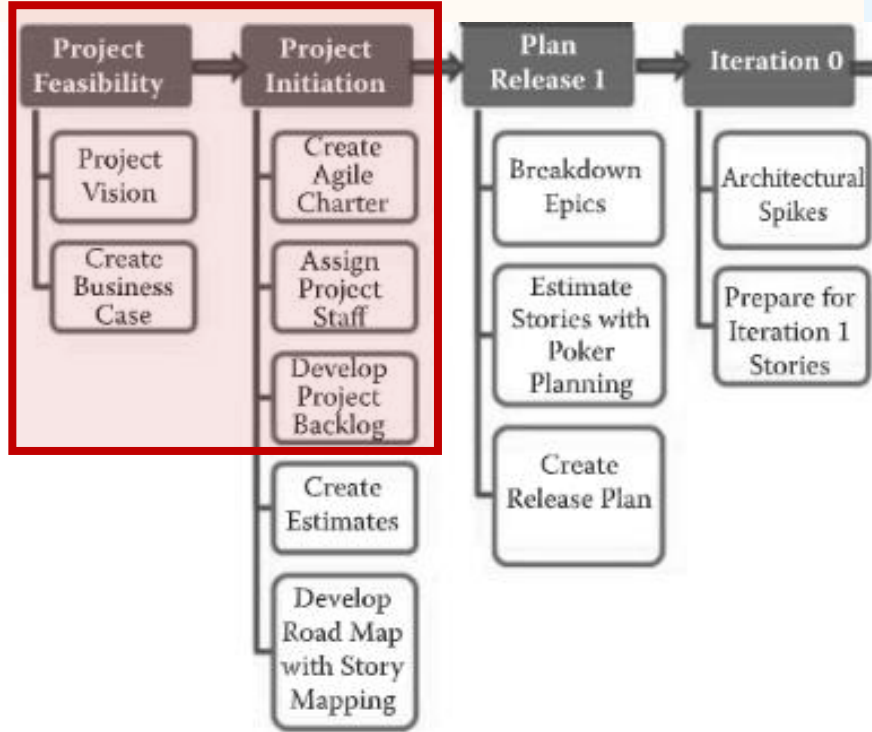


Agile Planning

Context



- Remember: Agile involves ~2-week iterations (not detailed long-term planning)
- But planning is still necessary

- Today's focus: How do we get started?

Outline

- Project feasibility
 - Vision & Measurable Organizational Value (MOV)
- Project Initiation
- Initial Planning
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 - Initiatives, Epics, and Stories
 - Product Roadmaps

Project Feasibility

- Create business case
 - Project must meet the needs of the organization
 - Valuable projects align with organization's vision, mission, strategy (next slide)
- Create project vision
 - What the project should achieve (goals)
 - Why it is being undertaken (rationale)
 - What is the project's **measure of success** (MOV)

Organizational...



