

NRM Heritage team & 18F

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Today

Introductions

Presentation [~20 minutes]

- Examples from ePermits
- Human centered design behind the scenes

Activities [~60 minutes]

Discussion and questions

Who is 18F?

Behind the Scenes

Who is 18F?

As an office within the General Services Administration, we know how to work with government.

Partner with 18F to deliver projects that fulfill federal rules, stay within budget, and provide excellent value to the public.



[HOW IT WORKS](#)

[GET YOUR PASS](#)

[PLAN A TRIP](#)



**Hey fourth graders! See
America's natural wonders
and historic sites for free.**

LET'S GO!

U.S. Department of the Interior

Natural Resources Revenue Data

[Glossary](#)

[Downloads](#)




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[About](#)

[How It Works](#)

[Explore Data](#)

[Case Studies](#)

This site provides open data about natural resource management on federal lands and waters in the United States, including oil, gas, coal, and other extractive industries .

[Explore the data](#)



Learn about extractive
industries in each state



1/ Examples from ePermits

Product vision

As the first two-way interaction-focused Forest Service online application, ePermits will **strengthen the connection between the public and the National Forests.**

The application will broaden and increase the public's responsible access to public lands through online availability; a predictable, responsive and friendly experience; and reduced administrative burden. These enhancements will drive increased customer satisfaction and quality of public engagement.

The Forest Service will use **agile development methods and modular procurements** to develop the application, ensuring an adaptive process that responds to emergent user needs and changing requirements.

Special use applications

For special uses, three challenges:

1

**Public confused by
form questions.**

2

**Forest Service
reviewing
incomplete
applications.**

3

**Applicants unclear
what happens
next.**

Permittees struggle to identify the right kind of permit to use.

Permittees struggled to figure out whether their organizational status meant they were “non-commercial.” They wondered whether collecting donations for a trip made them commercial or whether being a 501(c)(3) exempted them from any commercial permitting process. The answers varied by Forest.

Special use applications demo

Christmas tree permits

For Christmas trees, current systems
don't save time.

They create work.

We created a “self-service” system where members of the public can pay for a permit online, print their permit at home, and then take it with them to cut down their own tree.

This is a **more convenient** experience for the public, and **reduces administrative burden**.

Christmas tree permits demo

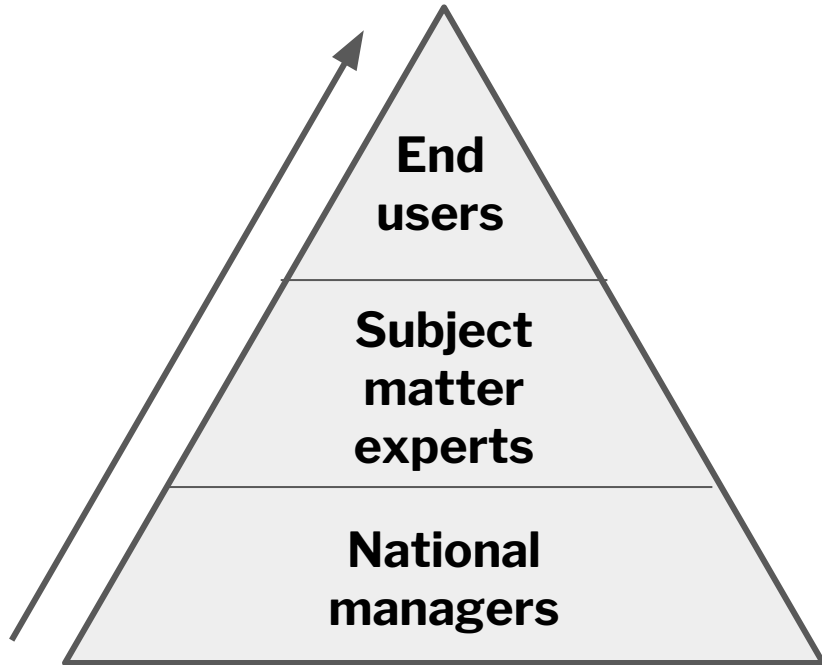
2/ HCD behind the scenes

**Goal-driven policy, on its own,
doesn't achieve goals.**

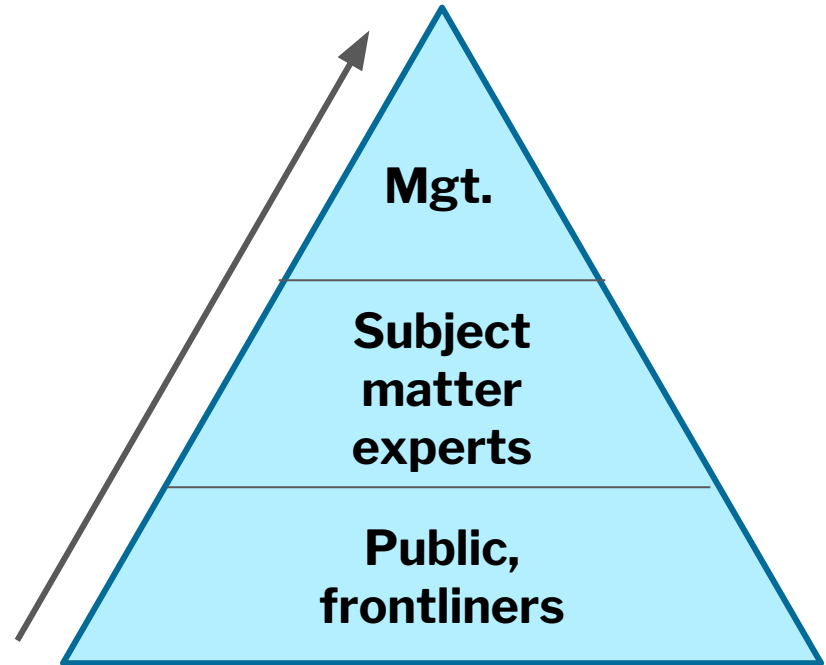
**We must build systems that
encourage goal-aligned behavior.**

