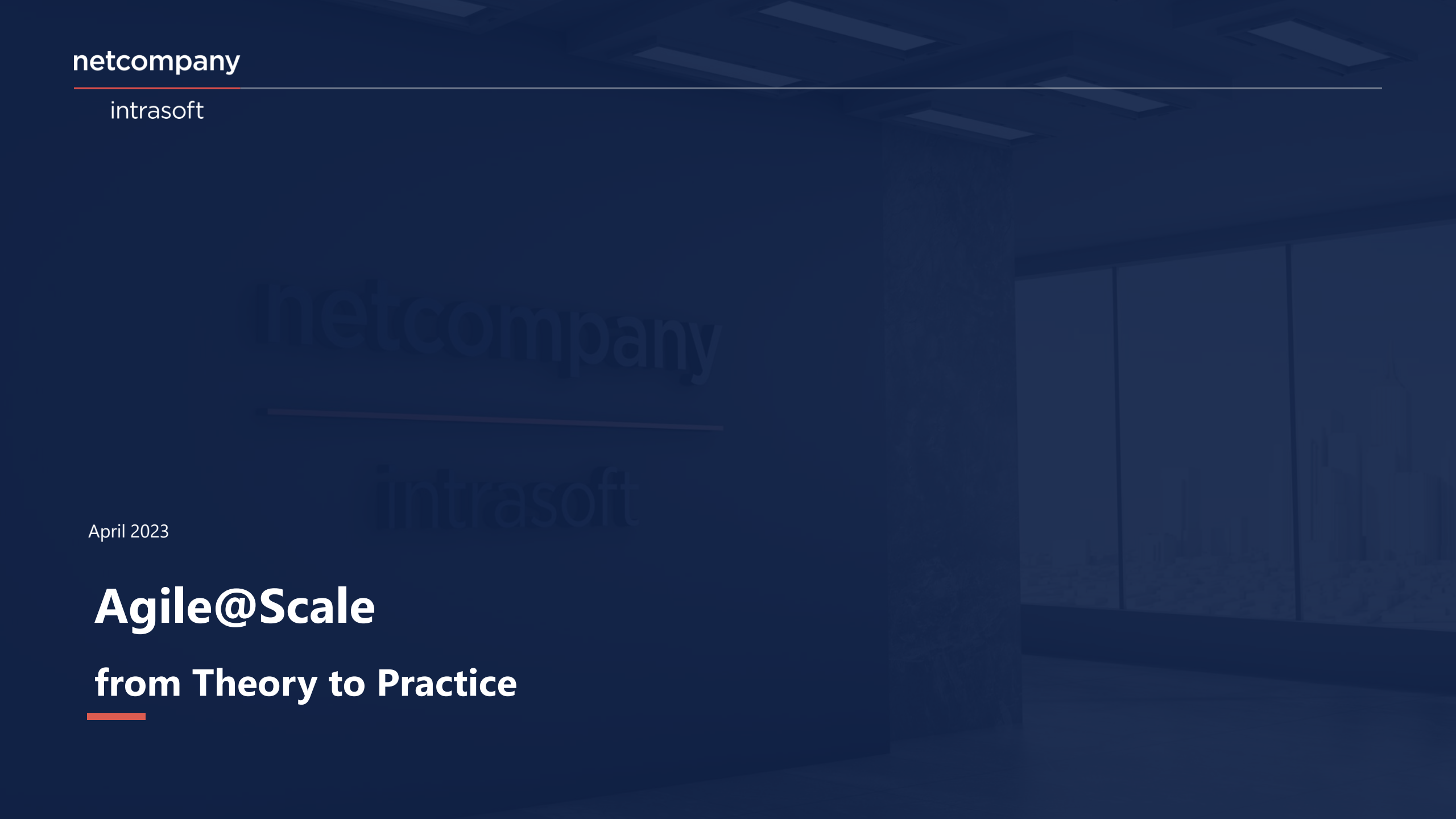
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April 2023

