

# COMPETENCE MAPPING

Implementation plan

URBAANIA  
KASVUA  
VANTAA



# INTRODUCTION

The purpose of this document is to describe the most relevant aspects for the implementation of the Competence Mapping portal. This description enables further development of the tool as such or works as a guideline for planning and developing a competence mapping tool in general.

Developing competence within a specific geographical area requires collaboration between different sectors and combining their services into a whole. The different actors in this collaboration know the local labor market and industries. Services and processes for competence development need to be developed, as well as the tools to support these processes, for the services to be delivered and managed efficiently.

Competence Mapping is a tool that has been developed as part of the services for competence development within the Urban Growth Vantaa project. The project has explored what demands such a tool should meet for competence to be managed in a way that corresponds to the job market. For example, the functionality of saving the dialogue between an employee and their supervisor in connection with the competence mapping has been seen as a useful for competence management.

Competence mapping offers an easy way for an employee to save the information about their own competence and skills. It also shows the employee, how their skills currently correspond to different jobs, and what kind of courses they could take to meet the requirements of a specific job.



# CONTENTS

## Architecture

- Stakeholders and users
- Use cases
- Descriptions of use cases

## Implementation

- Systems and technology
- Application logic and interfaces
- Page hierarchy
- Page hierarchy, descriptions of components

