# Microsoft's mission

Empower every person and
every organization on the
planet to achieve more

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# Our worldview



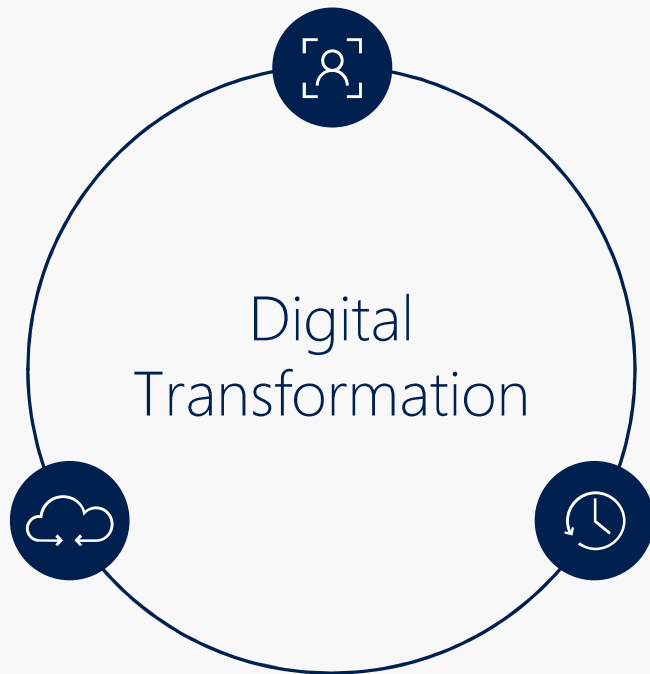Mobile-first



Cloud-first

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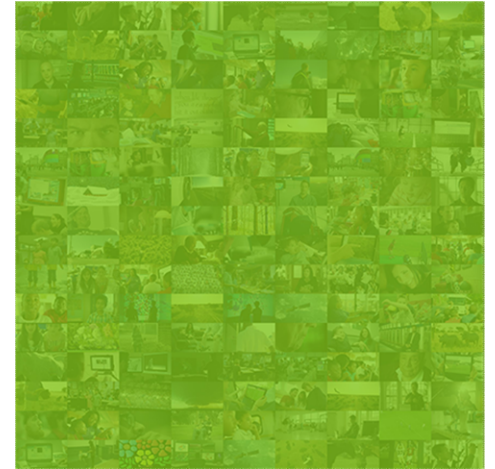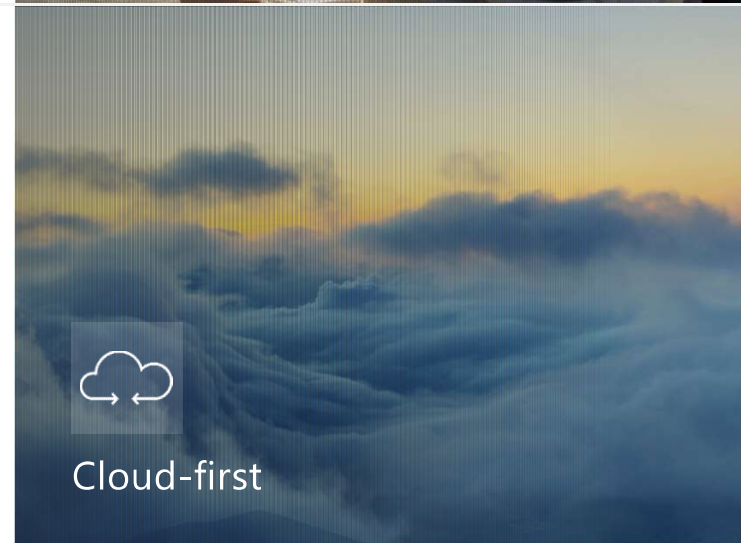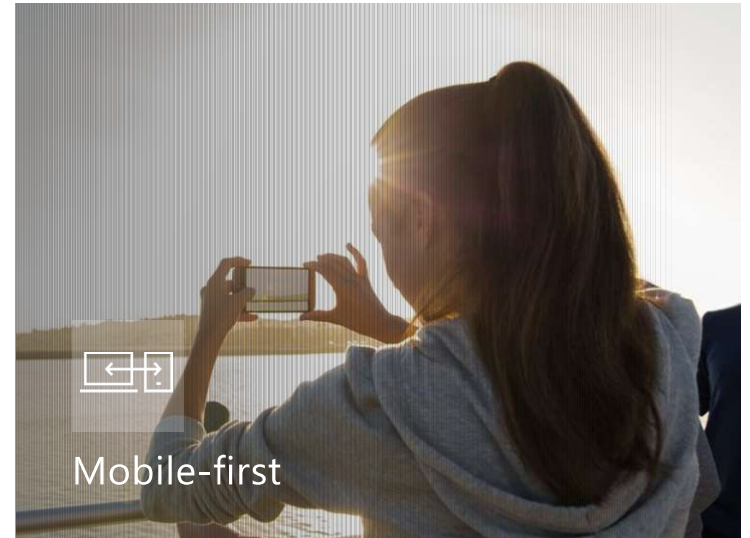
Create more personal computing

