

# Exploratory Study on Real-Time Scenario Supporting ICT Solution for Communication with and Involvement of the Community in Urban Landscape Planning

Soojin You<sup>1</sup>, Benjamin Chang-Kwon Chung<sup>2\*</sup>, Hyung Gewon Yun<sup>1</sup>, Kwang Jin Kim<sup>1</sup>, Seung Won Han<sup>1</sup>, Nara Jeong<sup>1</sup>

<sup>1</sup> Urban Agriculture Research Division, National Institute of Horticultural & Herbal Science, Rural Development Administration, Wanju 55365, Republic of Korea.

<sup>2</sup> Seoul School of Integrated Sciences & Technologies / Korean System Dynamics Society, Republic of Korea

\*Correspondence to : Seoul School of Integrated Sciences & Technologies / Korean System Dynamics Society, Korea. E-mail: benjamin@system-leadership.org

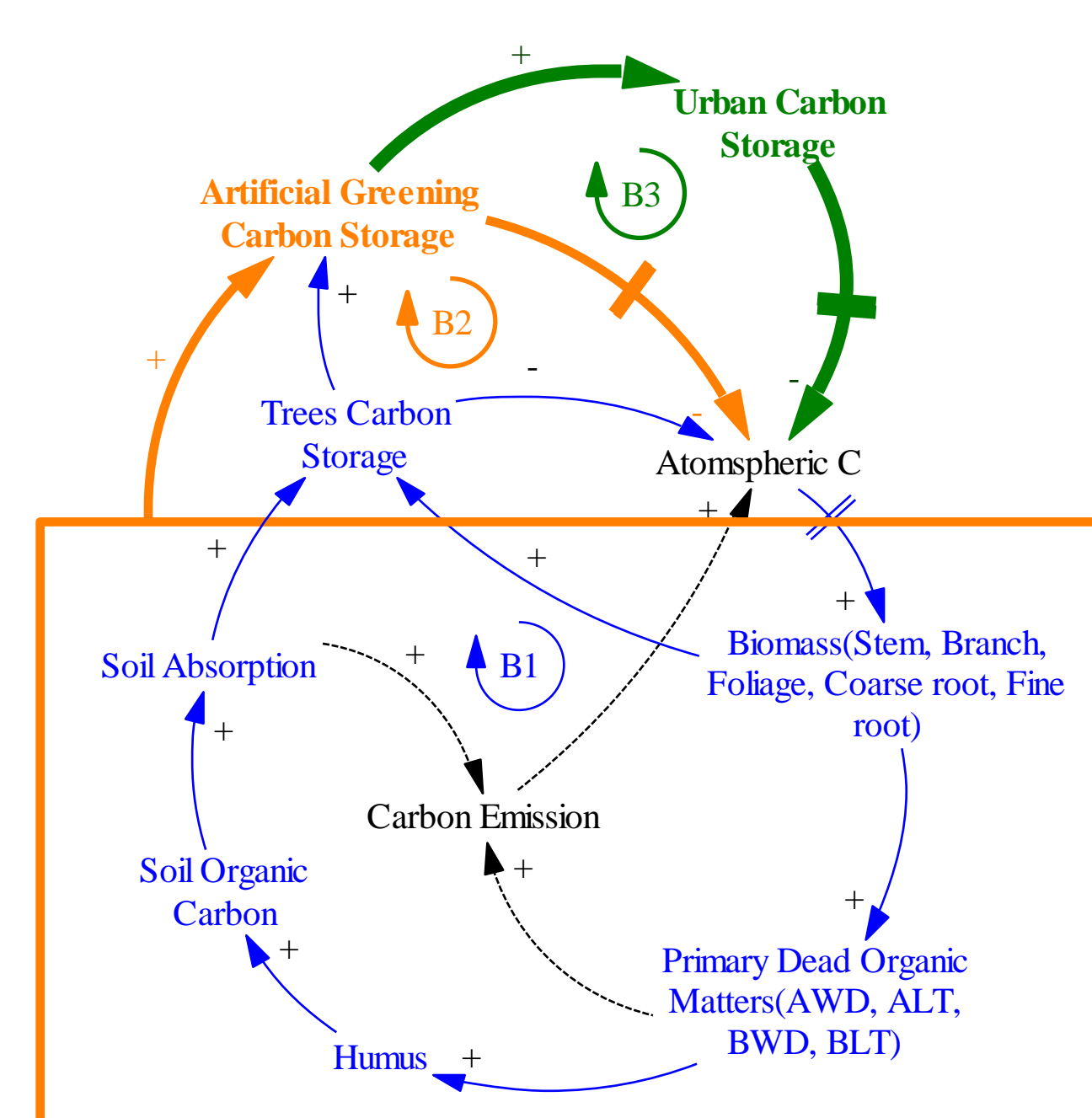
## Introduction

The landscape planning has been carried out by landscape architects and clients mainly funded by local government. Recently, the communication with and involvement of the community is getting more important, which needs the collective learning of the interaction of stakeholders (Kim, 2015; Lee, 2016). ICT should be re-configured to be used for the public who don't have the specific software and knowledge to use it with and want to know the impact of their decision at hands.

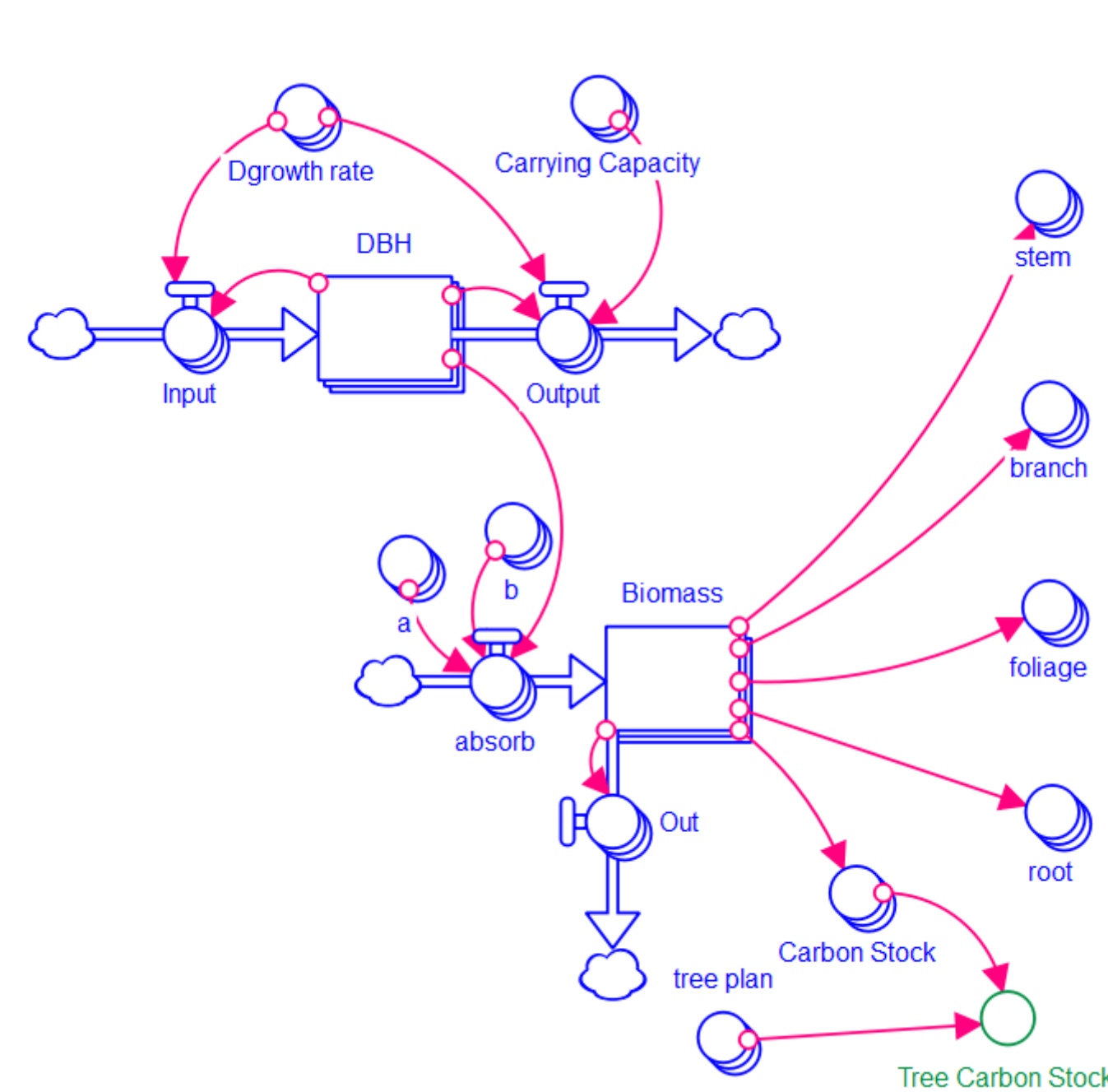
We developed a real-time scenario technology for landscape using Stella Online running on any internet browser.