Agile@Scale

from Theory to Practice



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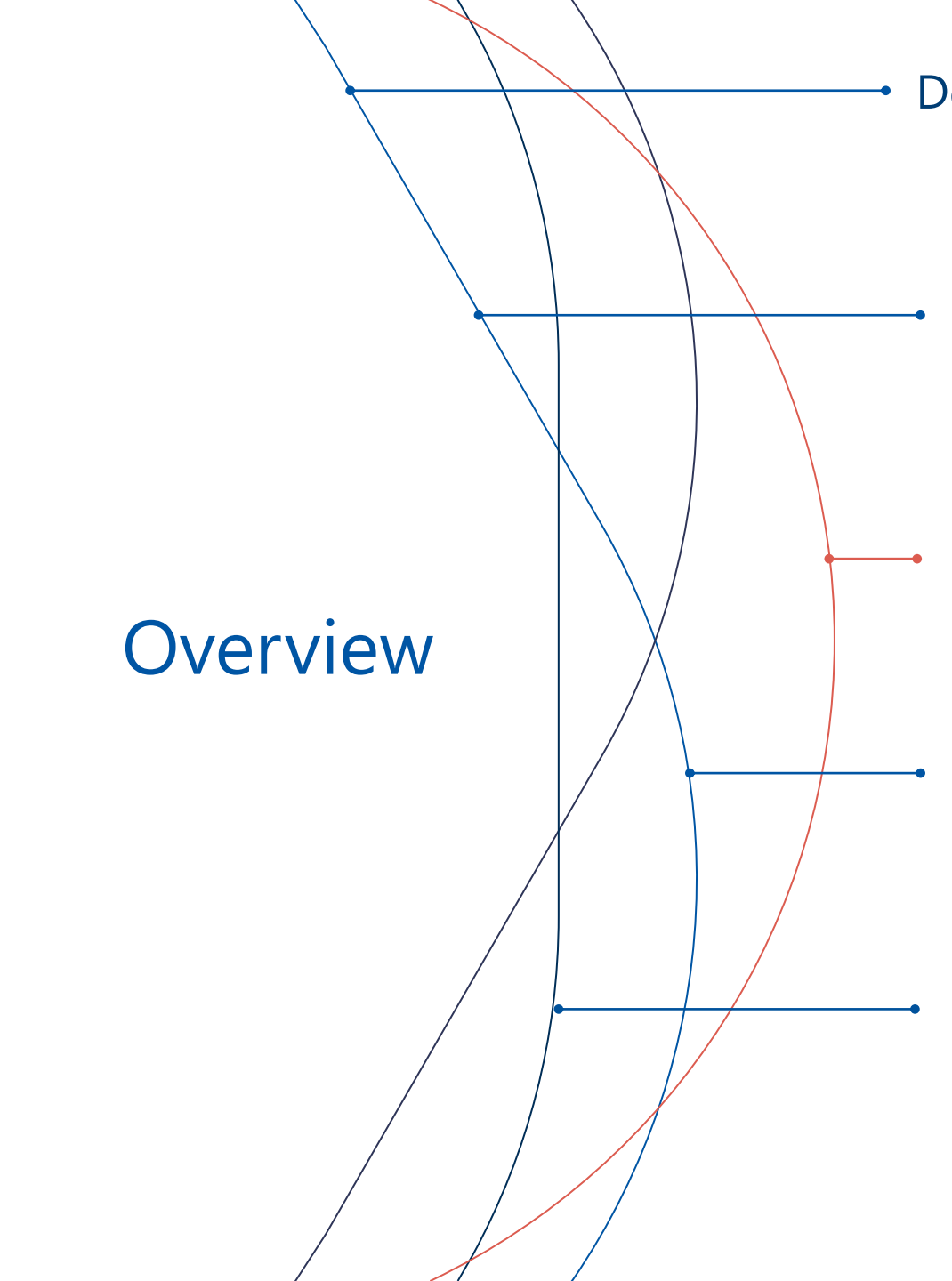
MSP®
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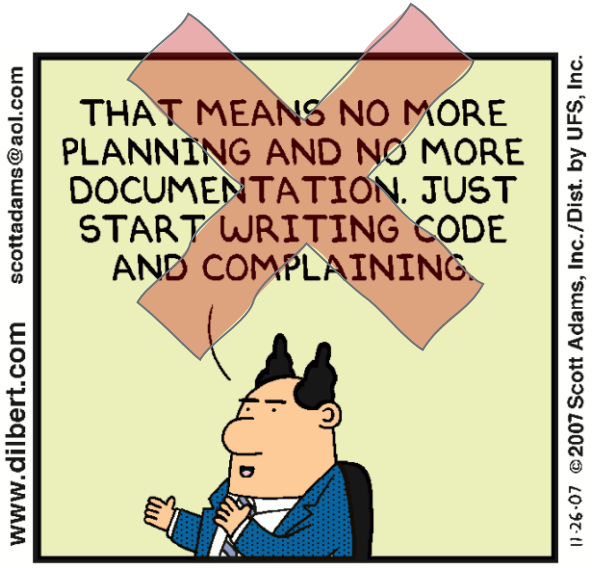
Agile Coaching
ICAgile

Overview



- Definition of Agile (at Scale)
- Agile Values & Challenges at Scale
- Business Agility – Applying a Scaled Framework
- Case Studies & Lessons Learned
- Conclusions

Definition of Agile…



Agile is a ~~*new*~~ way of ~~*working*~~ thinking that prioritizes **flexibility, adaptability** and **collaboration**, enabling teams to promptly address **changing requirements** and deliver **business value** with greater **efficiency!**

"Agile is an attitude, not a technique with boundaries. An attitude has no boundaries, so we wouldn't ask 'can I use Agile here,' but rather 'how would I act in the Agile way here,' or 'how Agile can we be, here?' — Alistair Cockburn"

… and Agile at Scale



Agile at scale refers to the application of **agile principles** and **practices** to **large-scale** projects involving **multiple teams** and **functions** within an organization…

Agile - Why ?



