App-concept for the automation of documents in craft enterprises
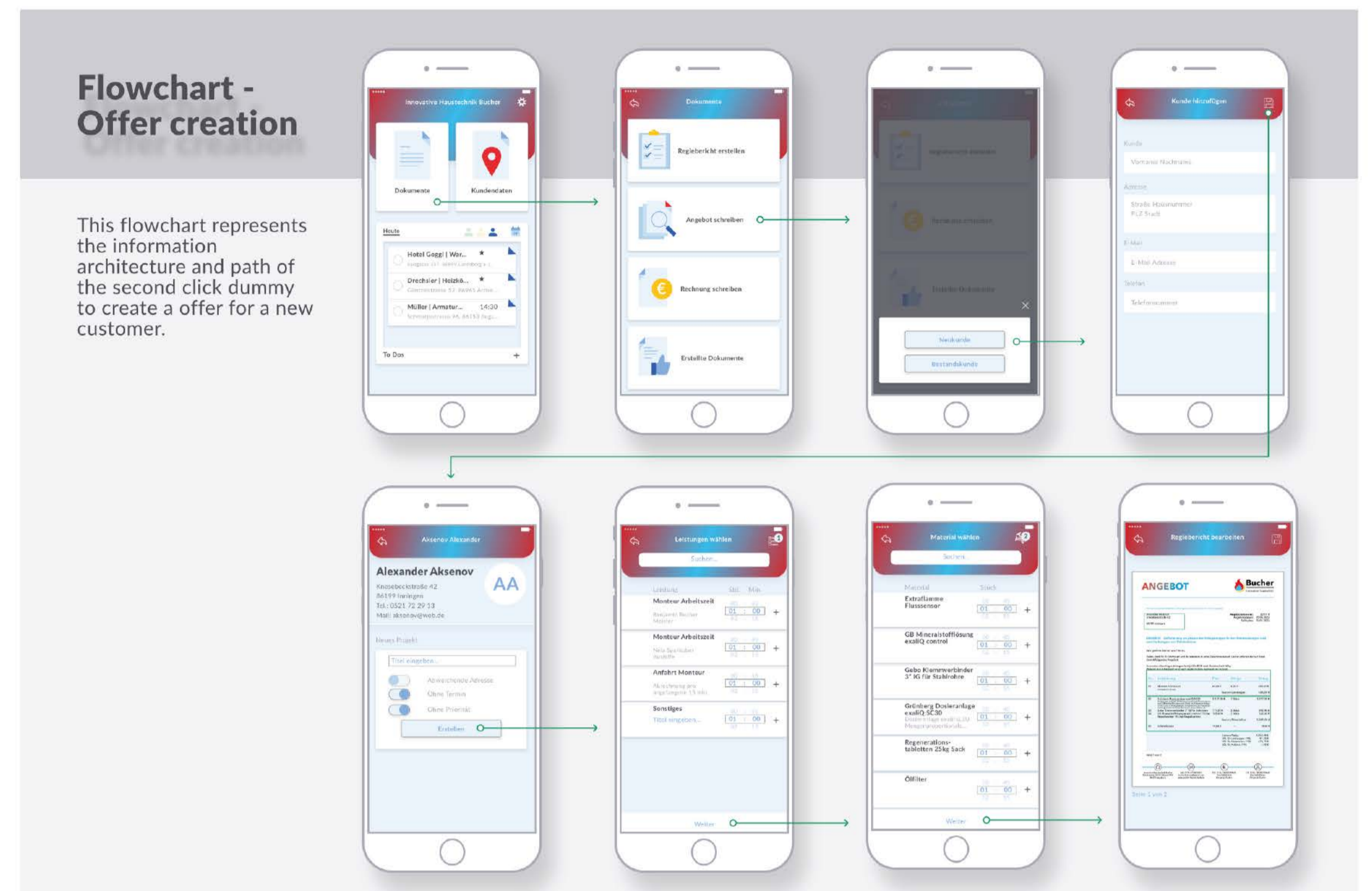
Abstract

The master thesis develops a **concept for the implementation of an app for the automation of documents in the craft enterprises**. Most of these businesses are aware of the pre-existing solutions that are currently available on the market, but do not use them or are reluctant to do so. This study examines the reasons for this circumstance. Subsequently, a preliminary app concept for a suitable structure of an app for the automation of documents for craft enterprises is developed, which is adapted to the previously defined target group.

The empirical work is based on the results of a questionnaire, expert interviews, as well as wireframe and click dummy tests for the collection of data and the subsequent develop-ment of the concept.

The result is an app concept that is specifically tailored for solo and small businesses in the craft trades. The user interface is kept simple, and the app contains only the most im-portant functions to enable efficient document creation and management.

Because not all questions could be answered satisfactorily during the study and further ques-tions and aspects arose, the concept can be used as a basis, but would not yet be suit-able for final implementation in this form.

The research work is aimed at UX designers, app developers and students in the mobile field who are interested in the topic of 'digitization in the craft enterprises'.

Flowchart Klickdummy 2

Testing with the target group

Special Focus

The target group for this work is **small and one-man businesses** in the craft business, as these are currently still the least likely to benefit from digitization. Document automation solutions currently available on the market are designed for businesses with medium and large num-bers of employees. According to a study by the University of Göttingen from 2014, 42% of craftsmen in Germany were solo self-employed. This means that the need for a suitable solu-tion is very high and unmet.

