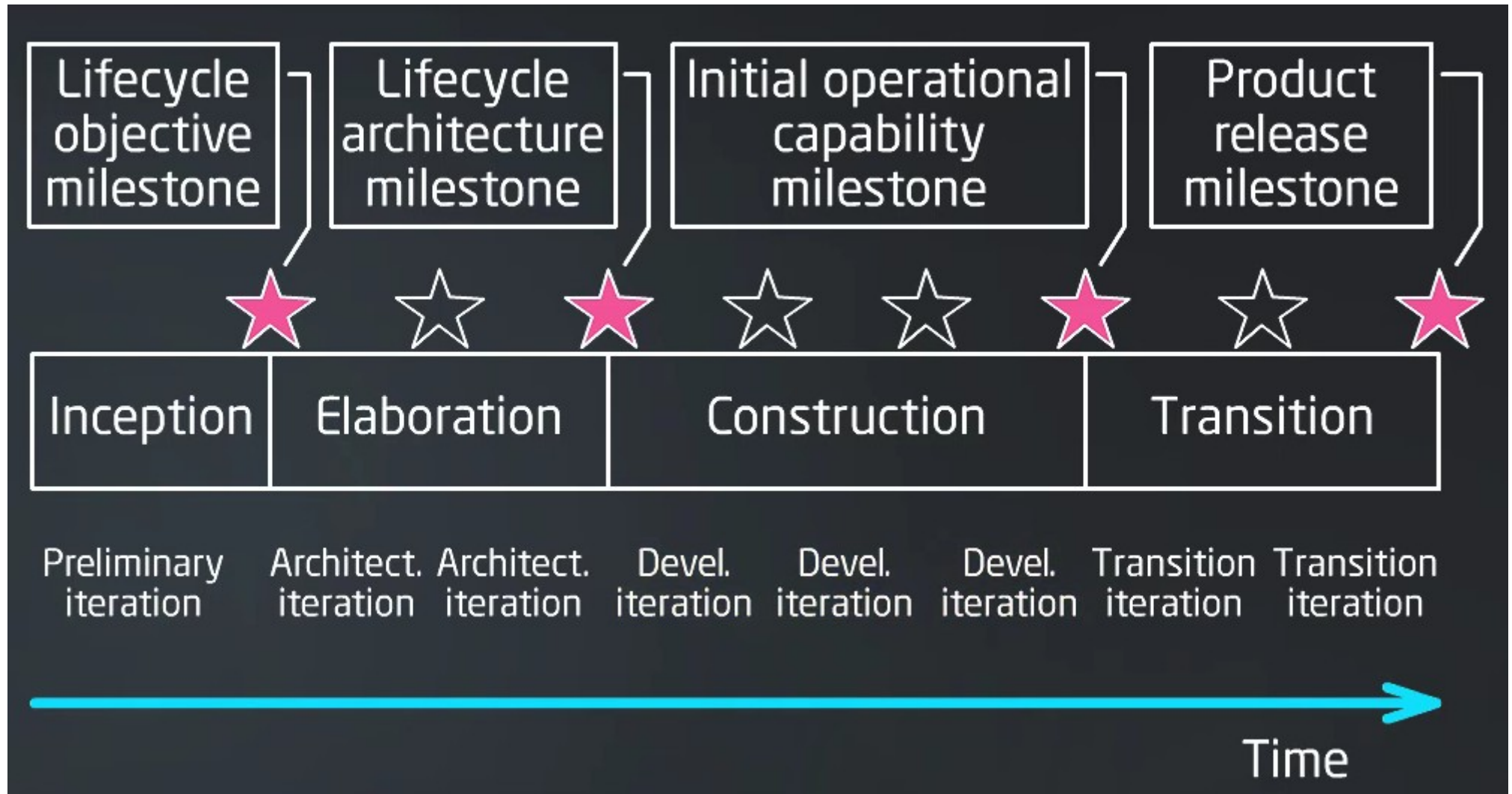
The four phases of RUP

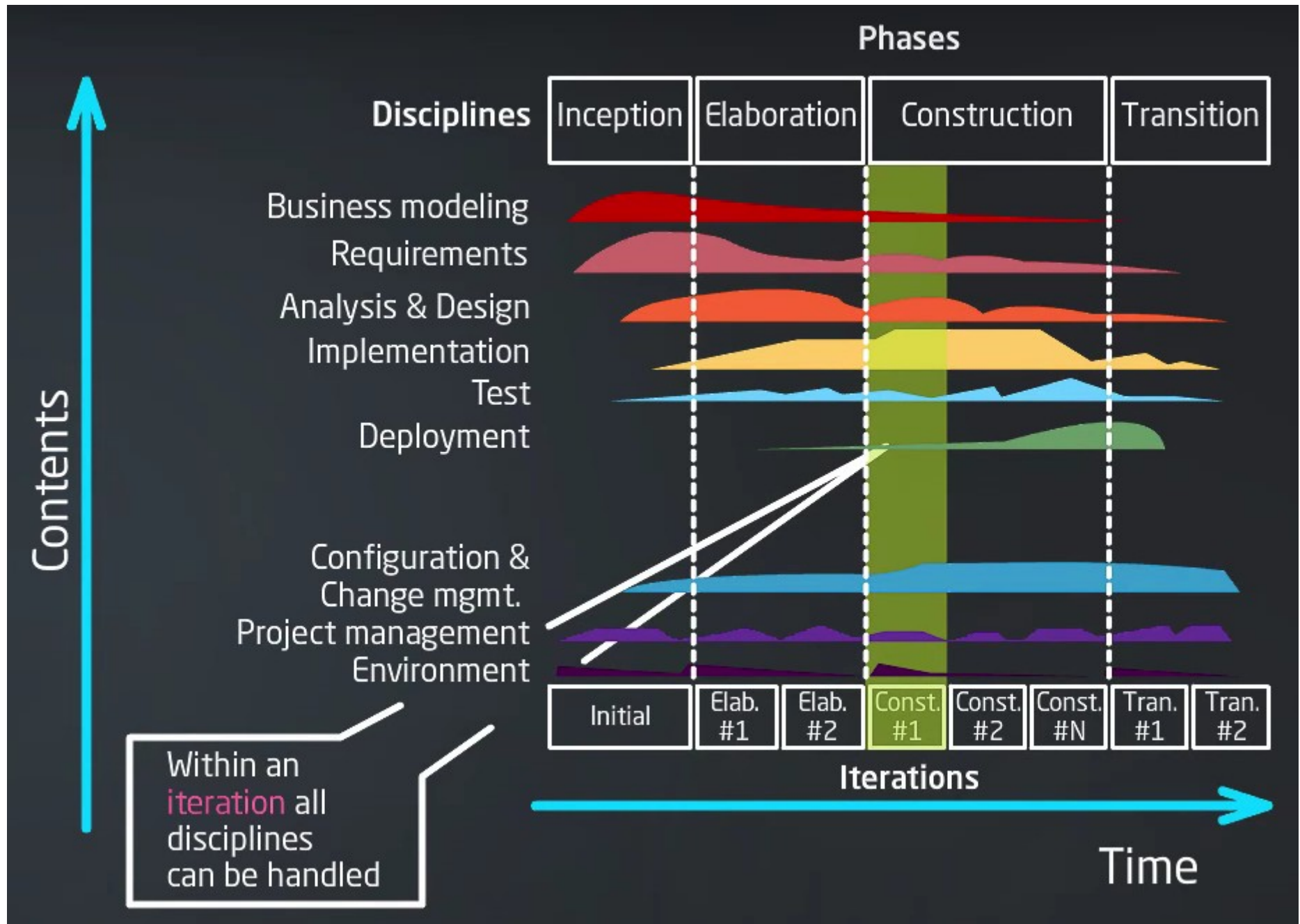
- Inception (What will be developed?)
- Elaboration (How it will be developed?)
- Construction (Product development)
- Transition (Product delivery)

