Inhabitants Crowdsourcing App

Training material

DEMO Consultants – Jos Noordzij

21-4-2021

BIM SPEED

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- Short description
- Who can use the tool
- Main topics overview
- Explanation of the most important topics

- *This presentation only uses slides. For detailed video instructions please refer to the Inhabitants App video, which can be found on the bimspeed training website*

SHORT DESCRIPTION

Inhabitants Crowdsourcing App

The aim of the Inhabitants Crowdsourcing App is to collect data of existing buildings from inhabitants. Questionlists can be defined and distributed from the backoffice. Inhabitants can respond to questionlists using a freely downloadable mobile app.

Who can use the tool?

The Inhabitants Crowdsourcing App can be used by stakeholders involved in renovation projects, who need to collect data of existing buildings in order to perform any kind of analysis and define renovation strategies.

MAIN TOPICS

Inhabitants Crowdsourcing App

Used by housing corporation or other stakeholders

Questionnaire Management

- Accessing the tool
- Creating questionlists
- Creating units for distribution
- Creating inhabitant useraccounts
- Coupling a BIM model
- Releasing questionlists
- Working with the results

Used by inhabitants

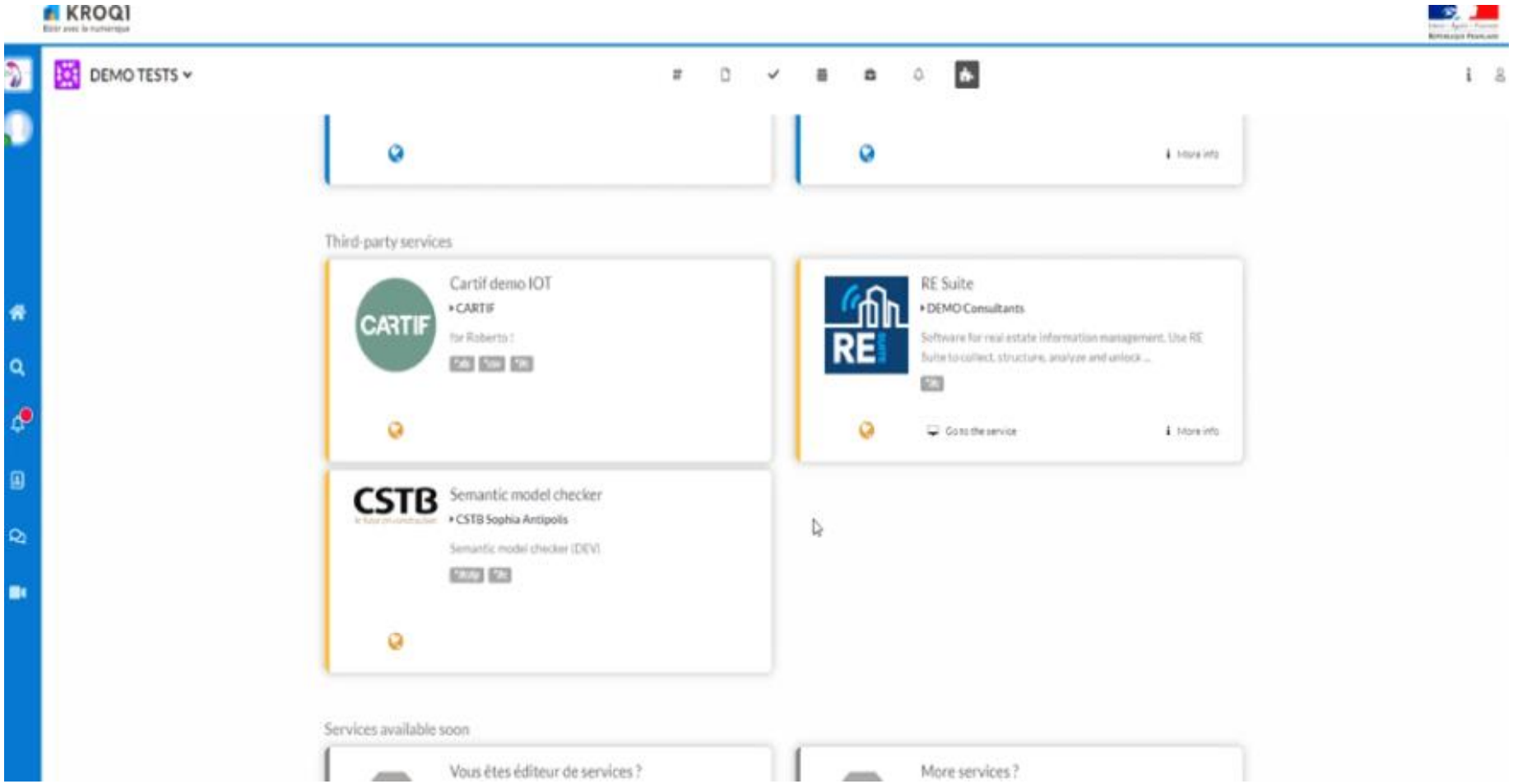
Mobile Inhabitants App

- Download, configure, login
- Questionnaire Overview
- Observation Page
- Question Type UI's
- BIMViewer
- Storing Results

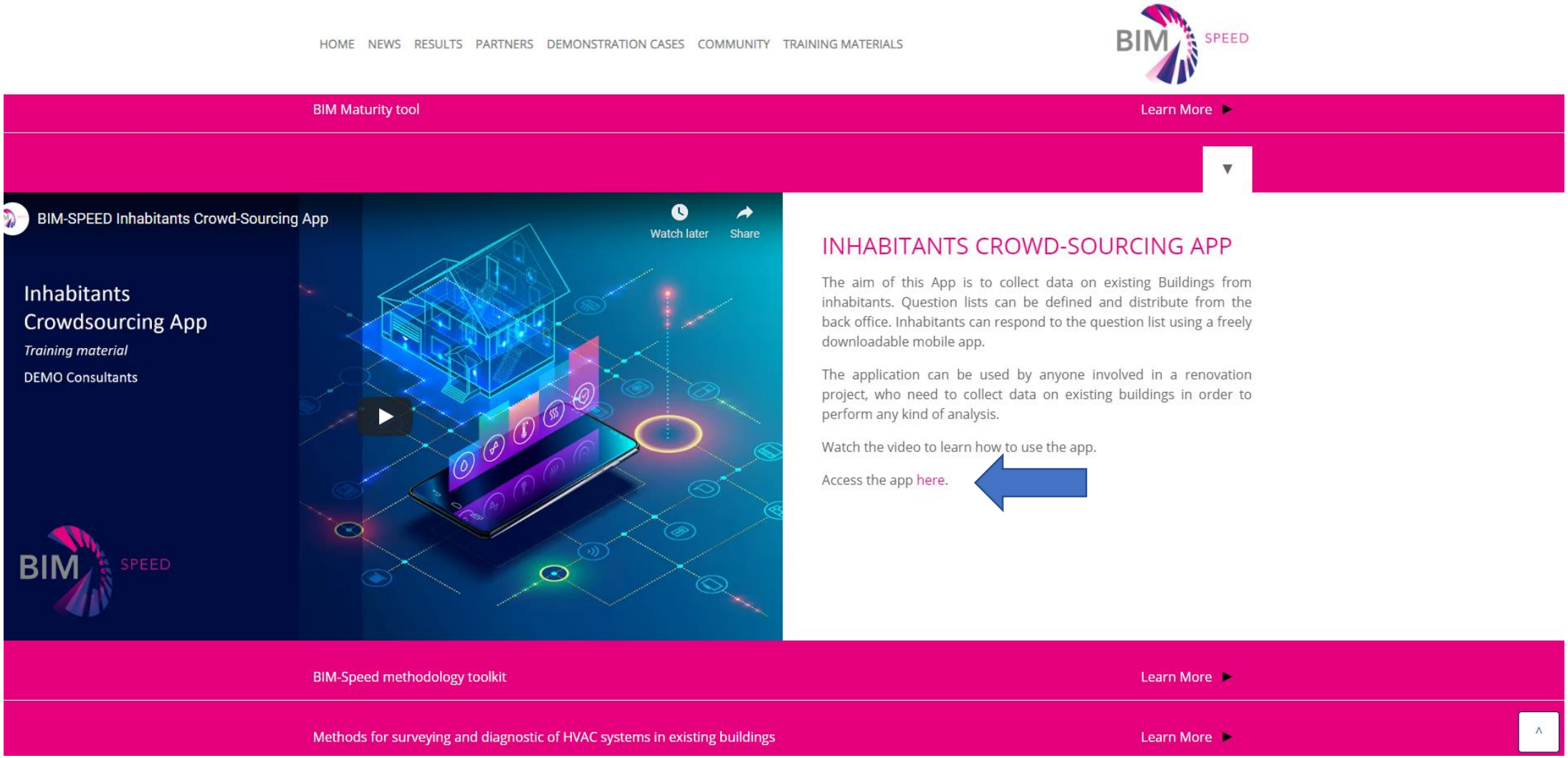
QUESTIONNAIRE MANAGEMENT

- Accessing the tool

Connect from BIMSpeed platform



Or connect from training website

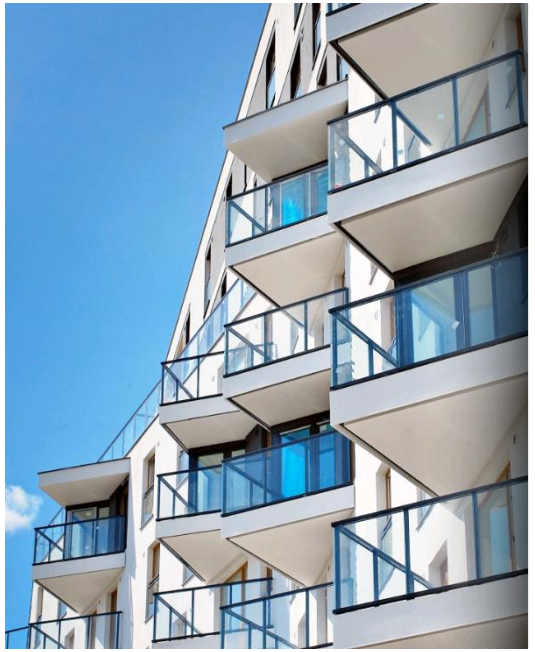


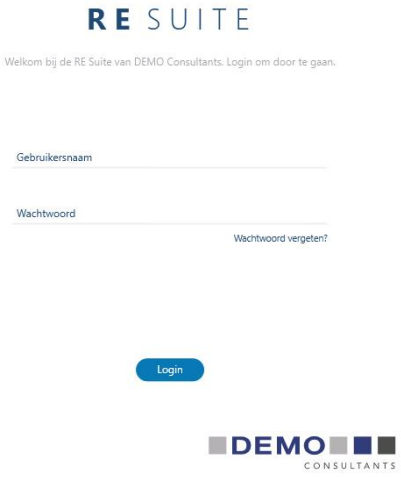
Reaching the DEMO SAAS page

- Login with:
- Username “BIMSpeed”
- Password “Renovation”

Reaching the application / login with personal useraccount

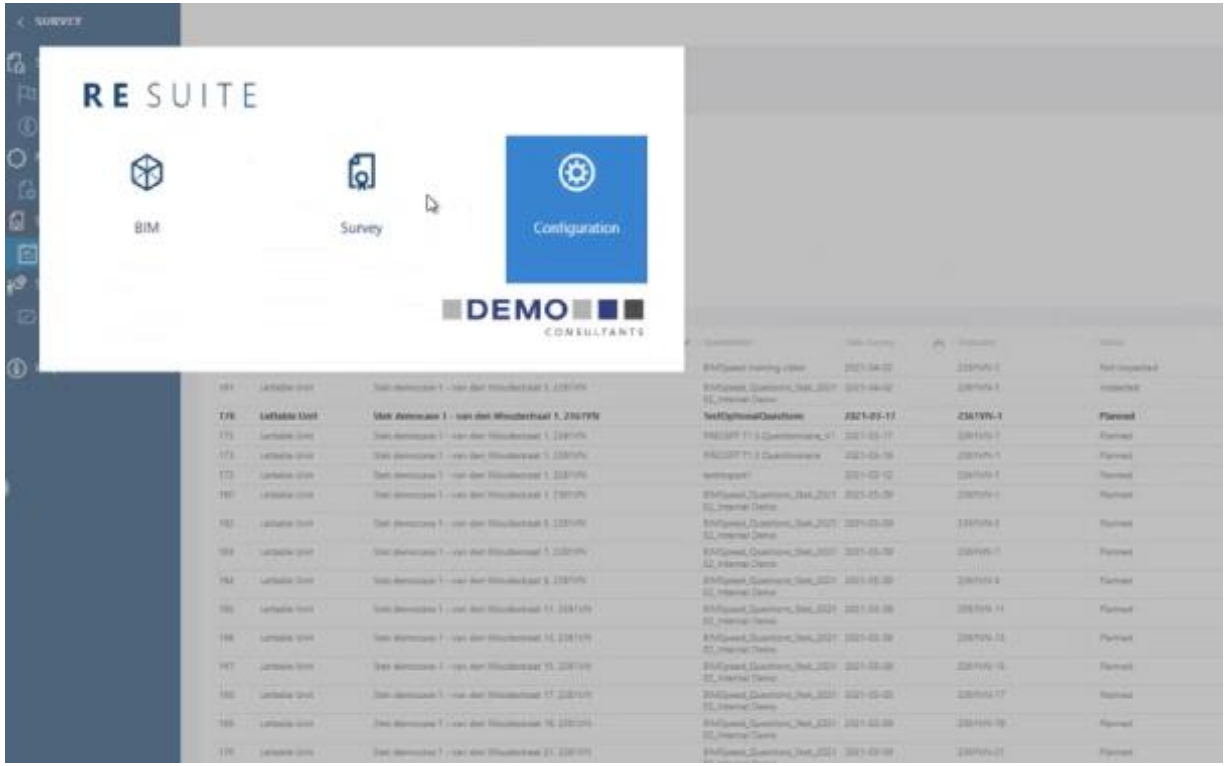
- In order to use the app you will need a personal useraccount
- Get a personal useraccount by contacting DEMO Consultants - *info@demobv.nl*
- For quick demo purposes, login with *JSmith / Welcome2RESuite*





