Requirements Gathering

A week long group discussions were conducted with stake holders and the users. This collaboration helped analyze the literature, conduct quick user interviews and analyzing competitor application in terms of heuristic, functionality and aesthetics. Defining roadmap for the product and prioritizing between needs vs wants.

Objectives

Manage

Provide farmer with simpler easier application to help them understand complex data, which in turn allows them to better manage their operations, risks and optimize the return on their investment.

Monitor

Provide a convenient and efficient way for farmers to monitor and manage field activities . As soon as the planned seeding date has been decided.

Tailored plans

Analyze and generate tailored plans that address farmer’s individual crop priorities, such as yield optimization ,risk education and efficiency improvements.

Design Brief

IDENTIFY the key stakeholder , user groups and profiles.

CONDUCT UX design thinking workshops to evaluate the feasibility, desirability, viability of the current technology landscape.

ASSESS the current UX maturity model of the Client line of business.

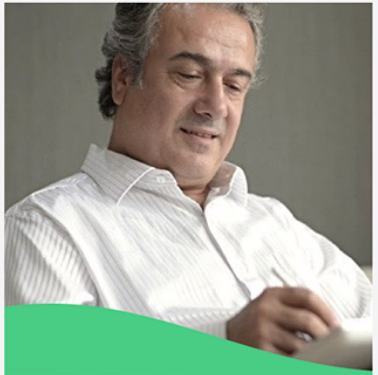
UNDERSTAND the internal ,enterprise, employee and field applications through focus groups discussion ; prioritize their business goals.

DEFINE the UX strategy , frameworks and guidelines required.

	1	2	3	4	5
UX APPROACH	EMPATHIZE	DEFINE	IDEATE	DESIGN	VALIDATE
How we did it	Persona creation user journeys and conduct usability testing	Identify needs and prioritize them	Classify task flows and make low fidelity sketches	Low and Hi fidelity mockups and prototypes were created	Testing the prototypes and iterating on the go.

User Personas

Empathizing with users helped us understand behavior, motivations, environment and goals.



Paulo, 51
FARM OWNER

- Business minded
- Pre and post season planner
- Spends less time in the field
- Keeps a close eye on the commodity value

Ingolf, 31
FAMILY FARMER

- Business driven
- Hybrid roles – hands on and planning
- Does not justify account
- Manager
- Modernizing farm practices

Laura, 29
SPECIALIST

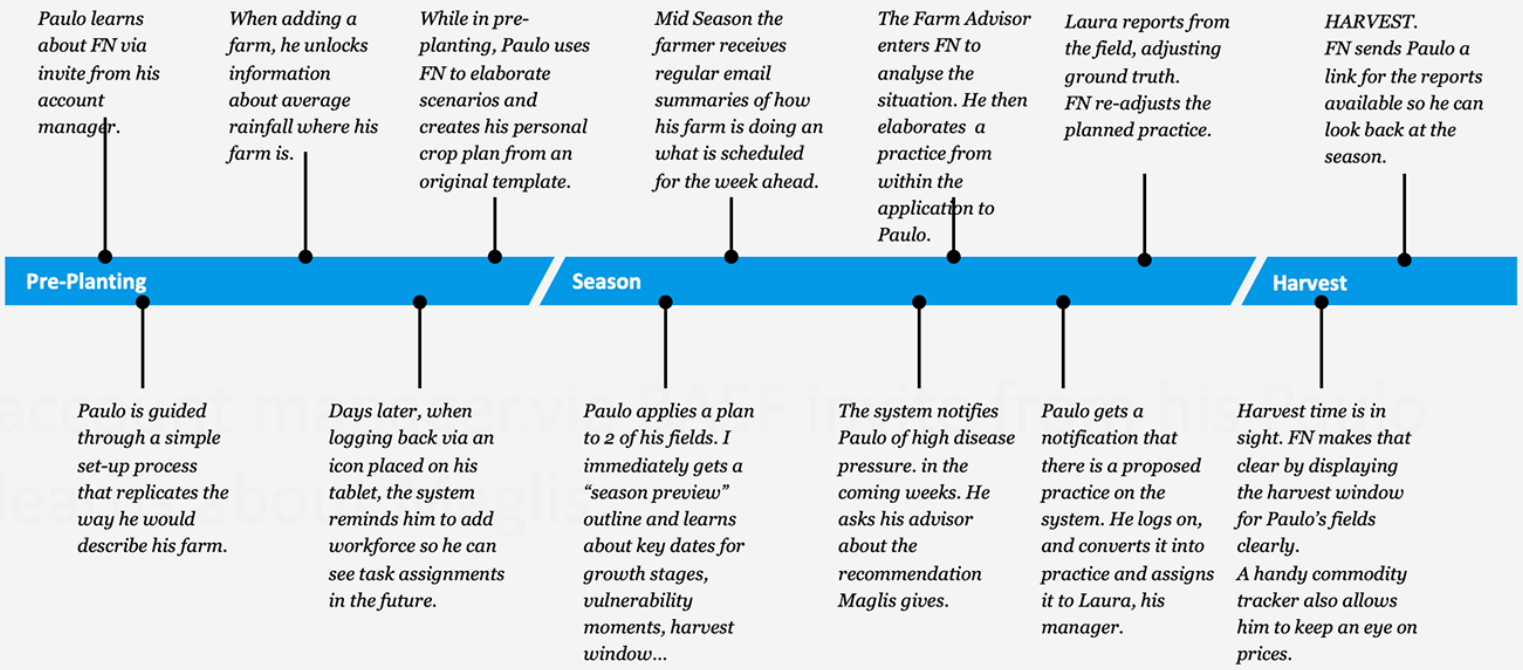
- University degree
- Tech savvy
- Out in the field
- Practical

Thomas, 33
ADVISOR

- Busy diary
- Conventions to share and learn
- Lots of information sources
- Works with various farms

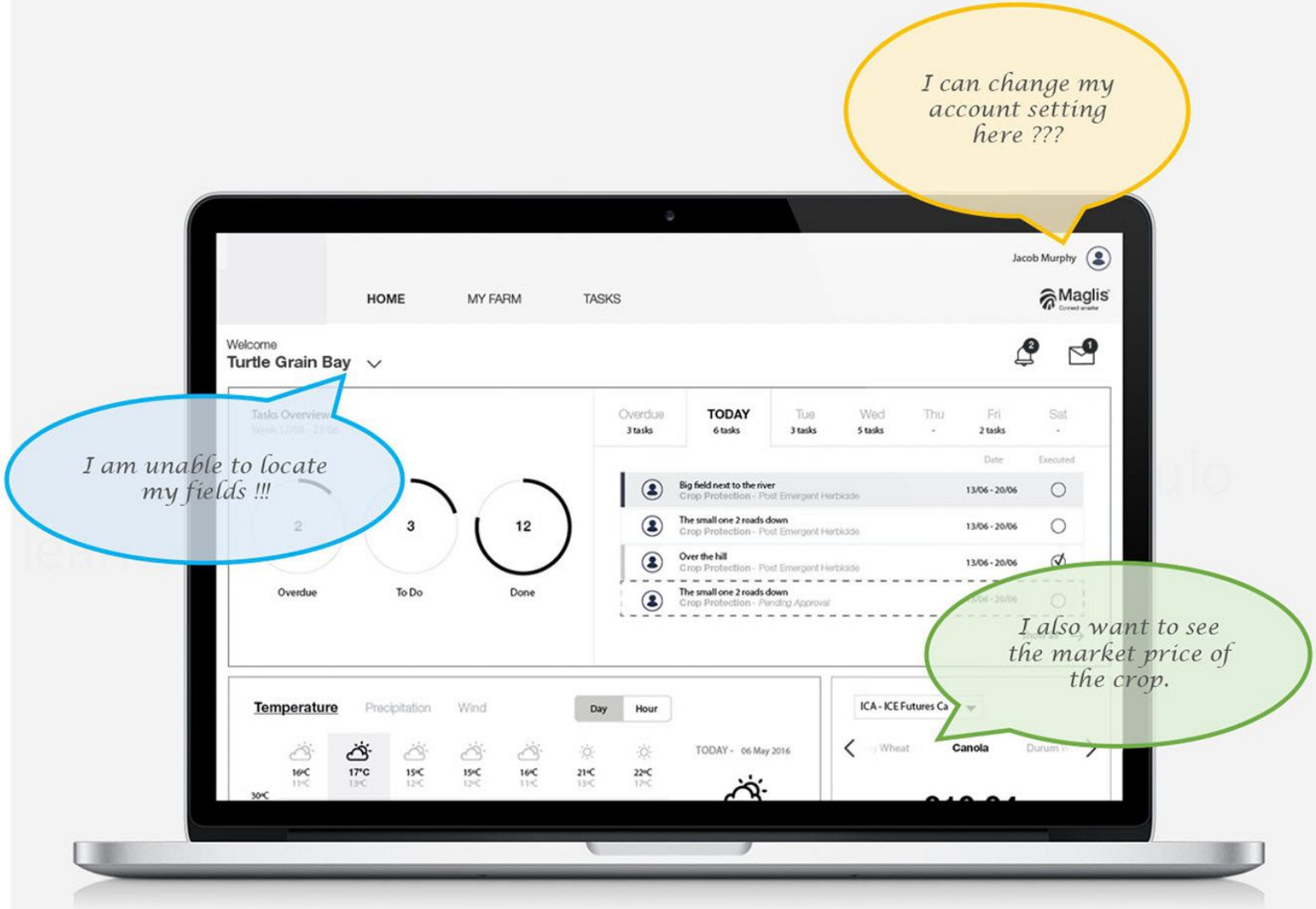
User Journeys

Based of personas different context were explored, which involved the user to perform multiple tasks.



Prototyping and Validating

Based on these journeys, clickable prototypes were created and were tested with actual users who were of different nationalities. To provide analyze the best possible interactions.



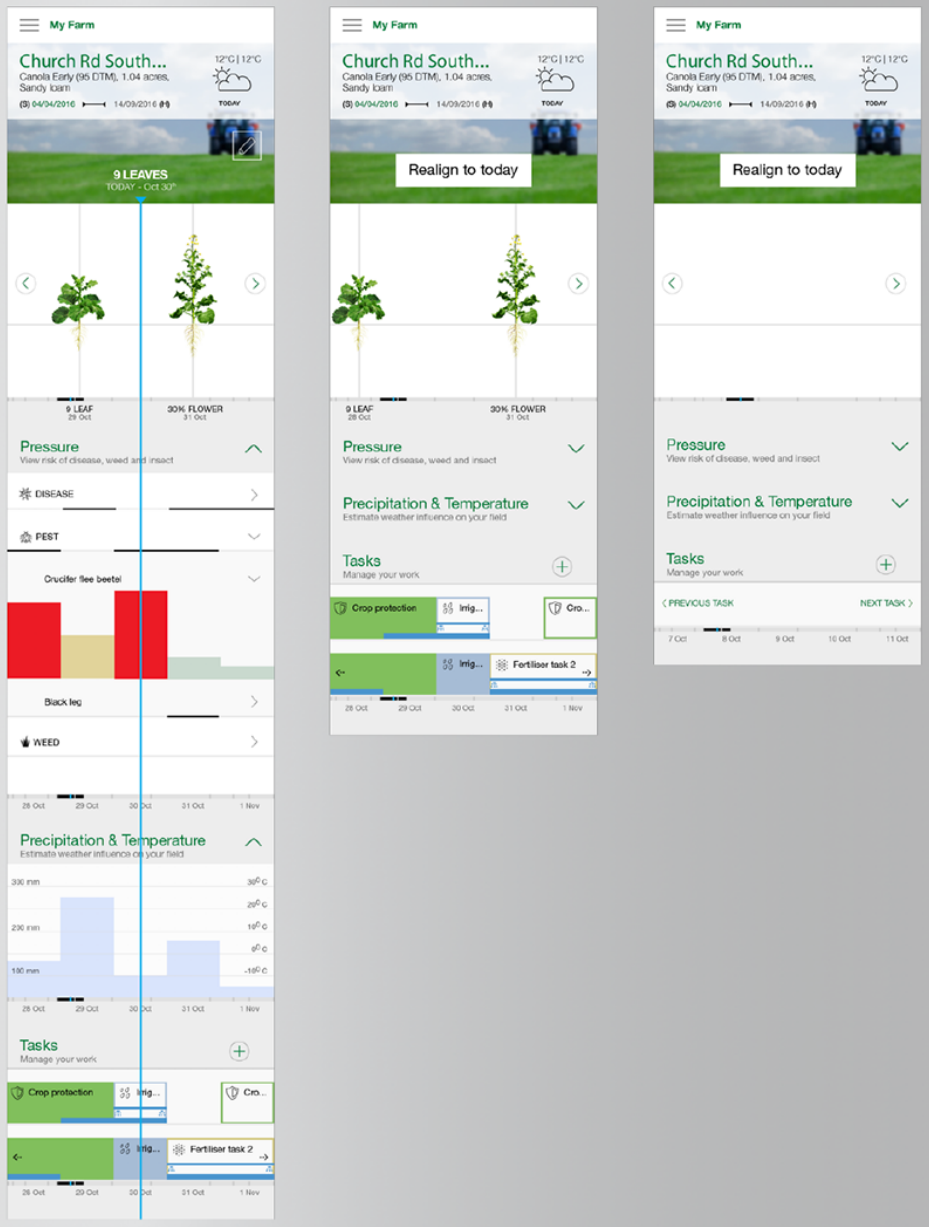
Low Fidelity Wireframes

Basic mockup flows were created and shared with both stake holder and user to test them. And feedback received was used to iterate the flows and retested again, until the final flow was established.