## Methods

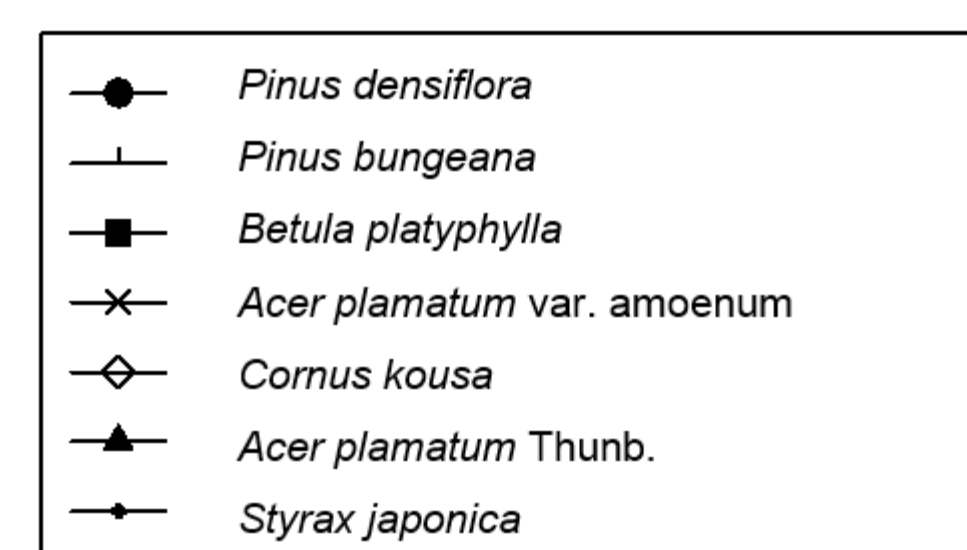
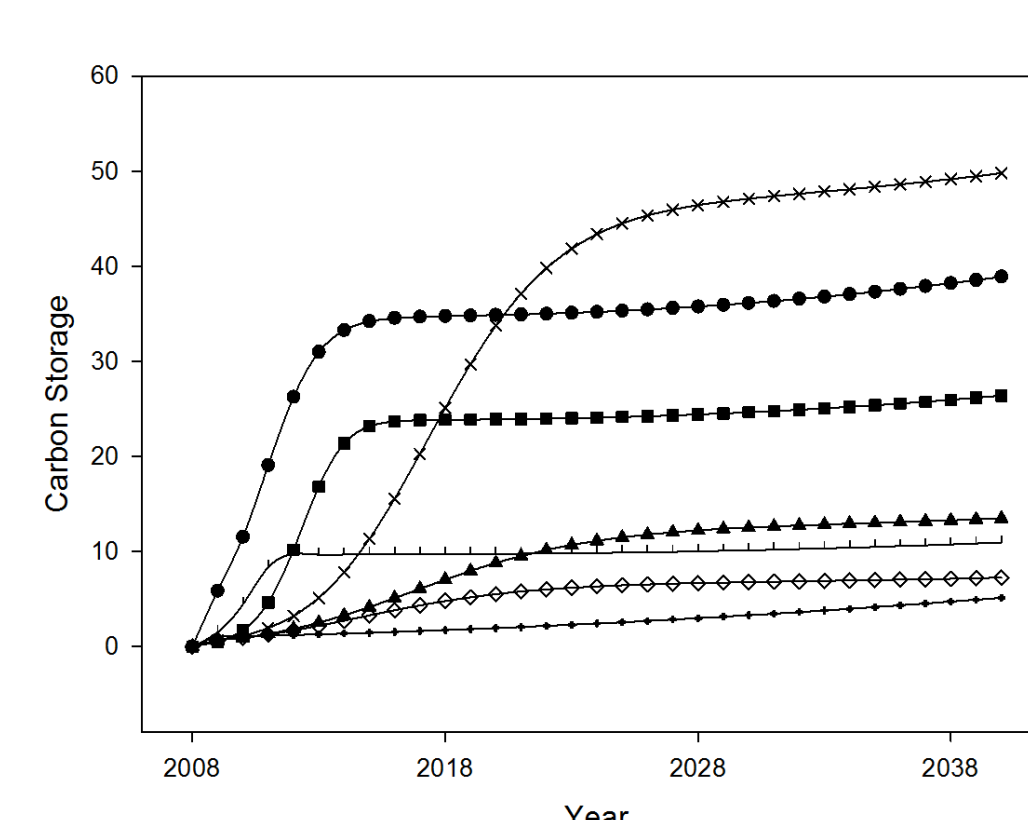
Scenarios come from "Green roof carbon storage model" based on the literature review articulating that carbon stocks differ according to the planted trees (You et al., 2017).