Inside the RE Suite

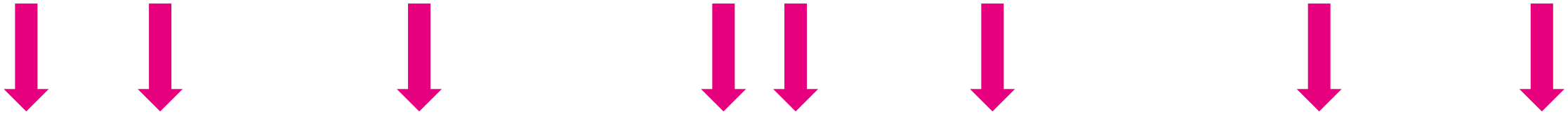
- 3 subapps available:
  - Survey: questionnaire management
  - BIM: coupling and viewing BIM models
  - Configuration: language settings, useraccount management, and such



QUESTIONNAIRE MANAGEMENT

- Creating questionlists

Creating questionlists with template



	A	B	C	D	E	F	G	H	I	J	K	L
1	**Vragenlijst**	**thema's**	**Natural key vraaggroep**	**Visibility rule**	**vraaggroep**	**vraaggroep volgorde**	**Natural key**	**Question Type**	**Question**	**Answer Options**	**Standaardantwoord**	**Maatregelen**
2	BIMSpeed training vide	Background questions					A.1	0	What is your age?	20 – 44;45 – 65;65 – 79;Older than 80		
3	BIMSpeed training vide	Sound					B.1	0	Do you experience noise in your home?	No;From other homes;From other rooms within your own home;From outside	No	
4	BIMSpeed training vide	Sound		B.1<>No			B.2	2	Where?			
5	BIMSpeed training vide	Light					C.1	0	What do you think about the lighting in your home/complex?	lighting;The lighting often does not work;Other, namely...		
6	BIMSpeed training vide	Light		C.1=Other, namely...			C.1.2	1	Other:			

- Template can be downloaded from software
- Each line is a question
- Each question has a *question type, question text, answer options , visibility rule, theme*
- For further details, watch the vid

TYPES OF QUESTIONS

Closed question

Choose from prescribed answers

e.g. *“What is your age?” Younger than 50 ; Older than 50*

Open question

Type a custom answer

e.g. *“Do you have any additional remarks?”*

Spatial question

Select a space in a BIM model as an answer

e.g. *“In which rooms do you experience draughts?”*

By marking questions as spatial questions we trigger BIM behaviour in the mobile app.

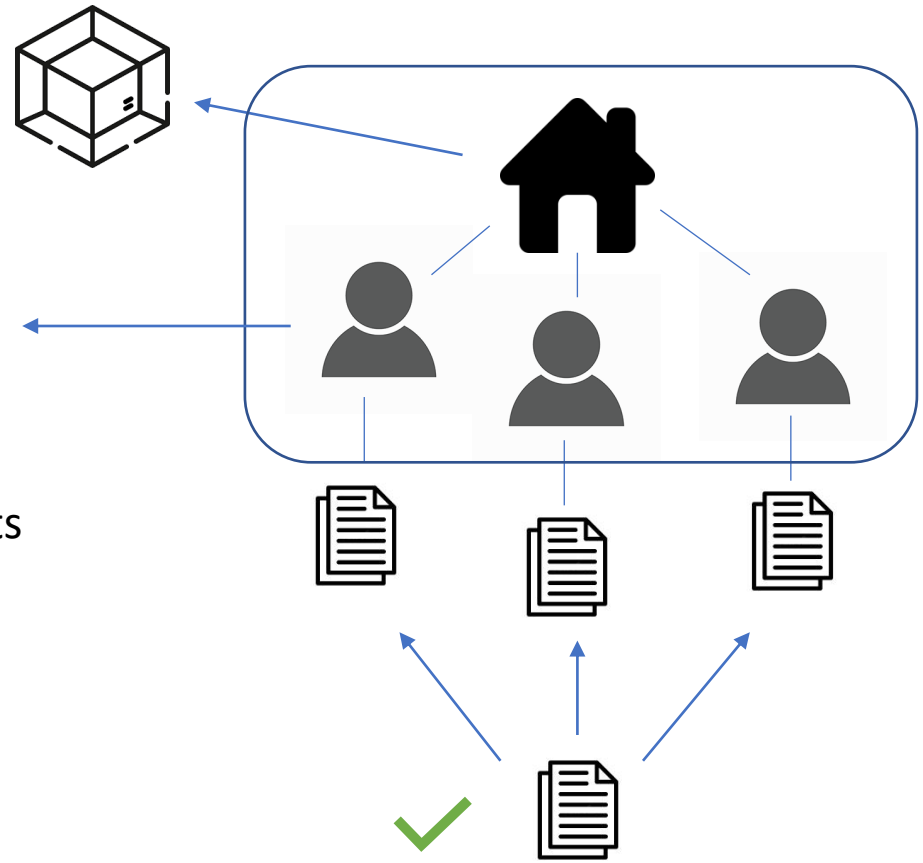
This finishes questionlist creation.

QUESTIONNAIRE MANAGEMENT

- Creating units for distribution

Understanding lettable units

- BIM model



- Inhabitant useraccounts

- Real estate object
- Lettable units (i.e. inhabitant units)
- Questionlists instances (1 for each inhabitant)
- Base template

CREATING UNITS FOR DISTRIBUTION

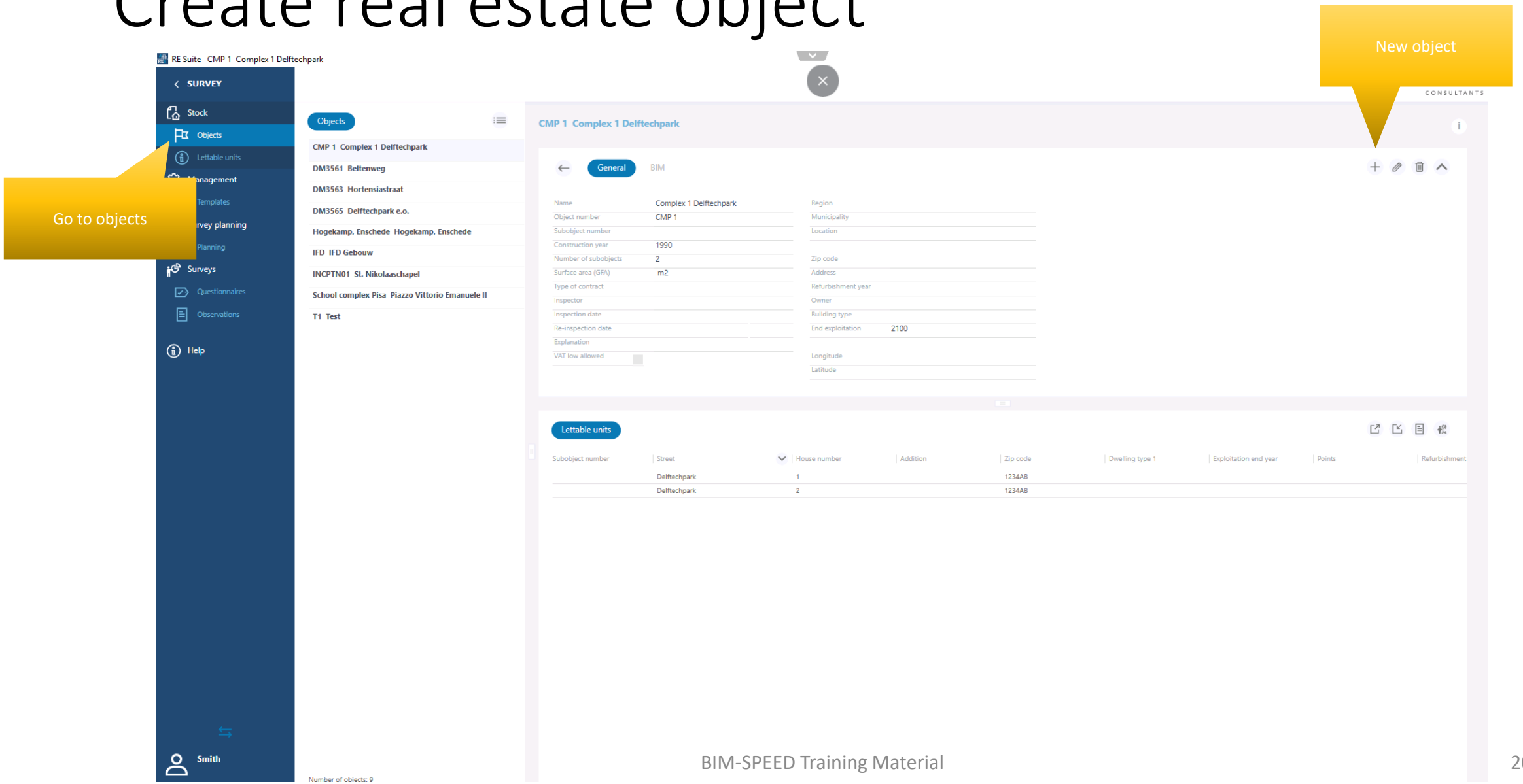
STEP 1 — Create a real estate object

STEP 2 — Create lettable units

STEP 3 — Create useraccounts

STEP 1 Create a real estate object

Create real estate object



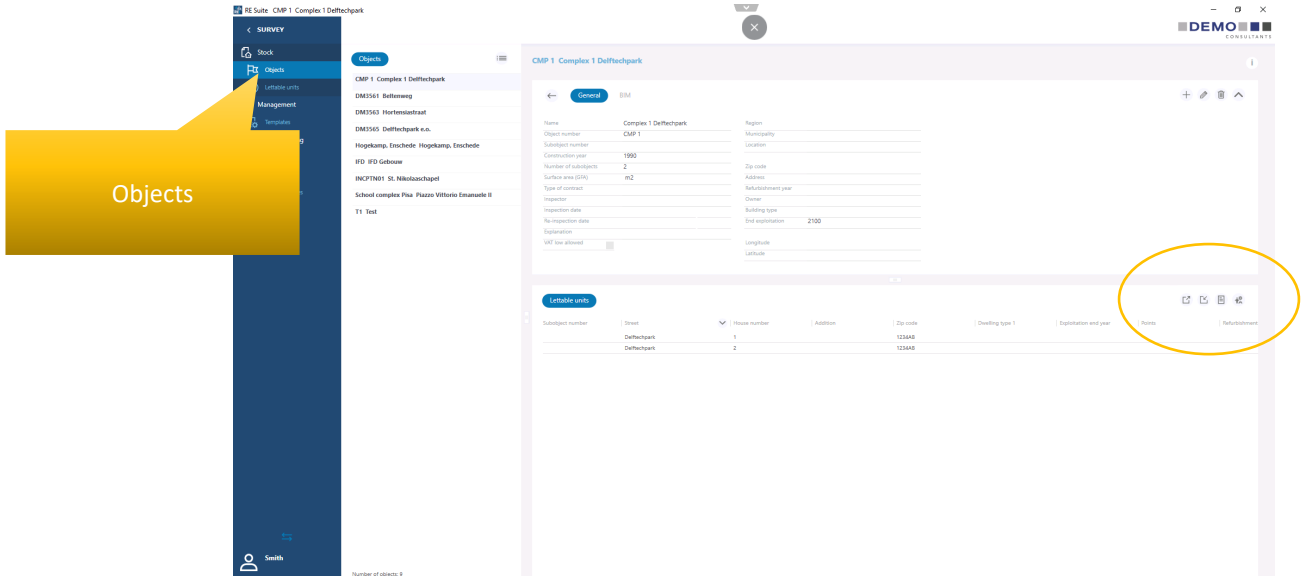
STEP 1

Create a real estate object

STEP 2

Create lettable units

Create lettable units



2. 1.

1. Download and fill in template
2. Import
3. Lettable units created

	A	B	C	D
1	Streetname	Housenumber	Postalcode	City
2	Delftechpark	5	1234AB	Delft
3	Delftechpark	7	1234AB	Delft
4				
5				
6				

STEP 1 Create a real estate object

STEP 2 Create lettable units

STEP 3 Create useraccounts

Create inhabitant user accounts

2. 1.

1. Create user accounts (uses imported lettable units)
2. Export login credentials to csv
3. Distribute login credentials to inhabitants (e.g. by letter)

	A	B	C	D	E	F	G	H
1	Streetname	Housenumber	PostalCode	City	Username	Password		
2	Delftechpark	5	1234AB	Delft	1234AB-5	TXpvmv		
3	Delftechpark	7	1234AB	Delft	1234AB-7	iTyvSm		
4								
5								
6								

HOME

Dear inhabitant,

For the upcoming renovation of this building complex we are running a crowdsource investigation about the quality of the building. With this letter we would like to invite you to join the crowdsource project.

We are using the app RE OnSite that you can download for free in the Appstore. A private useraccount has been prepared for you. You can login with useraccount **1234AB-5** and password **TXpvmv**.

Thank you for your cooperation.