Crop Plan

MOBILE

Crop plan screen displays crop plan panel , pressure , precipitation and temperature as well as tasks panel in collapsed and expanded views.



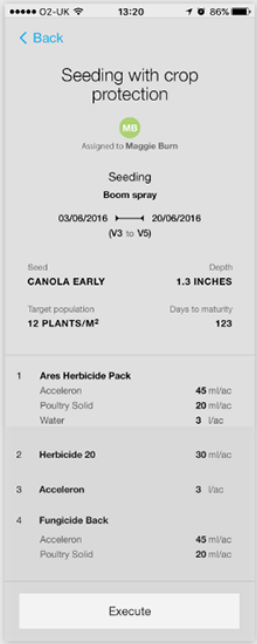
Task Execution

MOBILE

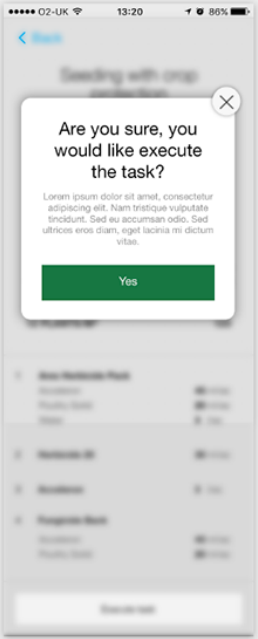
On fields , farm workers perform many tasks. This user flow displays details of farm worker assigned to a particular task , in this case , it is crop protection task. The task flow also shows crop name, its current growth stage, products to be applied to the crop under the crop protection task.

Execution flow of tasks on mobile

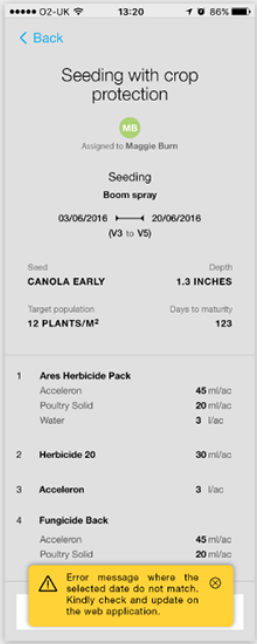
1. Perform execution by clicking of button 'Execute'



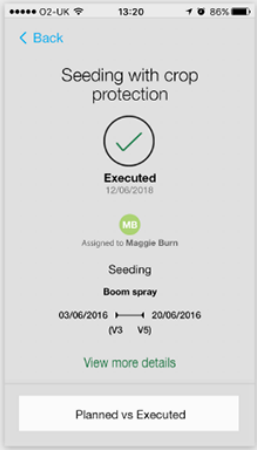
2. Confirmation dialog popups



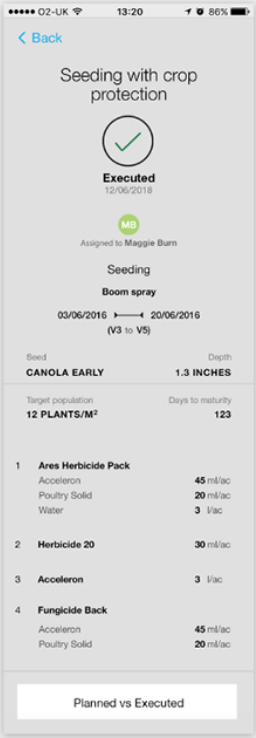
3. Error message due to date issues. Error stays on till the user closes it.



4. Executed state. A collapsed format to avoid lenghtier scroll.



5. Executed state. Expanded state to view all details.



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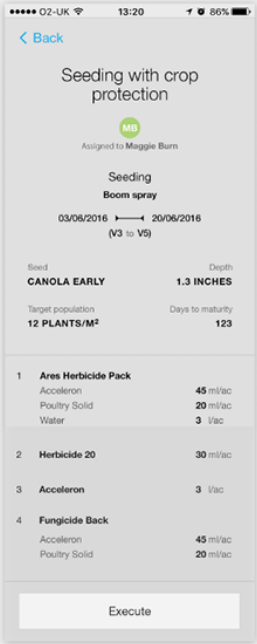

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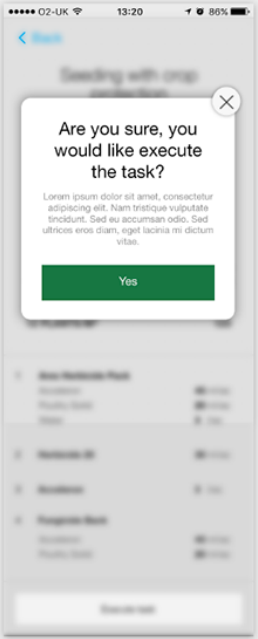

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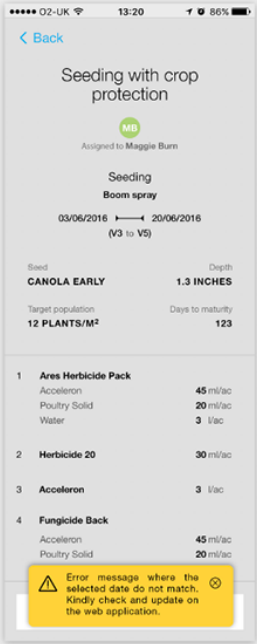

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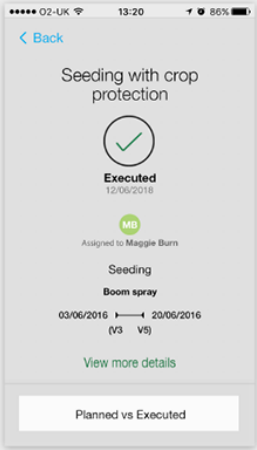

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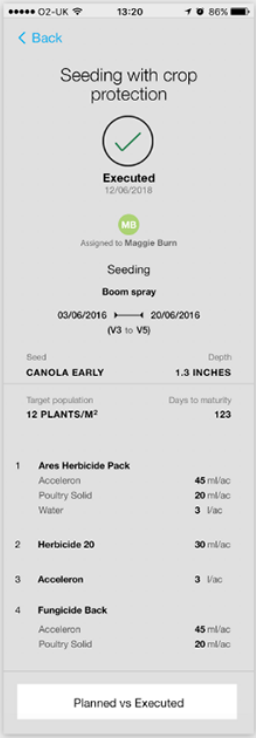
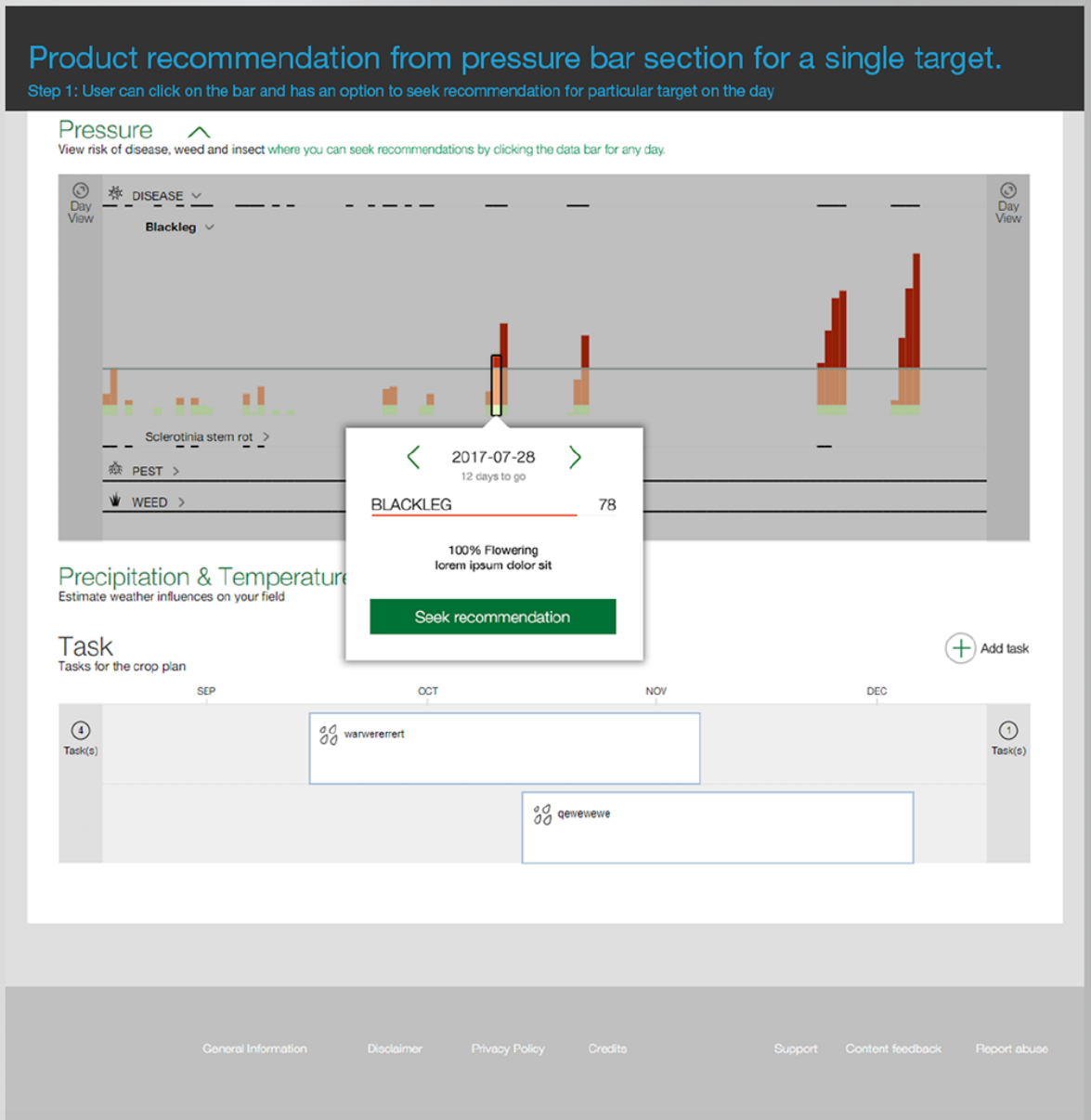


Product Recommendation

DESKTOP

Seeking a recommendation is one of the user flows where farmer can look for a recommendation from the system and according get a list of products which later can be created as a new task for implementation on field.



