

DESIGN DOCUMENT: VERTAEON

VERTAEON (Group 2):

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EXECUTIVE SUMMARY

Vertaeon provides a platform to perform sustainability analytics for organizations. The key design challenge in this project was to design a way for non-technical users to efficiently navigate the interface & find the key metrics they are looking for. This project is a design from scratch.

The interface should be easy to learn so as to cater to non-technical users and also pleasant to use so as to drive up user engagement with the platform.

We interviewed Vertaeon's internal users and learned about the different workflows and processes that the different users do to perform their daily tasks. From the interviews, we extracted four core user needs, the most important of which was efficiently navigating the many categories.

We designed an integrated search and menu panel on the left pane for users to efficiently find key metrics.

From testing the paper & interactive prototype, we came to know the common issues that users are facing, mainly the missing

INTRODUCTION

Vertaeon is a leading player in sustainability analytics. Their platform allows companies to set corporate sustainability goals, track & monitor these goals on a daily basis and use the insights generated by the platform to make progress towards their sustainability goals. Vertaeon achieves this by running powerful analytics on the company's internal data to generate actionable insights. Users then use these insights and take actions to stay on track to meet the company's sustainability goals.

For any enterprise interface, the vast amount of functionality baked into the platform can be confusing to new users. Moreover, Vertaeon's user base is primarily non-technical. Our goal with this redesign is to design an intuitive and pleasant experience for these non-technical users so that everyone in the company is aligned with the sustainability goals and to ensure that users benefit from the full range of functionality that Vertaeon's platform offers.

USER RESEARCH

Focus statement

Learn the processes that non-technical users (executives, managers & business users) use, to monitor and track sustainability goals across their organization. How do they feel about the current scenario? What issues are they facing? What do they think can be improved with the existing processes?

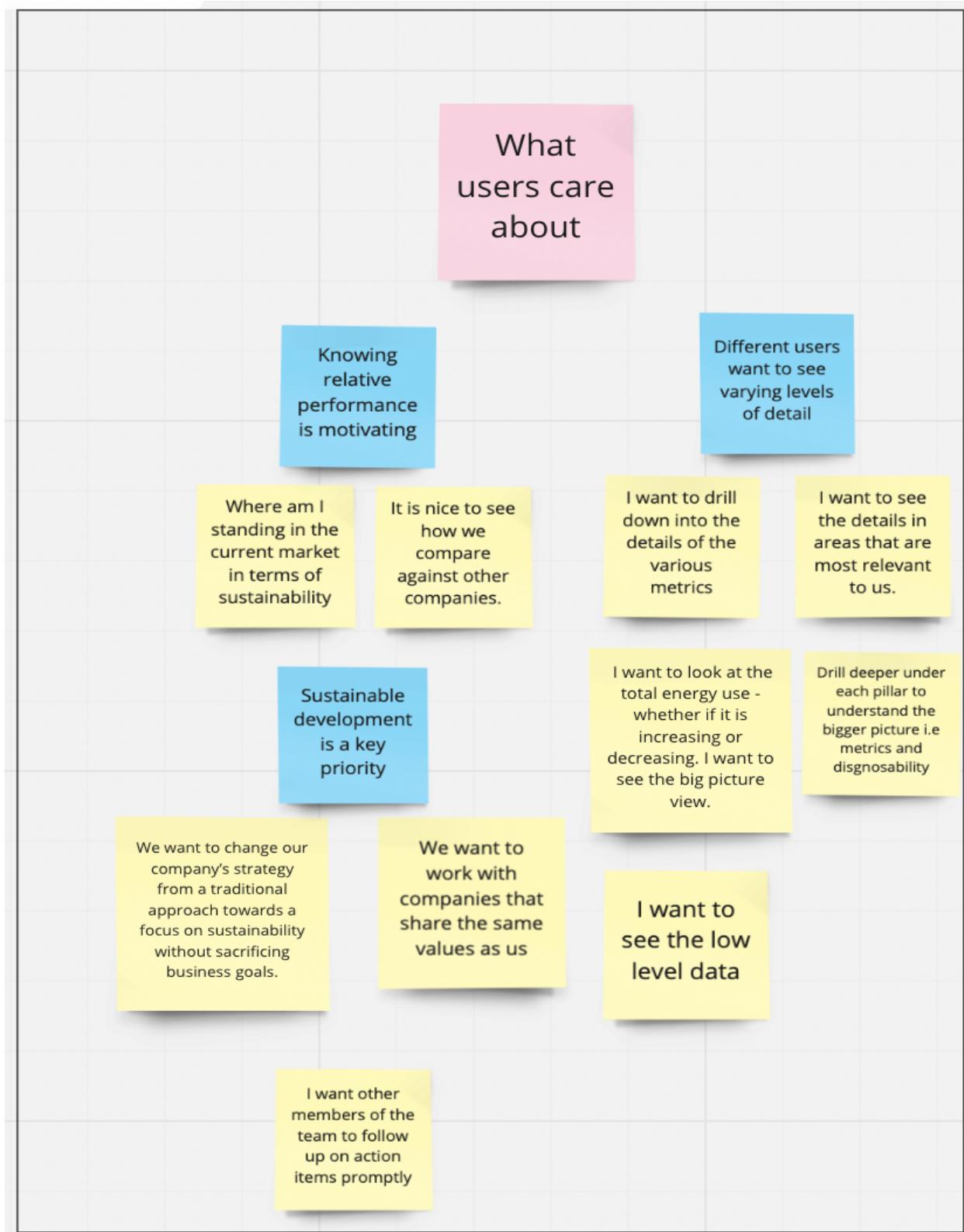
Interview goals

- Learn how managers interact with business users and co-ordinate together to make progress towards sustainability goals
- Identify the kinds of issues the users are facing when performing their tasks.
- Learn the different workflows and processes that users use to monitor sustainability in their organization.
- Discover what kinds of Key Performance Indicators different users look for

Interview guide

1. What kinds of workflows do the different users (executives, managers, business users) follow?
2. What are the issues faced by the different users when navigating these workflows?
3. Are the issues common among the user categories or are they specific to a particular category?
4. What kinds of actions / privileges can operations managers do that business users can't?
5. How do managers interact with business users to create action items? How does that process work?
6. What are the kinds of tasks that an operations manager typically does?
7. How do you think we can improve the processes that the corporate manager currently does?
8. How is information consumed by the different users of the target audience?
9. How do you monitor key performance indicators of sustainability across the organization?
10. How do managers ensure that the company is making progress towards their corporate sustainability goals?

Affinity diagram



User Processes

End to end monitoring
is important

First we try to identify a risk, then list all the different action items, after that we want people to follow up on these actions.

Navigate the 3 main pillars of sustainability

Track all metrics, collect data, import, organize, dashboard to visualize, insights from data, analytics, in - data, different levels of analytics, take organizations, generate reports

Data consumption is more important to me than processes

Challenges

Too many choices is overwhelming

Navigating many different categories is unintuitive

I get overwhelmed if there is too much information

It is difficult to find what I am looking for if there are too many categories

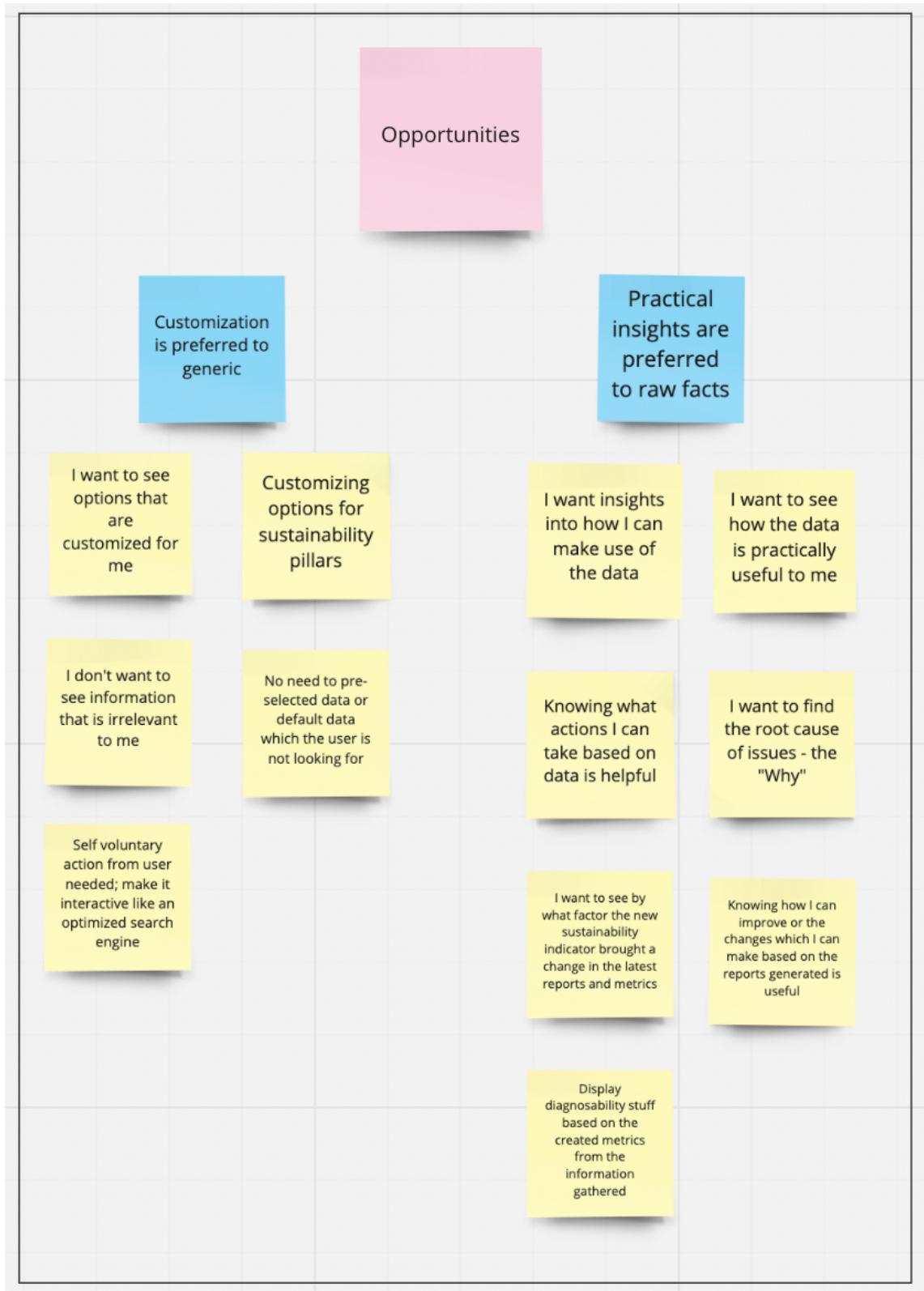
I don't like to be overwhelmed with information. I want to see things at a high level. And then optionally drill down and view the nitty gritty details.

I find it overwhelming when there are too many tasks to do

Users are unaware of all possible functionality

I don't know all the functionalities that the application offers

I feel I am not using tool to its full potential



User Needs

Based on the data we collected in our User Research phase, we were able to identify the following user needs:

- The user needs to be able to efficiently find how the company is performing in any key metric.
- The user needs to be able to view more detailed information about Key Performance Indicators.
- The user needs to see how they are performing relative to our competitors in any category for a particular metric.
- The user needs to see only the key metrics that they are interested in.

Personas

Persona 1

Brandon Taylor



"I want to see the trends in sustainability across the company"

Age: 54
Work: Advisory Board Member
Location: Atlanta, Georgia
Character: Ambitious

Goals

- See the big picture view of corporate sustainability
- See how we are performing relative to our competitors for any category and metric.

Frustrations

- Having difficulty extracting practical, actionable insights from the raw data

Bio

Brandon Taylor is an advisory board member. He deals with issues on governance, risk management, and corporate sustainability. He is known as a high motivational speaker and moderator in popular educative programs on research in collaboration with leading firms and investors. Recently he was nominated as an influential expert in corporate sustainability and governance

Day in the life

Brandon is a busy person who wants to get things done efficiently. He doesn't have the time to get into the nitty gritty details of the organization. Instead, he prefers the bird's eye view so he can see & quickly sift through the various corporate sustainability trends across the different departments in the organization. Typically, he would have to spend time scheduling meetings with the various department heads in order to get the information he needs to make important business decisions.

Motivation

Motivation Type	Score
Incentive	High
Fear	Low
Growth	High
Power	Medium
Social	High

Personality

Function	Introvert	Extrovert
Thinking	Low	Medium
Sensing	Medium	Low
Judging	Medium	Low
Feeling	Low	Medium
Intuition	Low	Medium
Perceiving	Low	Medium

Persona 2

Alexandra Stephens



"I want to find the environmental sustainability categories & KPIs that impact our daily operations"

Age: 38

Work: Operations Manager

Location: Atlanta, Georgia

Character: Industrious

Goals

- Achieve end-to-end monitoring for sustainability analytics
- Identify key sustainability indicators for growth

Frustrations

- I see content that is irrelevant to me
- Difficult to monitor on daily basis

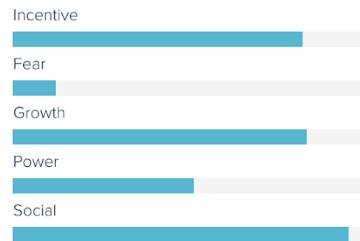
Bio

Alexandra Stephens is a goal-driven operational executive with extensive experience in creating and maintaining tactical business solutions. Her expertise lies in achieving optimal analytics with strategic alliances. She believes in cultivating productive working environments and relationships with co-employees and partners.

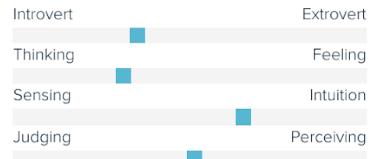
Day in the life

Alexandra is interested in finding the key performance indicators that affect daily operations. She gets this information by both observing the daily operations in the company and talking to the managers in the various departments. She relies on both her intuition and the reports from the employees who report to her to get an idea of the metrics driving the company's growth.

Motivation



Personality



Persona 3

Philip Berkely



"I want to extract key insights from data to power out business decisions"

Age: 32

Work: Business Analyst

Location: Atlanta, Georgia

Character: Analytical thinker

Goals

- Drill down the root cause of sustainability issues
- See information on how we can fix issues

Frustrations

- I see raw data instead of practical insights
- Overwhelmed by too many options

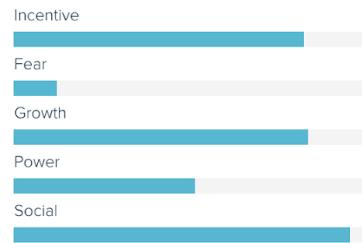
Bio

Philip is a self motivated business analyst who supports the sustainability development team. He collaborates with sustainability leaders on proposing impactful solutions for analytics and data consolidation to accelerate the sustainability efforts. He has vast knowledge on the sustainability realm with keen attention to detail. Developing scalable solutions in a fast paced environment was his top skill in rapidly changing business process

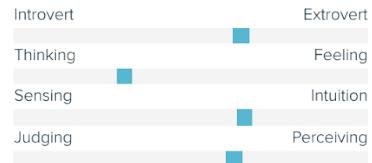
Day in the life

As a business analyst, Philip is concerned with extracting insights from data to power the business decisions. Normally he would do this by going through the corporate data. It typically takes him weeks to investigate all the data. He has to manually uncover the insights by himself as well, which requires a lot of manual effort.

Motivation



Personality



Persona 4

Kristina Myer



"I want to work with my team to achieve our sustainable targets"

Age: 45

Work: Corporate Manager

Location: Atlanta, Georgia

Character: Natural Leader

Goals

- Collaborate with my team to create strategies for sustainability
- See action items with reminders so they are completed on time

Frustrations

- Not able to customize information I see according to my profile

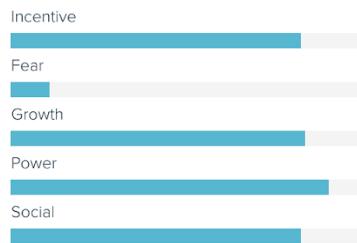
Bio

Kristina Myer is an expert in leading teams developing award-winning sustainability solutions who is working in a highly mission-driven organization. She and her team played a key role in developing strategies related to creating financing with tactical considerations which caught the eye of various stakeholders. Known as one of the people with strong interpersonal skills who has played a major role in developing networks and creating partnerships across organization.

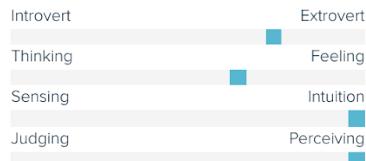
Day in the life

Kristina believes in being a team player. That's what brought her to this position. She likes the idea of her team collaborating seamlessly to achieve the company's sustainability goals. Before using the platform, she was hosting team meetings to ensure her team was making regular progress and sending emails to make sure they followed up on action items.

Motivation



Personality



Scenarios

Scenario 1

Brandon Taylor advises corporations on corporate sustainability and resource conservation. He usually gets the information he needs by hosting numerous meetings with different stakeholders in the company. It usually takes him a lot of time and effort to get the information he needs. But the new Vertaeon site has overcome previous problems with a comprehensive framework having all the key elements for sustainability diagnosis, and visualizations in a systematic way. Brandon is able to identify the risks which are projects from the sustainability reports along with a series of action items to follow up to avoid that risk. He can track all the metrics and key performance indicators and grasp insights from the analytics provided. Because of the inclusion of end-to-end monitoring, his goal is achieved where data consumption was given top priority. With the new design, Brandon can identify key elements of comprehensive sustainability and identify key indicators for growth in record time!

Scenario 2

Philip Berkely supports Vertaeon's business development efforts by sifting through the company's internal data and extracting insights that power the key business decisions. Typically, he has to go through hundreds of corporate reports to gather all the data. But, the new Vertaeon interface automates this process of gathering data & runs the analytics that he wants to see. He can see varying levels of detail which are relevant to him and drill down deeper levels to find more information. The new site has customization options specific to the user. Phillip can now see details specific to only business logs and visualizations and metrics based on key performance indicators for their own applications. He can view data being populated for his selection of reduced sustainability pillars and search being made only for the populated contents. Philip can run any analytics that he wants to and get back the information he needs in seconds instead of weeks. Now, he always gets his work done on time.

Scenario 3

Alexandra Stephens monitors the overall operations at her company. She has to speak with the heads of the different sectors and read the internal reports to understand the metrics that the company should focus on. Vertaeon's new interface now assists in the development and implementation of business strategies for the company's sustainable growth. Alexandra can now directly see practical insights instead of raw facts. Finding out the key indicators which are negatively impacting sustainability is not much of use without providing diagnostic information on how they can be avoided and changes to be done with the growth. She frequently uses the drill down option to see the nitty gritty details and extract insights on how they can make use of the sustainability reports. Alexandra can see by what factors and sustainability indicators brought a change in the reports and metrics. She can easily identify problematic issues early. Finding the root cause of the issue and then getting diagnostic insights to improve it has never been easier!

Scenario 4

Kristina Myer creates and executes maintainability solutions and rules that meet up the organization's current structure to reduce energy, consumable water, waste, and ozone depletion substances. She meets with her team and they set sustainability goals and action items. Typically, she has to follow up with the employees she is managing to ensure that regular progress is being made. Now, with Vertaeon she can change the company's strategy from a traditional approach towards a focus on sustainability without sacrificing business goals. The latest version of the site has sustainable development as a key priority. It displays action items for internal team members to follow up in a linear

fashion with proper roadmaps to reach the end goal set. Vertaeon's new interface also offers an Interactive product tour at the beginning so that the users are aware of all the existing functionality which the site offers thereby making it more user interactive and effective to use. Kristina is thrilled that her team is in alignment with the company's vision for sustainability and that they meet all their targets.

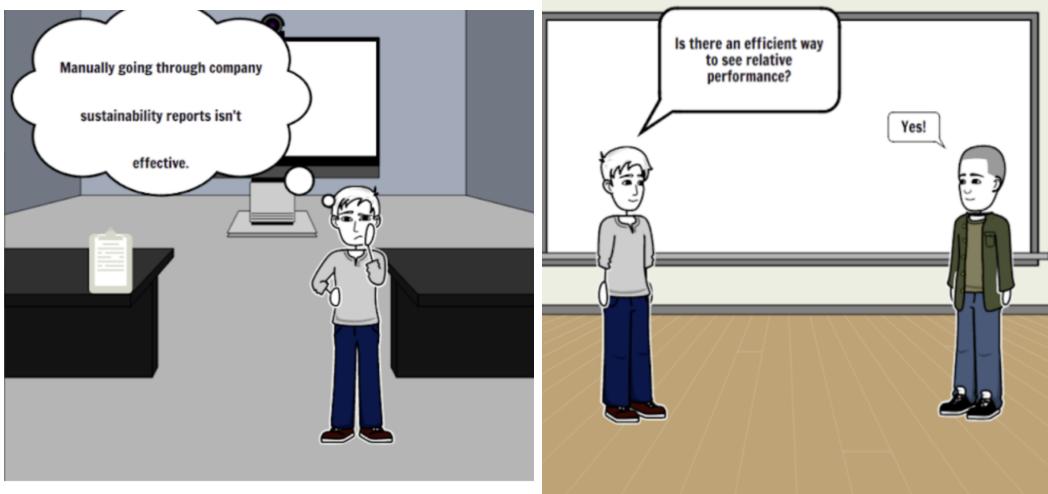
Storyboards

Storyboard 1



Frame 1: Brandon created an account at Vertaeon. He is able to see statistics on how the Key Performance Indicators for his company are working. But he wants to know on where his company stands along with the competitors

Maria was impressed with the idea of knowing their relative performance when compared to their competitors and is looking for possible ways to achieve.



Though Vertaeon site provides sustainability, but manually going through each of them to find out the relative performance is an inefficient approach

Brandon finds out that there is an efficient way to see relative performance



The Vertaeon's site displays statistics and metrics via relative performance by comparing companies metrics with their competitor metrics for the same Key Performance Indicator



Brandon is happy about the feature and the idea

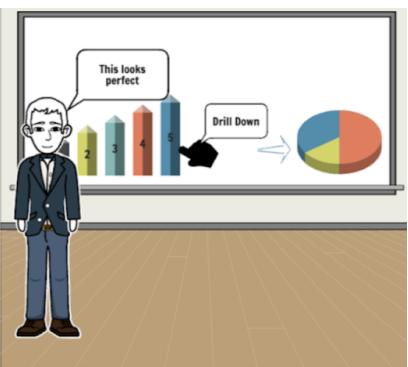
Storyboard 2



Philip can see the statistics for each Key Performance indicators but he wants to know the root cause of issues which effected the performance



Philip found out that we can have a drill down option



They have introduced the drill down option and it was useful

Storyboard-3



Alexandra feels it would be efficient when the data being displayed have practical insights rather than raw facts

Vertaeon's has introduced statistics and diagnosability metrics

Alexandra found it very effective

Storyboard-4



Kristina wants action items to be displayed for internal team members to follow up in a linear fashion with proper roadmaps to reach the end goal set.

Vertaeon's new interface has included action items as todo list with reminders

Kristina's work has been reduced a lot because of this customization

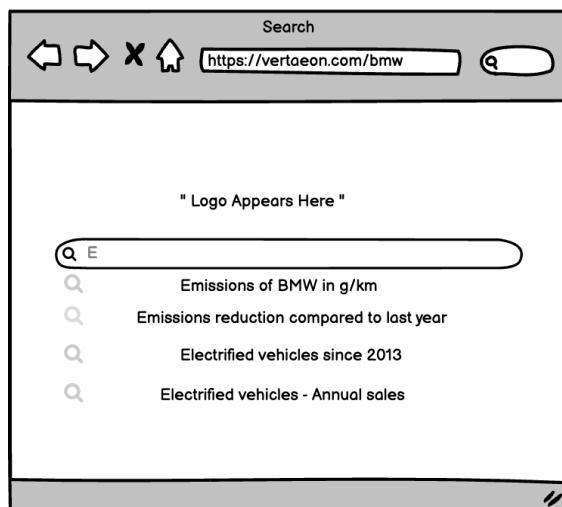
PROPOSED DESIGN SOLUTIONS

Wireframes of design solutions

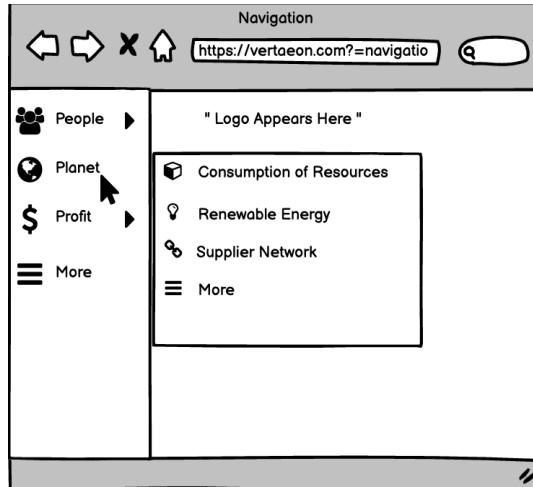
Iteration 1:

User Need: The user needs to be able to efficiently find how the company is performing in any key metric.

