

Project 7: Circular Economy Office



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PROJECT SPONSOR:



The Hamburg Institute for Innovation, Climate Protection, and Circular Economy (HiiCCE) is a pioneering organization focused on advancing the circular economy.

advancing the circular economy.

Upcycle Office: Upcycle Furniture app not only promotes sustainability by reducing waste and conserving resources but also encourages user engagement and community sharing. By making it easy to catalog and share furniture details, we aim to inspire a widespread adoption of upcycling practices in the office furniture sector.

Initial Situation & Environmental Impact

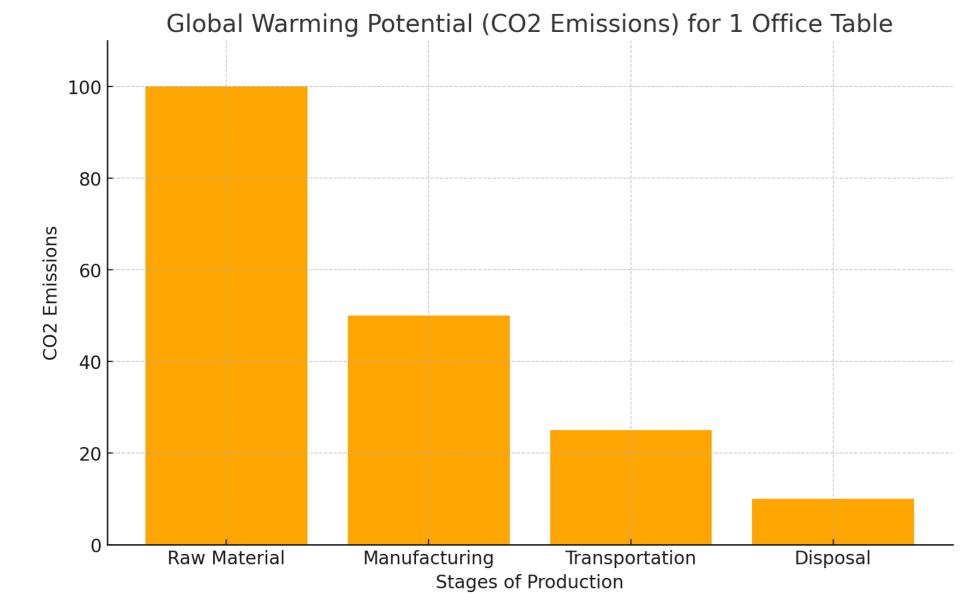


 The office furniture industry predominantly follows a "take-make-dispose" model or "linear economy."

- The EU discards 10.5 million tons of office furniture annually, with 80-90% incinerated or landfilled.
- In 2021, 23% of newly produced office furniture was non-recyclable, and 45% was only partially recyclable..



Understanding the carbon footprint of office furniture helps in making more sustainable choices.

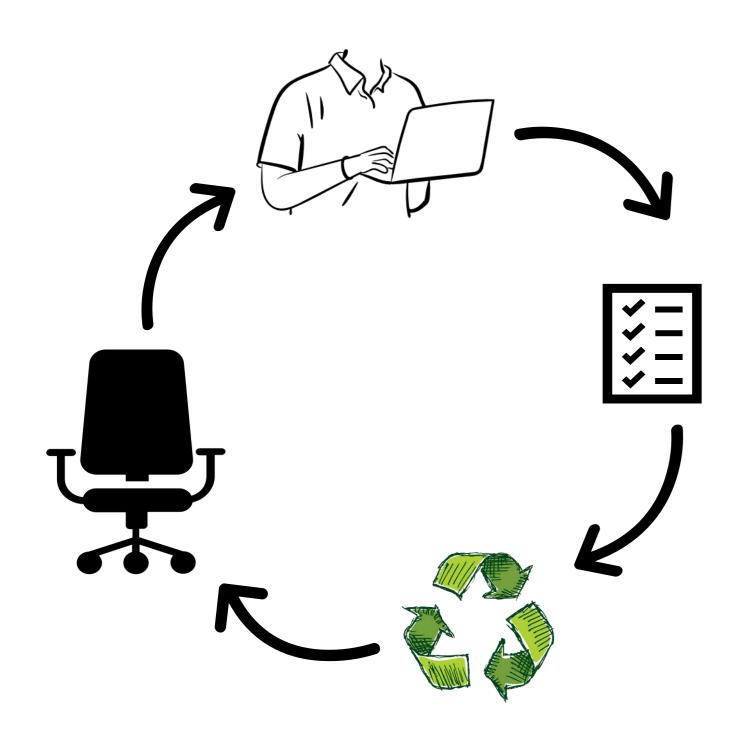


By reusing existing furniture, we can significantly reduce the **overall carbon emissions** associated with the production cycle of new furniture.