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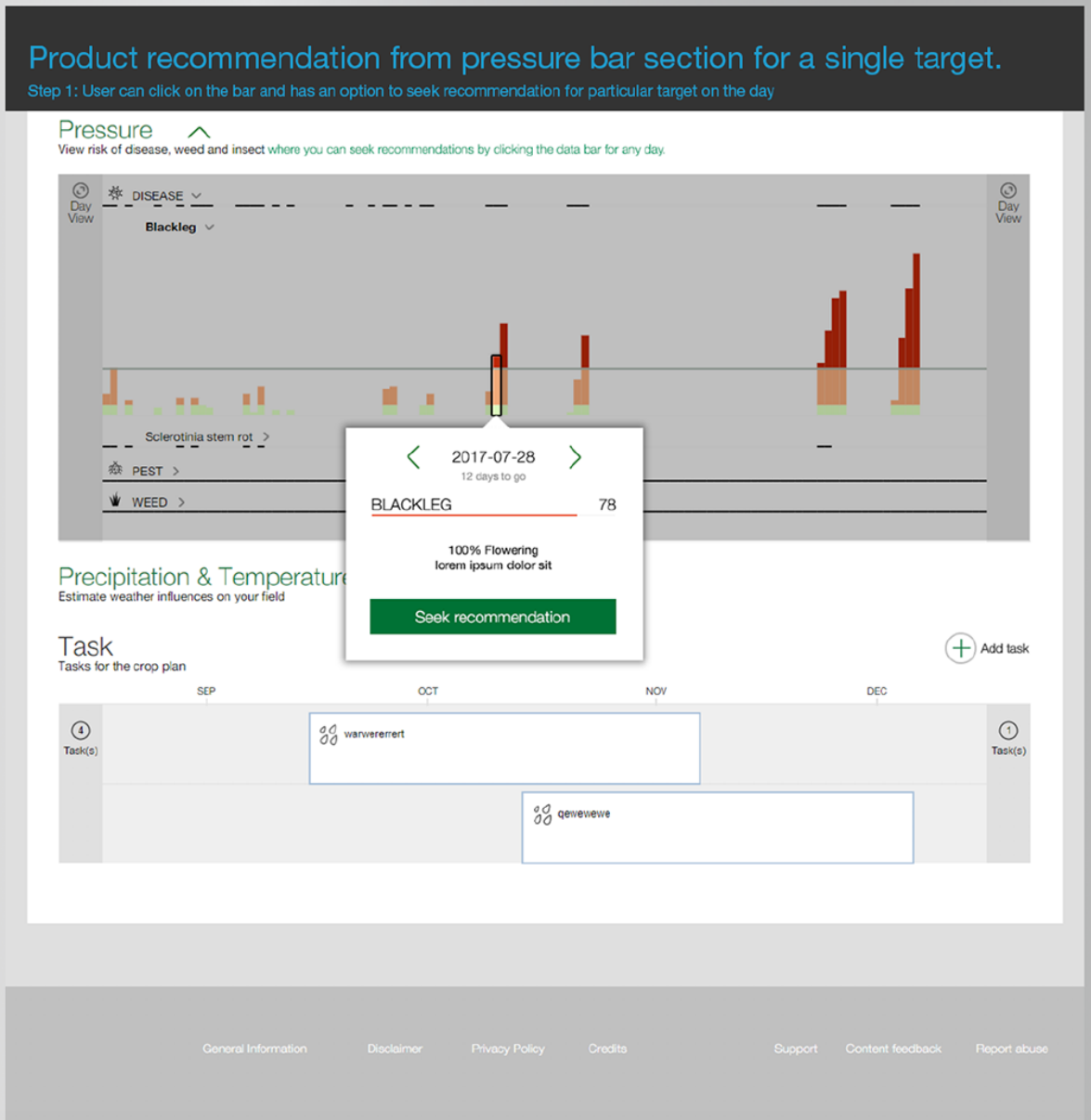
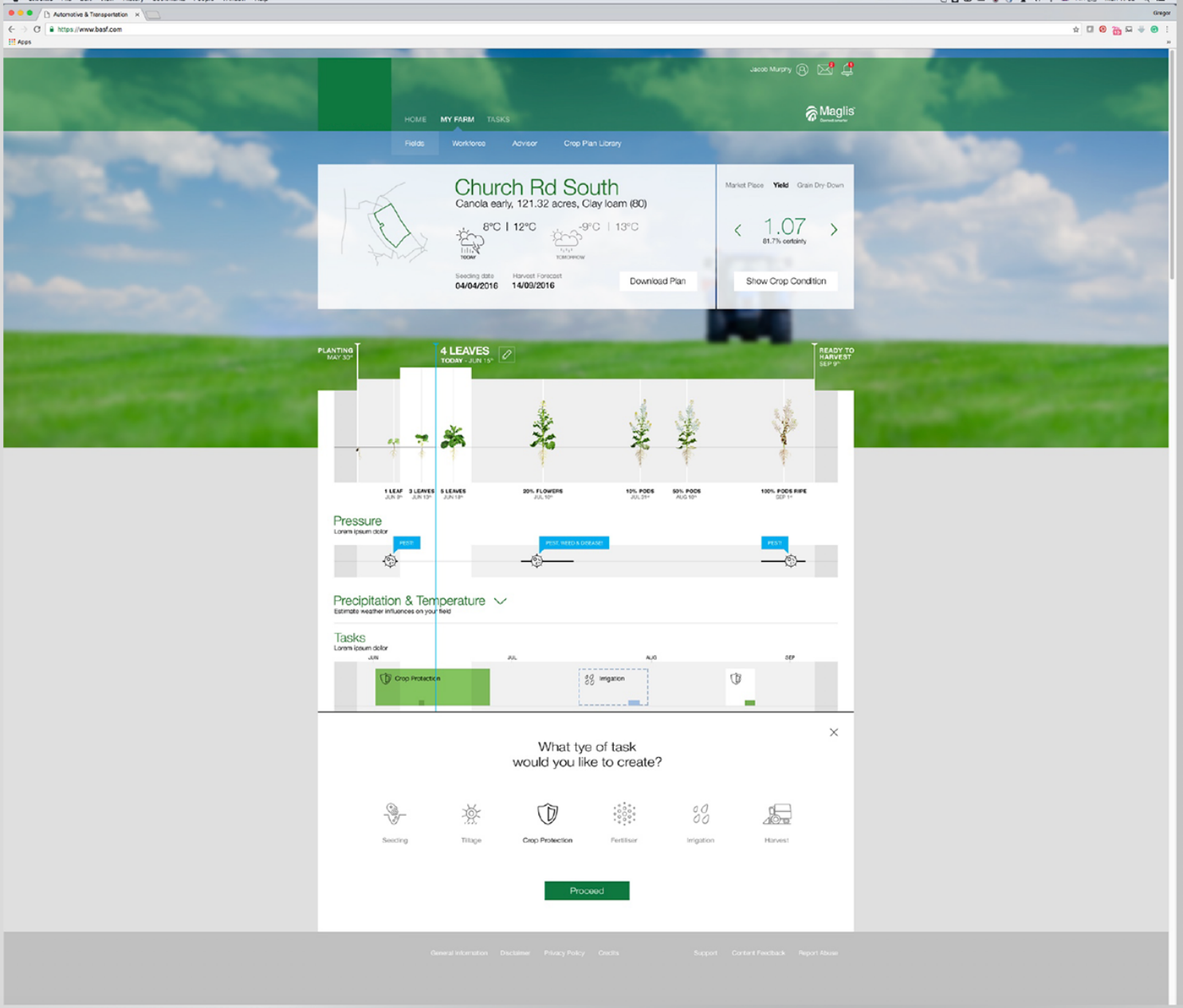


Crop Plan

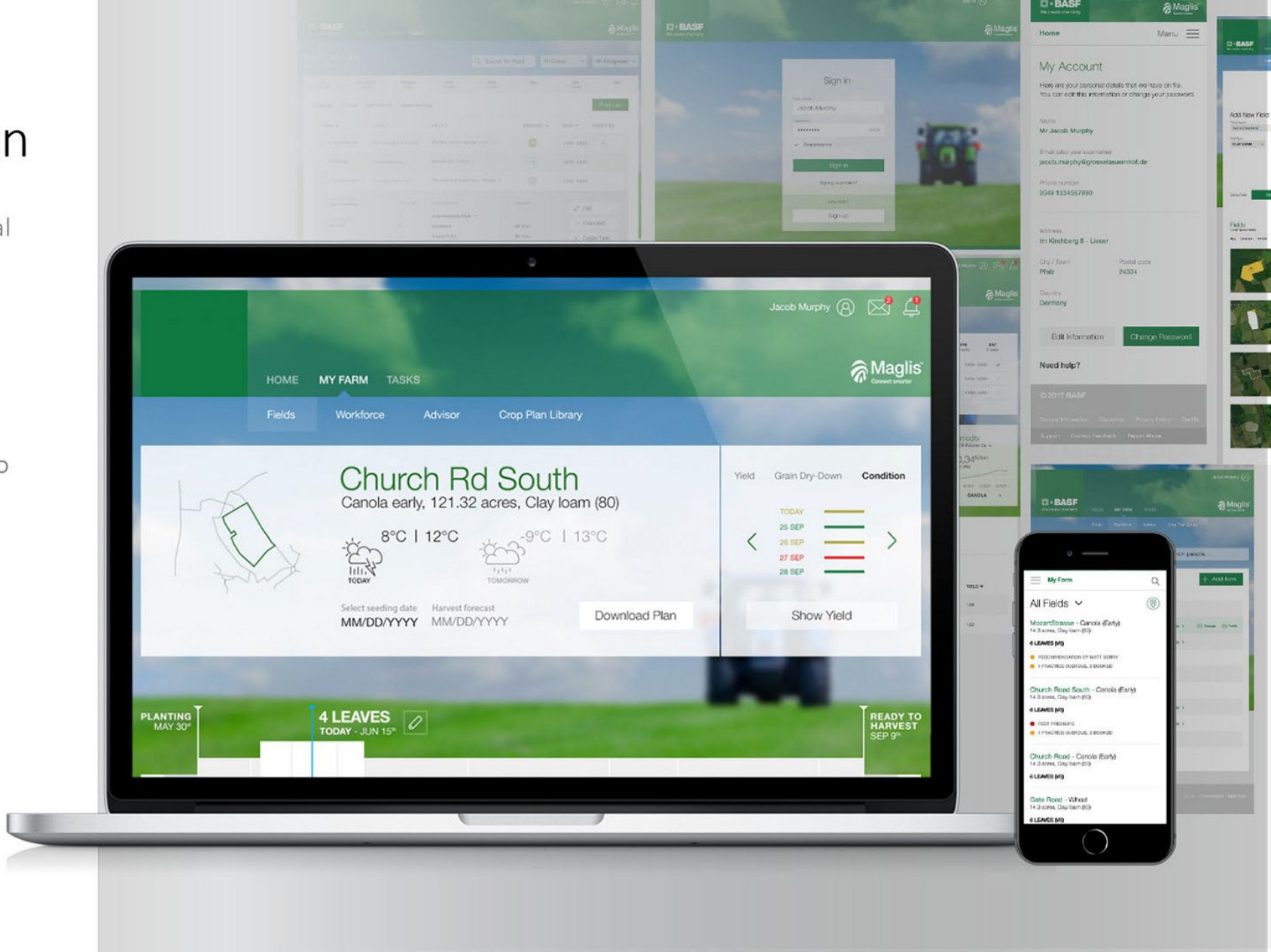
DESKTOP

Crop plan screen shows entire lifecycle of the crop starting from seeding to harvest.
For faster processing of complex information , we provided users with simplified workflows, navigations and data visualizations.



Hi Fidelity Design

The brand identity was the initial approach to the design formation. The colors, typography, photographs, the usage of logo were fashioned based on the brand guidelines. Flat color design approach was identified. The designs were also used for user testing.