With best regards,

A. Example
Housing Corporation HOME

QUESTIONNAIRE MANAGEMENT

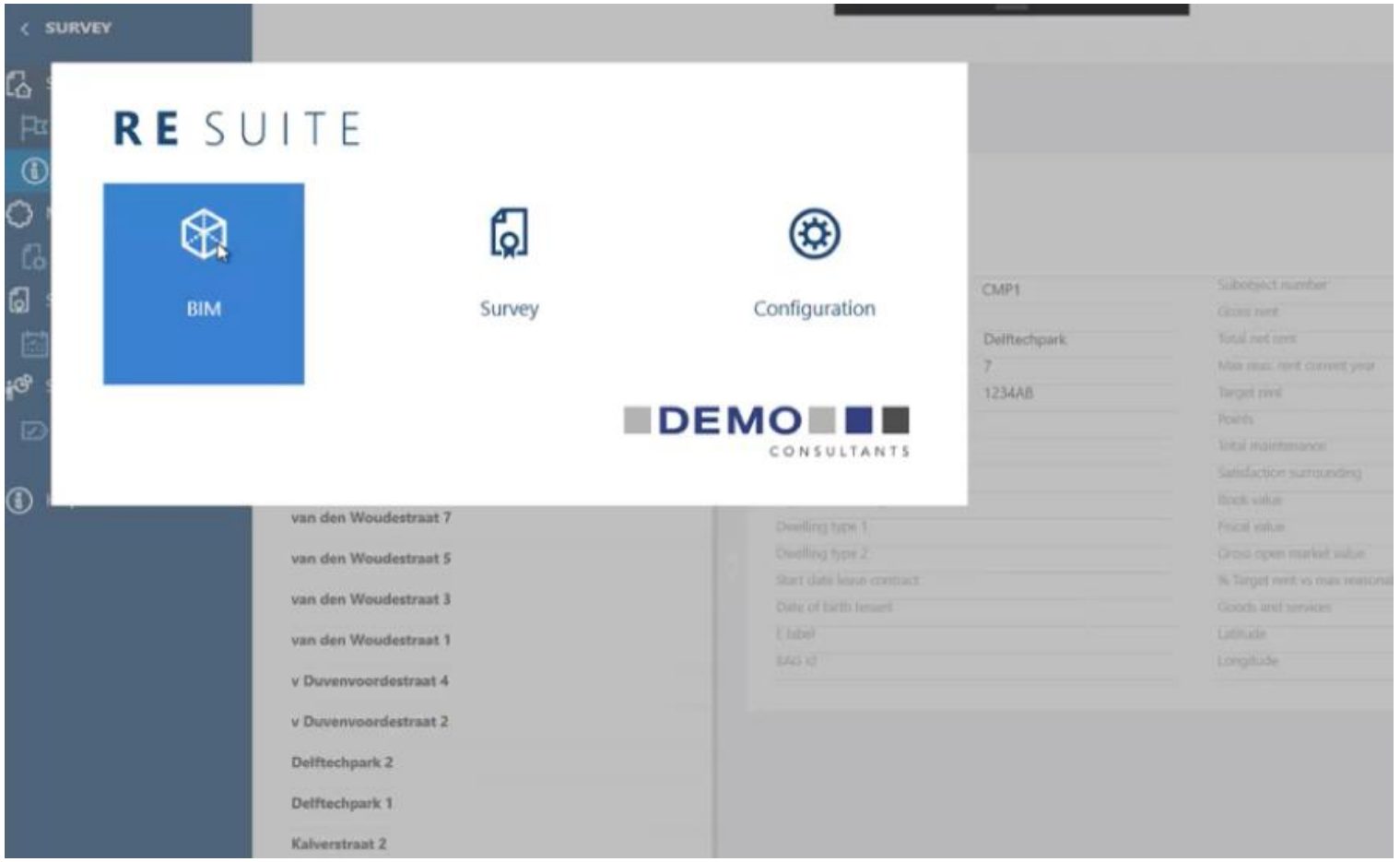
- Coupling a BIM model

Couple a BIM model

- Short summary, watch video for details

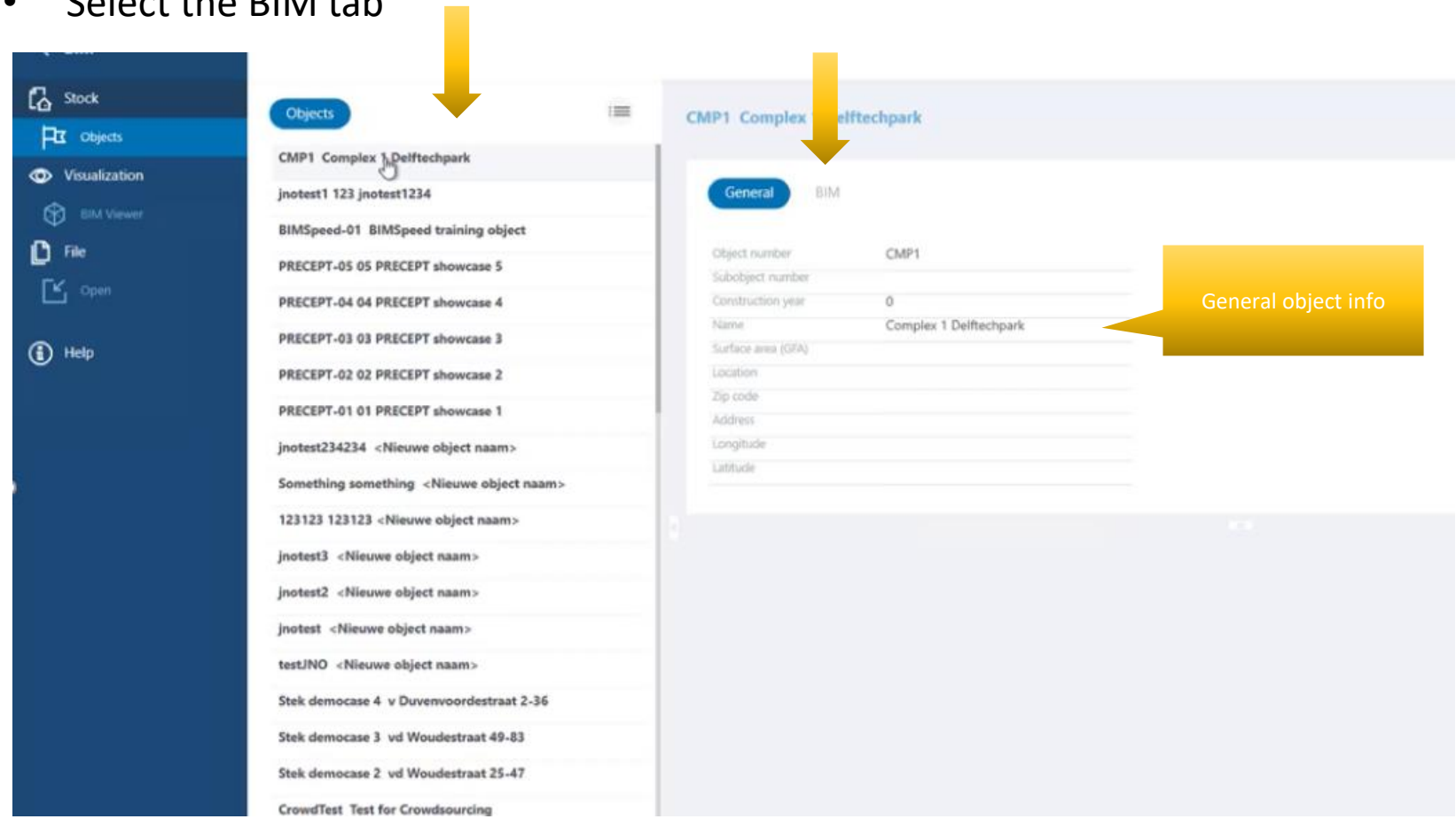
BIM model coupling summary

- Go to RE BIM



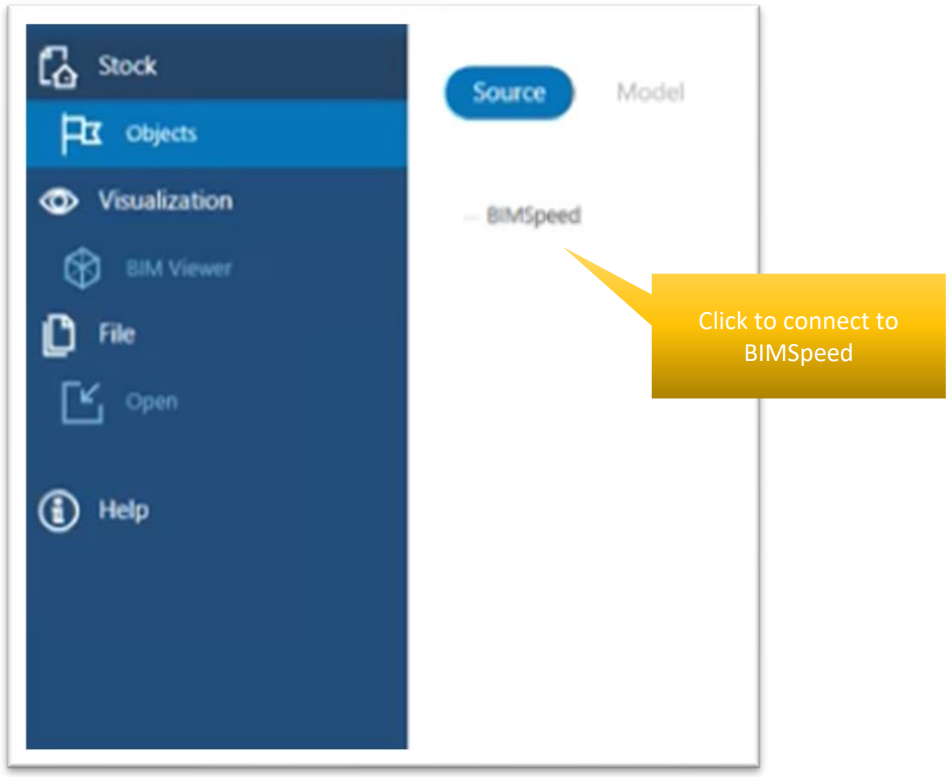
BIM model coupling summary

- Select the real estate object
- Select the BIM tab

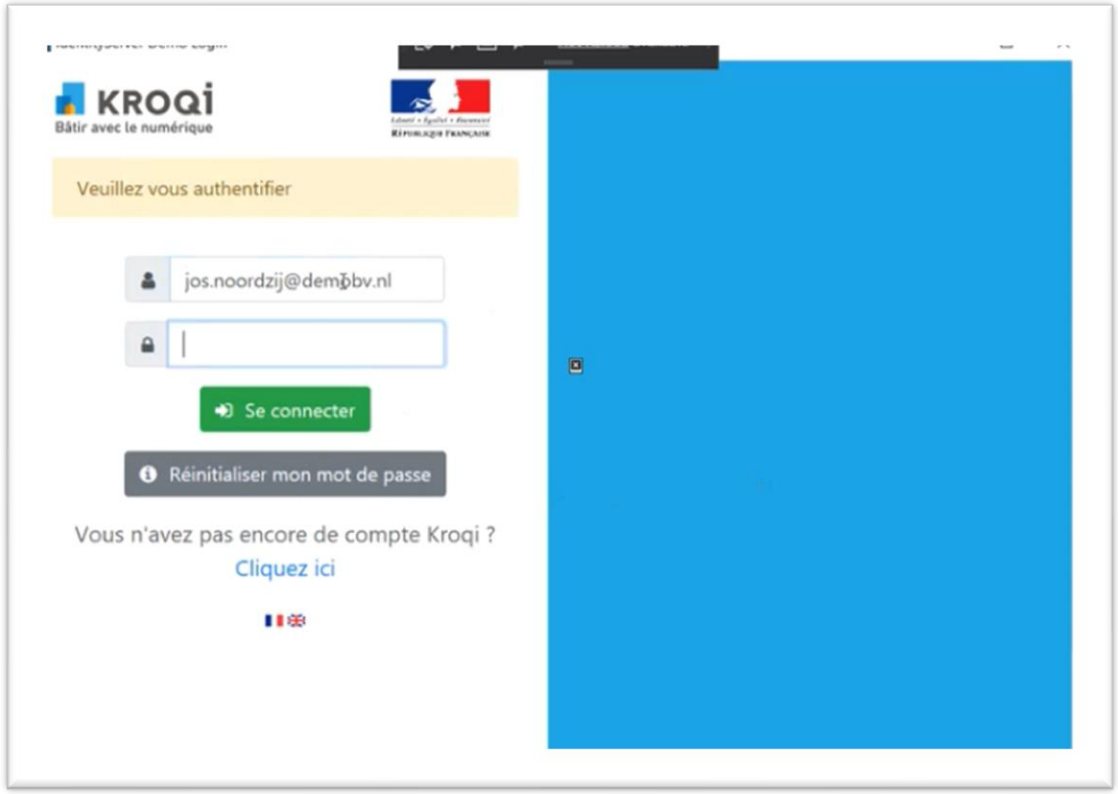


BIM model coupling summary

- Click BIMSpeed node in source navigator

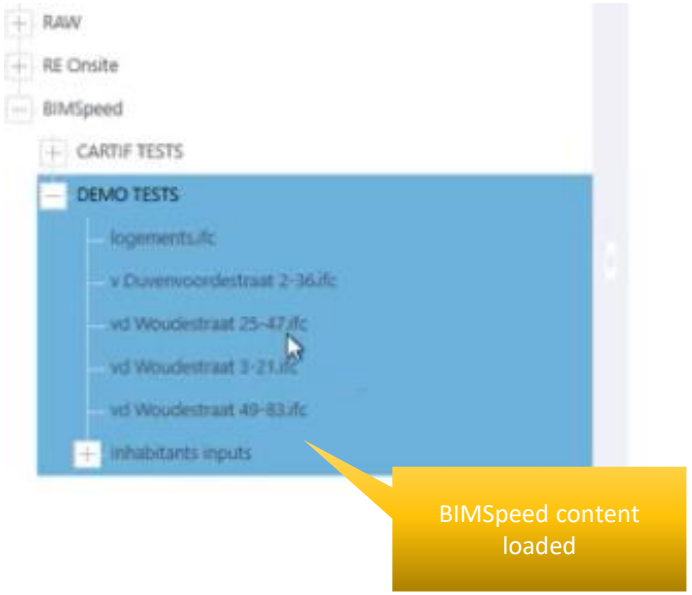


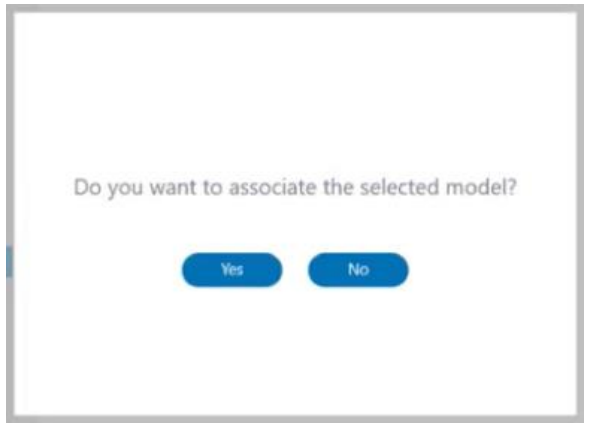
- Do SSO login

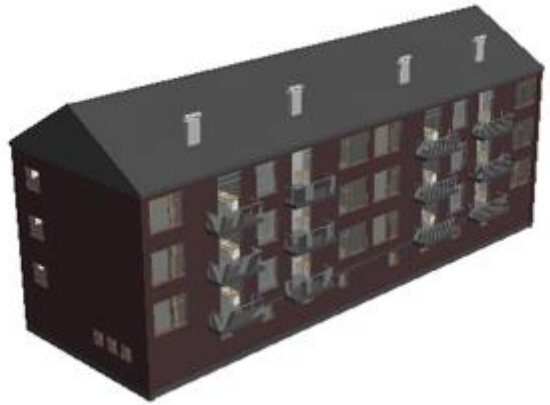


BIM model coupling summary

- Right mouse click → Download ifc from bimspeed
- Leftclick → associate model to real estate object
- BIM model coupled



