



**BMW x**  
**SCADpro**  
Workspace Design



**10 Weeks**

**11 Majors**

**1 Goal**

# Contents

## 1 Introduction

1. Our Client
2. Meet the team
3. The Brief
4. Project Plan

## 3 Research

1. Brand Research
2. Secondary Research
3. Case Studies
4. Field Trip
5. Primary Research

## 2 Problem Statement

1. Challenges
2. How Might We

## 4 Analysis

1. Insight Generation
2. Personas & Journey Maps
3. User Needs
4. Mission Statement

## 5 Ideate & Iterate

1. Concept 1
2. Concept 2
3. Concept 3
4. Iteration
5. Consolidated Concept

## 6 Final Concept

1. Final Floorplan
2. Final Ceiling Plan
3. 3D Model
4. Furniture Design
5. Physical Model
6. Projection Mapping
7. ITRC Branding

## 7 Final

1. Feasibility
2. Furniture
3. Reference About Research
4. Final Presentation
5. Behind The Scenes Story
6. Additional Material

# 01

## Introduction

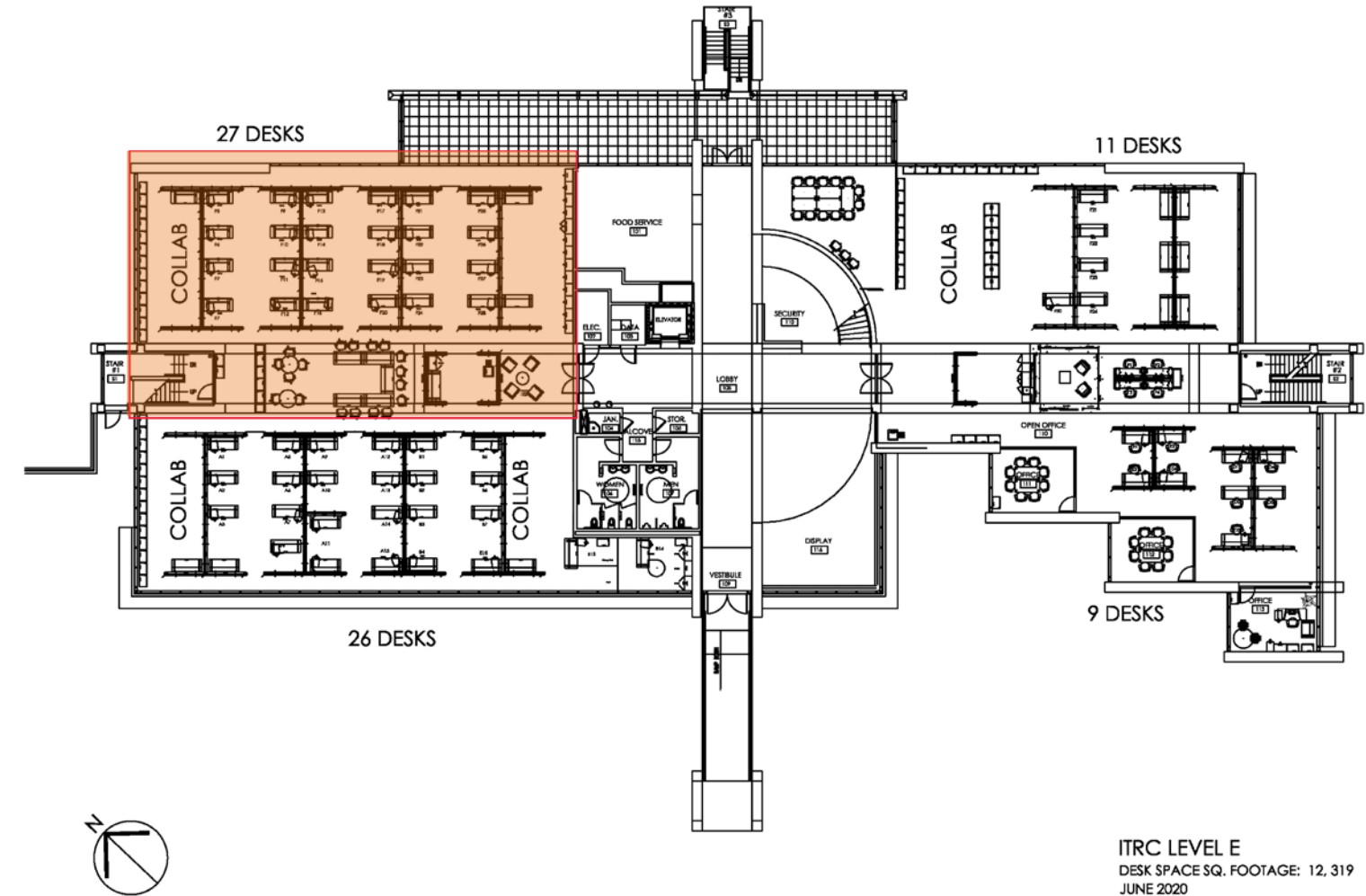
- The Brief
- Our Clients
- Our Team
- Project Plan

# The Brief

BMW is collaborating with SCAD to research and design an inspirational innovation space within the IRTC. The research and design of an innovative space will provide a transformative environment that promises to significantly amplify collaboration, inspiration, and the generation of innovative ideas. Through this design, spontaneous interactions are encouraged, breaking down traditional barriers between departments and fostering cross-functional teamwork. Collaborative zones, equipped with the proper tools and surroundings will serve as creative hubs where brainstorming sessions and idea sharing can flourish.

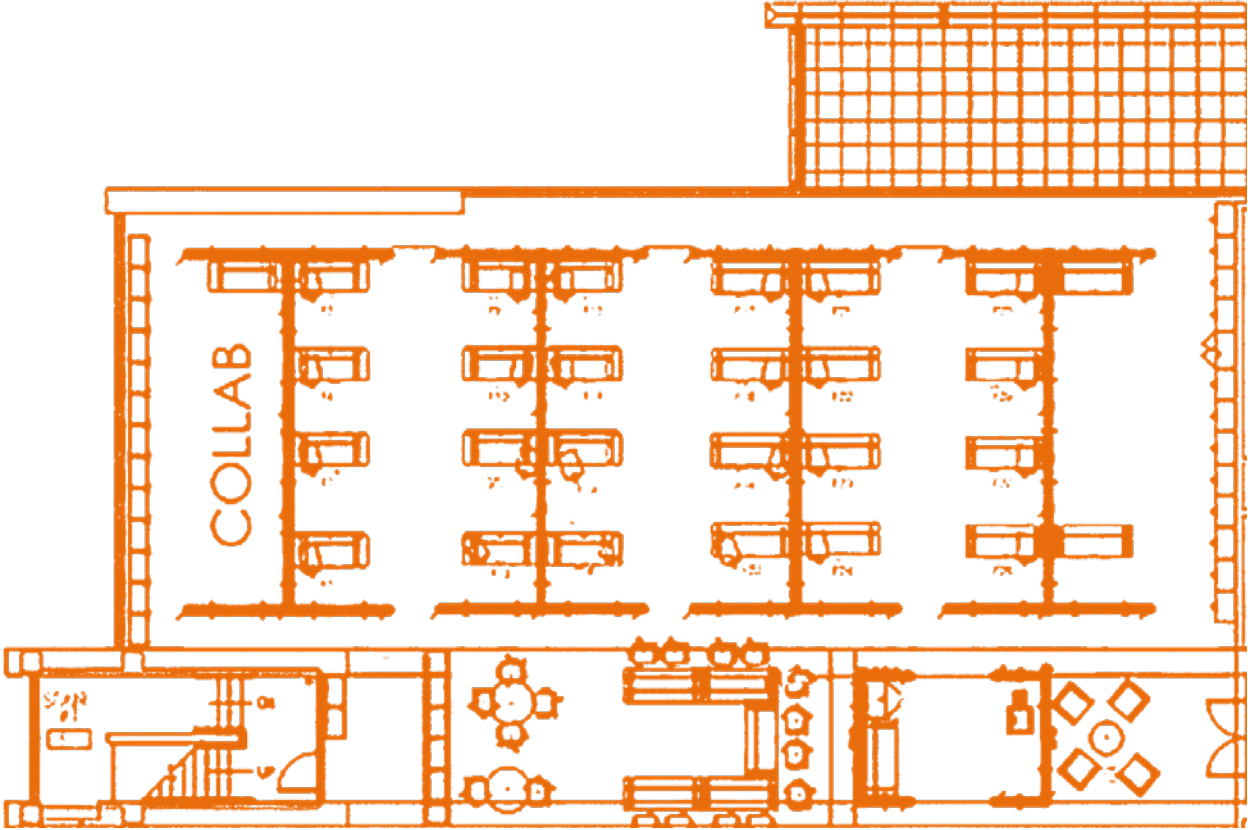
ICAR - BMW ITRC - PLANNING SKETCH  
LEVEL E

DESK TOTAL: 73 (73 - 6')  
DESKS NEEDED PER SHARE RATIO: 72  
MOBI TOTAL: 75  
HEADCOUNT TOTAL: 75



ITRC LEVEL E  
DESK SPACE SQ. FOOTAGE: 12, 319  
JUNE 2020

With SCAD's help, we set out to identify the infusion of elements, lighting, art, and materials to not only create the right atmosphere but also provide easy access to the diverse resources that spark innovative thinking. We'll also look to embrace cutting edge technologies to enable, inspire, and seamlessly collaborate with colleagues both physically and virtually, ensuring that no idea goes unexplored. In this dynamic and thoughtfully designed workspace, collaboration will become second in nature, inspiration will flow freely, and innovative ideas will be born and nurtured, driving business growth and success to new heights.





The BMW Group, a leader in luxury cars and motorcycles since 1916, emphasizes innovation, excellence, and sustainability. Known for pioneering technology and quality, BMW invests heavily in the future of mobility, focusing on electrification, automation, and digital services. It aims to create meaningful experiences that connect the body, mind, and spirit. The BMW Group's global R&D network, including the Information Technology Research Center (ITRC) in South Carolina, USA, leads in applying innovative technology to improve BMW Group's performance and efficiency. BMW is committed to leading the industry's transformation while upholding social responsibility and sustainability.



# Meet The Team



**Matthias Hillner**



**Abbie Schneider**  
B.F.A Graphic Design  
and Visual Experience



**Roxana Gonzalez Munera**  
M.F.A Service Design



**Sharvari Jalgaonkar**  
M.A Graphic Design  
and Visual Experience



**Gaurav Ravi Dalbhanjan**  
M.F.A Industrial  
Design



**Shiyuan Huang**  
M.A Graphic Design  
and Visual Experience



**Chloe Lakloufi**  
M.F.A Service Design



**Weichen Zhang**  
M.A Interior Design



**Nandita Anand**  
M.F.A Design for  
Sustainability



**Aayushi Ddoshi**  
M.F.A Graphic Design  
and Visual Experience



**Ava Carroll**  
B.F.A User  
Experience Design



**Yao Zhang**  
M.F.A Interior Design



**Seth Leister**  
B.F.A User  
Experience Design



**Hongyuan Wang**  
M.A Interactive  
Design/Game Development



**Xinyi Liu**  
M.F.A Illustration

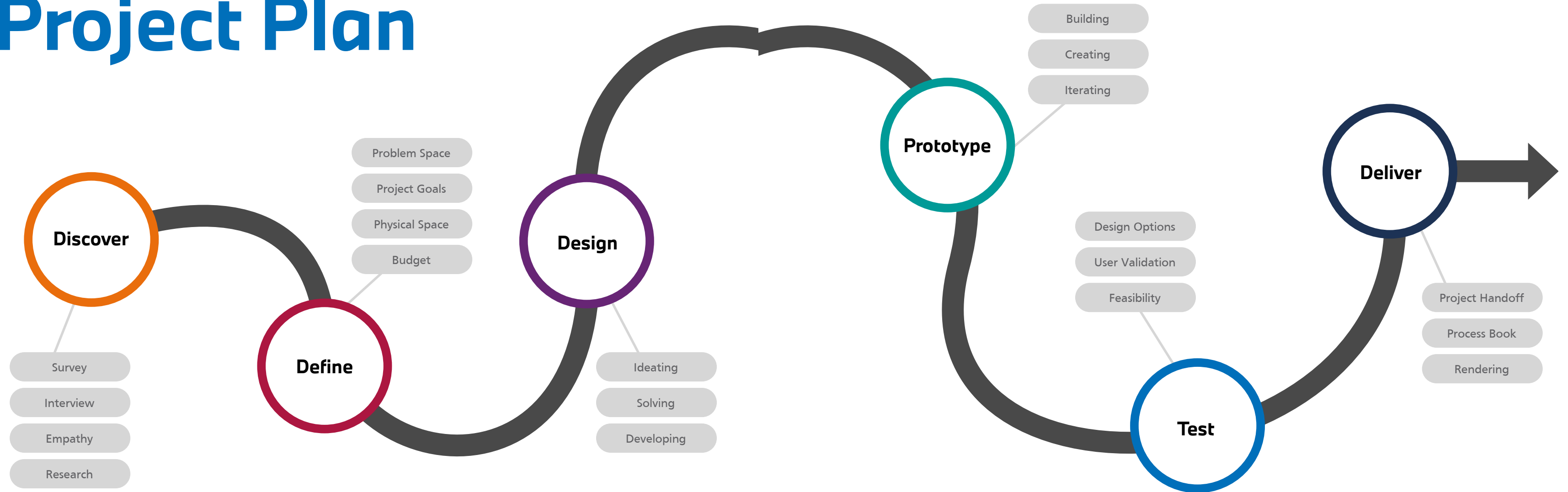


**Zinan Liu**  
M.F.A Themed  
Entertainment Design



**Boning Yu**  
M.F.A Graphic Design  
and Visual Experience

# Project Plan





# 02

## Problem Statement

### 1. How Might We?

# How Might We?

How might we design areas  
in our workspace to increase  
collaboration, inspiration, and the  
creation of innovative ideas?

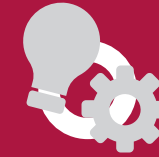
We will design a space that ...



Brings new and  
exciting branding to  
the space



Encourages  
spontaneous  
interactions



Combines  
lighting, art, and  
technology in a  
unique way



Breaks down  
traditional  
barriers between  
departments



Provides easy access to  
the diverse resources  
that spark innovative  
thinking



Embraces cutting edge  
technologies to foster  
collaboration physically  
and virtually

# 03

## Research

1. Brand Research
2. Secondary Research
3. Case Studies
4. Field Trip
5. Primary Research

# Brand Research

In the process of redesigning BMW's workspace, we needed to gain a deep understanding of BMW's brand image and market positioning. This involves gathering perceptions of the brand from BMW employees, partners, and customers, as well as analyzing the trends in the luxury car market and BMW's unique position within it. Through quantitative research methods such as market surveys and competitive analysis, we uncovered BMW's core values and brand messaging. This research provided strategic insights for the design of BMW's work environment, helping us to plan more targeted directions for our secondary research and primary research.



“

**“This is a place where you can come up with an idea, say it out loud - then watch other people run with it and make it happen.”**

- **Andy Wurm**, Customer Services Support Manager, BMW Group Financial Services, USA.