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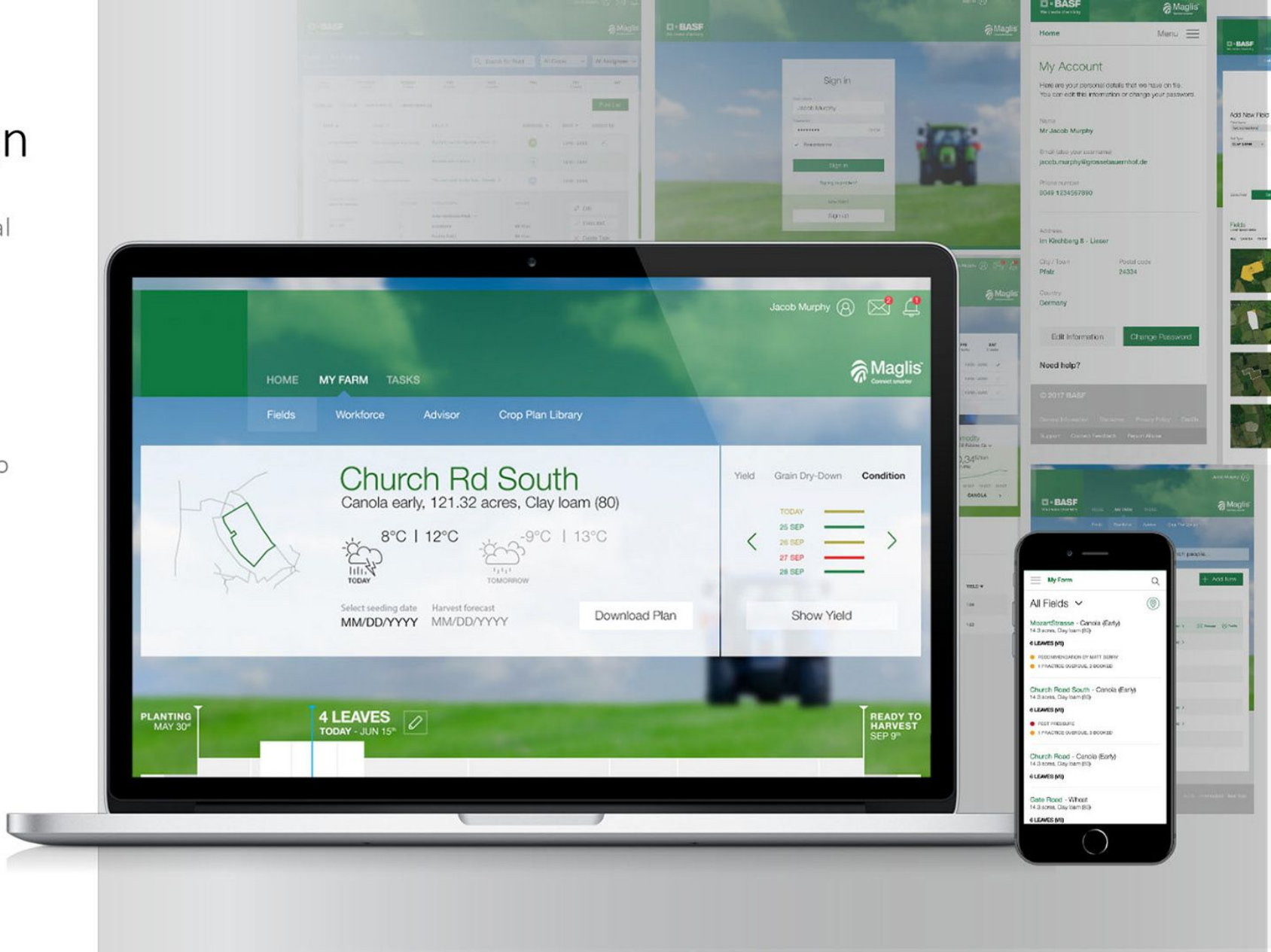
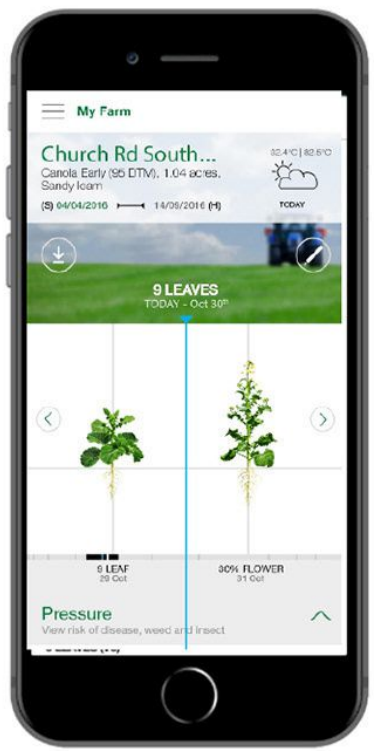
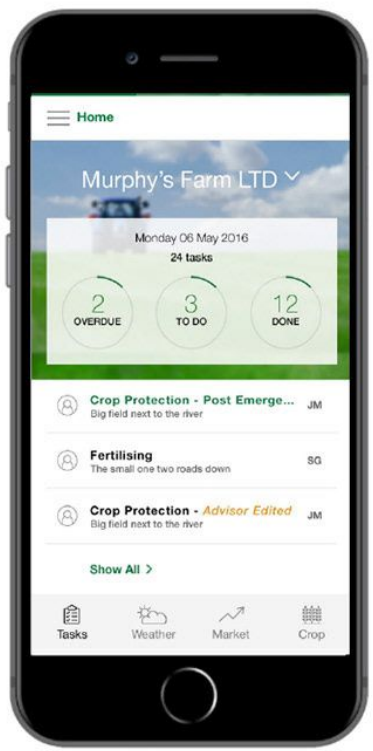



My Farm
Church Rd South...
Canola Early (95 DTM), 1.04 acres,
Sandy loam
TODAY
9 LEAVES
TODAY - Oct 30th
9 LEAF
29 Oct
30% FLOWER
31 Oct
Pressure
View risk of disease, weed and insect


Home
Murphy's Farm LTD
Monday 06 May 2016
24 tasks
2
OVERDUE
3
TO DO
12
DONE
Crop Protection - Post Emerge...
Big field next to the river
JM
Fertilising
The small one two roads down
SG
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Show All >
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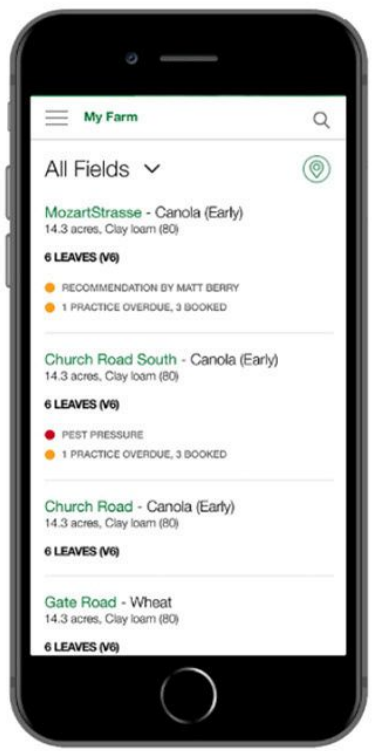
Weather
Market
Crop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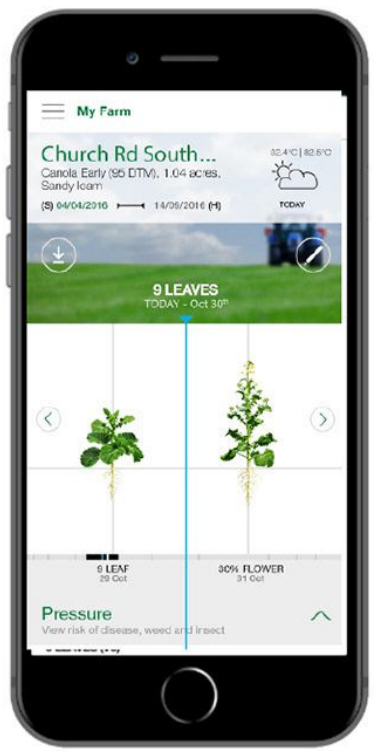
All Fields
MozartStrasse - Canola (Early)
14.3 acres, Clay loam (80)
6 LEAVES (V6)
RECOMMENDATION BY MATT BERRY
1 PRACTICE OVERDUE, 3 BOOKED
Church Road South - Canola (Early)
14.3 acres, Clay loam (80)
6 LEAVES (V6)
PEST PRESSURE
1 PRACTICE OVERDUE, 3 BOOKED
Church Road - Canola (Early)
14.3 acres, Clay loam (80)
6 LEAVES (V6)
Gate Road - Wheat
14.3 acres, Clay loam (80)
6 LEAVES (V6)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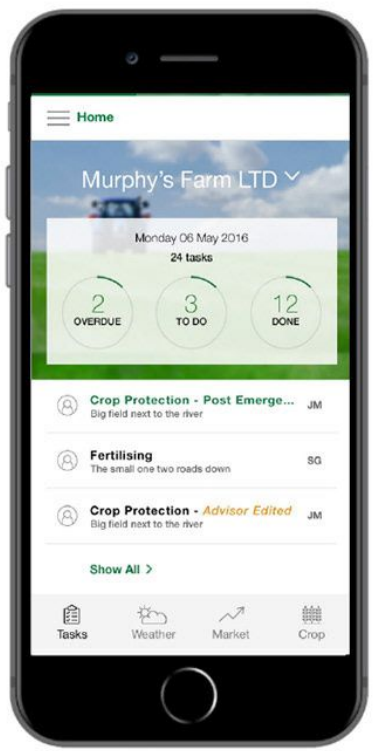
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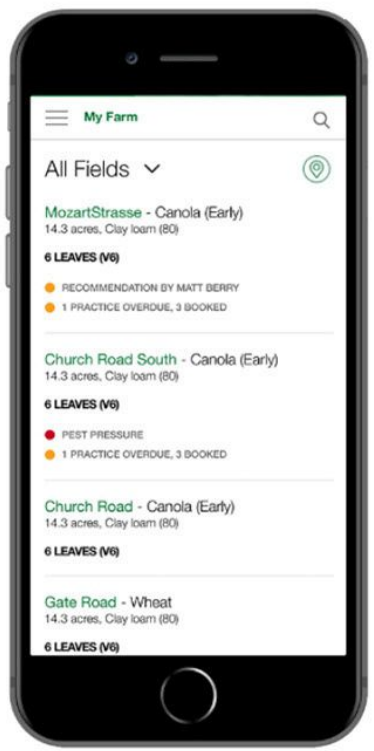
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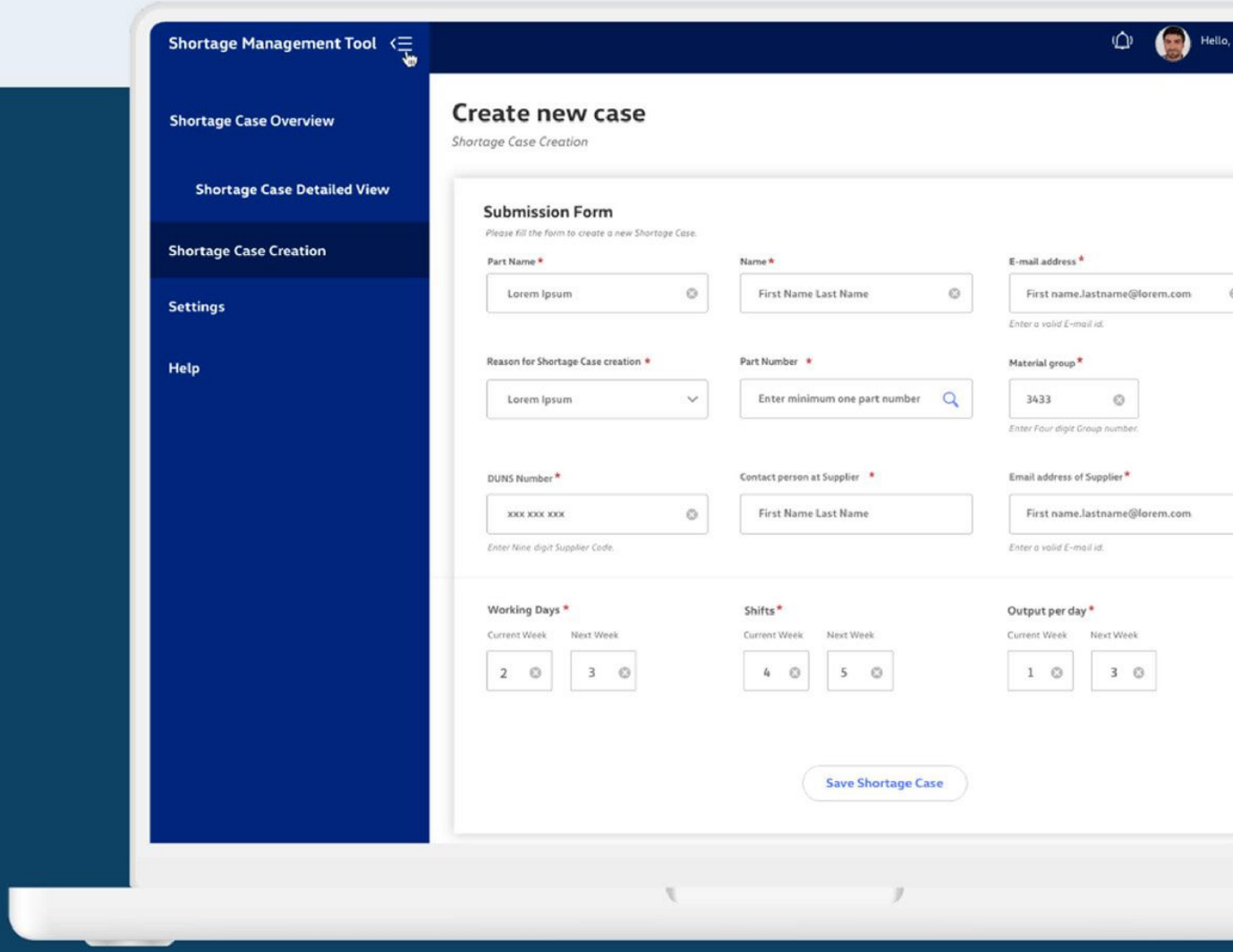
Shortage Management Tool