“The world is now changing at a rate at which the basic systems, structures, and cultures built over the past century cannot keep up with the demands being placed on them.”

—John P. Kotter

Agile (at Scale) – Benefits!



- ✓ **Improved collaboration**: Enhance teams and functions work together more effectively, leading to better alignment and coordination across the organization.
- ✓ **Faster time to market:** Iterative development and frequent delivery of value to customers, enables organizations to bring products and services to market more quickly.
- ✓ **Increased flexibility:** Respond more quickly to changing customer needs, market conditions, and other external factors.
- ✓ **Reduced risk:** By implementing continuous testing and feedback, potential issues can be identified and addressed early in the development process, thus reducing the risk of costly errors and delays.
- ✓ **Enhanced customer satisfaction:** Emphasizing customer collaboration and delivering value frequently can improve customer satisfaction and loyalty.



Agile Values and Challenges at Scale

Agile Manifesto, Scalability, Agile vs Agile at Scale

Agile Manifesto Values



Customer Collaboration over **Contract Negotiation**



Working Software over **Comprehensive Documentation**



Responding to Change over **Following a Plan**



Individuals and Interactions over **Processes and Tools**

Where We Find Value

"... while there is **value** in the items on the **right**, we value the items on the **left more**."

Agile Manifesto – Does it Scale?

*The Agile Manifesto Values and Principles were **never** intended to be taken as **absolutes**.*

*They have always been intended to be **interpreted** in the context of the situation.*

Agile Manifesto – Does it Scale?

Agile Value	Challenges at Scale
Working Software over **Comprehensive Documentation**	▪ Solutions tend to be much more complex, and **software is only one part** of the overall solution. As a result, some form of additional overall coordination is needed to integrate all the components of the overall solution. ▪ A solution might also include training, business process changes, a support plan, a marketing and roll-out plan, and many other requirements beyond just developing software. All of these may increase the need for some kind of documentation.
Individuals and Interactions over **Processes and Tools**	▪ There is a need for clearly defined processes (e.g., communication strategy, dependency management) to coordinate and synchronize the work of large projects requiring multiple teams as well as coordinating other activities outside the teams. ▪ Tools can become **more important** at an **enterprise level** as the scope and complexity of the effort grows (in some cases over 100 Agile teams). However, tools should supplement, rather than replace, face-to-face communication.

Agile Manifesto – Does it Scale?

Agile Value

Responding to Change

over

Following a Plan

Challenges at Scale

- Planning is an important part of Agile development! Continuous planning is needed to coordinate the efforts of large projects requiring multiple teams and with other activities outside the scope of the development effort
- Change never comes without consequences and change control can be valuable for validating changes against previously developed requirements and assumptions.
- Unnecessary changes may be rejected, but necessary change should be brought into the project with the full awareness of all necessary adjustments to designs, plans, timescales, tests, contracts (etc.)

Agile vs. Agile at Scale

	Agile	Agile at Scale
1 Focus	Mainly on delivering value to the customer through iterative development and frequent feedback	There is an additional emphasis on strategic planning and alignment across the organization to ensure that all teams are working towards the same goals and objectives in order to deliver value at a larger scale
2 Scope	Typically used in small, single-team projects	Used across multiple teams and projects within an organization
3 Structure	Often less structured and more flexible	More defined frameworks for organizing teams, managing work, and ensuring alignment across the organization
4 Coordination	Relies on team-level coordination and communication to deliver working software frequently	Requires more coordination and communication across teams and functions to ensure alignment and avoid conflicts.
5 Frameworks	Scrum, Kanban, Hybrid, Extreme Programming (XP), Scrum of Scrums	Scaled Agile Framework (SAFe), Large-Scale Scrum (LeSS), Disciplined Agile (DA), Scrum@Scale, Nexus, Spotify and others



Business Agility – Applying a Scaled Framework

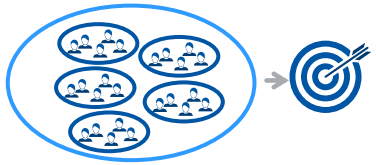
Basic Notions, Value Streams, Alignment, Timing & Implementation Strategy