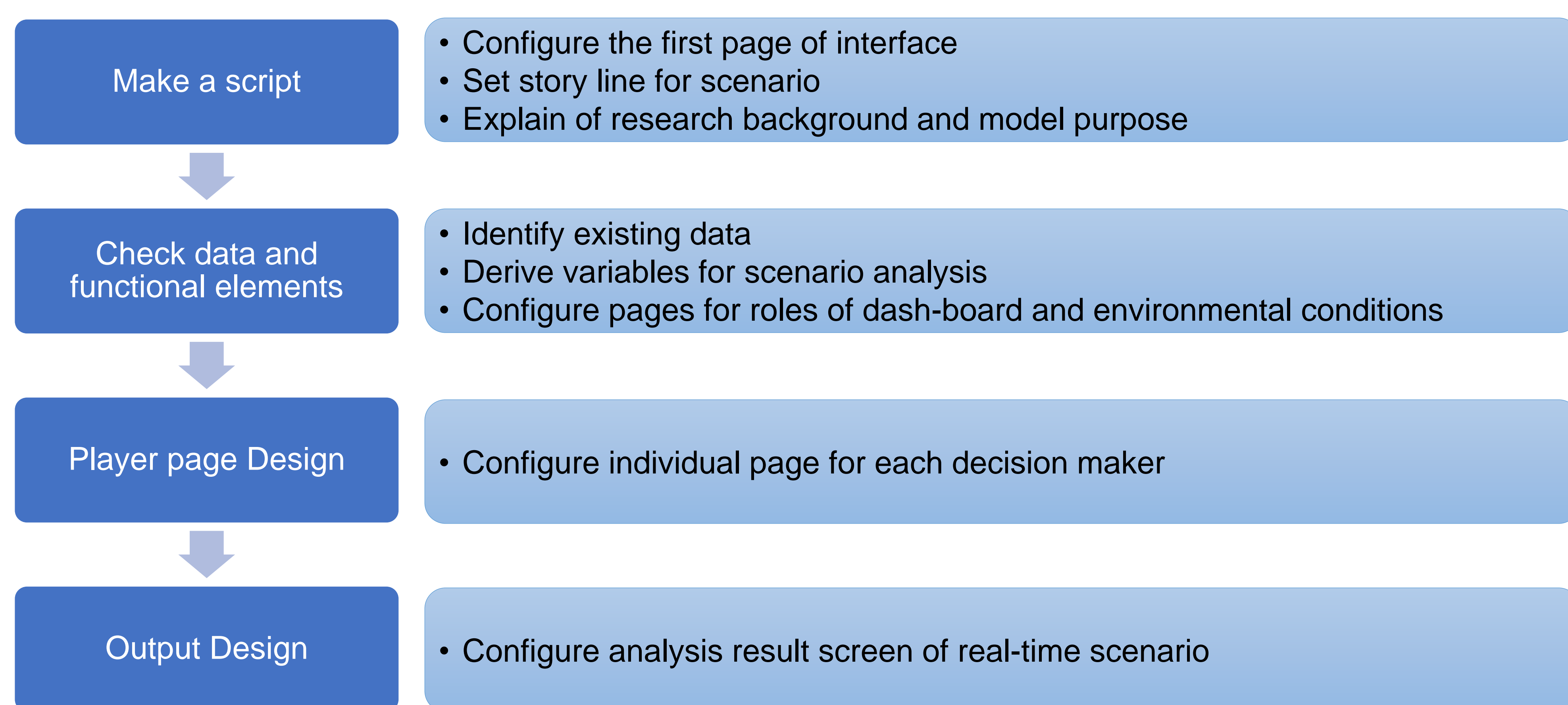
<CLD of carbon storages in urban agriculture >



