

BuildingMinds' Equipment Capture app

Roie Shalom

Hello

I'm Roie

🔭 Designer

🇮🇱 Originally

👨‍👩‍👧 Father

🇩🇪 For 7 years

👋 Last name: Shalom

In Hebrew: hello, goodbye, no-conflict,
friendliness, good health



The Project: EQ Capture

A mobile app used to capture and digitize equipment in a building.



The Setting



Digitizing
Property Management



App
factory

An Innovation Hub to
create an ecosystem of
complementing apps

The Team

App factory Founders

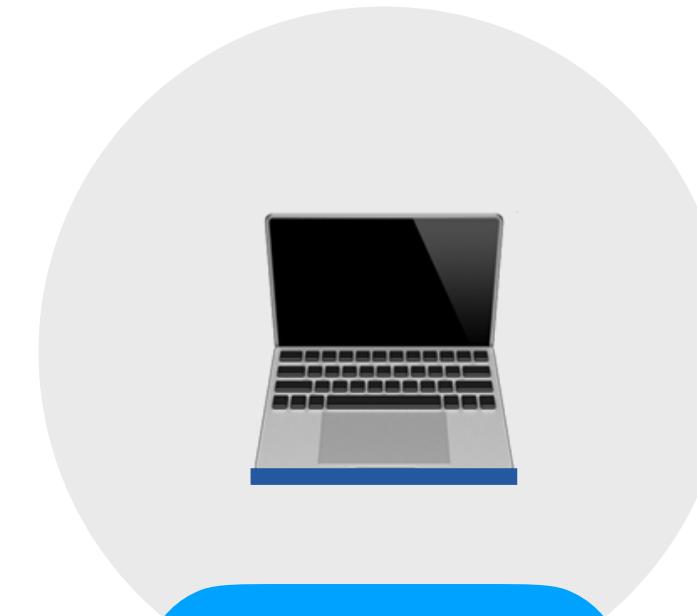
An Innovation Hub to
create an ecosystem of
complementing apps

Product



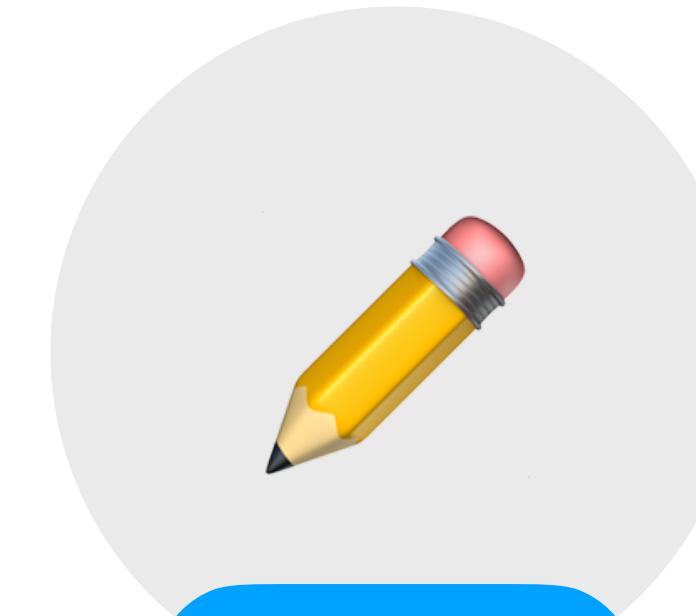
Robert

Tech

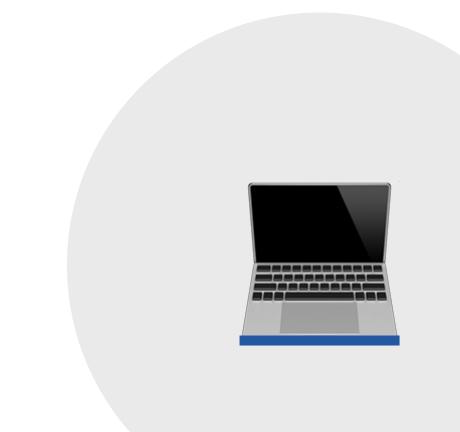


Eddie

Design



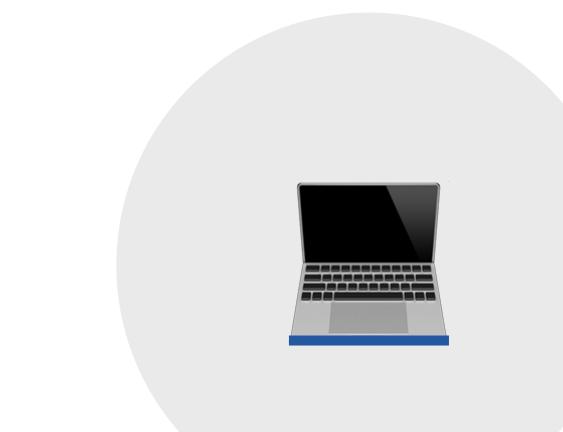
Roie



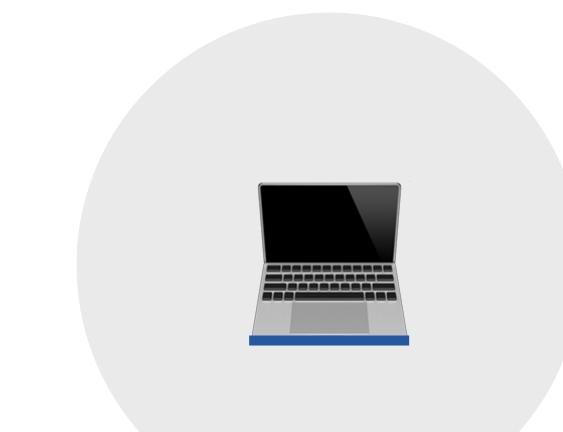
Anastasia



Domagoj



Dominik

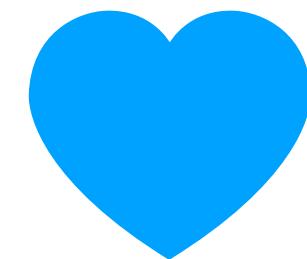


Matko

The Need X2

Westbridge

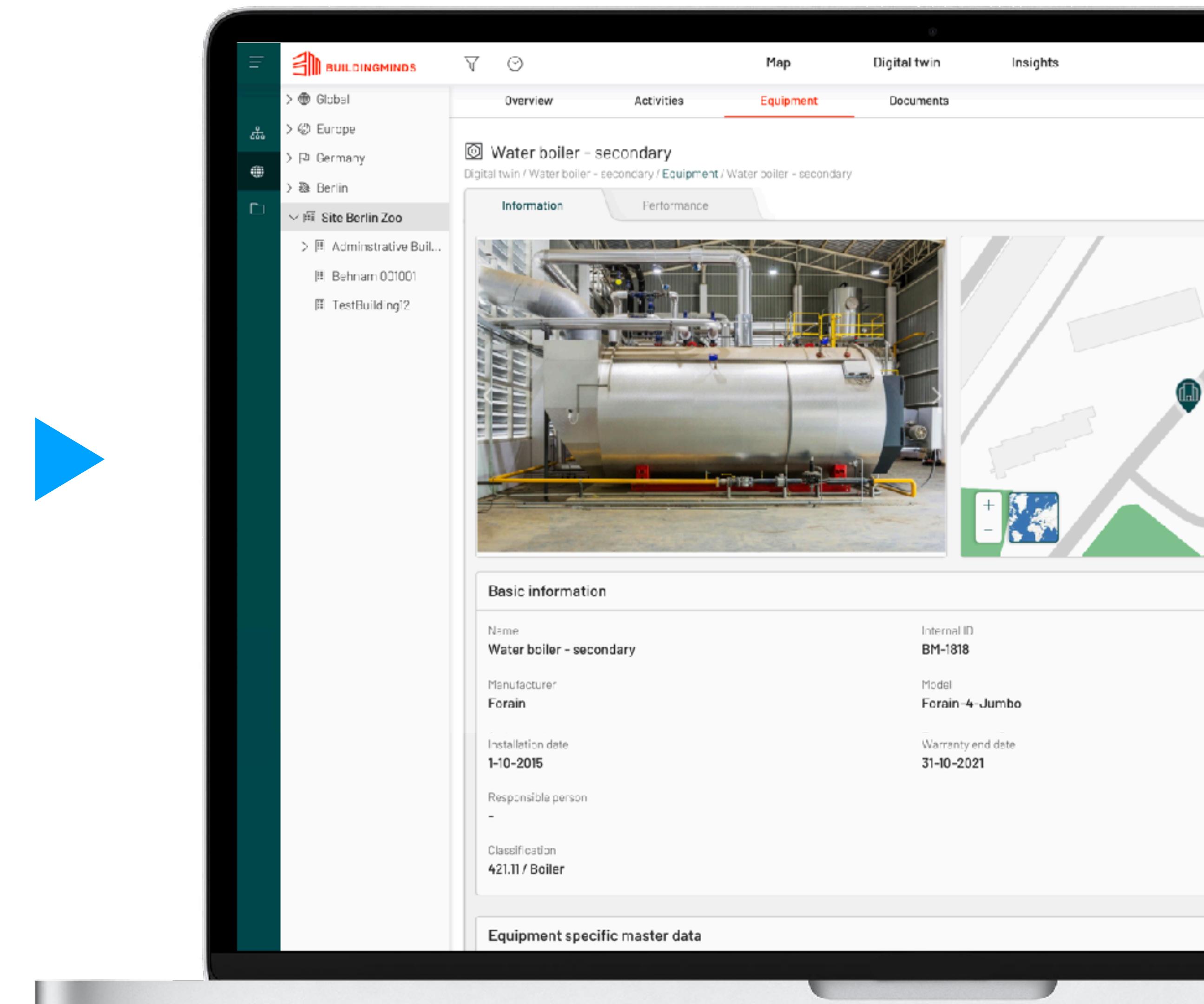
Wants to improve their building survey process and equipment management