MOV fits near the bottom

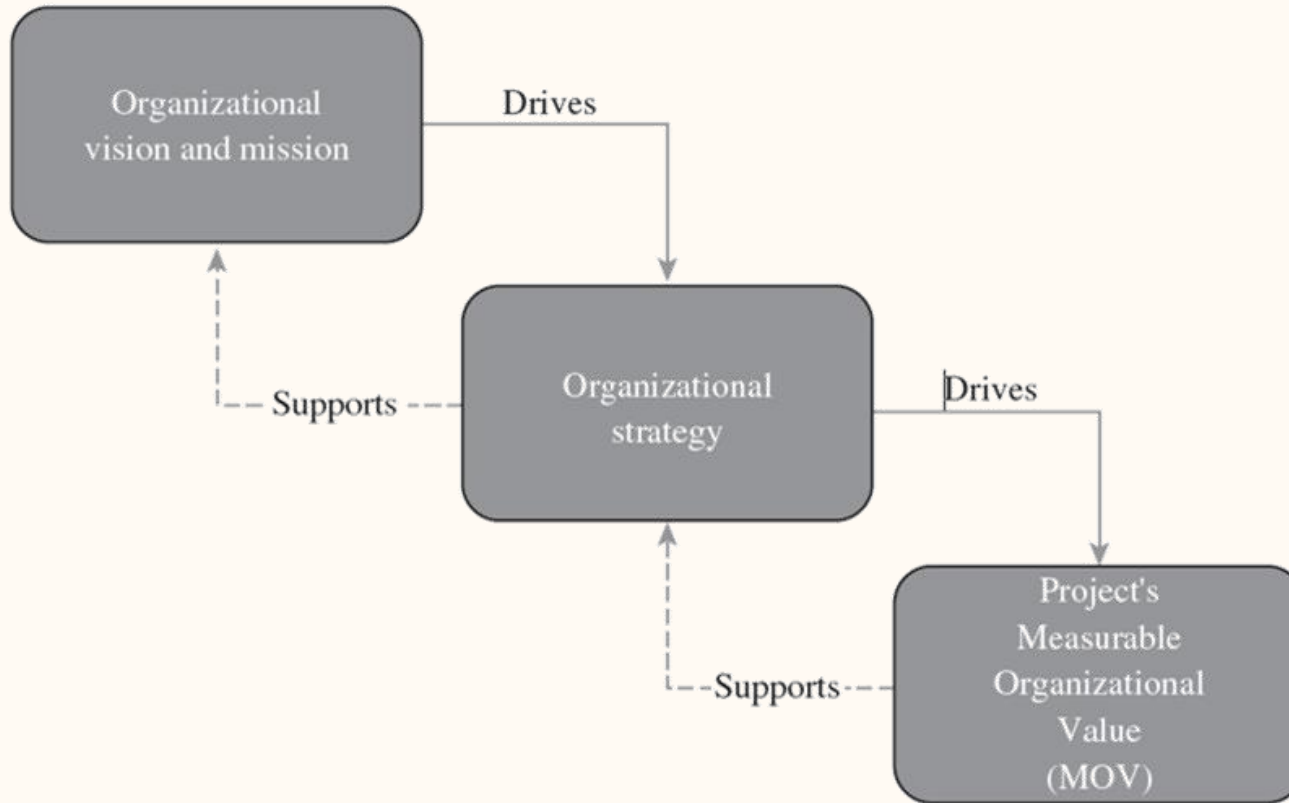


Figure 3.1 Project Alignment

Attributes of MOV

- Measurable

- We can collect and analyze **data** about it
- Data allows us to **confirm/reject** a success claim

- Verifiable

- Measurement data can be analyzed within reasonable time
- Usually within weeks to months after target timeframe end of MOV

Attributes of MOV

- Agreed-upon
 - Realistic goals and expectations
 - “Must be doable and worth doing”
- Valuable (w.r.t. mission/vision)—worth doing
- Note: Technology involved is **not** part of MOV
 - Tech. is a means to an end/enabler
 - While tech may bring success, it’s not specified

Example

Our project will be successful if we install a database management system to improve our customer service to world-class levels.

- Problems?
 - “world-class” is ill-defined
 - Relies on technology, not measurable results
 - What’s the timeframe?

Improved Example

Our project will be successful if by May 15, 95% of our customers receive a shipping confirmation within two hours after placing an order.

- Why is it better?
 - We can collect and analyze **data** that will allow us to **confirm or reject** a success claim
 - Has a definite time-frame (verifiable)

Developing the MOV

Choose only one

1. Identify the desired **area of impact**

| Customer | Strategic | Financial | Operational | Social |
|--|--|---|---|--|
| <ul style="list-style-type: none">• New products or services• Better quality products or services• Lower priced products or services | <ul style="list-style-type: none">• New markets• Increased market share• Changing the terms of competition | <ul style="list-style-type: none">• Increased revenue• Lower costs | <ul style="list-style-type: none">• More efficient processes• More effective processes | <ul style="list-style-type: none">• Dissemination of knowledge• Improved safety• Cleaner environment |

Figure 3.3 Potential Areas of Project Impact and Examples

Developing the MOV

1. Identify the desired **area of impact**
2. Identify the desired **value** of the project
 - Better, faster, cheaper, do more
 - Again, pick **one** as the MOV's main focus

Developing the MOV

1. Identify the desired **area of impact**
2. Identify the desired **value** of the project
3. Develop an appropriate **metric/measure**
4. Set a **time frame** for achieving the MOV
5. Get **agreement** from stakeholders
6. **Summarize** in clear, concise statement:
The project will be successful if _____.