**“Our job is about more than just automobiles. We’re always looking for new solutions to make better cars and more efficient processes. I’m proud to work with BMW Associates who never settle for second best.”**

- **Beth Phillips**, Energy Center, BMW Manufacturing Plant Spartanburg, USA.

”

## Market Insights

**The BMW Group has ranked among the leaders for employer image in both national and international comparisons for years. The company earned top positions again this year in numerous studies measuring employers' perceived attractiveness.**

**33% of employees say that the main reason they stay at BMW Group is because of the BMW Group company mission.**

- Universum Study

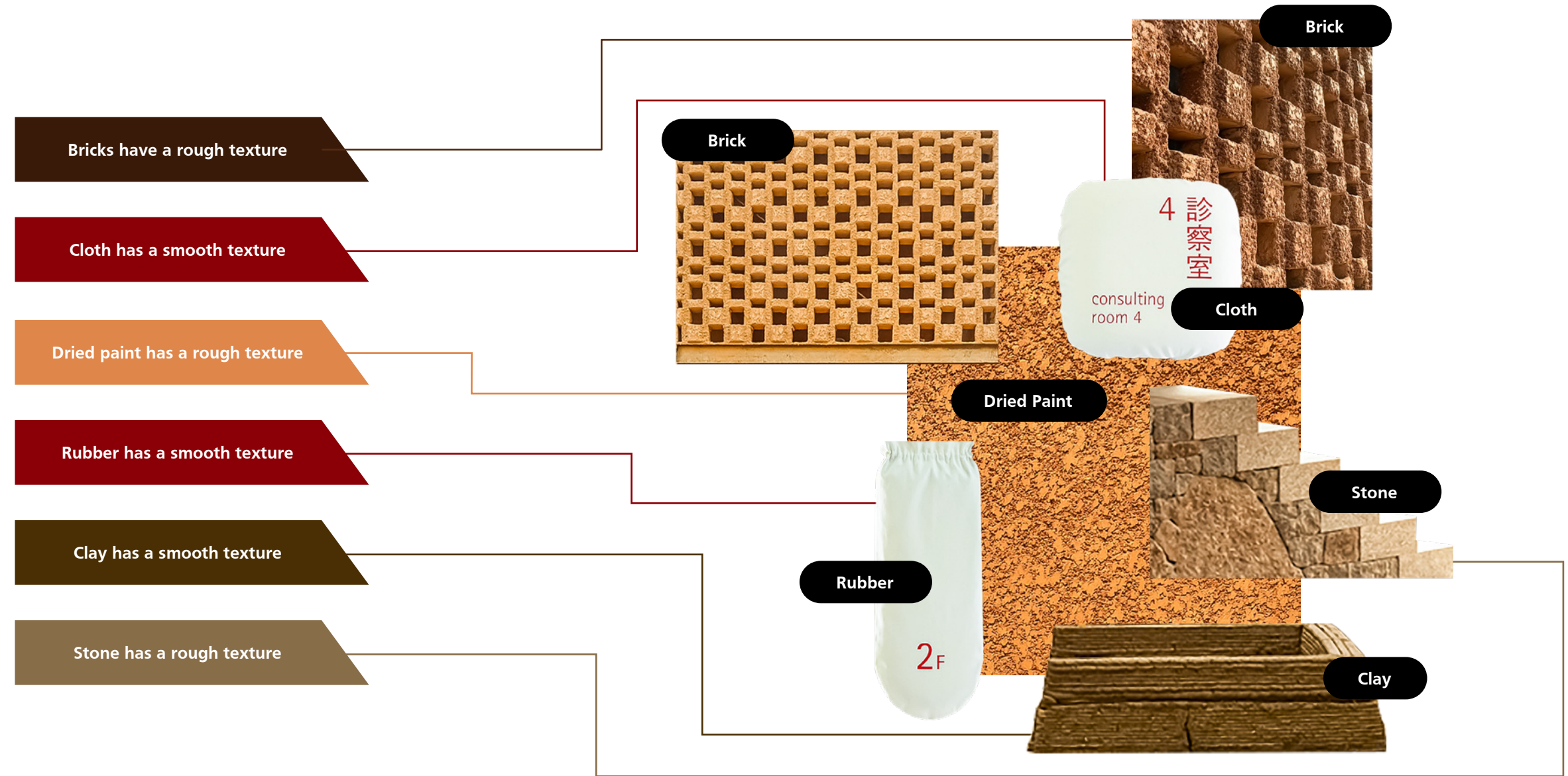
# Secondary Research

In the process of redesigning BMW's workspace, we needed to gain a deep understanding of BMW's brand image and market positioning. This involves gathering perceptions of the brand from BMW employees, partners, and customers, as well as analyzing the trends in the luxury car market and BMW's unique position within it. Through quantitative research methods such as market surveys and competitive analysis, we uncovered BMW's core values and brand messaging. This research provided strategic insights for the design of BMW's work environment, helping us to plan more targeted directions for our secondary research and primary research.



# Materials

Our team spent time researching material choices and their impact on humans through all five senses. Learning about their impact helped us to make informed decisions on materials for our new designs. Materials and social behavior based on the difference in sensibility brought about by touch, the material realizes the possibility of influencing social behavior. For example, the contrast between a soft carpet and the pavement makes it natural for people to ease their movements when entering a luxury store or a fine restaurant.



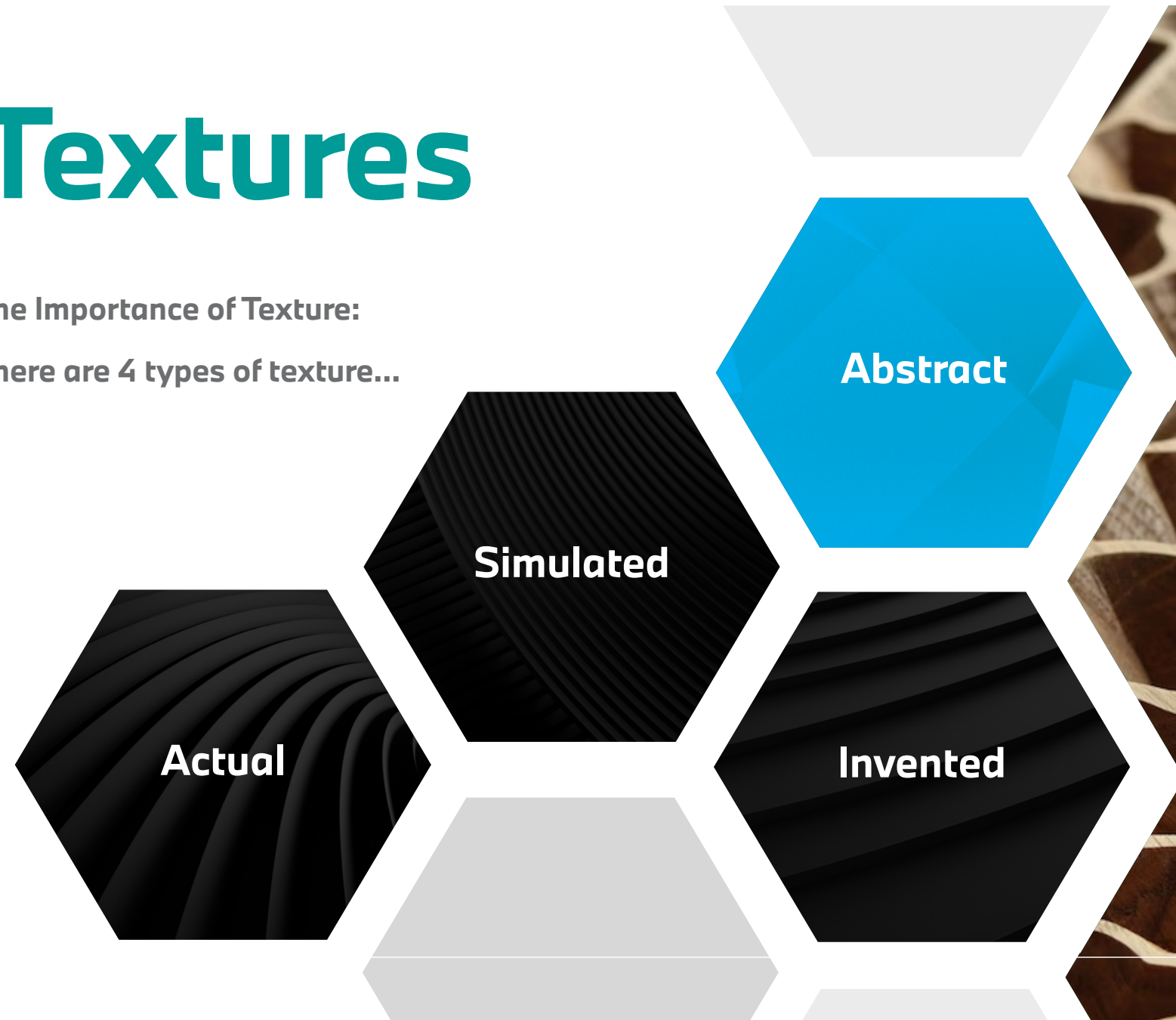
# Materials

The choice of materials profoundly influences the atmosphere and functionality of a space, shaping its aesthetics, acoustics, and thermal characteristics. From warm woods that evoke coziness to sleek metals conveying modernity, materials play a pivotal role in defining the overall experience within a given environment.



# Textures

The Importance of Texture:  
There are 4 types of texture...



## Actual Textures

Actual texture refers to the physical surface of an object. Thick oil paint or collaged materials are examples of actual texture



## Simulated Textures

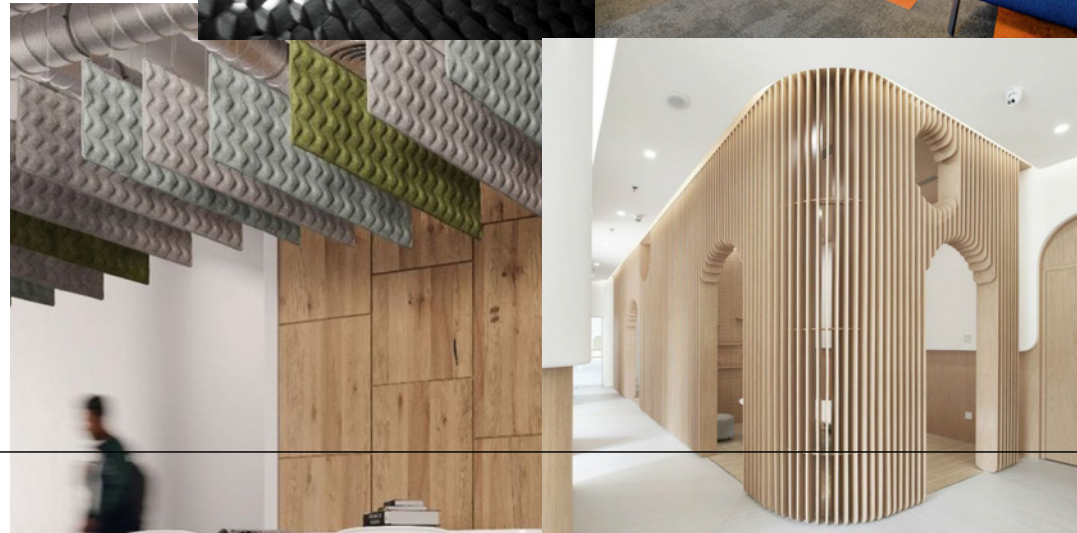
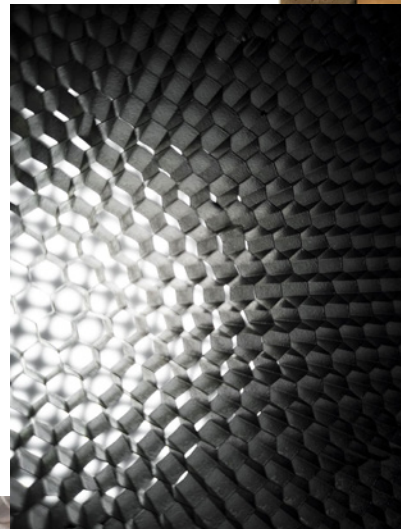
Simulated texture is a surface made to appear like the intended texture.

Examples of this include painted theater sets, linoleum tile, and fake brick wall sheeting.



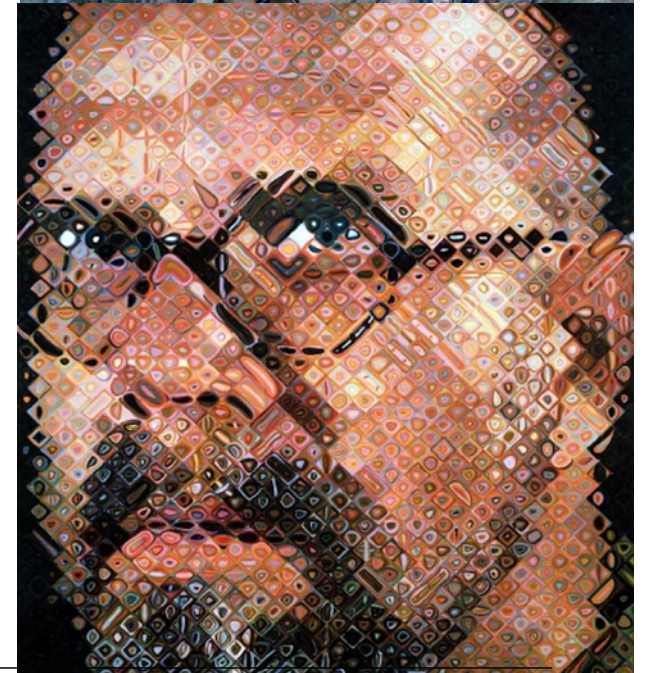
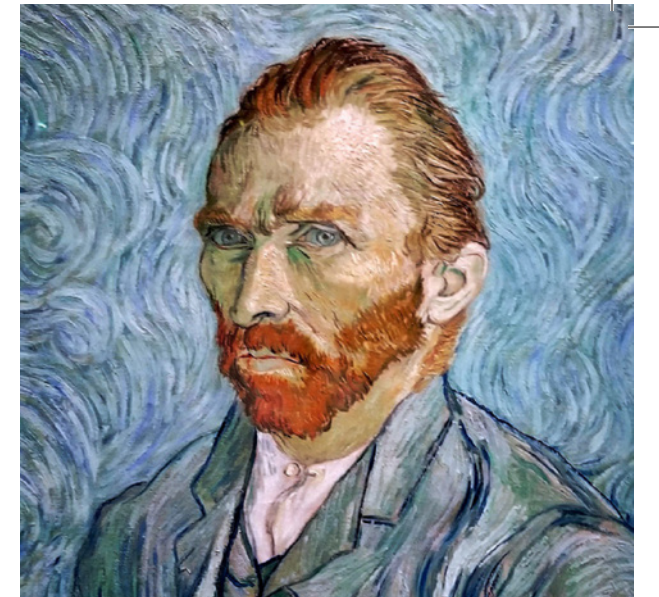
## Abstract Textures

An Abstracted surface utilizes an existing surface of material but re-arranges it to create a new texture. An example of this would be utilizing small pieces of metal combined together on a wall, or various sized wood blocks to create a more interesting wood surface.



## Invented Textures

Invented texture is a direct product of an artists imagination created with no physical surface quality of its own. Examples of Invented texture include the splattered texture of a Jackson Pollock painting, the swirling background of a Van Gogh.