## Further development

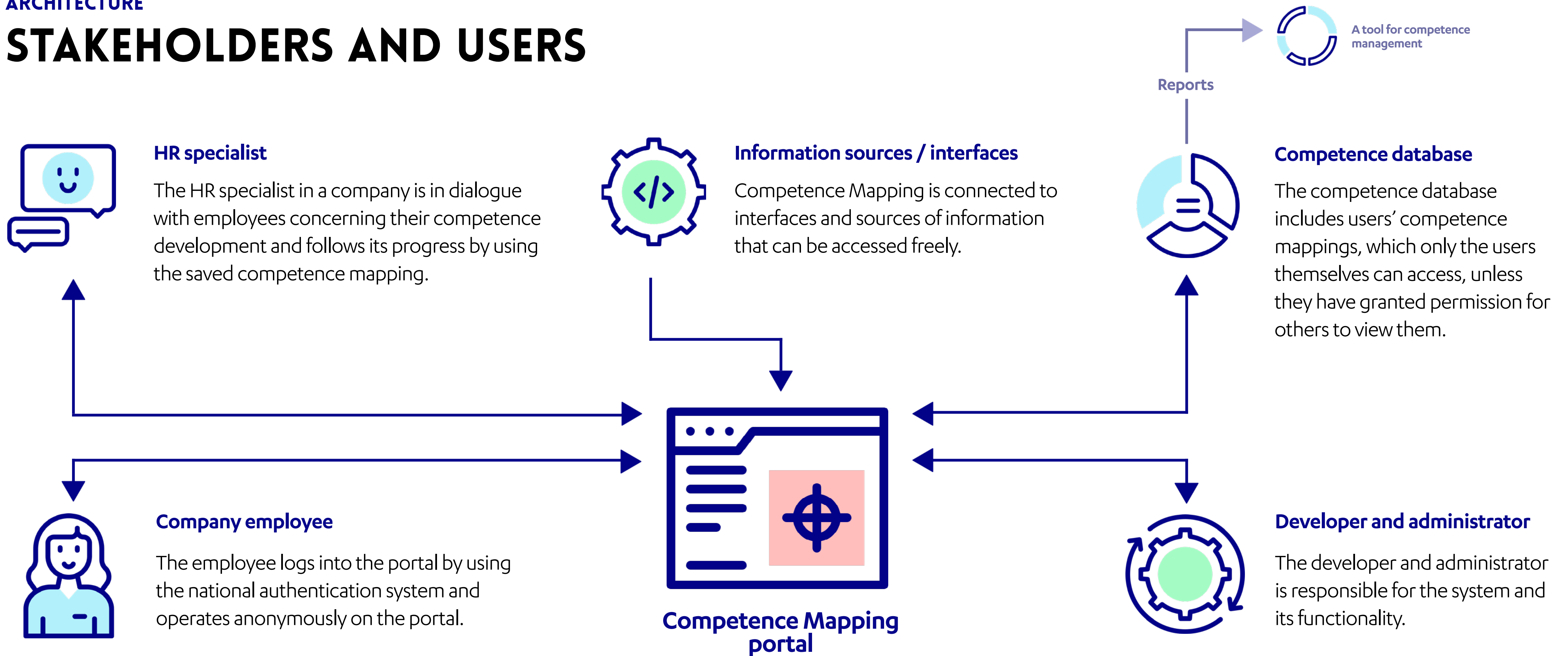
## Business opportunities

## Risks



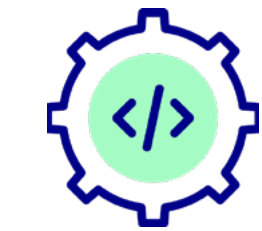
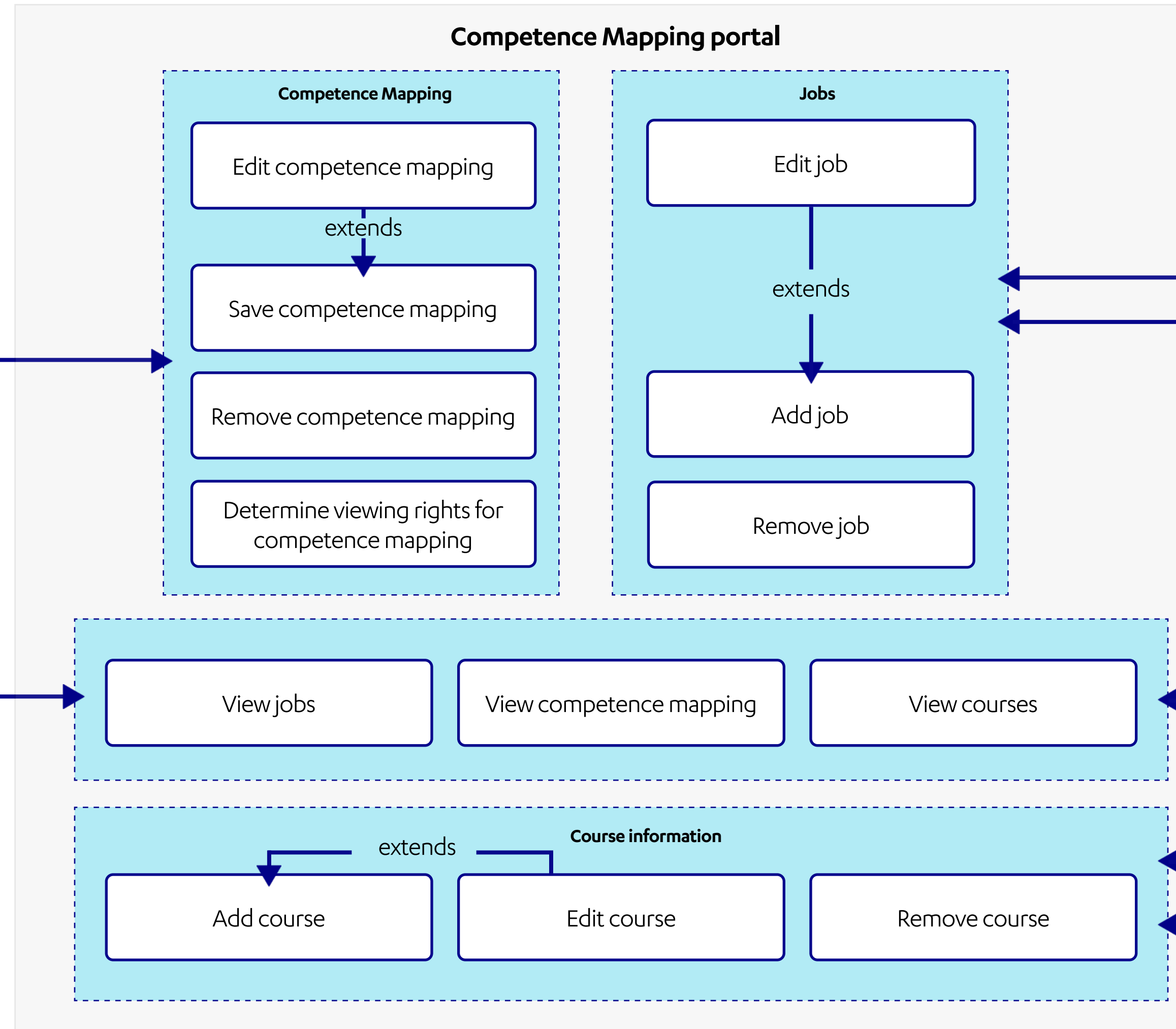
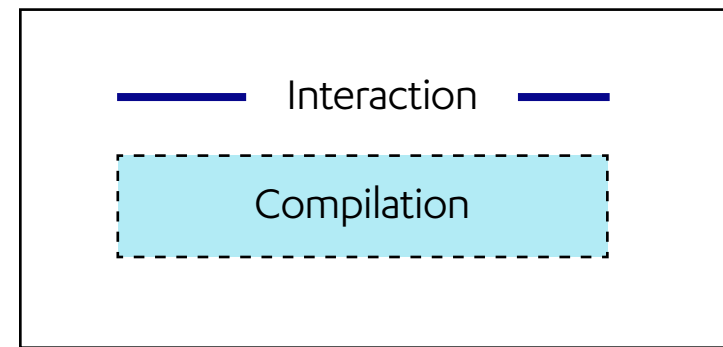
## ARCHITECTURE