Table 3.1 Examples of MOV Statements

| Area of Impact | The project will be successful if ... |
|----------------|--|
| Customer | Within 3 months 65 percent of our customers will visit our restaurant at least once a week. |
| Strategic | We will develop and manufacture a new router that sells for \$50 less than our competitor's model by April 1 of next year. |
| Financial | Sales growth of our smartphone app increases from 3 percent to 6 percent by the end of next quarter. |
| Operational | Our inventory turnover ratio improves 15 percent by the end of our fiscal year. |
| Social | The number of accidents in our plant is reduced to zero next year. |

Either ONE statement like this...

OR a table like this

Table 3.2 Example of MOV Table Format

| Time Period | MOV |
|-----------------|---|
| 6 months | 250 new healthy living newsletter subscribers |
| 1 year | 600 new healthy living newsletter subscribers |
| 2 years | 1,000 new healthy living newsletter subscribers |

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Agile project initiation

1. Create Agile charter
2. Assign project staff
3. Develop the project backlog
4. Create estimates
5. Develop road map with story mapping

Requirements gathering

Agile charter

- Very little detail, but key details are vital
 - Smaller than traditional PM charters
- Must specify agile method
- Plan for incorporating changes as needed
- Answers the Five **W**'s and the One **H**...

Agile charter—5 W's and an H

- **Who** are the *stakeholders*?
- **What** is the product?
- **When** do they need it? (delivery timeline)
- **Where** will the work take place?
- **Why** do stakeholders need this? (value)
- **How** will the work be completed?

What's a *stakeholder*

- Anyone who...
 - Has an interest in the product
 - Can influence product decisions
 - Is affected by the outcome and deliverables of your work
- Examples:
 - Development team, product manager
 - Management, sales/marketing, support, investors
 - Customers, suppliers, regulating agencies

Some sample charters

Can you find _____ in the following charters?

- Agile method
- How changes will be incorporated
- the 5W's and H

SAMPLE AGILE PROJECT CHARTER

GENERAL PROJECT INFORMATION

| PROJECT NAME | | |
|--------------------------------------|-----------------------------|------------------|
| Enterprise Sales Enablement Software | | |
| PROJECT CHAMPION | PROJECT SPONSOR | PROJECT MANAGER |
| Joe Smith | Martin Thomas | Sally O'Neil |
| STAKEHOLDERS | | |
| Marketing, Sales, Customer Support | | |
| EXPECTED START DATE | EXPECTED DATE OF COMPLETION | DATE OF DOCUMENT |
| Q2 | Q4 | |

PROJECT DETAILS

| | |
|-----------------|--|
| VISION | Our sales team will have the training, coaching, and content to engage with prospects throughout the entire sales cycle. The marketing team will have clear insights into content performance, training initiative success, and improvement opportunities. |
| SUCCESS METRICS | Real-time monitoring of content usage Reduction of 10 percent in length of sales cycle Reduction of 30 percent in length of time to sell |
| RISKS | We're risking the potential loss of money and time as well as the potential lack of adoption. |

TEAM CHARTER

- ☐ MAKE SURE WE TAKE TIME OUT TO PLAY
- ☐ BE PART OF MAKING BOOST AN ENJOYABLE PLACE TO WORK
- ☐ PUT YOURSELF IN YOUR TEAM MATE'S SHOES
- ☐ TAKE PRIDE IN SHARING KNOWLEDGE
- ☐ THE CLIENT IS PART OF THE TEAM
- ☐ SUPPORT EACH OTHER
- ☐ APPROACH R+D DAY WITH PURPOSE AND AN OPEN MIND
- ☐ RAISE CONCERNS PROMPTLY
- ☐ NO BLAME
- ☐ TAKE PRIDE IN YOUR WORK



Project name: Applicant tracking system

Vision: Make it easy for the HR department to keep track of the various applicants and smoothen the recruitment process

Mission statement: Create an applicant tracking system with an easy to use form and real time applicant tracking. Let the hiring managers get access to the complete profiles and move applicants to relevant stages through easy communication tactics.