Design idea & rationale:



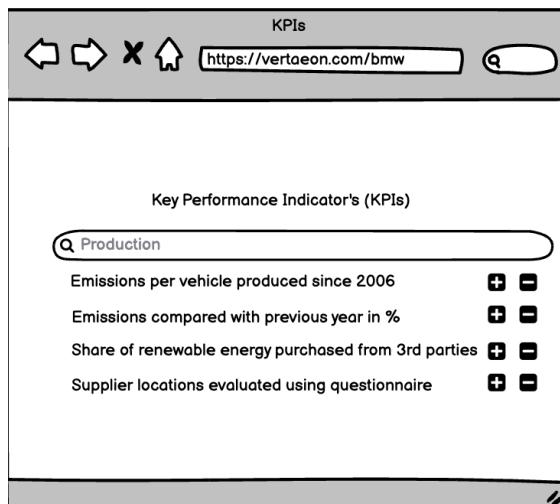
- The search bar helps to find relevant KPIs efficiently, without overwhelming users with menu options.
- Relevant category suggestions are provided when the user starts typing. It follows the autocomplete pattern. This also provides feedback for the user.
- The search icon acts as a metaphor for actual searching of items.



- Only high priority categories are shown. Others are initially hidden. This uses the Progressive Disclosure pattern. Hiding the other uncommon options in 'more' is an example of constraints.

User Need: The user needs to see only the key metrics that they are interested in.

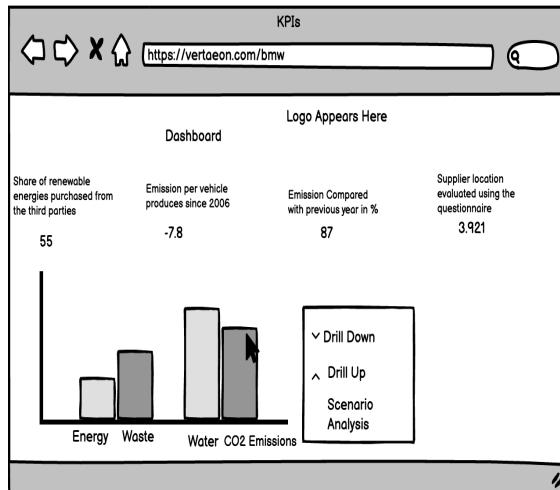
Design idea & rationale:



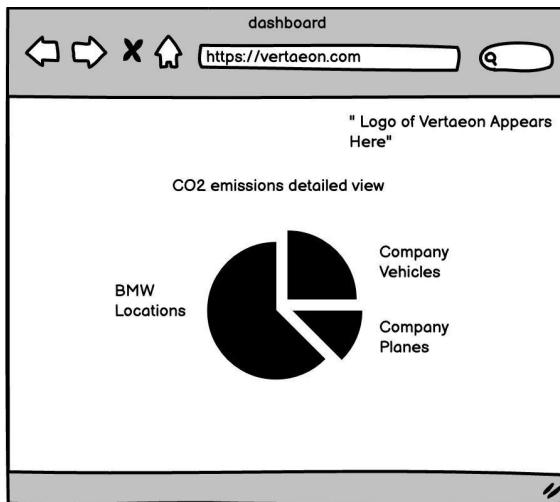
- The user can customize the KPIs that he wants to see on the dashboard. So, the information is personalized & relevant to them.
- The plus & minus buttons act as metaphors for add & remove.
- Also, the button with a raised surface provides an affordance for clicking.
- Searching for the KPIs is similar to searching for the categories, so consistency is maintained.

User Need: The user needs to be able to view more detailed information about Key Performance Indicators.

Design idea & rationale:

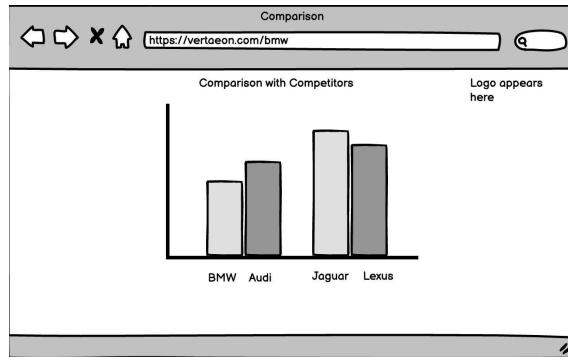


- The high-level view is useful for senior management. Drilling down allows business users to see the nitty gritty finer details.
- When we drill down, we can see exactly where the CO₂ emissions are coming from & their contribution to total emissions.



User Need: The user needs to see how they are performing relative to our competitors in any category for a particular metric.

Design idea & rationale:



- The 'compare with competitors' option allows users to see where they rank vs their competitors in the market, for any Key Performance Indicator.
- This helps managers gauge their position in the market easily.

Iteration 2:

We iterated over the previous design solutions and came up with design solutions that more closely satisfied our users' needs.

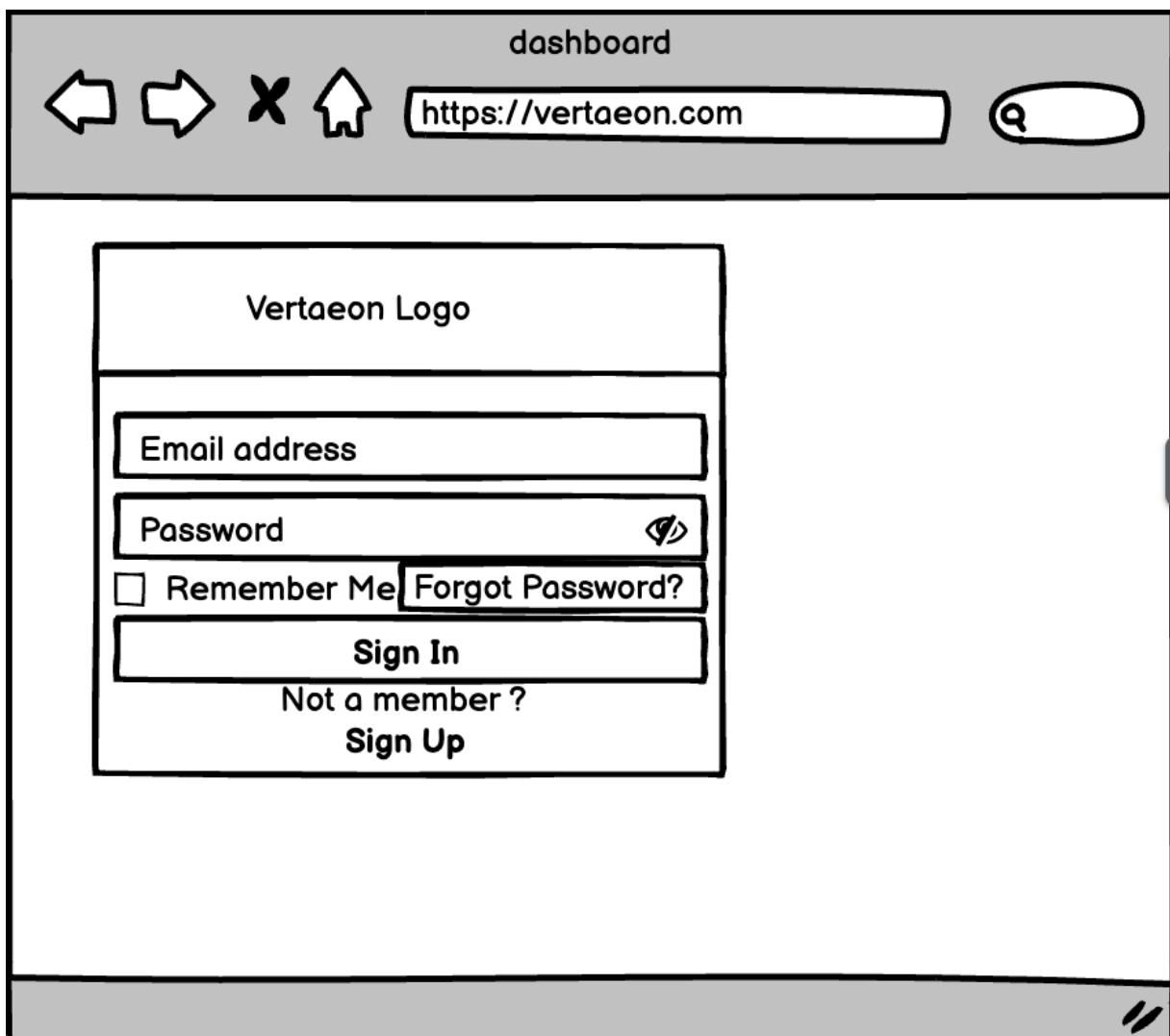


Figure 1: Login Screen for users to Sign In along with features such as Sign Up for new users to create an account at Vertaeon.

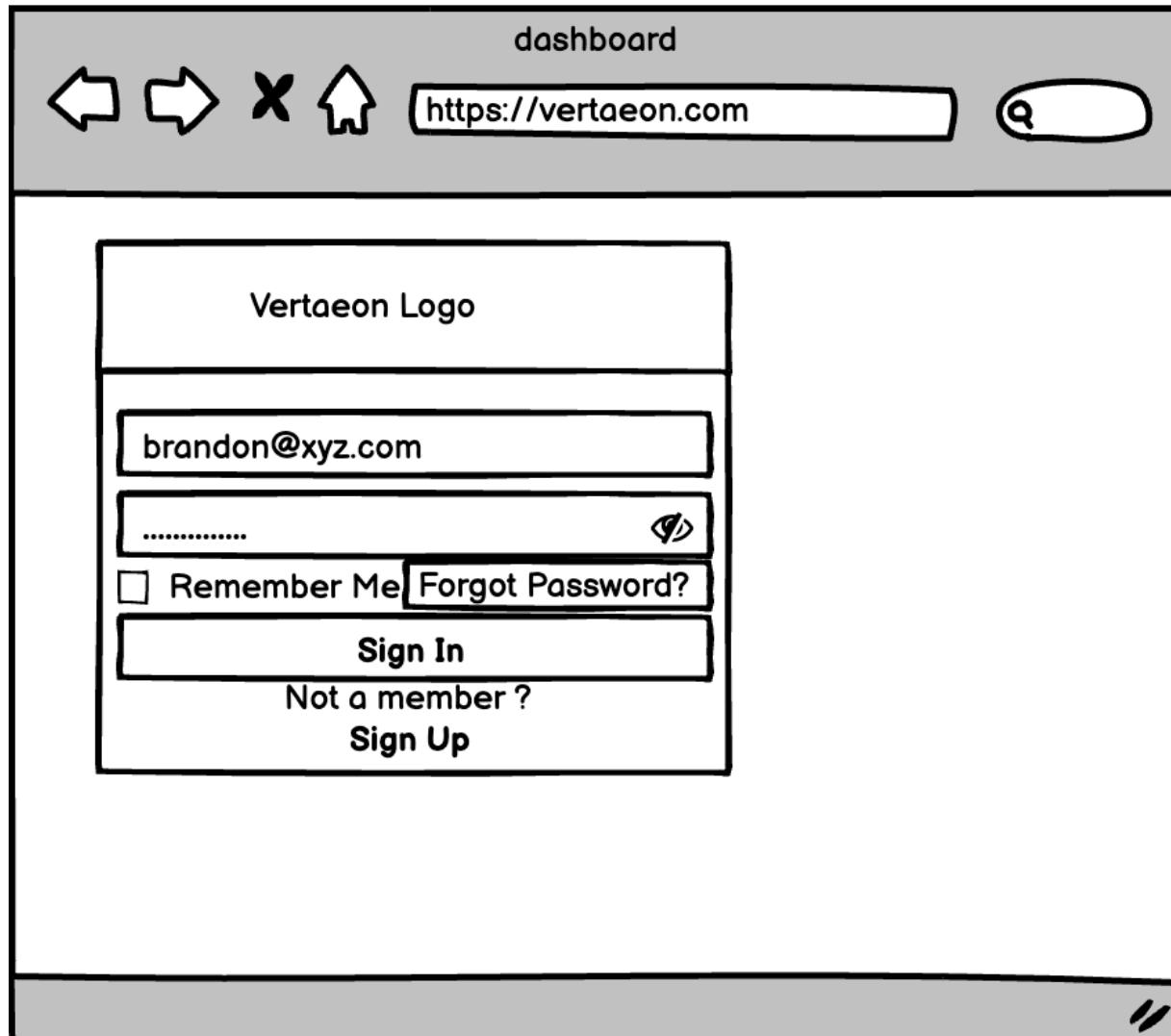


Figure 2: User has to enter details in the Sign Up page. The credentials should be the same as the one they used to register for.

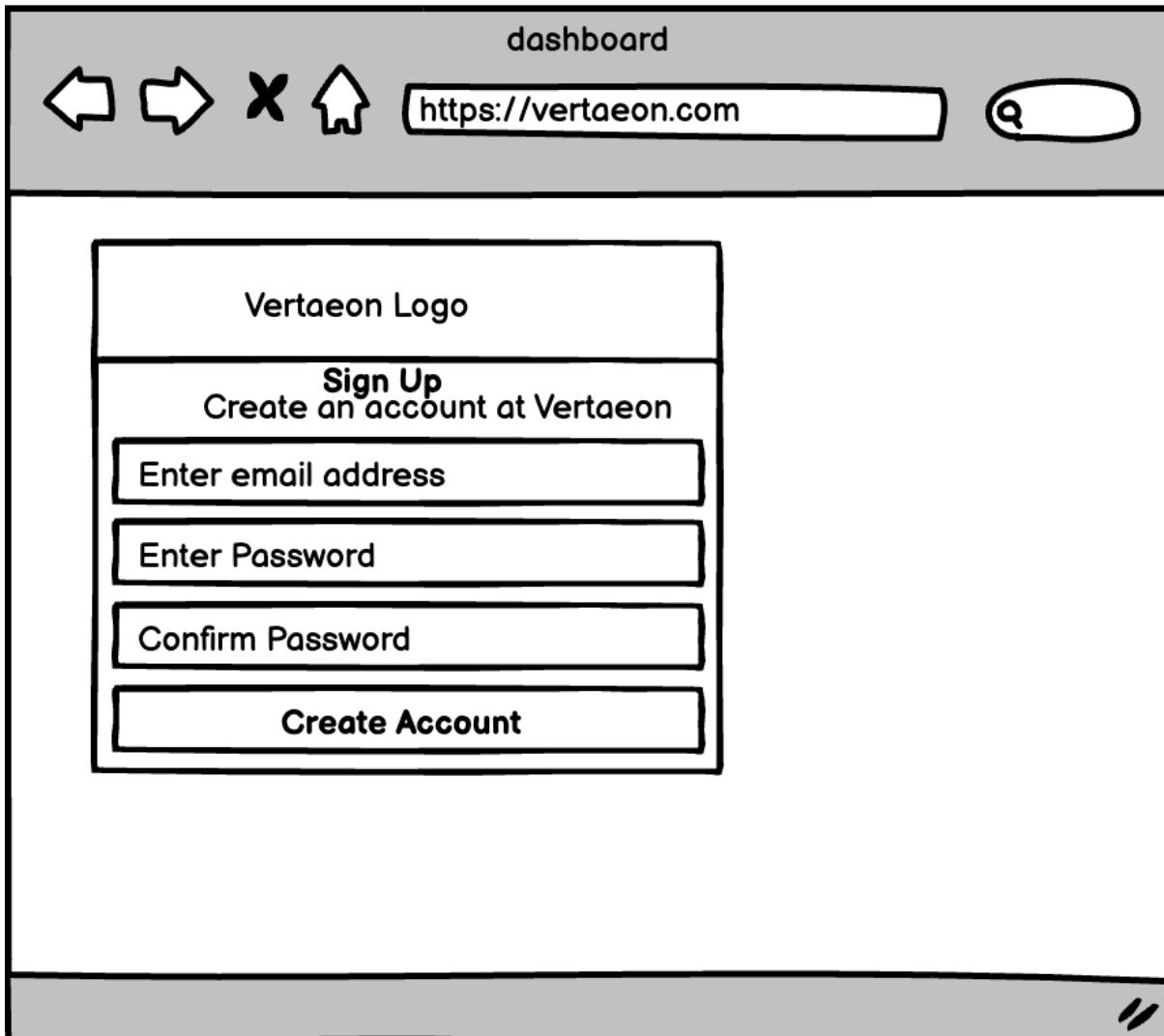


Figure 3: Sign Up page to create an account at Vertaeon. This is for users who are using the site for the first time.

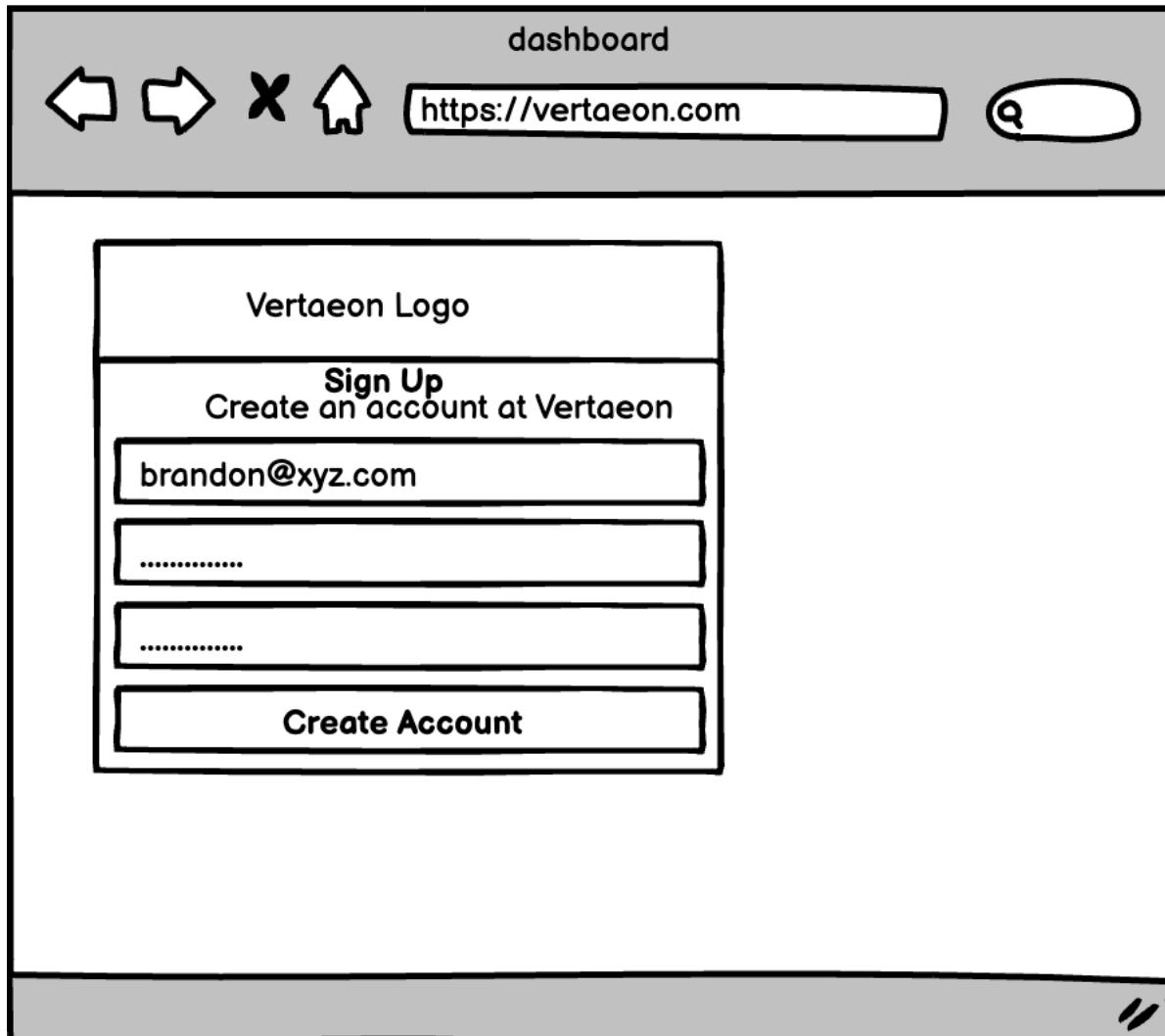


Figure 4: Registering with a username which is the email address and user preferred password.

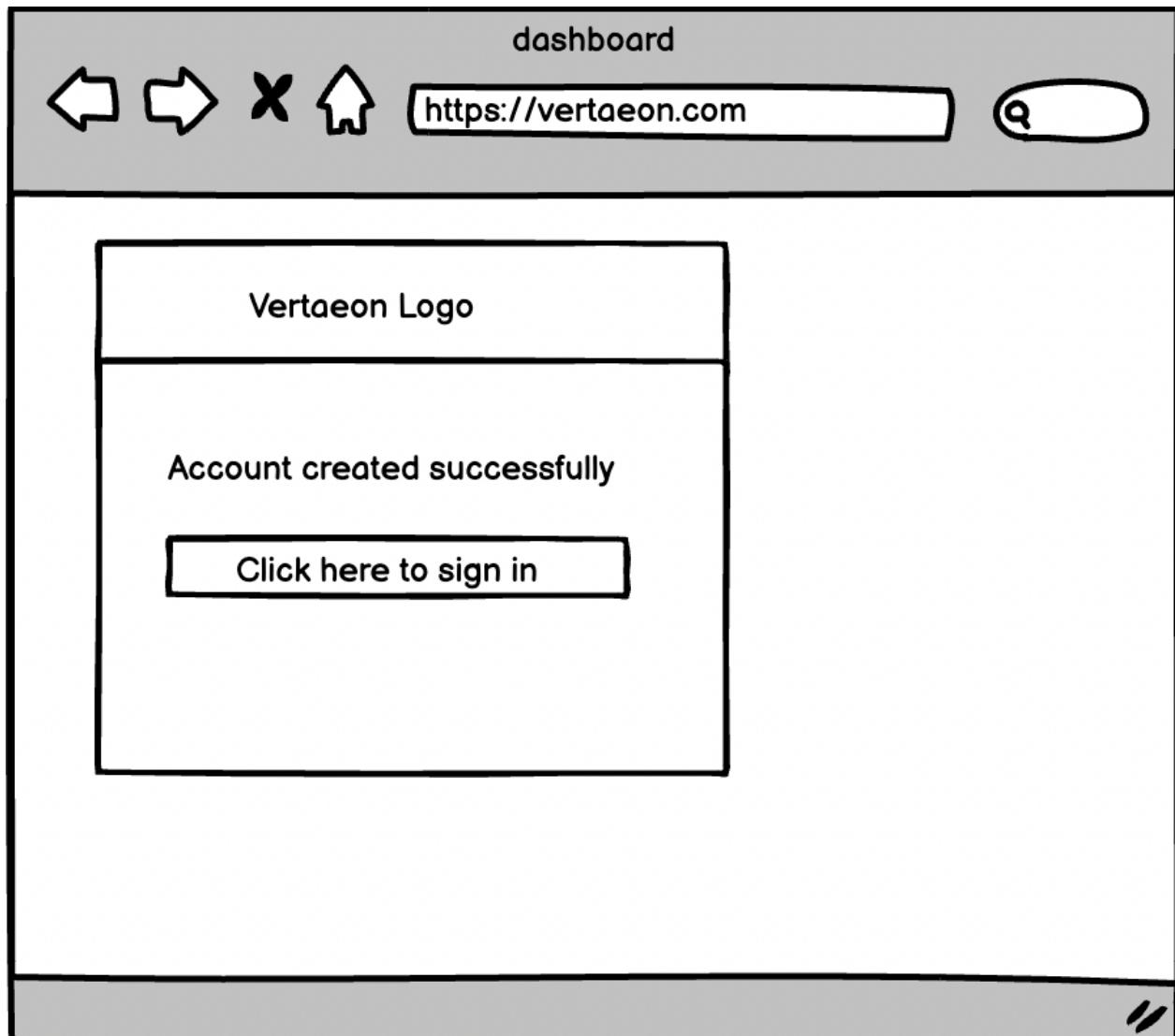


Figure 5: Confirmation of account creation.