The four phases of RUP



The four phases of RUP

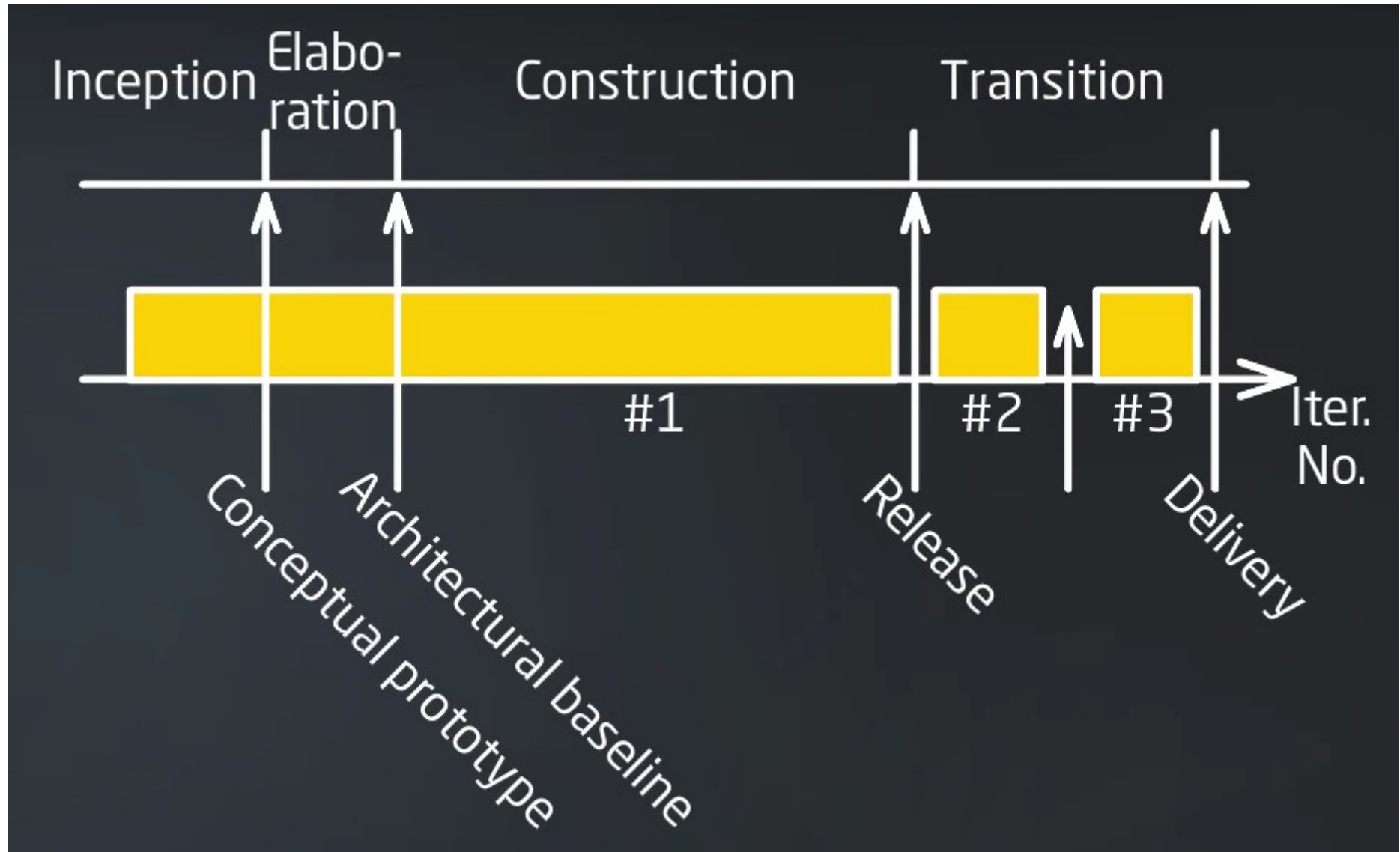




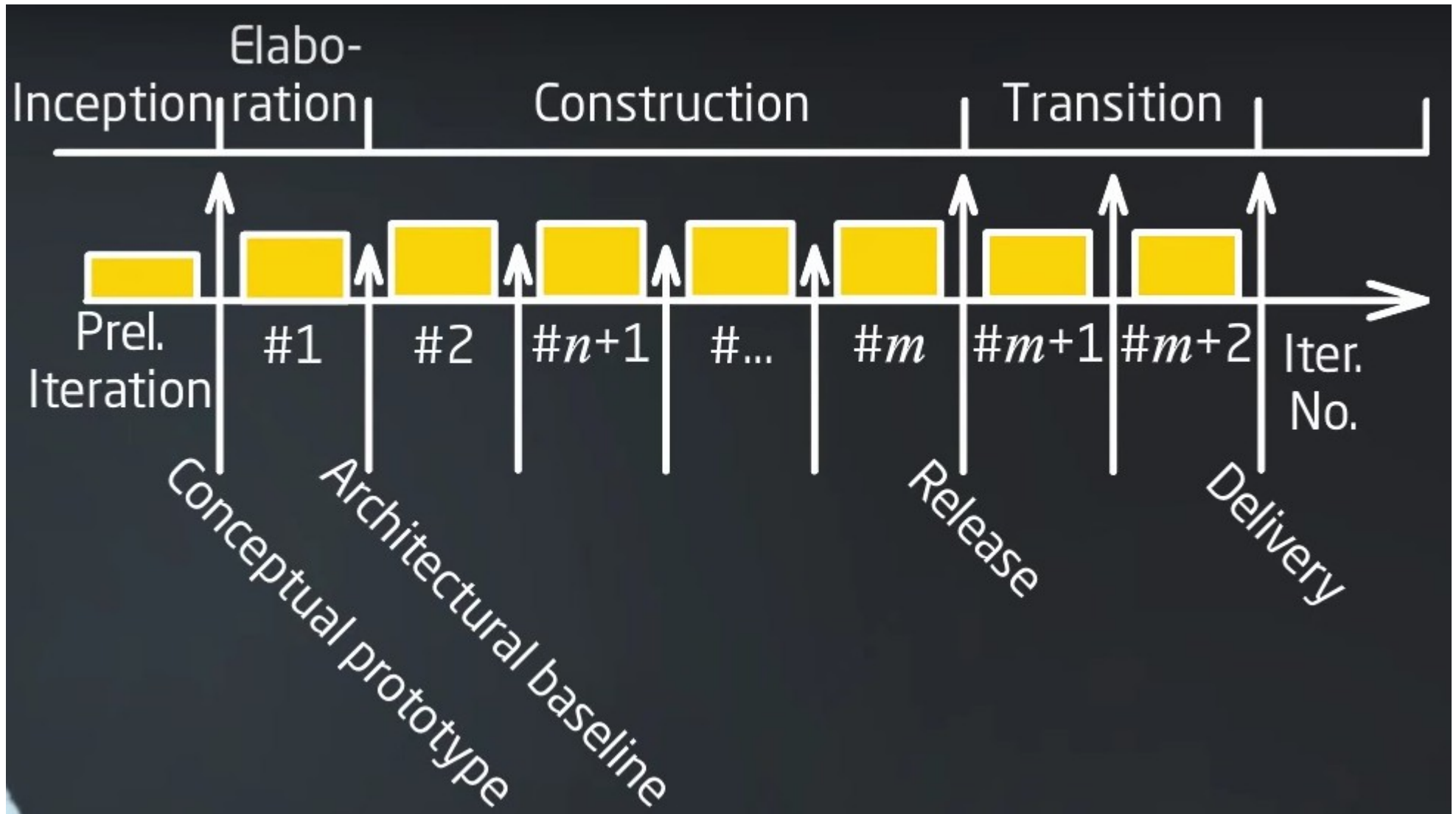
RUP practices

- Provide customer requirements satisfaction
- Concentrate on the program implemented
- Adjust to changes since project start
- Build a component system
- Build the foundation of implementable architecture ASAP
- Make quality a lifestyle