Vision

Enables shortage manager to solve material shortages on group level as soon as possible.

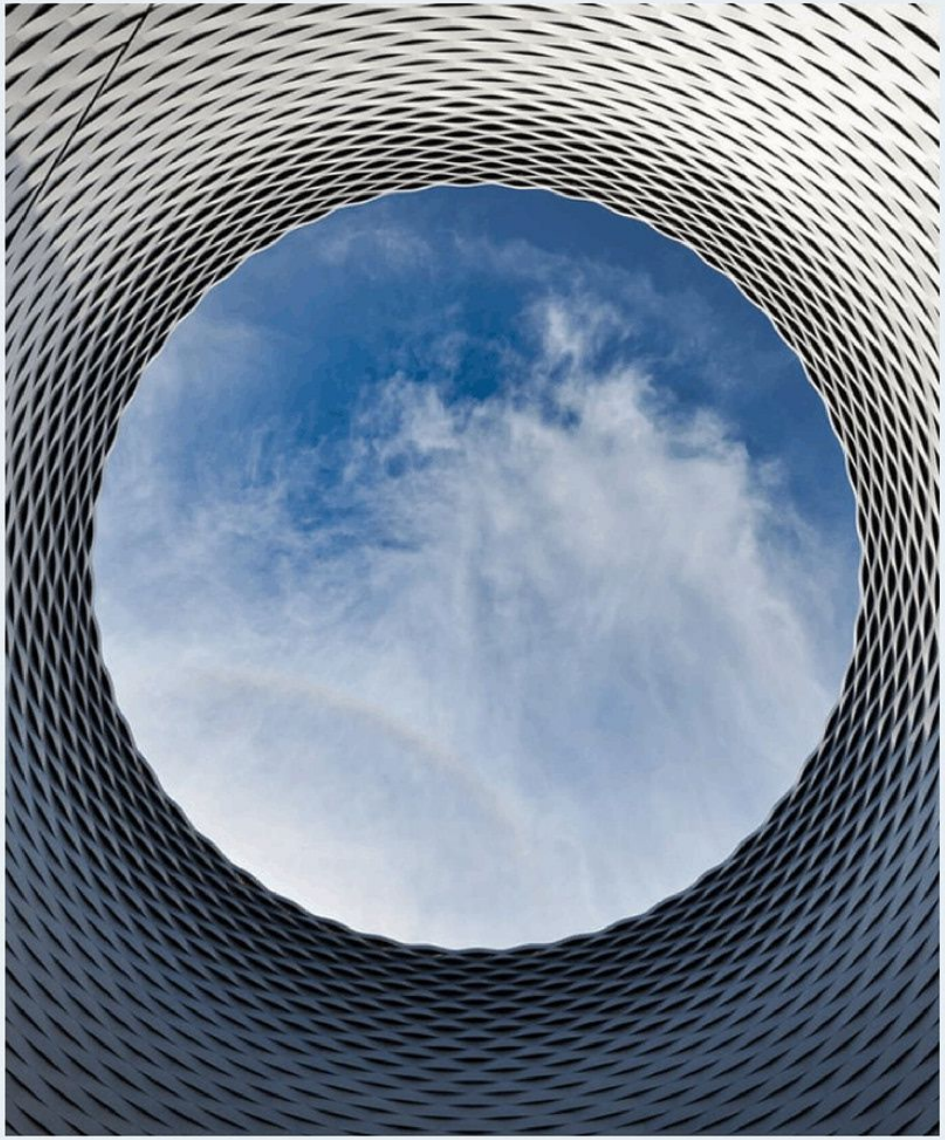
SHORTAGE MANAGEMENT TOOL is currently used for managing shortages of parts.

In each Volkswagen Manufacturing plant there are vehicle's part shortages.

These shortages are monitored , examined and recorded.

The shortages are assigned to suppliers once all details are available for the shortage.

And quantities to be added for each case is decided and added as per the need.



Mission

To support information gathering part related information, supplier related information, plant related information, demands in the plants.

Create transparency on the material shortage, material ranges, stocks in transport in plant, suppliers actual production capacity, demands in plants.

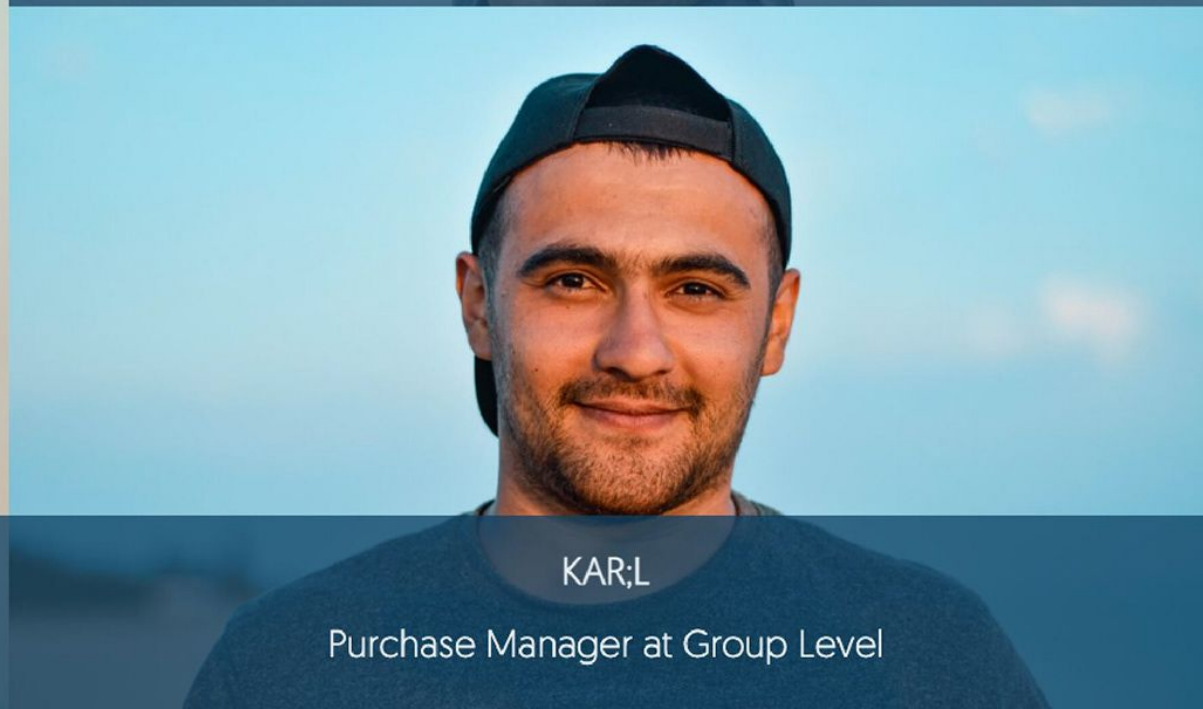
Support problem solving for material shortage in the plants and to calculate proposals for material dispatching.

ANDY

Shortage Manager at Group Level

OTTO

Shortage Manager at Brand Level



KAR;L

Purchase Manager at Group Level

User Persona1

Andy

Shortage Manager at Group Level

Roles and Responsibilities

Allocates material to plants

Can see all shortage cases(plants or possible case)

Can accept/reject shortage case by Karl

Can see details of shortage case

Closes shortage case

Notifies shortage/material allocation to Otto

(Shortage manager at brand level)

Can see statuses of his shortage case

User Persona2

Otto

Shortage Manager at Brand Level

Roles and Responsibilities

Can see shortage case for his plant status, for brand and brand only.

Gets notification from Andy[Shortage manager at Group Level]

Exports shortage cases

User Persona3

Karl

Purchase Manager at Group Level

Roles and Responsibilities

Initiates the shortage case.

Provides data input.

Sees the status of his shortage case.

Can see history of his Shortage case.

User Journey

Andy

Shortage Manager at Group Level

LOGGING-IN

Andy logs in to his account to view all Shortage cases.

SHORTAGE CASE OVER-VIEW

Andy can filter shortage cases with all related part numbers for all plants/ usages.

Here Andy can see details for material on transport for a particular SC, material advised, allocated material, total stock and status of an SC.

SHORTAGE CASE DETAILED VIEW

Andy selects one of the shortage case to have a detailed view of shortage case with item number for each Shortage Case

LINKING A CASE

Andy selects one of the Shortage Case created by Karl who is a purchase manager at group level and links himself to the Shortage Case to keep track of its status.

REJECTING A CASE

Andy rejects one of SC created by *Karl* who is a Purchase Manager at Group Level as the material was already allocated before by Andy.

ALLOCATING MATERIAL TO A CASE

In the shortage case view, Andy can allocate material per time period for each part numner+plant/usage.

This allocation is scheduled back using the transport time

NOTIFICATIONS TO KARL,ANNA,OTTO,ANDY.

Andy informs Otto about the material allocation by sending a push notification for the same.

Otto logs in and finds a new notification update by *Andy* regarding material allocation for a particular shortage

CREATION AND CLOSURE SHORTAGE CASE

Andy closes shortage case after briefing with Karl.

Andy can create a new shortage case.

User Journey

Otto

Shortage Manager at Brand Level

LOGGING-IN

Otto logs in to his account to view all Shortage cases.

SHORTAGE CASE OVER-VIEW

Otto can filter shortage cases with all related part numbers for all plants/usages.

*Here **Andy*** can see details for material on transport for a particular SC,material advised, allocated material, total stock and status of an SC.

LINKING A CASE

Otto selects one of the Shortage Case by ***Anna*** who is a purchase manager at brand level and links himself to the Shortage Case to keep track of its status.

REJECTING A CASE

Otto rejects one of SC created by ***Anna*** who is a Purchase Manager at Brand Level as the material was already allocated before by ***Otto***.