How?

Standard approach:

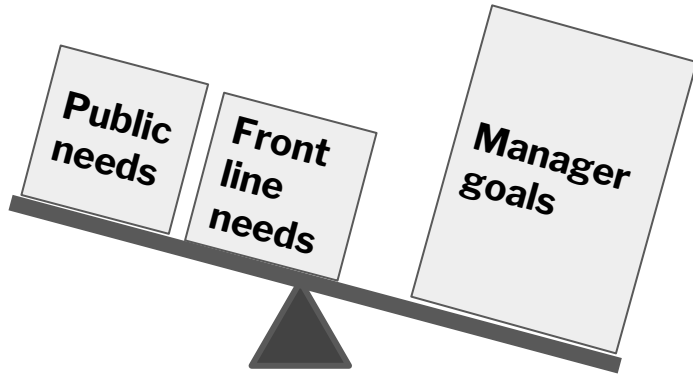


Our, human-centered approach:

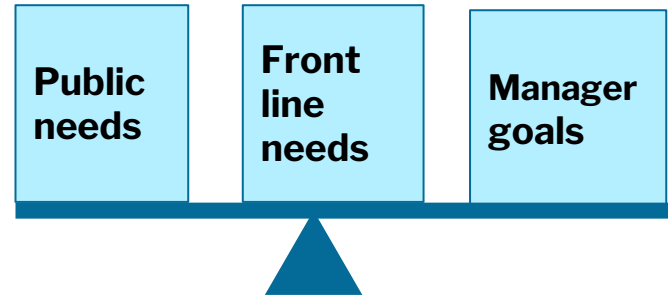


How?

Standard approach:



Our human-centered approach:



How?

Standard approach:



Our agile approach:

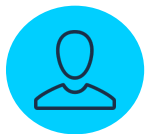


Gathering ideas & feedback



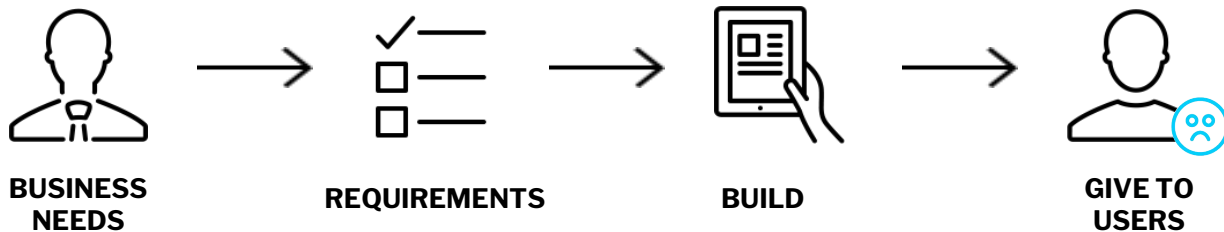
Building

Discovery & user research

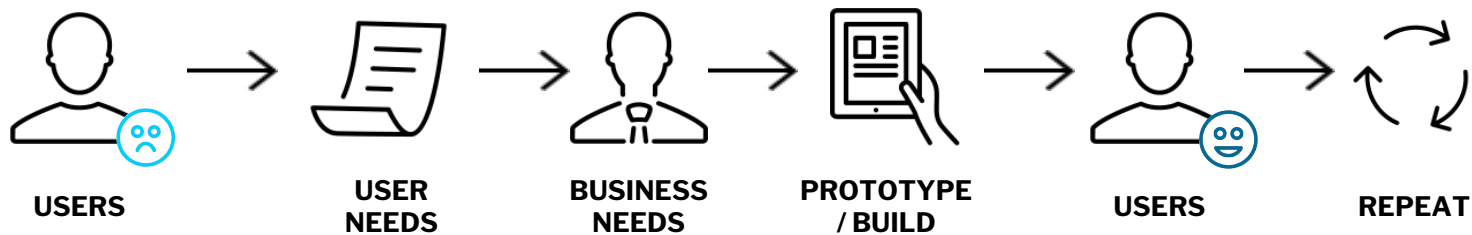


How we work: Human centered design

FROM

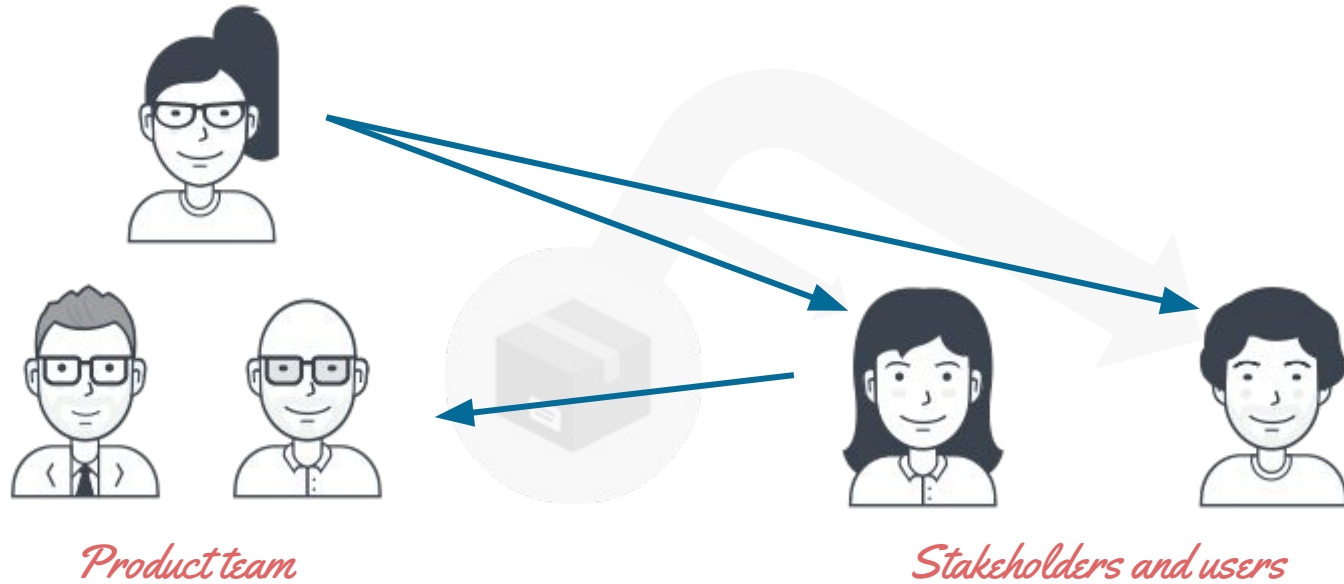


TO



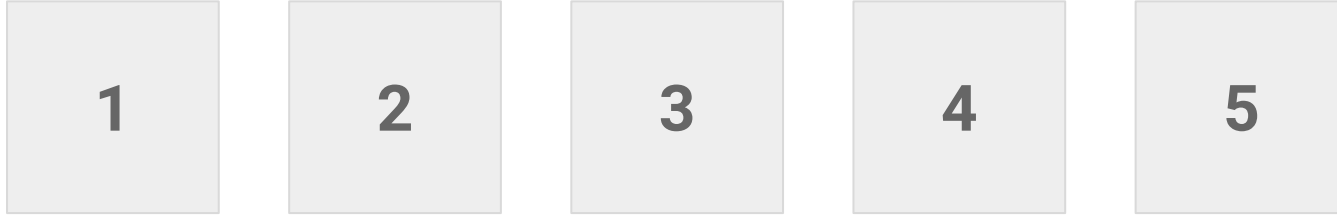


Products and services can
fundamentally change
how people get things done.



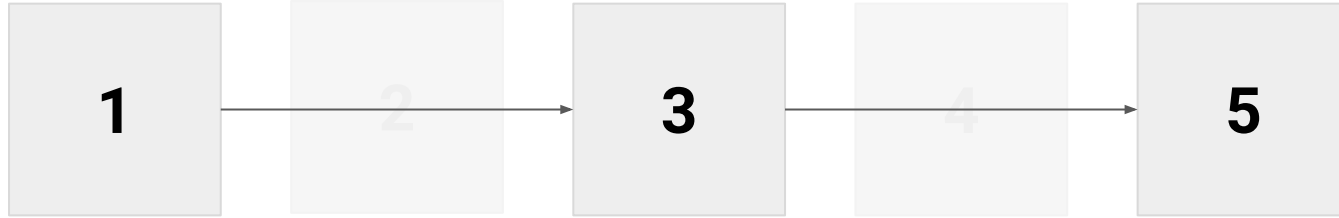
Human-centered design suggests we **observe** and **talk with people** to understand their existing roles, business processes, and technologies.