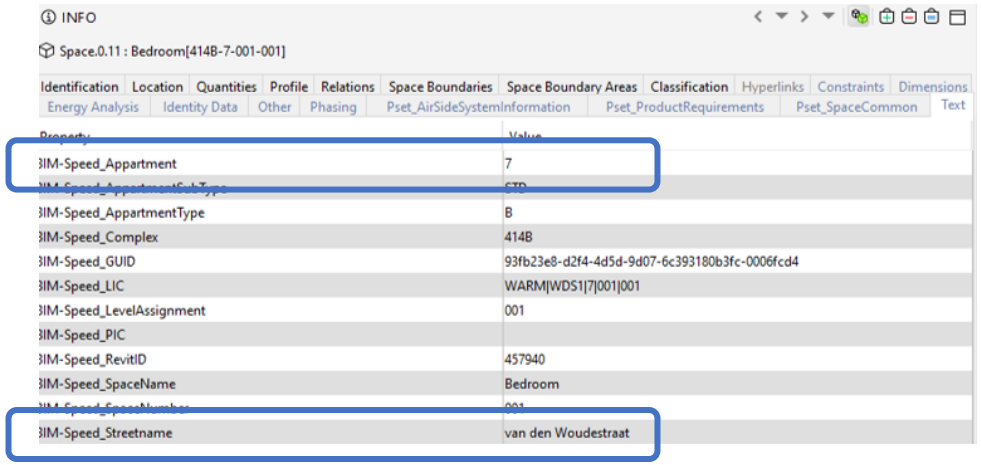




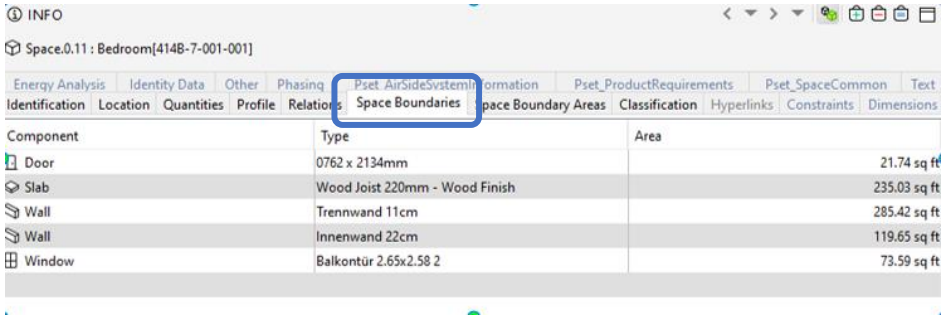
BIM model requirements

- All IFC Spaces should have the following data / parameters:
  - BIM-speed Streetname (e.g. “Delftechpark”)
  - BIM-speed Appartment (e.g. “1”)
  - Space boundary data

Required parameters



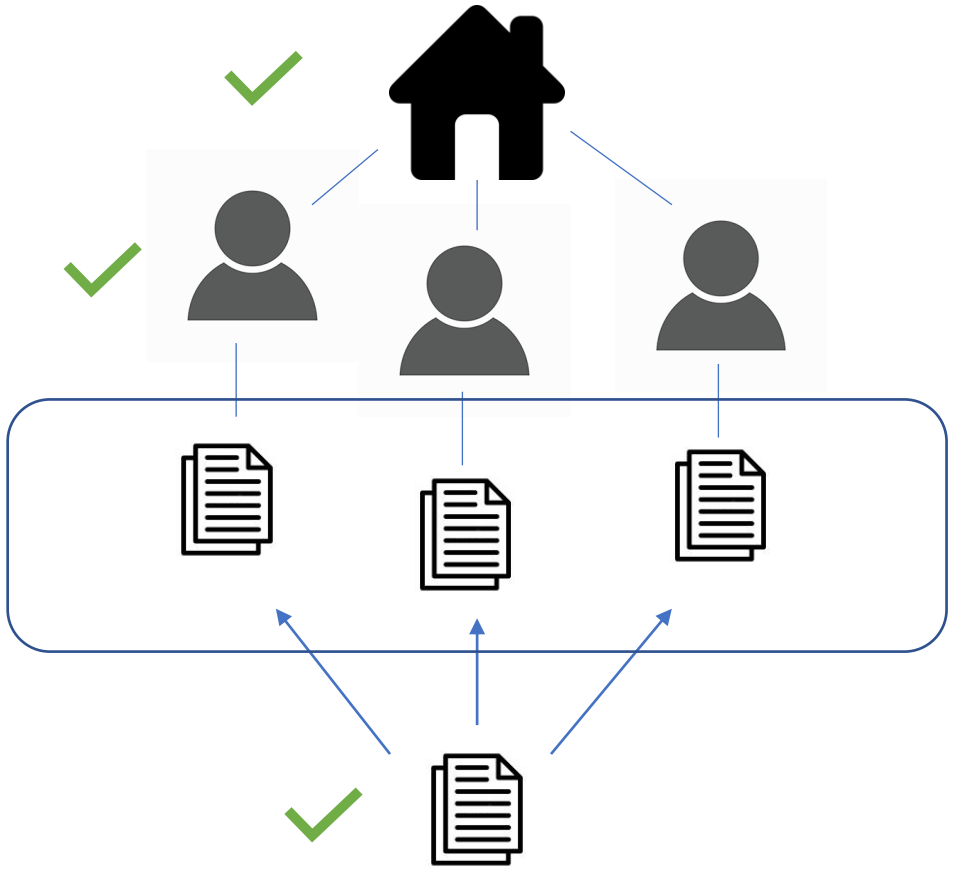
Space boundary data

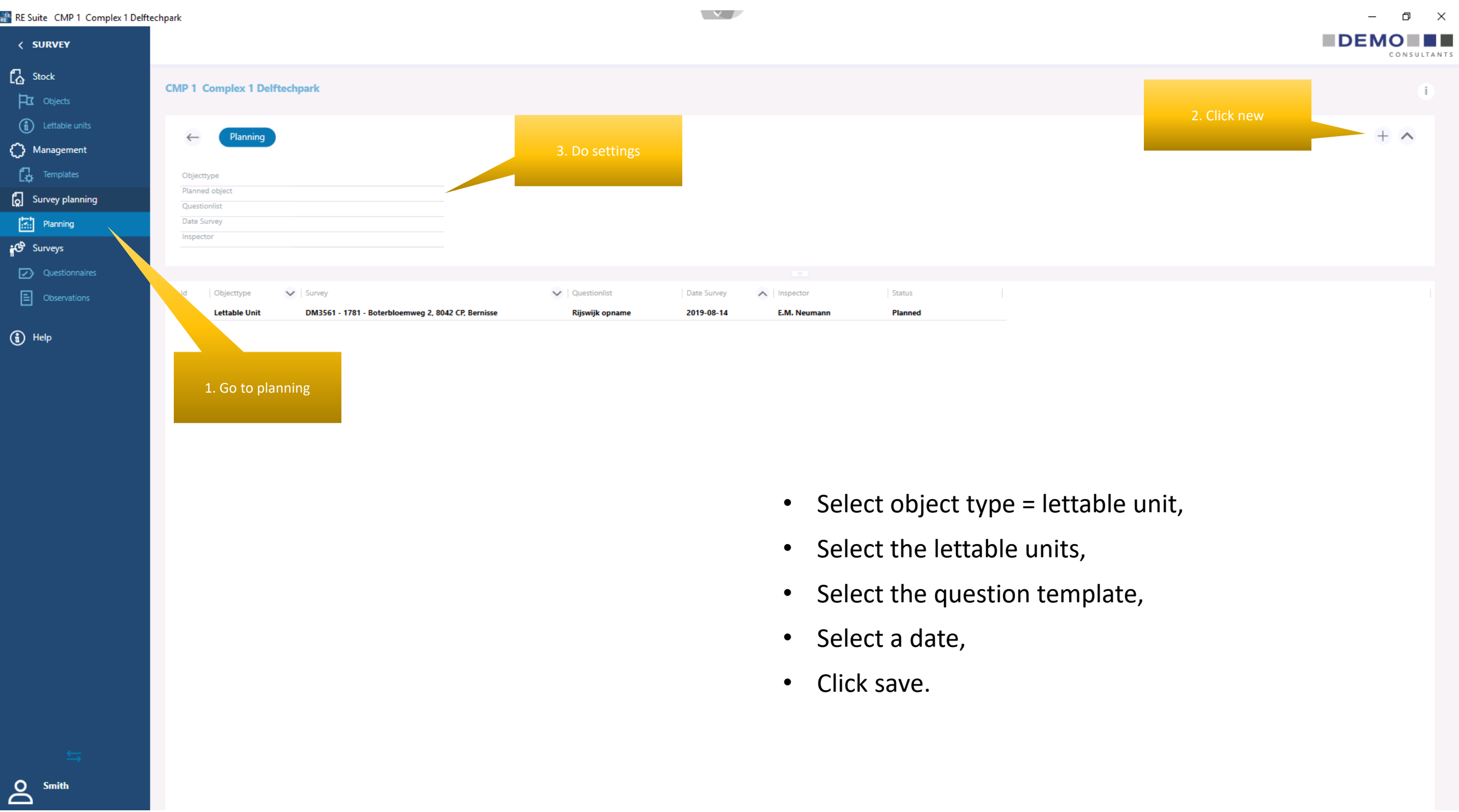


QUESTIONNAIRE MANAGEMENT

- Releasing questionlists

Releasing questionlists





- Select object type = lettable unit,
- Select the lettable units,
- Select the question template,
- Select a date,
- Click save.

MOBILE INHABITANTS APP

- Download, configure, login

How it starts for the inhabitant

HOME

Dear inhabitant,

For the upcoming renovation of this building complex we are running a crowdsource investigation about the quality of the building. With this letter we would like to invite you to join the crowdsource project.

We are using the app RE OnSite that you can download for free in the Appstore. A private useraccount has been prepared for you. You can login with useraccount **1234AB-5** and password **TXpvmv**.

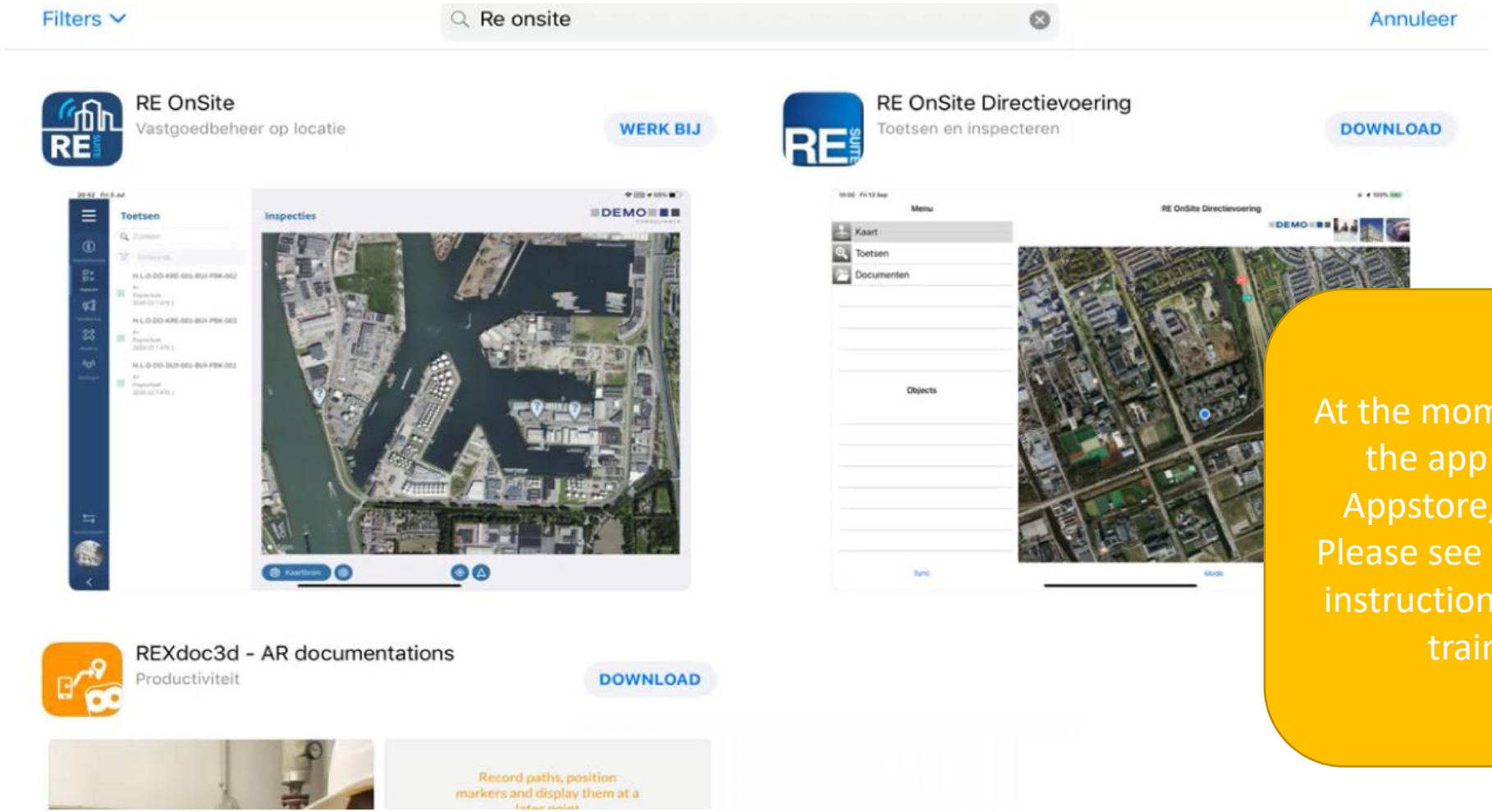
Thank you for your cooperation.