# STAKEHOLDERS AND USERS



# ARCHITECTURE USE CASES

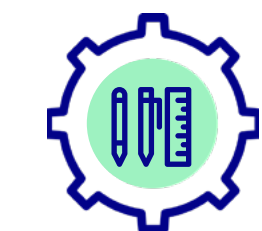
Examples of use cases



Jobs interface



HR specialist



Courses interface

# DESCRIPTION OF USE CASES

USE CASE	DESCRIPTION
<b>Save competence mapping</b>	The employee / skilled individual saves their competence mapping into the system
<b>Remove competence mapping</b>	The employee / skilled individual removes their competence mapping from the system
<b>Edit competence mapping</b>	The employee / skilled individual edits their competence mapping in the system and saves it
<b>Set viewing rights for competence mapping</b>	The employee / skilled individual chooses which information the HR specialist can view
<b>View job</b>	The employee / skilled individual or the HR specialist views a job description
<b>View competence mapping</b>	The employee / skilled individual or the HR specialist views the competence mapping
<b>View course</b>	The employee / skilled individual or the HR specialist views a course description

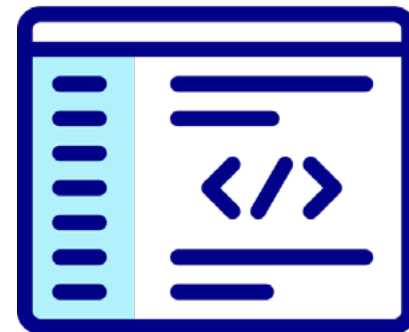
USE CASE	DESCRIPTION
<b>Add job</b>	The HR specialist adds a job into the system
<b>Remove job</b>	The HR specialist removes a job from the system
<b>Edit job</b>	The HR specialist edits a job in the system
<b>Add course</b>	Course information is imported via the courses interface
<b>Remove course</b>	Course information is removed via the courses interface
<b>Edit course</b>	The HR specialist edits the course information in the system

# SYSTEMS AND TECHNOLOGY



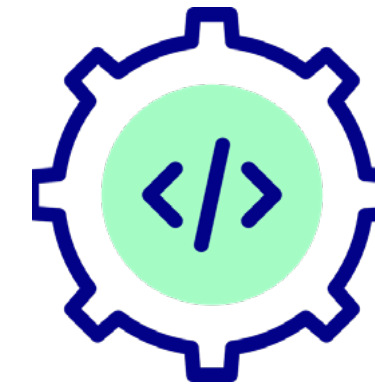
## Application as a cloud service

The web portal is based on a Software as a service (SaaS) system, which offers the necessary programs for the development of a web application, as well as flexibility and scalability.



## Web portal

The implementation of the web portal is based on Javascript software development, which accommodates a server program and a customer program. The implementation of the user interface within the customer program can be realized with Javascript, HTML, or CSS technology.