Basic notions of a Scaled Agile Framework



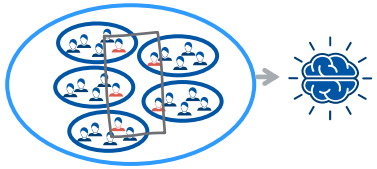
Agile Team

- Small (5-8), cross-functional team with a specific mission



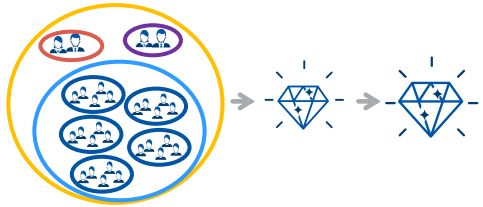
Group of Agile Teams (SoS)

- Group of Agile Teams with related or common mission



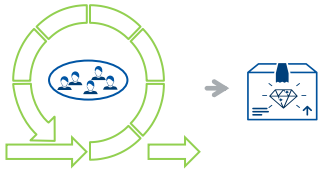
Chapter and/or CoPs

- A group of colleagues in the same technical discipline (Testers, UI/UX, Developers, Architects, etc.)



Agile Release Team

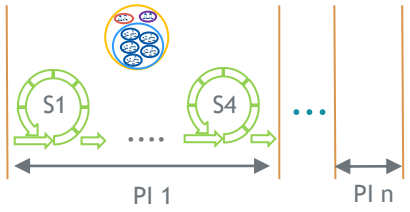
- A typically long-lived organizational structure, composed of agile teams, key stakeholders and other resources that consistently deliver value on a fixed schedule called PI (Program Increment or Planning Interval)



Iteration or Sprint

- A Sprint or Iteration is a time-boxed period of 2-3 weeks during which a team completes a specific set of activities aiming to deliver acceptable outcome.

Basic notions of a Scaled Agile Framework



Program Increment or Planning Interval

- A Program Increment or Planning Interval (PI) is a time-boxed period of 2-3 months where Agile Release Teams deliver iterative and continuous value to the stakeholders. Essentially, PI is a scaled-up version of the Sprint at the enterprise level.



Value Streams

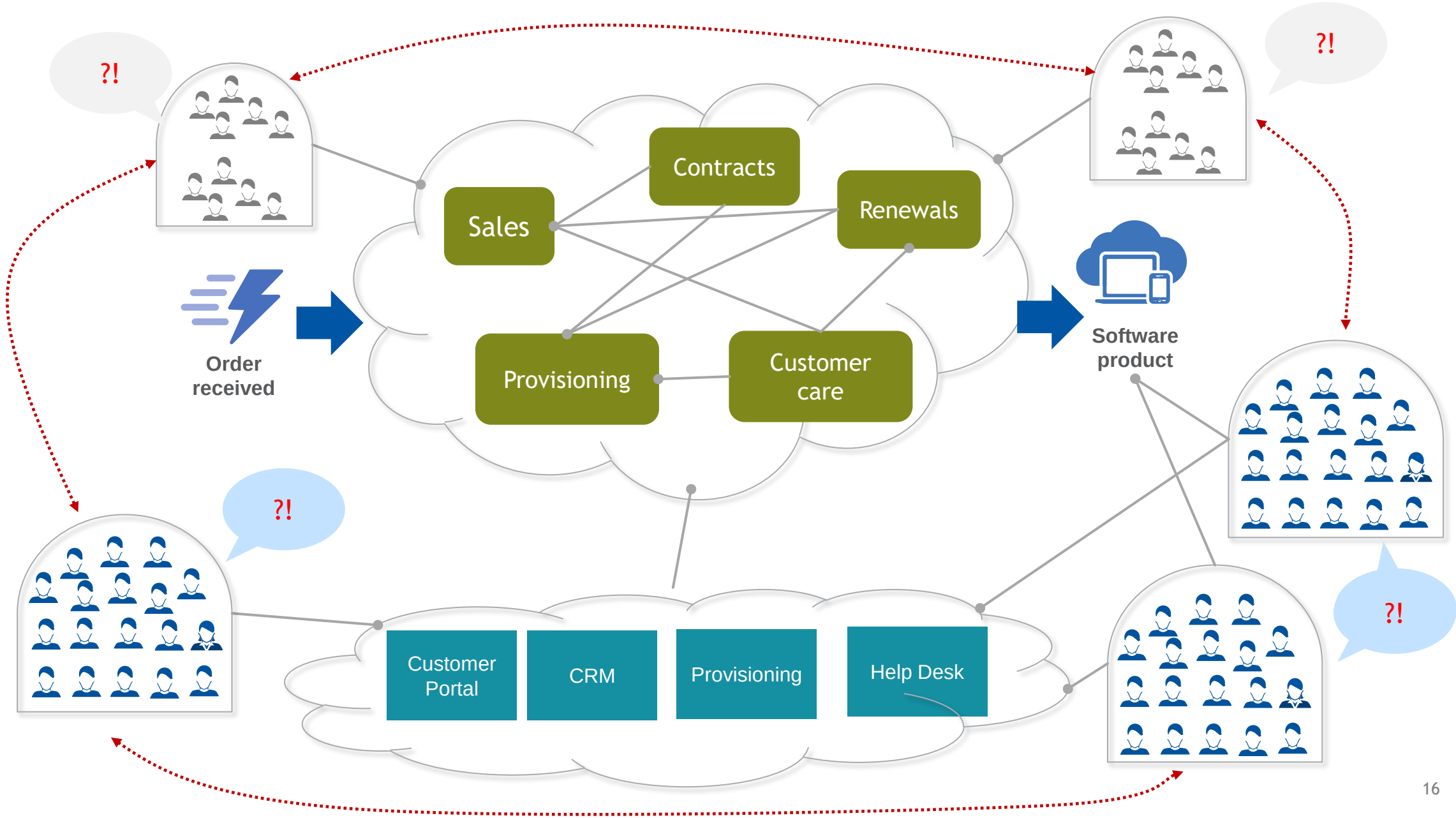
- Operational Value Stream: The sequence of activities needed to deliver a product or service to a Customer
- Development Value Stream: The sequence of activities needed to build the systems that operational value streams use to deliver value