ALLOCATING MATERIAL TO A CASE

In the shortage case view, ***Otto*** can allocate material per time period for each part number and plant/ usage.

This allocation is scheduled back using the transport time

NOTIFICATIONS TO KARL,ANNA,OTTO,ANDY.

Otto *informs the material dispatcher in the plants by sending a notification from application.*

CREATION AND CLOSURE SHORTAGE CASE

Otto *closes the shortage case after briefing with **Karl**.*

Otto *can create a new shortage case*

User Journey

Karl

Purchase Manager at Group Level

LOGGING-IN

Karl logs in to his account to view all Shortage cases.

SHORTAGE CASE OVER-VIEW

Here ***Karl*** can see details for material on transport for a particular SC, material advised, allocated material, total stock and status of an SC.

SHORTAGE CASE DETAILED VIEW

Karl selects one of the shortage case to have a detailed view of shortage case with item number for each Shortage Case.

User Journey

Anna

Purchase Manager at Brand Level

LOGGING-IN

Anna logs in to his account to view all Shortage cases.

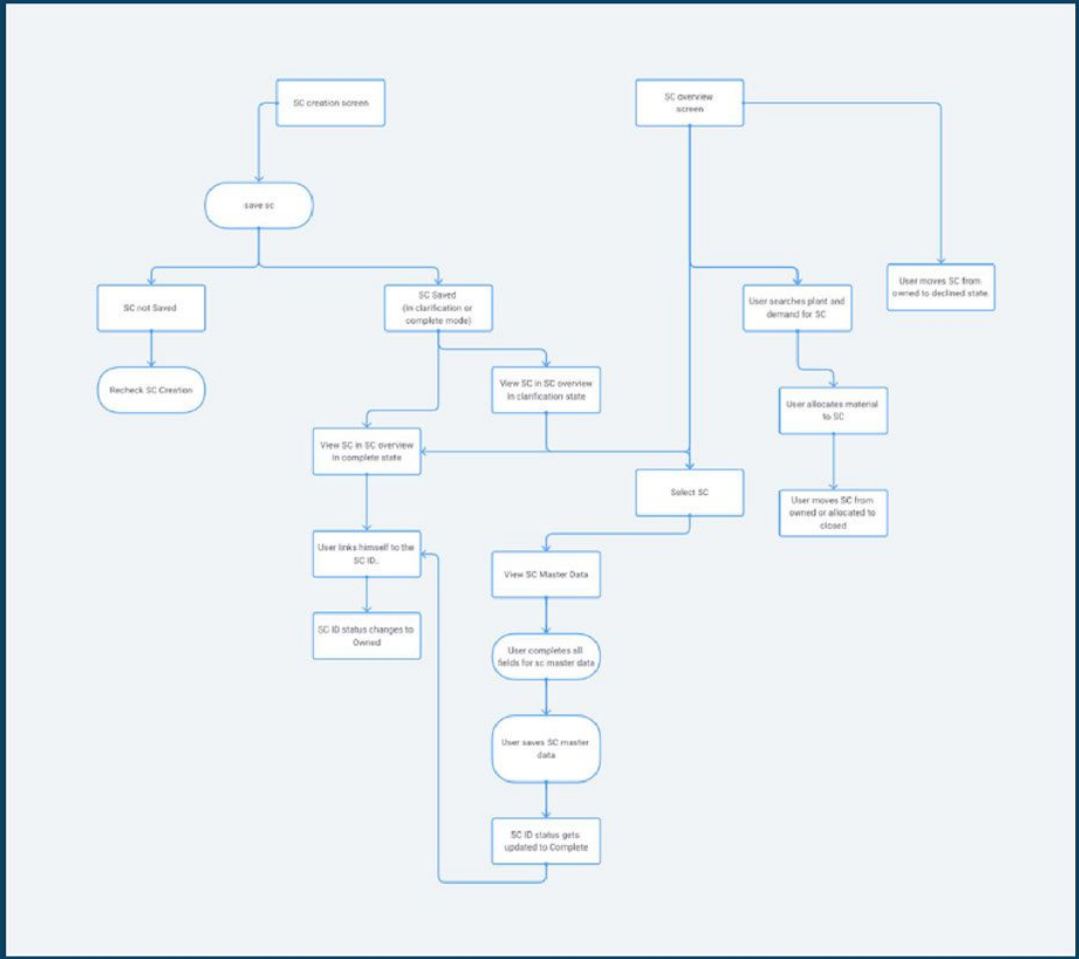
SHORTAGE CASE OVER- VIEW

Here ***Anna*** can see details for material on transport for a particular SC, material advised, allocated material, total stock and status of an SC.

SHORTAGE CASE DETAILED VIEW

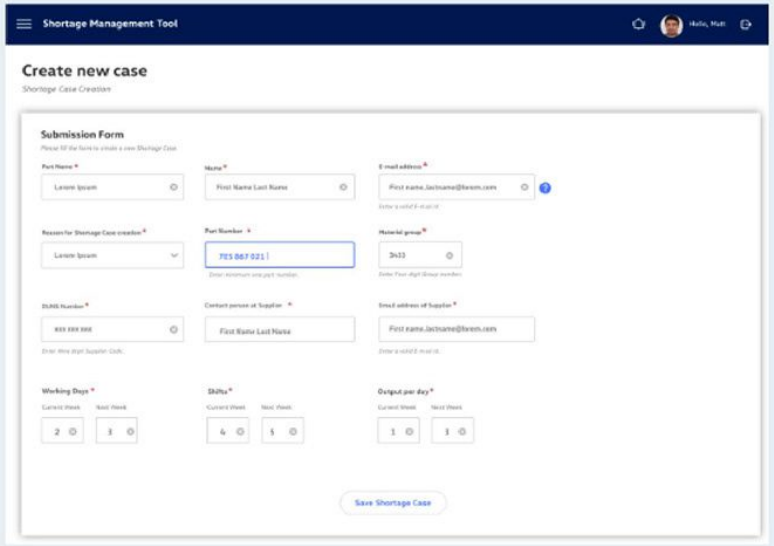
Anna *selects one of the shortage case to have a detailed view of shortage case with item number for each Shortage Case.*

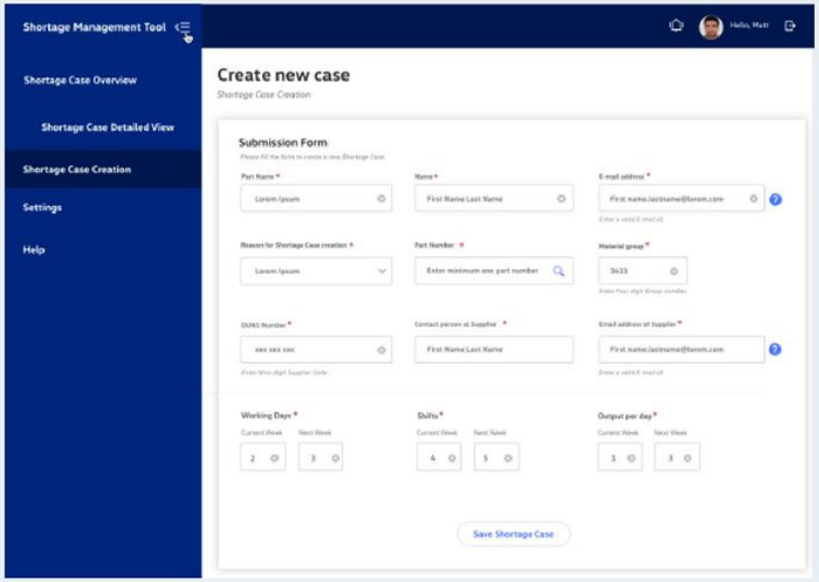
Site map

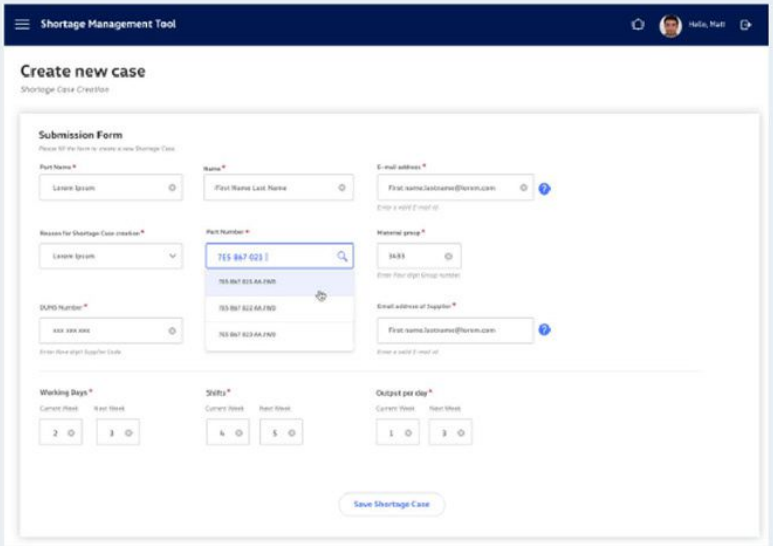

SC creation screen
save sc
SC not Saved
Recheck SC Creation
SC Saved
(in clarification or
complete mode)
View SC in SC overview
In clarification state
View SC in SC overview
In complete state
User links himself to the
SC ID.
SC ID status changes to
Owned
SC overview
screen
User searches plant and
demand for SC
User allocates material
to SC
User moves SC from
owned or allocated to
closed
User moves SC from
owned to declined state.
Select SC
View SC Master Data
User completes all
fields for sc master data
User saves SC master
data
SC ID status gets
updated to Complete

