

# Collaborative Product Discovery

## Team driven high-level analysis, design, & planning

Collaborative product discovery is a short analysis, design, and planning phase that precedes detailed design and delivery. Use a discovery phase to clarify business problems or goals that motivate building software, and target customers and users. Consider multiple product solutions ideas on the way to creating high-level product design, and an incremental product release plan.

### Start with a product idea or business problem to solve

A discovery phase starts with one more **product ideas** we believe to be valuable, or a **business problem** we believe needs solving. We're striving to get to a good understanding of what we could build and a plan to build it.

**Who:** A cross-functional product ownership team plans and facilitates product discovery. Business stakeholders, users, subject matter experts, and the development team participate in various activities of the discovery.

**Duration:** A product discovery phase may take as little as a couple days, or as long as several weeks. One to two weeks is generally sufficient to create plans for a 3-6 month project. Time-box discovery work, and pause at least weekly for a showcase to demonstrate progress.

**Outcome:** Sharpened understanding of product goals and target users and customers communicated in simple models. A roadmap for incremental product release. High-level UI design that describes the basic functionality and flow of the UI to serve as a guide for later detailed UI design and validation. Detailed UI design and validation can take place concurrently with development.

## Collaboration Styles

Choose the style of collaboration to suit the work. Collaborative workshops to collect and socialize information, paired and small group work for synthesis and design.



## Collaborative Workshops

**Purpose:** Use collaborative workshops to collect, organize, synthesize, and socialize information

**Who:** Information suppliers – those who have information the team needs; information acquirers: those that need to learn; facilitator: to organize and help keep the workshop on track.

**When:** Use throughout a product discovery phase, usually 1-3 workshops per day

- Time-box workshops to 90 minutes
- Keep workshops manageably sized – ideally 10 people or less
- Post a clear purpose for each workshop on the wall
- Use parking lots, feed-forward bins, pace-keeping signals, and time-boxed activities to maintain forward progress
- Collect & organize information visually using stickies or index cards
- Conclude each session with a summary of results and next steps
- Photograph results or shoot a short movie of someone describing the outcome

## Pairing or Small Group Work

**Purpose:** Use paired or small group work to synthesize information, make decisions, or create deliverables such as personas or UI prototypes

**Who:** People accountable for the success of the product discovery, usually the core product design team

**When:** Use in between collaborative workshops to discuss and synthesize results and plan next steps. Pair to create deliverables such as personas or UI prototypes to shared and get feedback on during collaborative workshops.

- Time-box activities to 60 minutes or less taking frequent breaks
- Set objectives for each work session
- Work together to create some visible result using sticky notes, index cards, flipchart paper, or a shared computer document
- Use a driver-navigator pattern to keep work moving forward

## Context Analysis

Context analysis is researching, modeling, distilling, and communicating.

To effectively identify and design products, we need to understand the context the product exists in. Good analysis illuminates the elements of product context that help you assess the quality of your solutions.

## Solution Invention

Design is imagining, deciding, and solving.

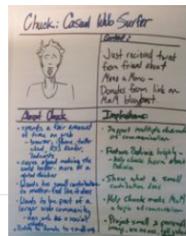
Solution ideas are built from the decisions you make about a product or product characteristics that would bring about desired change in the context

### 1 Identify Measurable Product Goals

Measurable product goals describes the **outcome** and longer range **impact** desired as a consequence of releasing the product or product changes. They're articulated as changes we expect in the outside world. For example: "reduce customer support calls" or "increase product sales to a new market segment."

By asking the question: "How would we know if we were making progress towards this goal?" we're able to identify metrics that indicate progress.

*Measurable product goals describe where the business value comes from. They're the basis for prioritizing features, planning releases, and making detailed design decisions*



### 2 Create Pragmatic Personas

Simple pragmatic personas are concrete examples of your users built initially by leveraging the tacit knowledge and experience of people within your organization. Personas segment your user audience in a useful way so that you can be more specific about the types of users it's most important to satisfy and those that it's not.

- Keep personas **concise and relevant** to the goals of the product
- For each user persona **identify feature opportunities and design implications** on your product.
- For users where your information is weak, **create a plan to perform some user research** to replace shaky assumptions in your persona with facts.

*Pragmatic personas are a quick way to make the users of your system visible and concrete. Speak about and evaluate your prospective system through the eyes of your personas.*



### 3 Model User Tasks & Activities

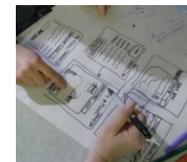
Model user experience across multiple users of your product using tasks organized into activities. Start by creating a model based on how your users meet their needs today, without your prospective product. As you move towards identifying a product solution correct workflows and add feature ideas into the task model to remedy pain points of your product's users.