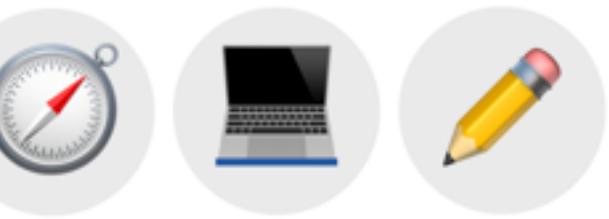
BuildinMinds

Needs more ways to upload data into their platform

The Need X2



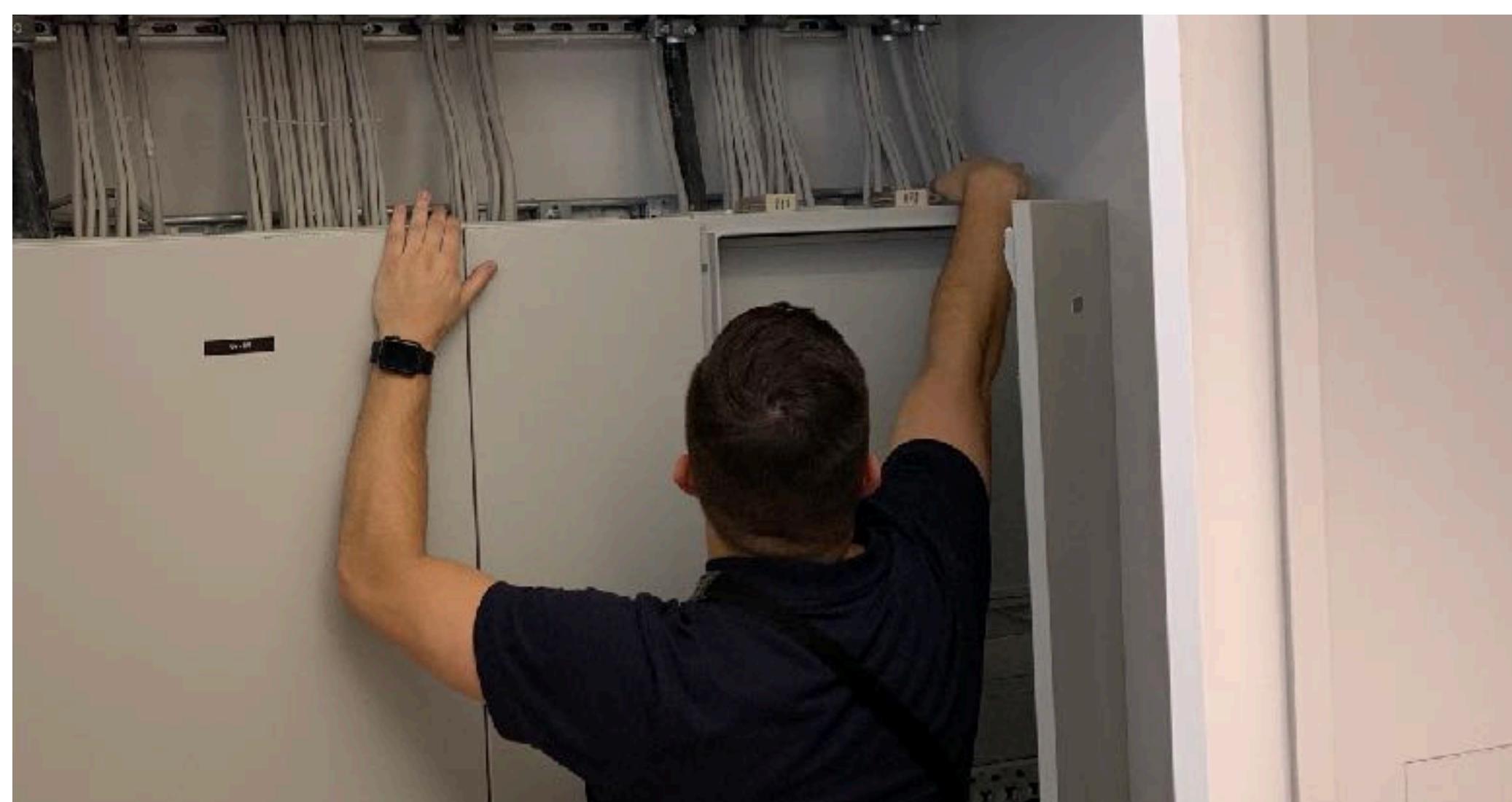
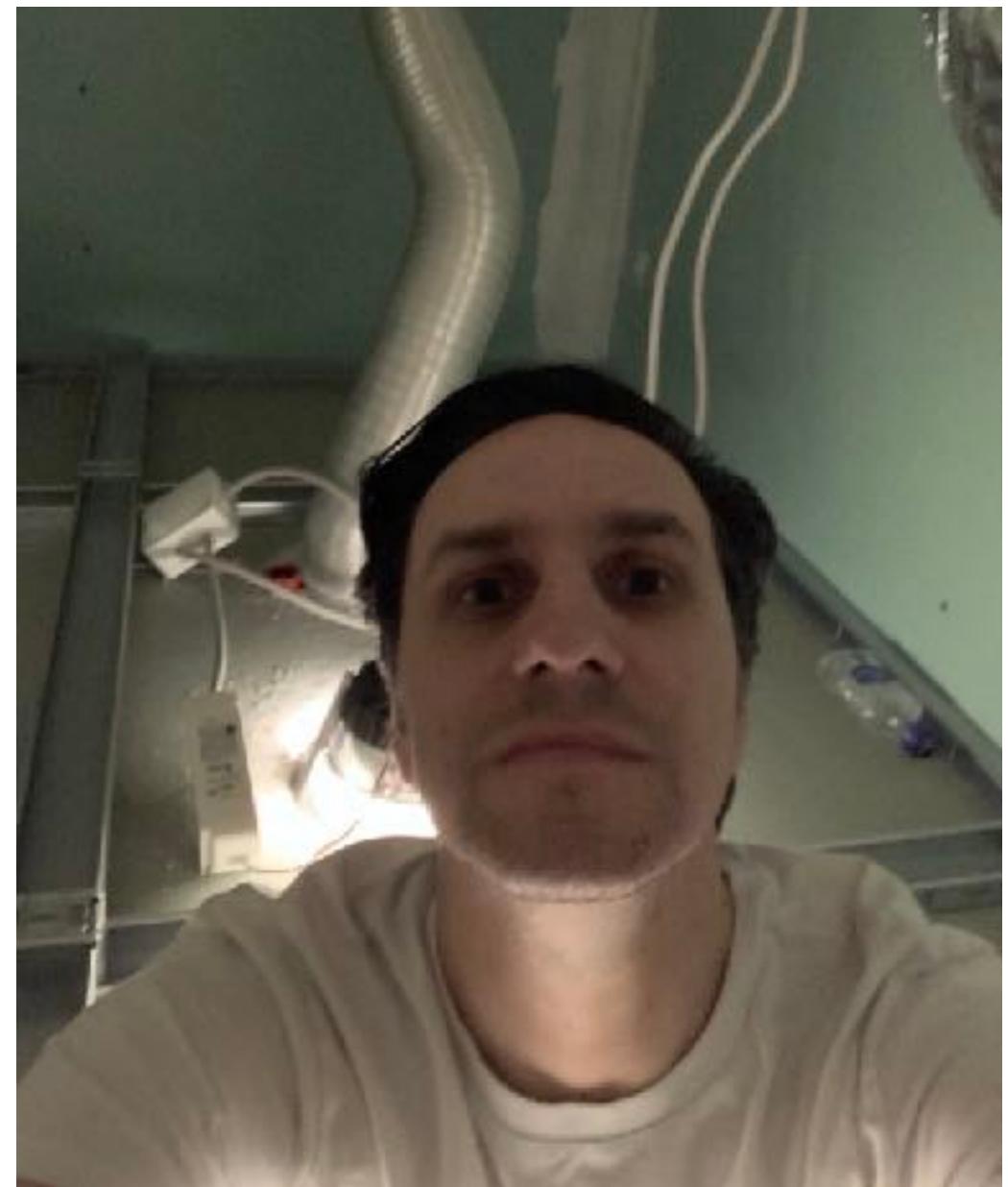
Discover



- Similar apps
- Market research
- Technology research
- Users and stakeholders interviews

But mostly...

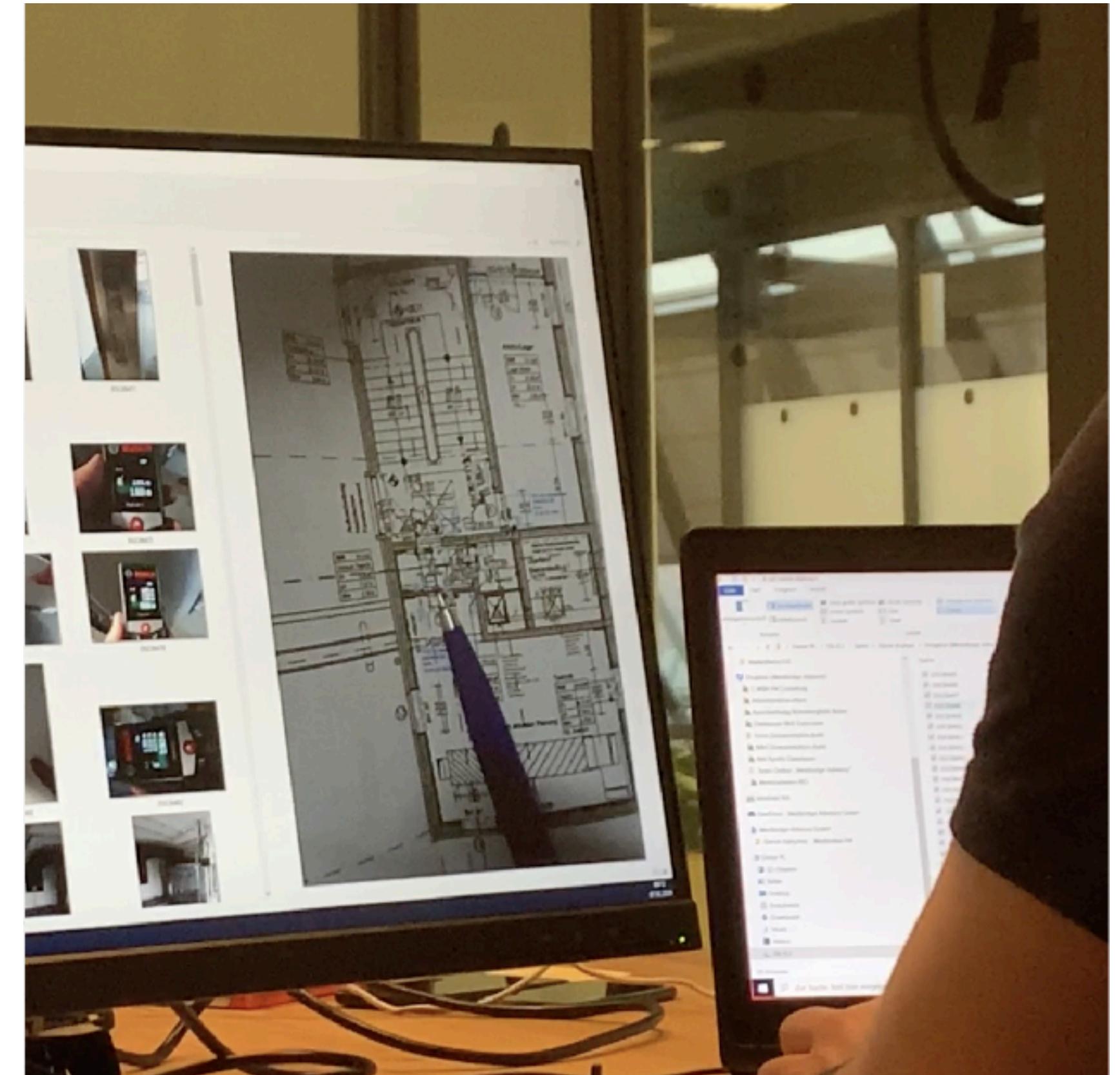
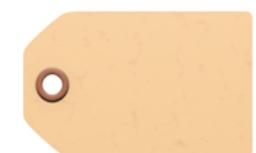
“Learning through the feet” (job shadowing)