Success Criteria:

- Complete the comprehensive database by 18th November
- The applicant review rate should increase by 50% by Jan 26th
- HR department survey should show 90% satisfaction rate

Project Team: [...]

Code of conduct:

- Respect other team members at all times
- Make sure you don't miss team meetings unless due to unavoidable circumstances
- Update the tasks on the update board at regular intervals
- Team members will be responsible for meetings on a rotating basis and minutes will be shared within 12 hours
- In case any meeting is cancelled, this will be intimated to the members in advance.

Agile project staff

- Self-managed
- Co-located
- Small team
- Single backlog
- Commitment
- Communication
- Accommodate change
- Create reasonable estimates
- Continuous improvement
- Cross-functional
- Sustainable pace

To consider: How do these relate to Agile principles? DevOps principles?

Gather requirements → backlog

- Requirement = what the product should do
 - Vision/MOV & charter are very broad
 - Work must be done to refine requirements
- During initiation, break down to **feature** level
 - What should users be able to do with product?
 - Helps with prioritizing work to start first
 - Goal: MVP—**Minimum Viable Product**
 - **Viable**: works & has value—users would actually use it

Wants vs. Needs—MoSCoW

- Differentiate **wants** from **needs**
 - Focus on **problem to be solved**, not **ways to solve**
- Prioritizing requirements, MoSCoW
 - **M**ust have—must be included by deadline
 - **S**hould have—ideal, not necessary by deadline
 - **C**ould have—nice to have
 - **W**on't have—not worth the effort, or unhelpful

Keep requirements simple

- Work with users to find the right **balance**
 - “Good enough” to solve the problems...
 - But “just barely good enough”
 - No “gold plating”
 - Keep **scope**, **complexity** of development effort minimal
 - At some point, reach point of **diminishing returns**
- Start small: simple, basic solution
 - Add incrementally, when adds **value** for the user

Potential staff: business analyst

- A **business analyst (BA)**...
 - Traditionally: works with users to analyze and document requirements
 - Under Agile: facilitates discussions between users and project staff → help **them** discover and *understand* requirements (record as ***user stories***)
- This semester: each of you should do at least some requirements analysis

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Agile planning philosophy

- Planning as **management of uncertainty**
- Overplanning
 - Happens when you make too many assumptions
 - Can create the **illusion of control**
- Agile approach:
 - Don't attempt to resolve all uncertainty near start
 - Instead, use **rolling-wave planning**

Rolling-wave planning

- A form of progressive elaboration where...
 - Decisions deferred to “**last responsible moment**”
 - Latest can make decision without negatively impacting outcome of the overall project
 - Near-term work is planned in detail
 - Longer term work is planned at a high level
 - Additional planning done as work approaches
- Reduces risk of doing unnecessary work

Levels of planning

- Project-level
 - High-level understanding of requirements
 - Estimate overall resources, costs, schedule
- Release-level
 - More detail in requirements specification
 - Rough estimates of required effort
- Sprint-level
 - Requirements broken down into tasks
 - Time estimates of work/tasks that fit in sprint

Spikes

- At sprint level, avoid requirements that...
 - Have **major uncertainties** involved, or
 - Might **block/delay** development
- Spike is a special kind of iteration for **research**
 - Evaluate alternative approaches
 - Prototype a solution
- Isolating, ***timeboxing*** spikes **tames uncertainty**, keeps other efforts moving

Timeboxing

- Putting a limit on time an activity can take
- Includes:
 - What will be done—what is the result?
 - Maximum amount of time it can take
- Benefits:
 - Maintain focus, reduce likelihood of scope creep
 - Can plan/schedule activities, resources reliably
 - If activity fails, doesn't affect rest of schedule