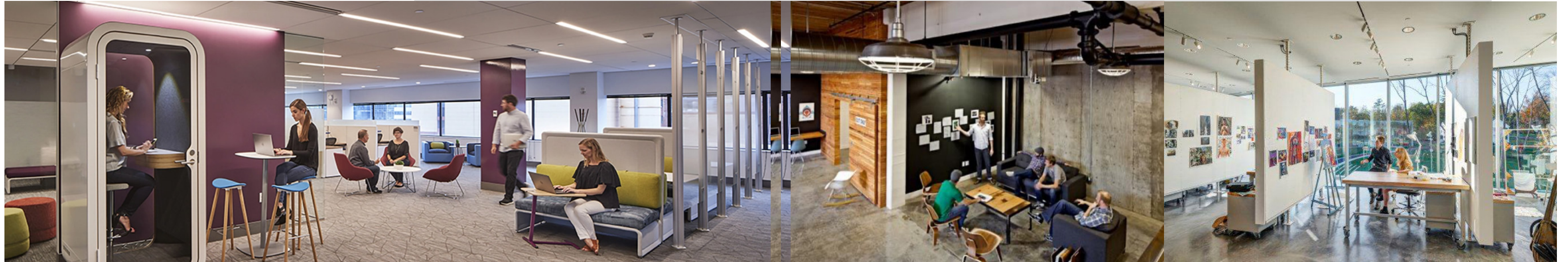
# Categories For Interior Zoning

## 1 - Spaces for individual work

Includes personal space, focus space, incubation space

## 2 - Spaces for collaborative work

Includes team and meeting spaces



# Categories For Interior Zoning

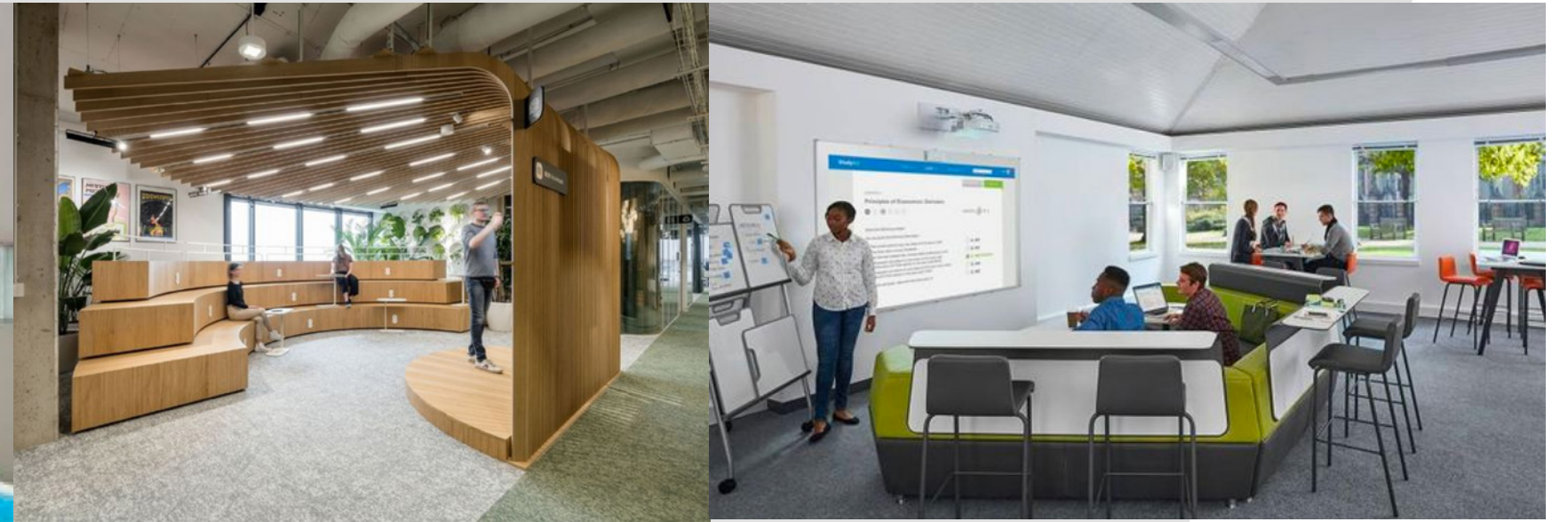
## 3 - Spaces for making

Includes experimentation spaces, analysis spaces, verification spaces, and workshop spaces);



## 4 - Spaces for presenting

Includes lecture spaces, but also exhibition spaces



## Categories For Interior Zoning

5 - Spaces for preparation that are not necessarily part of the regular work environment but still integrated into the work process research (includes exploration space and research space);



6 - Spaces that are somewhat outside the regular work process, where people take a break and transit between spaces

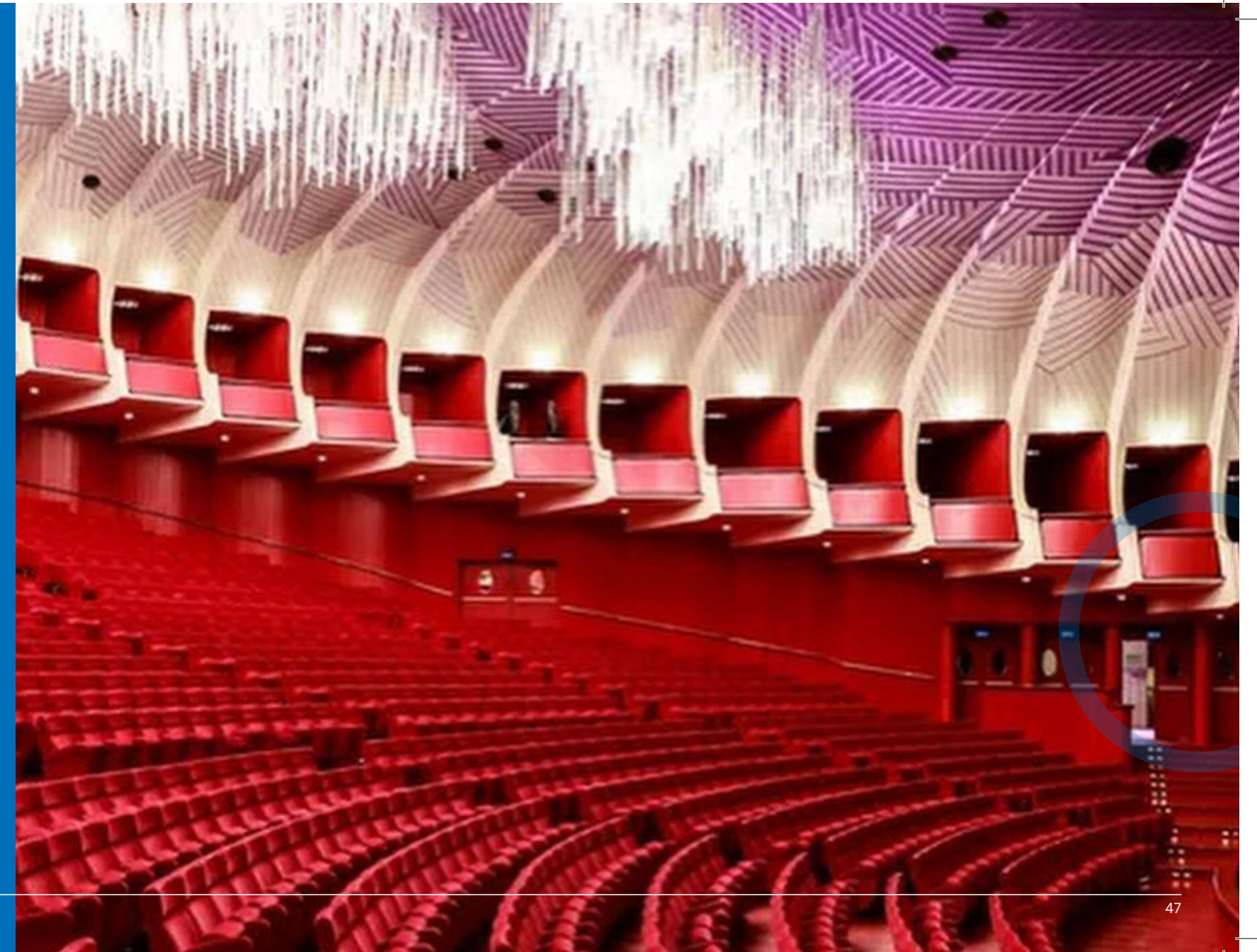


**Playful spaces and surprising spaces were mentioned by several sources as being beneficial for creativity because they are able to trigger experimentation and instigate new connections between people.**



**The auditory environment can have a direct impact on cognitive functions. Background noise, for instance, can affect concentration and cognitive performance.**

**Noise levels can influence people's attitudes and behaviors.**





By embedding core brand values into the built environments, employees and visitors should intrinsically feel the beating heart of BMW's passions.



**By embedding core brand values into the built environments, employees and visitors should intrinsically feel the beating heart of BMW's passions.**



# Case Studies

In pursuit of optimizing the design of the BMW workspace, our team undertook comprehensive case study research, seeking valuable insights into diverse workspaces to uncover applicable best practices and innovative solutions that could enhance the efficiency and functionality of our own workspace design.



## Case Study 1

# Google

Graphic Art in  
Common Space

Local Food and  
Drink in Full Café

Playful Shapes, Bold  
Colors, and Movement

Taking inspiration from Google's Workspace, we can enhance BMW's workspace through introducing playful shapes, vibrant colors, and fostering a creative atmosphere. The addition of a café area designed for spontaneous interactions would encourage collaboration. Furthermore, incorporating installation art within common workspaces could elevate the overall aesthetic, creating an inspiring environment conducive to innovation and collaboration among BMW employees.



# Case Study 1 : Google

## Playful Shapes:

Google uses unconventional, whimsical shapes in their office designs to foster creativity and a sense of fun. For example, they may incorporate slides, curved walls, or playground-inspired structures. These playful shapes help break up the monotony of traditional office spaces, encouraging employees to think outside the box and approach problems from new perspectives, ultimately boosting productivity.

## Bold Colors:

Google embraces bold, vibrant colors throughout their office spaces. These energizing hues can positively impact mood and creativity. For instance, they may use bright accent walls, colorful furniture, or eye-catching murals. The stimulating color schemes help create a lively and engaging environment, keeping employees motivated and engaged throughout the workday.

## Movement:

Google's offices often feature elements that promote movement and physical activity, such as indoor bike paths, exercise rooms, and standing desks. Regular movement and exercise have been linked to increased energy levels, better focus, and reduced stress, all of which contribute to higher productivity among employees.



# Case Study 1 : Google

## Local Food and Drink in Full Café:

Google's offices typically feature on-site cafés or micro-kitchens that offer a variety of local and global cuisine options, as well as beverages. By providing access to diverse, high-quality food and drinks, Google ensures that employees stay nourished and fueled throughout the day, reducing the need to leave the office and minimizing distractions. Additionally, the cafés serve as social hubs, fostering casual interactions and collaboration among colleagues.

## Bold Colors:

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## Case Study 2



**Sleek, Shiny,  
Elegant Materials**

**Hightop  
Co-Working Space**

**Accent Colors Reflecting  
Brand Values**

Ferrari's workspace served as a compelling inspiration for us, with its utilization of sleek, elegant materials that effectively communicate luxury branding. The barstool high-top area fostering collaborative co-working in common spaces and bright workspace with bold accent colors, creates an environment that echoes sophistication and innovation.



## Case Study 2 : **Ferrari**

### **Emotional Branding:**

The design aimed to evoke the emotional power of the Ferrari brand by incorporating elements that represent passion, luxury, exclusivity, performance, design, and quality. The iconic Prancing Horse symbol was used as a central element.

### **Heritage Integration:**

Ferrari's rich heritage, particularly in Formula 1 racing, was infused into the workspace through design elements that reflect the excitement and dynamism of competitive racing.

### **Aerodynamic:**

Smooth, flowing curves were incorporated to symbolize aerodynamics and chicanes, paying homage to Ferrari's racing prowess while embodying the principles of speed and efficiency.



## Case Study 2 : **Ferrari**

### **Italian Flag:**

The colors of the Italian flag (red, white, and green) were used boldly and prominently throughout the design to express Ferrari's national identity and enhance the visual appeal.

### **Spatial Division with Racing Elements:**

Spatial Division with Racing Elements: The workspace was strategically divided into distinct areas using design elements such as the start line and pit stop, mirroring the precision and strategy involved in Formula 1 racing.



## Case Study 3



### Wood and Natural Accents

Dropbox's workspace inspired us through their incorporation of biophilic design, featuring plants and naturalistic elements that promote a connection to nature. The use of wood design accents and textured wall finishes added warmth and a touch of nature, enhancing the overall aesthetic. Additionally, the glass-enclosed meeting spaces created a dynamic and collaborative atmosphere, influencing our approach to workspace design.

### Hightop Co-Working Space

### Accent Colors Reflecting Brand Values



## Case Study 3 : Dropbox

### Biophilic Elements:

Biophilic Design Elements: Incorporating green elements and natural materials creates a vital, welcoming atmosphere that connects employees to nature. Example: The design intentionally infused greenery throughout the space.

### Comfortable Lounges:

Providing cozy, home-like lounge areas makes employees feel relaxed and at ease in the workplace. Example: Plush sofas, club chairs, and unique lounges like the music room with a grand piano cultivated an inviting ambiance.

### Natural Light:

Prioritizing natural light through architectural layouts enhances visibility, openness, and a collaborative environment. Example: Light-drenched meeting spaces took advantage of ample natural light.



## Case Study 3 : Dropbox

### Flexibility & Mobility:

Custom mobile furniture allows teams to easily reconfigure spaces for different needs, promoting adaptability. Example: Flexible, movable furnishings enabled collaboration anywhere in the office.

### Design Productivity Integration:

Thoughtfully integrating aesthetics with functional needs creates workspaces that look great and optimize productivity. Example: Every design element was chosen to make the office both enjoyable and efficient.



## Case Study 4



**Spatial Creativity**

Natural Textures

**Consistent Branding**

Our team conducted thorough research on BMW offices worldwide to learn from their structures and practices. We explored how they organize work, design their workplaces, and collaborate. This helped us grasp BMW's global corporate culture and gave us creative ideas to improve our own workspace design.



## Case Study 4 :

### Ceiling Design:

BMW's international workspaces often feature innovative ceiling designs that contribute to a dynamic and modern identity.

### Wood Accents:

BMW frequently uses wood accents to introduce warmth and elegance into their spaces. Incorporate natural wood elements in your workspace design, such as wooden paneling, furniture, or flooring, to create a more inviting atmosphere for employees and visitors alike.

### Spatial Creativity:

BMW's workspaces often embrace innovative shapes and forms to foster creativity and collaboration.



## Case Study 4 :

### Dynamic Lighting:

Lighting is a crucial aspect of BMW's workspace design. This can improve employee well-being and productivity by providing adaptable illumination based on specific tasks and activities.

### Consistent Design Language:

BMW maintains a consistent design language across its international workspaces, reinforcing its brand identity.



# Field Trip

Our team was honored to be invited to visit BMW's workspace. Our field trip significantly enhanced our understanding of the environment.