Concept

User-based system to catalog furniture and components

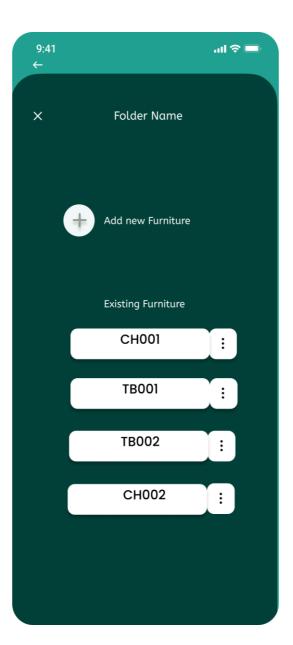
- Creation of exportable folders with furniture and component details.
- Incorporation of sustainability impact calculators.
- The folder should be exportable as an excel list.
- Every Furniture is saved with its components and their attributes.

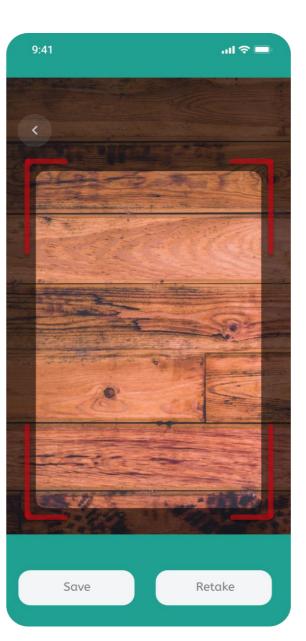


Solution

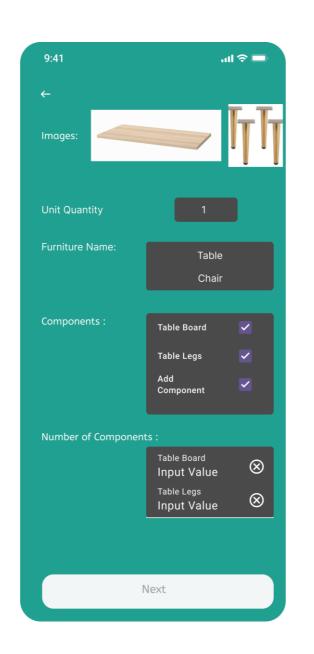
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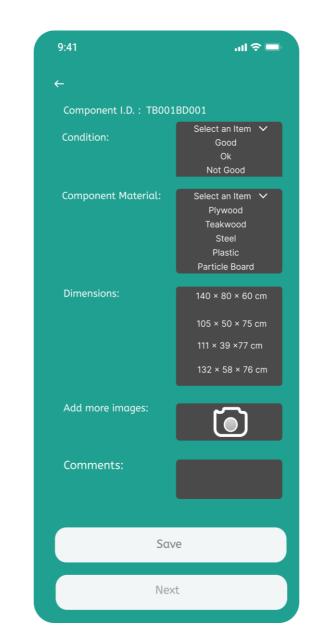






Main components of APP







❖ Workflow of APP

- Login/Signup Screen: Log in via social media or email, or create an account with name, email, and password.
- Welcome Screen: Greeted with existing folders, users can add new folders.
- Settings Screen: Update email, view old scans, change measurement units, and manage account settings.
- Add Folder: Name and save new folders to organize furniture scans.
- Folder Contents: View existing furniture items and add new ones.
- Scan Furniture: Capture an image of furniture, with the app highlighting it.
- Add Furniture Details: Enter quantity, furniture name, and list of components.
- Component Details: Add condition, material type, and dimensions for each component.
- Add More Images: Upload additional images of the component.
- Completion and Feedback: Save information and receive feedback on environmental impact such as waste reduction and water savings.

Future Scope



Integration of AI to enhance data collection.

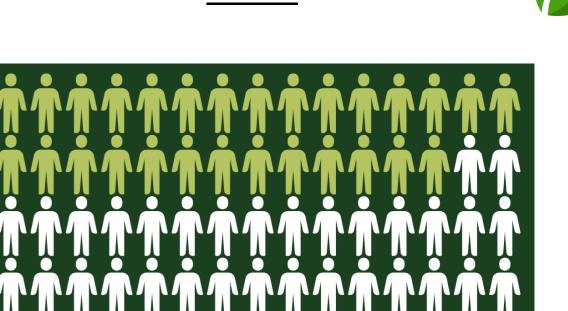


Community sharing platform for upcycled furniture and ideas.



Personalized recommendations for furniture upcycling.





5 Phases of Project

Timespan - 20th April 2024 to 11th July 2024

