Forestry Digital Services and upcoming changes to SPAR

Forestry Suite of Applications Modernization Program

Introduction

The Forestry Suite of Applications monolith database comprises of over 50 legacy applications that are near or at the end of their lifecycle, and no longer meet the needs of the business or users. This highly integrated and complex database is critical to the management and operations of the forest industry in BC.

Background

FSA Program

How did we get here?

December 2019	• OCIO Requires Long Term Plan for Forestry Suite of Applications – includes up to 60 applications
August 2020- Feb 2021	• Architecture Review Complete and long-term plan identified
May 2021	• New FSA Business Case submitted to OCIO
August 2021	• OCIO Endorsement and Funding Approved for FSA - ***Capital funding $8.8m over five years***
October 2021	• Key FSA positions filled and program development underway

FSA Transformation - Drivers

- FSA is critical to the Forestry Industry and Provincial Revenue
- Tight integration of application data impedes responsiveness to business needs
- Outdated technology and depleted knowledge increases risk to stakeholders
- Sequential “waterfall” delivery model is costly and slow
- Revitalization of the strategic IT vision for the FSA is needed

Forestry Digital Services

FSA Program

Forestry Digital Services FSA Program vision

To build sustainable and modern digital services that supports the BC Government in forest-based initiatives, and to transform the Forestry Suite of Applications (FSA) into digital products and services that will better serve and align with the strategic mandates of the Ministry.

Forestry Suite of Applications Program – Product-Level teams

Enabling team | Stream-aligned team | Complicated Subsystem team | Platform team

1Team

Priorities – *on-prem deployments, code repositories, secrets, observability, configuration management.*

KEY Clients – *Operations/Infrastructure Teams (priority FSA legacy apps)*

FSA Delivery Team 1

Priorities –Legacy *Forestry Line of Business, first application is Old Growth Field Verification digital solution*

KEY Clients – *Forestry line of business & based on priority focus*

FSA Delivery Team 2

Priorities – Legacy *Forestry Line of Business Applications*

KEY Clients – *Forestry line of business & based on priority focus*

'Digital Identity/Data APIs'

Priorities – *Forestry Line of Business, Forest Operations Map/Forest Client & forest client API – keycloak integration &remove shared Jenkins/NRDK dependency &ADAM/User Management replacement*

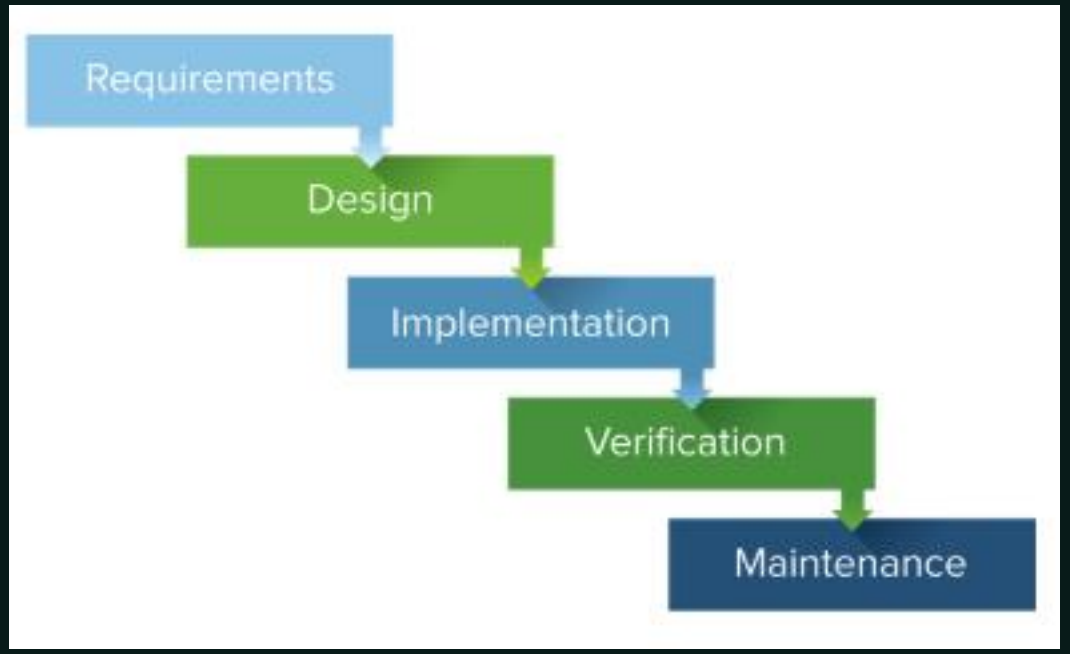
KEY Clients – *Forestry line of business Teams*

FSA BLOG:
https://apps.nrs.gov.bc.ca/int/confluence/pages/viewrecentblogposts.action?key=FSAAR

FSA Methodologies and Strategies

“Strangler Fig Pattern”
Gradually and incrementally growing a new system around the edges of the old.