This firsthand experience not only provided insights into the existing workspace but also revealed user needs, allowing us to gain valuable inspiration for potential improvements and innovations of our project.



# Insight Generation

After our team's field trip, we compared our observations. This process enabled us to derive insightful observations and crucial lessons, empowering us to move forward with a user-centric approach in our project development.

Employees lack communal working spaces.

The windows provide **natural light** and adjustable blinds for light control.

Desks should be **adaptable yet personalized.**

The coffee area is currently **uninviting and incomplete.**

The space lacks **BMW** and **departmental branding.**

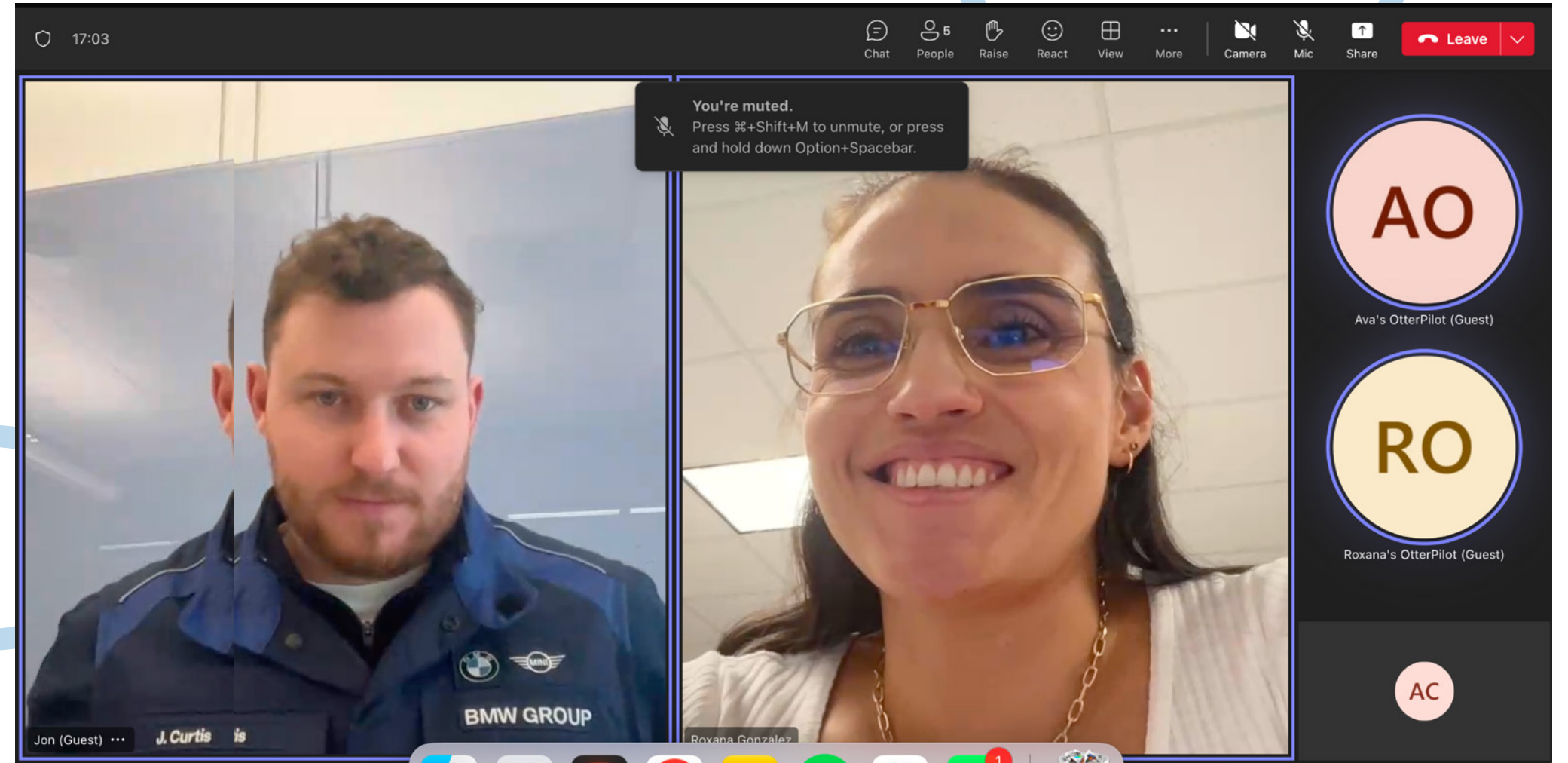
There is an overall **lack of color** in the office space.

**Loud AC** enables **noise isolation** but **hinders proximate conversation.**

The spaces throughout the office feel **dark**

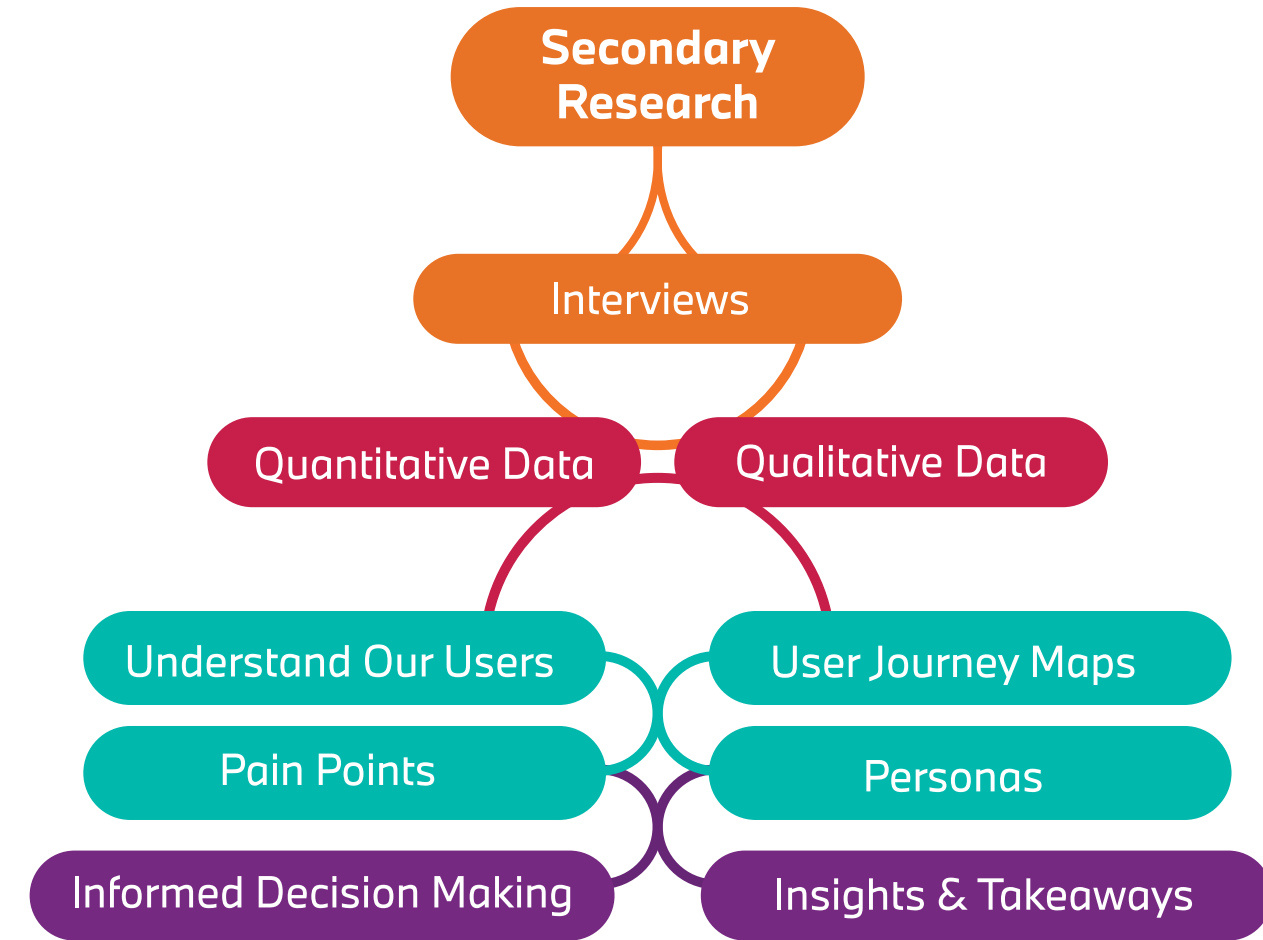
# Primary Research

To strategically redesign BMW's workspace, our team dedicated time to conduct rigorous primary research, comprising interviews and data analysis, aiming to gather firsthand insights and data essential for designing a tailored and effective workspace solution.



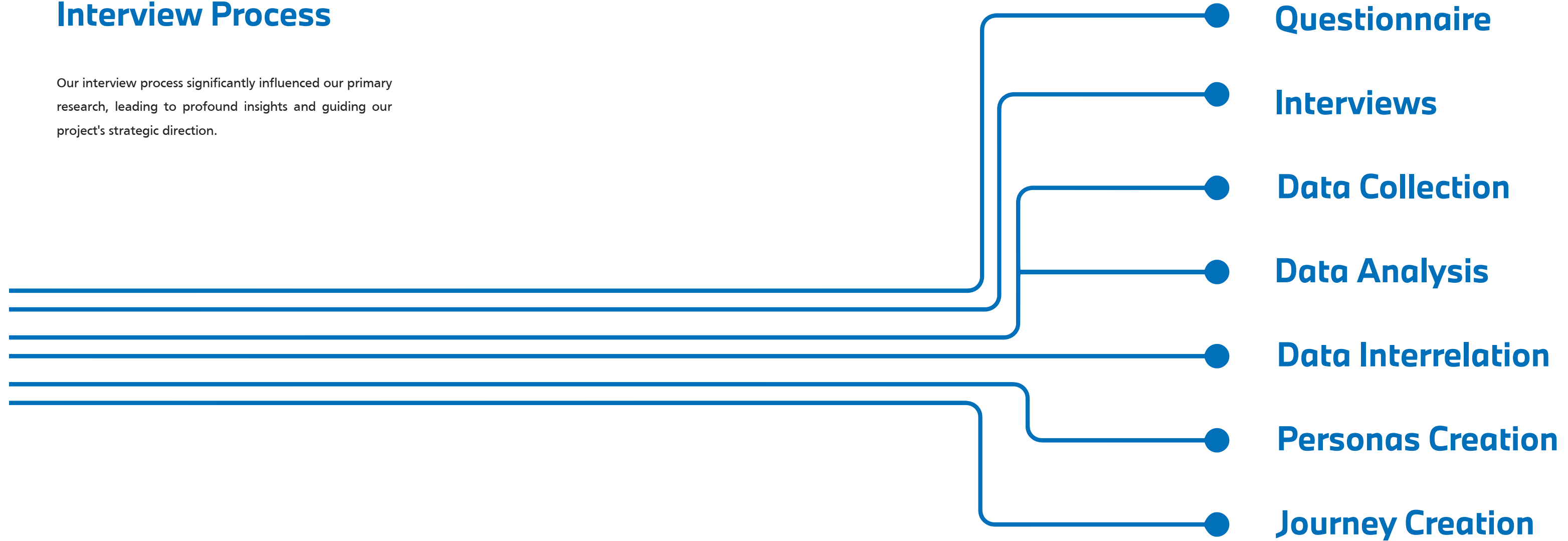
# Primary Research Process

In our comprehensive primary research process, we started with a meticulously crafted interview guide, conducted insightful interviews, analyzed the gathered data, and ultimately synthesized compelling personas and customer journeys to illuminate key insights and guide our strategic decisions.



# Interview Process

Our interview process significantly influenced our primary research, leading to profound insights and guiding our project's strategic direction.



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Our interview process significantly influenced our primary research, leading to profound insights and guiding our project's strategic direction.

The highest-rated categories for BMW among employees include collaboration with colleagues, working conditions, and the overall work environment.

BMW prioritizes cultivating excellence and expertise among its employees.

BMW holds a prominent role in the electric vehicle market, showcasing advanced technology and expertise in the design and manufacturing of electric vehicles.

BMW maintains a diverse global workforce, fostering a diverse and inclusive workplace that encourages innovation and creativity.

BMW emphasizes environmental sustainability in its operations, aiming to reduce its ecological footprint through various initiatives like reducing emissions, using renewable resources, and implementing sustainable manufacturing processes.

BMW's products possess elements of elegance and sportiness, with some aspects enhancing performance and others augmenting design. Together, these elements create a dynamic driving experience.

Customers appreciate the design, efficiency, and quality of BMW vehicles.

Customers appreciate the design, efficiency, and quality of BMW vehicles.

## This process led us to six main insights that encompass the needs of users expressed during interviews.

BMW's mission is to create a comprehensive connection between body, mind, and spirit.

BMW is seen as a leader in integrating advanced software solutions in vehicle development.

BMW is recognized for its technological advancements and commitment to innovation.

BMW is viewed as a symbol of status and prestige, reflecting a successful and upscale lifestyle.

BMW is perceived as a luxury brand.

Customers are attracted to BMW's innovative products, digital aftersales upgrades, and the focus on electric mobility.

BMW uses digital technology to improve the overall experience for users, including better vehicle performance, connectivity, and user-friendly interfaces.

**6**

- Space to host visitors, startups, and workshops
- Build greater camaraderie
- Foster collaborative break culture
- Reflect creativity, branding, and innovation
- Enhance collaboration & communication
- Showcase & collaborate on technology

**BUILD A  
GREATER  
CAMARADERIE**

**FOSTER  
COLLABORATIVE  
BREAK CULTURE**

**REFLECT CREATIVITY,  
BRANDING, AND  
INNOVATION**

**SPACE TO HOST  
VISITORS, STARTUPS,  
AND WORKSHOPS**

**ENHANCE  
COLLABORATION &  
COMMUNICATION**

**SHOWCASE AND  
COLLABORATE ON  
TECHNOLOGY**

# 04

## Analysis

1. Personas & Journey Maps
2. User Needs
3. Mission Statement

# Personas & Journey Maps

Our team used journey maps as a strategic tool to gain a holistic understanding of the user experience throughout various touchpoints. Journey maps provide a comprehensive overview of the user's emotions, motivations, and interactions at each stage, enabling us to tailor our design and development processes more effectively. These maps not only facilitate a user-centric perspective but also ensure that our solutions address the dynamic and evolving nature of the user experience over time.

Our team strategically designed personas for the project to create a deeper understanding of our target users. By creating representative characters that encapsulate the diverse needs, preferences, and behaviors of employees, we have established a valuable tool for empathy-driven design. These personas guided our decision-making process and ensure that our solutions align seamlessly with the clients' expectations and goals.