Shortage Case User Flow

Shortage Manager

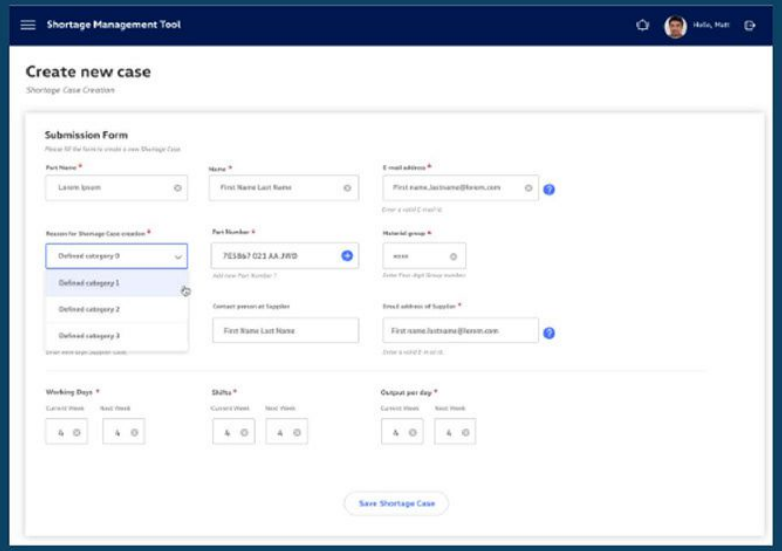


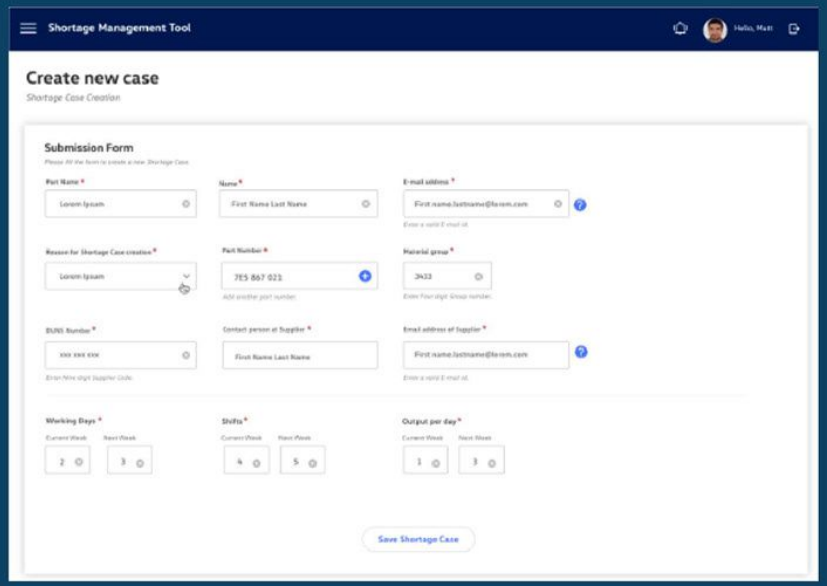


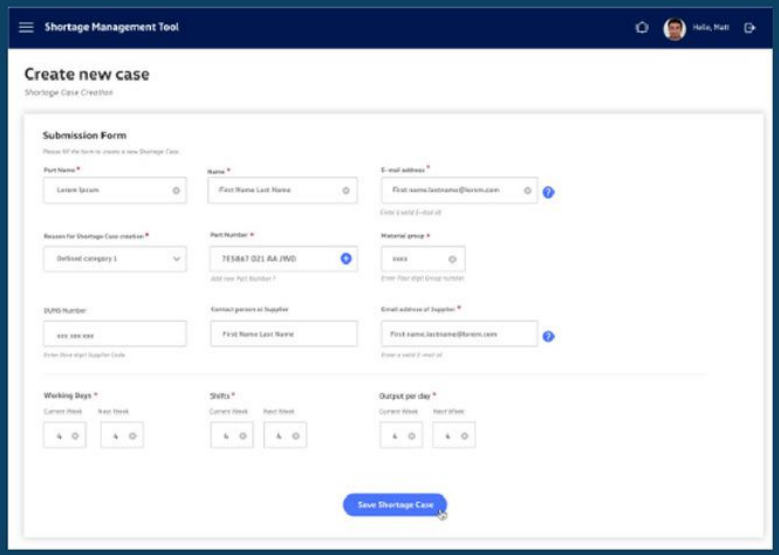


Shortage Case User Flow

Shortage Manager







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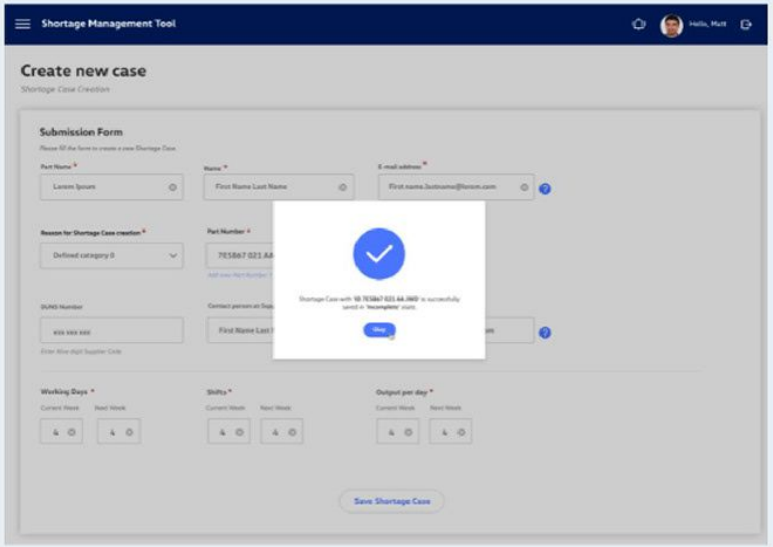

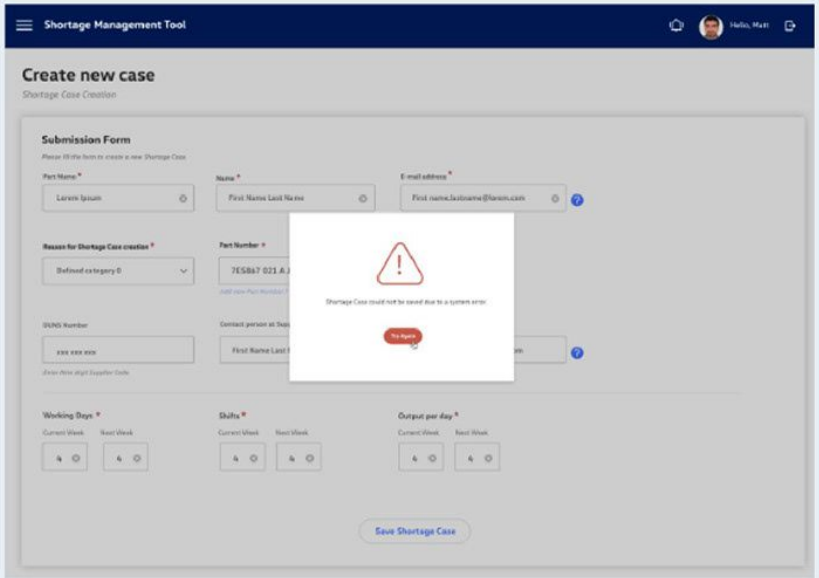

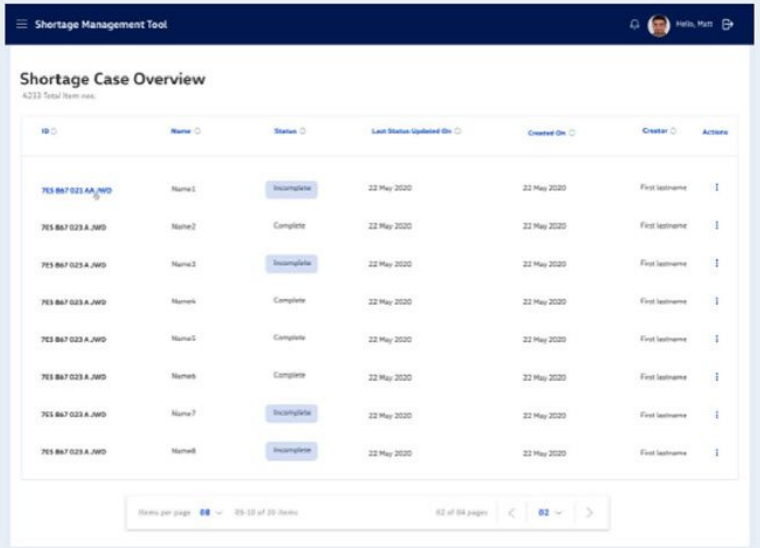

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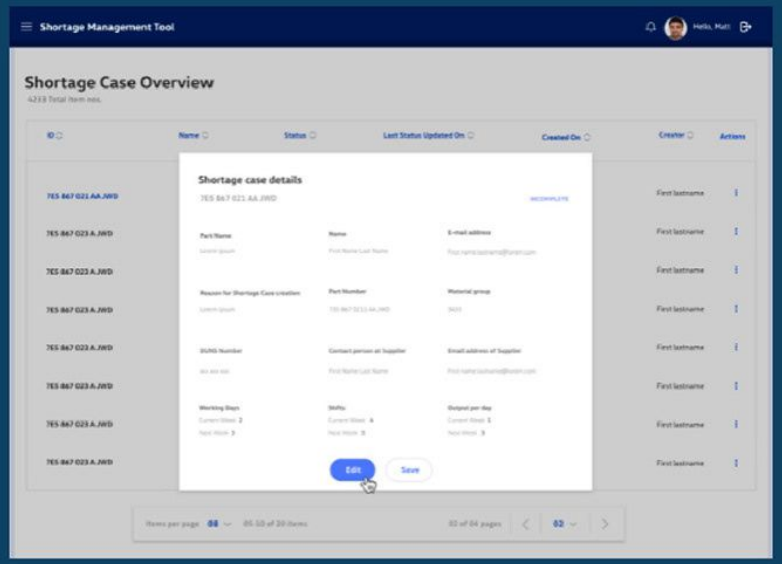

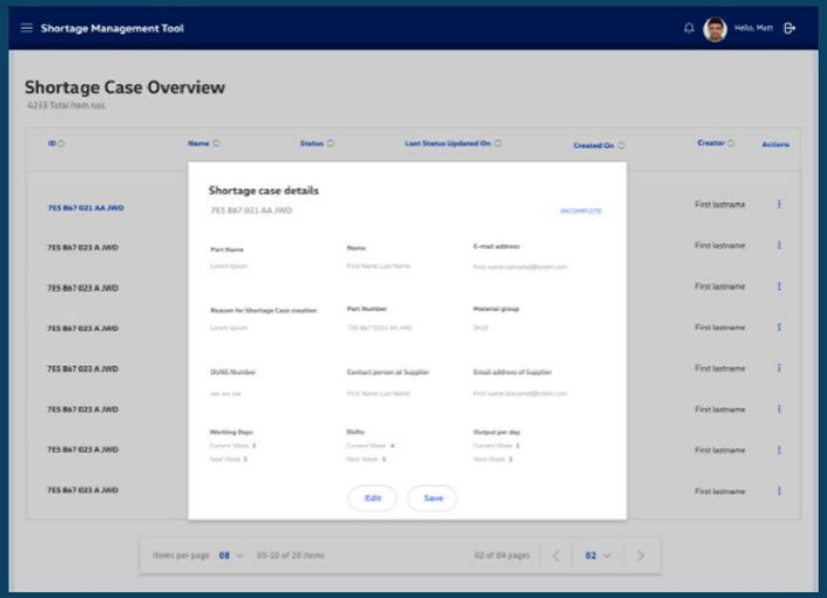

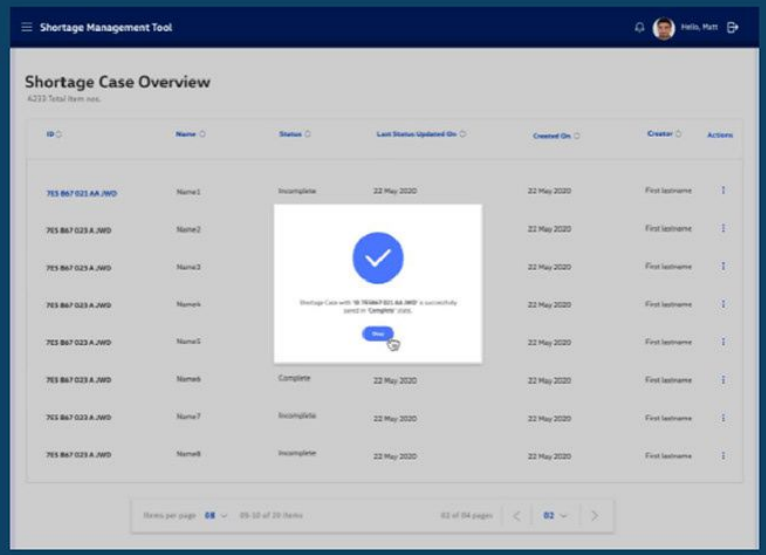

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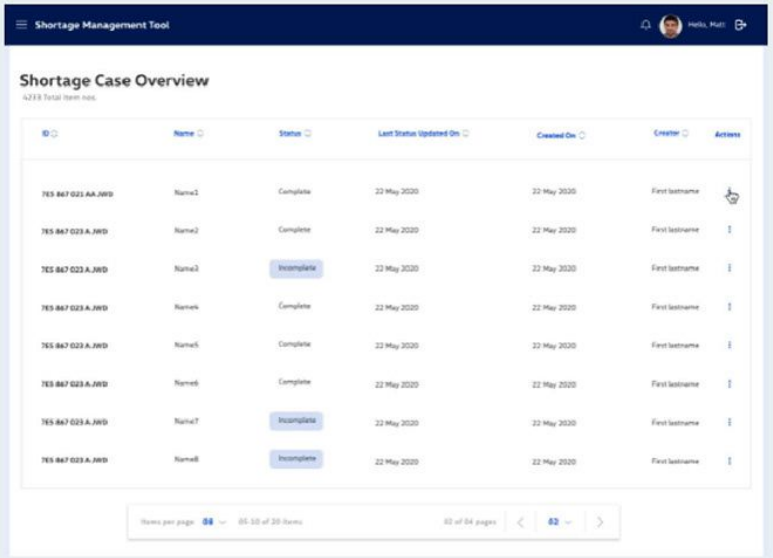