With best regards,

A. Example
Housing Corporation HOME

- Inhabitant receives letter with:
  - Invitation for crowdsource project
  - Name of app to download
  - Credentials for login
  - Configuration instructions

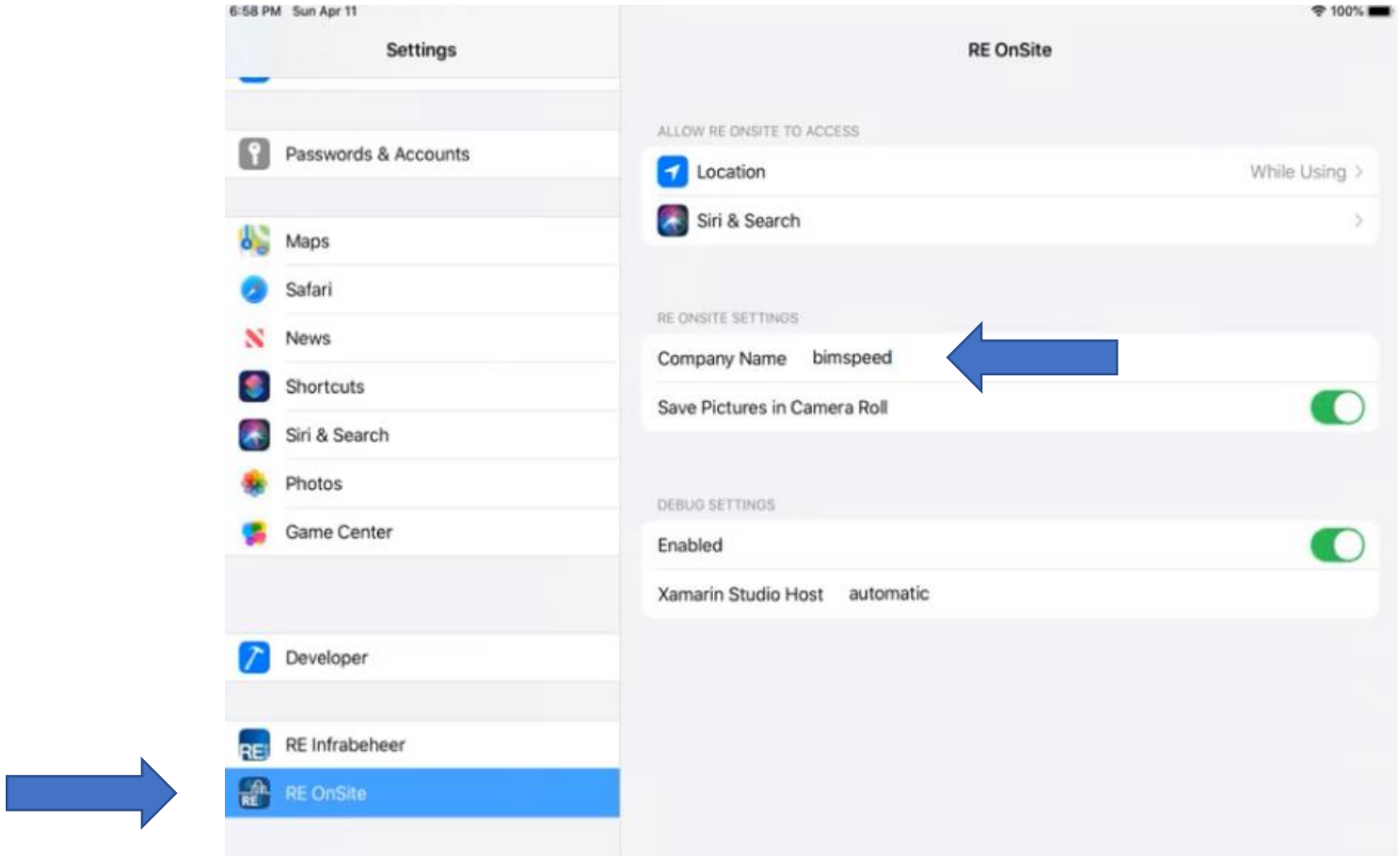
Inhabitant downloads app from appstore



At the moment of this training, the app is not yet on the Appstore, only in Testflight. Please see Testflight download instructions on the BIMSpeed training website.

Small app configuration step before logging in

- Important before logging in
- This couples the app to the right database, ensuring that login credentials will work.
- THIS SHOULD BE IN THE LETTER



Inhabitant logs in with credentials from letter.

HOME

Dear inhabitant,

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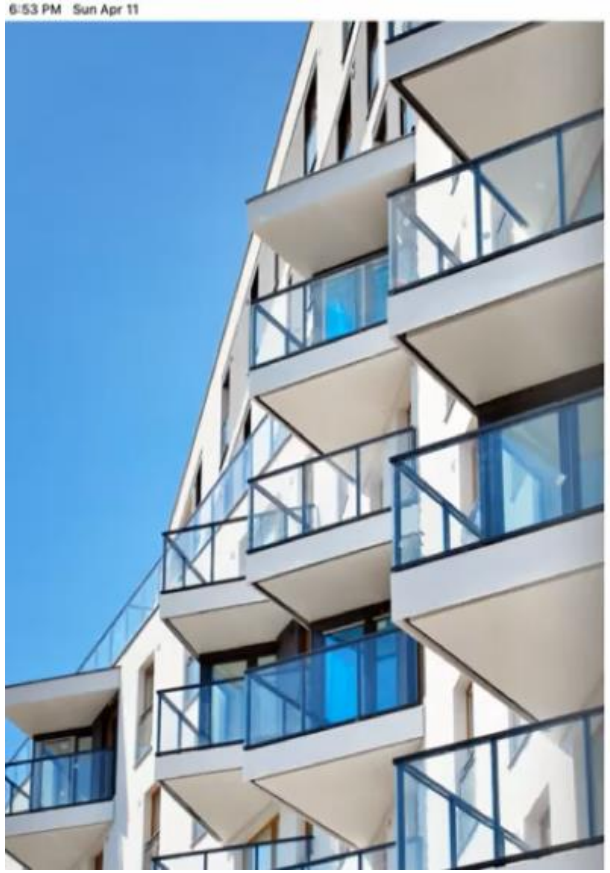
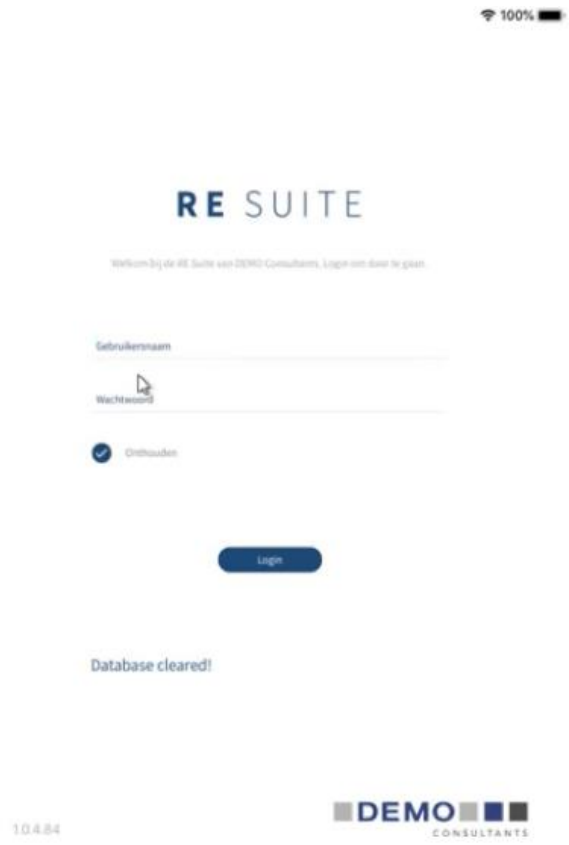
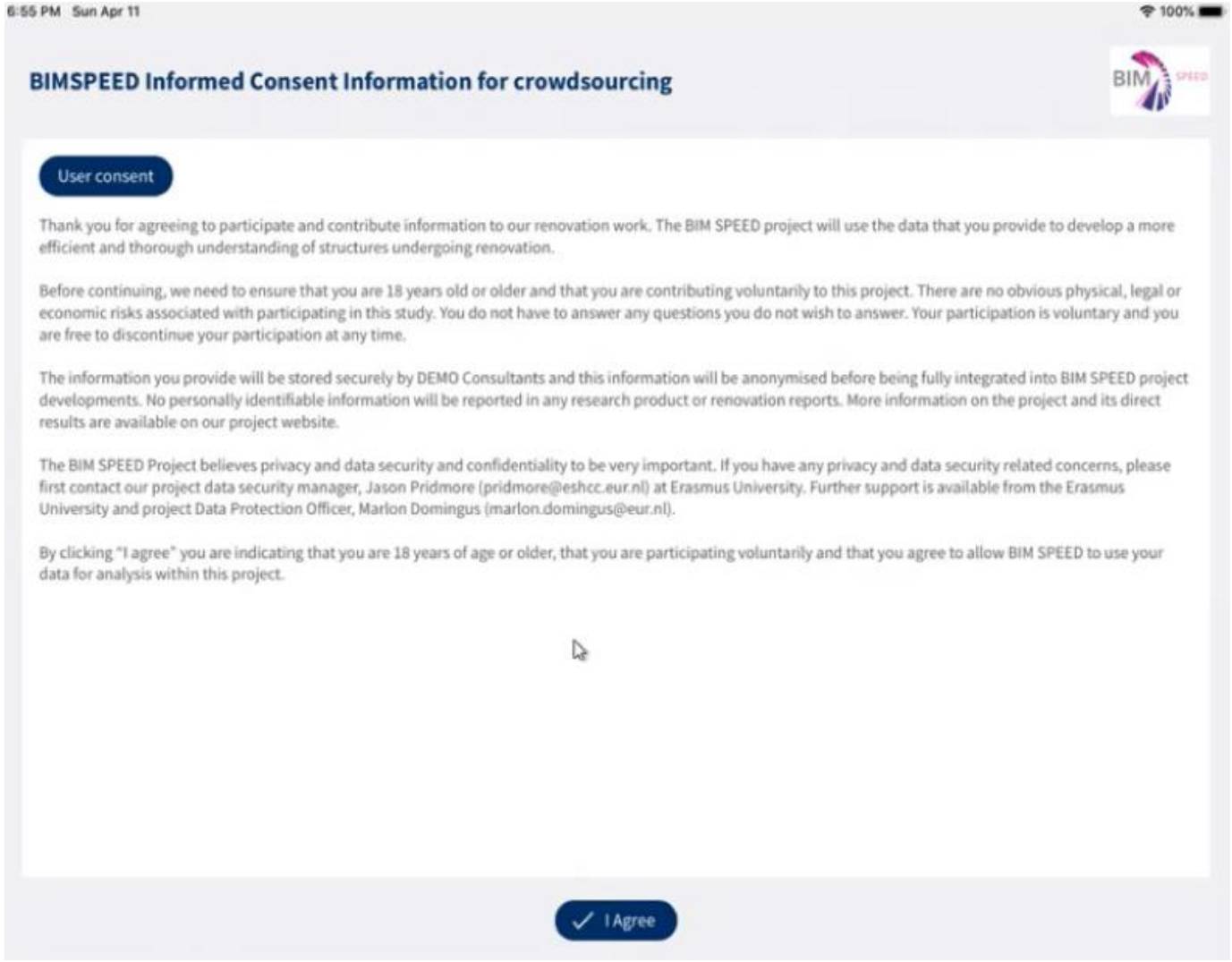