PERMIT APPLICATION AND PROCESSING

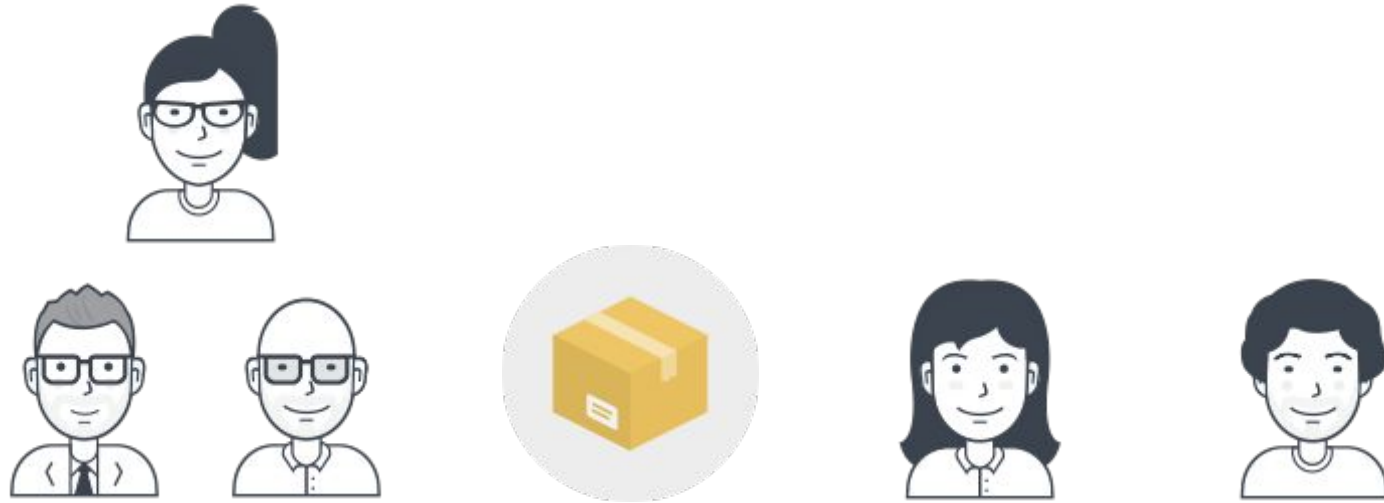


By articulating **current** business
processes...

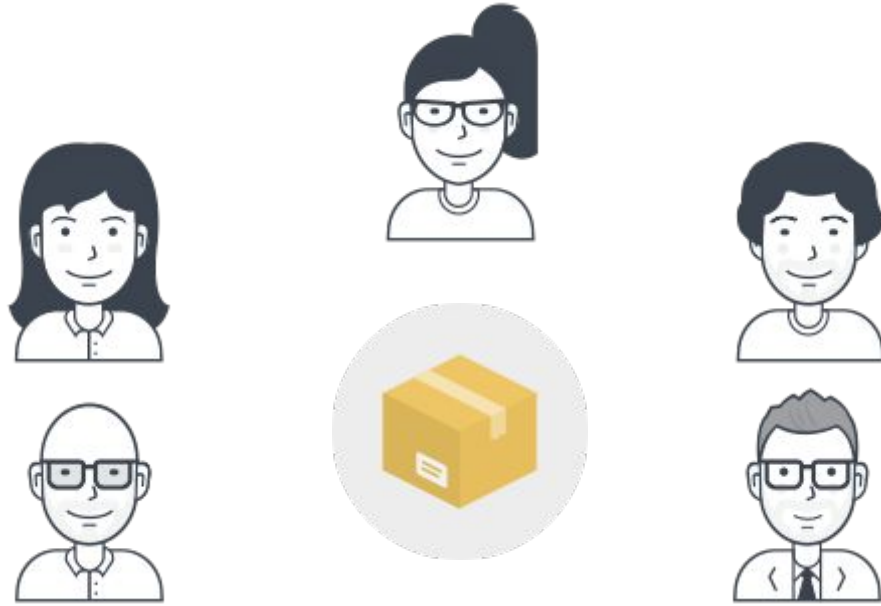
PERMIT APPLICATION AND PROCESSING



We can **hypothesize** ways
to improve them.