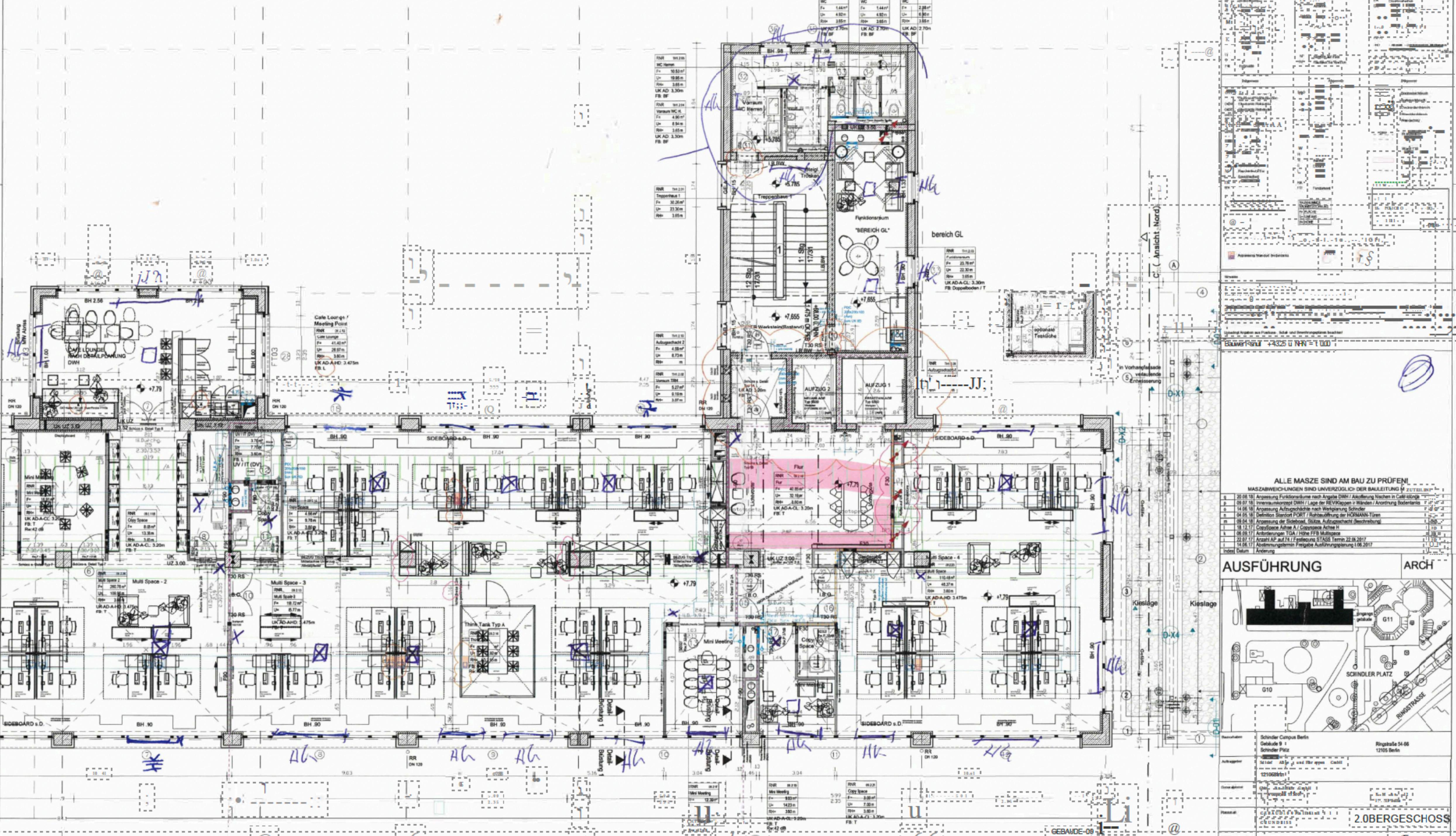


Learning: On-premise process



Tools

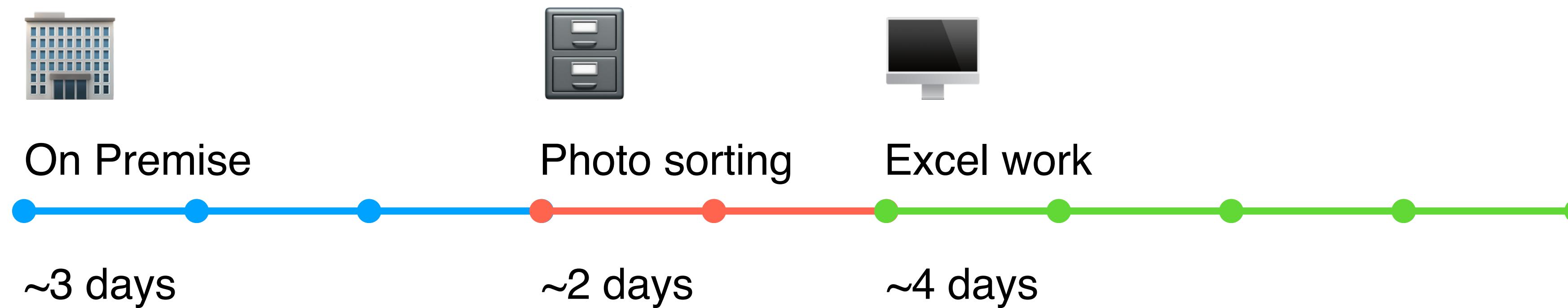




Learning: The entire digitization process



Surveying a building takes a few days,
With analog documentation and redundancies



Learning: The entire digitization process

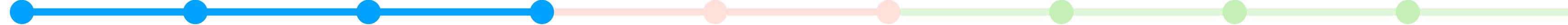


Surveying a building takes a few days,
With analog documentation and redundancies