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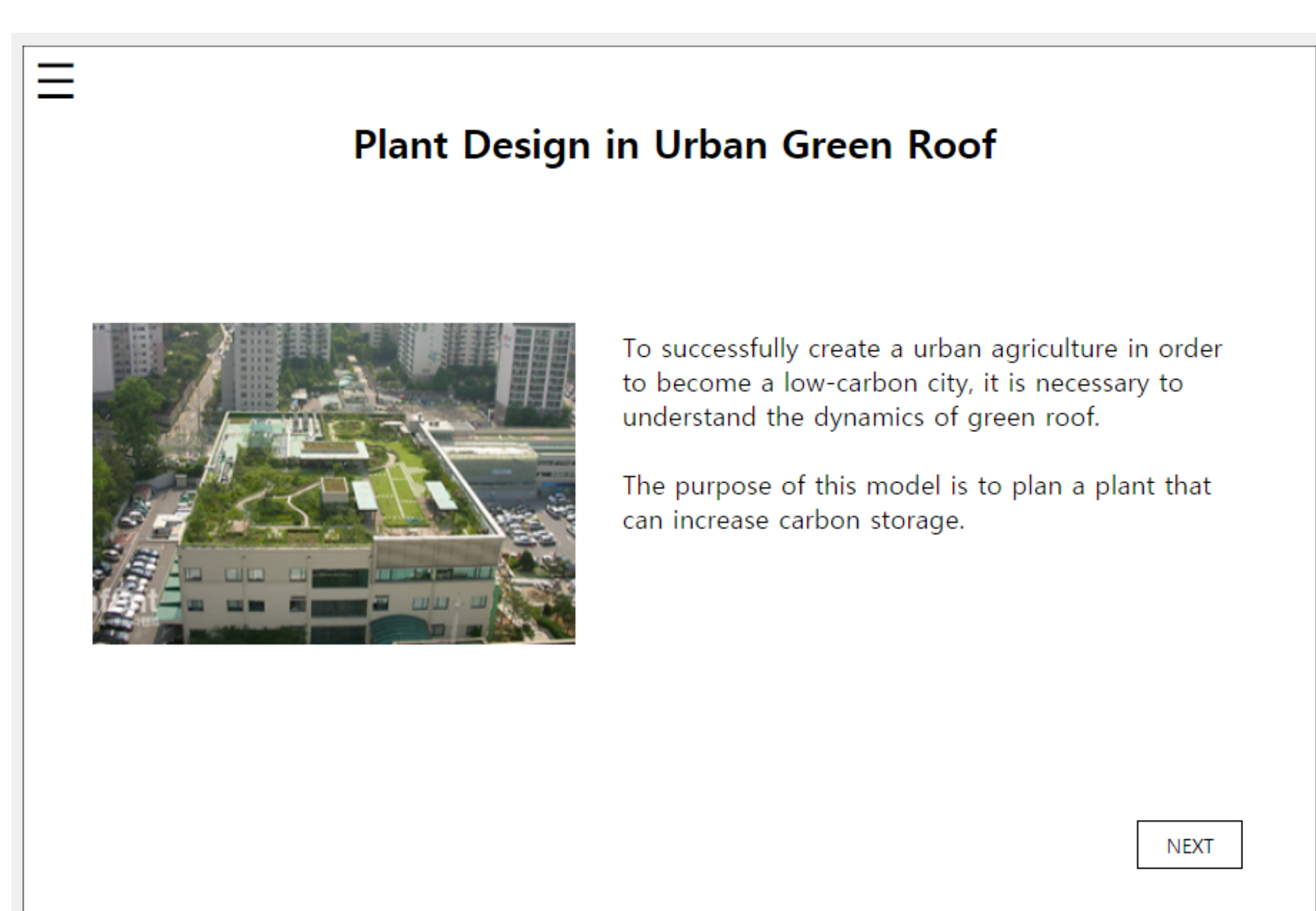