Interconnected Ambitions

Digital Transformation

Build the intelligent cloud platform

Reinvent productivity & business processes

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Digital Transformation

How is your **business** being digitally transformed?

How is your **business model** being digitally transformed?

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# Harnessing the power of agile development

We leveraged agile development to integrate multiple business lines to a new PLM platform and achieve our strategic business objectives <u>faster</u>.

# Our Business Situation, Circa 2014

# First: Defining business objectives

Accelerate design collaboration

Establish core foundations for product data

Maintain traceability

Enable internal and external collaboration models

Enable multiple manufacturing models

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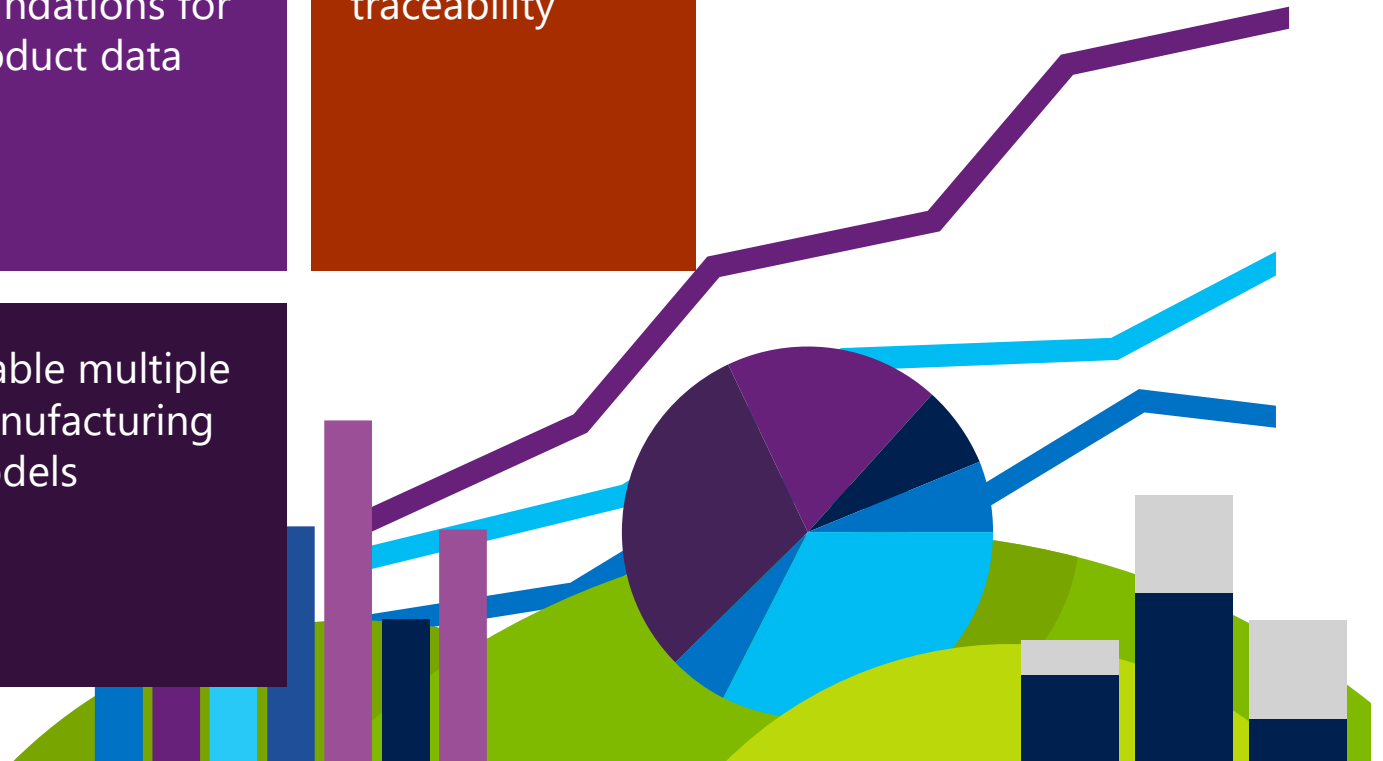
# Accelerating innovation using agile development
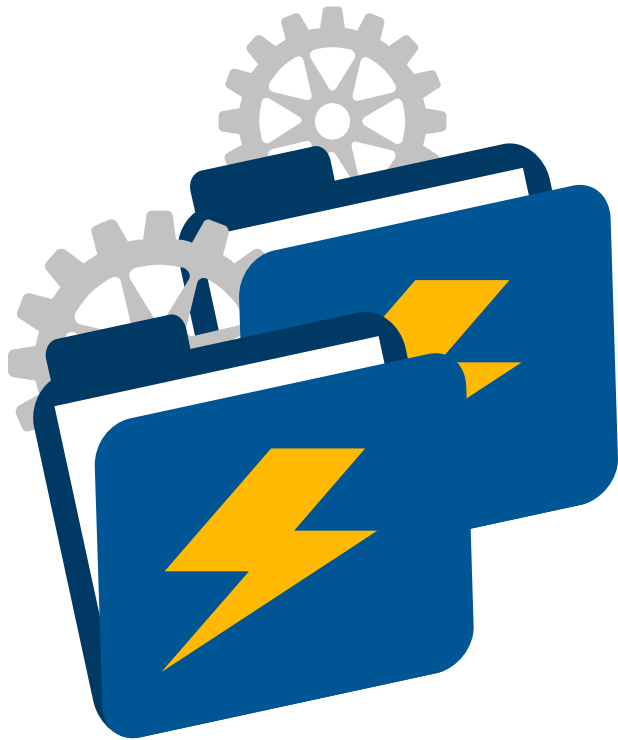
- **Working software** is continuously delivered in short increments and iterative sprints.