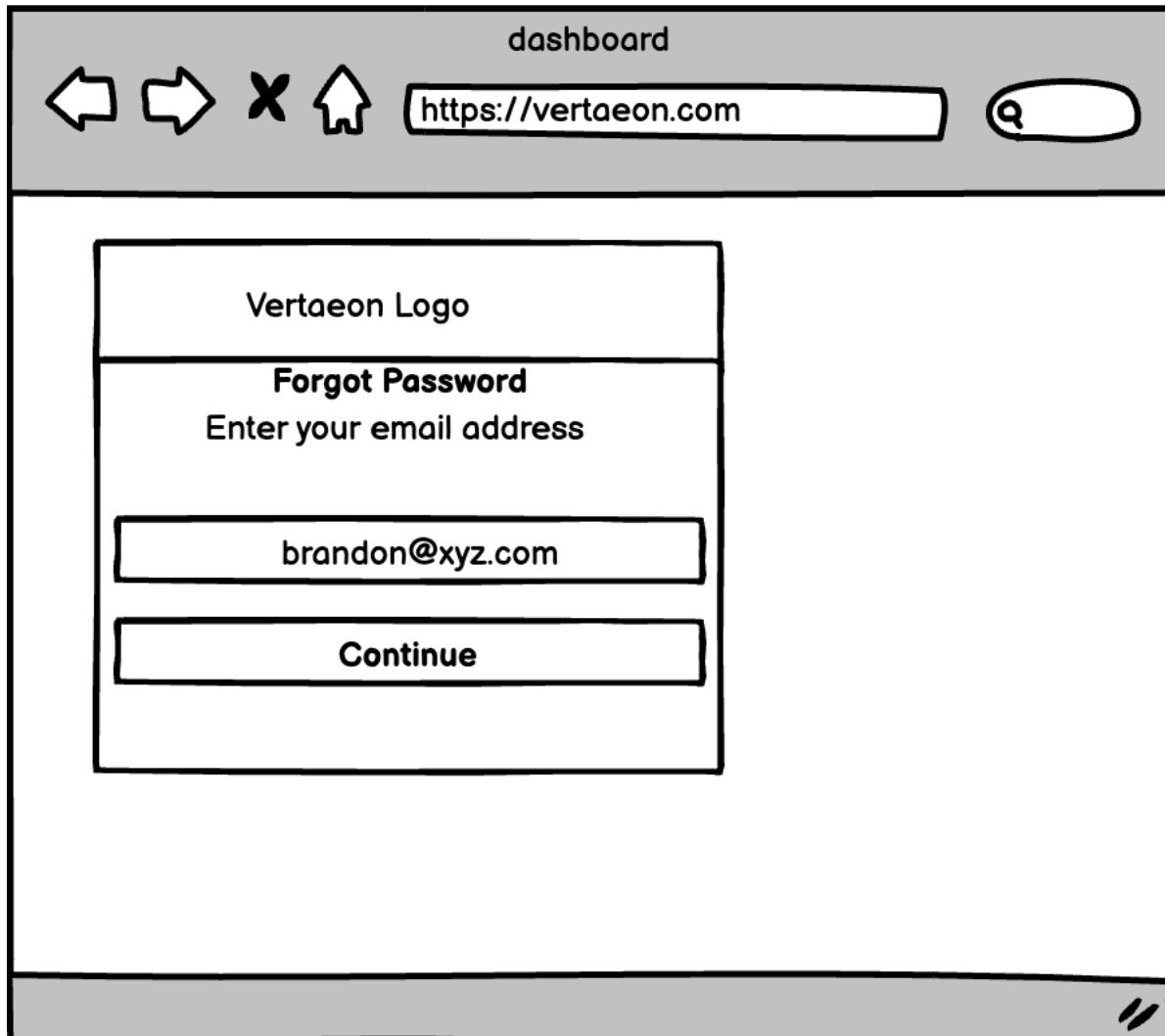


Figure 6: Feature to reset password in case the user forgets. Registered email must be entered in this case.

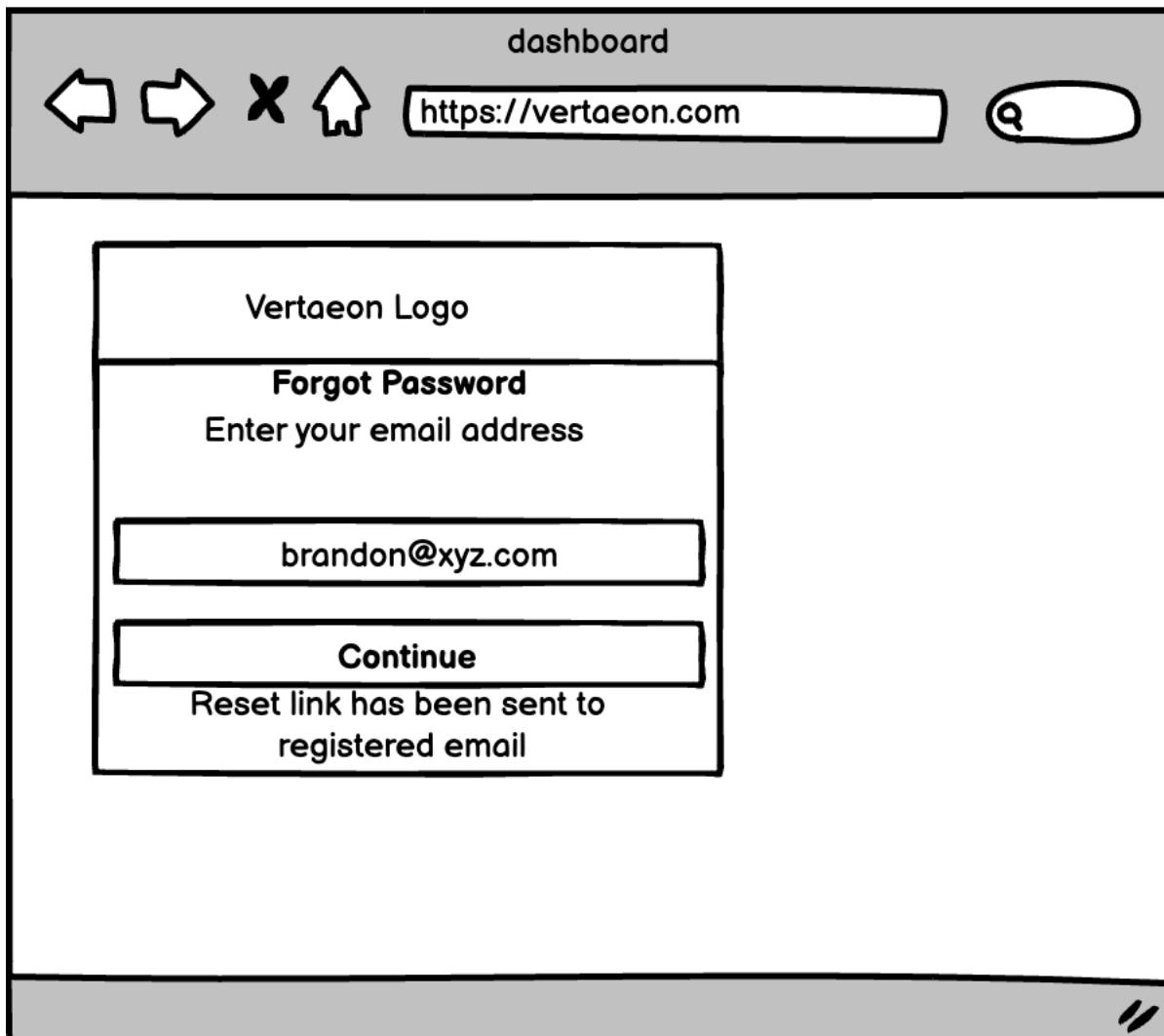


Figure 7: Link to reset the password has been sent to the registered email address.

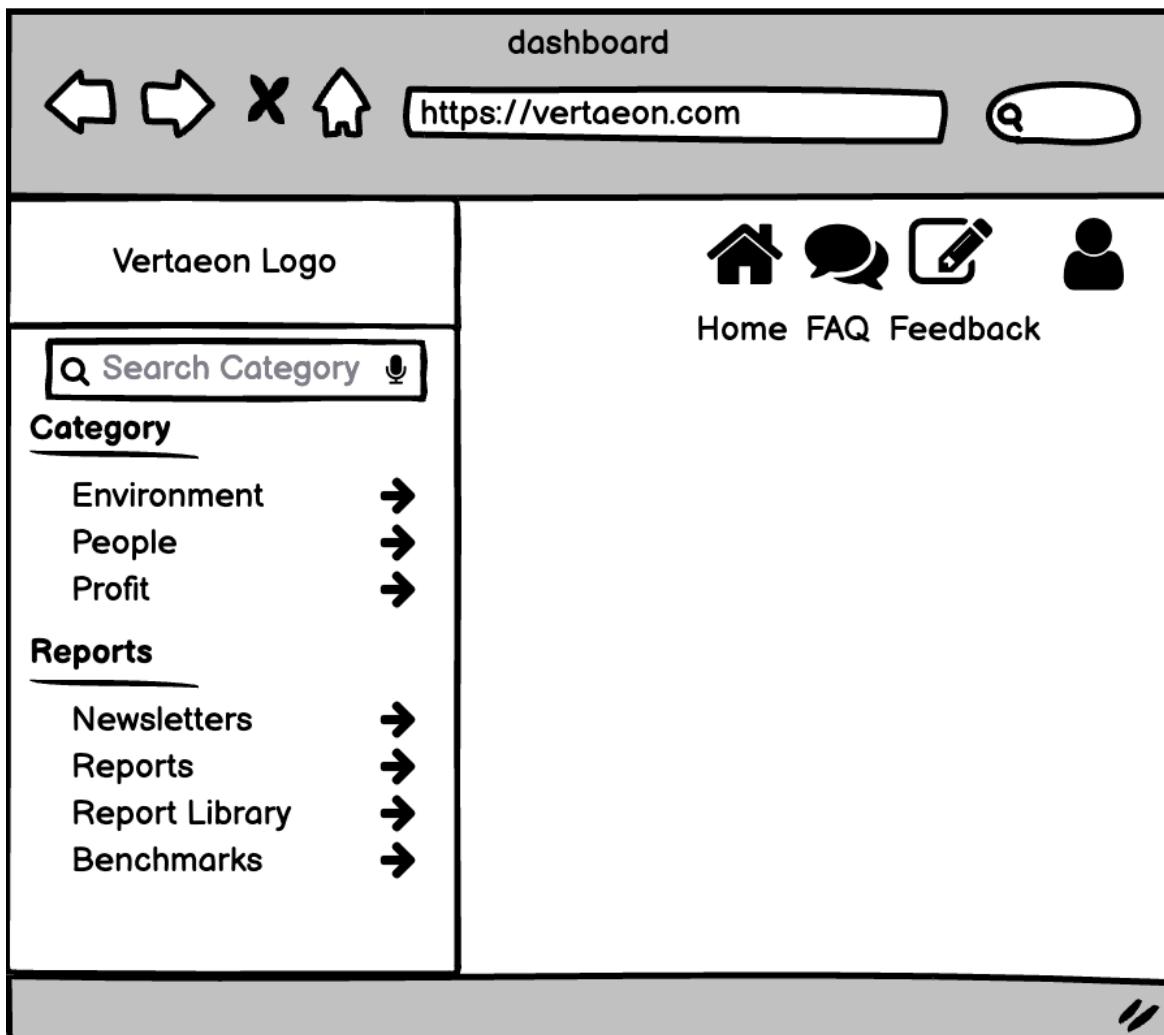


Figure 8: Home Page of Vertaeon

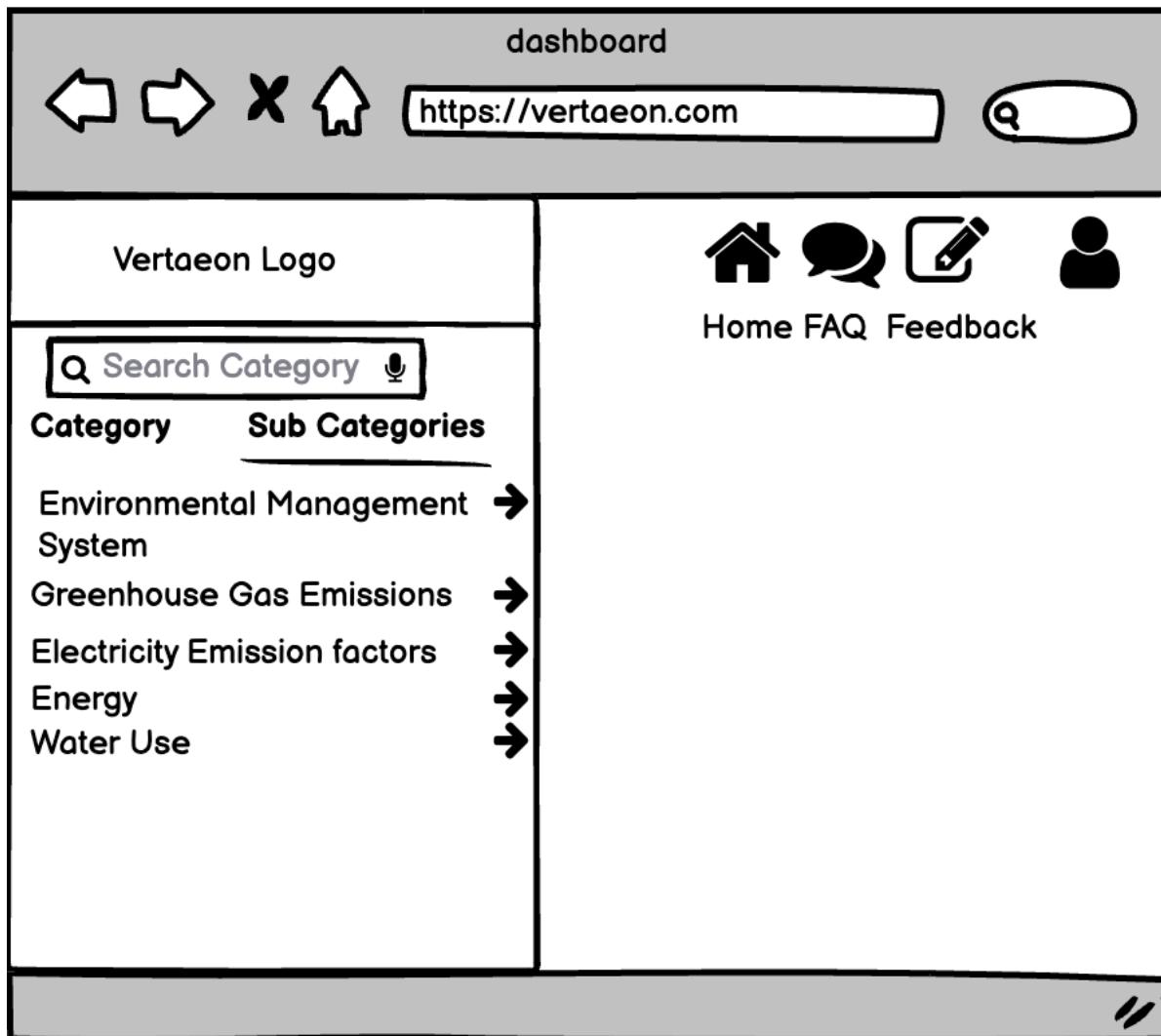


Figure 9: Each and every category has a subcategory. This reduces the number of options and eliminates the confusion of which one to choose.

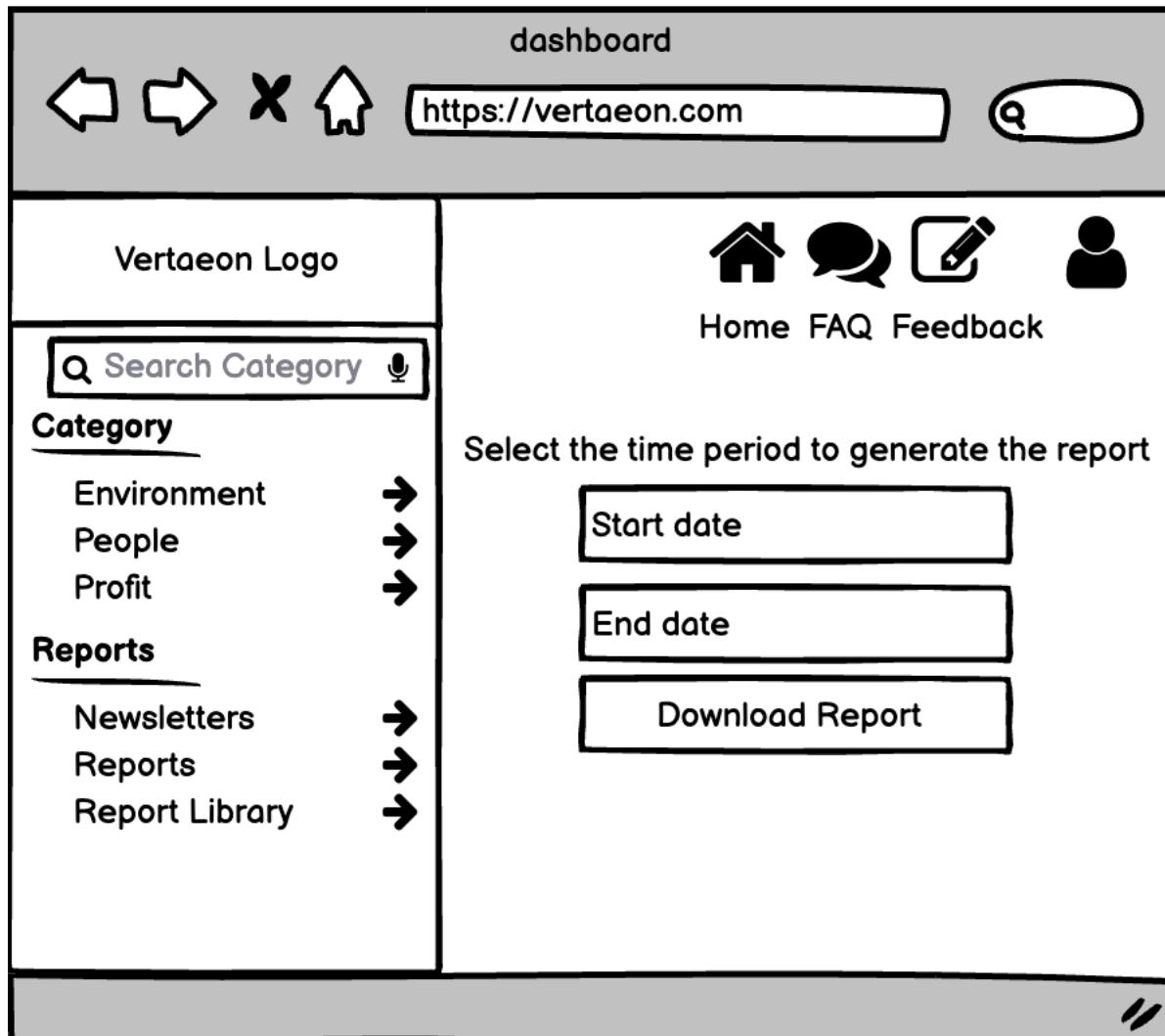


Figure 10: Above is an example when Reports are clicked. Here the content is displayed on the right menu.

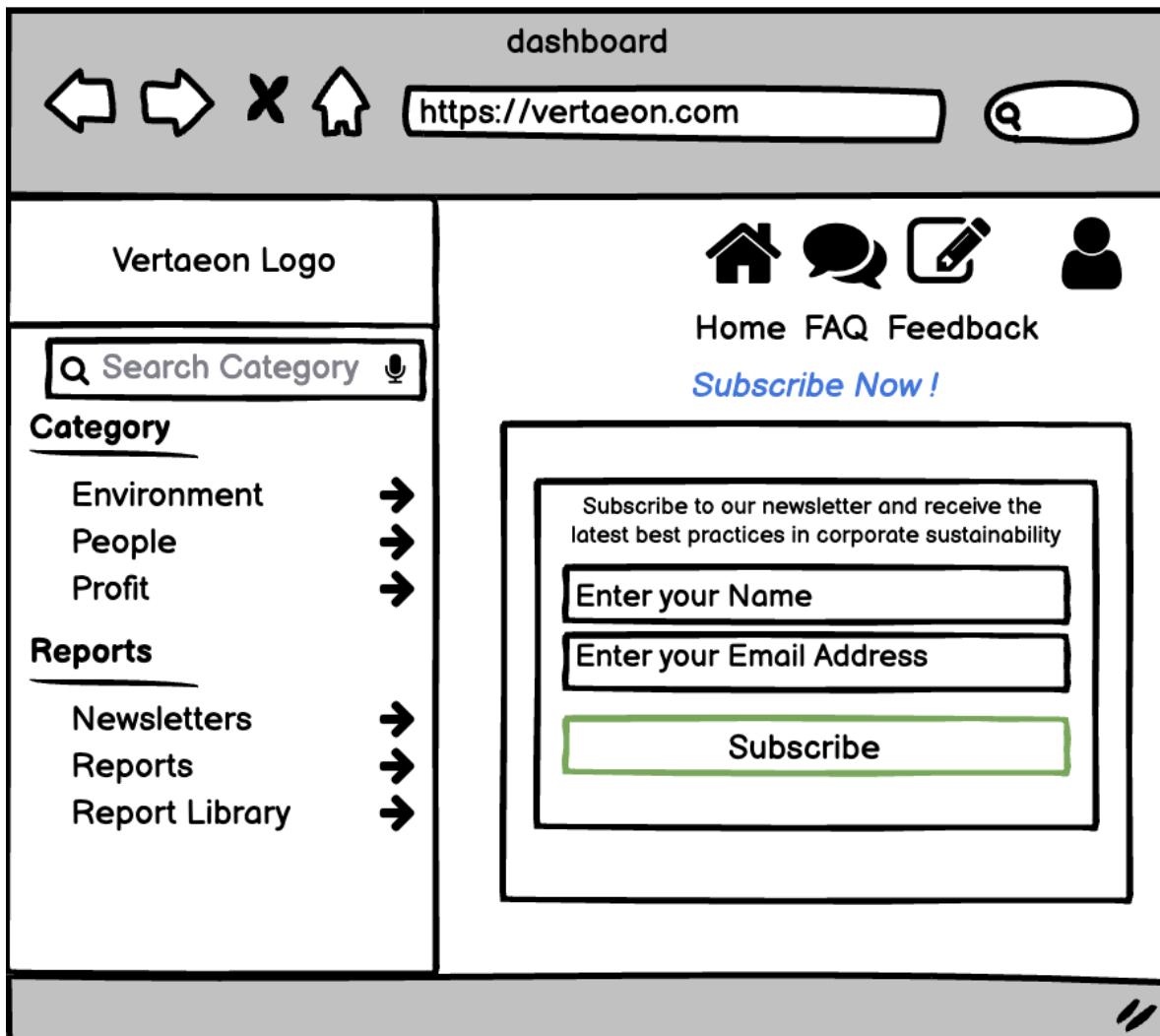


Figure 11: Above is an example when Newsletters is clicked.