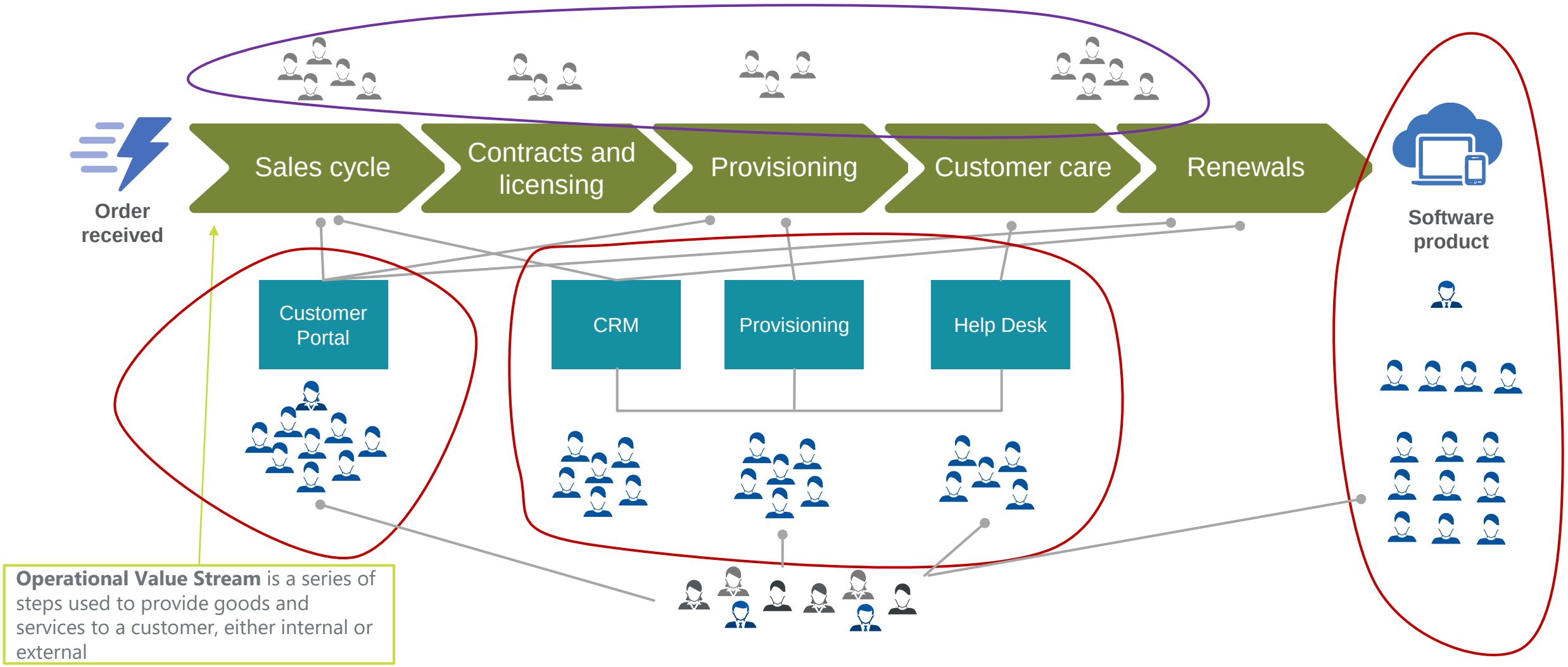
(Lean) Portfolio

- Group of Value Streams with a common business line or client

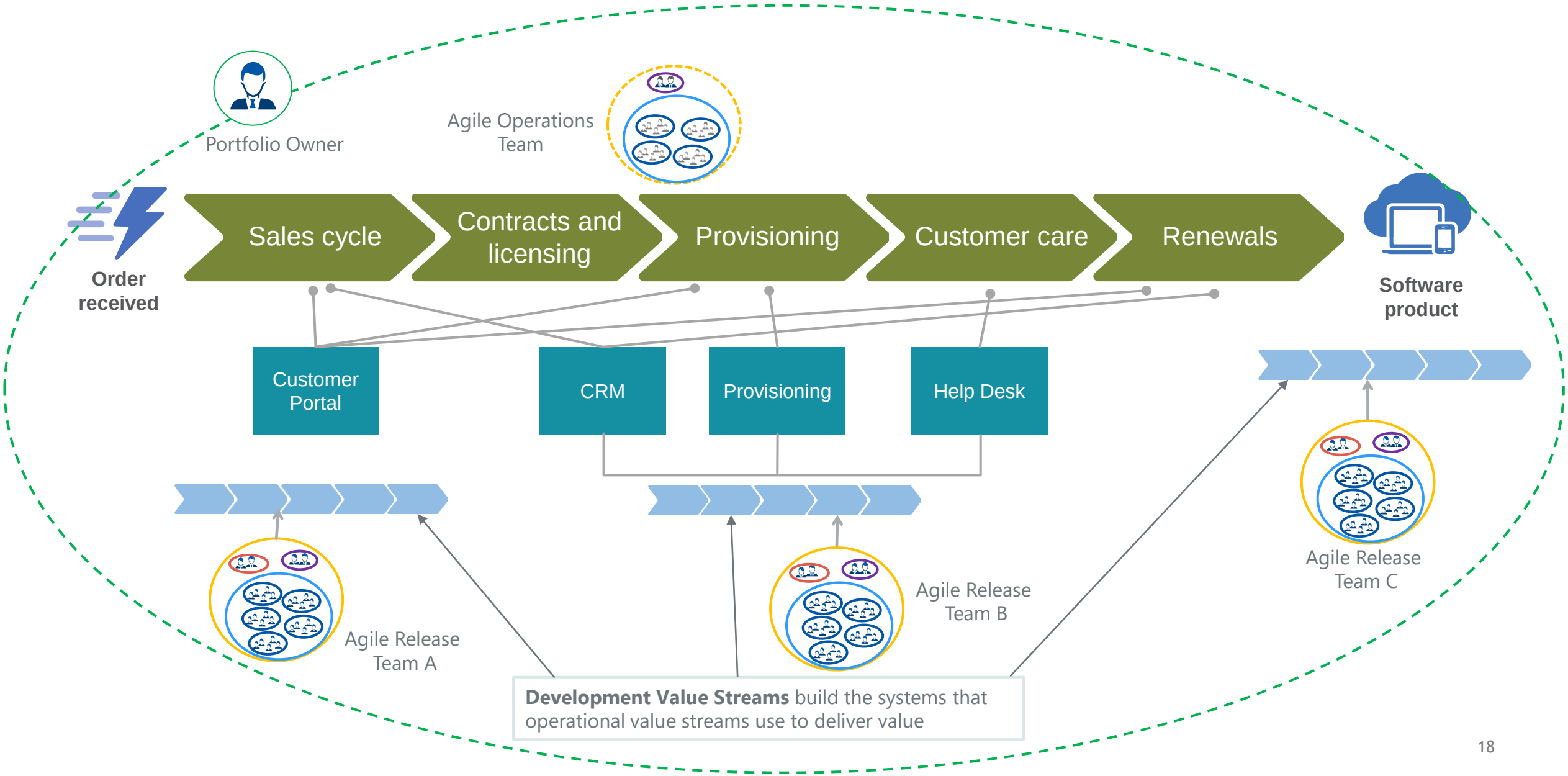
Current State of a Software Company



Applying Business Agility - Identify Value Streams



Applying Business Agility - “Organizing Around Value”



The Importance of Alignment - “Why are we doing what we are doing?”