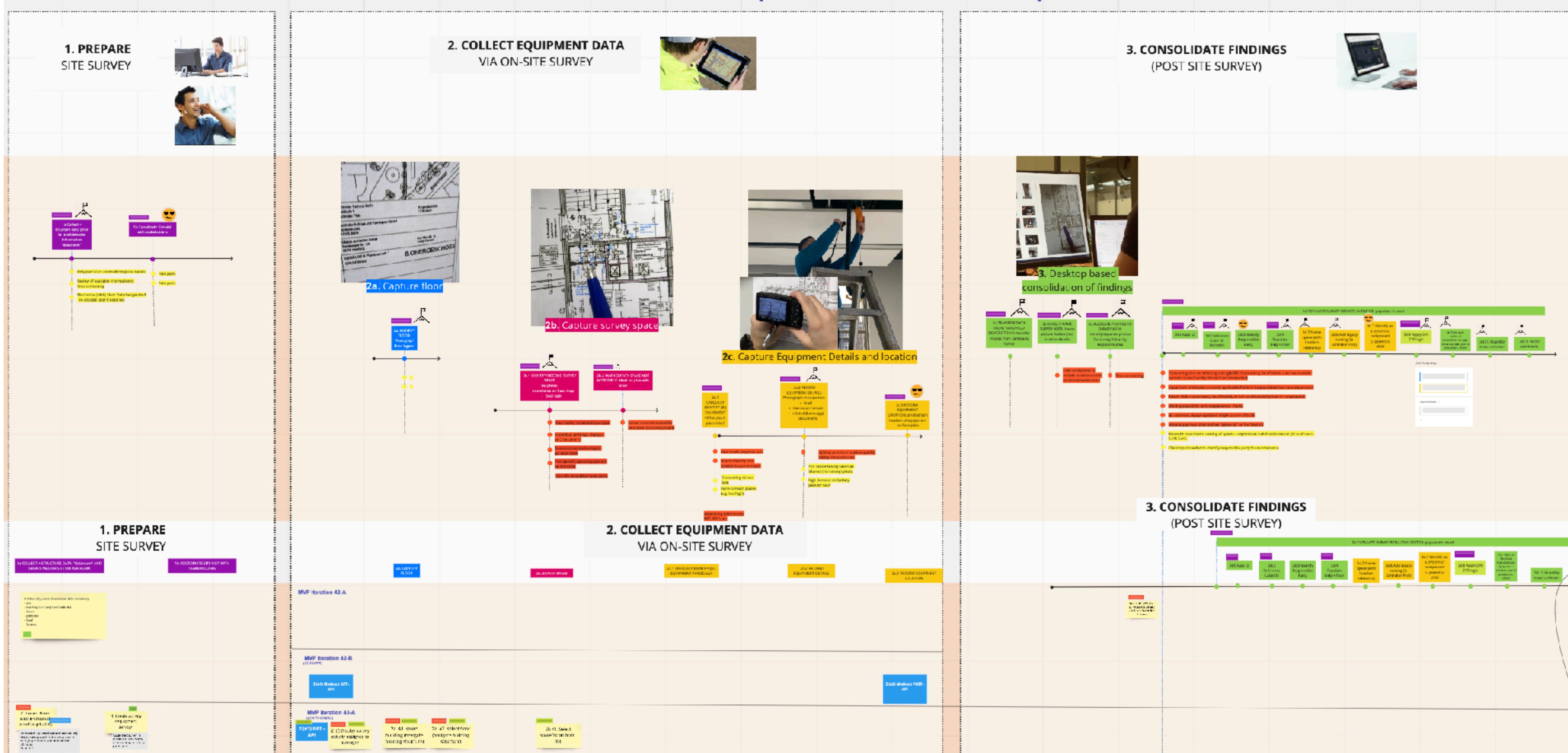


On Premise

~3 days



Mapping the ‘As Is’ process

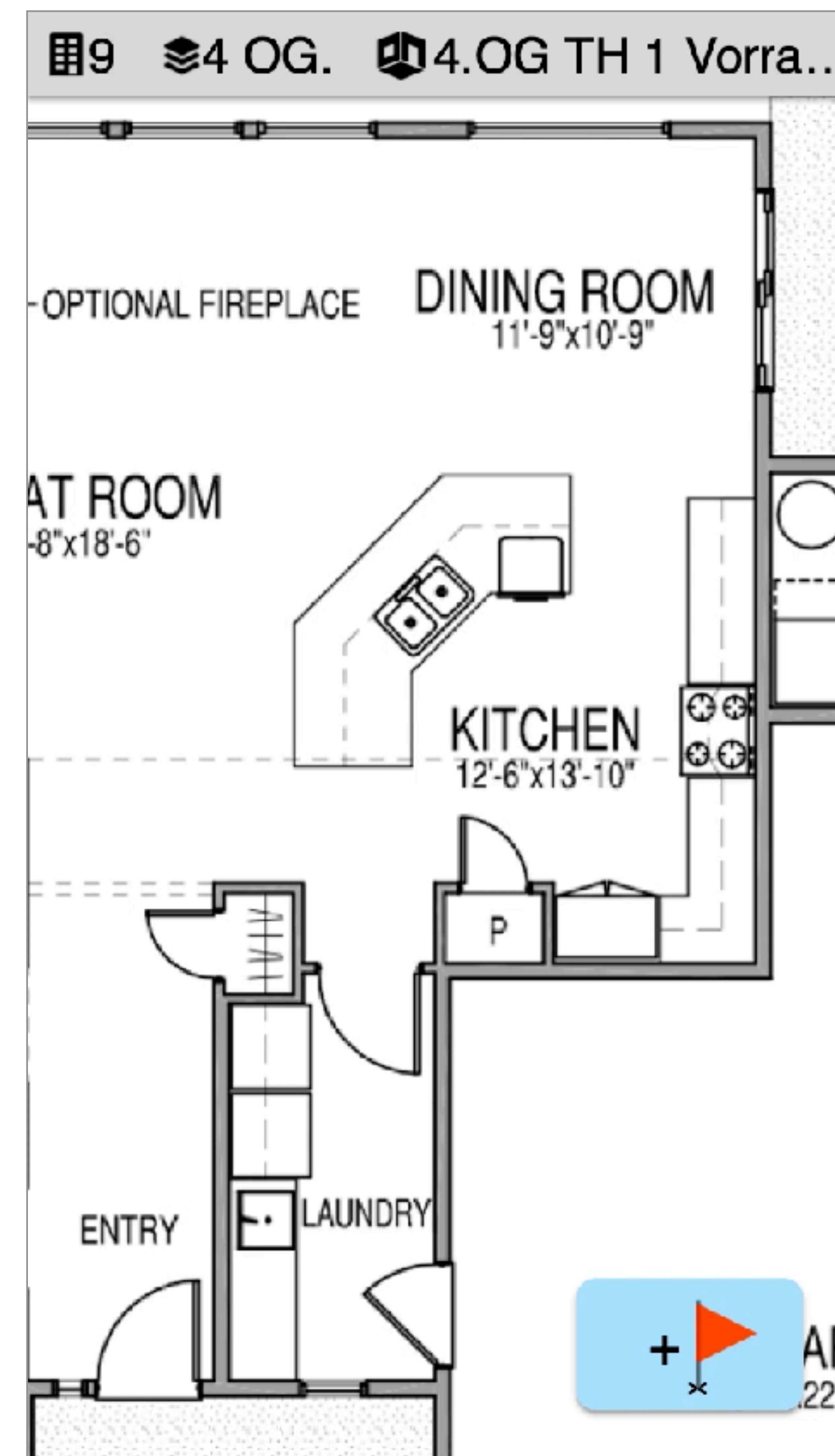


Biggest pain points

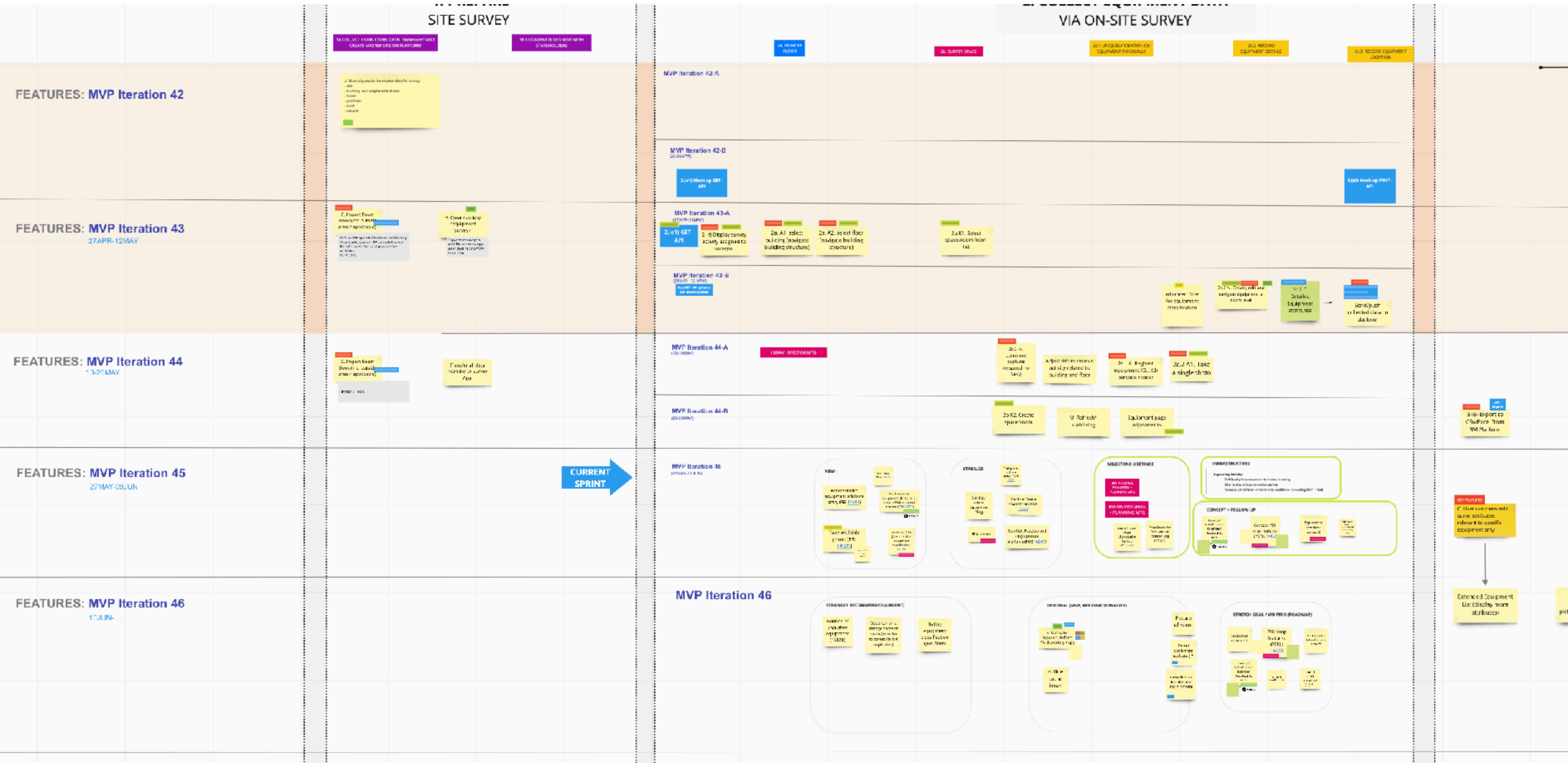
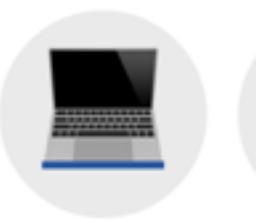


- ⌚ The process is time consuming
 - 😴 Exhausting for surveyor
 - ✏️ Error prone
 - 🏖️ Lacks tracking and supervision
- ...

Define



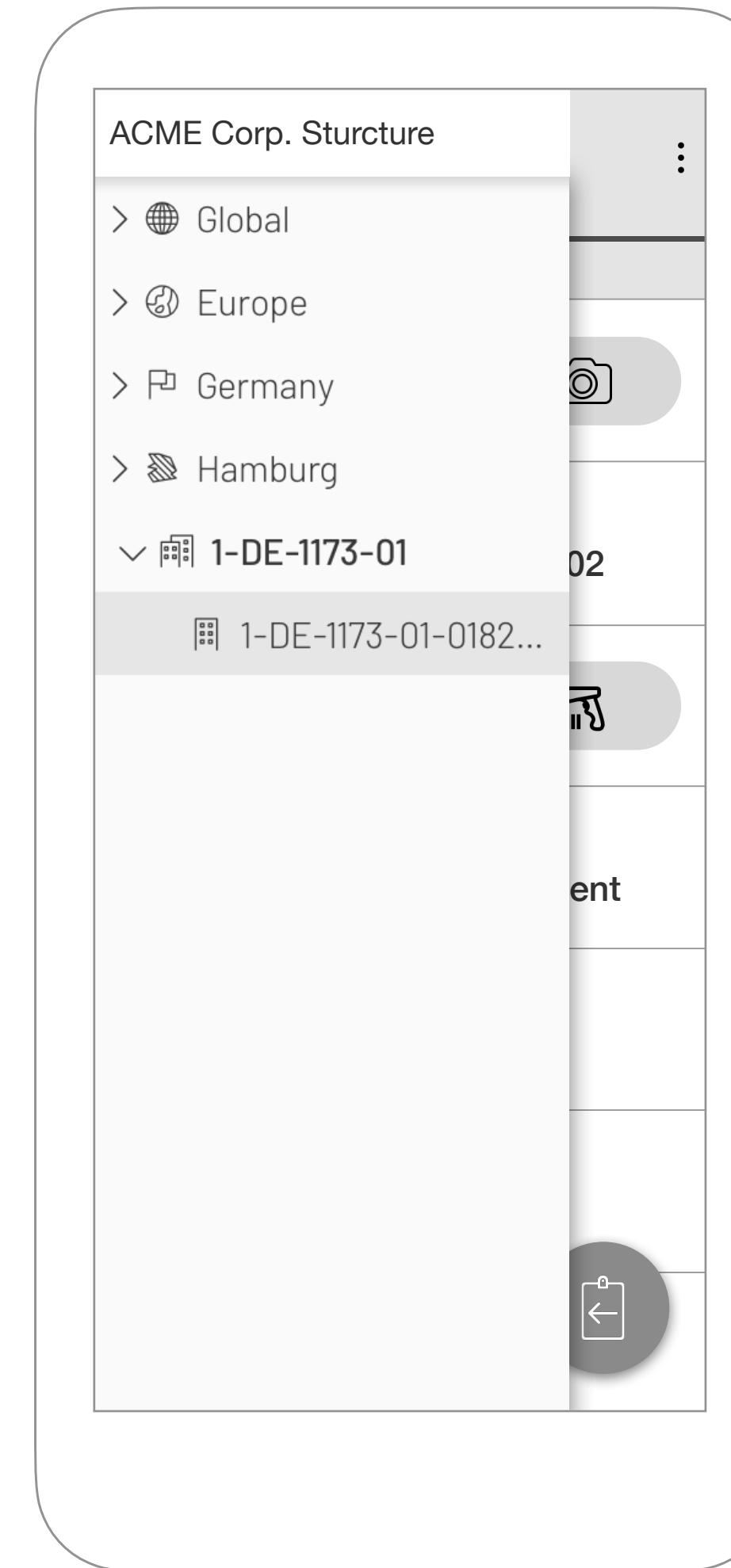
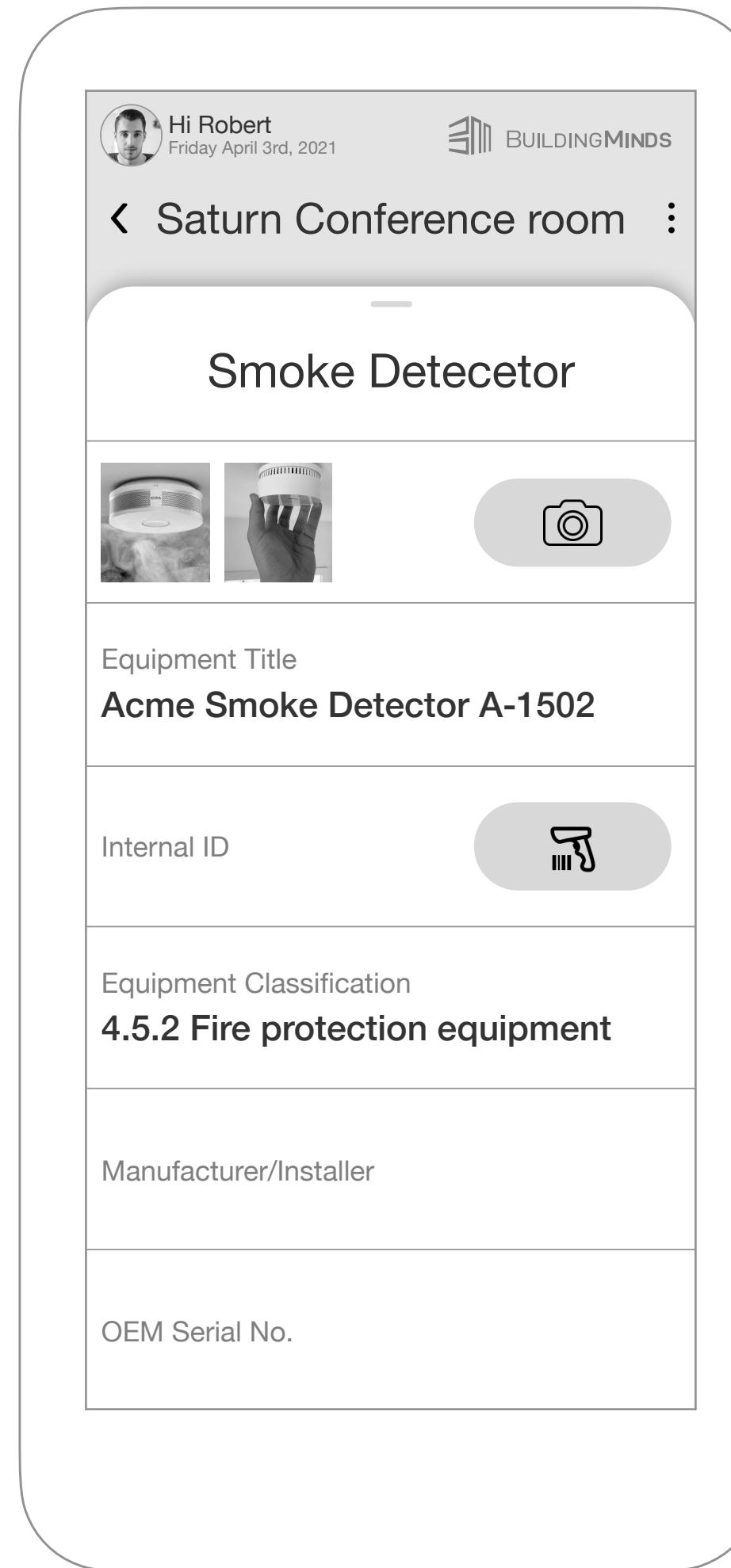
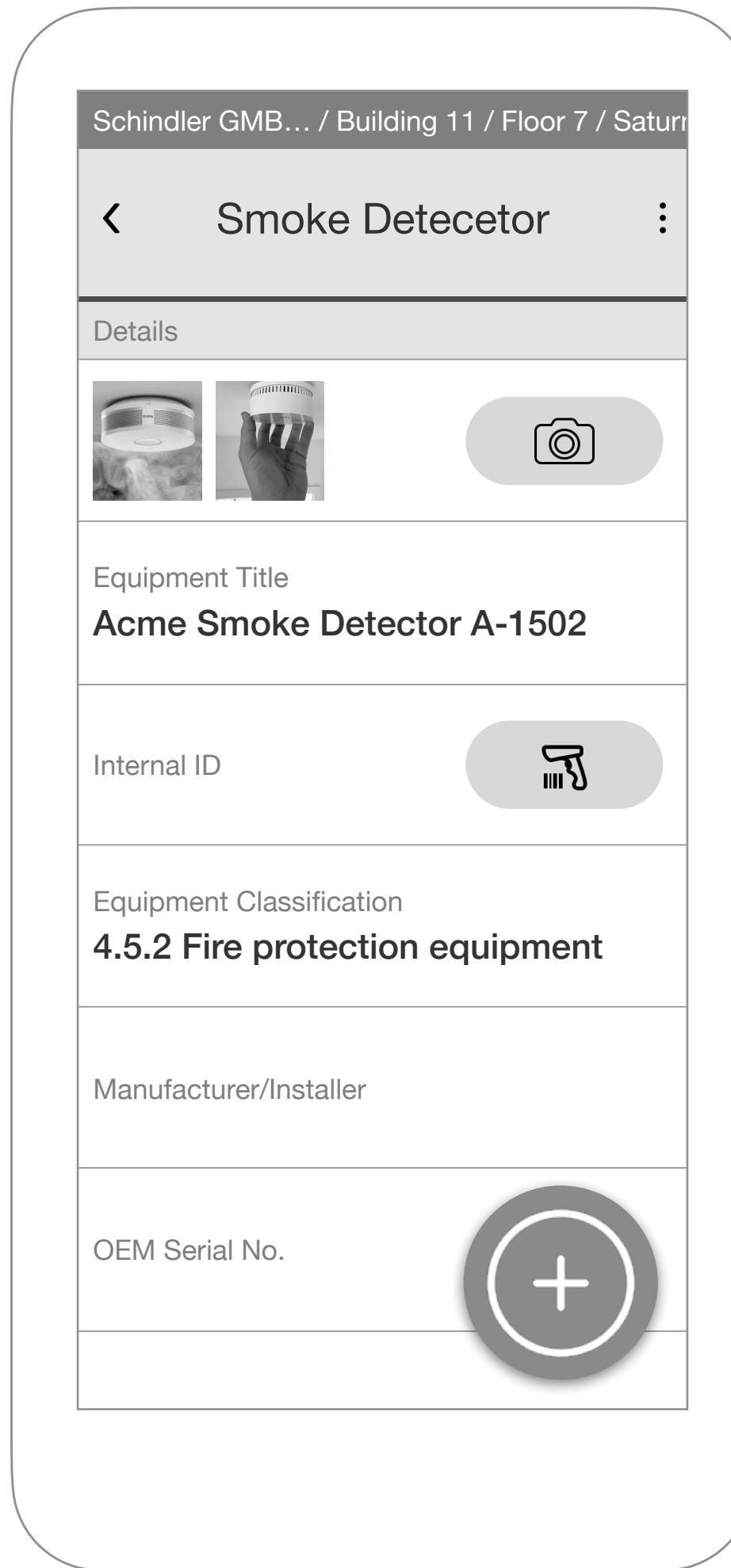
Sprint planning