- The initial OnePDM system was released rapidly so that stakeholders could **iteratively improve** the platform.

- Business representatives were engaged to **receive collaborative feedback** for upcoming sprint activities.

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# Product engineering and supply chain

Product Lifecycle Management (PLM) ensures critical product engineering activities are developed correctly and moved from engineering inception phases through to the procuring, manufacturing, selling, and customer care teams.

**Product Lifecycle Management (PLM)**

| Manage and Plan Portfolio (Strategy, Needs, Pre-concept) | Develop Products & Services (Concept, Design, Create) | Procure, Make, Sell, and Care (Deliver, Maintain) |
|---|---|---|

Platform Capabilities

| Portfolio/Project/Resource Management | Product Requirements Management | Platform Design & Systems Engineering | Classification Management | Component Management | Configuration/BOM Management | Workflow/Process Management | Change Management | Document Management | Packaging/SKU Management | Quality/Compliance Management | External Supplier Collaboration |
|---|---|---|---|---|---|---|---|---|---|---|---|

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# Industry leading standards and business processes



Standards
Strengths
Capabilities
Weaknesses

Principles of Agile

OnePDM
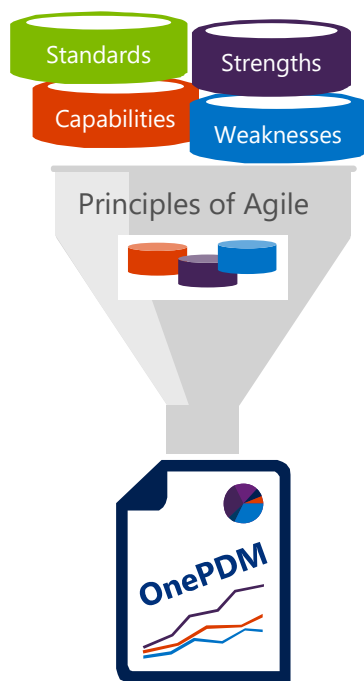
Adopting Agile Methodologies meant we:

- Mapped the business objectives to a realistic roadmap of high-level features and requirements.

- Understood the stakeholders' businesses and how their processes lined up with each other and the latest industry standards.