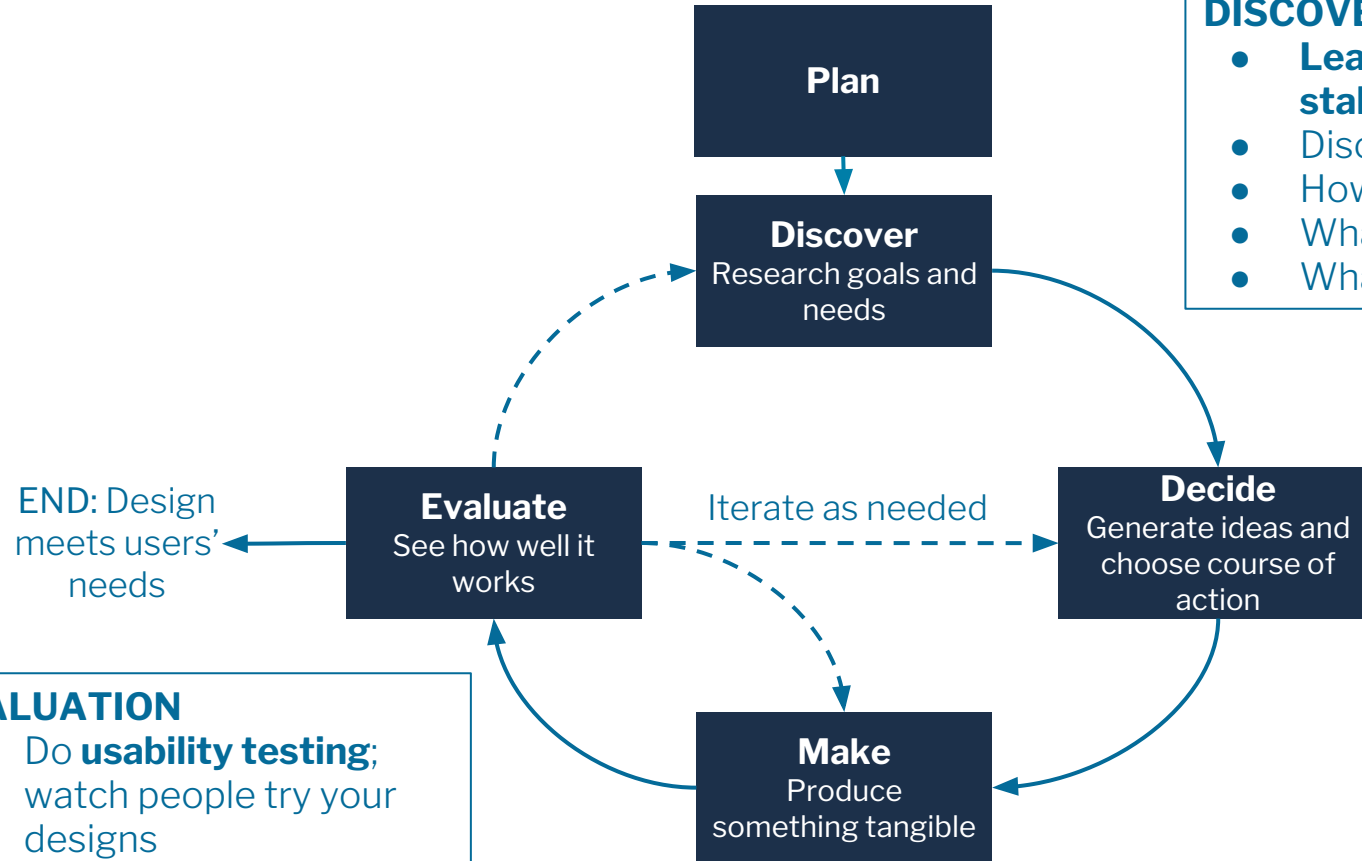
Instead of letting requirements
gathering and product design come
between us...



Research helps facilitate a **dialogue** to ensure products and services that work for everyone!

DISCOVERY

- **Learn about users and stakeholders**
- Discover goals and needs
- How is it done now?
- What is needed?
- What else has been tried?



EVALUATION

- Do **usability testing**; watch people try your designs
- Discover problems
- Evaluate progress
- Determine next steps