Our goal

To Digitize the process of equipment capturing (MVP),
And add the advantages such improvement can bring

Challenge: keeping space context



Challenge: Assigning equipment to a space



Munich / Microsoft Germany Headquarter / Level -1 / Techni...

< Access Control Unit :

Details

Equipment Classification
458 Zutrittskontrollanlagen Select

Manufacturer / Installer
Tregoz

OEM Serial No.
635357188764

Installation Date
July 9, 2020 Edit

Comment
Text text text text text text text

H

BUILDINGMINDS

Geography

Europe

Germany

Berlin

Filter

1234qwer

23 rd may site

AC site

Ac site

AC site 2

ADY

B Site1

BE site

B Berlin site

B Berliner Site

Black flag site

Heating body unit A

Internal Equipment ID
4509465702194760 Scan

Equipment Classification
443 - Niederspannungsschaltanlagen Select

Manufacturer / Installer
Schindler GAG

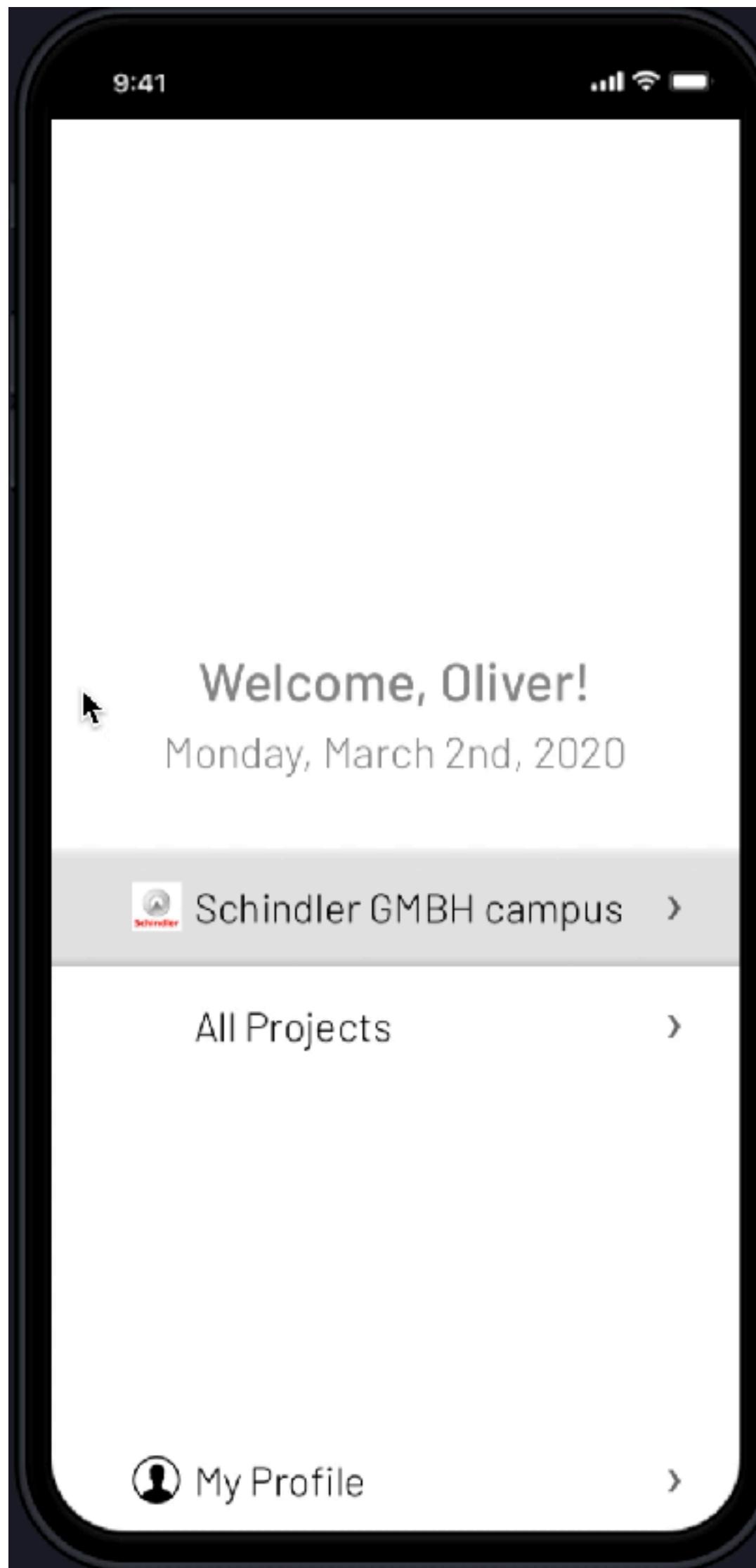
OEM Serial No.
0870870

Installation Date
6/11/2020 Edit

Comment

Drag equipment page to location

Prototype: Equipment capturing flow



Usability test with printouts



Equipment 4



LO Capture

Equipment name: LTA 03 office tower north

Location path: .../ TH1.8.05 ZBV

Internal identifier:  15021981

Classification: 431/ Ventilation systems

Manufacturer: AL-KO Therm GmbH

Model: AT4-F 12x8/12x8- Innenraum

Serial number: 3210391

Installation date: 1/1/2017

Warranty end date: 1/1/2027

Further information: Qzu: 2970 m³/h
Qab: 3170 m³/h
Filter: M5

Equipment 8



LO Capture

Equipment name: ISP02

Location path: .../ TH1.8.05 ZBV

Internal identifier:  15021985

Classification: 482/ Control cabinets

Manufacturer: Mestronic Steuertechniker GmbH

Model: Supercabinet3000

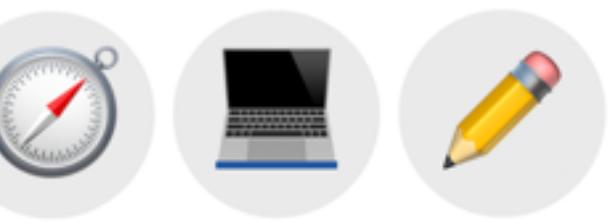
Serial number: 78152

Installation date: 4/8/2020

Warranty end date: 1/8/2021

Further information: Display: Siemens Simatic HMI
Felder: 4 St.
Stromkreise: 33 St.

Feedback sessions



TEAM FEEDBACK

Miroboard Link: https://miro.com/app/board/o9J_N29z-Y-/

1. Pick a colour
2. write your name next
your colour
3. Use your dots to vote

Stefan Hora ...

Roi Shalom

Oliver

Eddie Bligale

Robert

TS

Stefan

Eddie

DI

DB

Woud normally not use a date picker

Need to have a component as a collector i.e. capture number

In equipment list show which equipment has components assigned to it

view components even if outside of a space

Be able to filter equipment by type (e.g. show metal components only)

Building takes a long time to load

Oliver

04-05. Click Further, show the whole line

Bug -Joining an equipment pop-up disappears

When I enter "Further Info" it should start at the top

Custom Attributes don't work

Clicking Error Message in settings takes me straight to errors

Stefan

See which components belong to which equipment

Stefan

If the components are different types you can't move them around together, you need to move each component over part of each equipment

