



**D7.2**  
**CONCEPTUAL MODELLING, USER  
REQUIREMENTS AND SOFTWARE  
ARCHITECTURE OF THE URBAN  
CIRCULAR BIOECONOMY HUB**

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# 1. Executive summary

The present deliverable (D7.2) describes the research that took place in order to define the conceptual model (DRAXIS), the user requirements (DRAXIS) and the software architecture (SAV) of the Urban Circular Bioeconomy Hub (UCBH) i.e., an online platform aiming to provide cities/regions with resources relevant to circular bioeconomy. The main services provided by the UCBH are: (a) a self- assessment in the domain of circular economy, providing the user the possibility to assess their city's/region's circular economy level, (b) networking with other users, (c) the access to external self-assessment and decision-making tools and (d) the access in a Virtual Academy where resources related to bioeconomy are organized.

At first, the deliverable introduces the methodology followed to develop the UCBH software. The methodology selected to define the user requirements was the method of 'User Stories', a typical Agile methodology suitable for receiving continuous feedback. Following, in order to receive the necessary input from tasks connected to the UCBH, questionnaires were circulated to partners involved. After receiving the questionnaires' responses, on-line workshops were organized for further discussion and to assure agreement with the elicited conclusions. The user requirements and the conceptual model were drawn on the basis of the responses' analysis and outcomes from the on-line workshop which were finally validated through a follow up workshop. For both the conceptual model and the user requirements, it was necessary to first define the UCBH user roles. Following the procedure mentioned above, the user roles were defined as: 1) Follower Cities (Authorized persons that can act as their city/region's representatives in UCBH), 2) Companies/organizations, 3) HOOP experts, 4) Public user and 5) Administrator. The accessibility to the UCBH services is different for each user role. Considering the basic user roles, we applied the methodology of user stories in order to formulate the basic user requirements of the platform. These user stories were further exploited in order to develop the software architecture and indicative mock-ups.

The software architecture of the UCBH is described in this deliverable with the technologies used in the front-end and the relationship of the main entities in the back end.

As a consequence, the entire process (conceptual model, user requirements and software architecture) was successfully completed; however, as the development of the platform is an iterative process, further specifications are expected to be provided until the final system is completed and in line with the users' expectations.