- Multi-year vision, strategic goals
- Mid term business goals
- Committed **business objectives** (measurable) expected to be **achieved** at the **Planning Interval** end
- Committed **Iteration/Sprint Goals** planned & prioritized **in-sync** with the **Planning Interval** Objectives

Example

Strategic Goal

Introduce a new AI enabled communication platform in the market by the end of 2024

Portfolio Objectives

1. First MVP of the chat-based collaboration platform
2. Deliver AI enhanced video conferencing features
3. …

Planning Interval (PI) Objectives

1. Deliver predictive text messaging functionality
2. Implement auto-reply functionality
3. Support English, German & Spanish languages
4. …

Iteration/Sprint Goals

1. Evaluate predictive API (gap analysis)
2. Proof of concept - Templating
3. Finalize integration tests for auto-reply functionality
4. …

Scaling Agile: The Importance of Timing and Implementation Strategy

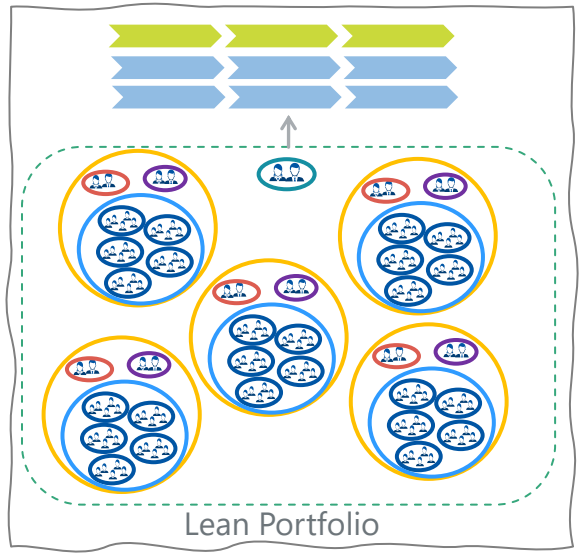
What is more valuable?



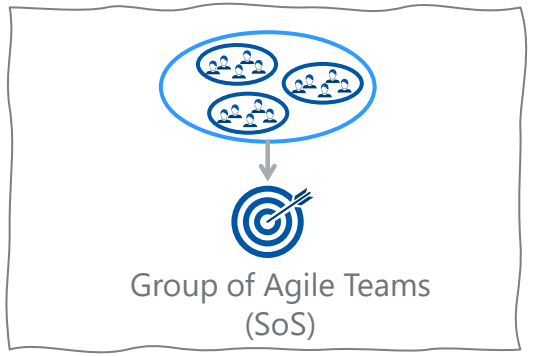




It depends…..on the maturity!









Case Studies

What went wrong, Impact, Lessons Learned

Case Studies – “Just Start…”

A large multinational company decided to implement Agile using the “Just Start Approach” with very little planning and preparation.



What Went Wrong:

- No top management support
- Inadequate project governance
- Team selection problems
- Didn’t engage applications support and operations early on
- Didn’t spend enough time upfront on architecture planning



Impact:

- The startup of the teams was very erratic and not very smooth
- System revealed significant performance & scaling flaws
- Unable to go live when the development was finished

Case Studies – “Silver bullet…”

A financial services company that applied Agile because it would make their projects go faster.



What Went Wrong:

- Applied to the development process only without attempting to integrate with the business
- Resources were shared not committed to teams!!!



Impact:

- Very superficial implementation of Agile with limited benefits
- Illusion of going faster going “faster” was achieved by working people harder

Case Studies – “Too big to fail?...”

An IT company took on a very large, complex project; however, they had never really developed a large enterprise level application from scratch. The company was also new to Agile with no formal training or coaching in Agile.



What Went Wrong:

- Didn’t understand the role of the Product Owner
- No project governance
- Agile implementation was limited to development process only
- The team started development without adequate project level planning/release level planning
- Inadequate architectural planning
- Inadequate focus on QA testing



Impact:

- Project required a significant “reset” to replan the entire effort to get it back on track

Fragments from Real Agile Status Reports

October 2019

3 Engagement

Enablement & Operation

- Scrum Teams are using effectively the dedicated JIRA Scrum Boards and tracking dashboards
- Product Management Team is using effectively the dedicated JIRA Product Kanban Board

Team functioning

- Team members clearly committed to agile
- Team reacted very professional to the reshuffling event
- Resource unavailability due reassignment of key persons
- Test Engineers testers are not assigned to teams

Key roles

- CPO, SMs & POs actively engaged
- Product Management Team actively engaged
- Product Owners overwhelmed by workload, including PO & technical activities

January 2020

3 Engagement

Enablement & Operation

- Scrum Teams are using effectively the dedicated JIRA Scrum Boards and tracking dashboards
- Product Management (PdM) is using the dedicated JIRA Product Kanban Board. Epics, Features breakdown (vertical slicing principles) and fitness within PI timebox need improvement
- Features current level of specification is not yet sufficient to support breakdown of more concrete work; PdM and POs weekly all-day meetings have been scheduled for that purpose
- Predictability is challenging due to lack of backlog items estimation