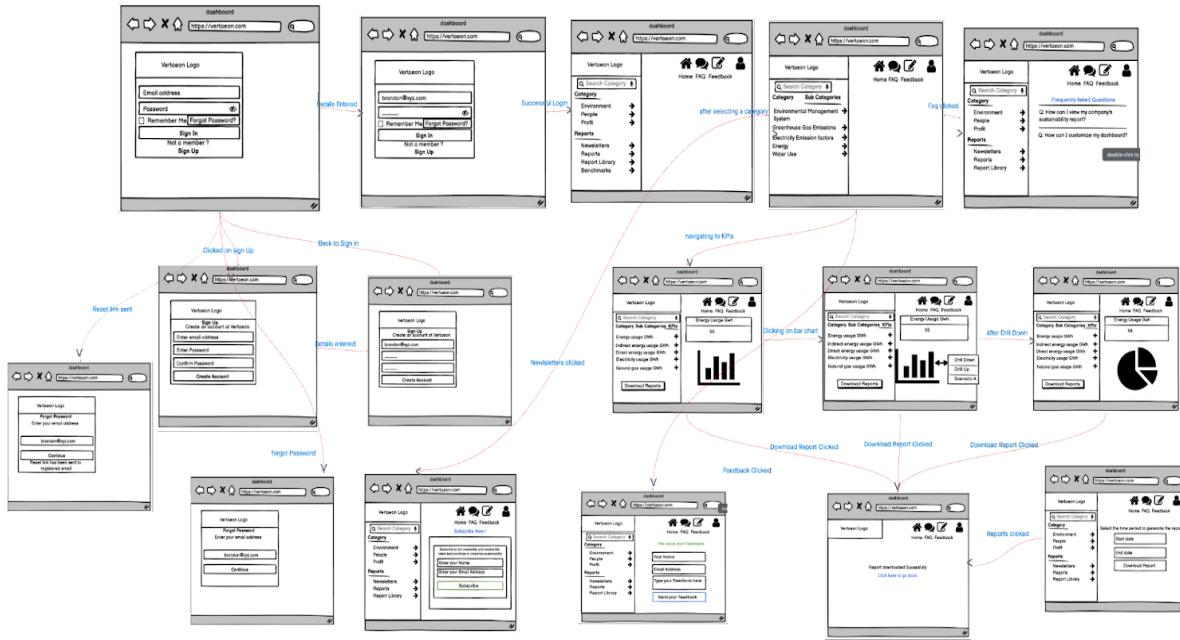
Figure 12: Above is an example when the Feedback icon on the top right pane is clicked. This is a feature for customer or client feedback in case of any issues, doubts or changes suggested.



Figure 13: Above is the screen being displayed when the FAQ icon on the top right pane is clicked. This is a feature for customers or clients to get answers or clarify doubts for frequently asked questions based on the feedback.

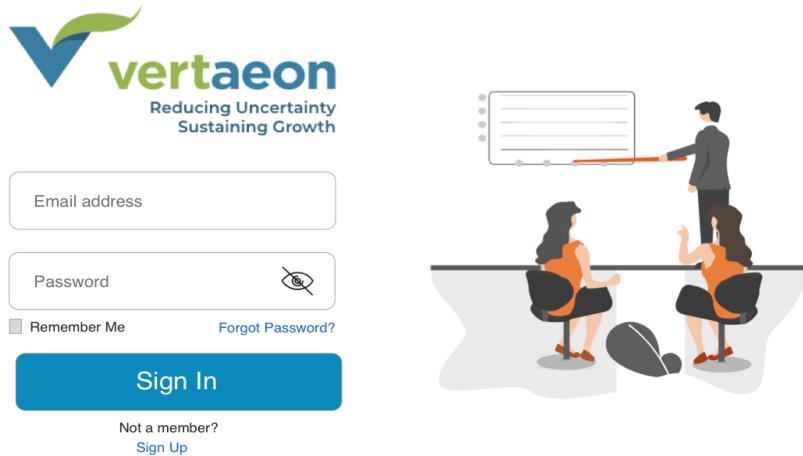
Wireframe Flow-Diagram:

<https://jayanthatcha72899.invisionapp.com/freehand/Wireframe-Task--Flow-PK8iXaKyV>



Mockups

We designed our final mockups based on the wireframes & the feedback from paper prototyping.



The image shows the Vertaeon sign-in page. At the top is the company logo with the tagline "Reducing Uncertainty Sustaining Growth". Below it is a form with fields for "Email address" and "Password", both with placeholder text. There are "Remember Me" and "Forgot Password?" links, and a large blue "Sign In" button. Below the form is a link for "Not a member? Sign Up". To the right of the form is a cartoon illustration of three people in an office setting: a man standing and pointing at a whiteboard, and two women sitting at a desk.

Figure 1: Sign In Page of Vertaeon

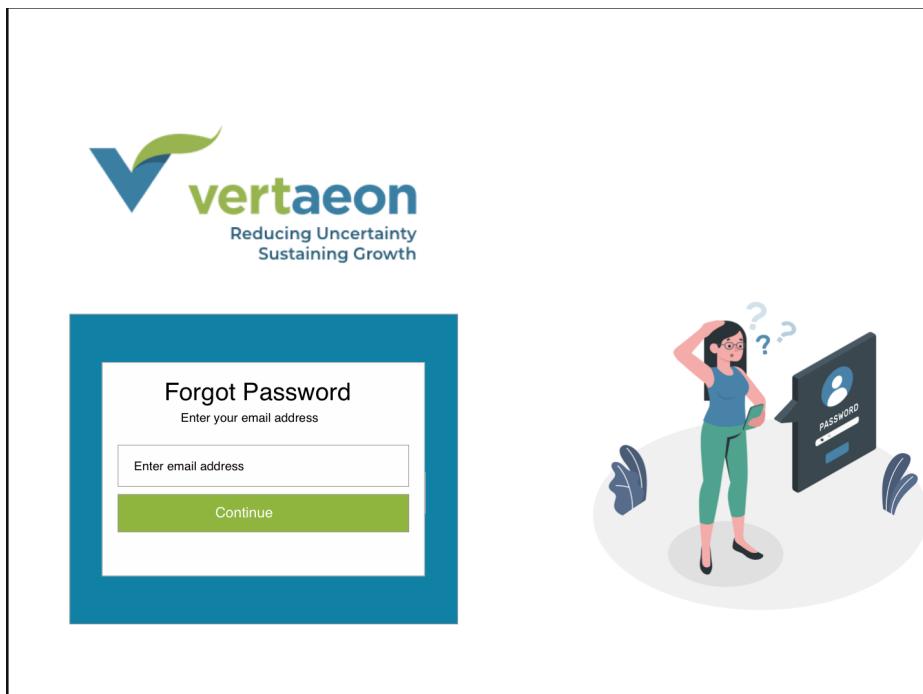


Figure 2: Forgot Password Page of Vertaeon. (In case the user does not remember his password)

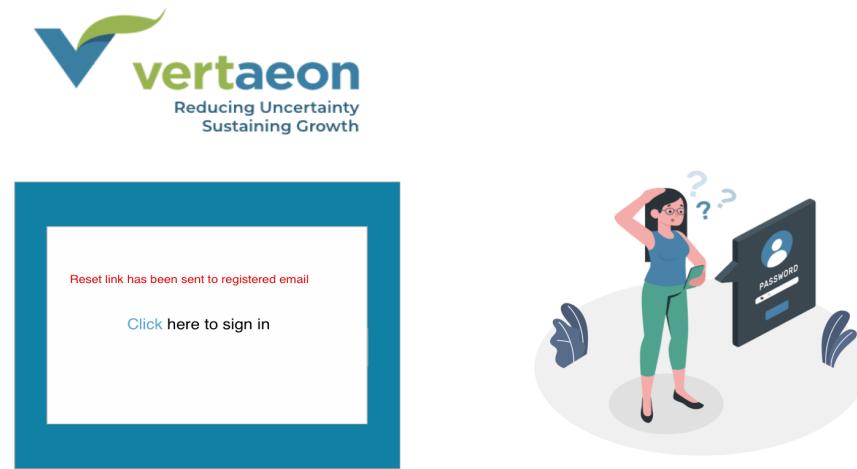


Figure 3: Confirmation Page of Forgot Password. Here after the details of email address are entered, a reset link will be sent to the registered email to change the existing password.

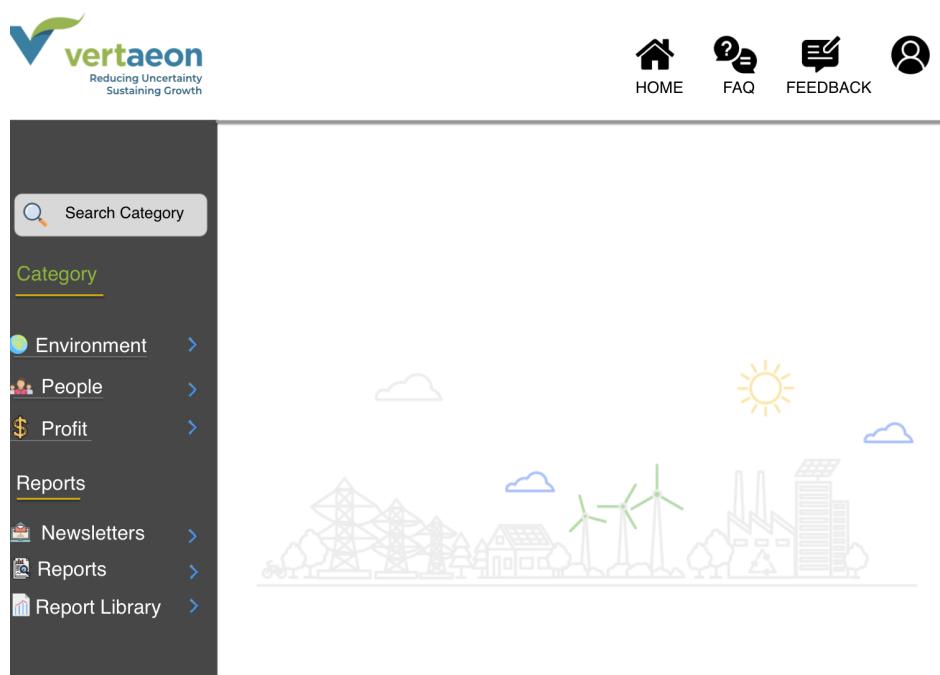


Figure 4: Home Page of Vertaeon

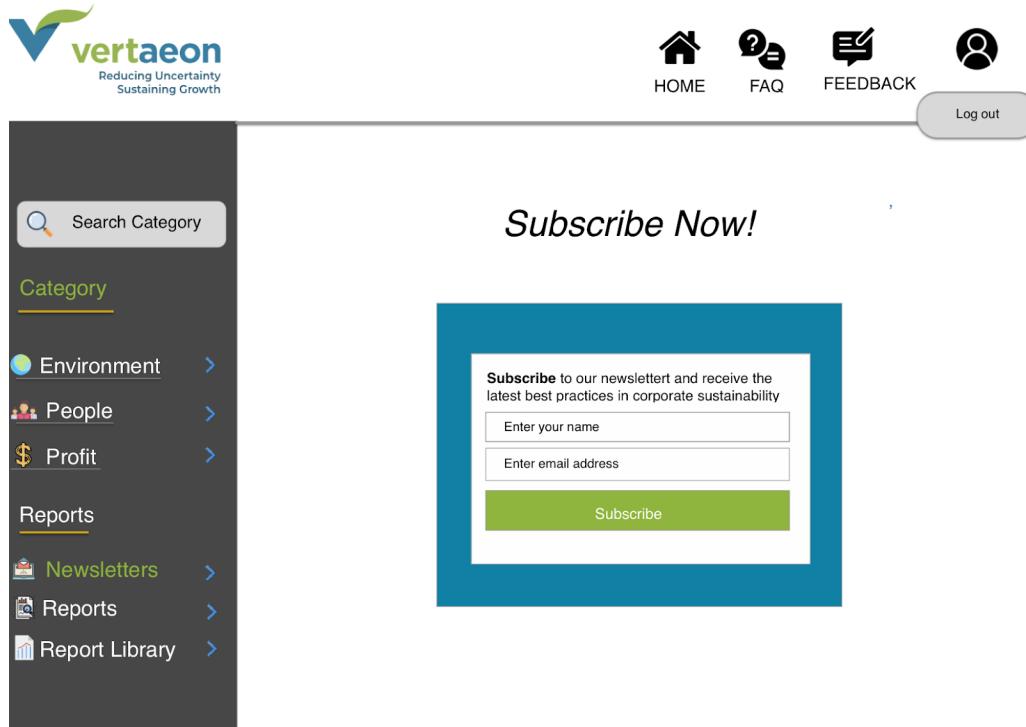


Figure 5: Newsletters are clicked and content for it popped up on the right pane.

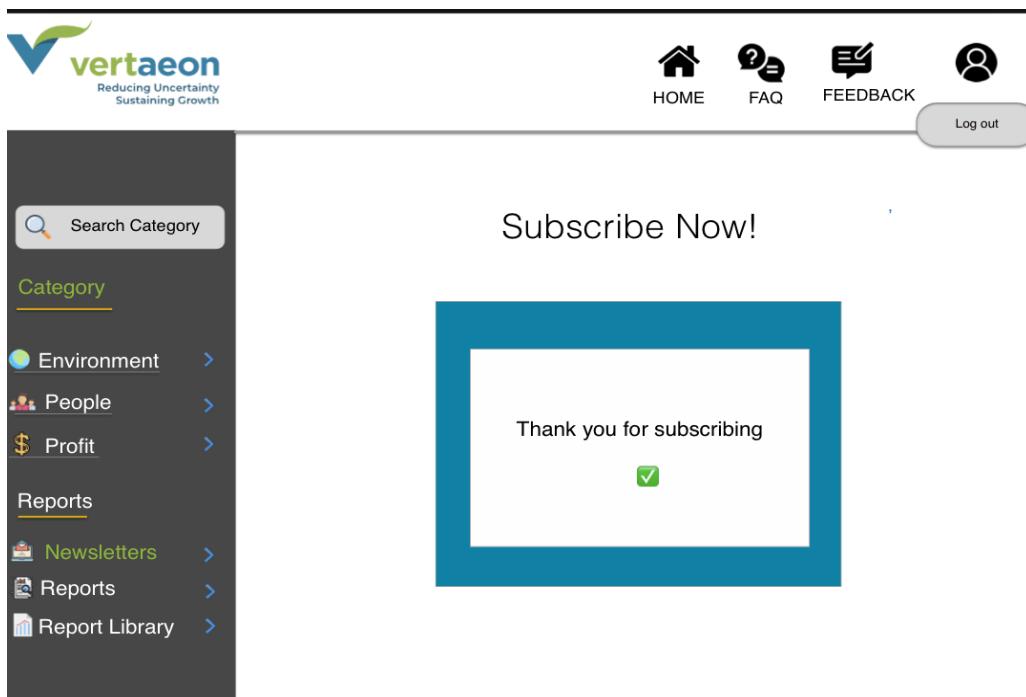


Figure 6: Confirmation that user has subscribed to the newsletter of his choice.

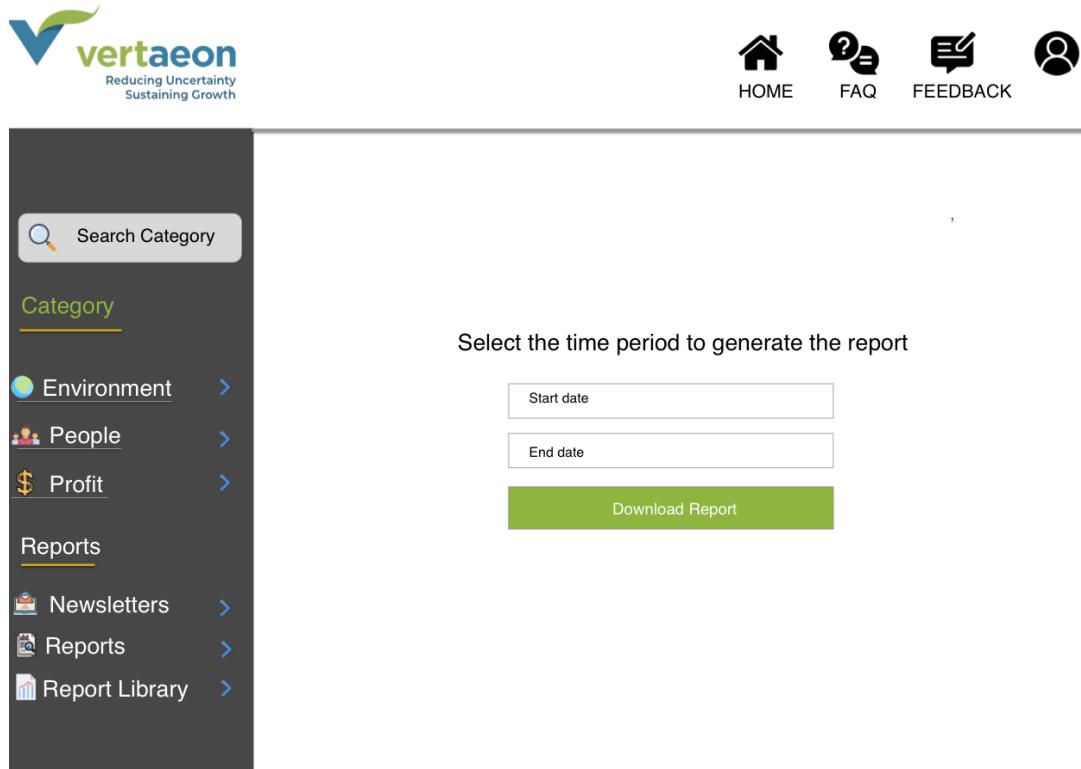


Figure 7: Reports are clicked. Users can enter the time range for which they want reports to be downloaded.

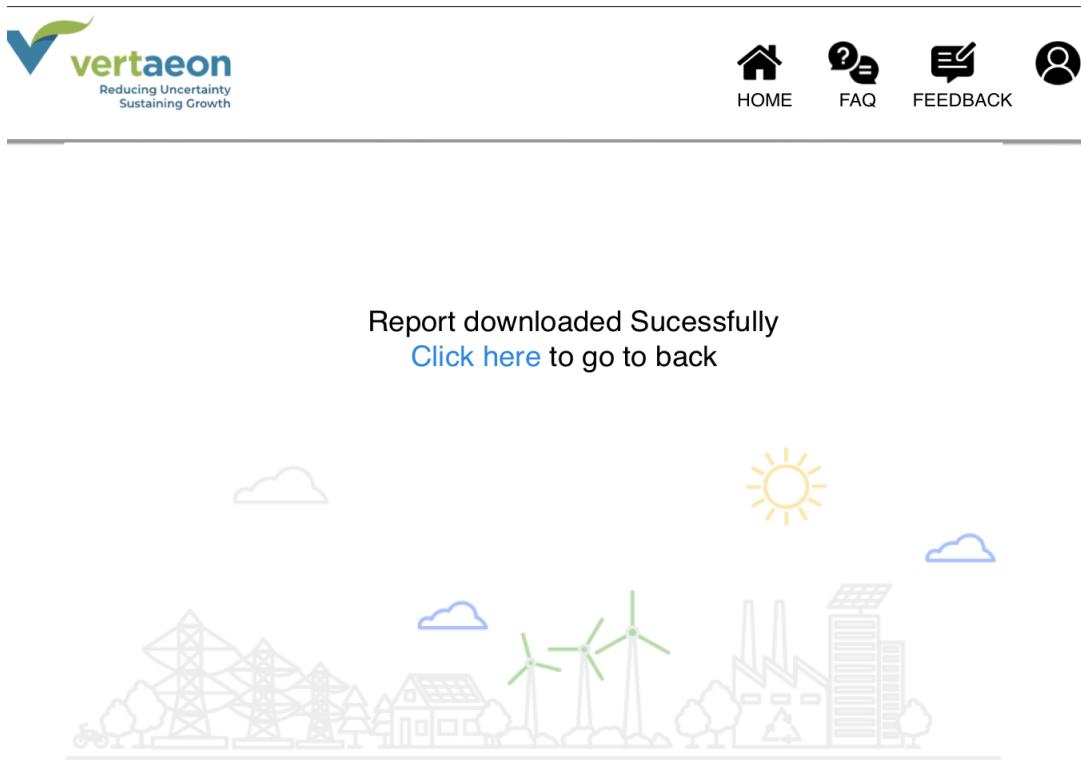


Figure 8: Confirmation of Reports Downloaded

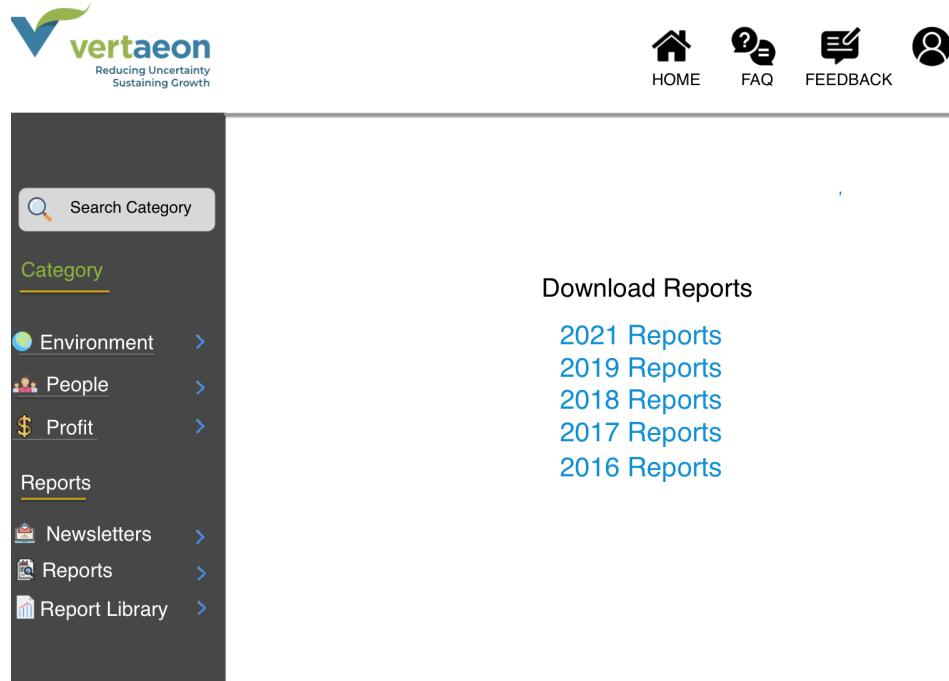


Figure 9: Here Report Library has been clicked. A set of reports of different years has been populated and are available for download.

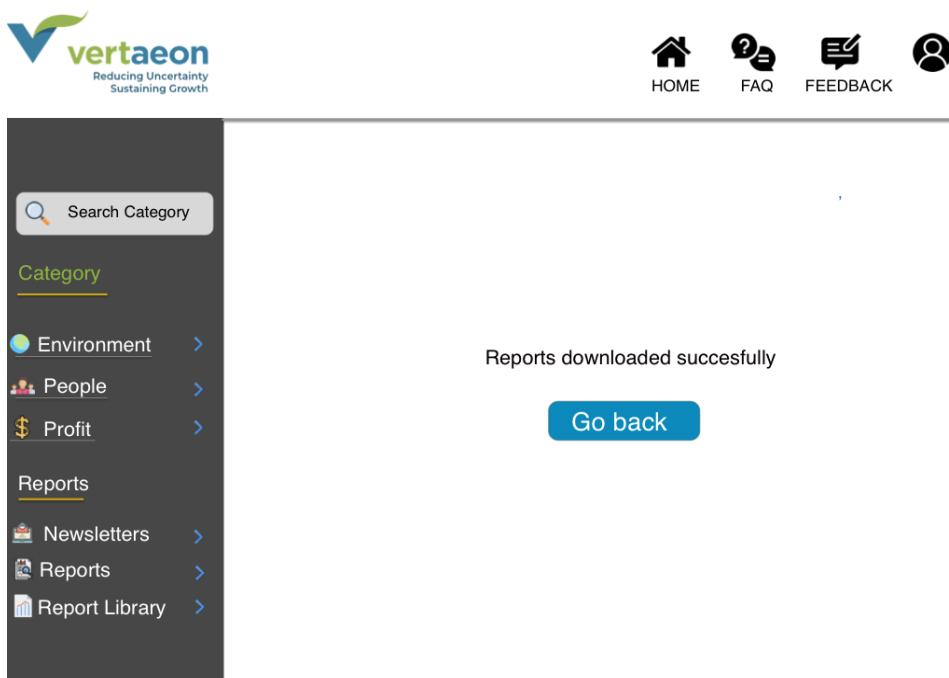


Figure 10: Reports are clicked. Users can enter the time range for which they want reports to be downloaded.