Field testing

Hamburg and Frankfurt



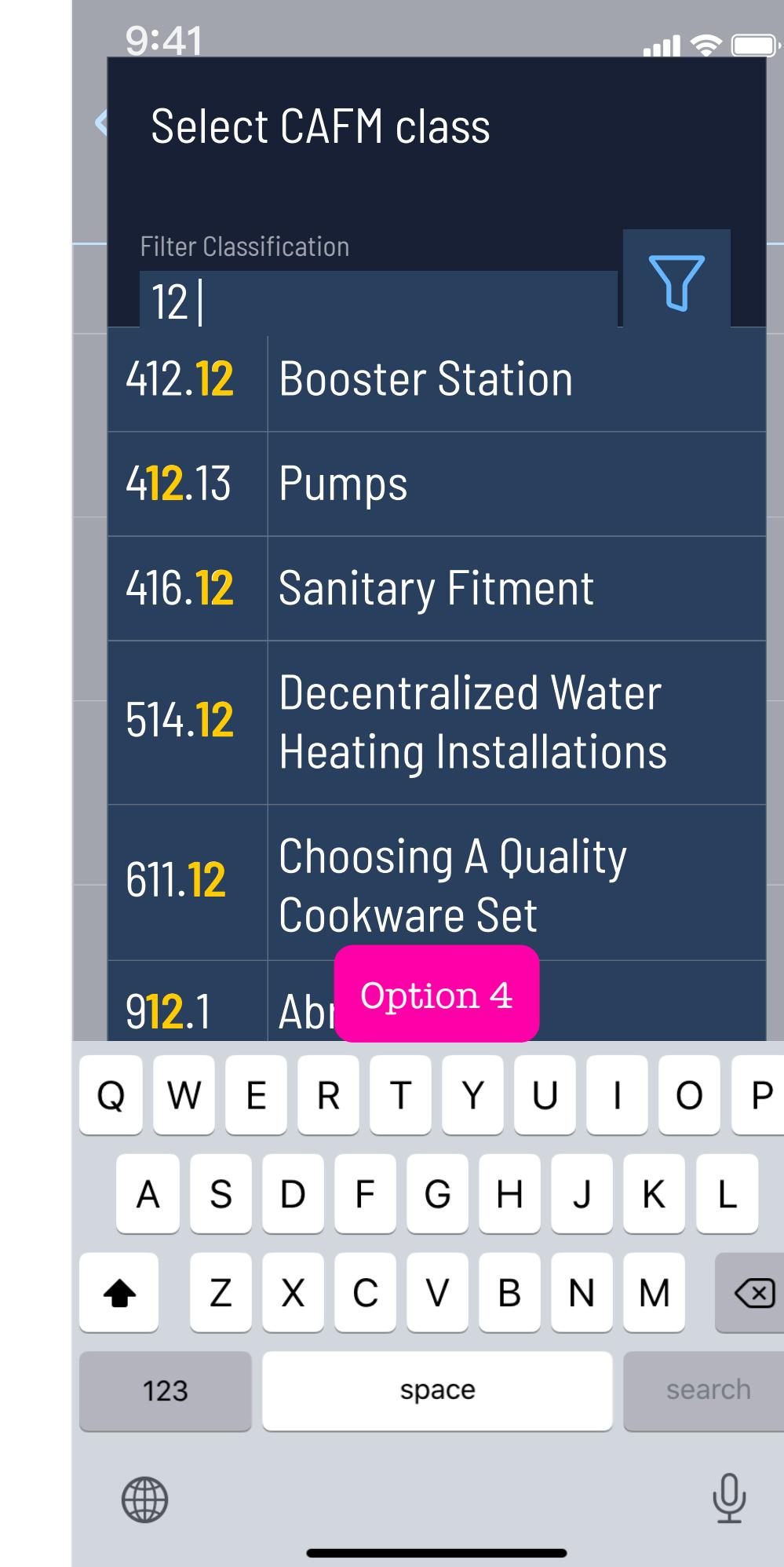
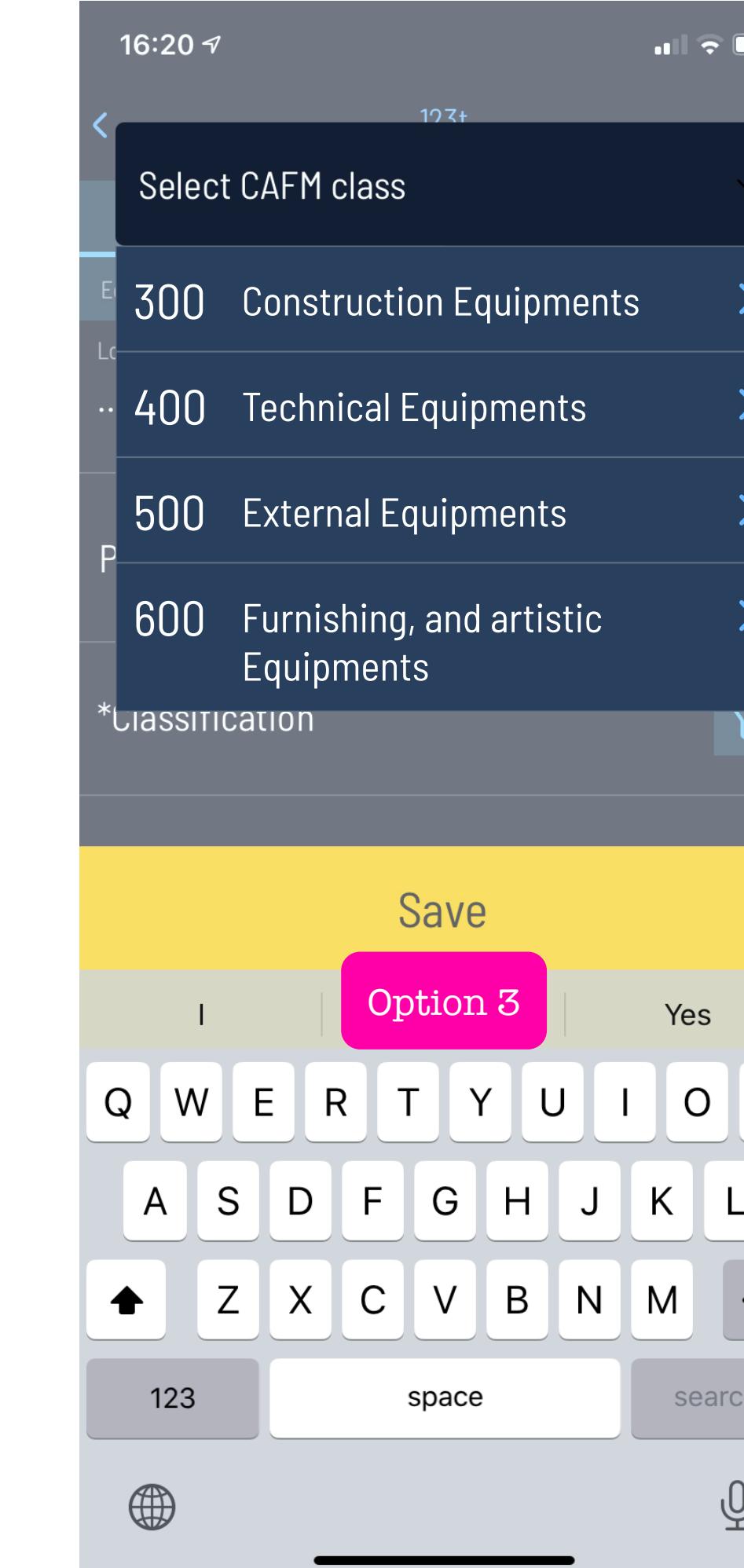
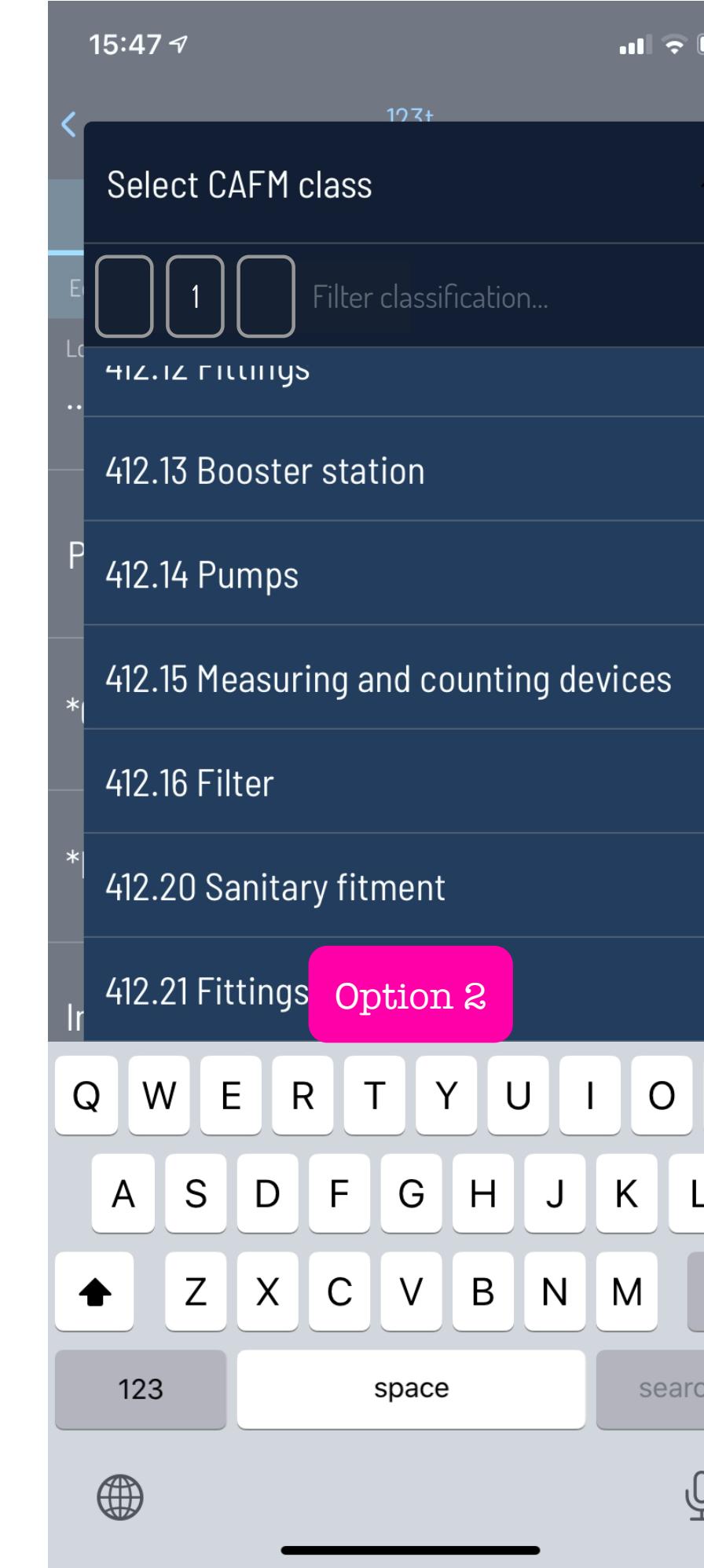
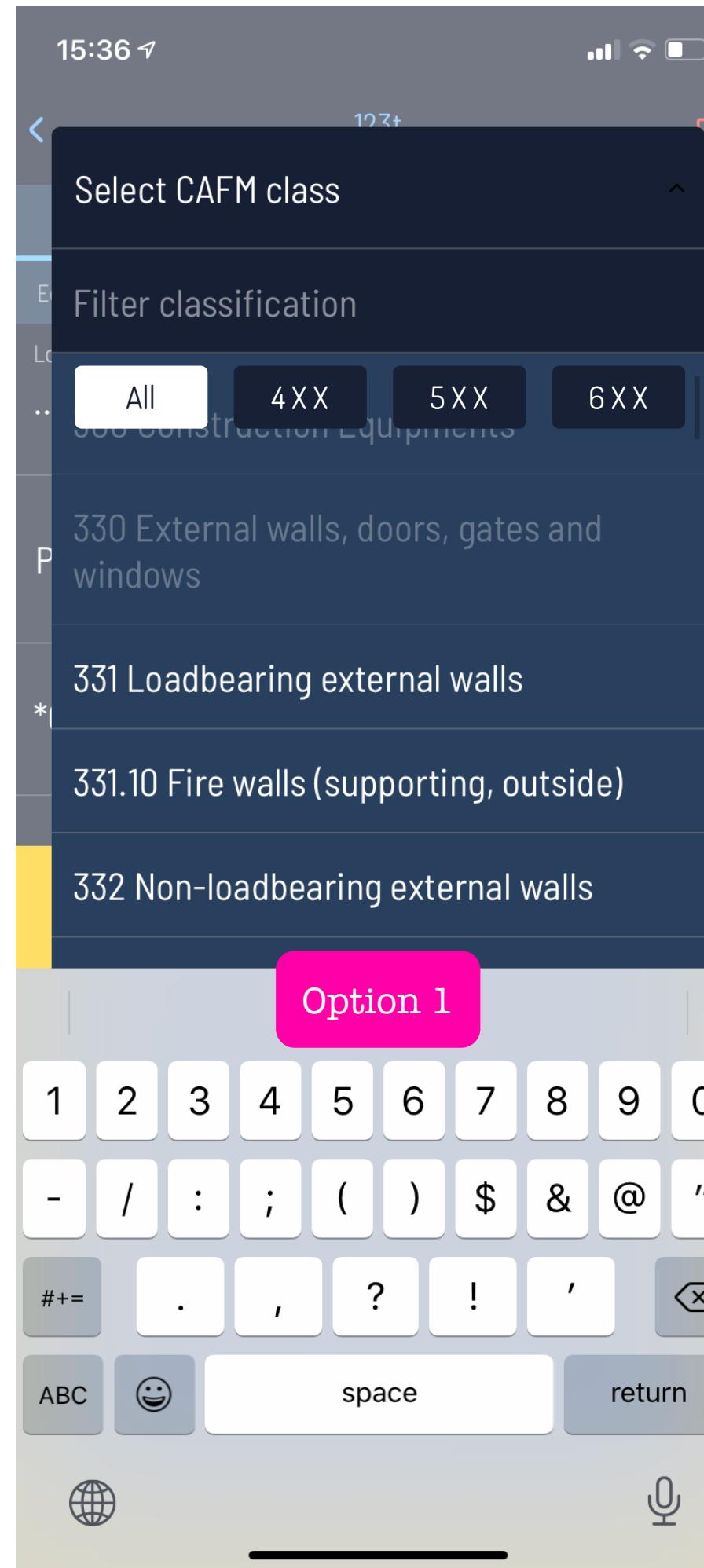
Learning 1: Calming down the keyboard