**Daniel**

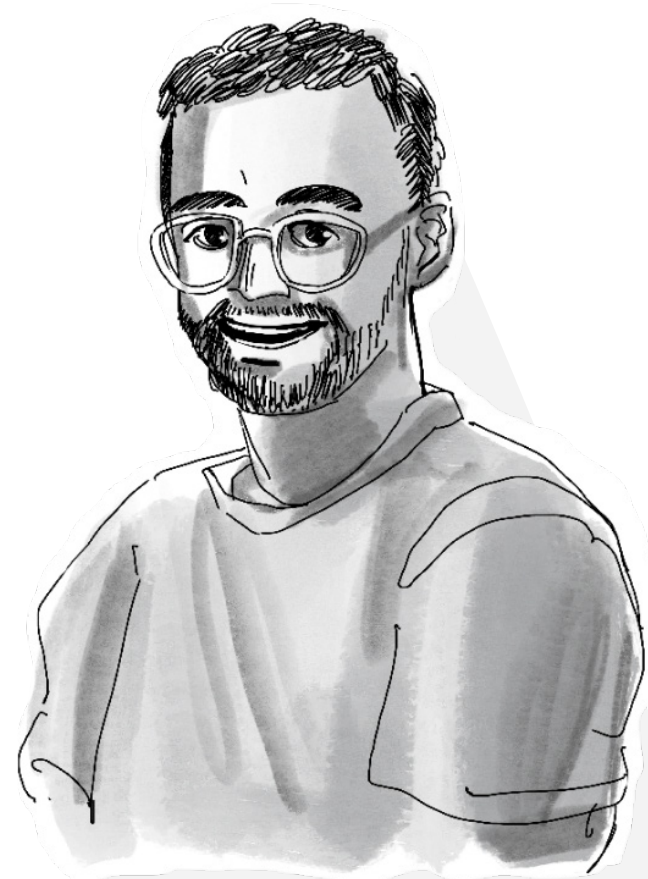


**Colin**

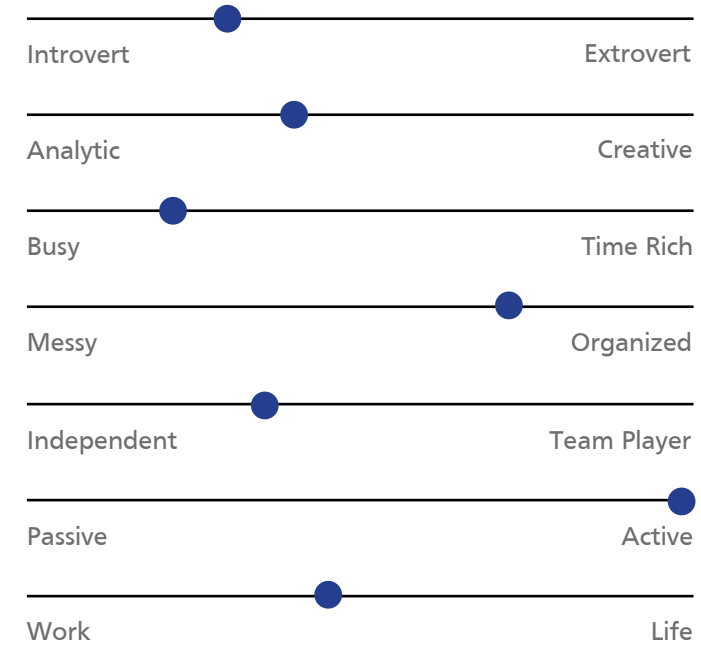


**Melanie**

# Persona : Daniel



Works an average of **4 days in person**  
Spends **60%** of workday **at desk**.



## Goals

- Optimize efficiency at desk space.
- Prioritize work - life balance.



## Pain Points & Frustrations

- Hard to focus if office is too loud
- Lacks a focus space



## Motivations

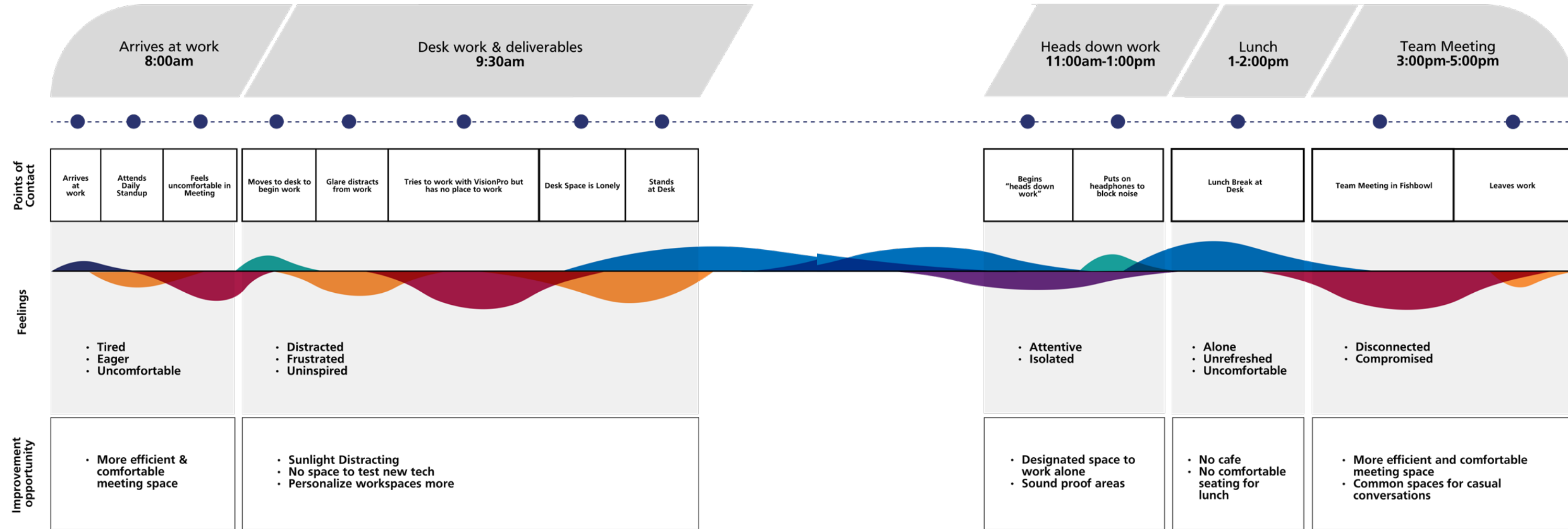
- Get work done while at work
- White noise or quiet music allows him to focus



## Needs & Expectations

- Optimal desk space for efficiency
- Needs creative workspaces to inspire him but not distract him

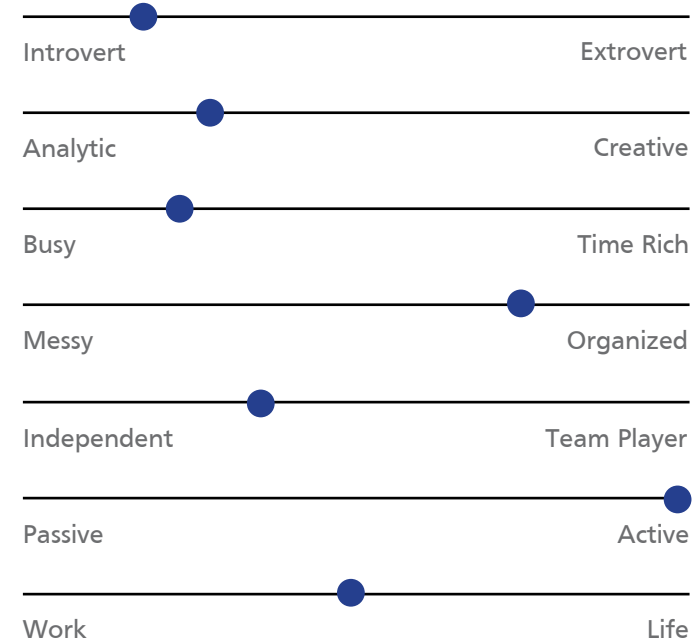
# Journey Map : Daniel



# Persona : Melanie



Works an average of **2 days in person**  
Spends less than **50% of workday at desk.**



## Goals

- Spend less time in meetings
- Make desk space more creative



## Pain Points & Frustrations

- Office space does not feel comfortable or inviting
- She is working individually or in a meeting and craves an in between



## Motivations

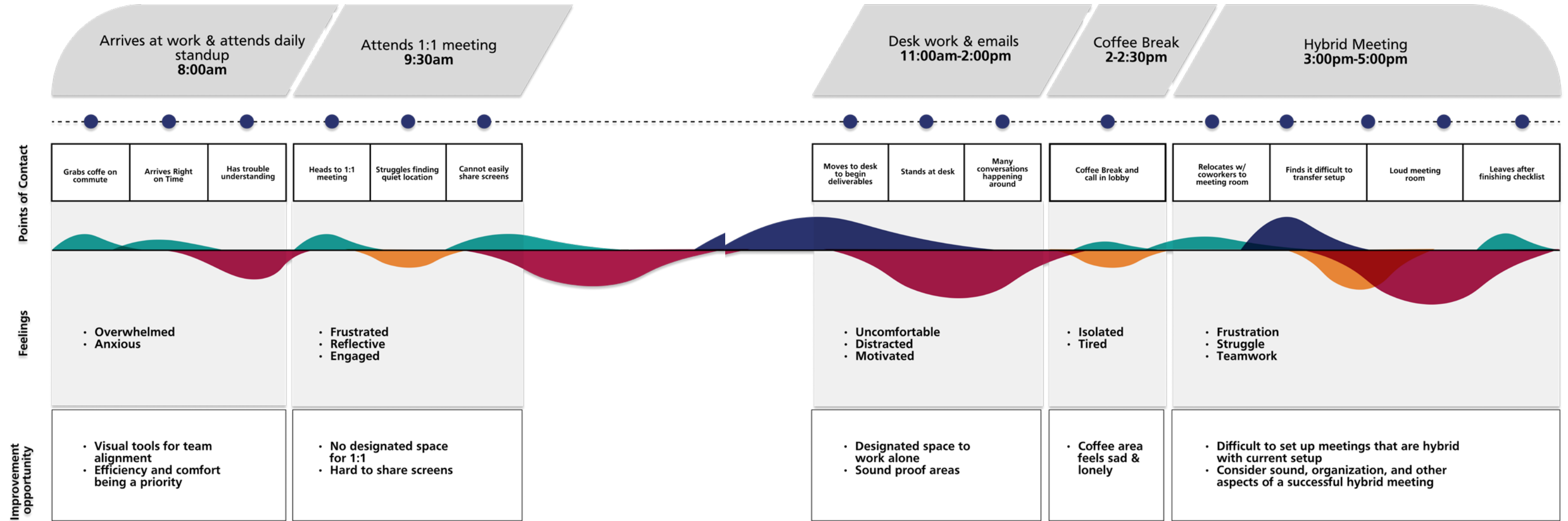
- Getting out of work on time with her tasks done
- Get motivated to come into the office



## Needs & Expectations

- Spend 50/50 in focus or collaboration time
- Meeting rooms lack creativity and are uncomfortable
- Needs a reason to come to the office

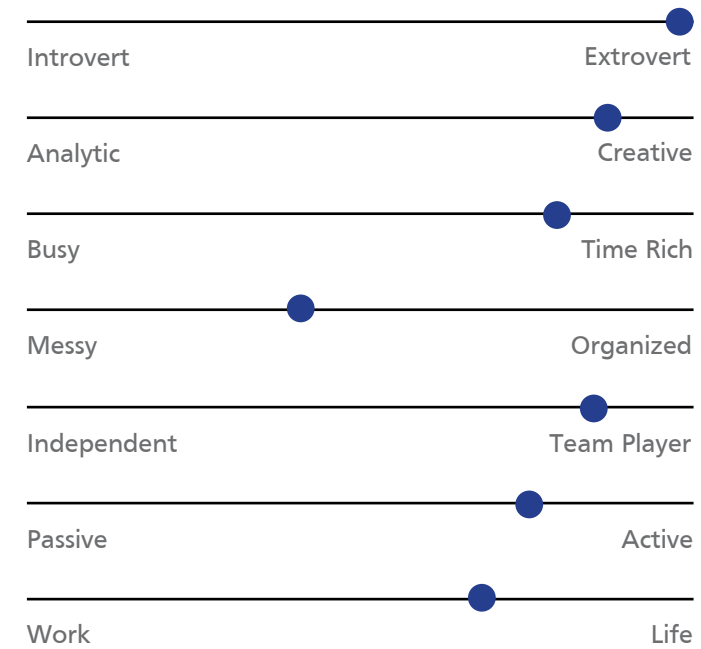
# Journey Map : Melanie



# Persona : Colin



Works an average of **4 days in person**  
Spends **40%** of workday **at desk**.



## Goals

- Create the most innovative ideas through collaboration.



## Pain Points & Frustrations

- No space to test devices or work collaboratively.
- Unable to showcase his or his coworkers work.
- Physical barriers make it hard to communicate.



## Motivations

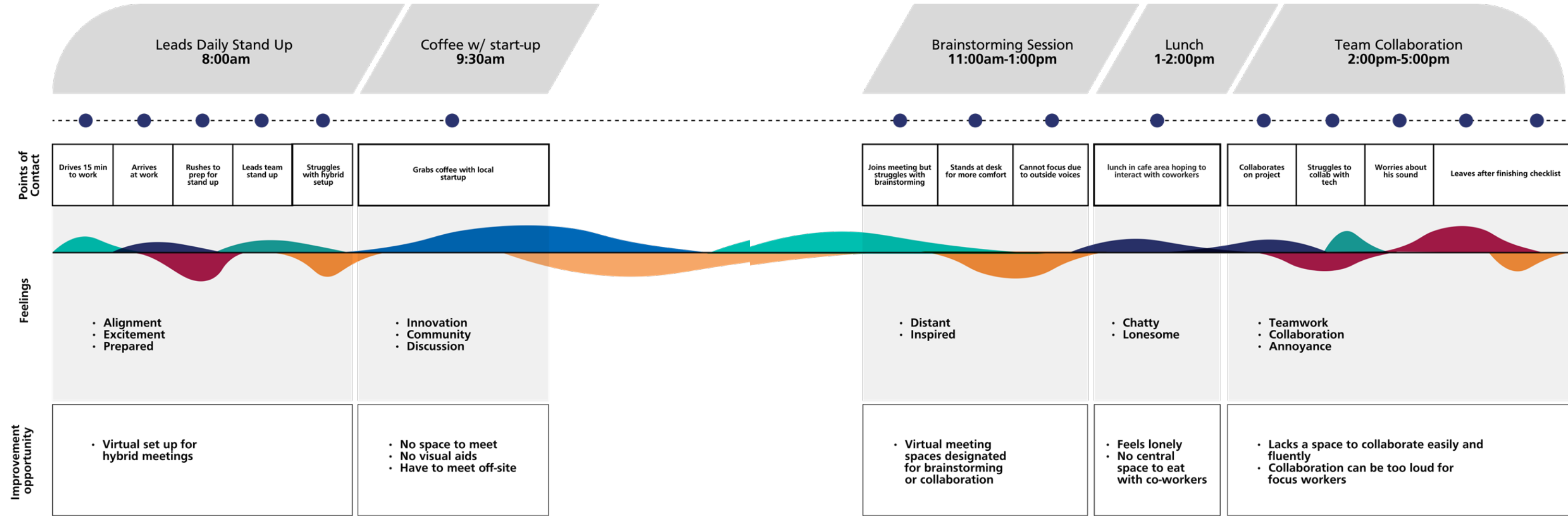
- Camaraderie among team members.
- Collaboration is key to innovation.
- Bringing new visitors and startups into the space.



## Needs & Expectations

- A space to use tech physically.
- A visual or physical space to showcase his work and collaborate and virtually.