Delivering Value Iteratively



Traditional

- Value delivered once, at the end
- Sequential, linear phases
- Known, unchanging scope and risks
- Adherence to a plan

Agile

- Flexible and continuous planning
- Iterative delivery cycles
- Customer feedback and involvement
- Welcoming change

What is service design?

The practice that improves services by examining the “total experience”, rather than separate parts of the service.

Principles of service design

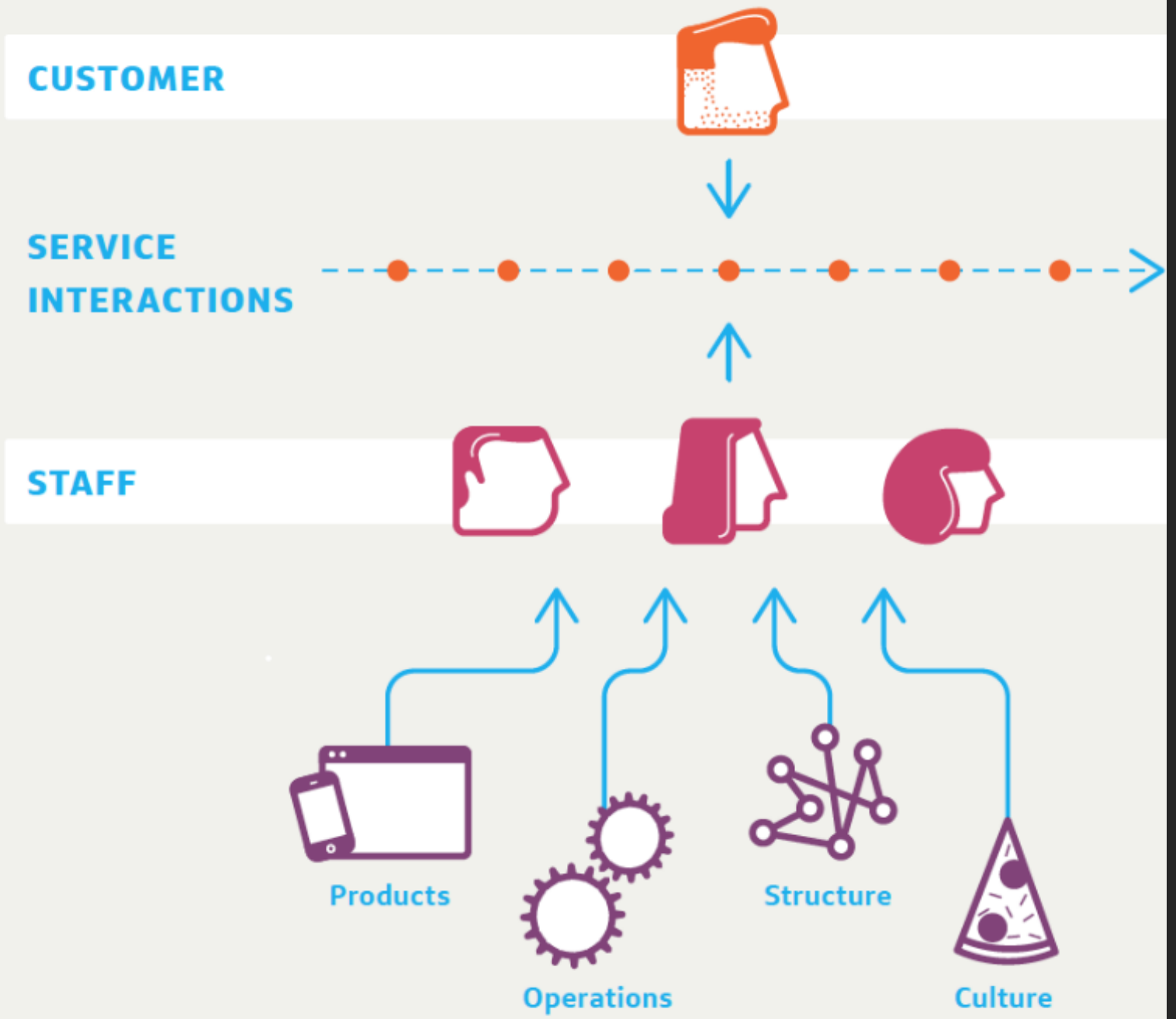
Human centred

Co-creative

Sequencing

Evidencing

Holistic



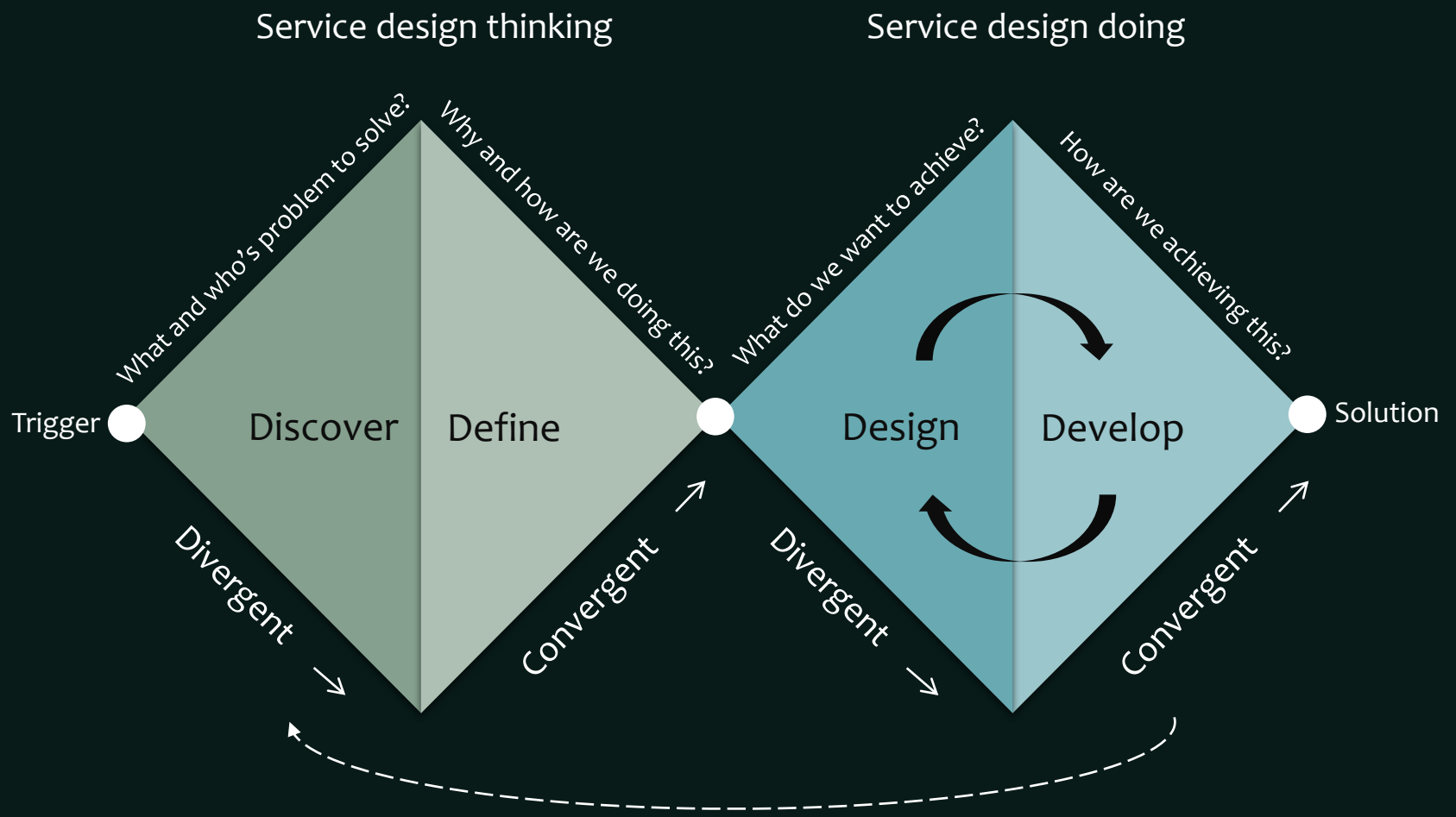
Why use a service design approach?

Build the right thing

- What our users want
- What the business needs
- What IT desires
- What our peers/industry are doing? Trends?

Service design process

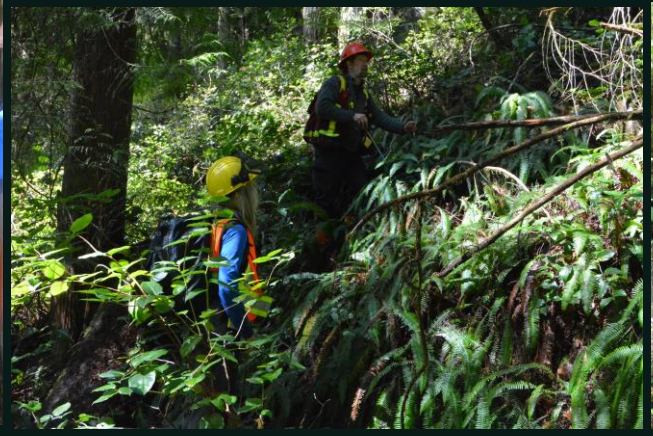
Gather information about user needs, pain points and current state.