Figure 11: Sub Category menu when a specific element in the Category is chosen. Here Environment is the Category menu chosen from Home Page



Figure 12: Key Performance Indicators which affect the sustainability for a particular Category and Sub-Category(Profit) is being displayed over here.

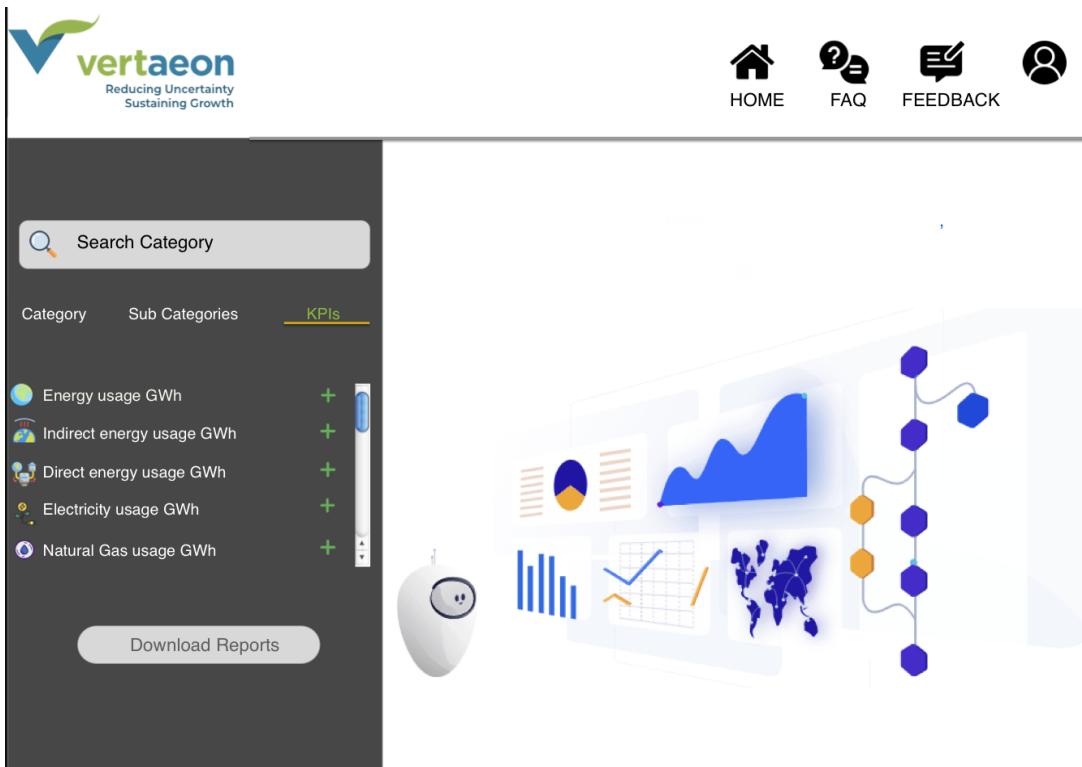


Figure 13: Key Performance Indicators which affect the sustainability for a particular Category and Sub-Category(Energy) is being displayed over here

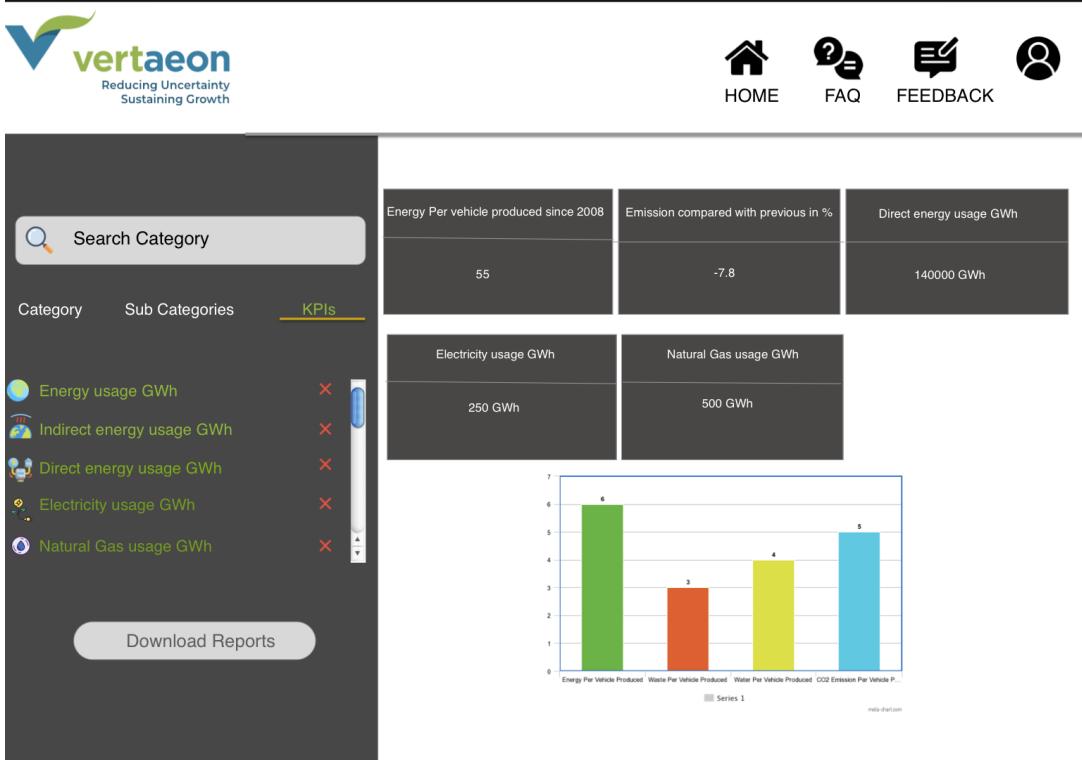


Figure 14: Based on the selection in the left panel, dynamically content gets populated on the right pane displaying the metrics and statistics of how that KPI is contributing to sustainability.

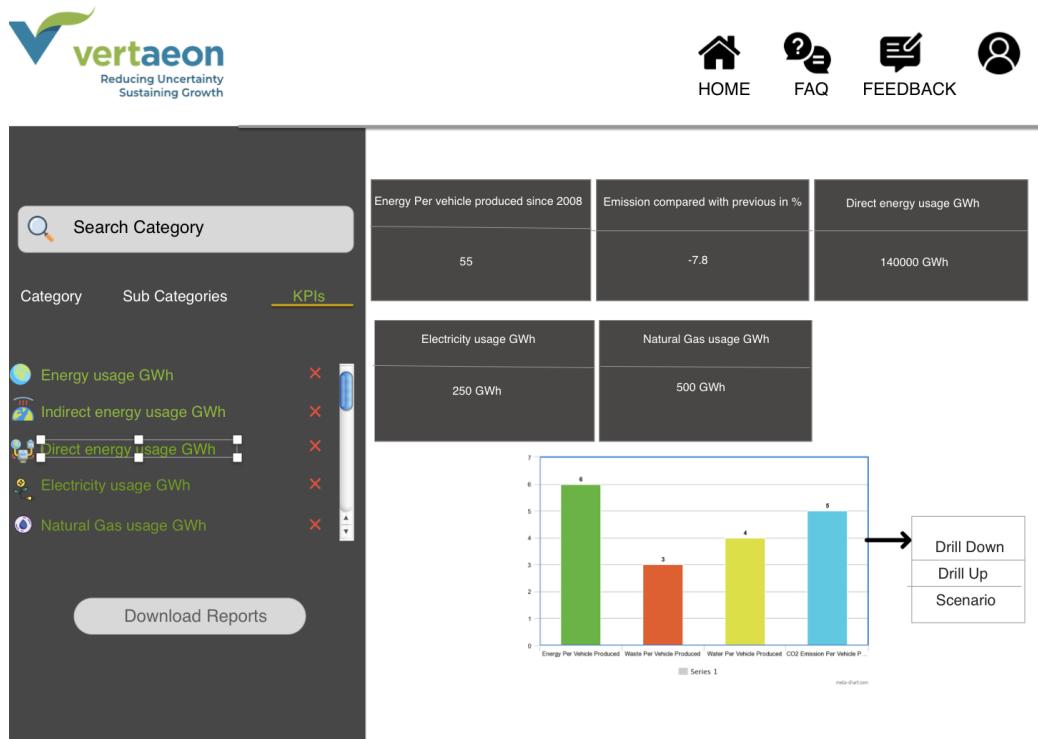


Figure 15: Option for drilling down or up to get a broader or narrow perspective. This helps in root cause analysis of a problem(why are the statistics low when compared to other companies)

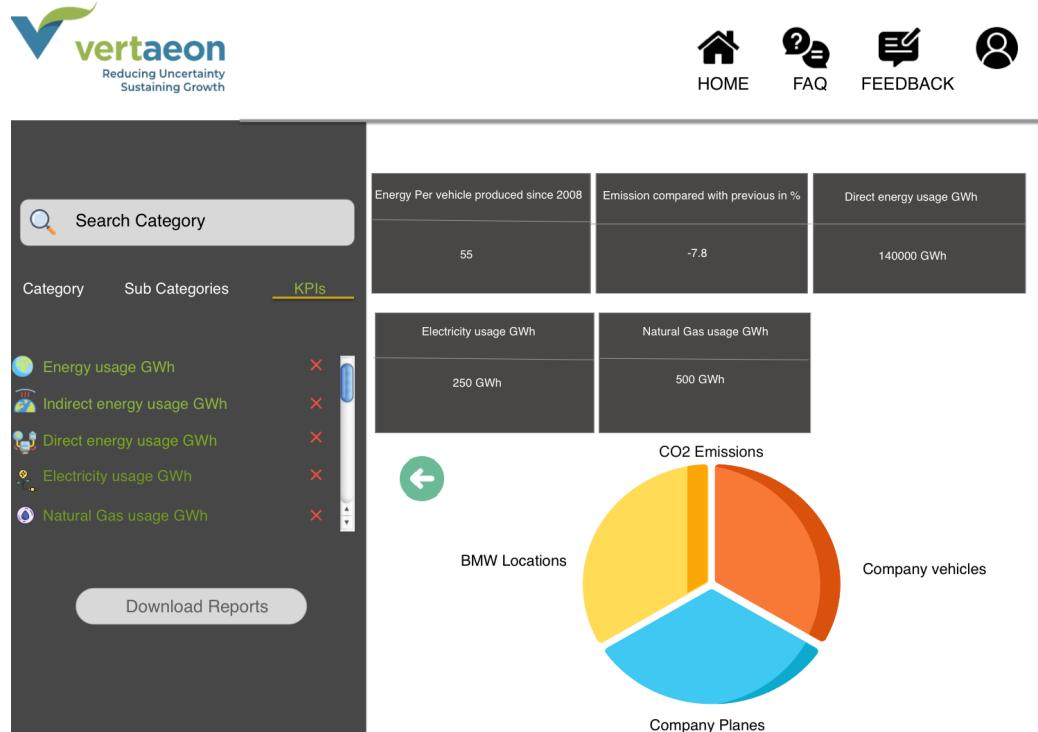


Figure 16: Displays pie chart when CO2 Emissions for Vehicles have been drilled down. This chart indicates factors and the amount these factors contributed to the emission rate.

The screenshot shows the vertaeon website's homepage. At the top left is the logo with the tagline "Reducing Uncertainty Sustaining Growth". At the top right are four navigation icons: HOME (house), FAQ (question mark), FEEDBACK (speech bubble), and a user profile icon. On the left side, there is a sidebar with a search bar labeled "Search Category" and a menu titled "Category" with sections for "Environment", "People", "Profit", "Reports", "Newsletters", "Reports", and "Report Library". The main content area is titled "Frequently Asked Questions" and contains two collapsed questions: "Q: How can I view my company's sustainability report?" and "Q: How can I customize my dashboard?".

Figure 17: Here the FAQ icon from the top right corner of the page has been selected. This displays on the frequently asked questions about the vertaeon site.

This screenshot shows the same website layout as Figure 17, but the "FAQ" icon has been selected, causing the "Frequently Asked Questions" section to expand. The first question, "Q: How can I view my company's sustainability report?", is now expanded, revealing the answer: "A: Your sustainability report can be downloaded using the download button in the left panel." The second question, "Q: How can I customize my dashboard?", is also expanded, revealing the answer: "A: You can use the plus and minus icons on the left panel to add or remove key performance indicators."

Figure 18: Details on expanding each of the questions under FAQ

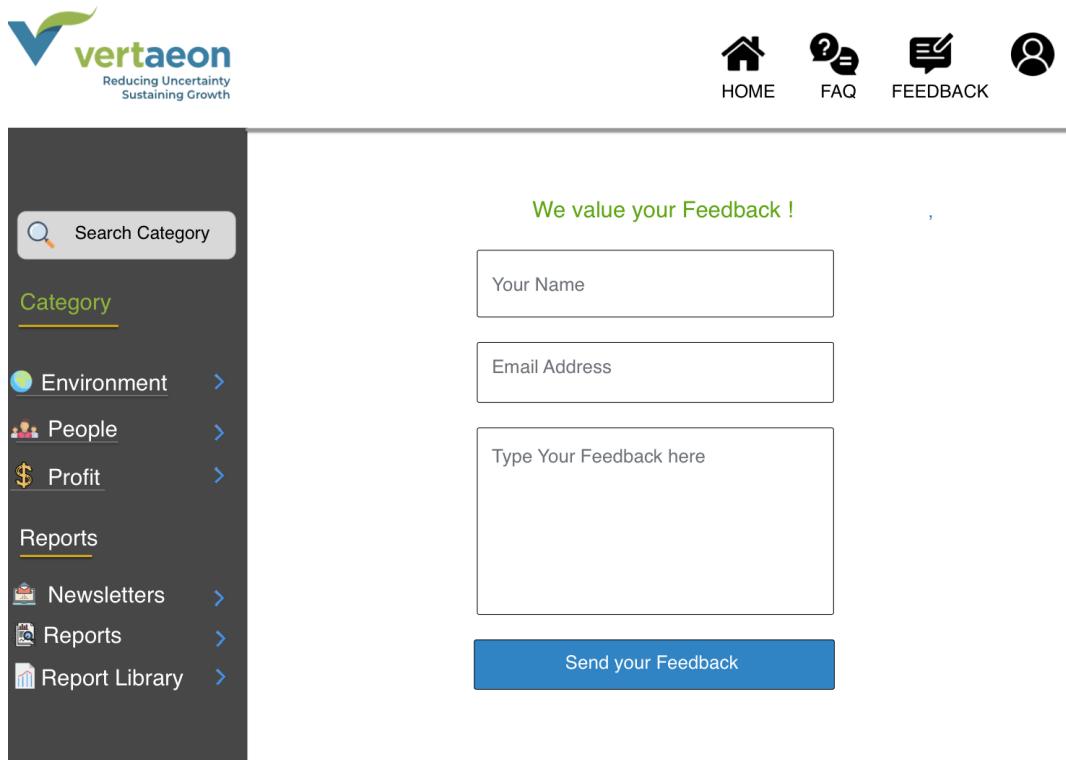


Figure 19: Here the Feedback icon from the top right corner of the page has been selected.
Here the user can give his/her feedback.

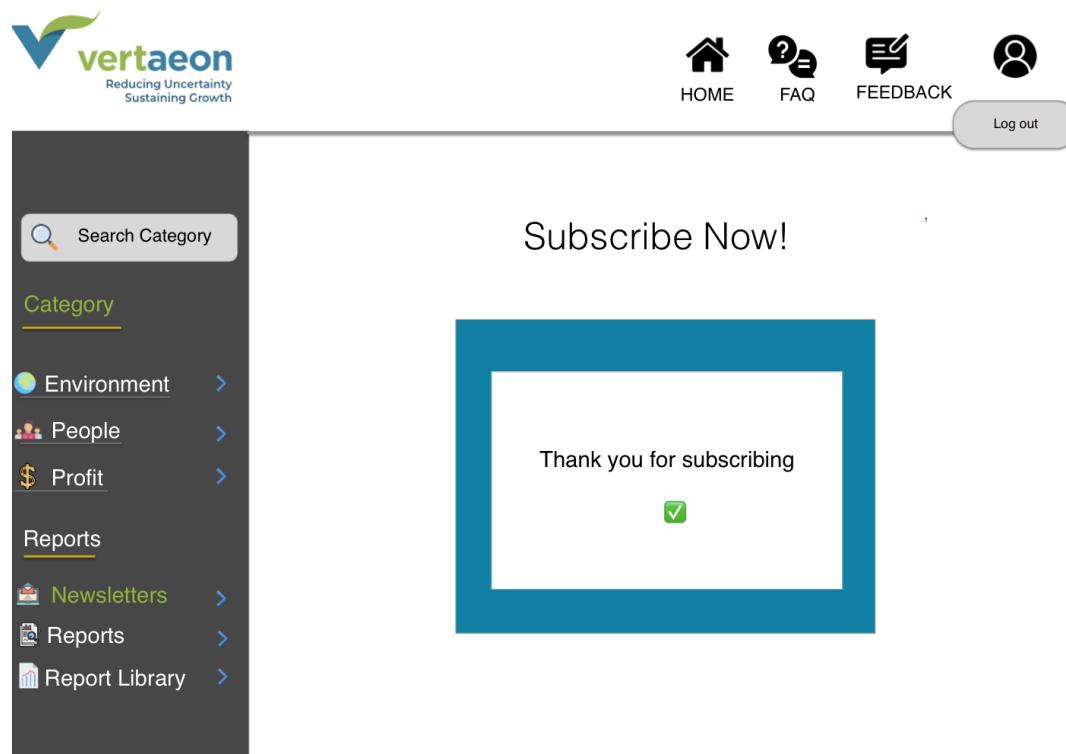


Figure 20: Confirmation that the feedback has been received

LOW FIDELITY PROTOTYPE

Paper prototype

Fixed: Chrome Browser inside desktop monitor

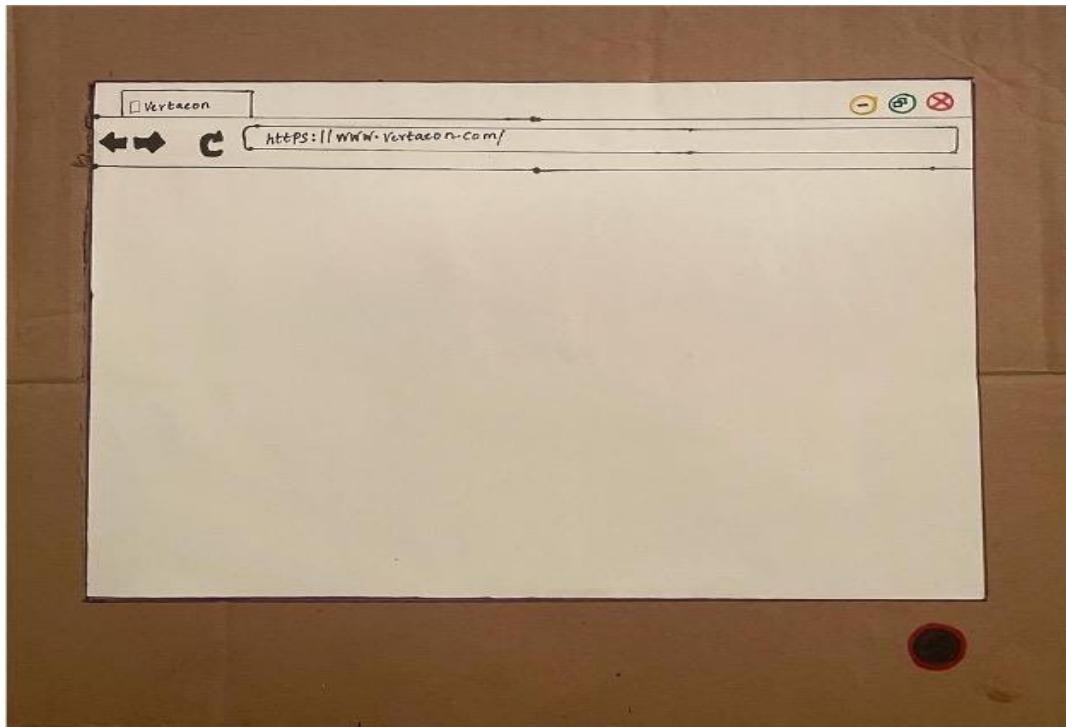


Figure 1: Vertaeon site inside the desktop monitor

Login Screen



Figure 2 & 3: Sign In Page to Login into Vertaeon

Category Menu on the left pane

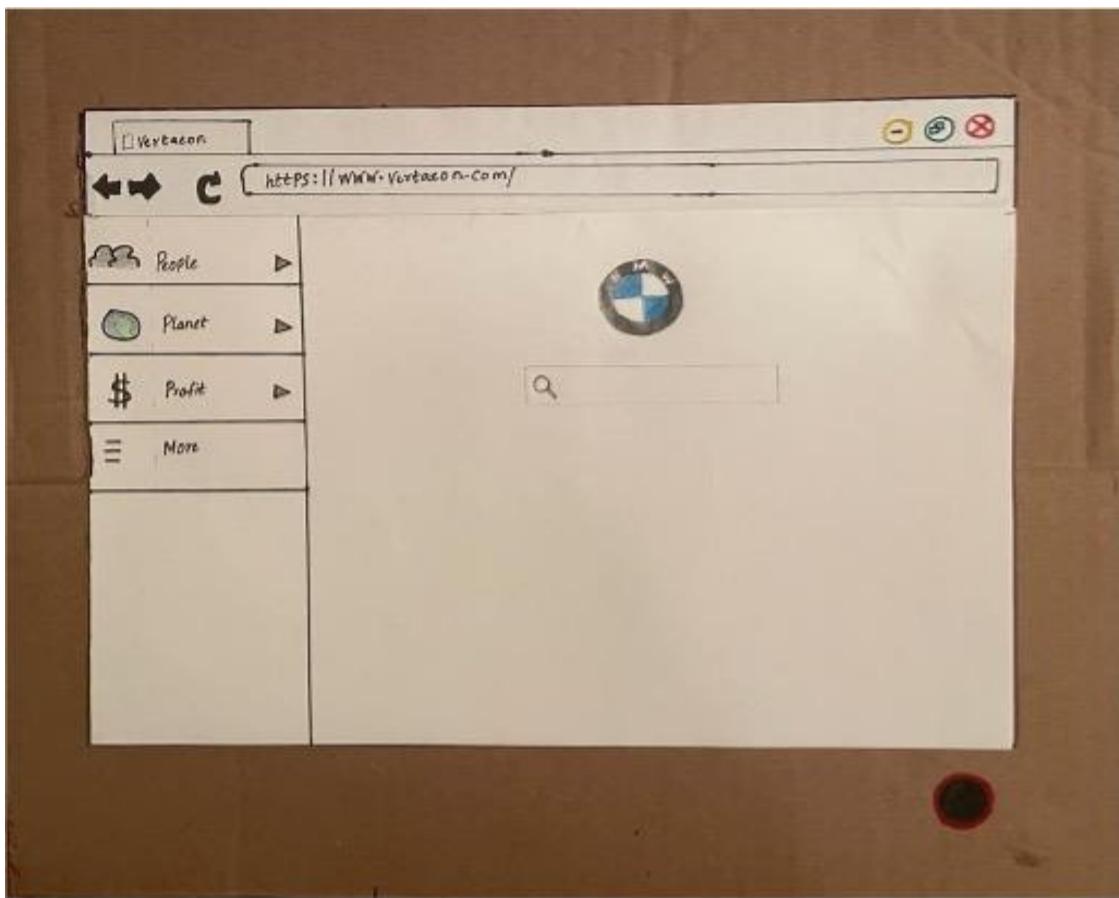
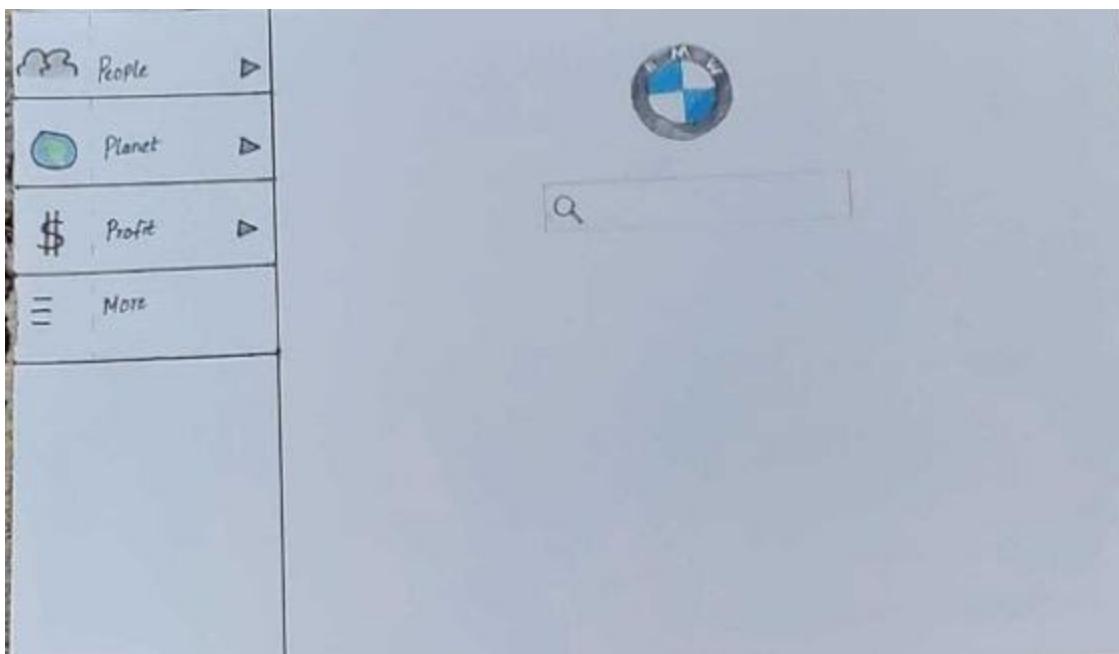
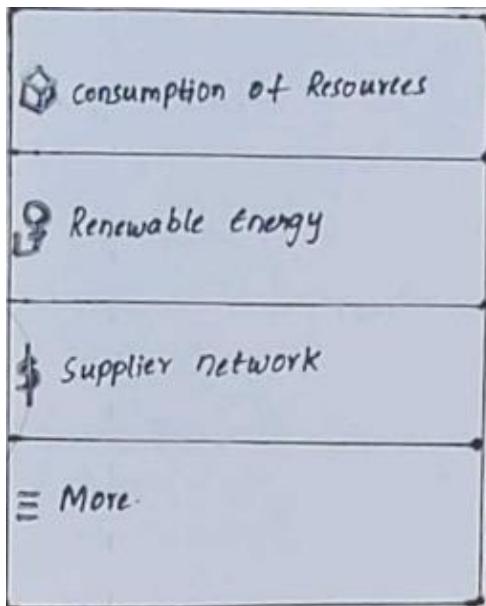