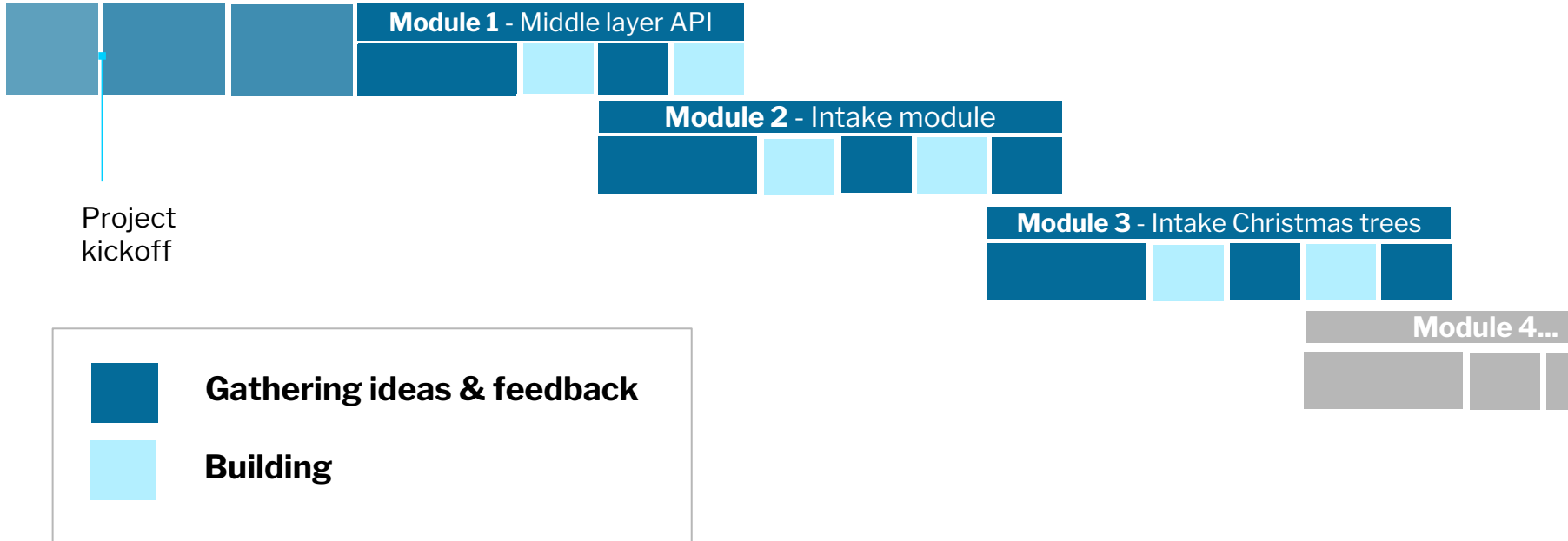
Timeline

AUG '16

FEB '17

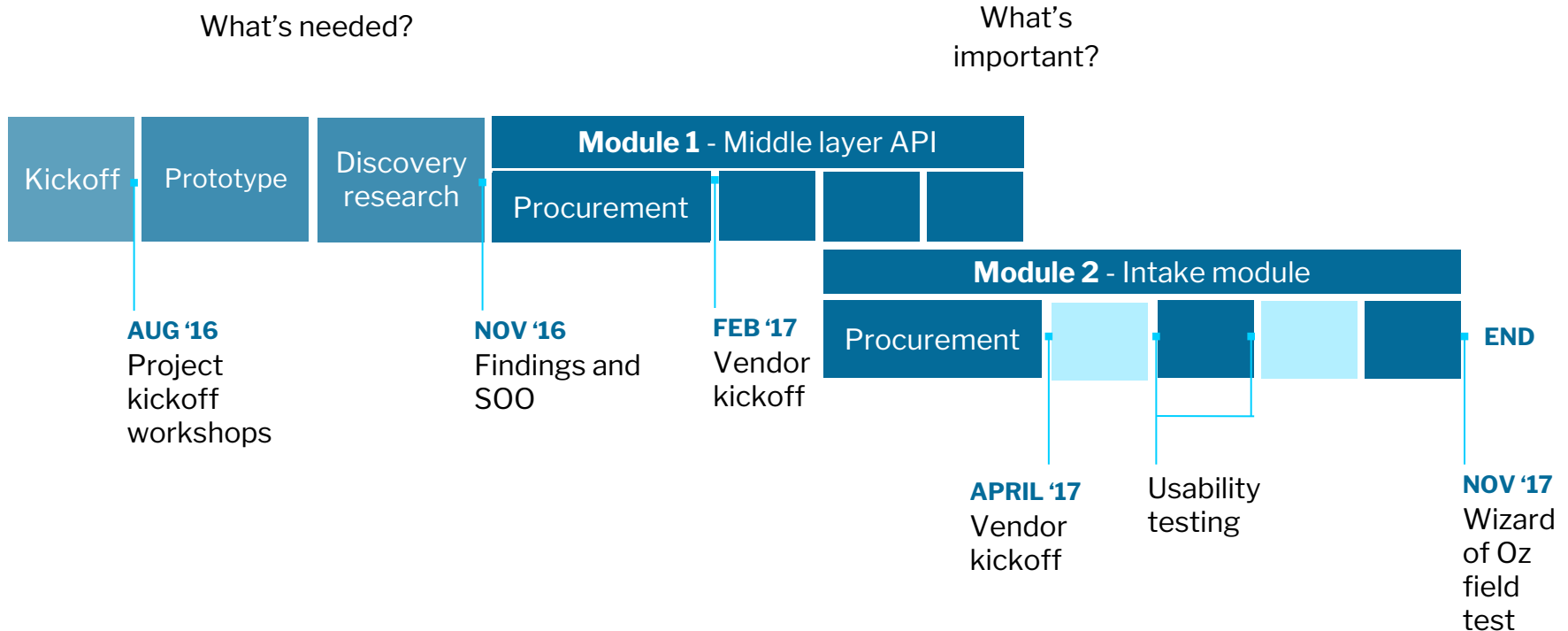
NOV '17

APRIL '18



MODULES 1 & 2

Special use permits



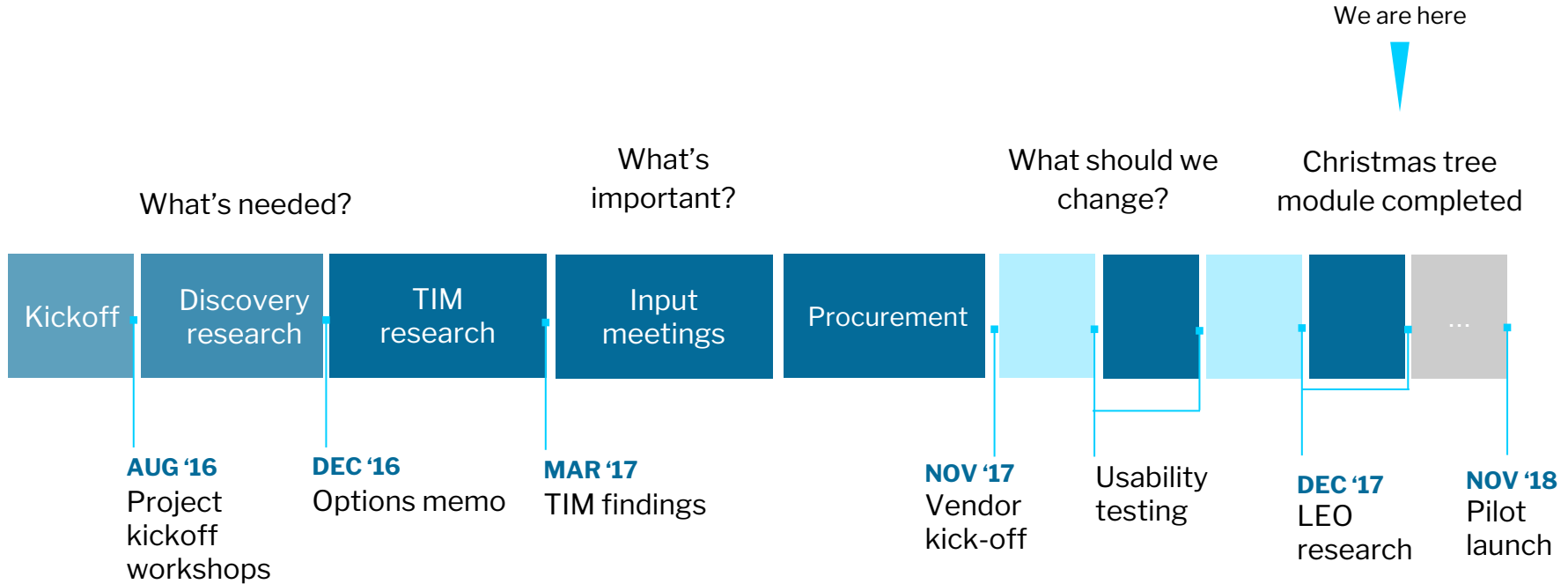
DESIGN RESEARCH ACTIVITIES

Special use permits

- Kick off workshop
 - Affinity mapping to help surface stakeholders current understanding of users and their needs
 - Journey mapping
- Initial discovery research
 - Interviews and observations with Special Use Administrators, frontliners, and outfitters and guides.
 - Interviews with outfitters and guides re: e-permit entry points
- Usability testing
 - At regular intervals throughout the project
- Wizard of Oz field test

MODULE 3

Christmas tree permits



DESIGN RESEARCH ACTIVITIES

Christmas tree permits

- Project kick off workshop
 - Journey mapping and protoskething with stakeholders to identify opportunities
- Initial discovery research
 - Spike 1: Interviews with FS staff at the various pilot forests
 - Spike 2: Interviews and field observations with FS staff and Law Enforcement Officers (LEOs) during Christmas tree season.
 - Interviews with potential Christmas tree cutters re: e-permit entry points
- TIM discovery research spike
 - Interviews and observations with FS staff processing payments
- LEO discovery research spike
 - Interviews and field observations with FS LEOs during Christmas tree season
- Ongoing usability testing with FS staff and members of the public