<Changes of carbon storages >



## Results

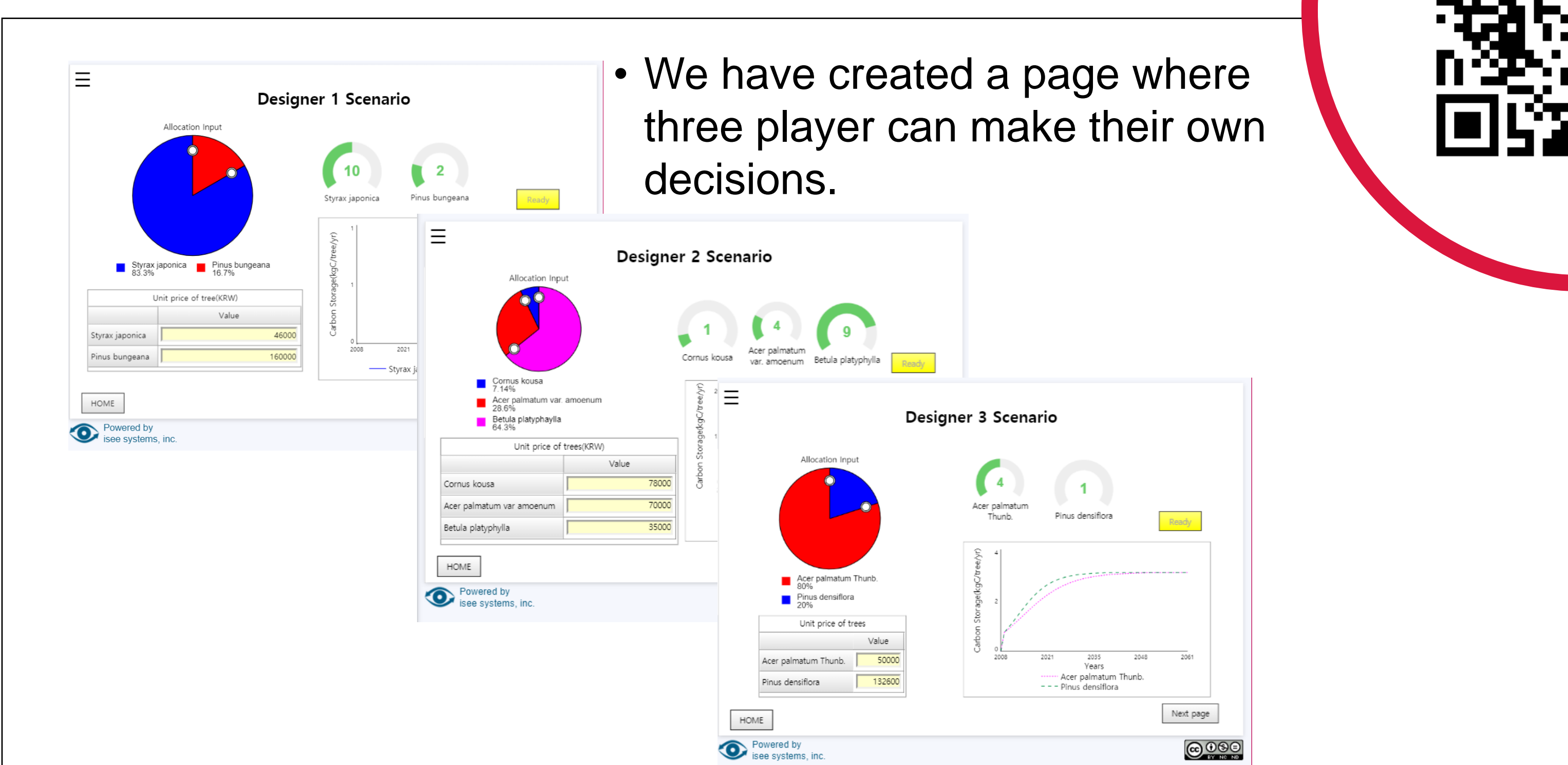