Figure 4 & 5: Home Page of Vertaeon with Categories on the left pane

Sub-categories menu



Sub category menu popups when the user hovers over category planet

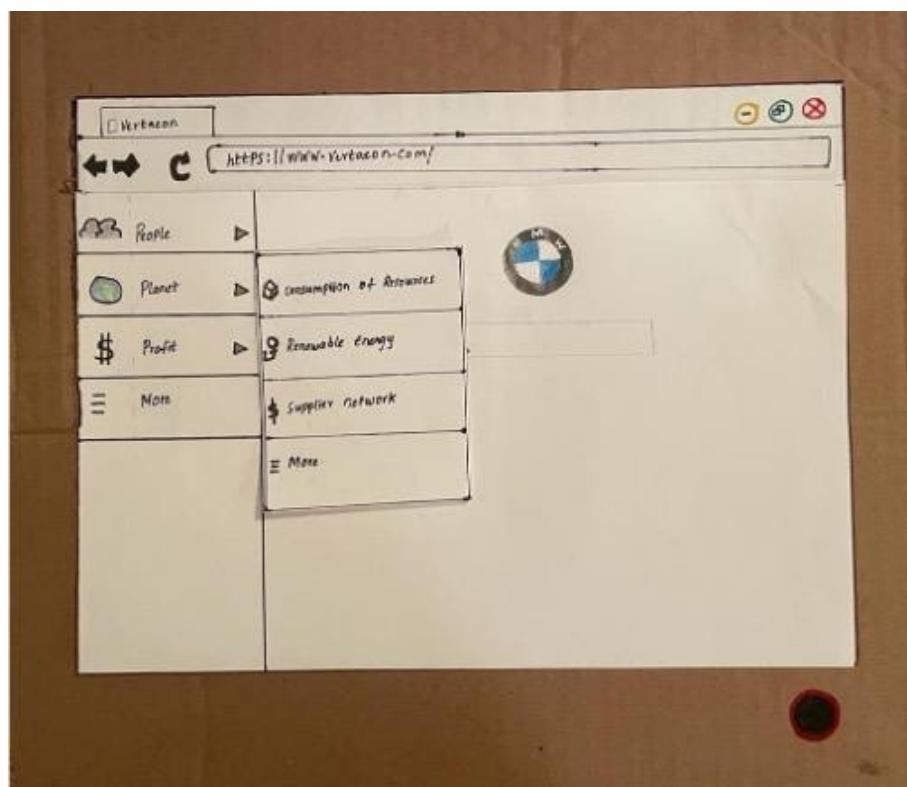


Figure 6 & 7: Selection of Categories on the left pane leading to an extra tab being appended named Sub Categories

Auto complete suggestions while searching

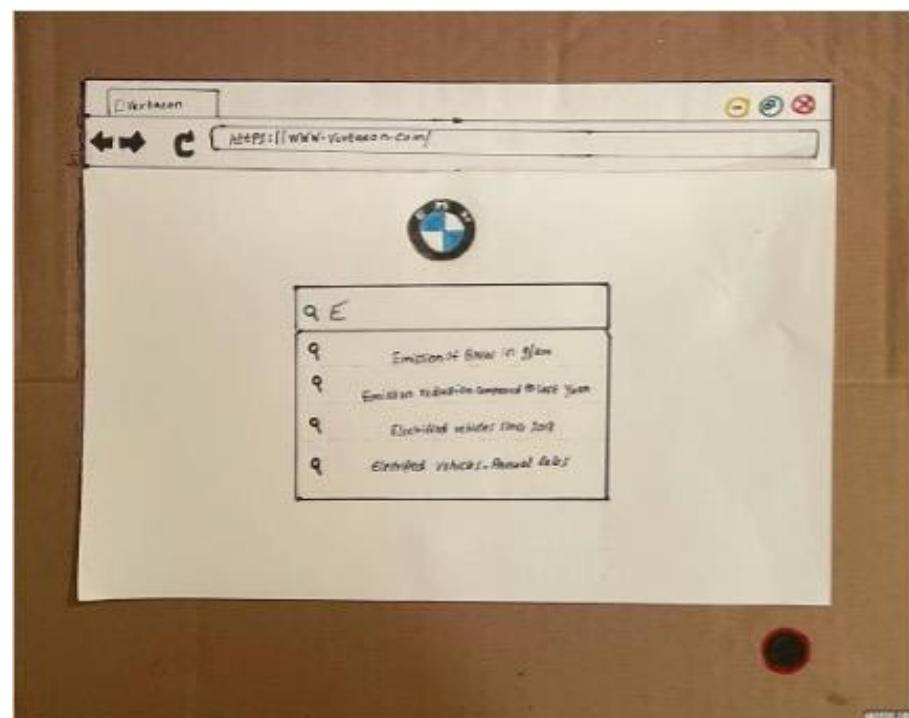
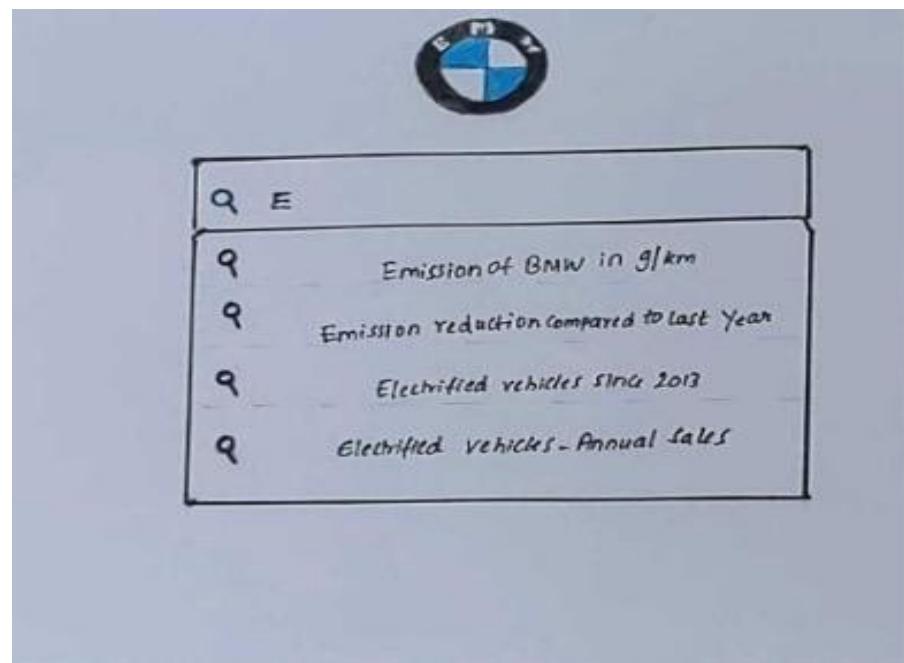


Figure 8 & 9: Search bar to filter out the content under Categories or Subcategories or KPIs (Key Performance Indicators) to enable optimization

Lets user personalize the metrics they see by allowing them to select KPIs

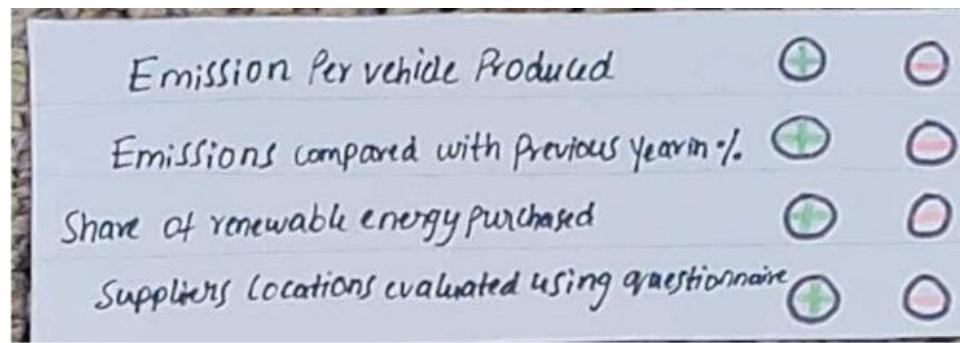


Figure 10 & 11: Each and every Key Performance Indicator can be expanded to get a detailed view on how it is impacting the sustainability of that organization or a particular sector.

User can add & remove the KPIs they want to see

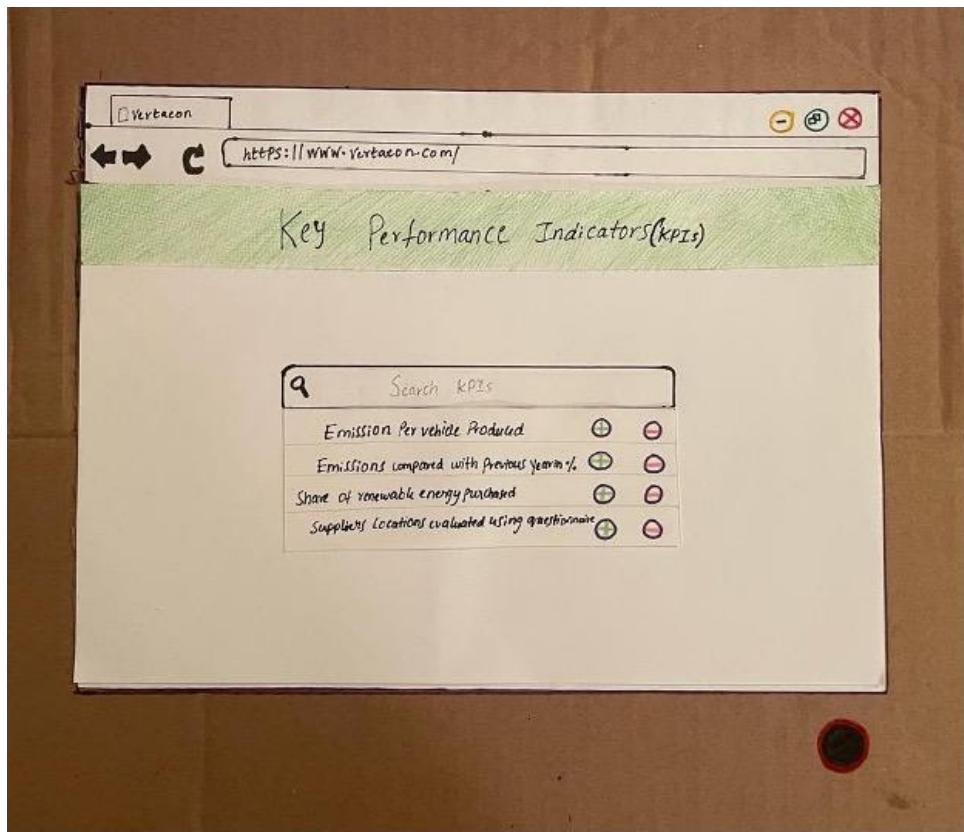


Figure 12: Detailed view of how a particular KPI is impacting the sustainability can be found by expanding it

User can drill up and down to get detailed view of issues

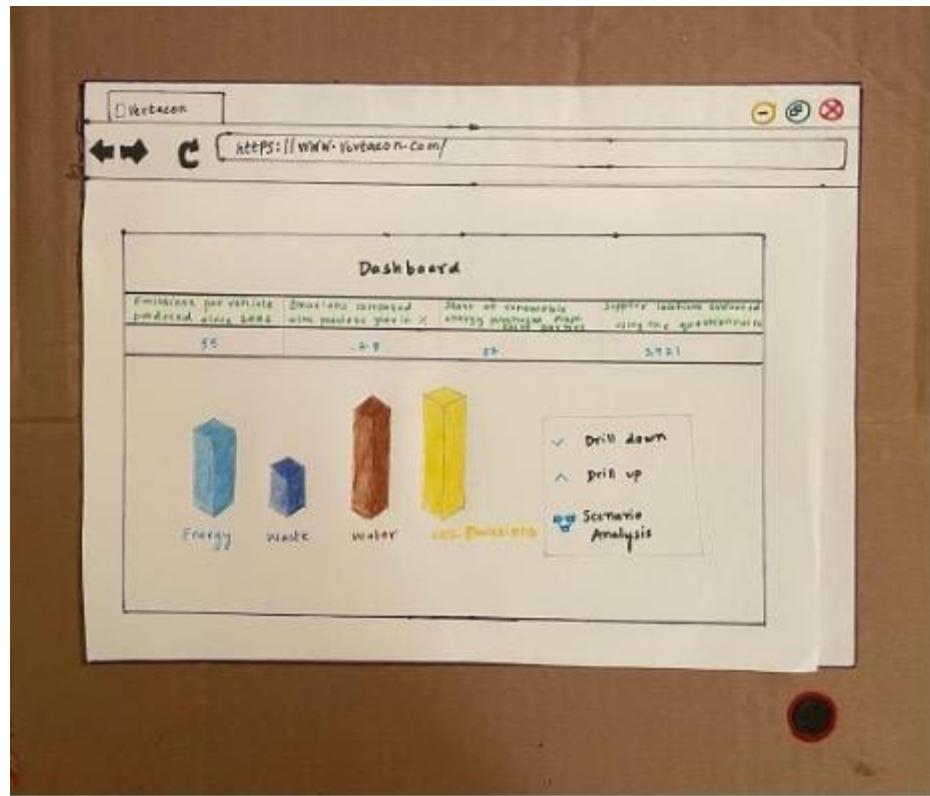


Figure 13: Drilling down a metric to find out factors contributed to it

Usability Test Plan for paper prototype

Activity Intro script

1. Welcome
2. Overview questions
 - a. Have you worked as a manager or in a leadership position of some capacity?
 - b. Are you familiar with reading dashboards?
 - c. Do you have any experience with corporate sustainability reports?

Scenario 1

1. Intro script

Imagine you are a manager at a company. You are in charge of seeing how the company is performing under various metrics in different categories. You can customize the KPIs that you want to see by adding/removing them.

Tasks

- a. Log in and navigate to the next screen

1. Prompting questions

- a. If the user clicks on the login button, ask what do you think will happen next?

2. Focused questions

- a. If the user clicks straightaway on the login button, ask them if they would typically click on the 'Show password' icon.

3. Task complete when

- a. The task is complete when the user moves to the homepage of the Vertaeon analytics platform.

- b. Adding/ removing KPIs

1. Prompting questions

- a. If the user clicks on the plus icon, ask what do you think will happen next?
 - b. If the user clicks on the minus icon, ask what do you think will happen next?

2. Focused questions

- a. If the user does not notice the search bar ask: What do you think will happen when you type keywords in the search bar?

Scenario 2:

1. Scenario and Script:

Imagine you are a non-technical business user at a company whose role is to dig deeper into dashboards & find the underlying root cause of issues to fix it.

Tasks

- a. Log in and navigate to the next screen

1. Prompting questions

- b. If the user clicks on the login button, ask what do you think will happen next?

2. Focused questions

- b. If the user clicks straightaway on the login button, ask them if they would typically click on the 'Show password' icon.

3. Task complete when

- b. The task is complete when the user moves to the homepage of the Vertaeon analytics platform.

- b. Drilling down into the dashboard

1. Prompting questions

- c. Ask what the user will do first when they see the dashboard

2. Focused questions

- c. If the user figures out that either double clicking or right clicking the dashboard will show additional options, ask them: How did you find that? Ask them what they think will happen when they drill down.

3. Task complete when

- c. The task is complete when the user moves to the drilled down version of the dashboard.

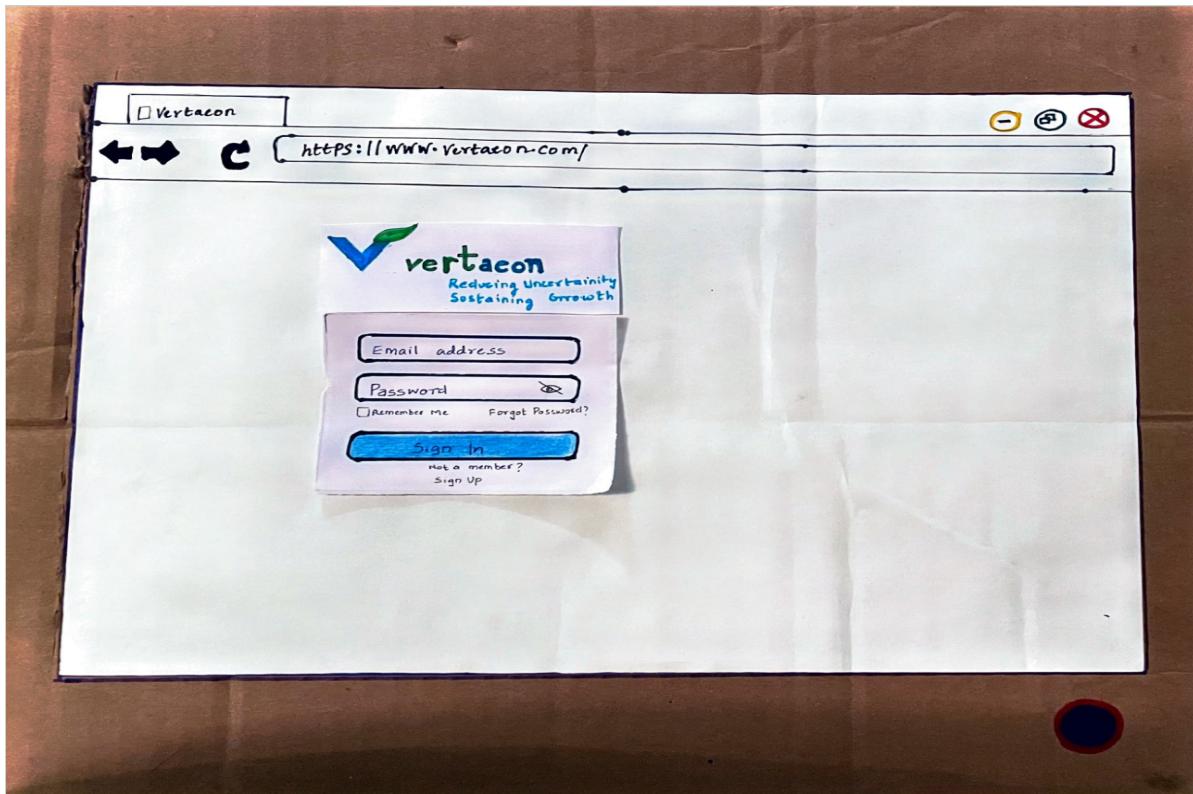
Results from Paper prototype testing

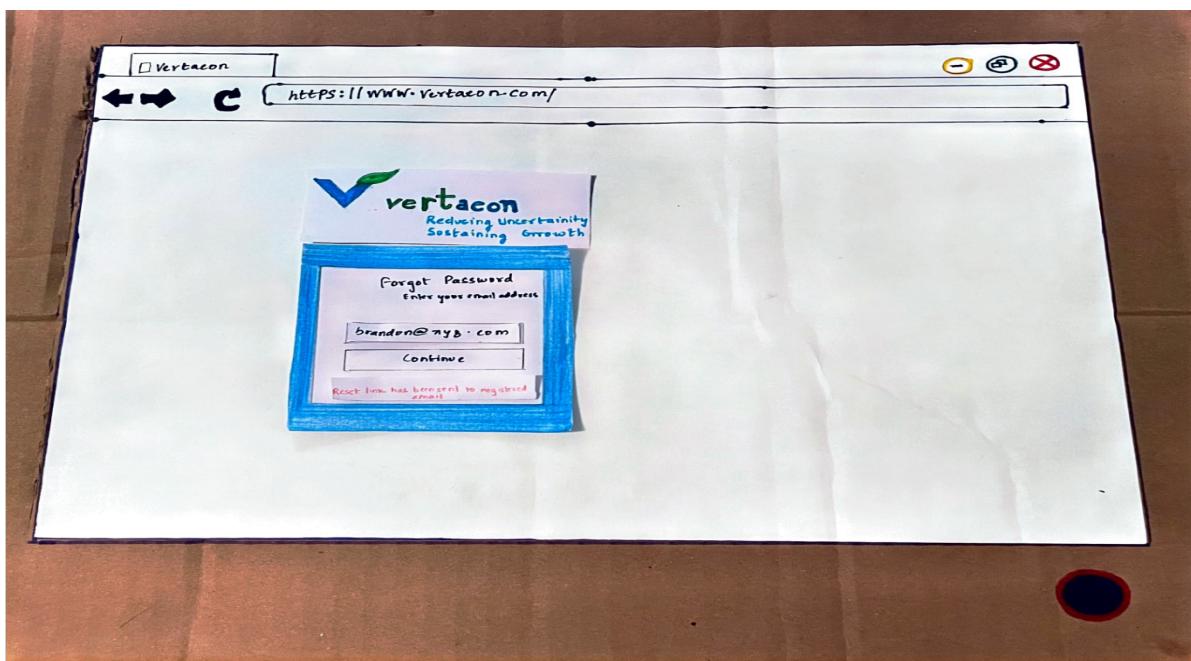
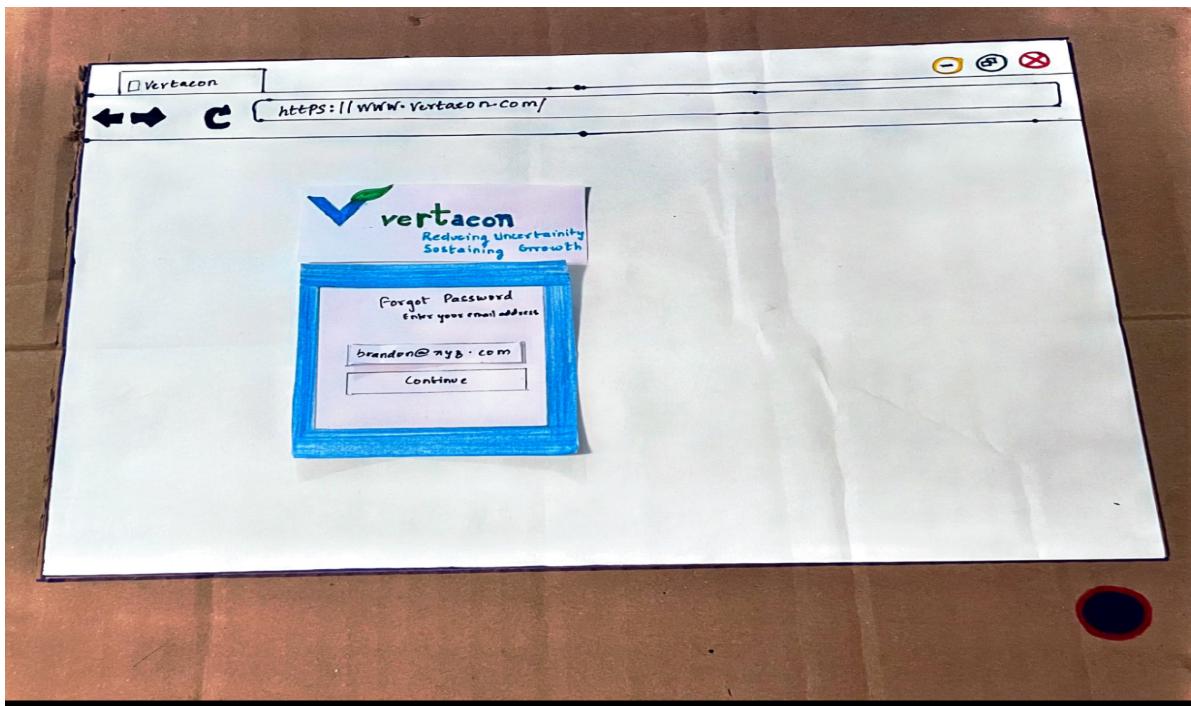
- A 'Forgot password' flow is needed (What if I forget my password?)
- Users expect to have a sign up/register flow (I don't have an account initially)
- It is not obvious what the plus & minus icons do on the KPI page (I thought it was expand / collapse)
- Users prefer to have a way to navigate back to previous page after using drill down option
- The drill down, up, scenario analysis options are hidden. (available only on right click) It would be better if they were visible so users know.