Properly built, a task model organizes stories around the user or business value stream for the whole product. The product team can leverage a task model to understand the entire product.

*Use task models to understand users and the product concept.*

Write scenarios to make abstract task models concrete.

Write scenarios to help identify tasks for the model.



### 4 Envision High-Level User Experience

Leverage personas and task models to envision the user experience at a high level to validate and communicate your product concept and set the stage for later detailed user interface design.

- Ideal envisioning approaches include:
- A simple sketched **storyboard** of the interesting flows in the user experience of the product
  - A **design comic** showing the user experience in the outside world
  - Sketched and annotated **screen wireframes**
  - **Navigation maps** showing how users move from screen to screen

Consider using a **design studio or sketchboard** approach in a collaborative workshop to involve everyone in identifying user experience ideas.

If the product's user experience is a critical success factor, you might consider refining initial sketches into more sophisticated prototypes to vet with users.

*Create a storyboard sketch of the user experience to help communicate your product's vision. UX sketches will help sizing & planning activities proceed smoothly, and help stakeholders understand your product concept.*



### 5 Plan Incremental Product Releases

A release roadmap describes how the product will be released over time. For each release describe how the release benefits the business creating the software, the customers buying it, and the users using it. List only the high-level features for each release. Organize releases around product goals where the product goal indicates the desired benefits, and the features indicate the design choices your team has made that you believe will get you the benefits.

A release roadmap concisely communicates to stakeholders how you believe the product delivers benefit over time. Alternative versions are useful to communicate to customers and users.

*The release roadmap describes how product features deliver value over time. Communicating benefit along with features keeps everyone focused on maximizing benefit, instead of merely delivering features.*

Identify user types to profile

### User Types & Roles

User roles describe the relationship a person has with a product, relationships such as "administrator." In your organization you may use "actors," "classes" of users, or job titles. All are acceptable ways to **segment your user audience**.

### User Profiles

User profiles organize information about your user types. While a persona gives a concrete example of a user, a profile contains a wide variety of facts and assumptions, sometimes contradictory.

Profile **data** may contain:

- **User characteristics**
- **Goals** and pain points
- Information about the **activities** users engage in relevant to the product

### Customer Profile

Describe those who make buying decisions for your product. For many products, appealing to customers that may or may not use the system is critical to its success. Customer profiles describe the factors customers use to make decisions, what influences them, and what they value.

### Organizational Profile

Describe the organization or company that multiple users may occupy. The organizational profile describes important context such as organization size, politics, collaboration methods, and other information that may have critical relevance to your product design.

Research to gather data for profiles and task analysis



### User Research

Plan user research to collect quantitative and qualitative information about users of your system. Use the creation of pragmatic personas to identify and prioritize types of users and the kind of information you need to learn more about. Research methods include:

- User interviews & observation
- Other departments such as: sales, marketing, & customer service
- Focus groups including collaborative workshops & Innovation Games™
- Usability testing both on your product, and competitor's products
- Surveys and questionnaires
- Published demographics and existing user research

### User Scenarios

User scenarios envision the user experience in a rich textual narrative form. Leverage user research or your task model to write a scenarios describing someone using your product as you hope it to be when it ships.

Consider creating a **design comic**, setting a scenario to pictures.

### Design Principles

Design principles give general rules of thumb that allow designers to evaluate design ideas as good or bad. They're short, memorable, and specific enough to be useful, but not so specific to describe a design solution.

- Tivo's principles include phrases like:
- "It's entertainment stupid"
  - "Respect the viewer's privacy"
  - "It's a robust appliance, like a TV"

### Visual Framework

A visual framework names the various types of screens, dialogues, and other spaces users will see in the context of using the system.

A visual framework could include wireframe layouts for different screen types, navigation information, and general conventions for using the system. The framework gives conventions that can be leveraged as new UI is designed.

### Design Communication

Communicate design and design context richly and simply to others.

The models used for analysis and the creation of design usually aren't the best models for communicating the design to others. Effective design communication blends information about context and solution from a variety of sources.

### Sizing, or Estimation

Use a "sizing approach" to estimate relative complexity of possible feature solutions. Since detailed UI design hasn't been done, initial sizing serves as a budget for making later design choices. As you proceed with UI design, collaborate with engineering, and keep an eye on the budget.

### Architectural Prototype

Create a simple architectural prototype to better understand the technical problems you'll need to solve when eventually building the final solution.

### Finish with a plan

Coming out of a discovery phase your product team will have a **plan** for releasing the product incrementally.

Product goals, target users & customers, and target tasks & activities for each release narrow the context for continued detailed design.

High-level UI design supplies guidance for later detailed design.

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