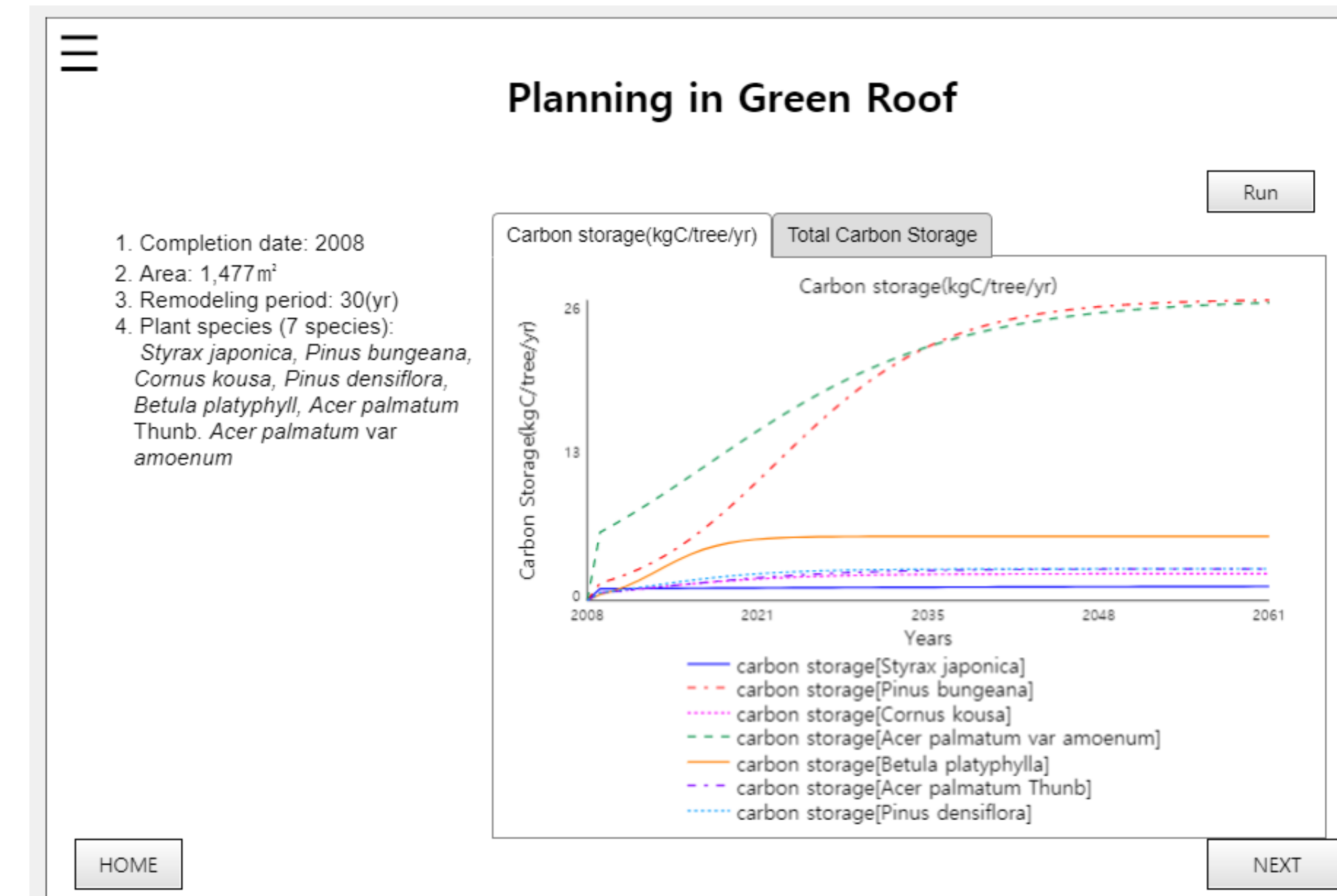
### 1) Make a script