3/ Questions

4/ Activities



Mission

Target the enterprise HSL mission for the Heritage application.

Enterprise HSL is an experienced provider of preservation, stewardship, and public use of archaeological resources, historic properties, and Forest Service history.

The HSL focuses on meeting Forest Service heritage needs by serving as an extension of staff, where specific skill sets are in short supply or when workload and workflow issues arise.

This service line provides a range of scalable heritage, historic preservation, and history services with employees that are knowledgeable, skilled, mobile, flexible, and dedicated to serve our agency clients.

What value should the Heritage application create?

Value

Tell users...

- Where cultural resources are
- What ground has been looked at
 - Where did we look?
 - What did we find?
 - Is it important?
- Types of cultural resources

Managing cultural resources

How we manage data to comply with federal laws.

Resource protection and consideration

Relationships with states and tribes

Supports academic research

VALUE DATABASE

WHERE C.R. ARE

GROUND LOOKED AT

GOOD FOR

TYPES OF C.R.'S

MANAGING C.R.S APP ~

ONE ENTRY, MULTIPLE USES

FOLLOW THE LAW

REPORTING, ACCOMPLISHMENTS

RELATIONSHIPS WITH STATES, TRIBES...

SUPPORTS ACADEMIC RESEARCH

What value should the Heritage application create?

Problems

Tell users...