Based on questionnaires, expert interviews and various tests, an initial concept was devel-oped that meets the needs and requirements of the target group. For this purpose, close co-operation was established with the companies 'Innovative Haustechnik Bucher', 'Franzlik Montagebau' and 'ELT - Andreas Hölldorfer Elektro'. The resulting concept was tested in a total of 7 companies.

It was particularly difficult to reconcile the different requirements and wishes of the compa-nies. These depended on the individual company structures and on the different industries. Accessibility to the target group was also a challenge, as the test persons were always on con-struction sites and busy. I would like to sincerely **thank all the companies and volunteer test-ers for their time** and patience in creating this concept.
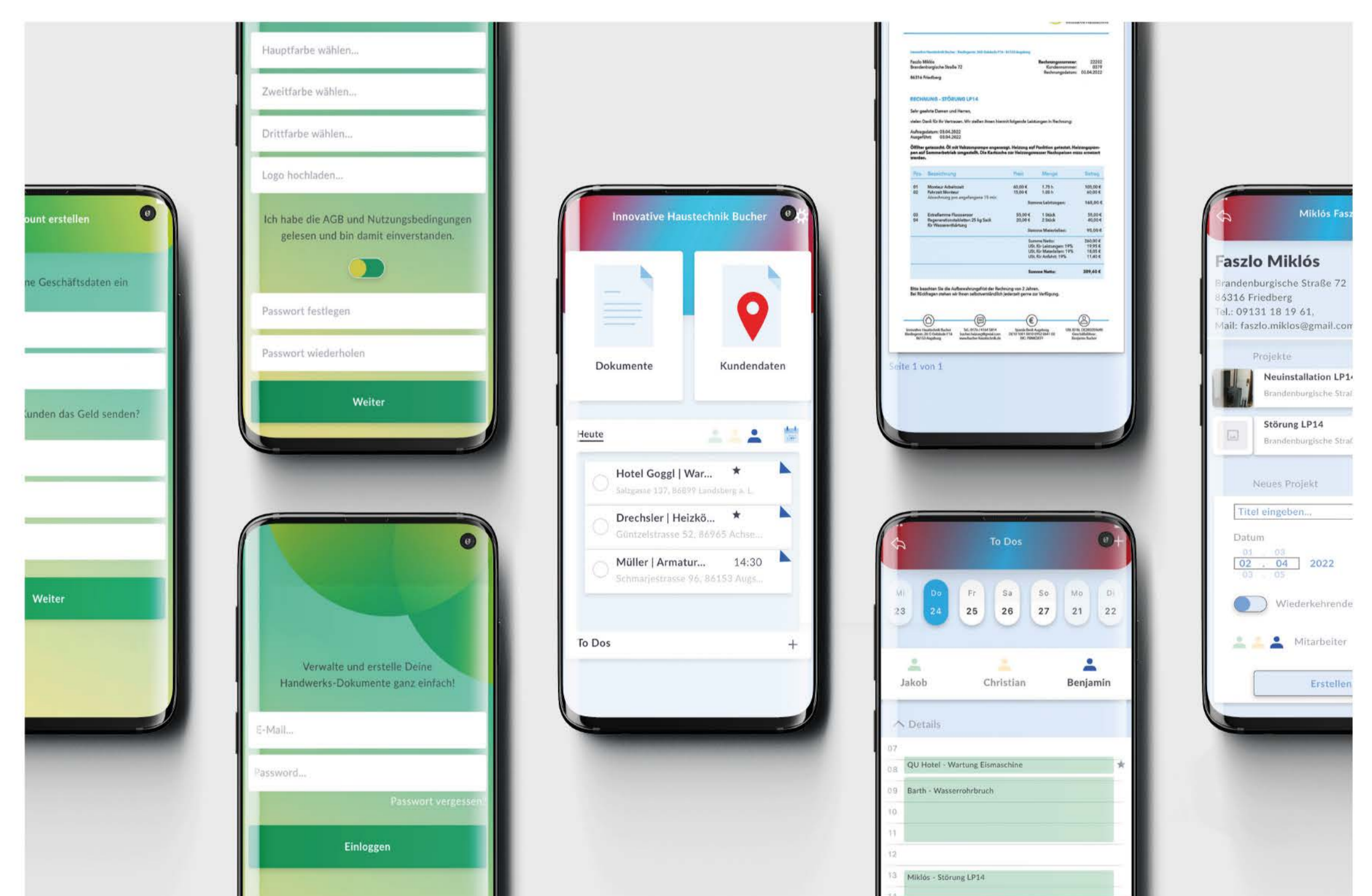
Result and Future Work

The iterative development process resulted in this concept, which is reduced and simple, but contains all the important functions to provide small and one-man businesses with a docu-ment automation solution. **This means that no additional office staff is needed to organize and manage assignments and documents**.

Through the wireframe and click dummy tests, an app-defined way to create documents, transform them, and manage them effectively and in a user-friendly way was identified. The information architecture was also optimally adapted to the needs of the target group, result-ing in a reduced, clearly understandable user interface. The integrated calendar shows not only appointments, but also to-dos.

Since the concept developed is already very advanced and fills a gap in the digitization of the skilled trades, I would like to pursue the project. The following are the **most important points for finalizing the concept**:
- What could a web view look like?
- Revision of the 'Convert' option.
- What is the maximum company size, for this app concept?
- Automatic updating of wholesaler price lists.
- For which trades is this app concept suitable?
- Are more document layouts useful?

Final screens of onboarding and app using