Design changes from paper prototype testing

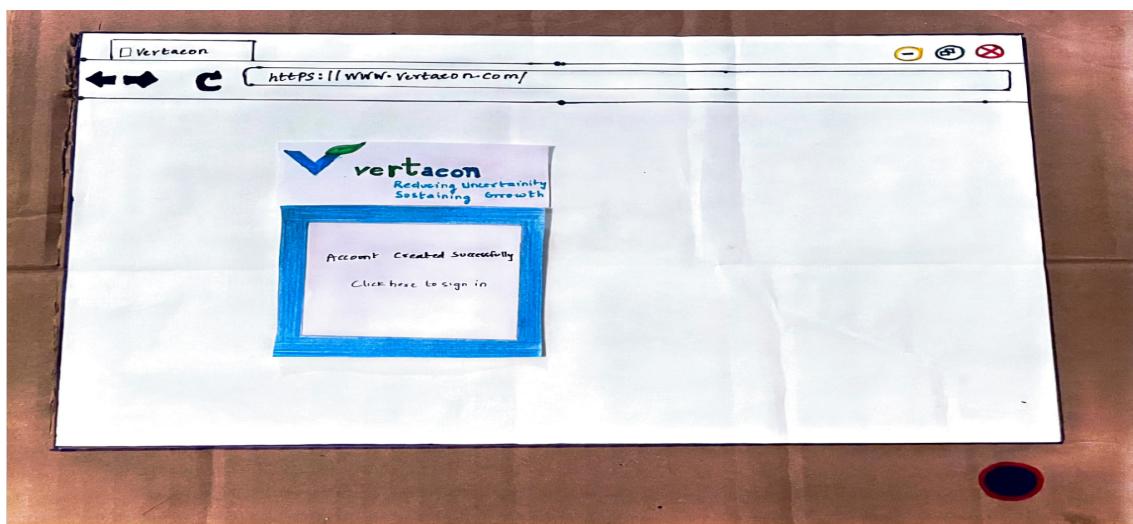
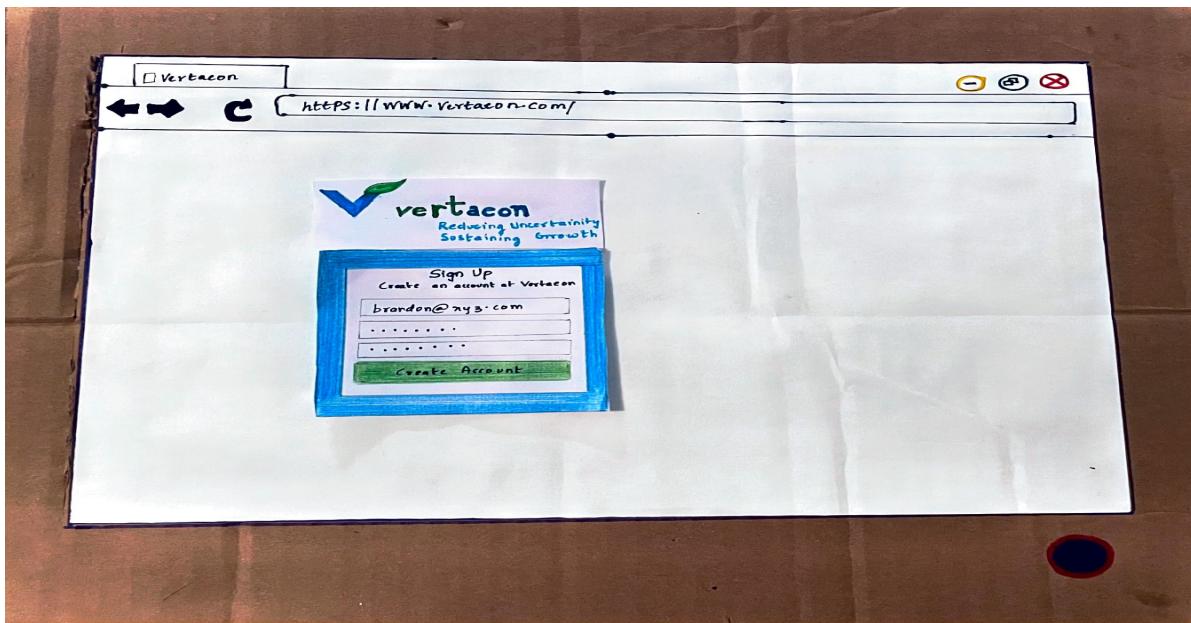
Based on the user feedback from the paper prototype testing, we made the following changes to our design:

We added a ‘forgot password’ flow in case the user forgets their password

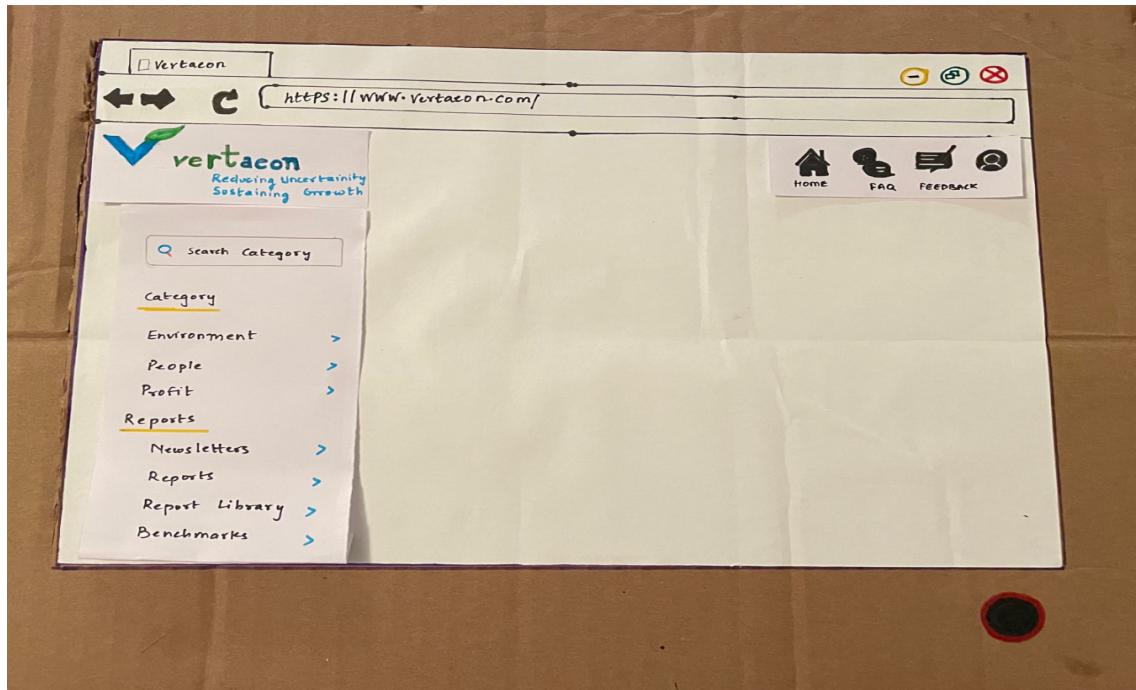




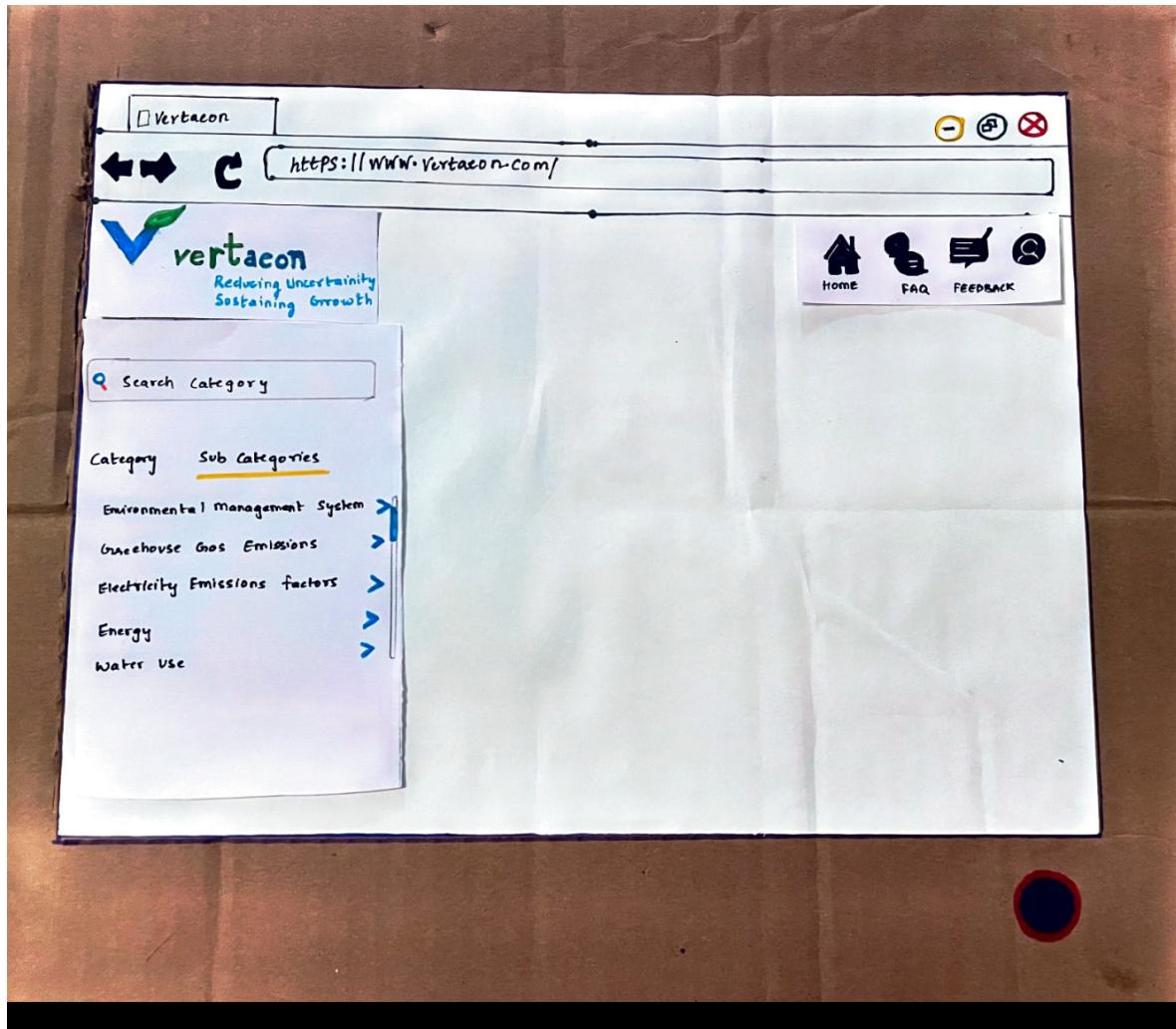
We added a sign-up/register flow for onboarding new users



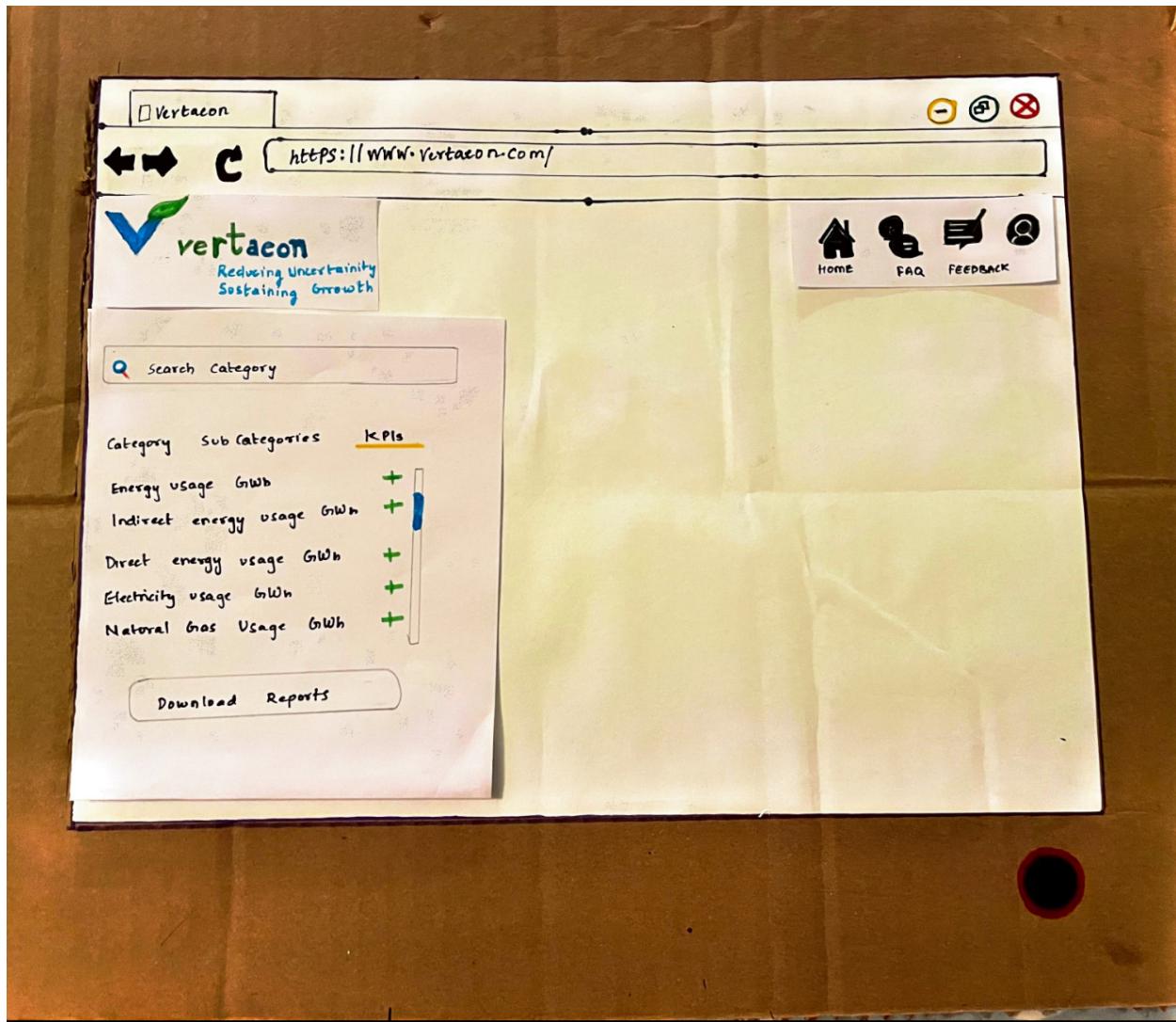
We have integrated both the search bar and menus to navigate categories. The search bar helps the user to efficiently find KPIs if they know what they are looking for, whereas the navigation menu helps the user find categories that he doesn't remember the name for.



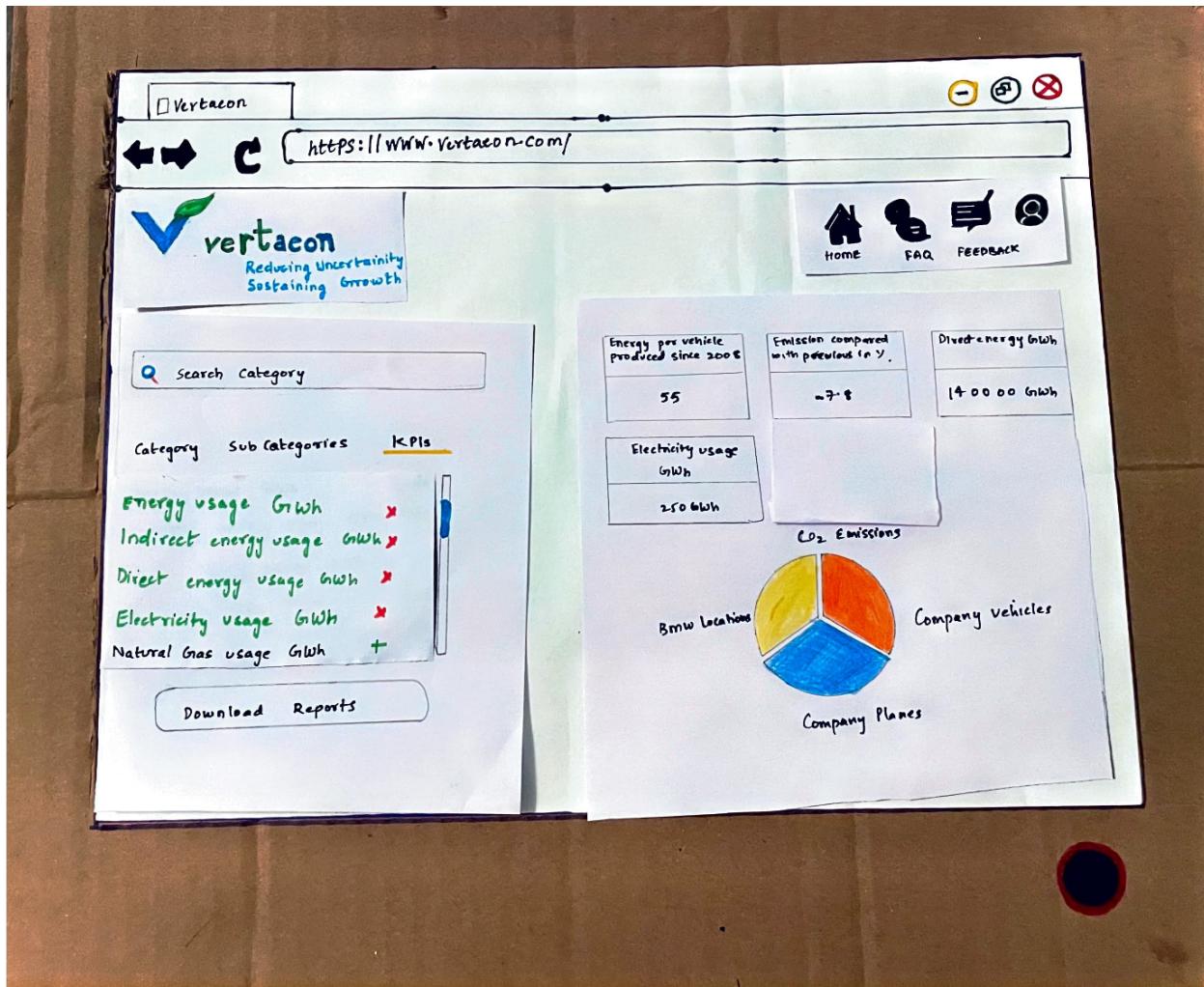
Previously, users were having issues knowing in what stage of the navigation they were in. Here, the current phase 'sub-categories' is highlighted providing the user **feedback** about the stage he is in



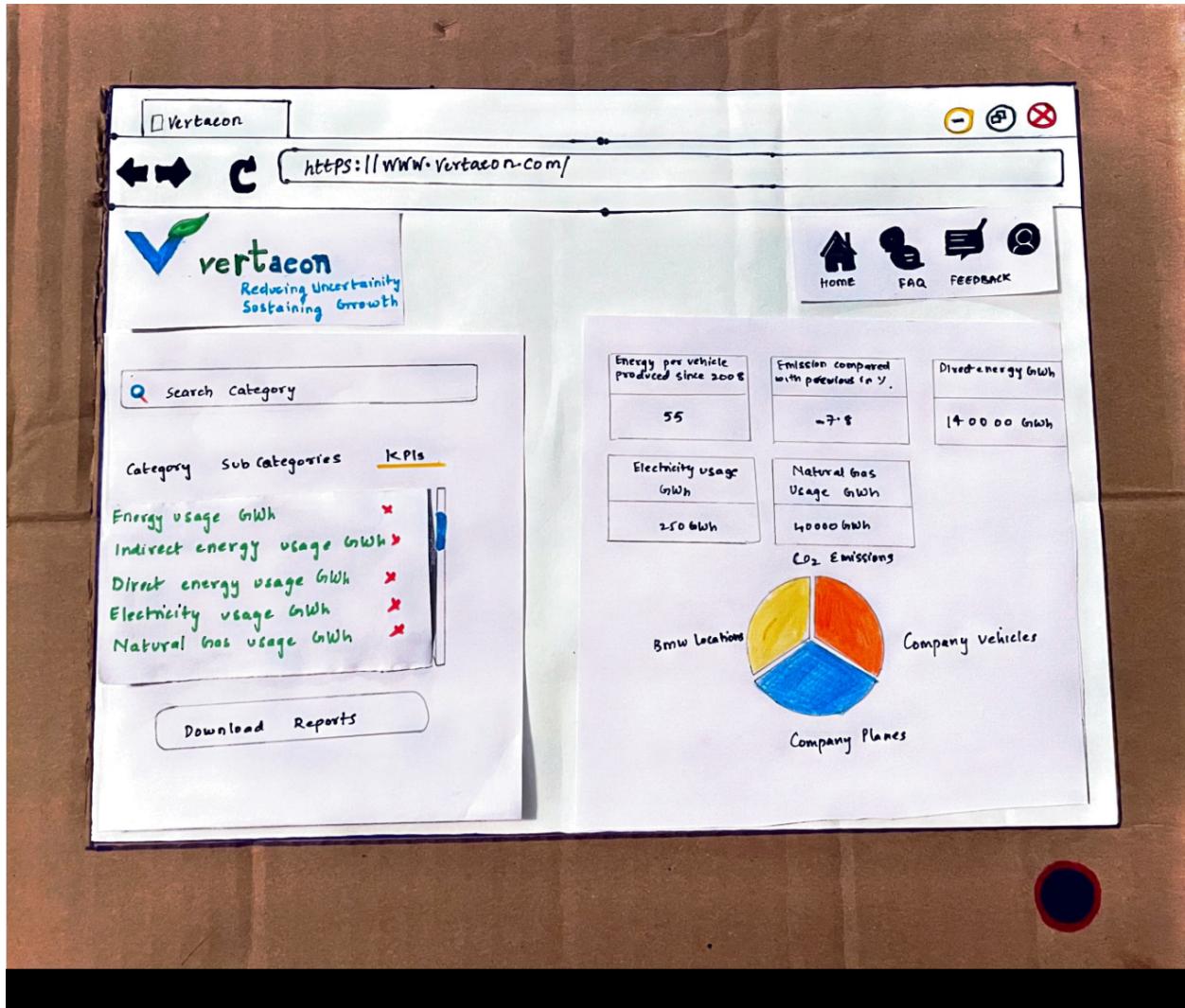
User can now customize his dashboard with the Key performance indicators in a sub-category that he wants to see