- Leveraged latest leading industry standards to accelerate new features.

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# Creating a development roadmap

In agile development, we prioritize and deliver working capabilities frequently, preferring shorter timescales with incremental functionality.



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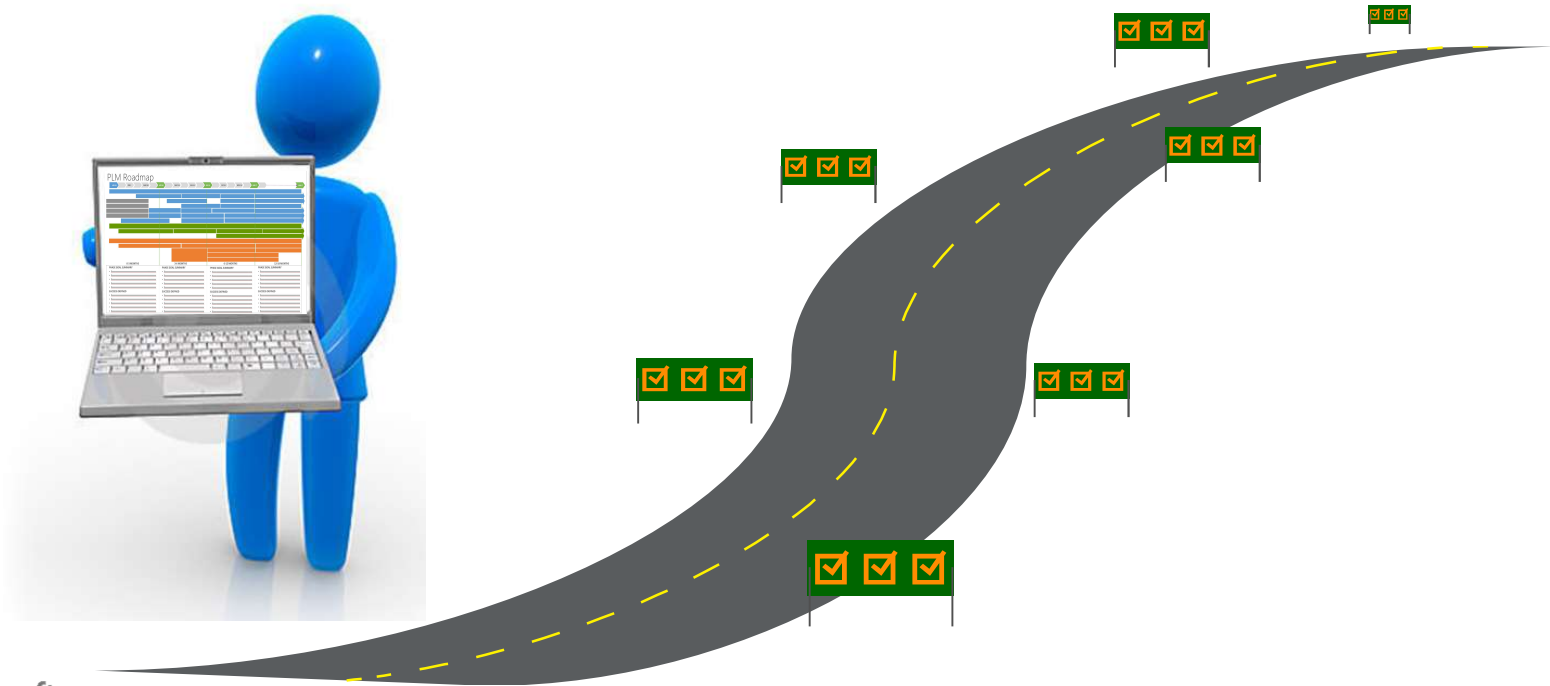
# Building OnePDM using agile methodology

Sprint teams worked daily to release software until functionality achieved the Minimum Viable Product requirements.