- Where

KEY PROBLEMS ~~THAT ARE~~

GLITCHES

LOTS O' FIELDS

TIME CONSUMING

NOT ACCESSIBLE

QUICK WORKAROUNDS

POOR GEO

OUTPUTS ARE NOT USABLE

MISSING "VAST AMOUNTS" OF LEGACY DATA

LIMITED OUTPUTS

NO MOBILE ACCESSIBILITY

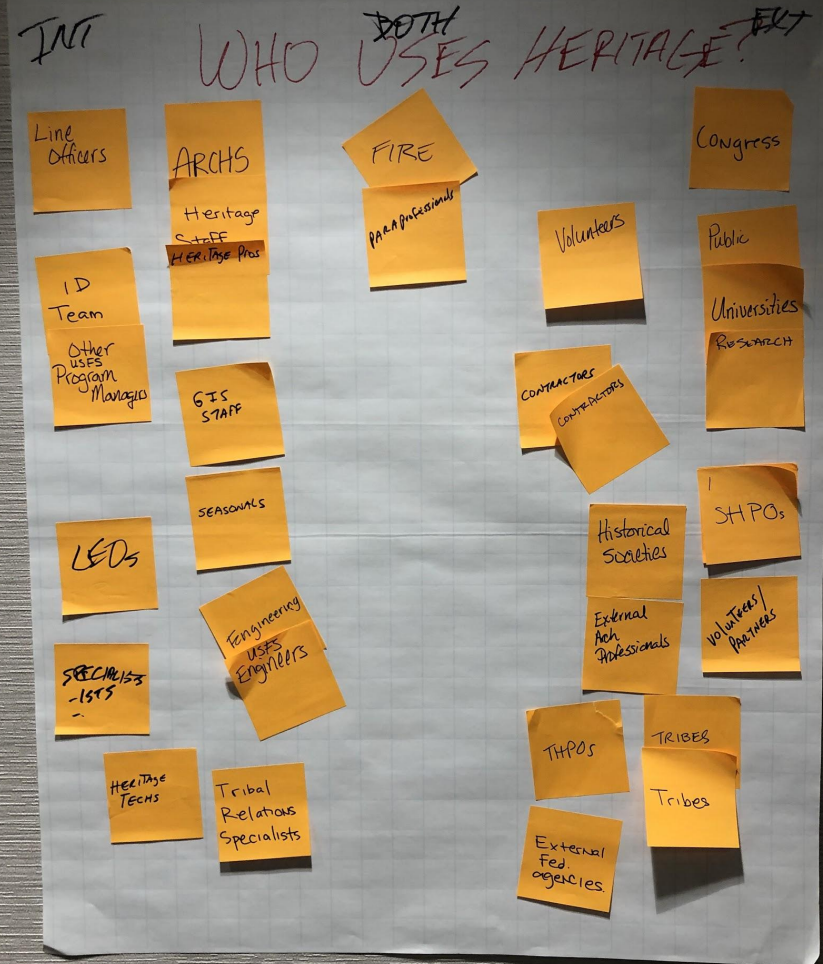
~~DATE~~

What value should the Heritage application create?

Users

Tell users...

- Where



What value should the Heritage application create?

Frustrations

Tell users...

- Where



What value should the Heritage application create?

Questions

Tell users...

- Where

WHAT WOULD YOU ASK?

Mergers
- What data is most useful & should be easy access?

SHPO, SHPO, THPO
- What data do you need to do the job?

Heritage Staff
What reports do you need?

Tribes
What ~~fields~~ data is most sensitive

THPOs
- What data should be confidential?

CR
Performance
What data do you need?

Heritage Staff
What fields do you want to not be required?

Heritage Staff
How much time are you ok with spending on data entry?

Heritage Staff
What fields in database are important to you?

CR/SHPO
What data do you need to fund us properly?

SHPO
What data do you need for SHPO consult?

Tribal Relations Spec.
How much data do you want?

Tribal Rel. Specialist
What data do you need access to?

Tribal Relations
What do you need for upward reporting?

Congress
What do you want? When? Why?

LEO
What do you need?

→ to monitor?
→ to issue
→ citation,
→ prosecute?

Contractors
How would it be possible for you to help regulate?

Public
What data do you want us to share?

Public
How would you like to be involved?

Academics
What are your research questions?

BEER

Who uses Heritage?

Given the key problems we are trying to solve, which users is it important to serve first?

1. Write down roles, descriptions, or job titles of the people who currently use Heritage.
2. Are there people who should be served by Heritage and *don't* use it?
3. Where these are similar, group them together.

Joy and pain

For these people, what are the best and worst moments using Heritage? How do we know?

1. Write down the most **valuable** and **frustrating** things users experience while using Heritage using **green** and **red** post-its.
2. Where moments are similar, group them.
3. Identify most **valuable** and **frustrating** moments by dot voting.
4. Discuss how we learned this. How certain are we?

What would you ask?

What questions do we have of these users?

(These aren't verbatim questions to ask users. They direct research.)

1. Everyone writes down questions they'd like to have answered.
 - a. Use open questions: the 5 Ws & H (who, what, when, where, why or how).
 - b. When capturing each question, note the group of users best suited to answer it..
2. Group questions into themes.
3. Discuss the questions we wrote down and why.
4. Prioritize by dot voting.

Project brief

Write a project brief using what we've discovered and prioritized.

1. The Heritage application should [**value**] and solve [**key problems**].
2. We believe that the Heritage application is falling short of meeting the needs of [**who uses Heritage**] based on [**how we learned this**]. Specifically, [**users in most need**] are experiencing [**prioritized pain points**].
3. To better meet Heritage users' needs, we aim to learn [**what would you ask**].

Thanks!

Contact 18F@gsa.gov

Follow [@18F](https://twitter.com/18F)

Work together github.com/18F



Backup slides

How can agencies partner with 18f?

Behind the Scenes

Partner with 18f to:



Improve public-facing services like websites or applications



Implement new laws or requirements while introducing new techniques to your agency



Digitize and streamline internal systems to save time and increase accuracy

Funding and agreements

We are cost-recoverable, which means we don't receive appropriated funds from Congress and must charge partner agencies for our work. There are two authorities we use to recover costs:

- Acquisition Services Fund (ASF) reimbursement authority: for work related to acquisitions
- [Economy Act \(PDF\)](#) reimbursement authority: for projects that cannot use ASF reimbursement authority

We use [Interagency Agreements](#) (IAAs) to set up the terms of our projects, and bill partners through [Intra-Governmental Payment and Collection](#) (IPAC) on a monthly basis.