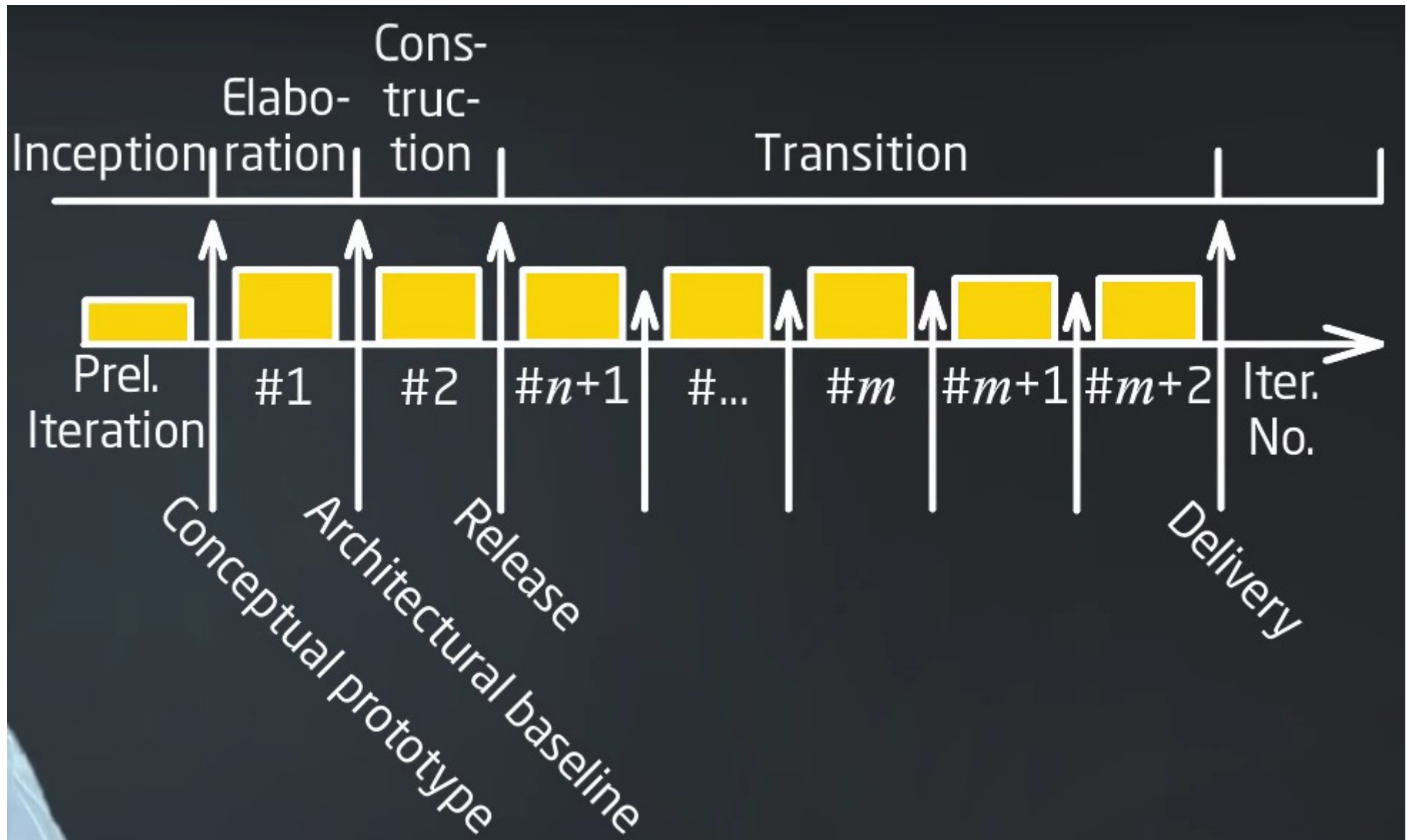
RUP waterfall lifecycle



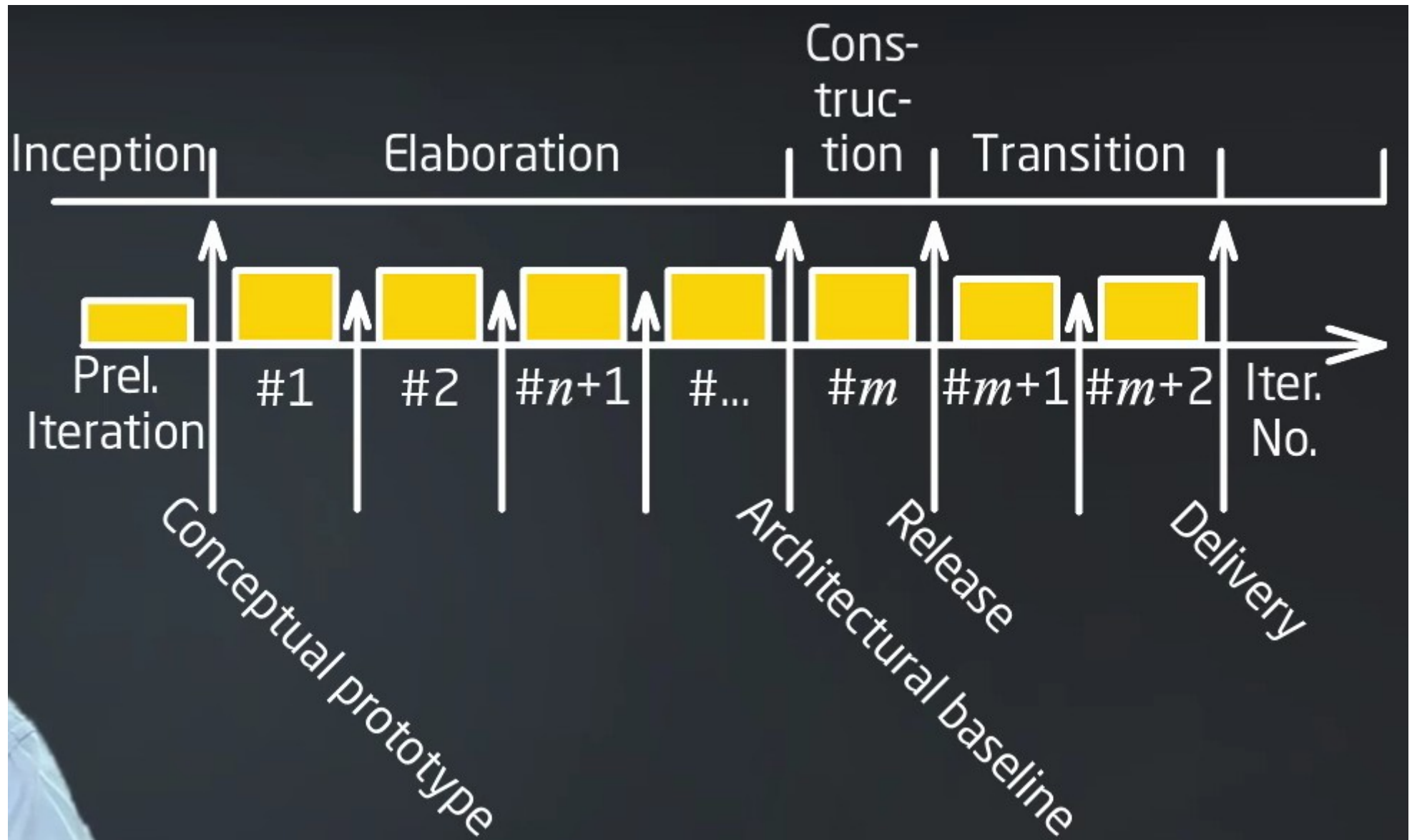
RUP: incremental lifecycle



RUP: incremental lifecycle 2



RUP: evolution lifecycle



RUP: organization

- RUP is iterative software (SW) development process framework
- RUP is organized in phases, iterations and workflows
- RUP structure includes roles, activities and artifacts
- RUP processes use manuals, patterns and SW user manuals
- RUP structure uses workflows of activities
- RUP includes a set of best practices