Team Functioning

- Team members clearly committed to agile
- Test Engineers are neither available, nor assigned to teams

Key Roles

- CPO, SMs & POs engaged but with limited availability
- CPO & POs overwhelmed by work load, including pre-sales, PO & technical activities, disrupting their work and focus
- Product Management Team engaged but with limited availability

May 2020

3 Engagement

Enablement & Operation

- Scrum Teams are using effectively the dedicated JIRA Scrum Boards and tracking dashboards
- Product Management is using the dedicated JIRA Product Kanban Board as well as the Big-Picture plan.
- Product Backlog detail level could be further improved (enrich one-line features).

Team Functioning

- Team members clearly committed to agile
- On boarding activities for the newly hired Test Engineers are ongoing.
- **All teams (six) have quite positive stated to work overtime for the milestone 1.0b**
- Two business analysts have been assigned to RUD & NAF Teams to support the corresponding POs in their daily activities

Key Roles

- CPOs & POs - Highly engaged
- Product Management Team - Highly engaged

Great

July 2020

3 Engagement

Enablement & Operation

- Scrum Teams are using effectively the dedicated JIRA Scrum Boards and tracking dashboards
- Product Management is using the dedicated JIRA Product Kanban Board as well as the Big-Picture plan.
- Product Backlog detail level could be further improved (enrich one-line features).

Team Functioning

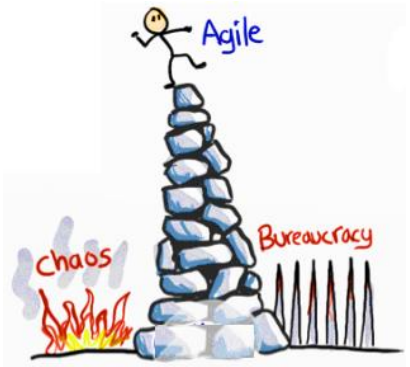
- Team members clearly committed to agile
- Test Engineers productivity increased
- Team members are showing burn-out signs

Key Roles

- Portfolio Owner - Actively engaged
- Product Management Team - Highly engaged
- CPOs & POs - Highly engaged
- POs are overloaded with technical lead & PO related activities

Lessons Learned

- ✓ Don’t skimp on **training** and **education** - Establishing a culture of **continuous improvement** is vital
- ✓ Ongoing **support** from **top management** is **crucial** to prevent **backsliding**
- ✓ Implementing agile at a development process level without **integrating** it with the **business** will provide very limited benefits (**practice agile in silos**)
- ✓ Agile doesn’t mean that you just start doing development **without** any upfront **planning** and it doesn’t mean that **project management** is **not needed**
- ✓ **Stable, small** (5-9 member), **cross-functional** and **balanced** teams are more likely to overperform
- ✓ Choose a **gradual** and **tailored** approach that matches the company’s nature and maturity
- ✓ It's important to maintain the **right balance** between required **governance** and unnecessary **complexity**

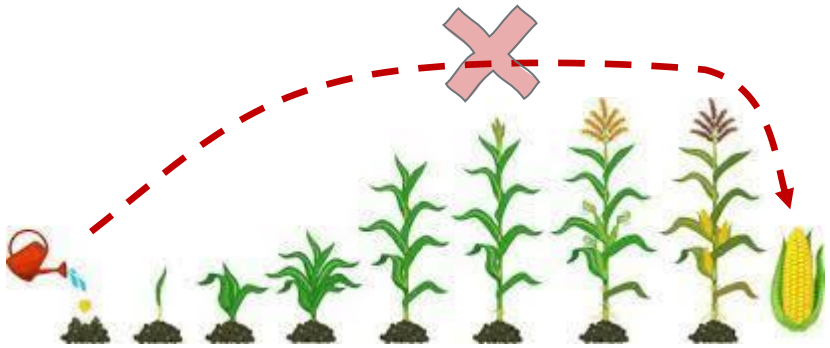


Conclusions

Key success factors for applying agile at scale:

- Provide a clear and compelling vision (*why do we need to change "how we do work here"*)
- Focus on short term wins to show progress (*do not take on too much at once*)
- Ensuring that changes are deeply embedded in the corporate culture
- Recognizing the value of mistakes and failures as opportunities for learning and improvement, and drawing lessons from the experiences of others

However as in many areas of life, there are **certain steps** or processes that **must be followed** in a particular sequence in order to achieve a **desired outcome**.





Thank You !

Netcompany-Intrasoft