# Journey Map : Colin



## User Needs



## Mission Statement

We will focus our design on

- **Enabling collaboration**
- **Barrier-free, collaborative, open workspace**
- **Enhancing BMW team's break and lunch culture**
- **Dedicated, interactive innovation testing space**
- **Well-being-centric, nature-infused workspace**
- **Showcase and collaborate on technology**

# 05

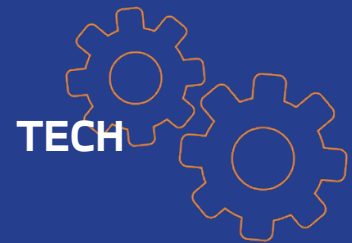
## Ideate & Iterate

1. Concept 1
2. Concept 2
3. Concept 3
4. Iterating On Concepts
5. Exploring Research
6. Consolidated Concept

# Concept Development

With our research complete, our team began developing innovative concepts, envisioning a dynamic and tailored design that harmonizes functionality, aesthetics, and the unique needs of the evolving work environment.





TECH

### CONCEPT 1 Tech Play Ground

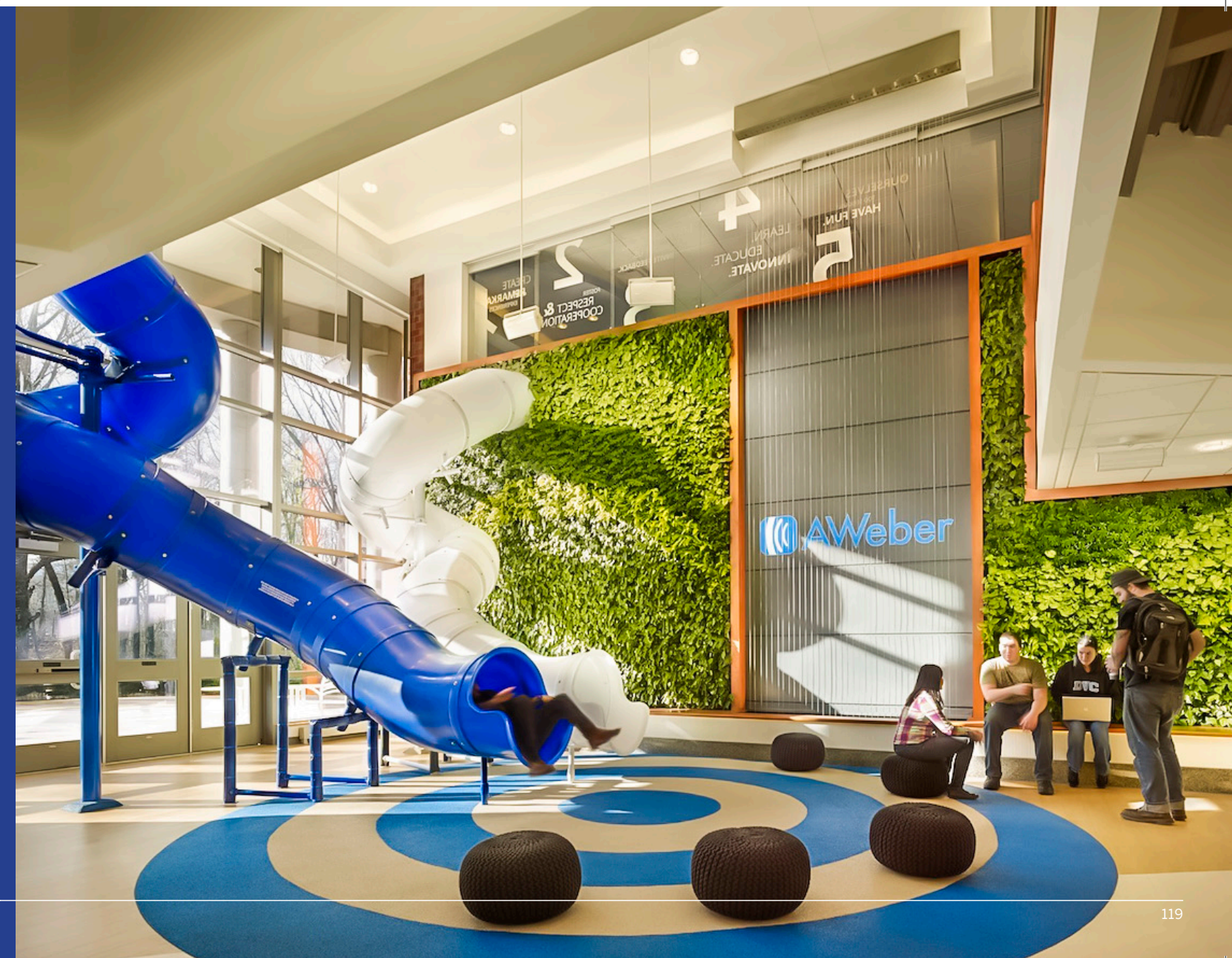
The tech playground fuses technological innovation, childlike exploration, & team well-being grounded in sustainability.



PLAY



GROUND



## Why This Concept?

Tech relates to the **focus**

Play relates to the **creativity**

Ground relates to **team-building,**  
**employee wellbeing**



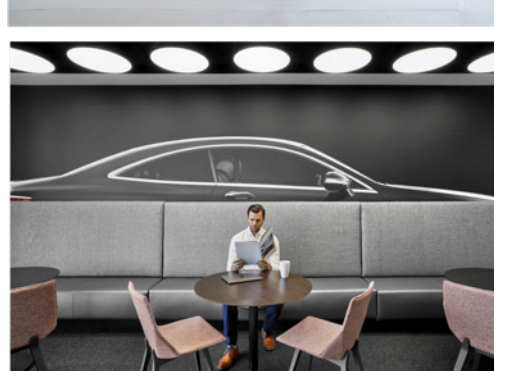
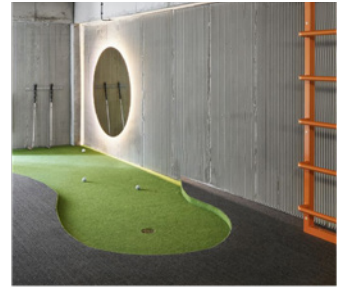
## Insight

**“When you play, you engage the creative side of your brain and silence your “inner editor,” that psychological barrier that censors your thoughts and ideas.”**

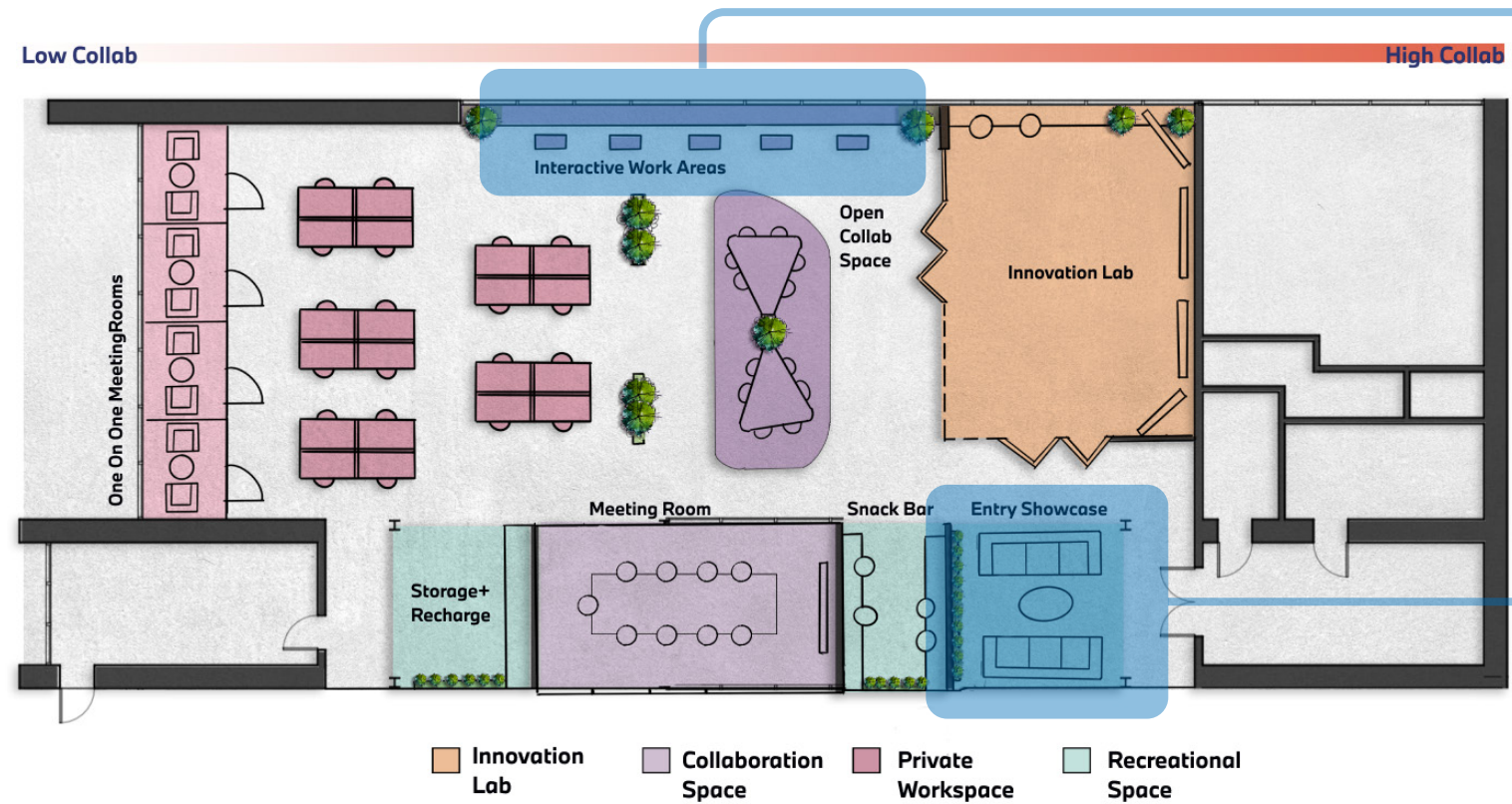
- Help Guide.org

# Moodboard

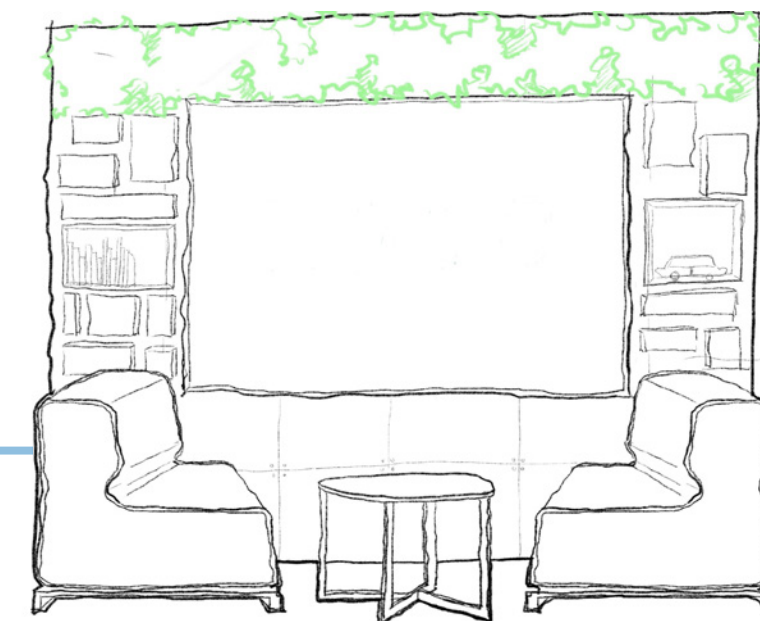
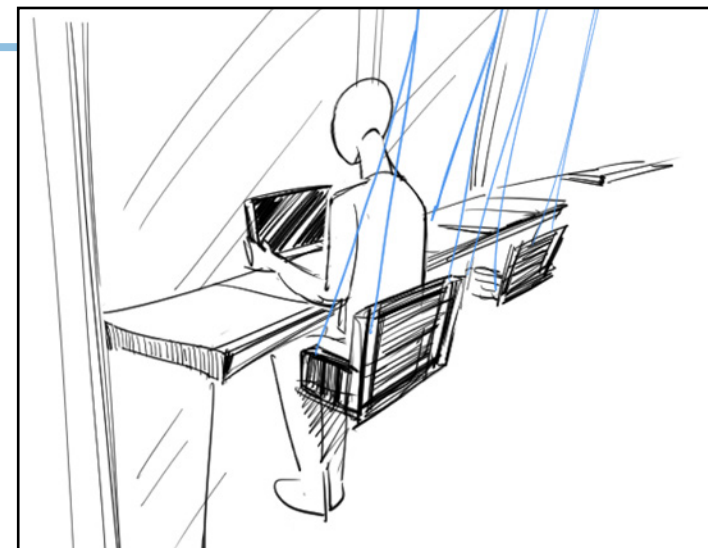
- Bright
- Inviting
- Sleek
- Creative