User Research

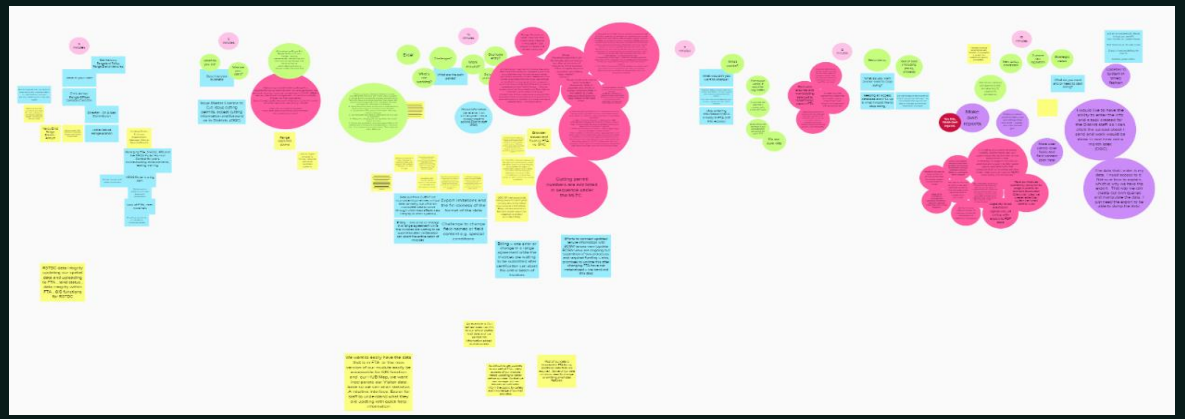
Field Trip

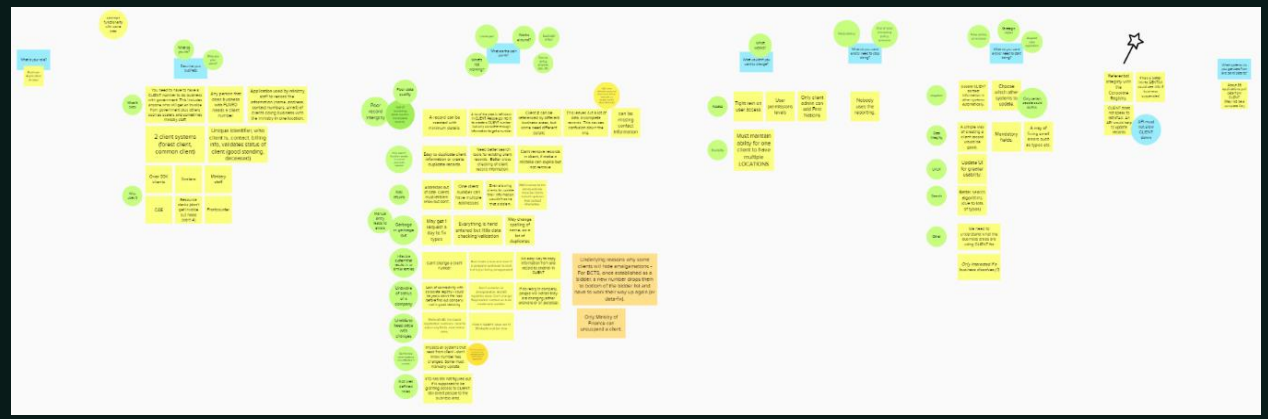
User Research



Prioritization criterion

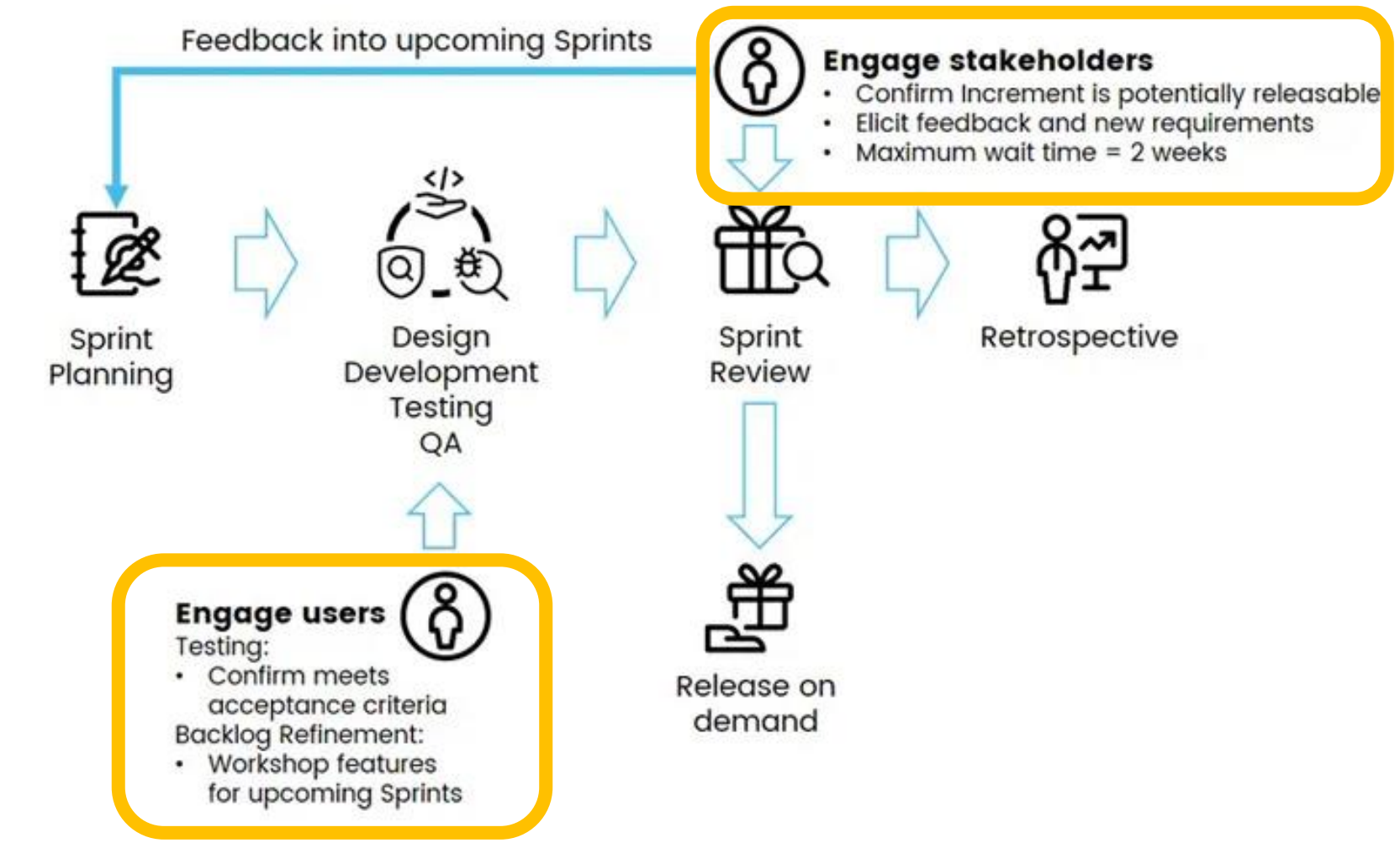
- Strategic value
- Urgency
- Desirability
- Efficiency
- Feasibility





User Engagement

ZEN EX MACHINA | User Testing in Scrum



Source: Copyright © Zen Ex Machina (2020)

National Forest Week
- Timber Supply Review and Allowable Annual Cut
- Sustainable Forest Management Practices
- Forest Inventory
- Forest health
- Old Growth Forests

Soil conservation
- Forest Stewardship Plans
- Forest Landscape Plans
- Wildfire Management
- Integrated Resource Monitoring
- Silviculture

Seed Planning and Registry Application (SPAR)

SPAR is a web-based information management system. It provides clients with direct online access to:

- A Provincial Registry of Forest Tree Seed
- A comprehensive seedling request system for meeting annual reforestation needs

To learn more about upcoming changes to the Seed Planning and Registry, please visit the Forest Suite Application Modernization Program and SPAR webpage

Main components

SPAR and Climate Based Seed Transfer

- SPAR Release Summary August 18th, 2022
- SPAR Release Summary March 28th, 2022 (PDF, 141KB)
- Memorandum: Next Phase of Transition to Climate Based Seed Transfer (PDF, 138KB)

Access SPAR

Open the SPAR application

Top FSA Applications

1. CONSEP + SPAR
2. CLIENT
3. FOP
4. RANGE
5. ESF
6. RESULTS
7. ECAS + GAS
8. LEXIS
9. FREP
10. WASTE
11. FTA
12. HBS
13. GBMS
14. SCALING
15. FSP

Seedlot Registration Discovery Phase

- How is seedlot registration is currently done?
- What are the barriers?
- What can be done to improve the user experience?