Dashboards that show visualization of data



Dashboards showing an extra tab with info after selecting Natural gas KPI

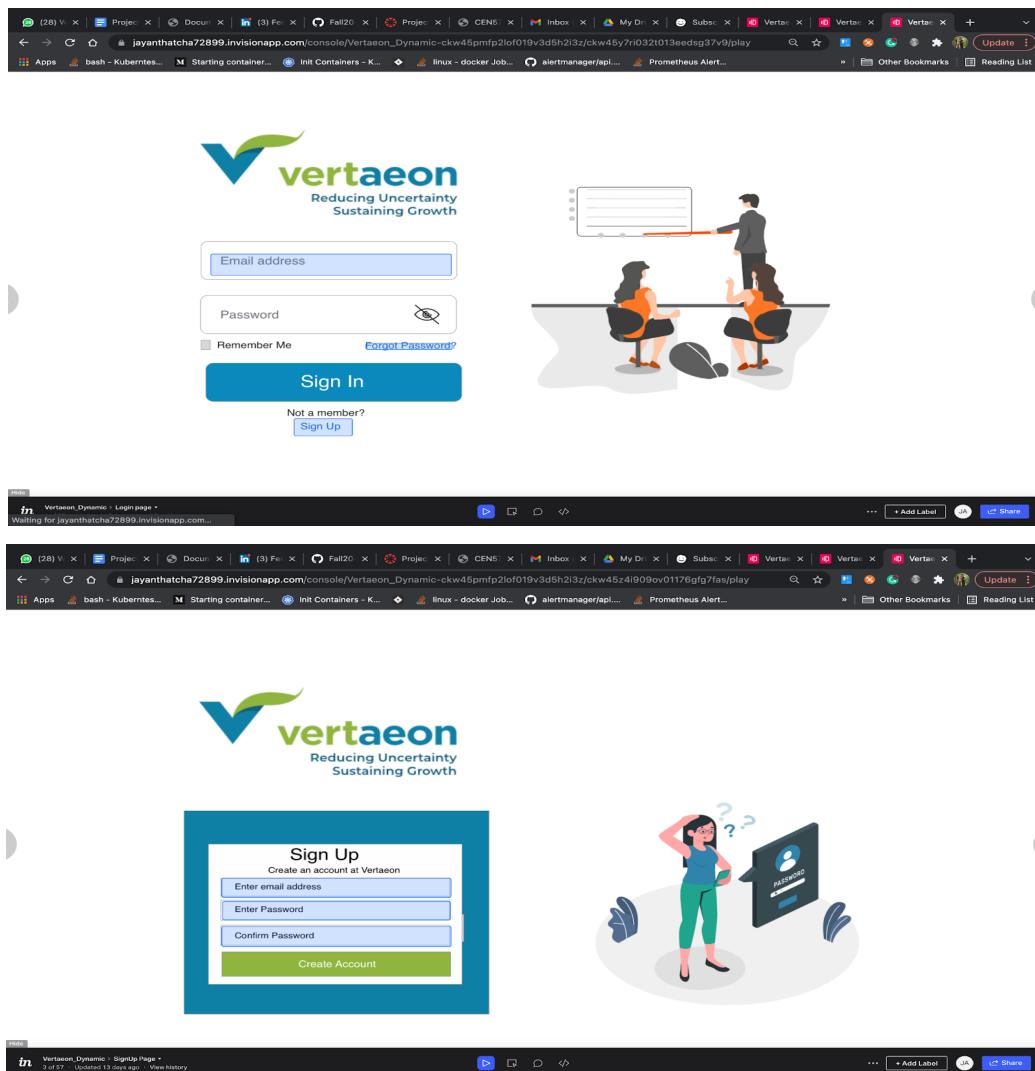


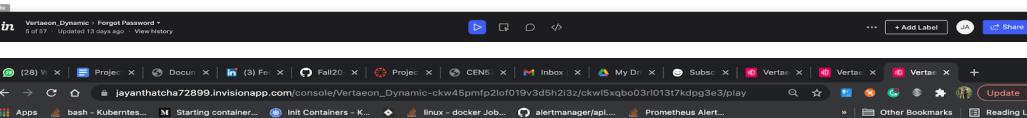
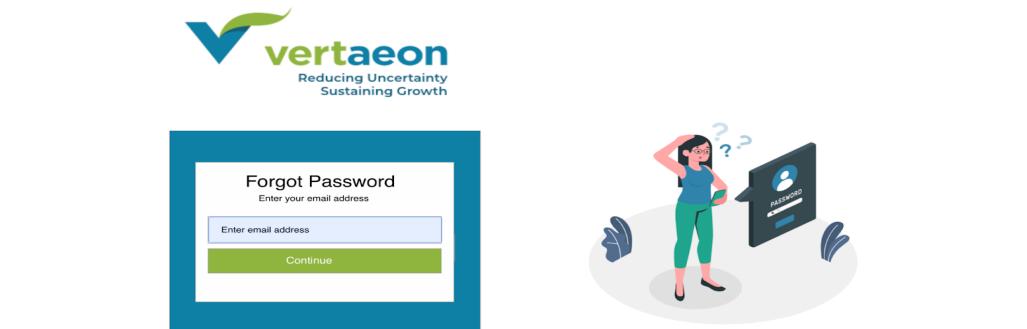
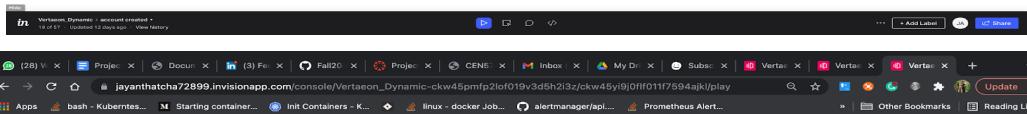
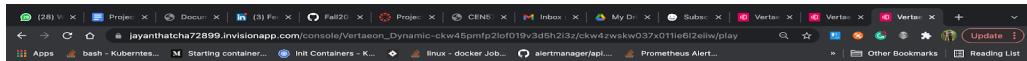
HIGH FIDELITY PROTOTYPE

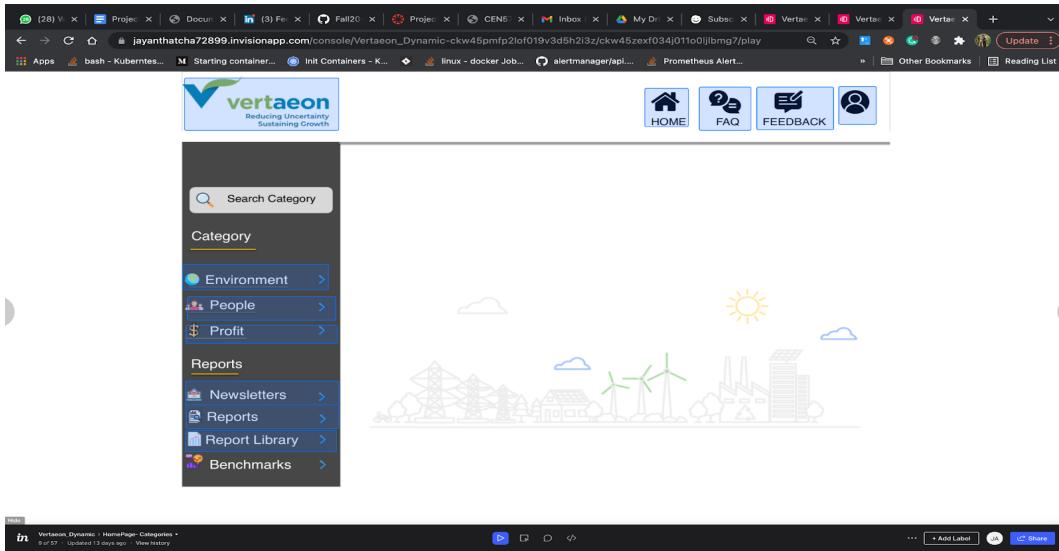
Interactive prototype

<https://jayanthatcha72899.invisionapp.com/console/share/5436V9WAGZ/840715466>

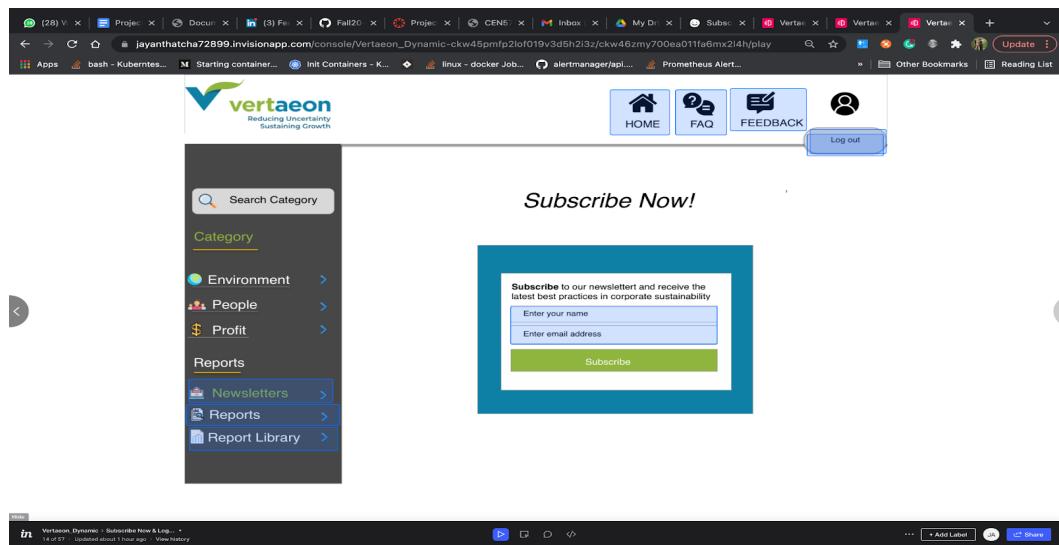
We have ‘implemented’ the entire design from our final mockups as an interactive prototype.







We included an option to subscribe to the latest trends in corporate sustainability based on data collected from our user interviews



We designed a page to download sustainability reports based on the feedback from internal users of Vertaeon

The screenshot shows a web browser window with multiple tabs open at the top. The main content area displays the Vertaeon homepage. On the left, there is a sidebar with a search bar labeled "Search Category" and a menu titled "Category" containing links for "Environment", "People", "Profit", and "Reports". Under "Reports", there are links for "Newsletters", "Reports", and "Report Library". To the right of the sidebar, there is a section titled "Select the time period to generate the report" with two input fields for "Start date" and "End date", and a green "Download Report" button below them. At the bottom of the page, there is a navigation bar with icons for "HOME", "FAQ", "FEEDBACK", and a user profile icon.

Screen to collect user feedback to improve the interface

The screenshot shows a web browser window with multiple tabs open at the top. The main content area displays the Vertaeon homepage. On the left, there is a sidebar with a search bar labeled "Search Category" and a menu titled "Category" containing links for "Environment", "People", "Profit", and "Reports". Under "Reports", there are links for "Newsletters", "Reports", and "Report Library". To the right of the sidebar, there is a section titled "We value your Feedback !" with three input fields: "Your Name", "Email Address", and a large text area labeled "Type Your Feedback here". Below these fields is a blue "Send your Feedback" button. At the bottom of the page, there is a navigation bar with icons for "HOME", "FAQ", "FEEDBACK", and a user profile icon.

Sustainability Reports Successfully downloaded

The screenshot shows a web browser window with the Vertaeon logo at the top. A sidebar on the left contains a search bar and a navigation menu with categories like Environment, People, Profit, Reports, Newsletters, Reports, and Report Library. The main content area displays a message: "Reports downloaded successfully" with a "Go back" button below it. The browser's address bar shows the URL: https://jayanthatcha72899.invisionapp.com/console/Vertaeon_Dynamic-ckw45pmfp2lof019v3d5h2l3z/ckw45pmfp2lof019v3d5h2l3z/ckw45zld10a490103fqvnlbs8/play.

The screenshot shows a web browser window with the Vertaeon logo at the top. A sidebar on the left contains a search bar and a navigation menu with tabs for "Category" and "Sub Categories". Under "Category", there are links to Environmental Management System, Greenhouse Gas Emissions, Electricity Emissions factors, Energy, and Water Use. The main content area features a large graphic of a person sitting at a desk with a laptop, surrounded by charts and data visualizations. The browser's address bar shows the URL: https://jayanthatcha72899.invisionapp.com/console/Vertaeon_Dynamic-ckw45pmfp2lof019v3d5h2l3z/ckw45pmfp2lof019v3d5h2l3z/ckw45zld10a490103fqvnlbs8/play.

Custom dashboard with KPIs selected by user

The screenshot shows a custom dashboard for Vertaeon. At the top right are three buttons: HOME, FAQ, and FEEDBACK. Below them is a section with four cards: 'Energy Per vehicle produced since 2008' (55), 'Emission compared with previous in %' (-7.8), 'Direct energy usage GWh' (140000 GWh), and 'Electricity usage GWh' (250 GWh) and 'Natural Gas usage GWh' (500 GWh). To the left is a sidebar with a search bar and tabs for Category, Sub Categories, and KPIs. Under KPIs, there is a list of metrics with red X icons for removal: Energy usage GWh, Indirect energy usage GWh, Direct energy usage GWh, Electricity usage GWh, and Natural Gas usage GWh. A 'Download Reports' button is at the bottom of the sidebar. Below the sidebar is a chart titled 'Series I' with four bars: Energy Per vehicle Produced (green), Emission Per vehicle Produced (red), Direct energy usage GWh (yellow), and CO2 Emission Per vehicle GWh (blue).

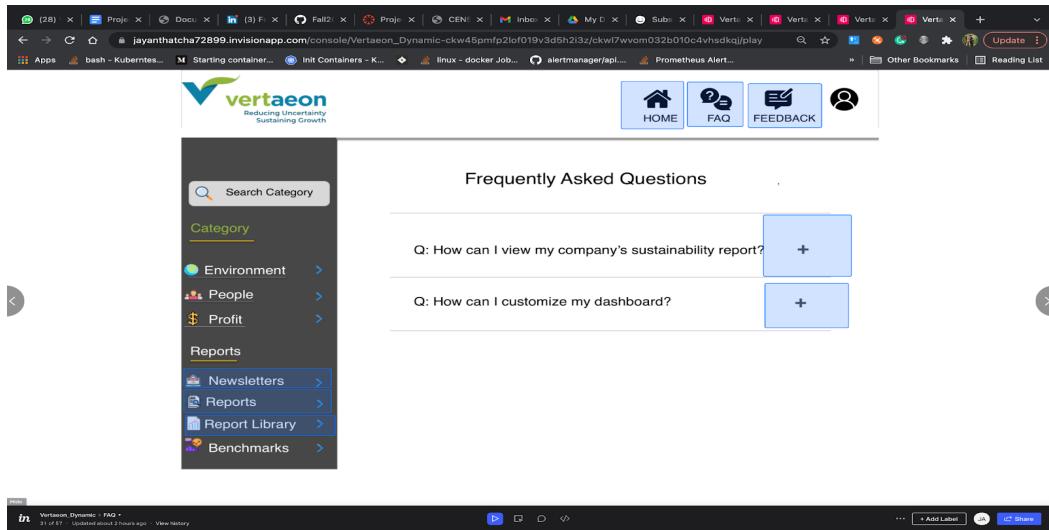
A screenshot of a browser tab titled 'Vertaeon, Dynamic : KPIs Content 5'. The URL is 'Waiting for jayanthatcha72899.invisionapp.com...'. The tab includes standard browser controls like back, forward, and search.

Download sustainability reports

The screenshot shows a dashboard for Vertaeon. At the top right are three buttons: HOME, FAQ, and FEEDBACK. Below them is a section with a single card showing 'Net Profit' (3000000\$). To the left is a sidebar with a search bar and tabs for Category, Sub Categories, and KPIs. Under KPIs, there is a list with a red X icon for removal: Net Profit. A 'Download Reports' button is at the bottom of the sidebar. Below the sidebar is a bar chart titled '2014 - 2018' comparing Gross Profit Margin (red), Net Profit Margin (teal), and Return on Assets (dark blue) across the years.

A screenshot of a browser tab titled 'Vertaeon, Dynamic : profit rpt 1-1'. The URL is 'Waiting for jayanthatcha72899.invisionapp.com...'. The tab includes standard browser controls like back, forward, and search.

FAQ page with expandable Q&As



Usability Test Plan for interactive prototype

Activity Intro script

1. Welcome
2. Overview questions
 - d. Have you worked as a manager or in a leadership position of some capacity?
 - e. Are you familiar with reading dashboards?
 - f. Do you have any experience with corporate sustainability reports?

Scenario 1

2. Intro script
Imagine you are a manager at a company. You are in charge of seeing how the company is performing under various metrics in different categories. You can customize the KPIs that you want to see by adding/removing them.

Tasks

- b. Log in and navigate to the next screen
 1. Prompting questions
 - b. If the user clicks on the login button, ask what do you think will happen next?
 2. Focused questions

- b. If the user clicks straightaway on the login button, ask them if they would typically click on the 'Show password' icon.

3. Task complete when

- b. The task is complete when the user moves to the homepage of the Vertaeon analytics platform.

- c. Adding/ removing KPIs

1. Prompting questions

- c. If the user clicks on the plus icon, ask what do you think will happen next?
- d. If the user clicks on the minus icon, ask what do you think will happen next?

2. Focused questions

- b. If the user does not notice the search bar ask: What do you think will happen when you type keywords in the search bar?

Scenario 2:

2. Scenario and Script:

Imagine you are a non-technical business user at a company whose role is to dig deeper into dashboards & find the underlying root cause of issues to fix it.

Tasks

- b. Log in and navigate to the next screen

1. Prompting questions

- c. If the user clicks on the login button, ask what do you think will happen next?

2. Focused questions

- c. If the user clicks straightaway on the login button, ask them if they would typically click on the 'Show password' icon.

3. Task complete when

- c. The task is complete when the user moves to the home page of the Vertaeon analytics platform.

- b. Drilling down into the dashboard

1. Prompting questions

- d. Ask what the user will do first when they see the dashboard

2. Focused questions

- d. If the user figures out that either double clicking or right clicking the dashboard will show additional options, ask them: How did you find that? Ask them what they think will happen when they drill down.

3. Task complete when

- d. The task is complete when the user moves to the drilled down version of the dashboard.

Results of interactive prototype from testing

- Users feel an FAQ section would be helpful
- They want a way to provide feedback to improve the interface
- Users need a way to generate reports
- The last 3 pages (Compare with competitors, Dashboard, Drilled down dashboard) are confusing.
- When clicking on drill down, it would be nice to see the drilled down chart as either a pop-up or inline box that we can close instead of redirecting me to a new page entirely.
- It's not evident what is clickable & what is not in the dashboards

User 1's Score from testing

Effectiveness usability metric:

$$\begin{aligned}\text{Effectiveness} &= (\text{Number of tasks completed successfully} / \text{Total number of tasks}) * 100 \\ &= (6/8) * 100 = 75.\end{aligned}$$

Design changes for Interactive prototype from testing

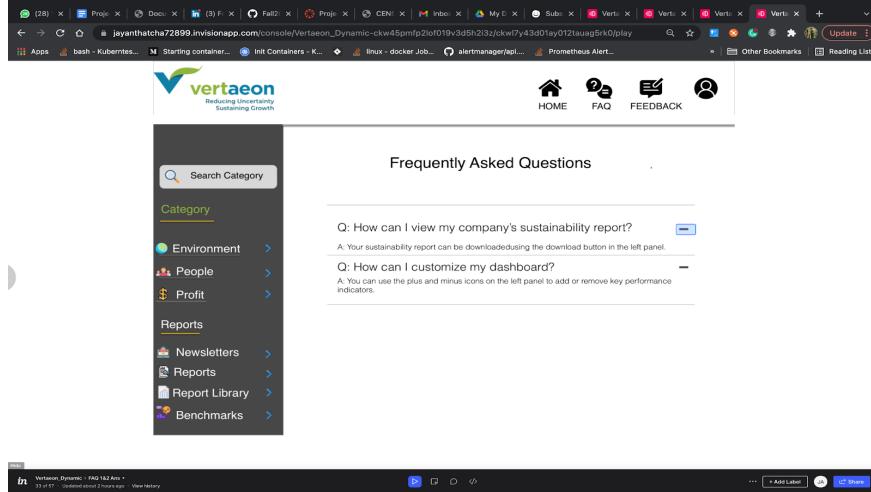


Figure 1: We've added an FAQ page to address common questions

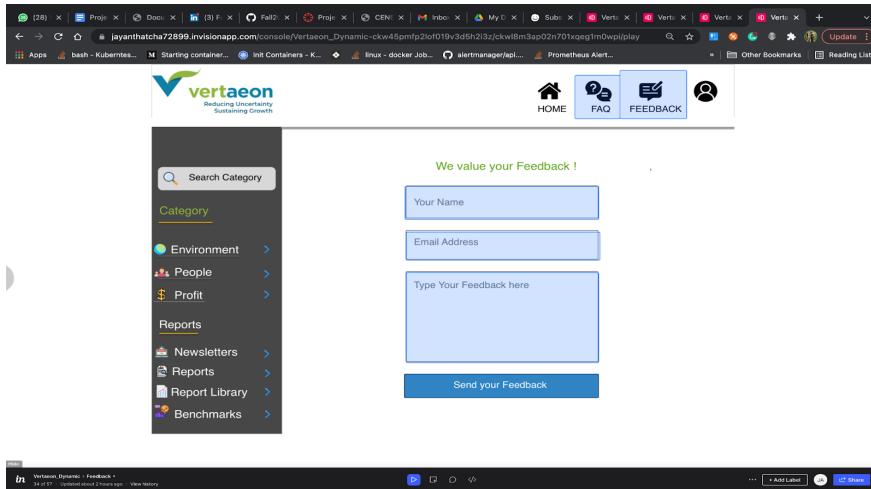


Figure 2: We designed a feedback form to collect user feedback to improve the design even further

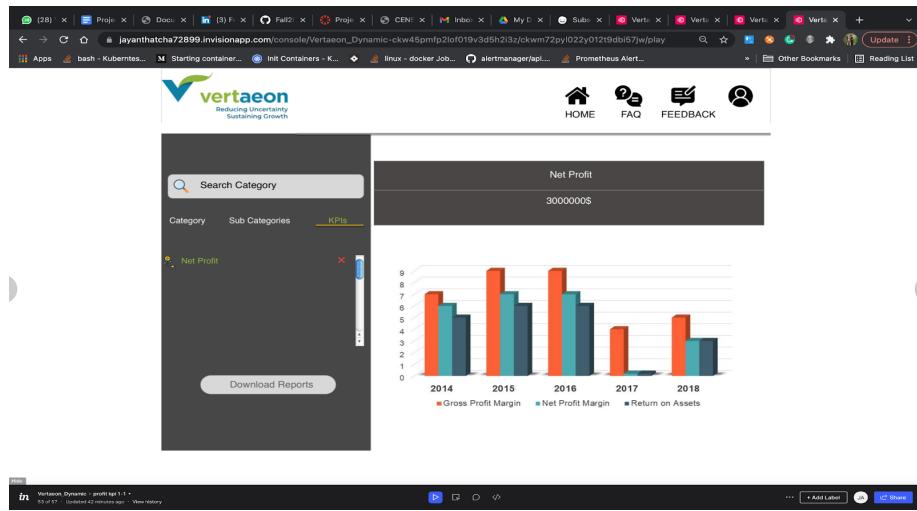


Figure 3: We've included an additional section in the left pane dedicated to generate & download sustainability reports

[Dynamic Prototype : Invision Link](#)

<https://jayanthatcha72899.invisionapp.com/console/share/5436V9WAGZ>

LICENSING

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APPENDIX

- I. [Interview Guide](#)
- II. [Paper Prototype Testing](#)
- III. [Interactive Prototype Testing](#)