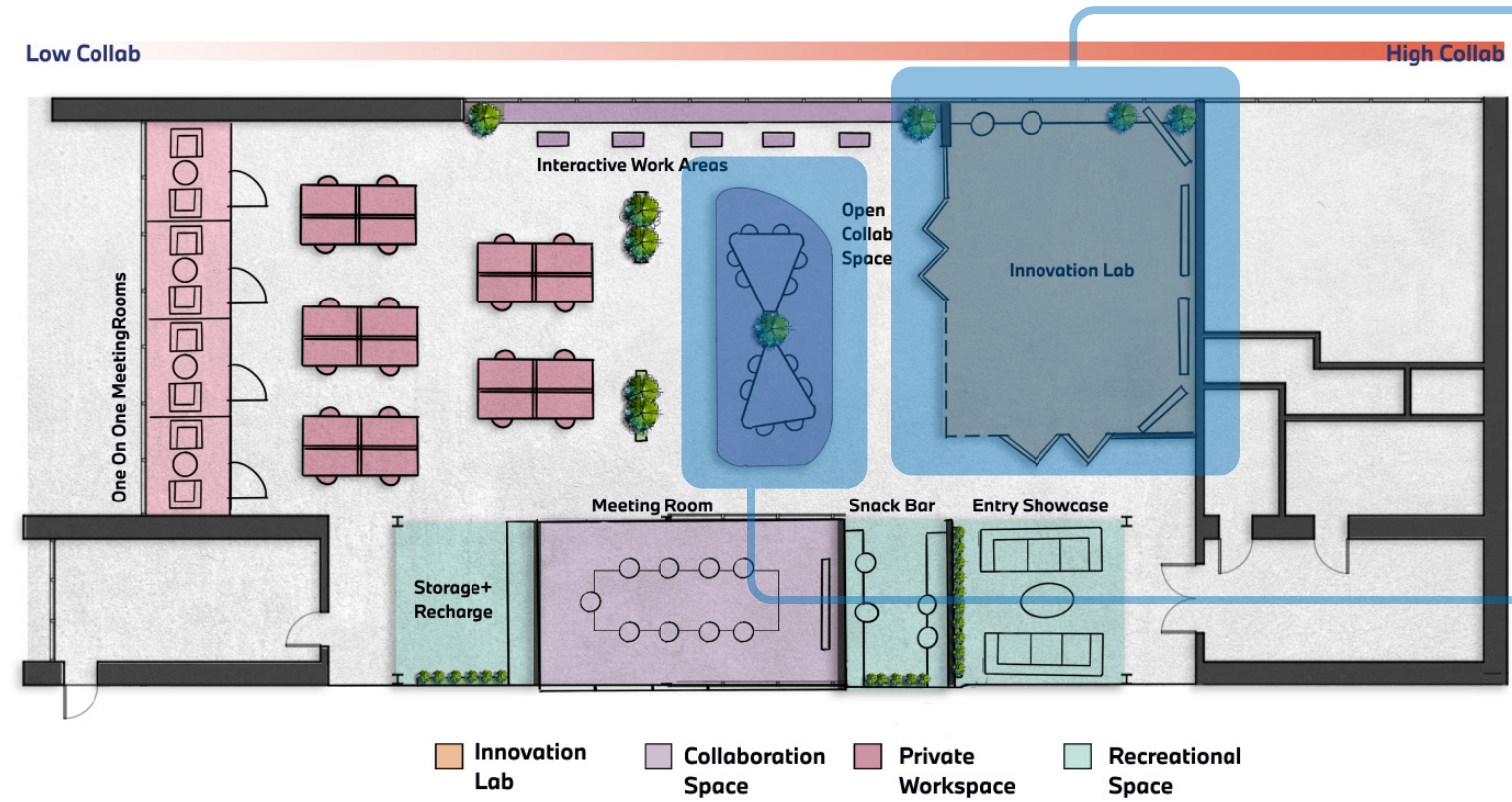
# Floorplan



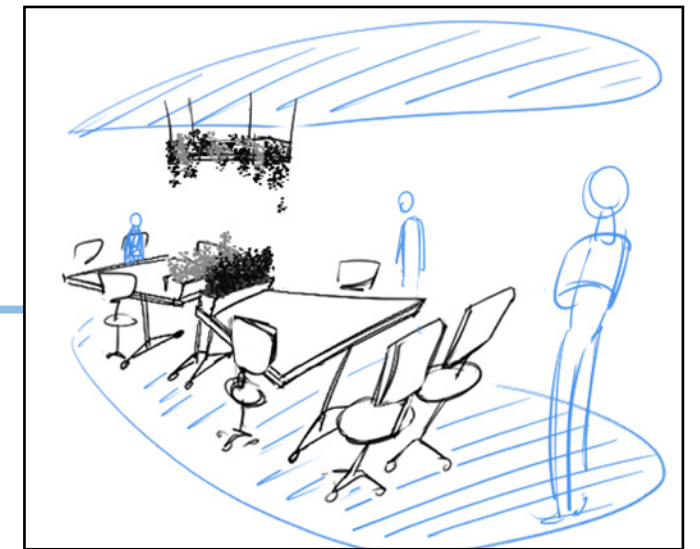
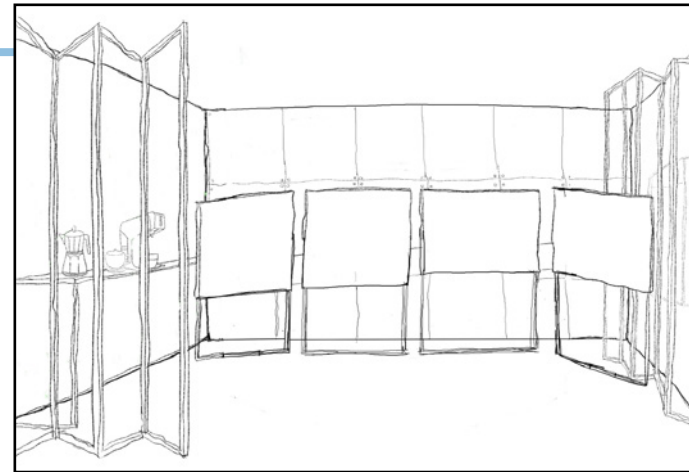
# Perspective Sketches



# Floorplan



# Perspective Sketches





## CONCEPT 2 Nests

Bird nest-inspired design promotes adaptability, personalized workspaces, and rhythmic flow for harmonious and growth-oriented workspace.



## Why This Concept?

We aim to craft a **welcoming workspace**, akin to **bird nests**, providing comfort and **empowering** employees to take flight with their ideas and **collaborate** freely.



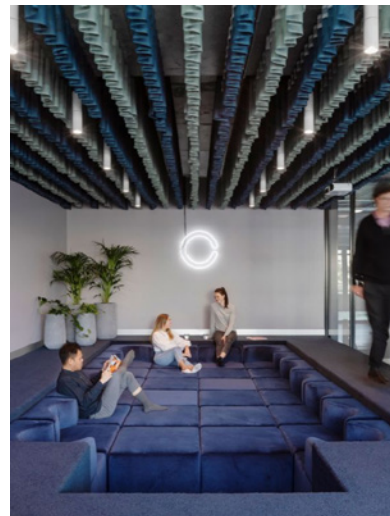
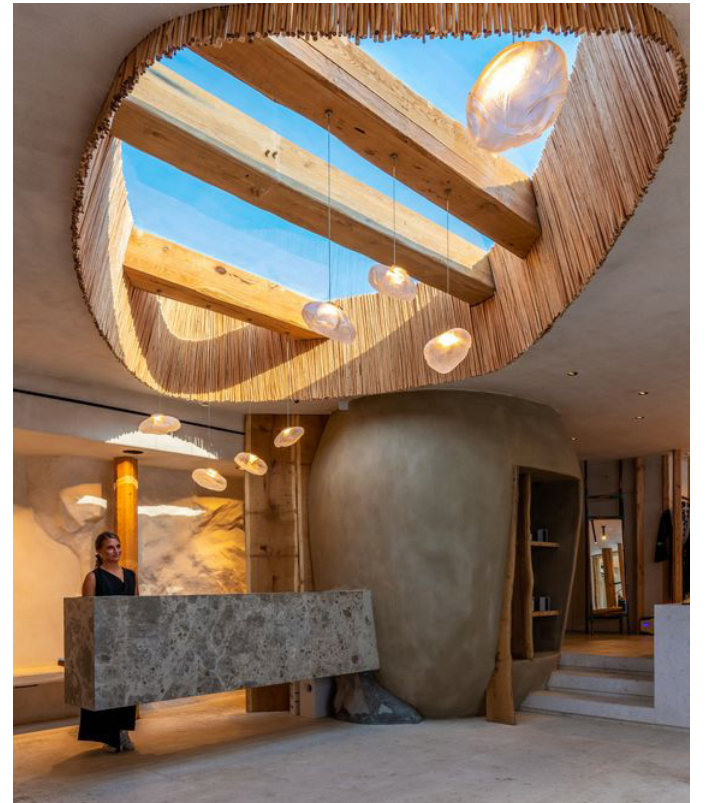
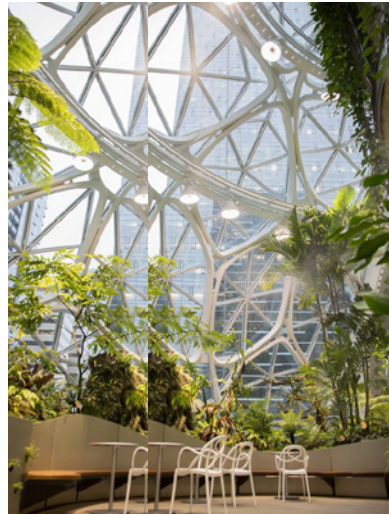
## Insight

“When a space can easily adapt to various needs, employees are free to brainstorm, collaborate, and create wherever they feel most inspired.”

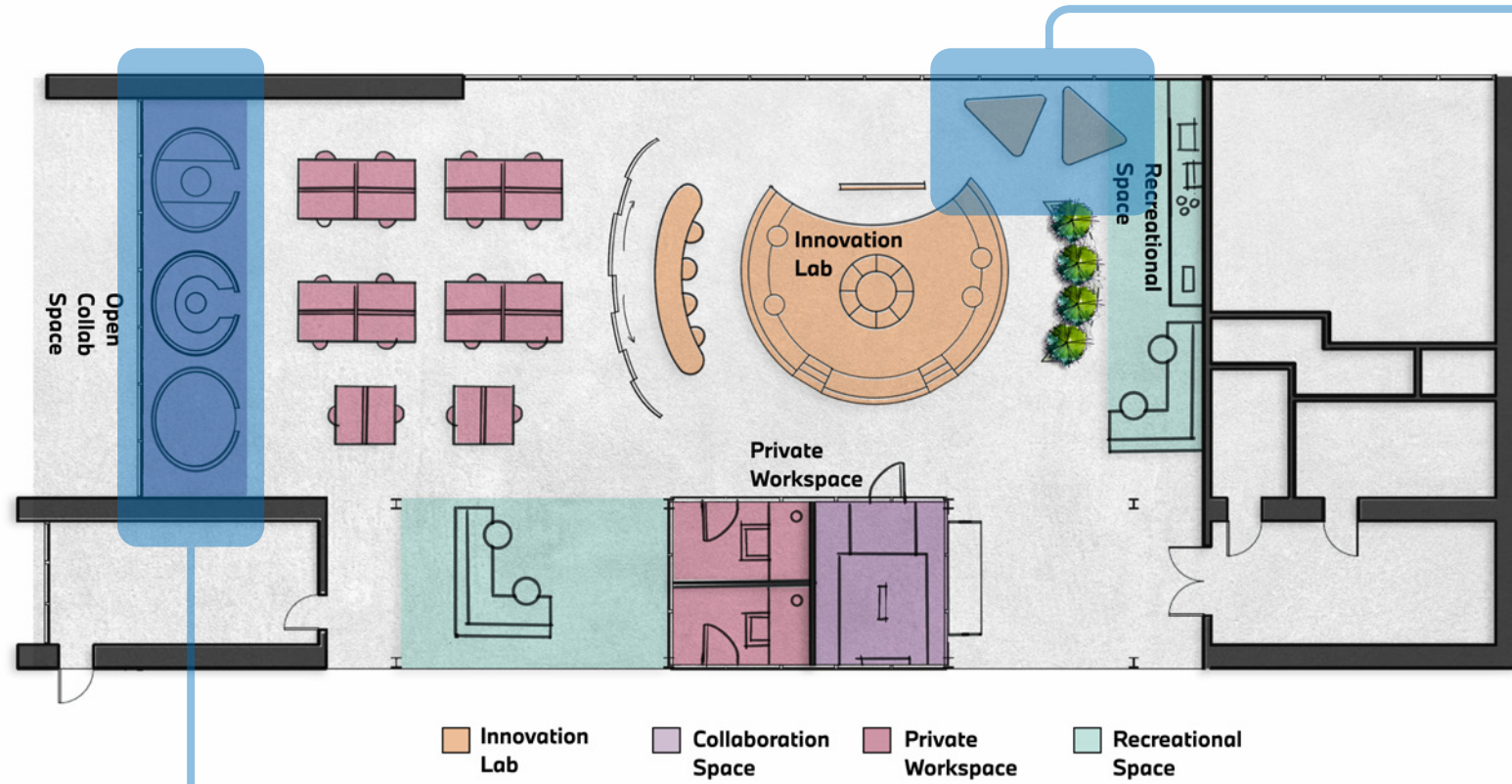
- Haworth.com

# Moodboard

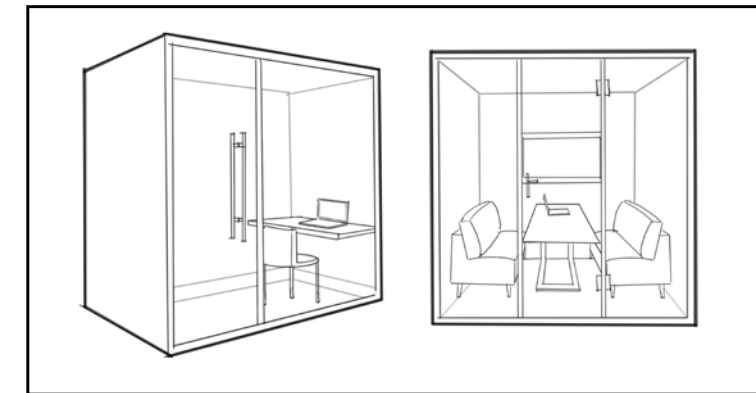
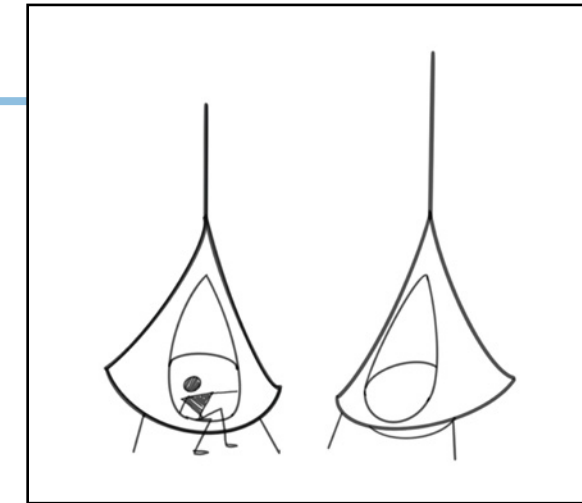
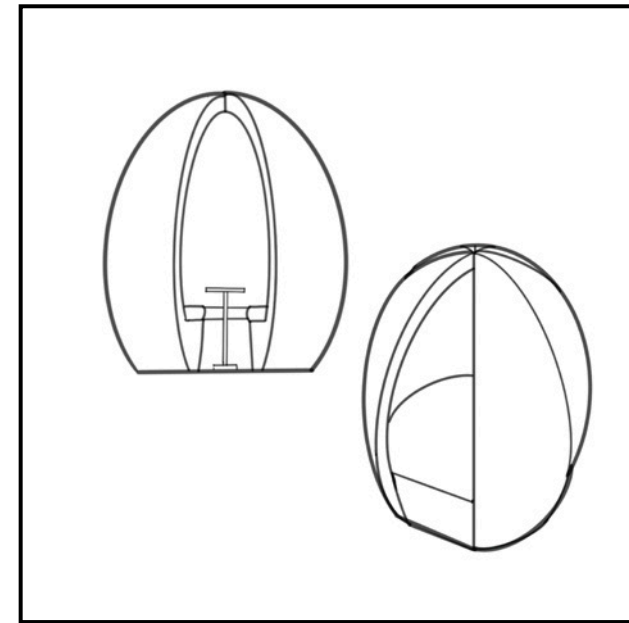
- Welcoming
- Empowering
- Adaptive