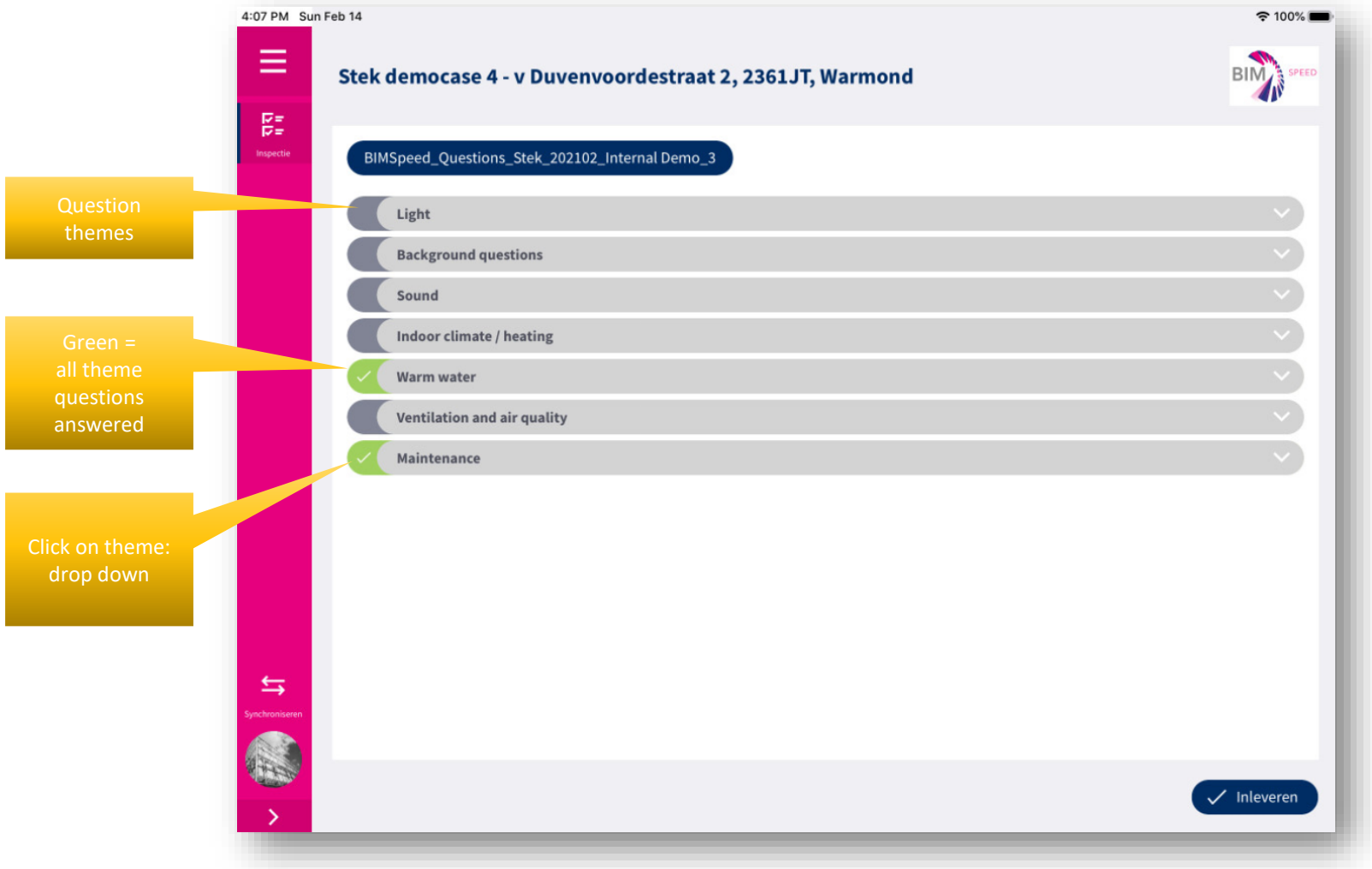
User consent page



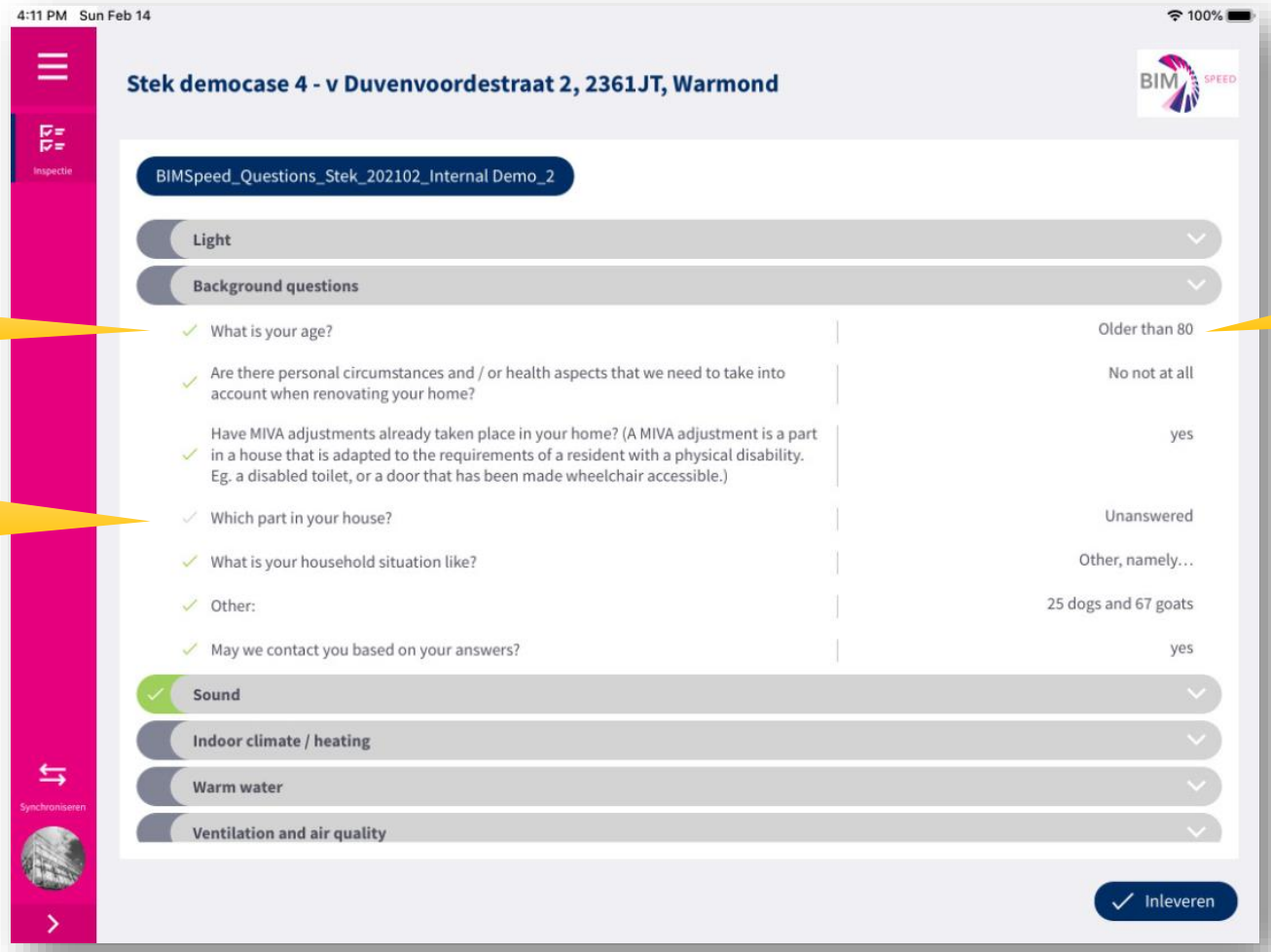
MOBILE INHABITANTS APP

- Working with questionnaires

Questionnaire page



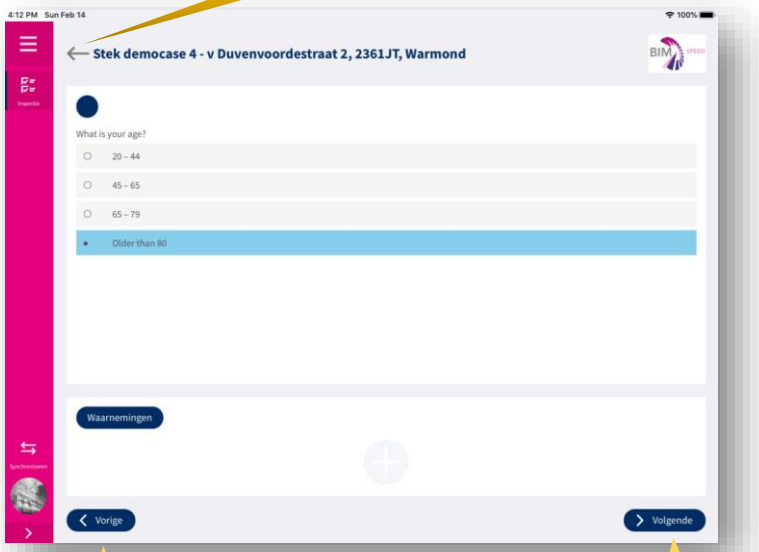
Dropping down a theme, shows question previews