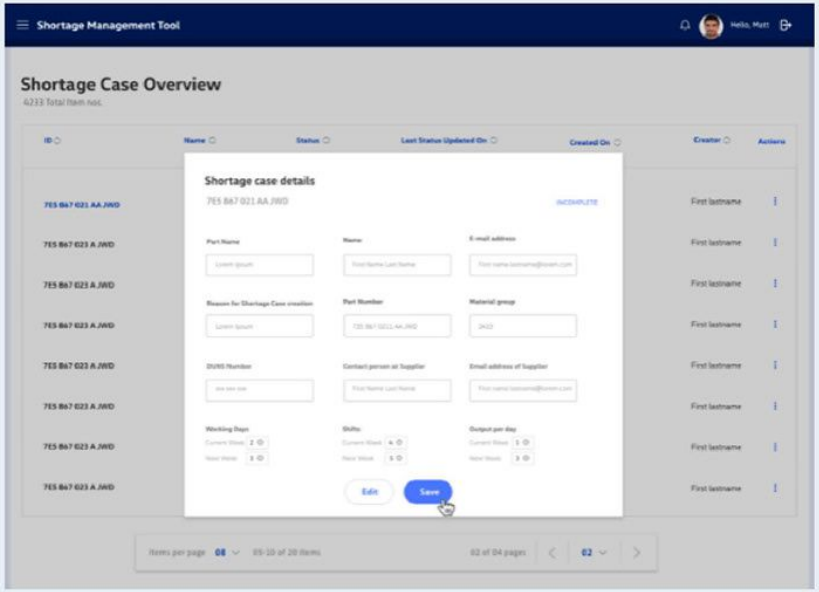

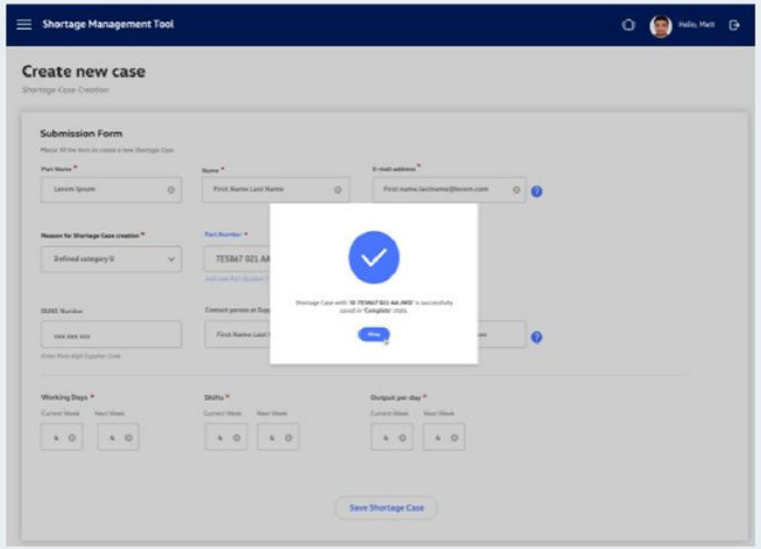

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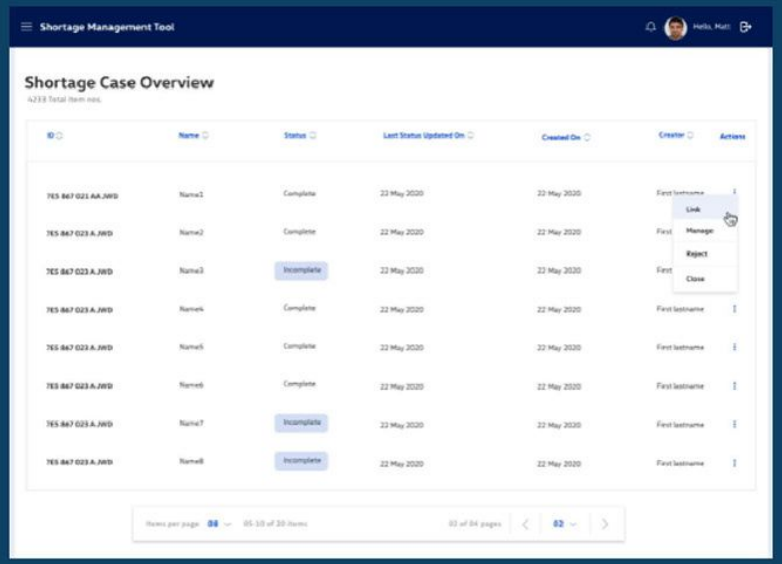
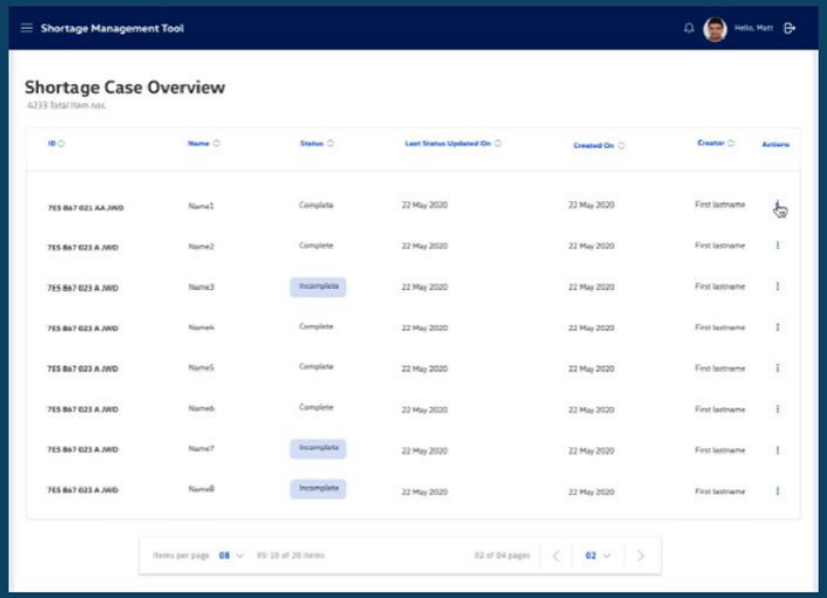
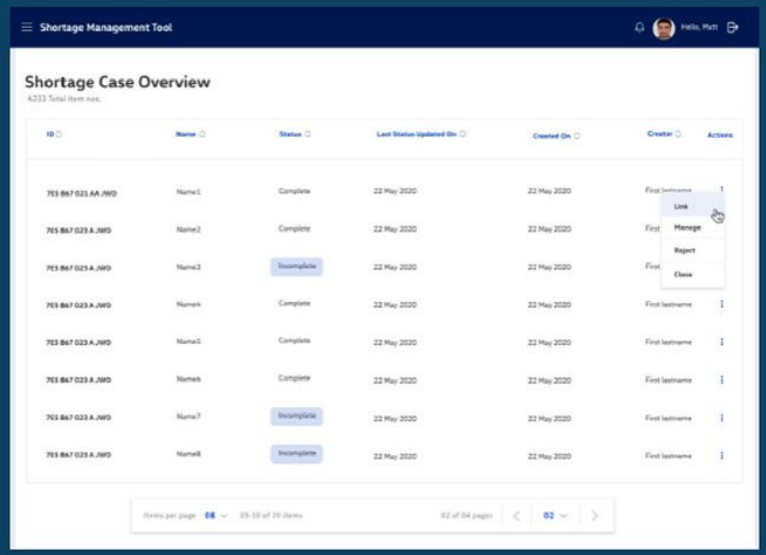
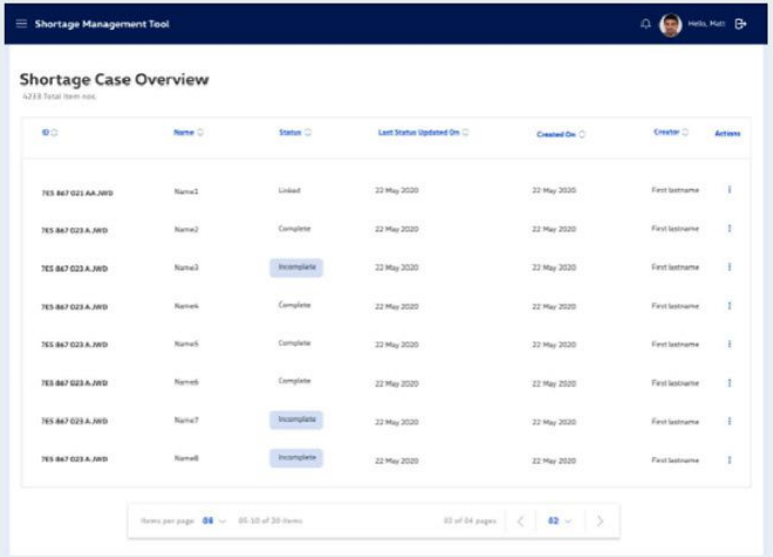
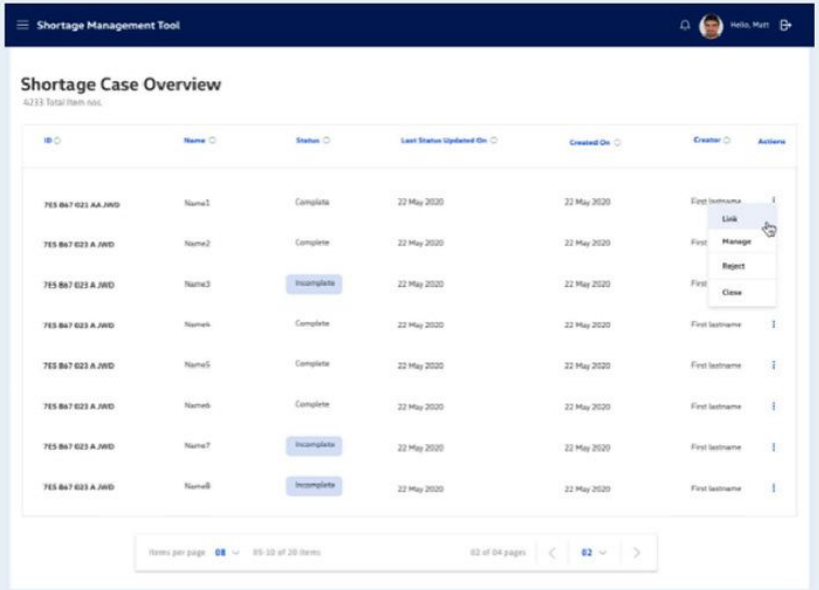
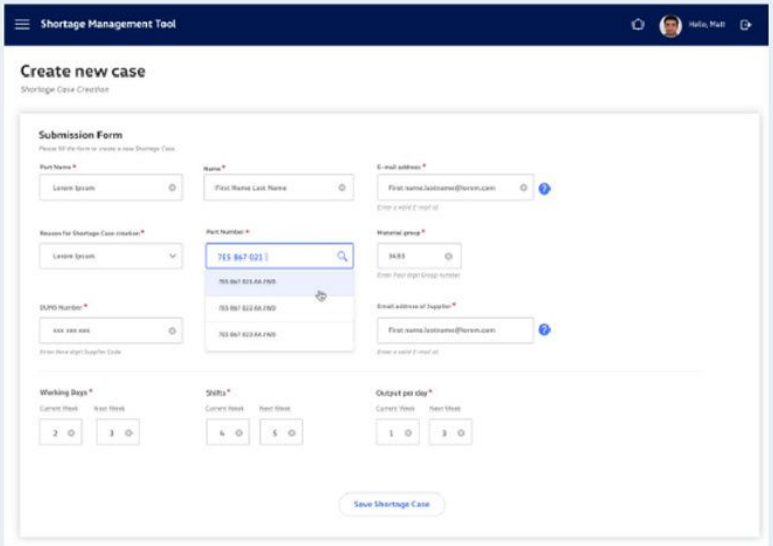






Shortage Case User Flow

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