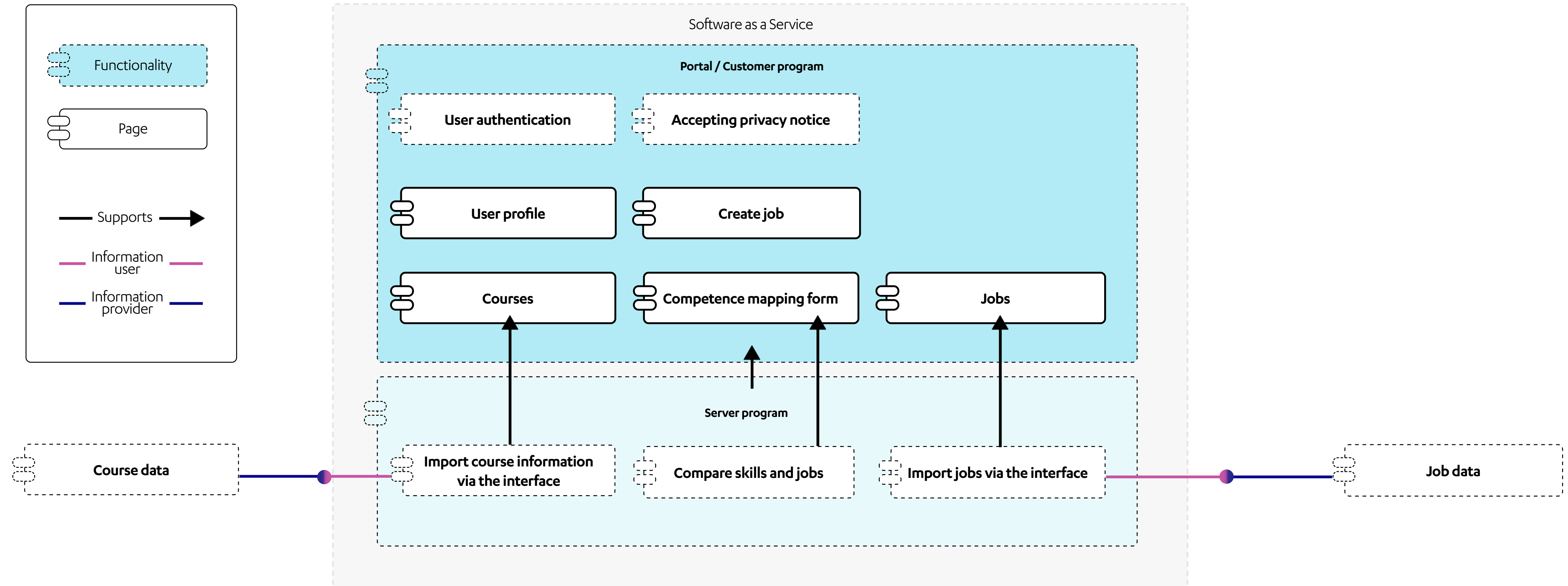


## Application interface

The application interface provides a way to search data (http resource), for Competence Mapping.