3 questiontype UI's

Closed question

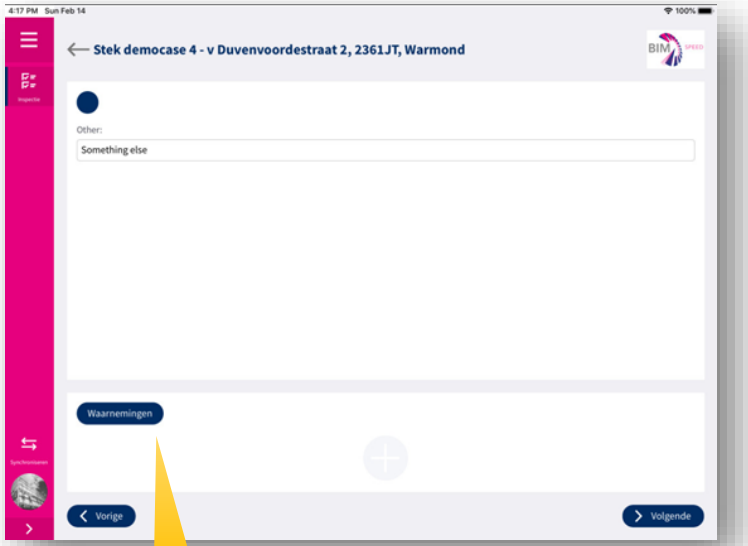
Back to overview



Previous question

Next question

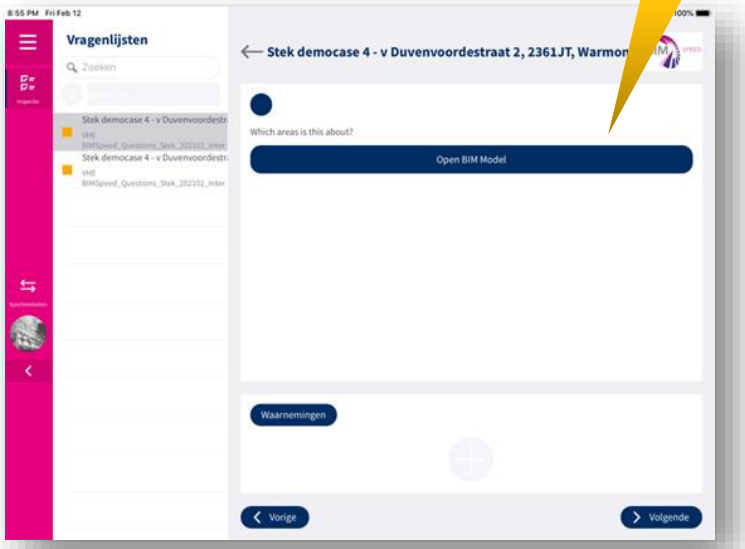
Open question



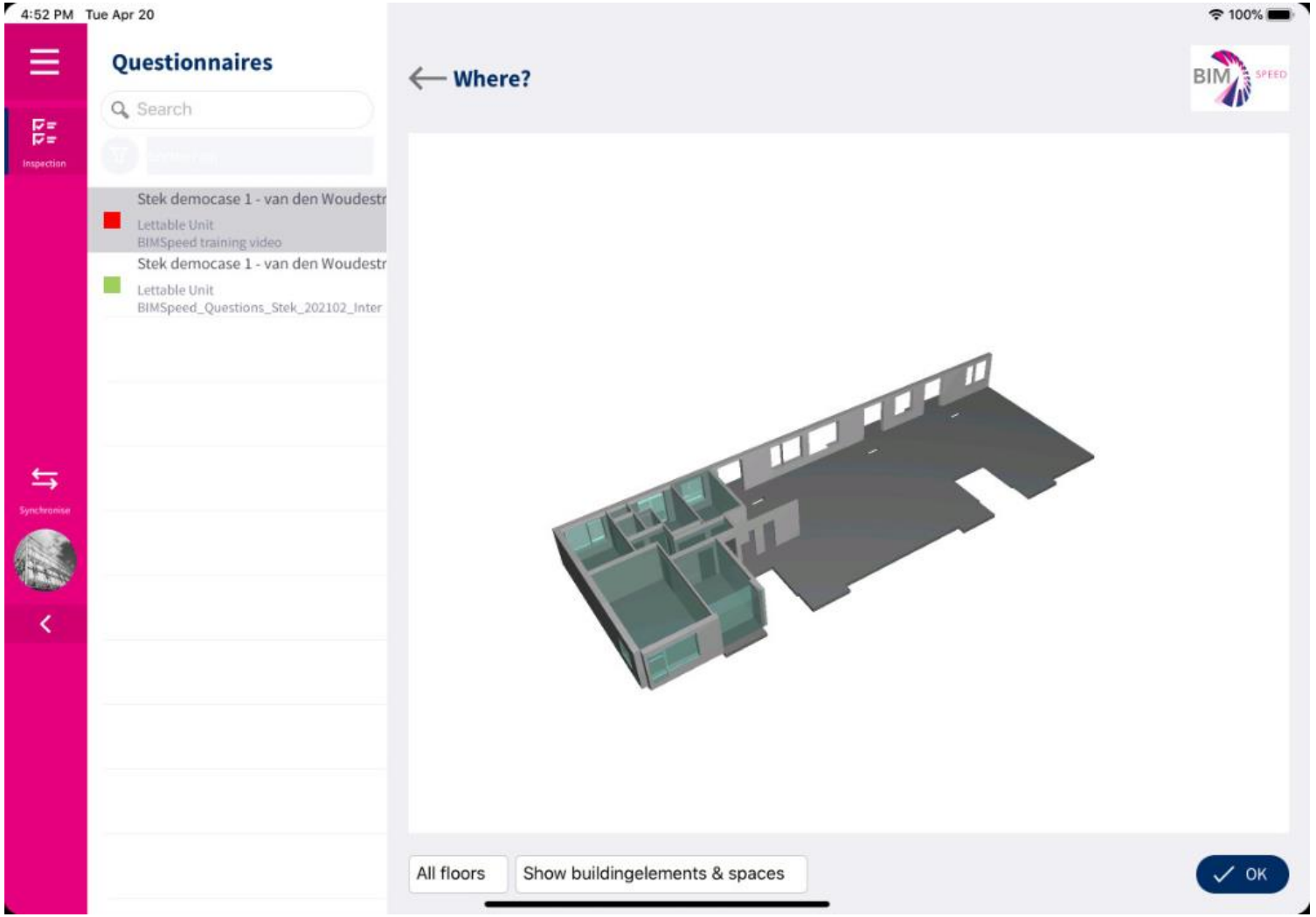
Add personal observations

Spatial question

Open BIM Viewer

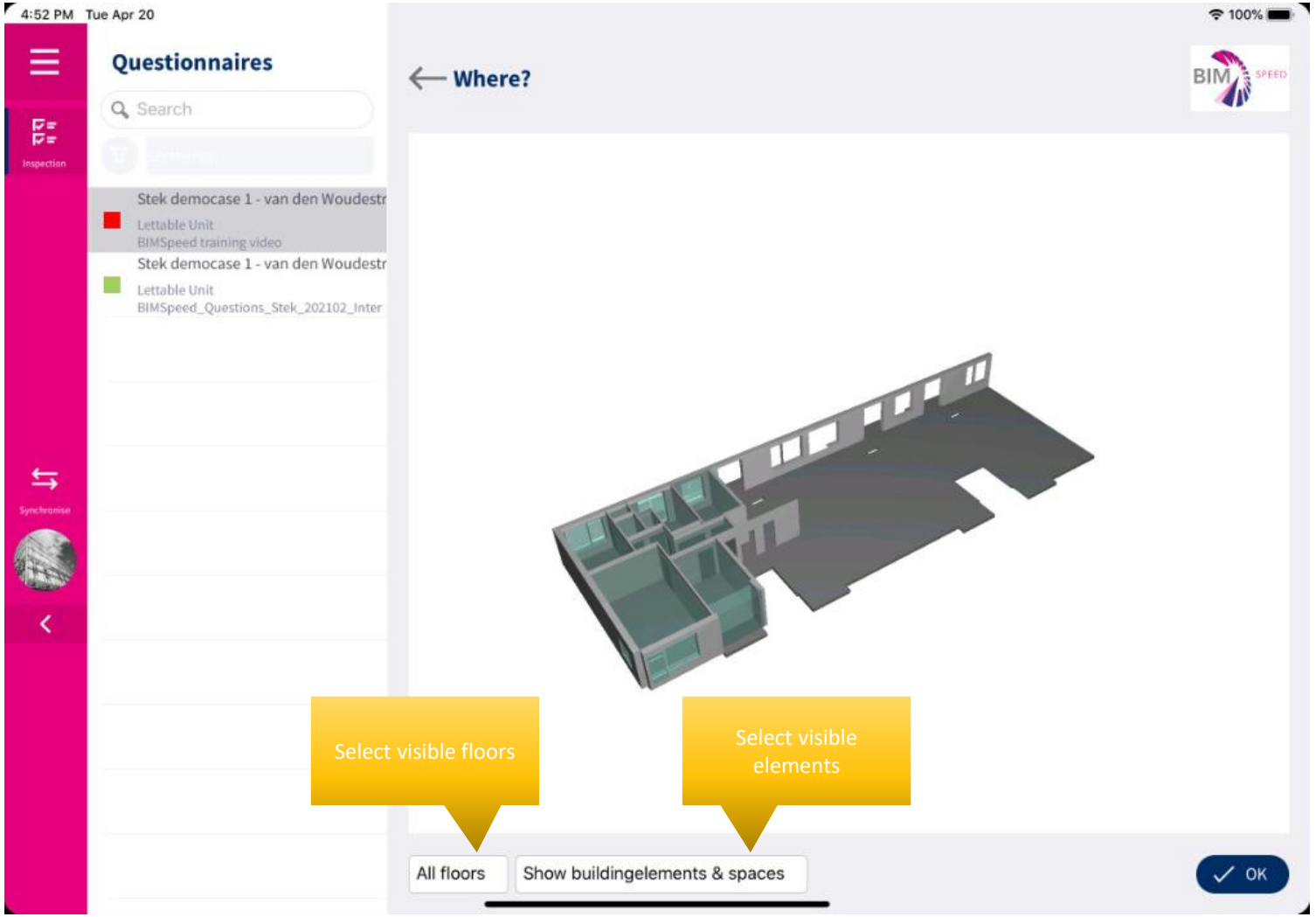


Navigating



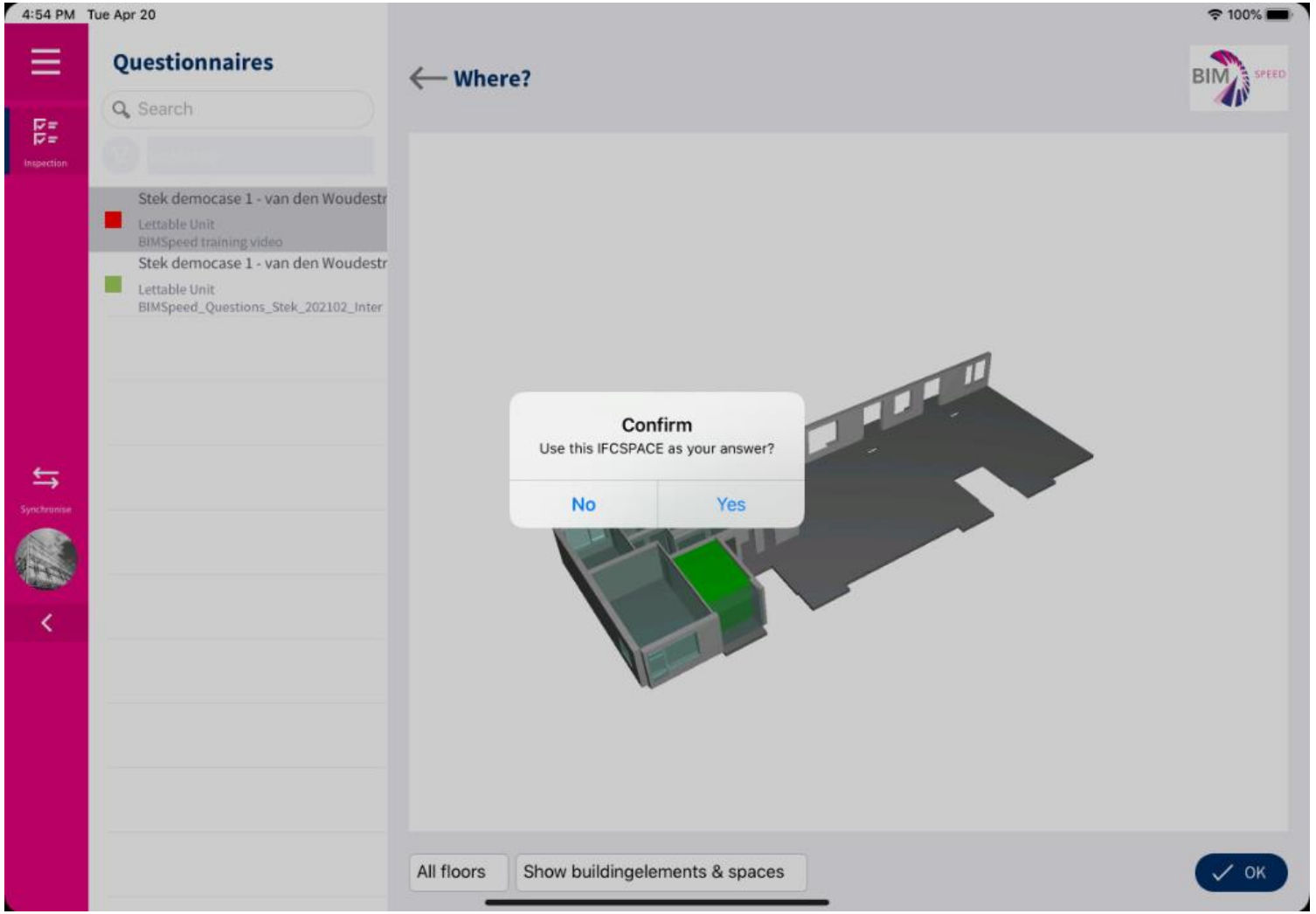
- Model automatically filtered to dwelling of the inhabitant
- Pan
- Rotate
- Zoom

Filtering



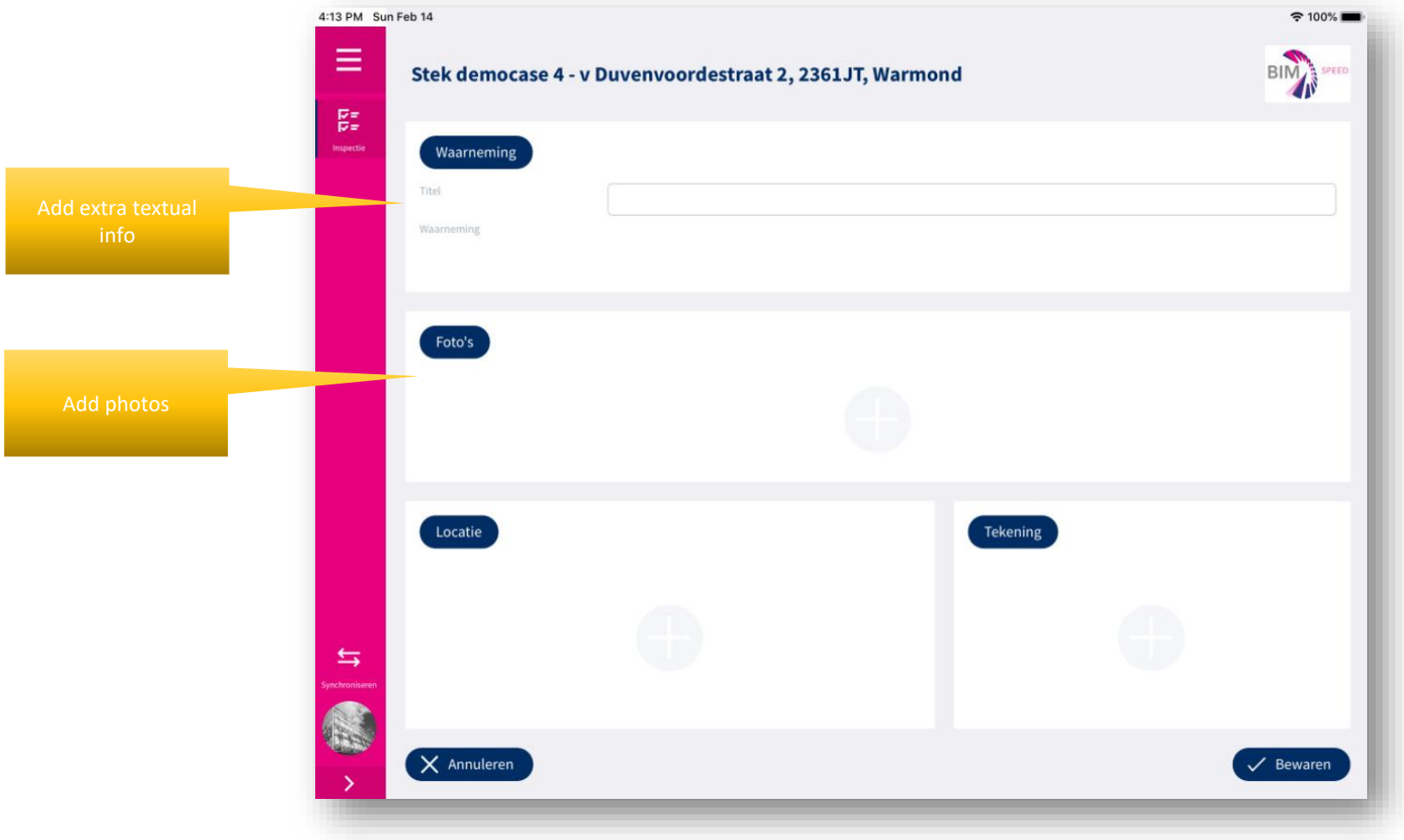
- Show all floors / 1 floor
- Show spaces / building elements only or both