Design manual



Rational Rose
user manual



Role



Designer

Activities



Use-case
analysis



Use-case
design

Artifacts

Responsible for



Use-case development



Use-case pattern



Plan project configuration
and change control



Create project CM environments



Change and deliver
configuration items



Manage Baselines
and releases





Monitor & Report
configuration status




Manage change
requests




Any Role



Submit change request



Update change request



Change request



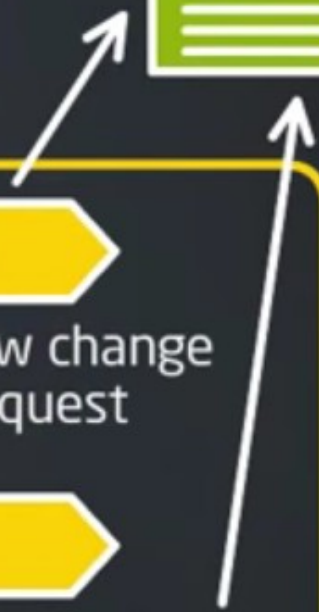

Test analyst


Verify changes in build
(from test discipline)


Change control manager


Review change request


Confirm duplicate or rejected CR



Microsoft Solution Framework

MSF has two implementations:

- MSF Agile
- MSF Formal

Microsoft Operations Framework (MOF) is an addition

MSF = Build it right

MOF = Run it right

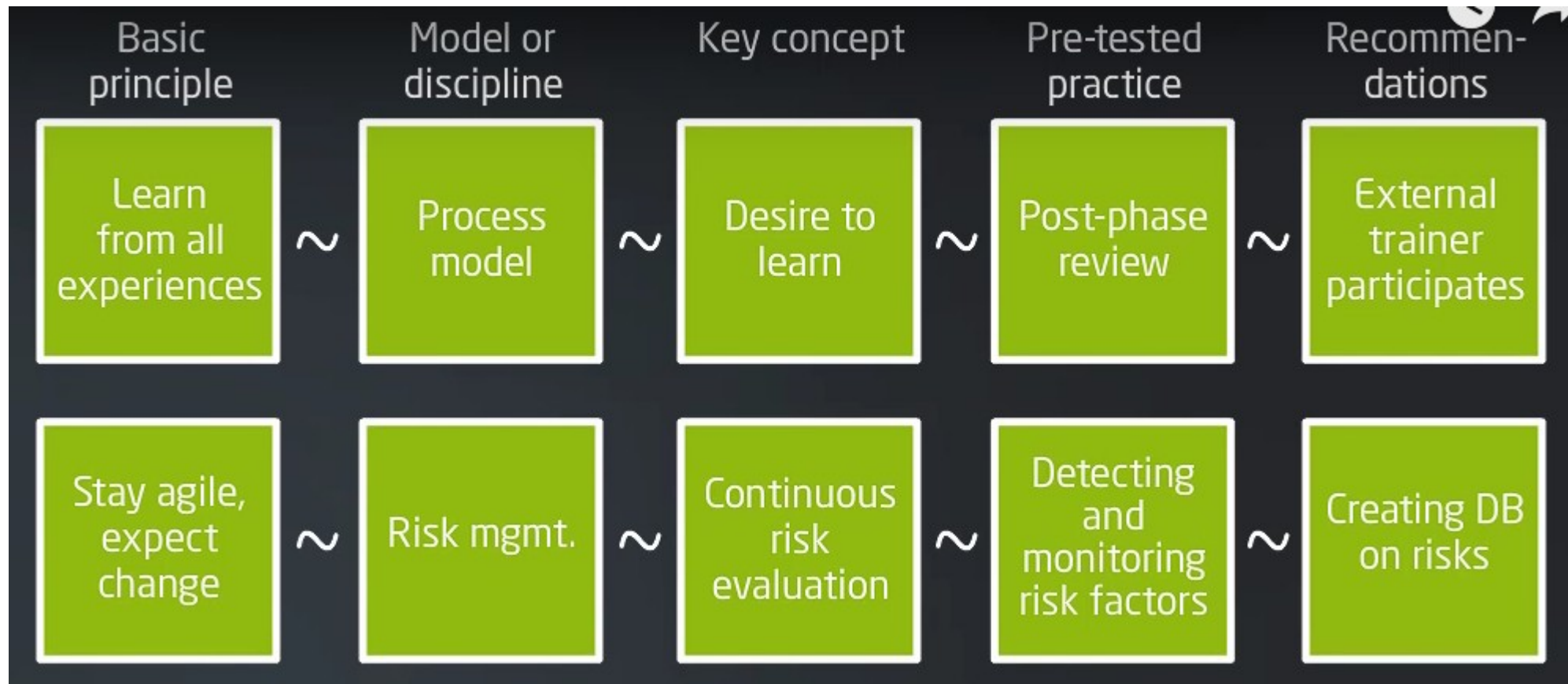
MSF elements

- Basic principles
- Models for teams and processes
- Disciplines of managing
- Key concepts (mindsets)
- Practices
- Recommendations
- Meta-model
- Implementation for MSF Agile
- Implementation for MSF Formal

MSF basic principles

- Partnership with client
- Foster open communication
- Work toward a shared vision
- Quality is everyday work for everyone
(invest in quality)
- Stay agile, expect change
- Make implementation a habit
- Create value (focus on delivering business value)