Define phase

ORCHARD IS PRODUCING	NEW "SEEDLOT NUMBER"	HARVEST CROP	COLLECTION FROM PARENT TREE
• Getting ready to harvest the crop • I'm concerned about using the system after so long • Had a bad experience using SPAR before	• Start a new seedlot registration in SPAR • I need to be very careful when filling in these inputs • I always need to check the data in my spreadsheet.	• Harvest the cones, they're cleaned and stored in bags • Schedule cones' shipment • I hope this year crop be good! • Scheduling the shipment to the agency could be easier	• Search the seedlot number in her documents or spreadsheet • It's hard to decipher the form's filling order and how the inputs should be filled • Improve the registration's flow and make inputs easier to fill

OWNERSHIP

- Declare the seedlot's ownership and % of seeds in reserve or surplus
- This is a quick and easy step to do
- I can lose all the data if I leave this page now without saving it first

STATUS CHANGE

- Manually changes the status from "Incomplete" to "Pending"
- Parent tree contribution can only be accessed with pending (or above) status
- I don't know why I have to do this, but that's how the registration works today

PARENT TREE CONTRIBUTION"

- I feel like this should be improved
- This is the WORST part of the process!
- This is very time consuming and this table should be easier to fill
- Additionally, this table has memory errors!
- Why is the parent tree list empty? Oh - I need to save the form first
- Argh, where did I go wrong this time? I knew this would be painful to do!
- I always get confused on which button I should click to save and continue the registration

INTERIM CONE STORAGE

- Some sections were automatically filled by the system
- Need to have the exact start and end date of the storage
- It's all done, this is the end of my responsibilities, I'm glad this is over!

STATUS CHANGE

- Manually changes the status from "Pending" to "Submitted"
- Why do I need to change the status before accepting the declaration?
- The agency will finalize the form now

ACCEPT DECLARATION

- Check the checkbox to accept the declaration
- I need to save the form with the new status so the changes can be applied
- I just need to accept the declaration and it's all done!

SEEDLOT IS LIVE

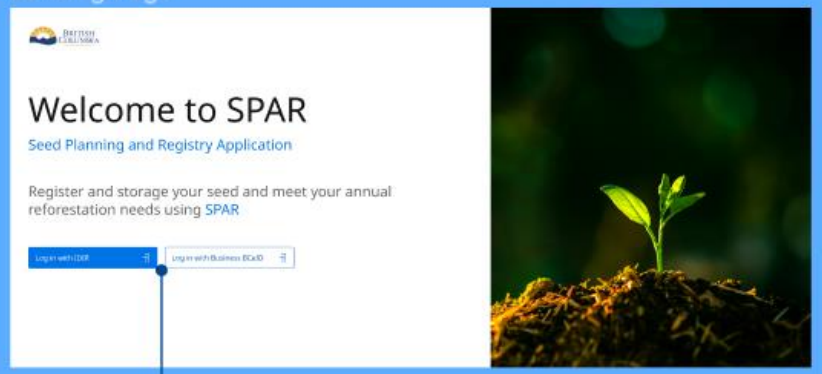
- The seedlot is approved when the tests are done
- The TSC will review the form and its content
- Status changes from "Submitted" to "Approved"
- Seedlot is live on SPAR

Solutions

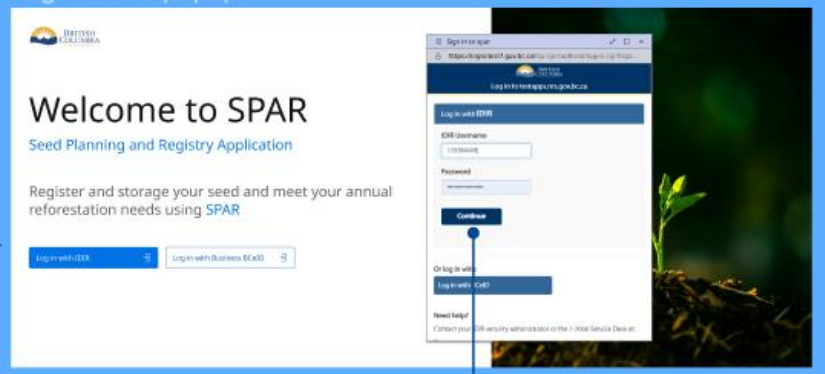
- Autosave
- Informative system feedback
- New forms with helper text and placeholders
- New intuitive workflow and organization