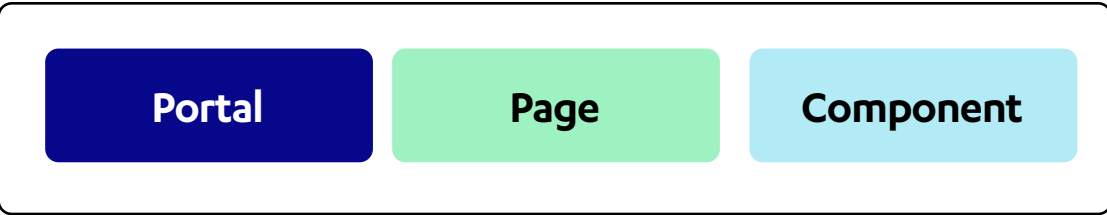
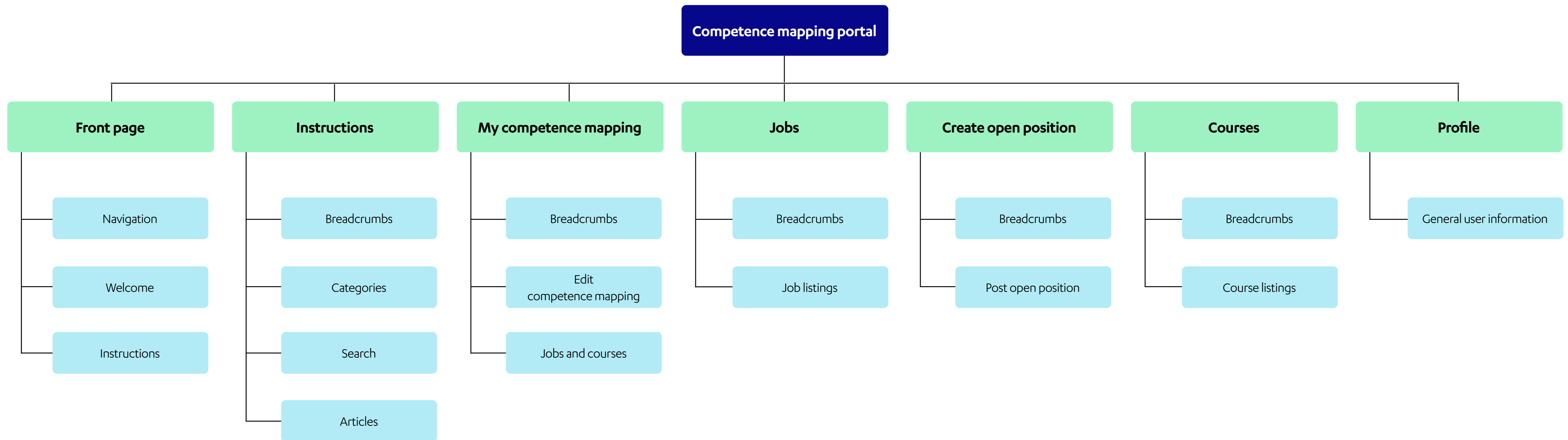
# APPLICATION LOGIC AND INTERFACES

An example of the structure of the program, its functionalities, and interfaces





# PAGE HIERARCHY



# DESCRIPTION OF COMPONENTS

COMPONEN	DESCRIPTION
<b>Front page navigation</b>	Button 1 (if the user has not yet filled out the competence mapping): “Start competence mapping”. Button 1 (if the user has already filled out the competence mapping): “My competence mapping”. Pressing the button takes the user to the competence mapping form. Button 2: “Browse jobs”, pressing the button takes the user to the jobs page.
<b>Welcome</b>	A presentation of the tool in text form
<b>Instructions</b>	A list of the five most recent articles containing instructions, the headings link to the articles
<b>Breadcrumbs</b>	A hierarchical view of the navigation structure
<b>Categories</b>	A listing of the categories within the instructions
<b>Search</b>	Search the content of the pages

COMPONEN	DESCRIPTION
<b>Article list</b>	Short descriptions and author information of the articles
<b>Job and course listings</b>	Show the jobs and courses that are of interest to the user, based on their competence development plan
<b>Edit my competence mapping</b>	Directs the user to the competence mapping form (the filled form if the user has filled it out; an empty form if the user has not yet filled it out)
<b>Job listings</b>	Lists all jobs and vacancies
<b>Post vacancy</b>	A form to create a new vacancy
<b>Course listings</b>	Lists all courses categorized by type
<b>General user information</b>	The user’s information that can be edited by the user. The system uses the information e.g., to prefill the competence mapping form.

## ARCHITECTURE

# FURTHER DEVELOPMENT

### Utilizing a national application platform

- A national application platform would offer uniform models for application development in projects and make quicker and more cost-efficient trials possible.

### A strong national user authentication and anonymity by default

- Using the national system of strong user authentication would bring scalability. Anonymity of the users enables recruiters to focus on skills rather than persons.

### Utilizing open data interfaces in a standardized form

- The data that is imported across interfaces should be freely accessible. Using open interfaces provided by private companies can require permission, and management of such permissions. If the data that is imported via the interface is in a standardized form, it is easier to plan interfaces with data providers and to integrate the data.



# BUSINESS OPPORTUNITIES

## A company-level competence mapping tool (SaaS)

- A user interface with the company's logo and colors
- A database with the personnel's competence information and the company's jobs
  - AI can combine them and suggest who could take on which tasks
- Field-specific study paths for employees
- Saving the dialogue between the employee and their supervisor for future development discussions



# RISKS

**Developing the application requires a solid revenue generation model or secure financing.**

**The national educational data needs to be made uniform so that it can be easily imported into the application. This process requires a separate project.**

**The national job data needs to be made uniform so that it can be easily imported into the application. This process requires a separate project.**