Outline

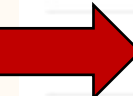
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Planning units

- **User stories**

- Requirements written from perspective of the user
- Correspond to a simple feature
- Can implement within one sprint
 - Team usually works on several stories in a single sprint

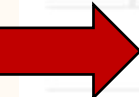
| # | Level Name |
|---|----------------------------|
| 1 | Purpose |
| 2 | Vision/Objective |
| 3 | Goal/Strategic Initiative |
| 4 | Strategy/Workstream |
| 5 | Initiative/Roadmap Project |
| | Epic/Milestone/Risk |
| | Story |
| | Sub-task |



Planning units

- **User stories**
- **Epics**
 - Related groups of stories
 - Correspond to a complex feature or fuller user experience
 - Team implements over multiple sprints

| # | Level Name |
|---|----------------------------|
| 1 | Purpose |
| 2 | Vision/Objective |
| 3 | Goal/Strategic Initiative |
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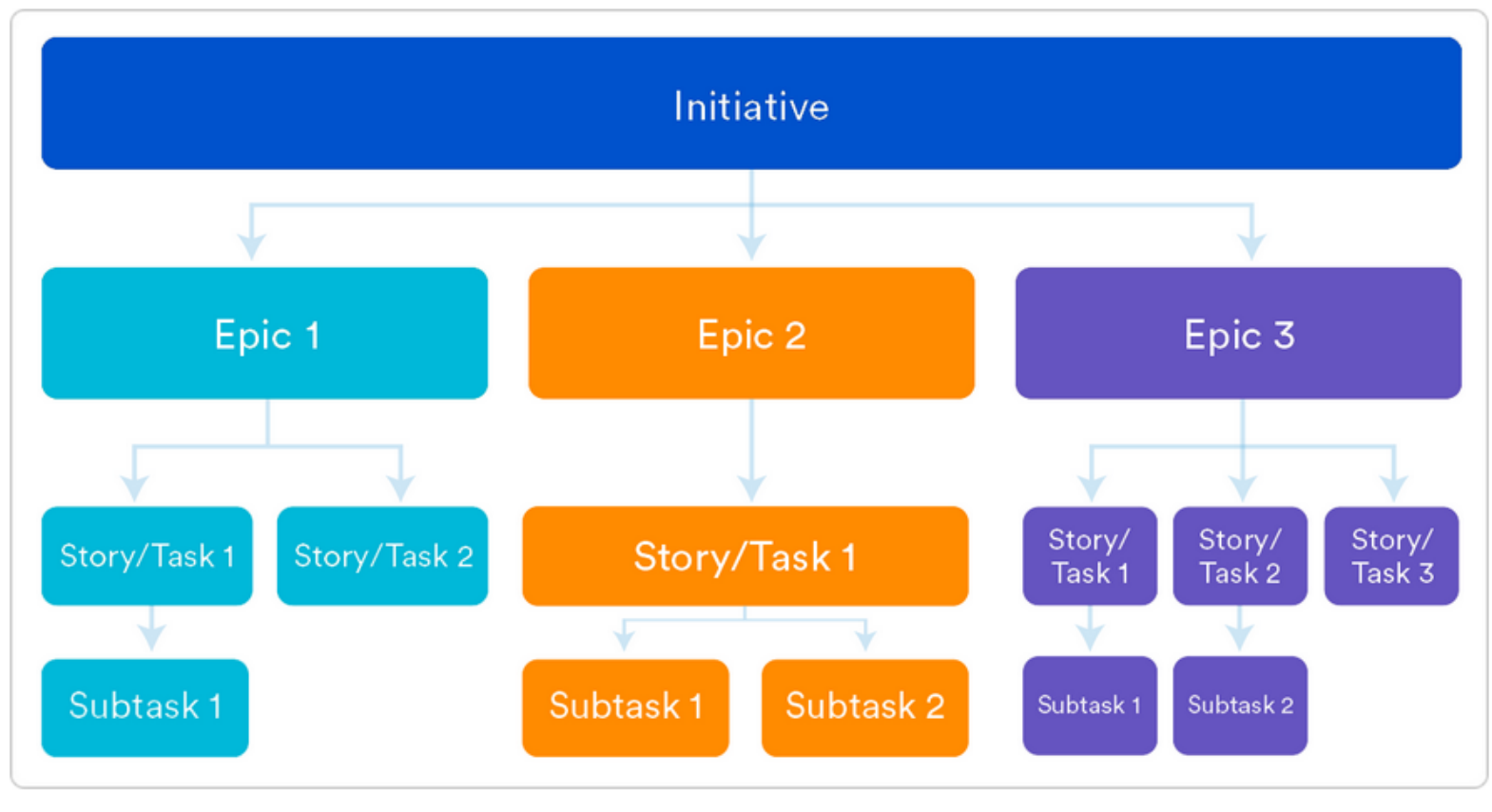
Planning units