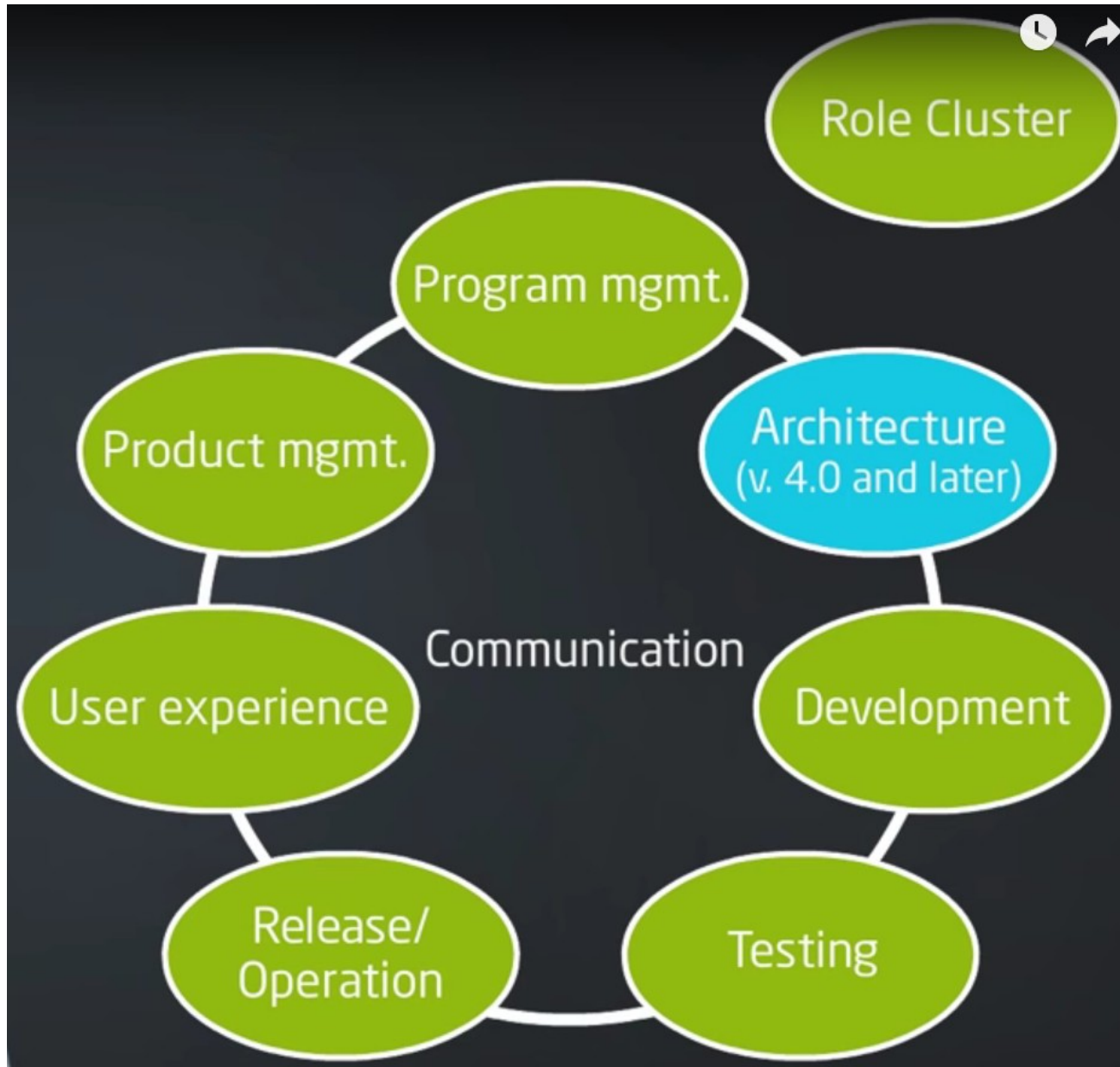
MSF: Elements and Relationships



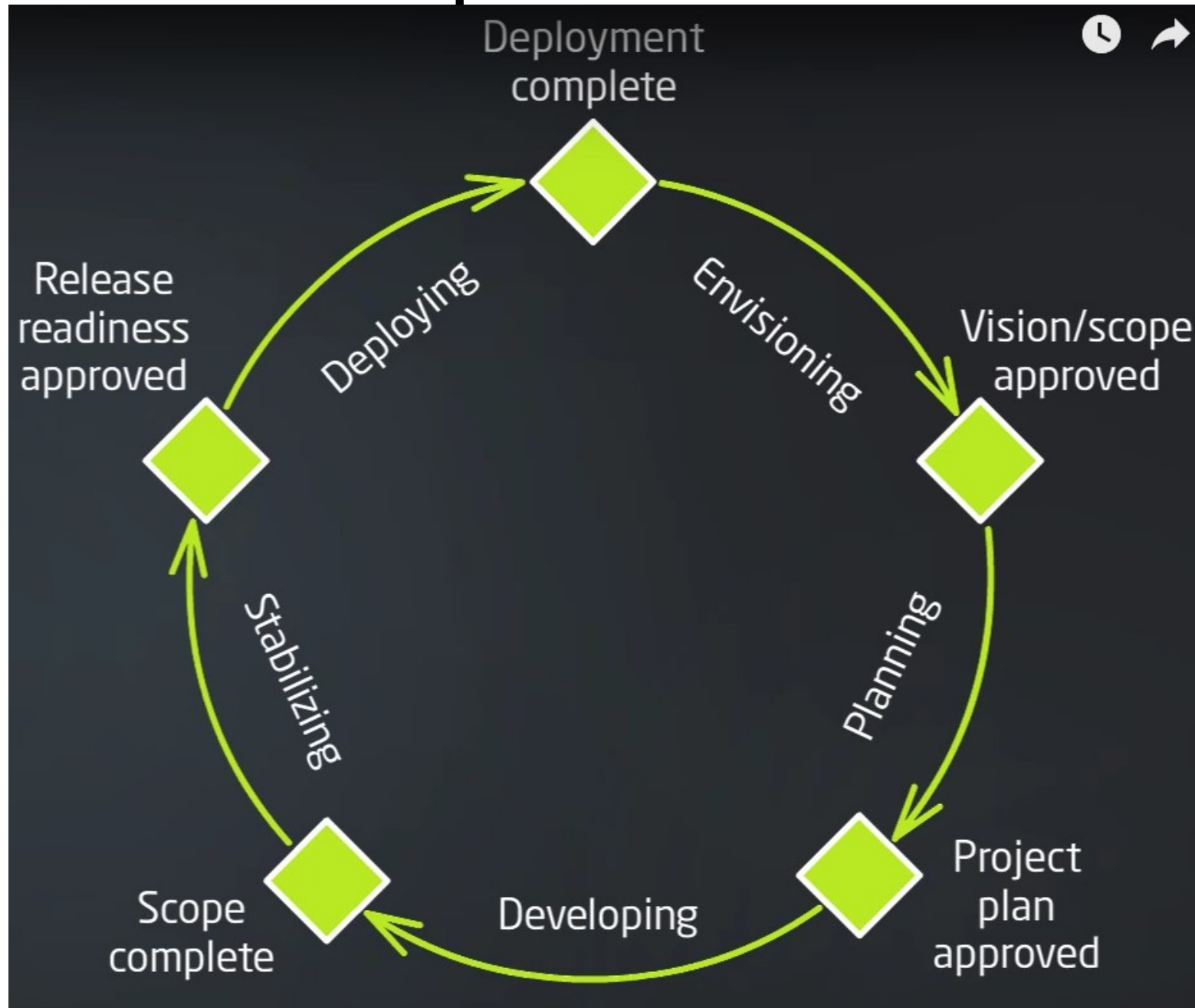
MSF: teamwork principles

- A team of equal
- Representing interests of all interested sides
- Adjust to match project scale («teams of teams»)

MSF: team model



MSF: process model



MSF: Role Compatibility Matrix

	Arc	MPrd	MPrg	Dev	Tst	UX	RM
Architecture		N	P	P	L	L	L
Product mpmt.			N	N	P	P	L
Program mpmt.				N	L	L	P
Development					N	N	N
Testing						P	P
User experience							L
Release mgmt.							

N – not recommended; P – possible; L – low probability