Following increments and sprints added and refined capabilities.
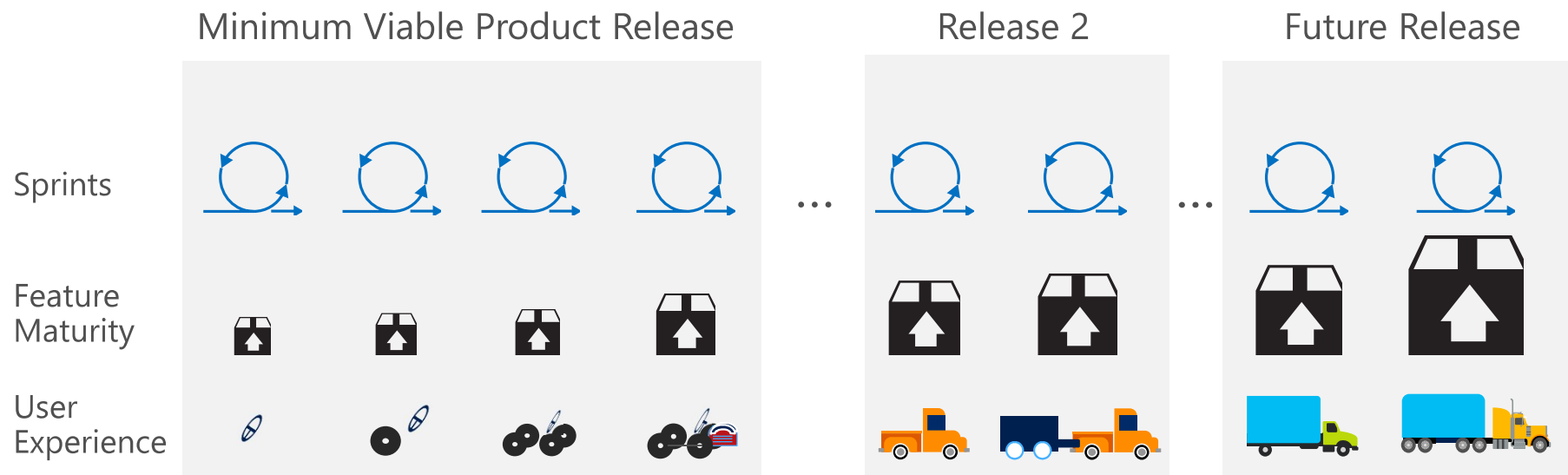
# The agile governance structures

## Governance board
### Met quarterly

- Reviewed execution plans
- Reviewed the roadmap
- Reviewed recommendations
- Assessed impacts

## Steering committee
### Met weekly

- Includes all stakeholder leads, including vendor leaders
- Provided core business group decision-making
- Provided program guidance
- Drove change management