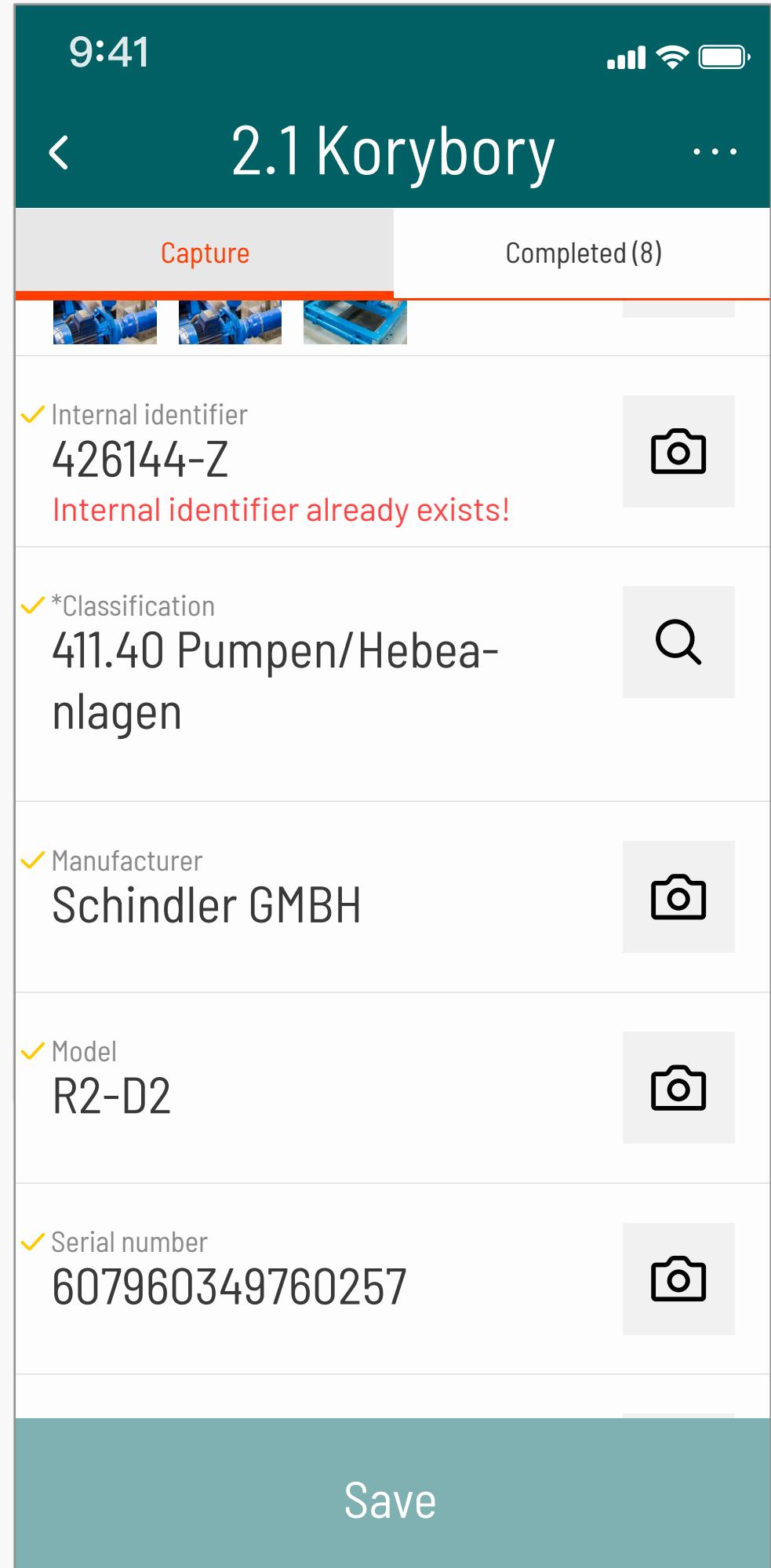
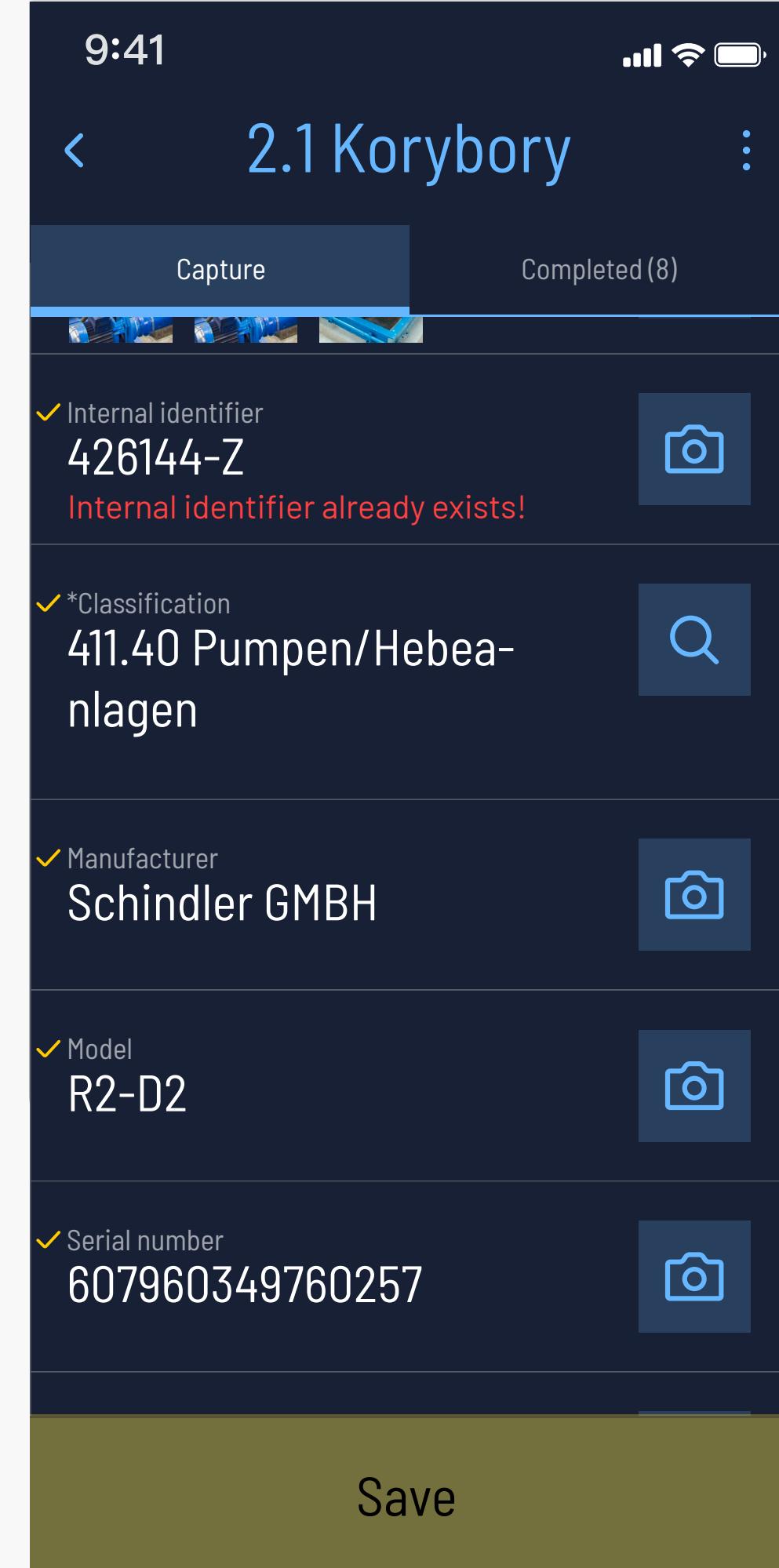
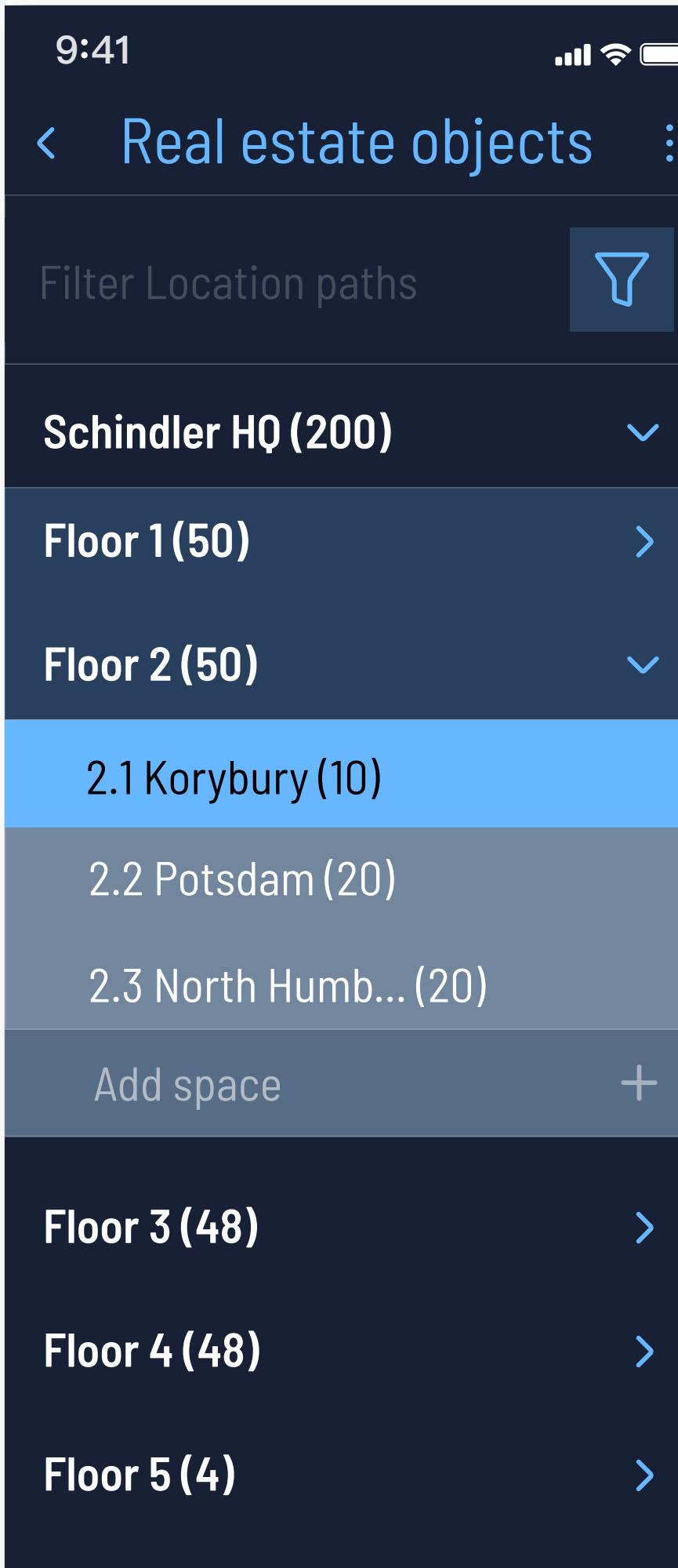
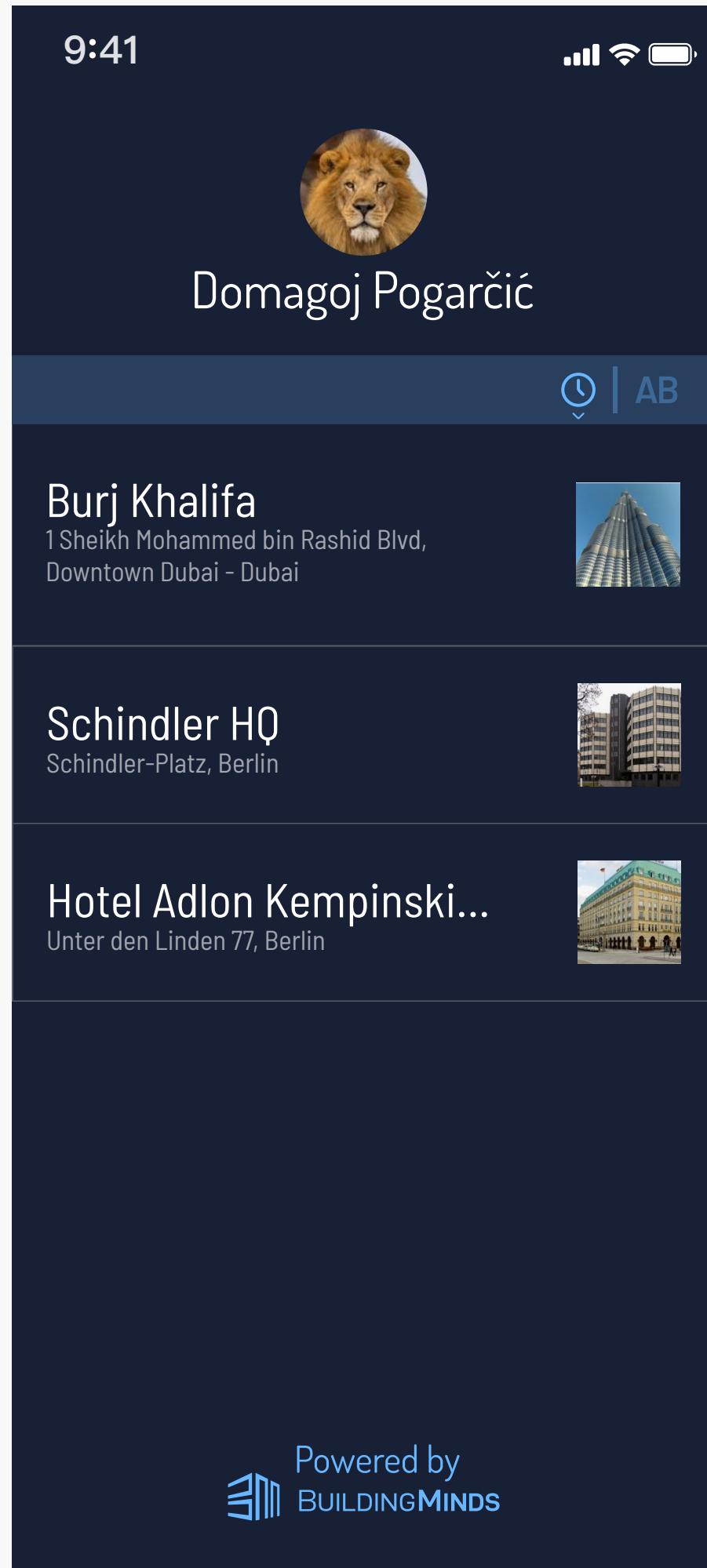
The diagram illustrates a process of reorganizing a data entry form. On the left, the fields are listed vertically: Equipment name, Location path, Photos, Internal identifier, Classification, Manufacturer, Model, Serial number, Installation date, and Further information. On the right, the fields are reorganized: Location path is moved to the top, followed by Photos, Internal identifier, Classification, Manufacturer, Model, Serial number, Installation date, and Further information at the bottom. Pink arrows indicate the movement of each field from its original position on the left to its new position on the right. A large blue arrow points from the left side of the diagram to the right side, indicating the overall transformation.