- **User stories**
- **Epics**
 - Related groups of stories
- **Initiatives**
 - Collection of epics driving toward common goal
 - May span development teams
 - May span months to a year

| # | Level Name |
|---|----------------------------|
| 1 | Purpose |
| 2 | Vision/Objective |
| 3 | Goal/Strategic Initiative |
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| | Initiative/Roadmap Project |
| | Epic/Milestone/Risk |
| | Story |
| | Sub-task |



Planning units



Quarters

Months

Weeks

Hours

How it applies to the project

- Initiative: [Your MOV here]
 - Epic 1: Initial design
 - Task 1: Charter
 - Task 2: UX Design
 - Task 3: Generate user stories
 - Epic 2: Build MVP (Minimum Viable Product)
 - Task 1: Develop basic data service
 - Task 2: Show data in basic web app
 - Epic 3: Evolution [add appropriate tasks]

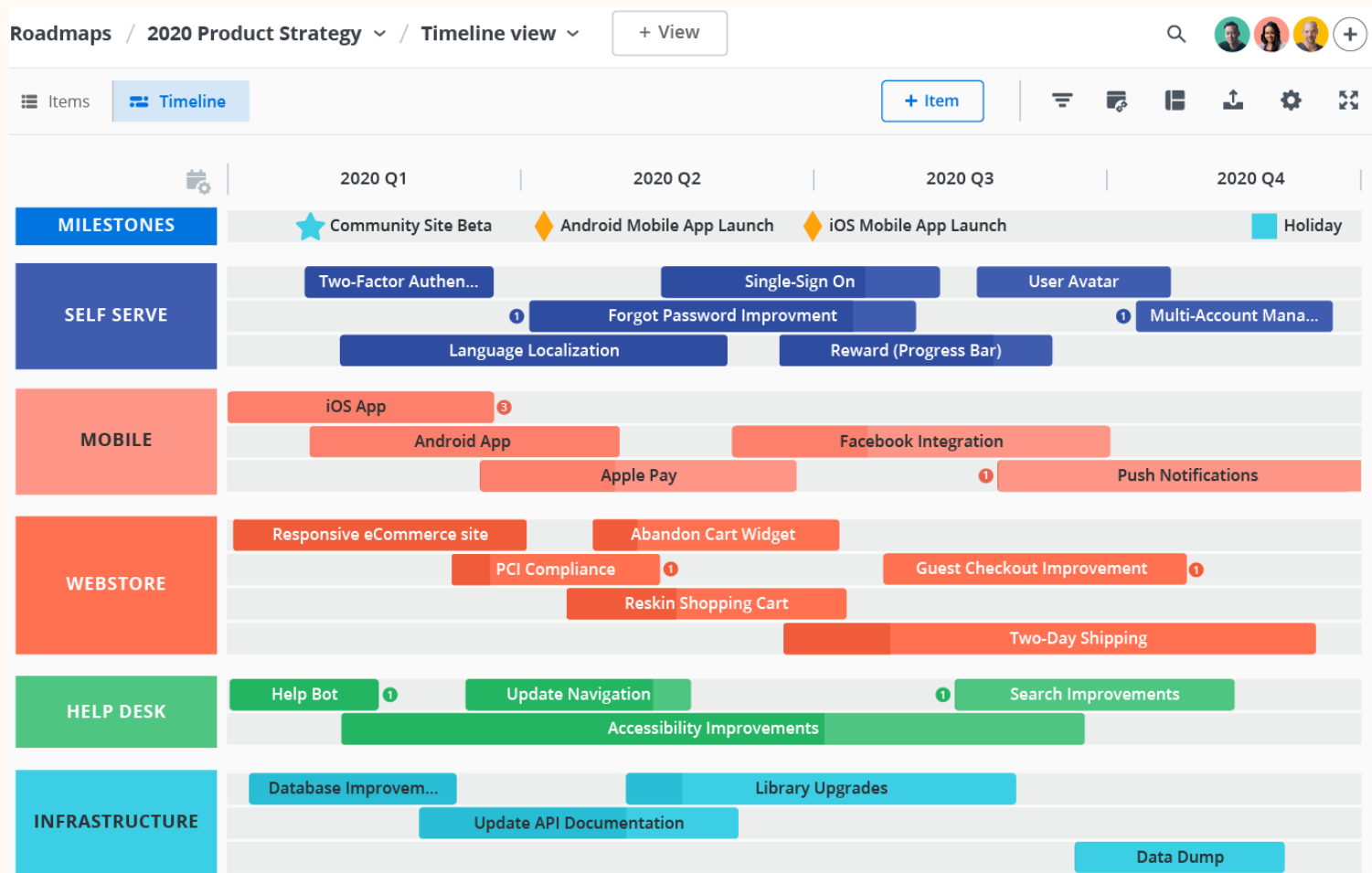
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Product roadmap