## Development teams
### Met daily

- Provided functional and technical decision making
- Ran program activities
- Reviewed and approved solutions

# Accelerated Results: Working PLM Platform in less than 8 months

| Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sept-16 |

**R0** — **Bi-Weekly Sprints** — **MVP Release** — **Roadmap: Prioritized Scenarios; Consistent Releases**
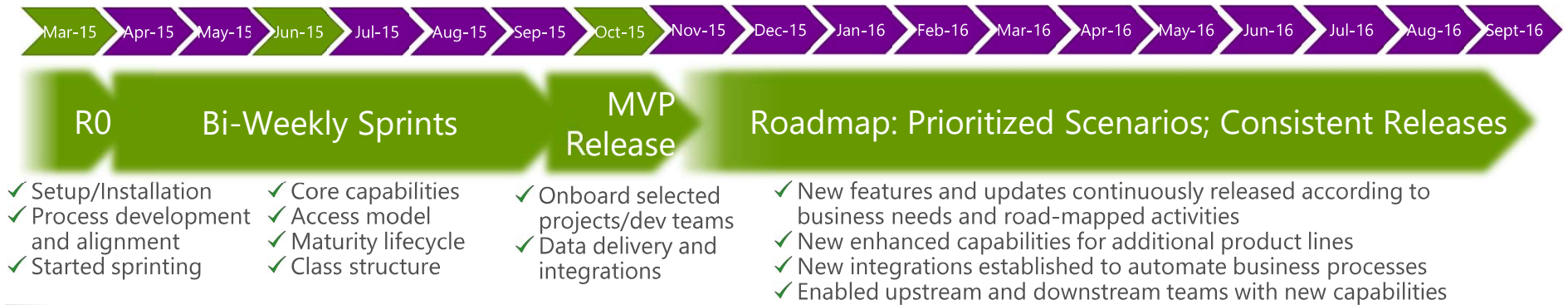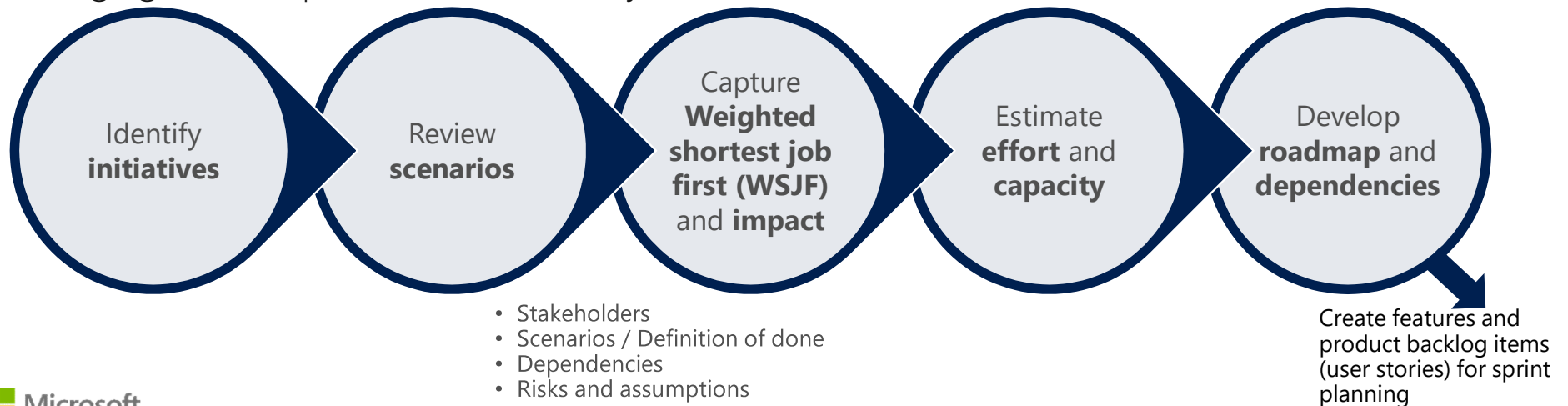
✓ Setup/Installation
✓ Process development and alignment
✓ Started sprinting