Field	Left Position	Right Position
*Equipment name	1	2
Location path	2	1
Photos	3	3
Internal identifier	4	4
Classification	5	5
Manufacturer	6	6
Model	7	7
Serial number	8	8
Installation date	9	9
Further information	10	10

Learning 2: Equipment classification filtering

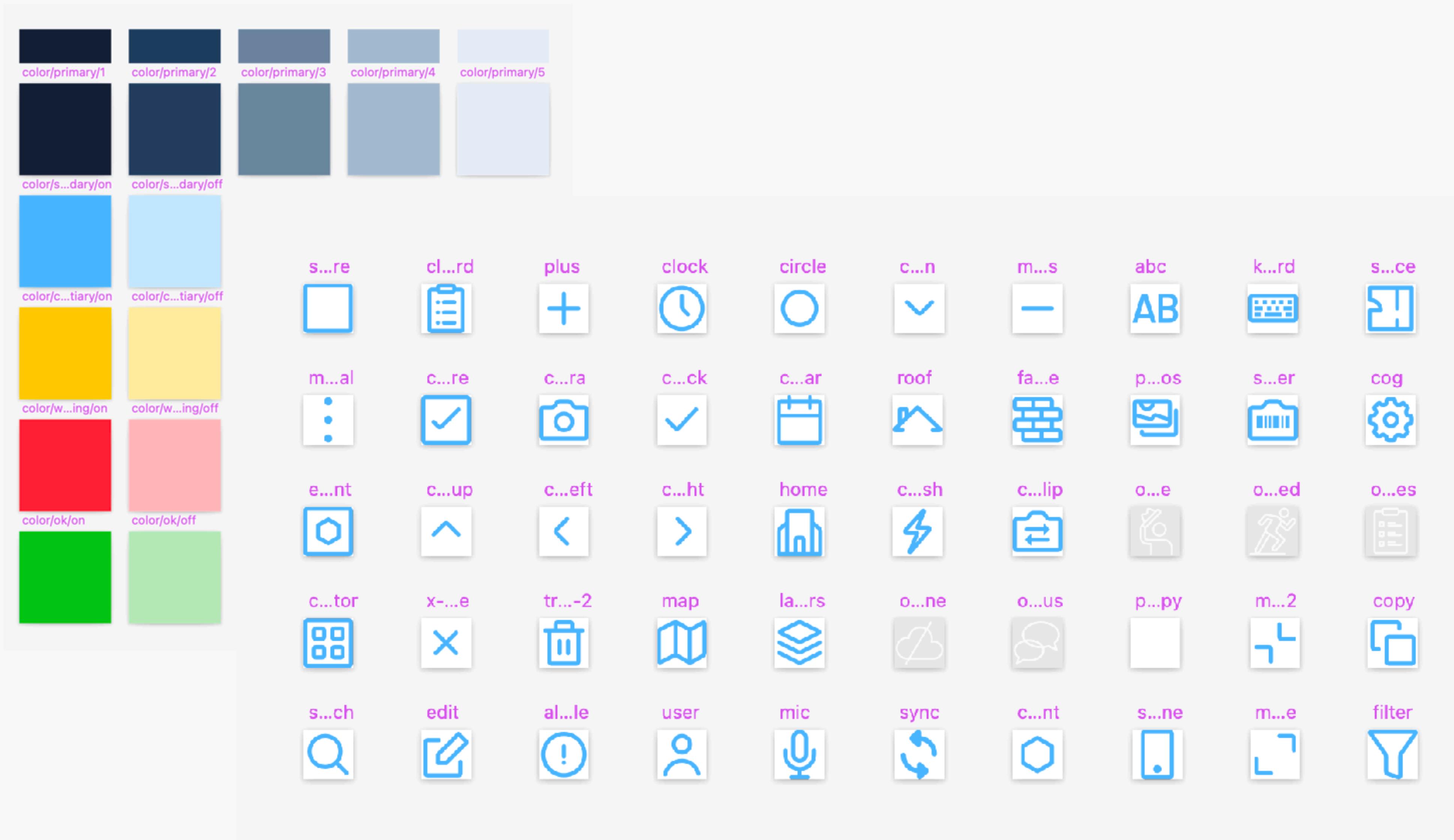


App UI



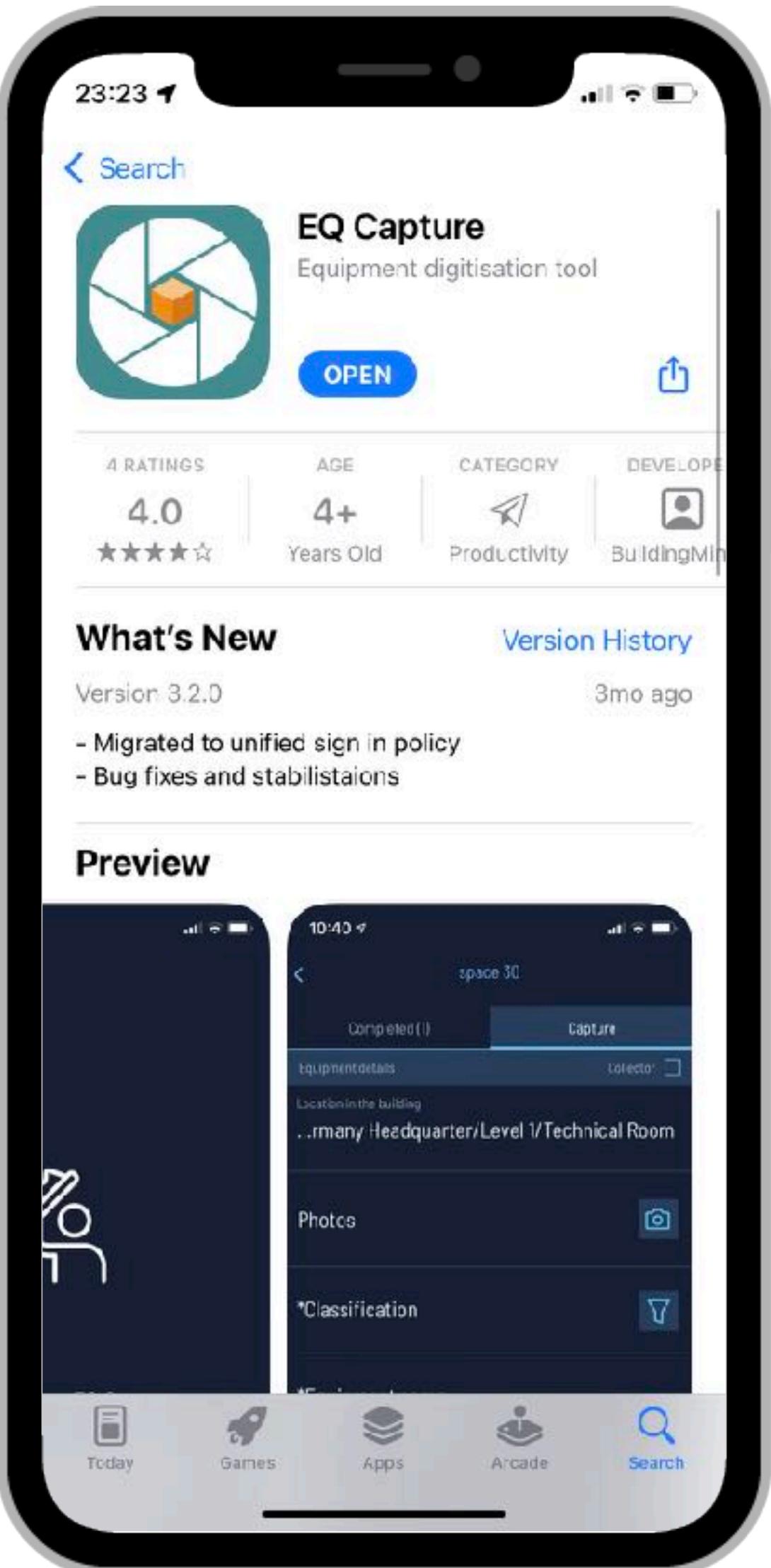
BM Theme

UI Design Library- BM style adapted to Mobile



eq-title
eq-value
Button label
Page title

EQ Capture on the Appstore



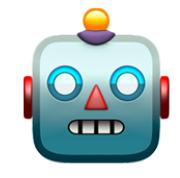
EQ Capture's Next steps



Custom Attributes



ML and smart input



Android app



Map

The Outcome

- ⌚ A single equipment capture time was reduced X5
- 🔍 Equipment can be managed via BM platform
- 👷 Surveyors reported great improvement

Thank you