Selecting spaces

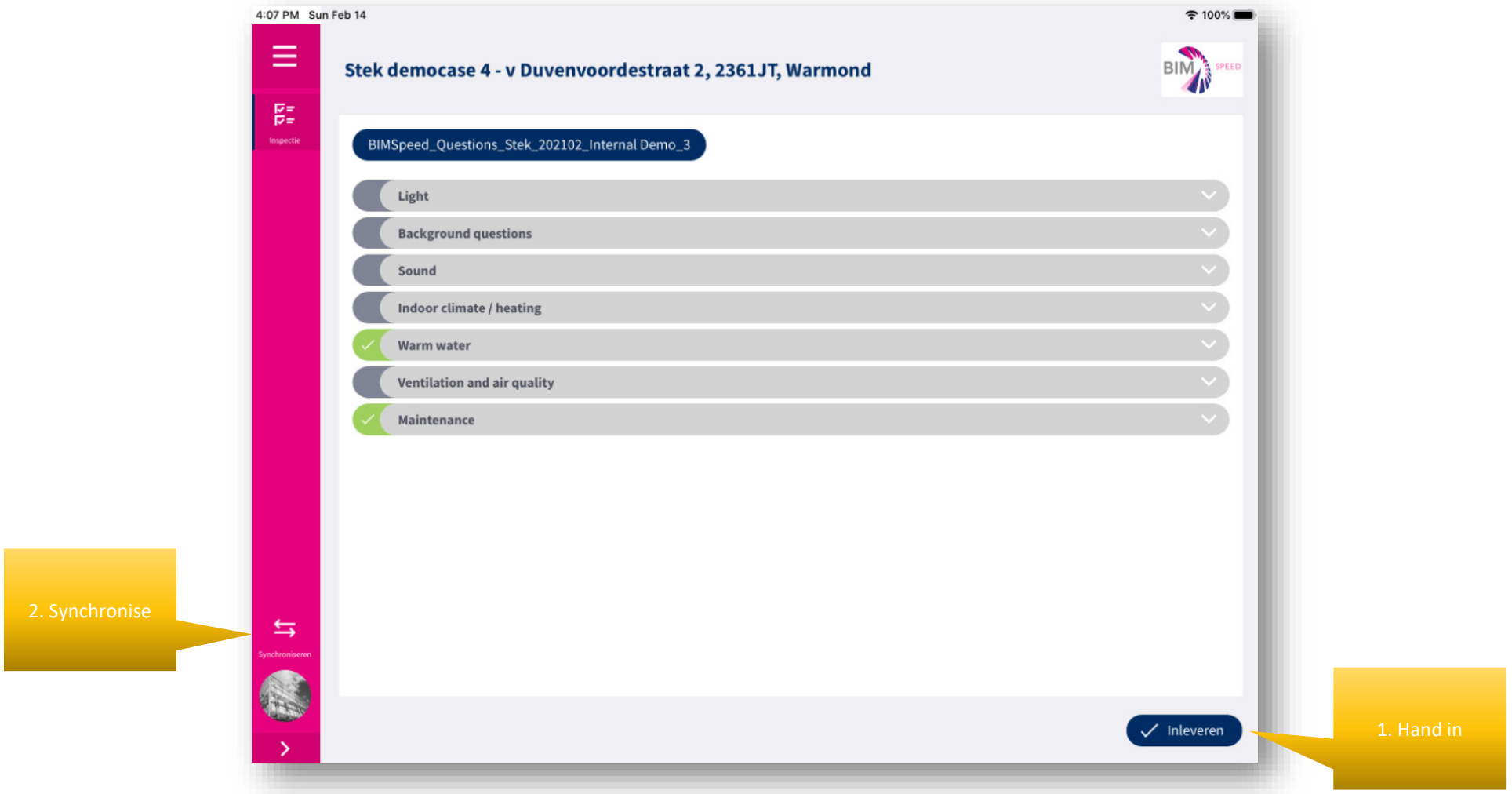


- Tap space > confirm selection

Add personal observations



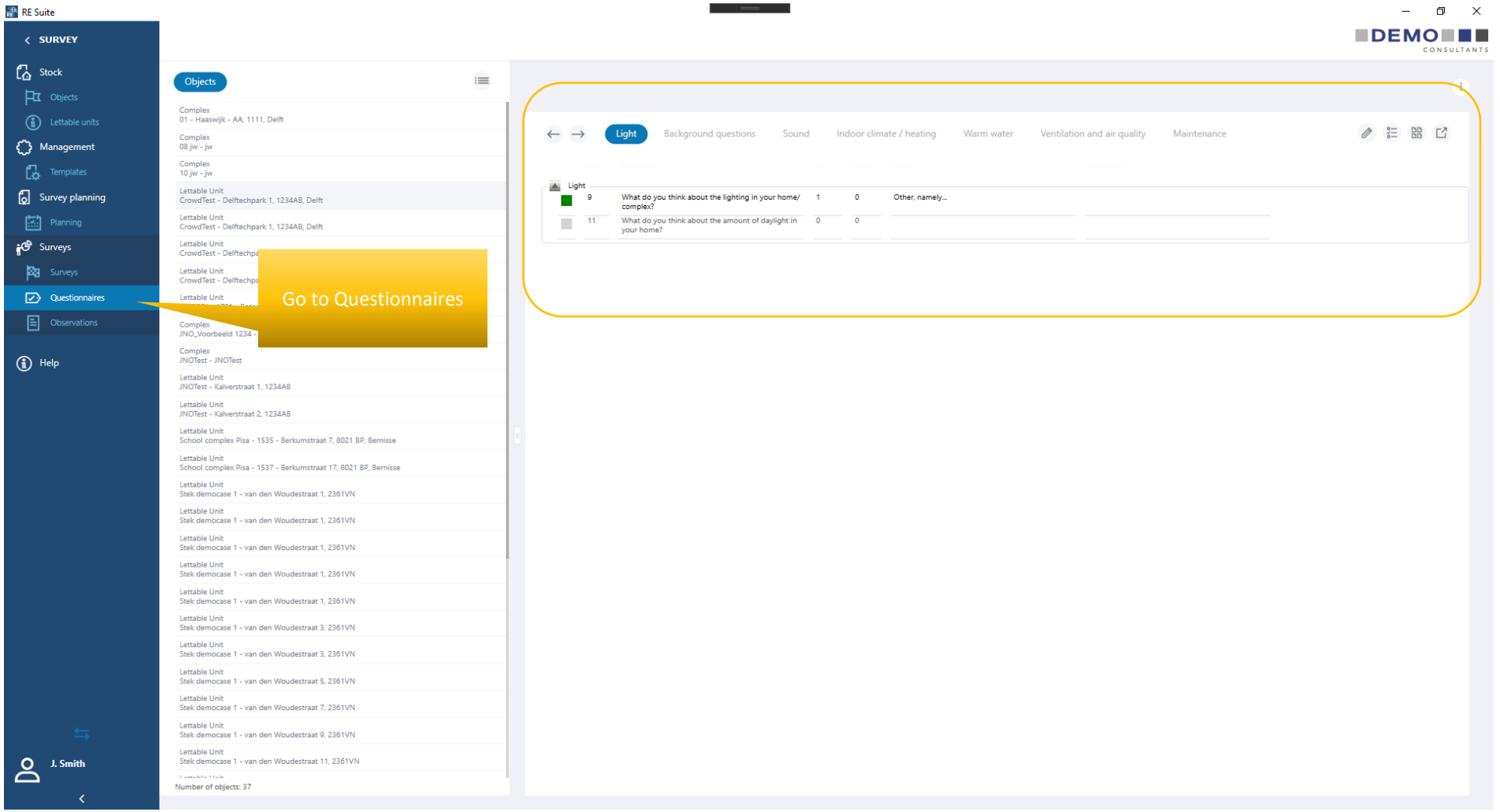
Hand in the results



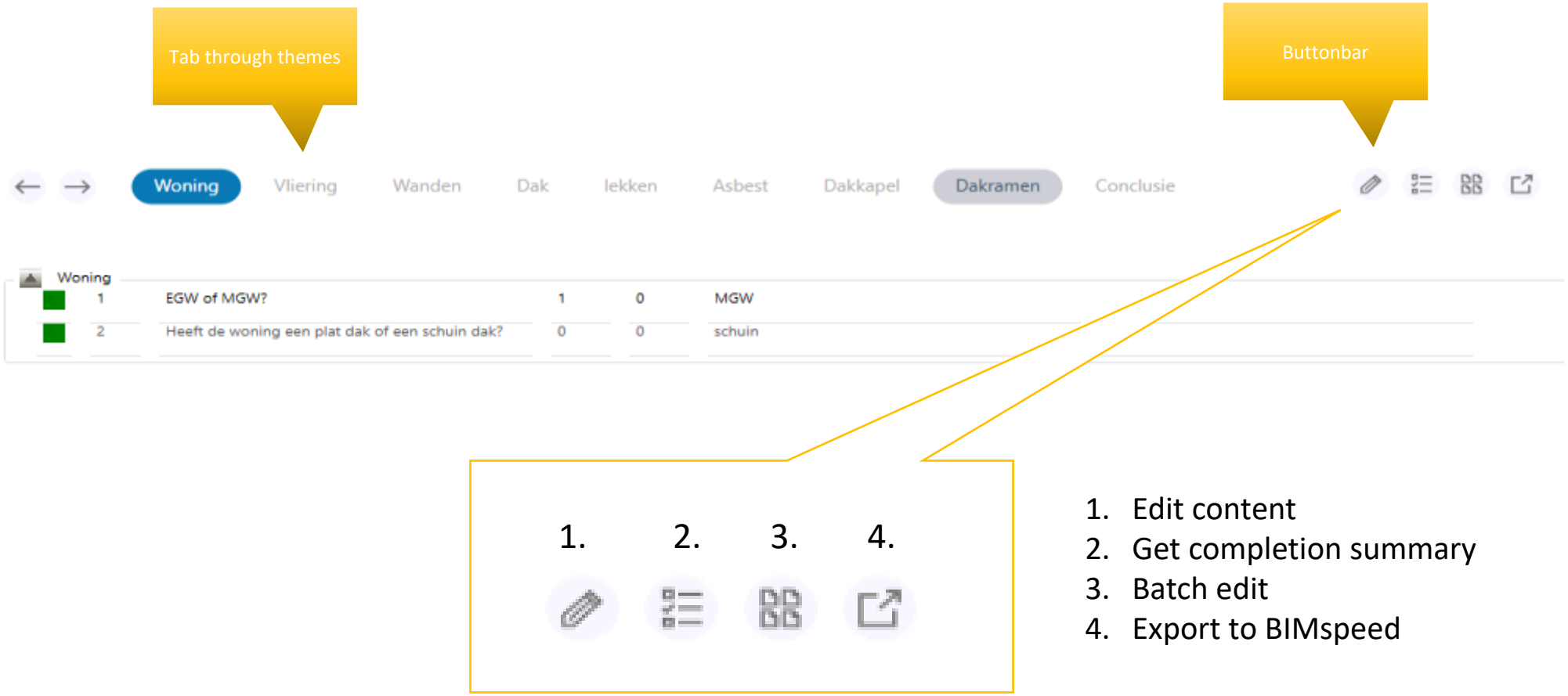
QUESTIONNAIRE MANAGEMENT

- Working with the results

Processing filled in questionlists

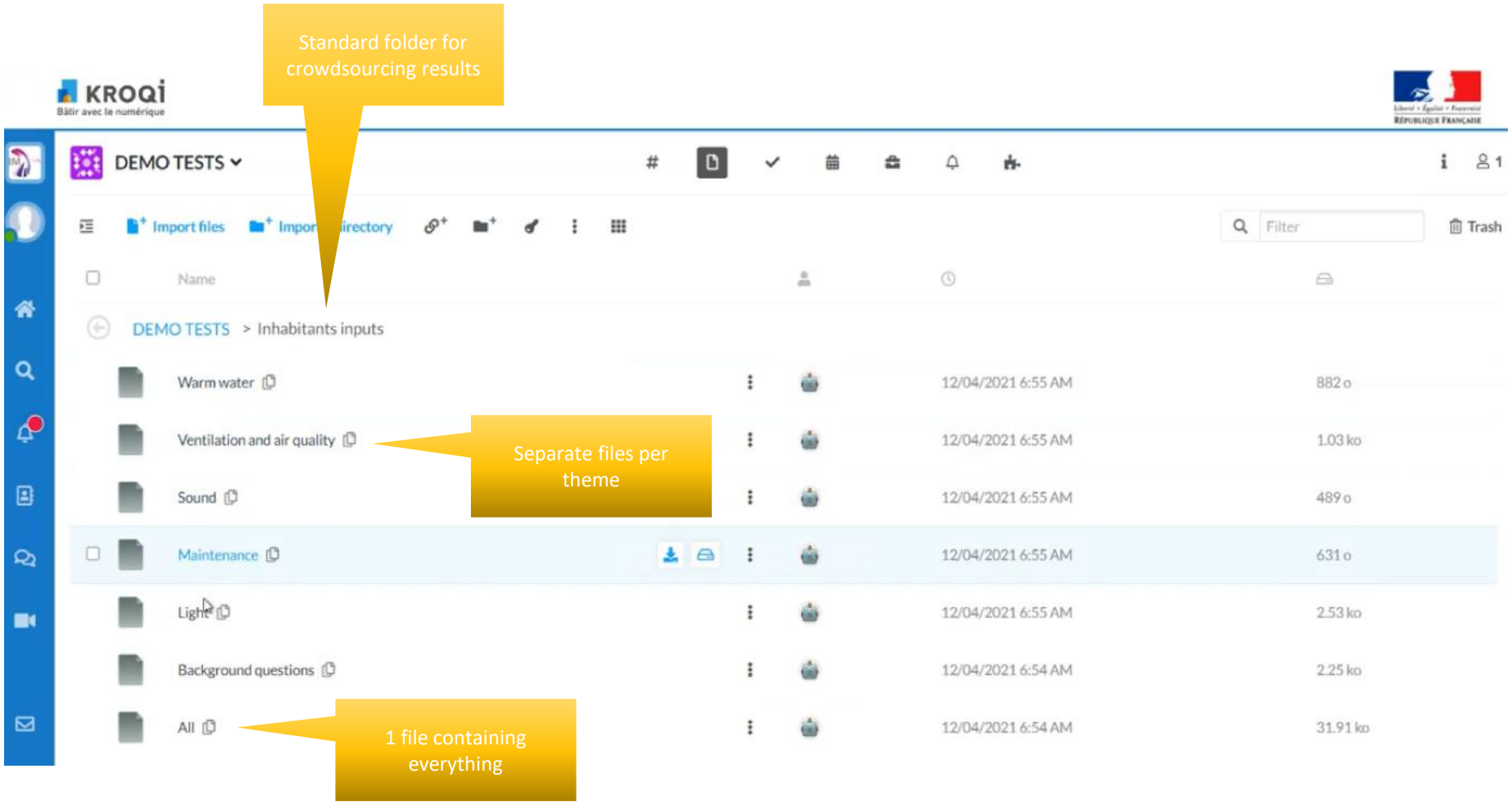


Processing filled in questionnaires



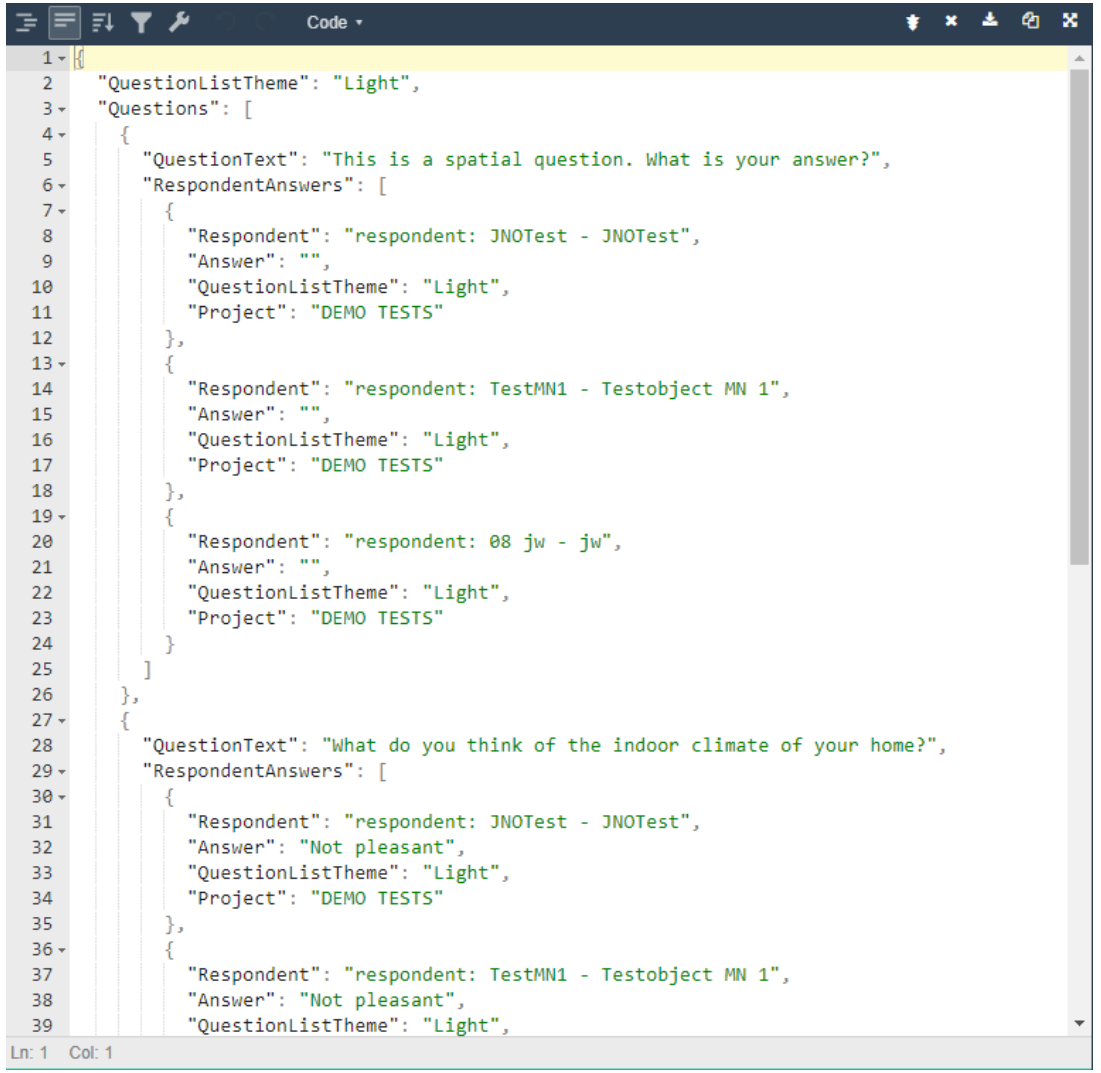
1. Edit content
2. Get completion summary
3. Batch edit
4. Export to BIMspeed

Answers exported to BIMSpeed



JSON structure

- Question Theme
  - Question 1
    - Respondent Answer
    - Respondent Answer
  - Question 2



Contact

info@demobv.nl

DEMO bv
DEMO Consultants, The Netherlands
Inhabitants Crowdsourcing App
BIM-SPEED Project

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