- Plan of action: how product will evolve over time
- Used by ***product manager*** to outline...
 - Future **product functionality**
 - **Target dates** for when new features will be released
- Provides context for agile teams' daily work
- Updated as changes to plan are made

Example



Product & Project Managers

- Focused on long-term vision for product
 - How will it provide value to customers?
 - How will it help business/organization thrive?
 - How does it compare to competitors?
- Identifies success criteria
- Inspires ***development team*** to realize vision
- Strategic focus (vs. tactical product owner)

Development Team

- Group of people working to create product
- Can include a number of roles
 - Software developer
 - Product owner, scrum master
 - DevOps engineers
 - UX/UI designers
 - Quality assurance engineers
 - ...

Why use roadmaps?

Biggest benefit: illustrates strategic vision to all stakeholders

- Matches broader product and company **goals** with **development efforts**
- Helps remind everyone of shared **priorities**
- **Aligns all teams** around common goals to create great products

Roadmaps for different audiences

- Internal roadmap for the **development team**
 - May include detail about...
 - **Prioritized customer value** to be delivered
 - Internal milestones & target release dates
 - Often **organized by sprints**
 - Shows specific pieces of work, problem areas plotted on a timeline

Roadmaps for different audiences

- Internal roadmap for the development team
- Internal roadmap for **executives**
 - Emphasize how teams' work supports **high-level company goals** and metrics.
 - Often **organized by month** or by **quarter**

Roadmaps for different audiences

- Internal roadmap for the development team
- Internal roadmap for executives
- Internal roadmap for **sales**
 - Focus on **new features** and **customer benefits** to support sales conversations

Roadmaps for different audiences

- Internal roadmap for the development team
- Internal roadmap for executives
- Internal roadmap for sales
- External roadmap for **customers**
 - **High-level** view of new **features/problem areas**
 - Visually appealing, easy to read
 - Excite customers about what's coming next
 - Generate interest in future directions of product

Roadmap best practices

- Include only details necessary for audience
- Keep evenly focused on short-term tactics & how they relate to long-term goals
- Review regularly, adjust when plans change
- Make sure roadmap is accessible to everyone
 - ...and that they check it regularly
- Stay connected with stakeholders at all levels
 - ...to ensure alignment

Summary

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Intro to the course project, Lab 1

- Project overview description
 - Review of Page 1
- Lab 1 tasks
 - Charter (with MOV)
 - Roadmap
- Reporting requirements for labs