New FSA Design System

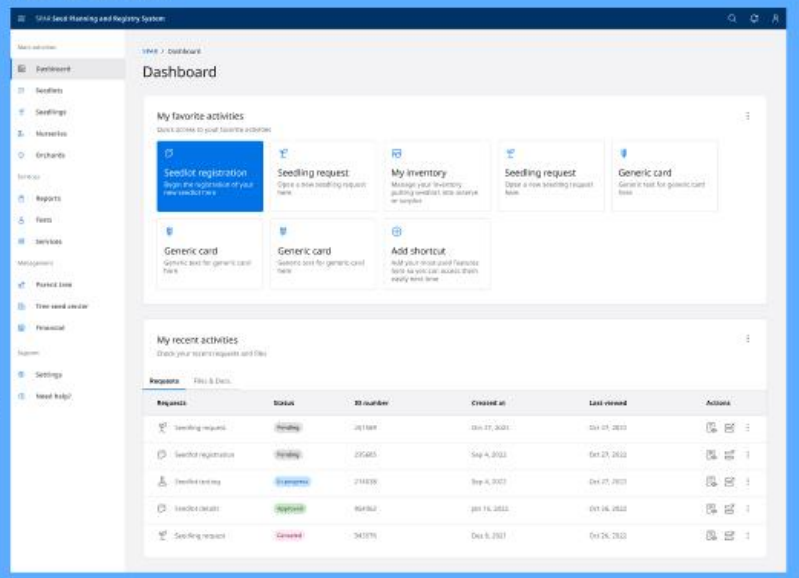
Landing Page



Login with a popup

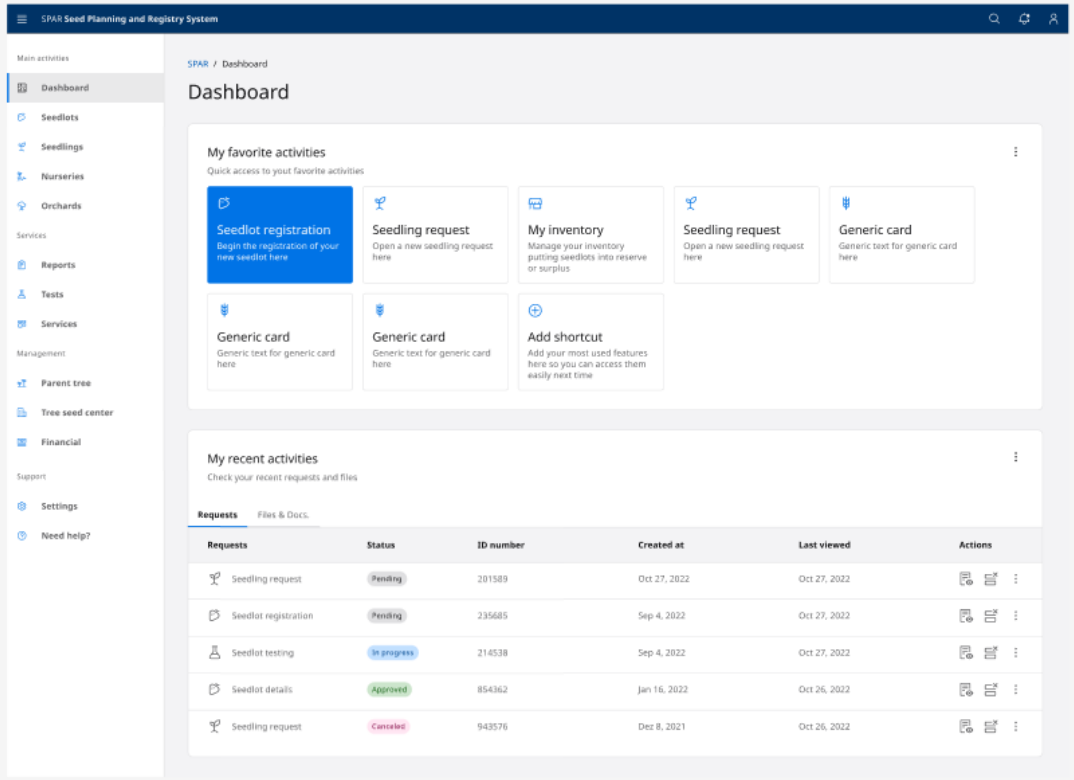


Home screen



Design System

Screen + Left panel



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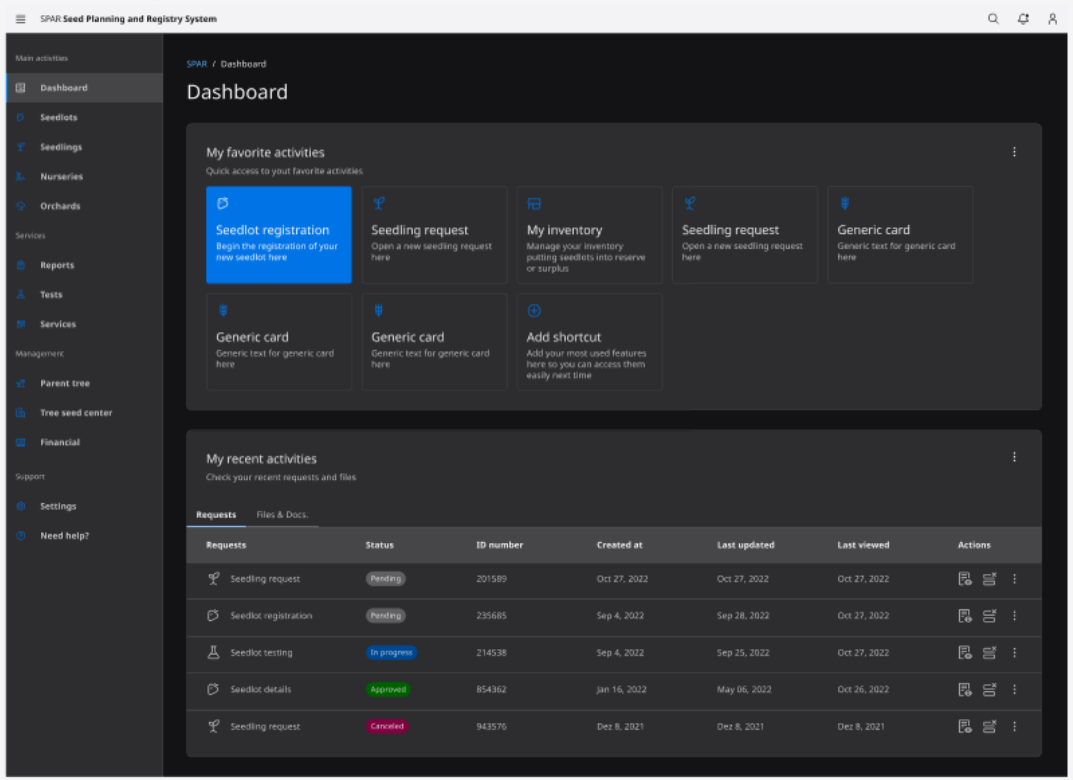
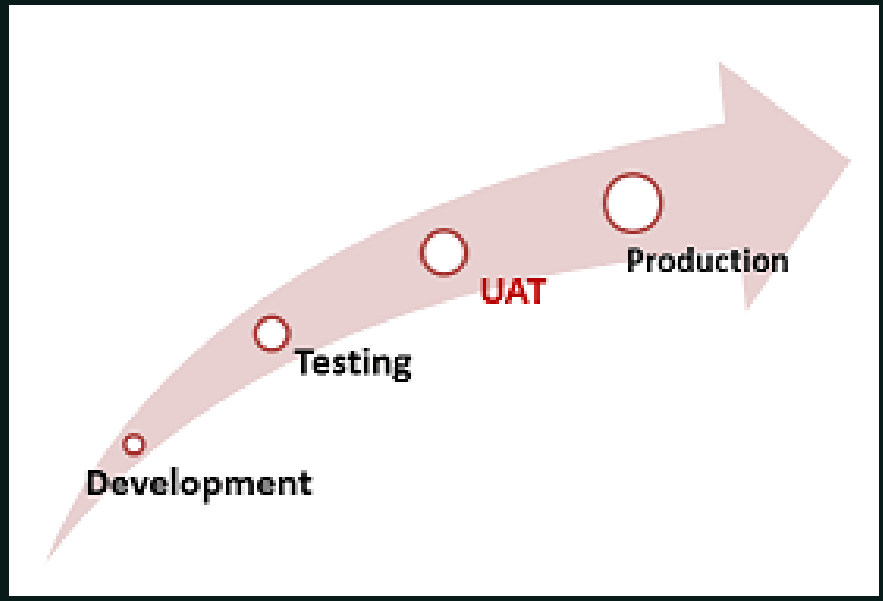


Let’s check out some of the new screens!

User Acceptance Testing (UAT)

What does it look like?

- Purpose is to validate business flow
- It does not focus on cosmetic errors, spelling mistakes or system testing
- carried out in a separate testing environment with production-like data setup
- Performed by clients and end users
- Iterative!



User testing of the seedlot registration screen

- Proto-type screens and workflows are nearing completion
- Back-end (the data links and code) currently under development
- Proto-type testing will begin in roughly 2-4 weeks
- Testing/feedback is iterative and will re-occur approximately every 3 weeks

To participate in testing please sign up!!

- https://www.surveymonkey.com/r/6GRKWFG

Thank you

How you can get more involved and aware of what is happening within the FSA program?

-Monthly “Road Maps and Bridges” meeting open to anyone that wants to attend

FSA Program Space
-Forestry Suite of Applications - FSA - Forestry Suite of Applications - Confluence (gov.bc.ca)

-Forestry Digital Services – Forestry Suite of Applications - Natural Resource Information and Digital Services (gov.bc.ca)

FSA Program Video

For any additional questions, please contact:
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