• Introduction of the model

• Green Roof Dashboard: Provides green roof and plant species information

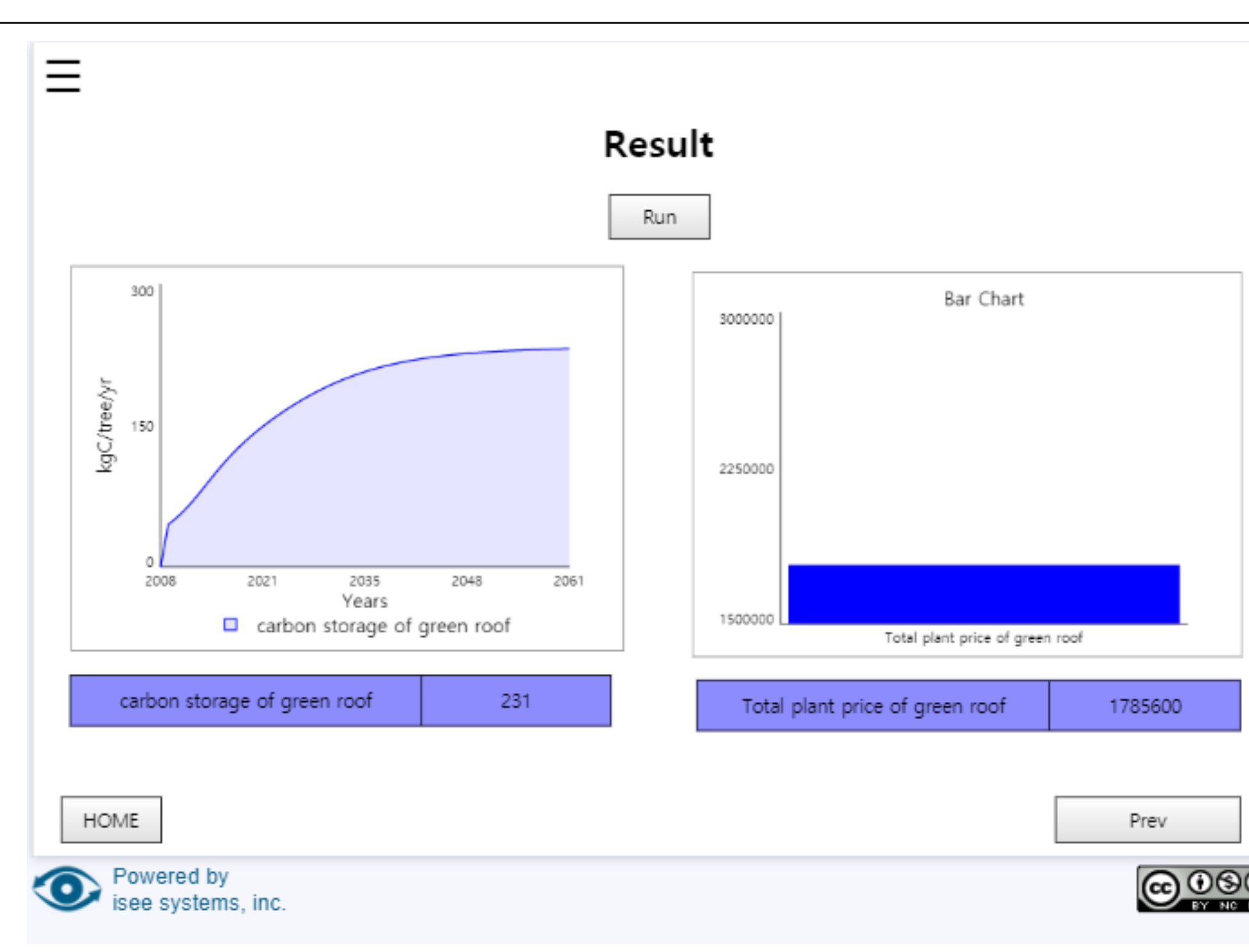
### 2) Check data and functional elements



• We have created a page where three player can make their own decisions.



• Result page of carbon storage change according to planting scenarios



### 3) Player page Design

### 4) Output Design

## Conclusion

❖ We conducted an exploratory study on a real-time scenario model that anyone can easily understand and make a direct decision making. It has the advantage that all the decision makers of the project, landscape architects, residents, and public officials, can access the system in real-time.

❖ Limitations of the research:

In the development process of story line, only one variable, quantity of trees, was selected and various conditions were not considered.

❖ Further study:

It is needed that the upgrade of the real-time scenario model to develop the feedback structure of "Green Roof"

Rural Development Administration  
National Institute of Horticultural and Herbal Science

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