✓ Core capabilities
✓ Access model
✓ Maturity lifecycle
✓ Class structure

✓ Onboard selected projects/dev teams
✓ Data delivery and integrations

✓ New features and updates continuously released according to business needs and road-mapped activities
✓ New enhanced capabilities for additional product lines
✓ New integrations established to automate business processes
✓ Enabled upstream and downstream teams with new capabilities

## Using agile development to continuously deliver….

Identify **initiatives**

Review **scenarios**

Capture **Weighted shortest job first (WSJF)** and **impact**

Estimate **effort** and **capacity**

Develop **roadmap** and **dependencies**

- Stakeholders
- Scenarios / Definition of done
- Dependencies
- Risks and assumptions

Create features and product backlog items (user stories) for sprint planning

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# Benefits

**Faster**

**Better**

**Cheaper**
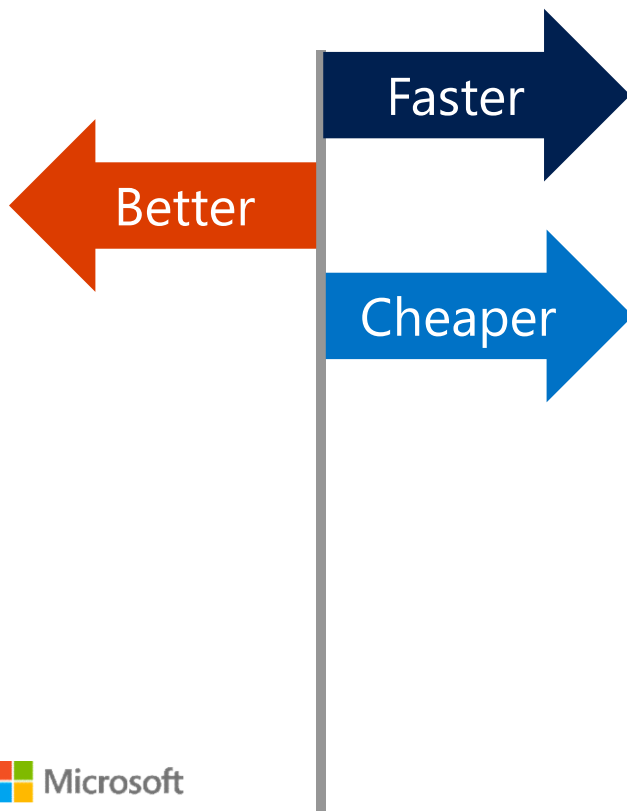
- Accelerated program rollout by 50%.

- Development and deployment times went from 7,200 minutes 1x every three weeks to **10 minutes a day**.
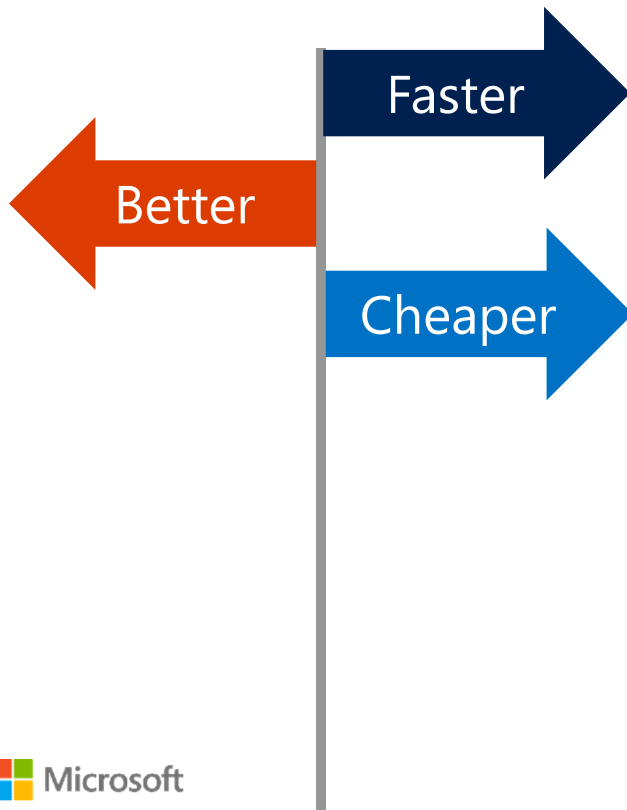
- Reduced time-to-release product data to upstream and downstream systems.

- Increased agility and responsiveness to the needs of the business.

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# Benefits

**Faster**

**Better**

**Cheaper**

- Will save **several million dollars (USD)** in its first two years of operations.

- Simplified user experience to access system and product data.

- Reduction in amount of effort required to perform engineering and supply chain activities.

- Reduction in time and effort required for onboarding.

# Lessons Learned and Best Practices

| Stakeholder Engagement | • Continuous business engagement and active participation. |
| | • Involve all stakeholders in the governance bodies, from business end user sponsors, technology teams, and vendors. |

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# Lessons Learned and Best Practices

Focus on Business Outcomes

- Be ready to adapt to significant change to priorities, functionality, and scope, as long as they align with the long-term business outcomes which are not as likely to change.

- When working across multiple product groups, focus first on understanding and solving business process and people and then on technology.

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# Lessons Learned and Best Practices

| Document processes | • When process and system documentation existed, agile development sprints had better momentum.<br><br>• Identifying the best direction and solution was difficult when documentation was sparse. |
| --- | --- |

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# Lessons Learned and Best Practices

**Consider industry standards**

- Adopting standards has far-reaching effects, because all product groups need to align to and adopt them.

- Industry standards were evaluated to see how they could benefit.

- By reviewing and understanding existing best practices, reasoned decisions on adoption and rejection were possible.

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# Lessons Learned and Best Practices

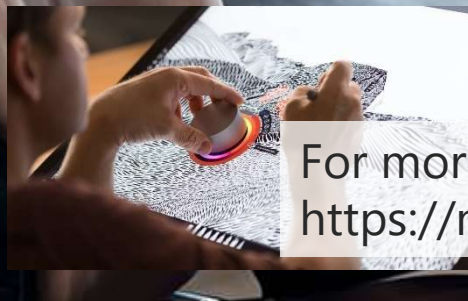| Maintain agile momentum | • Agile development emphasizes daily collaboration.<br><br>• Teams can consider features and test, retest pass, and fail fast on a daily basis.<br><br>• Requires commitment and timely feedback from users. |
| --- | --- |

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# Lessons Learned and Best Practices

Treat product data as an asset

- Wide collaboration and engagement is an opportunity to consider new complex improvements enabled by data.

- Enabling users to have visibility to data drives efficiency in speed and decision making.

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We are accelerating Microsoft's newest devices to market on our new platform

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For more information, access our white paper here:
https://msdn.microsoft.com/en-us/library/mt670602.aspx