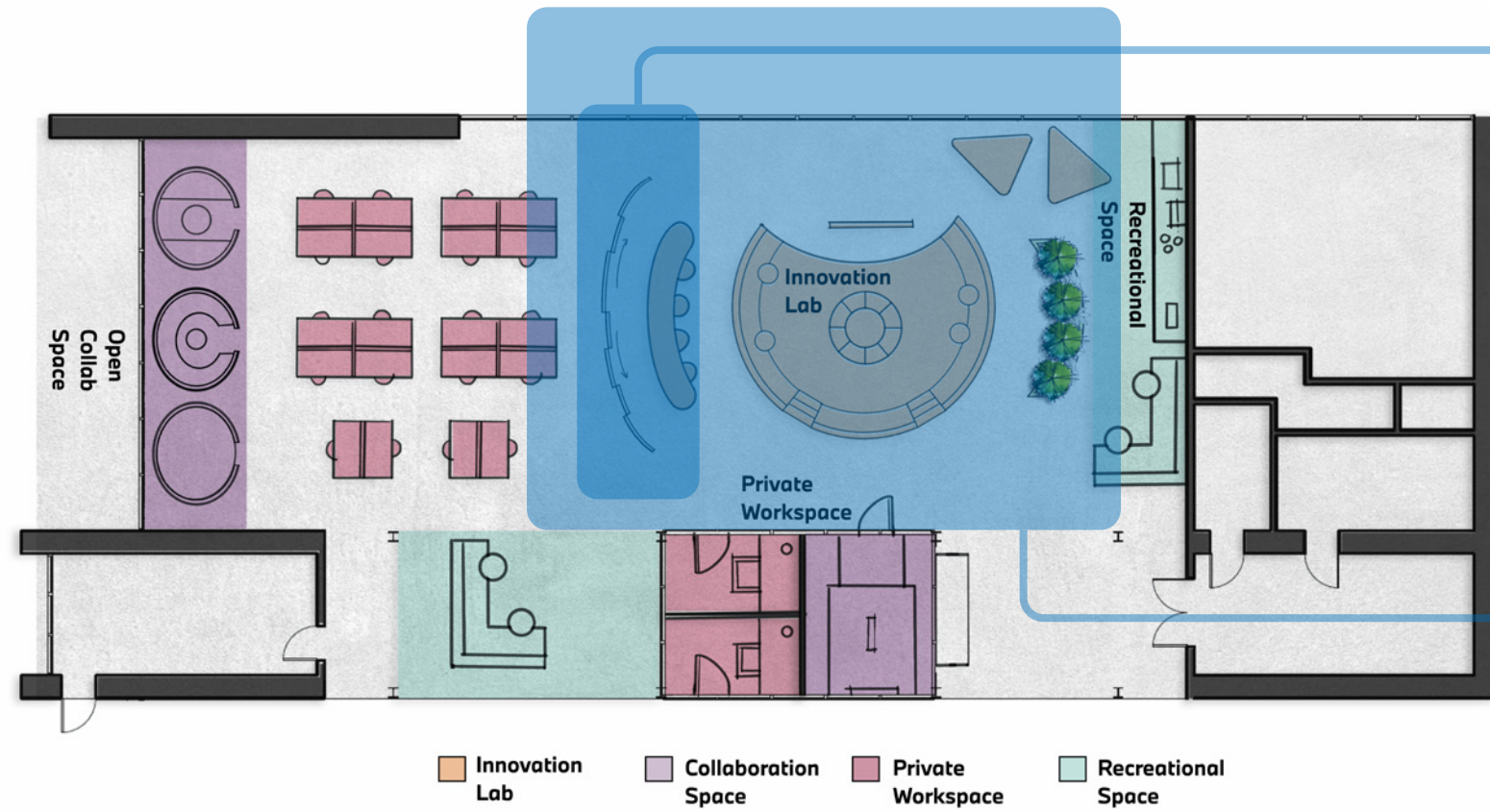
# Floorplan



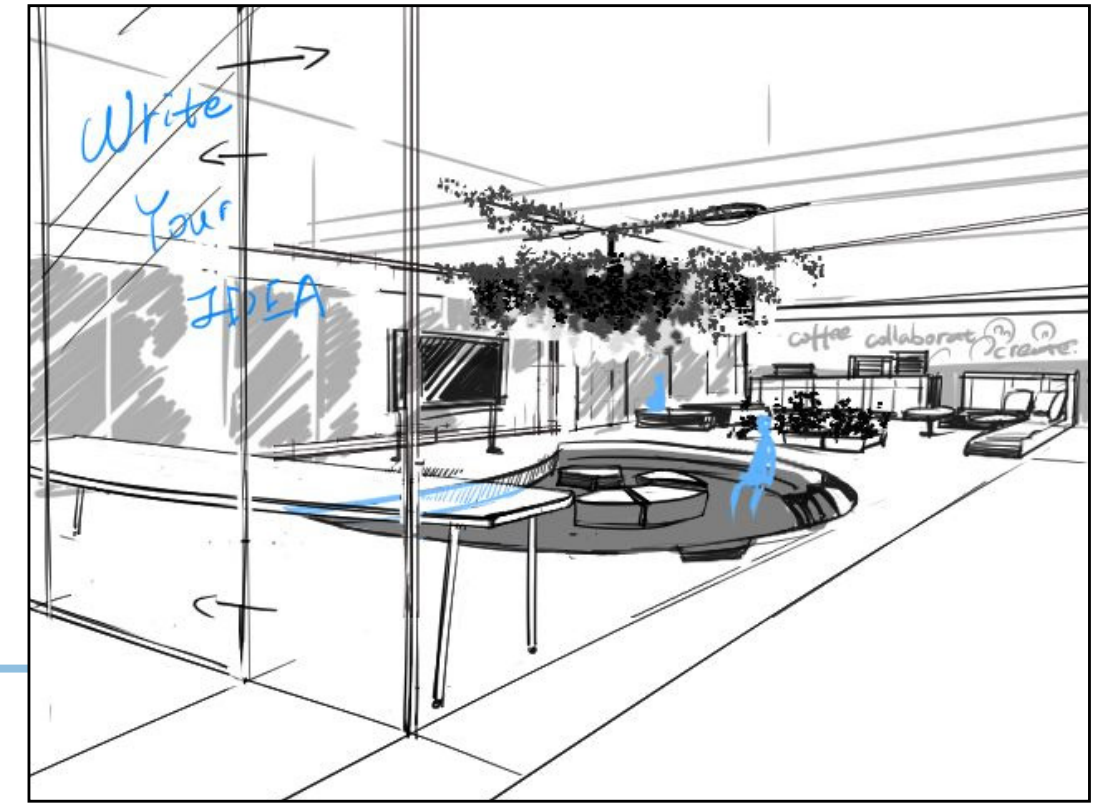
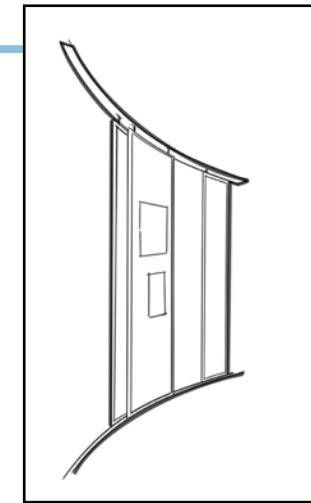
# Perspective Sketches



# Floorplan



# Perspective Sketches



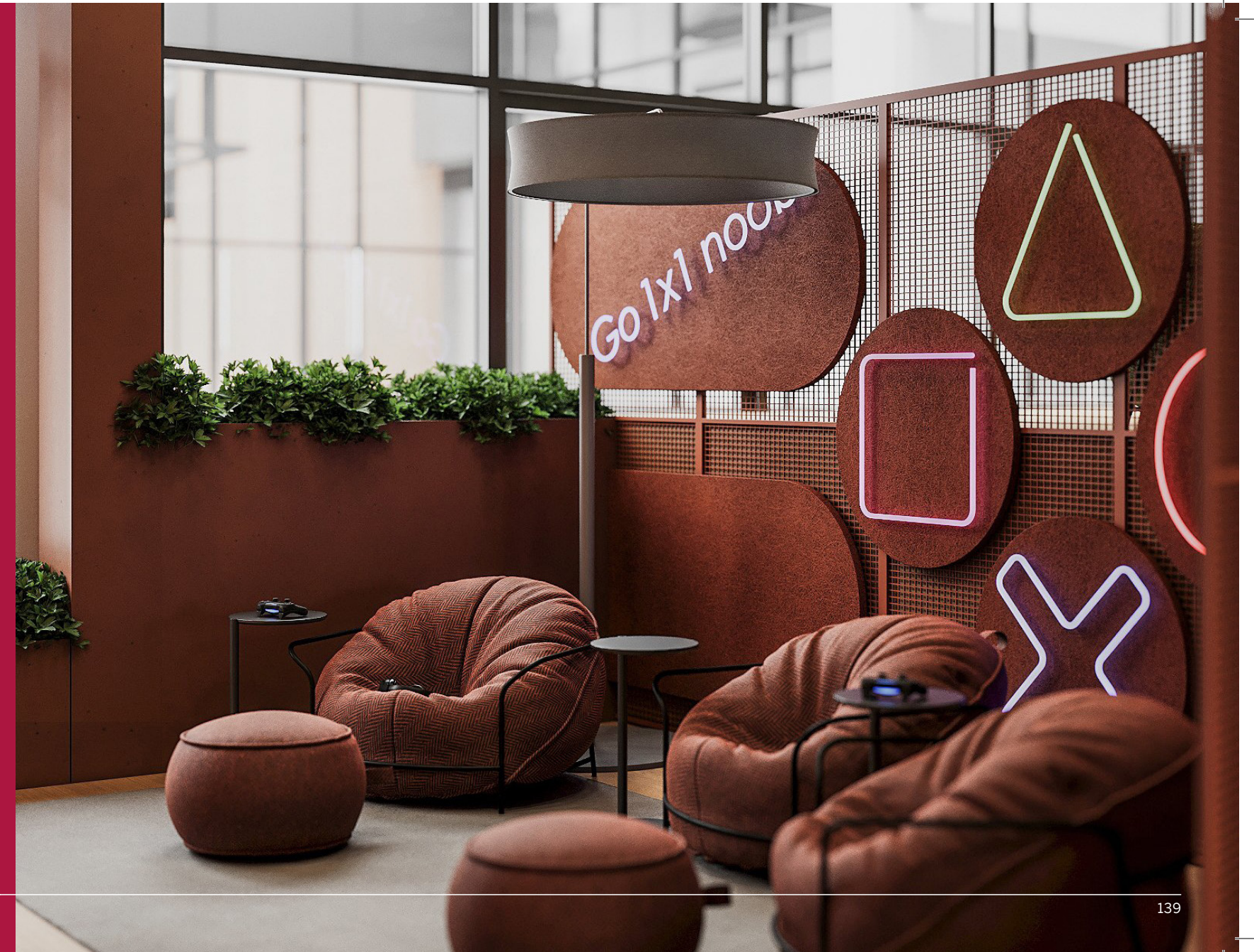


**CONCEPT 3**  
Game On

Fostering collaboration through a workspace that nurtures the body, engages the heart, and stimulates the mind.



**OPEN &  
COLLABORATIVE  
SPACES**



## Why This Concept?

BMW envisions a collaborative, flexible workspace. The 'Game On' approach transforms work into dynamic play, fostering innovation, personalization, and enhancing collaborative success within the distinctive BMW brand identity.



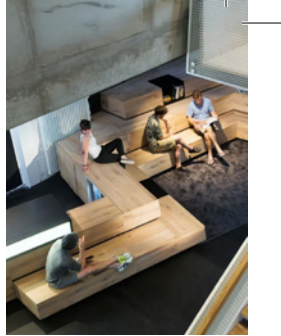
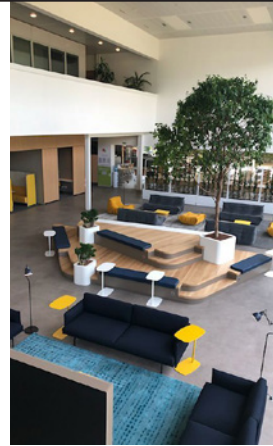
## Insight

The design of buildings and spaces reflects people's perception of the passage of time and their understanding of history.

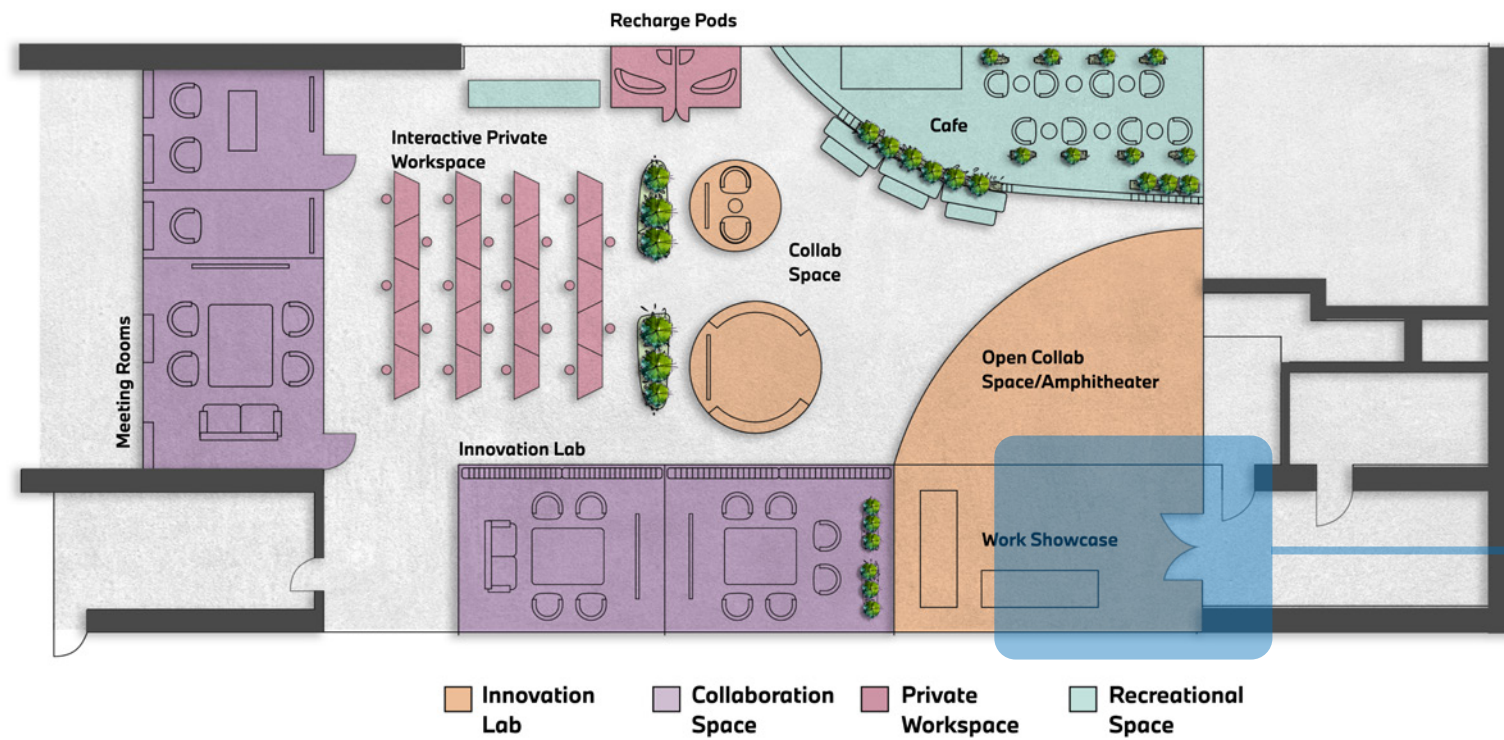
- Psychology Today

# Moodboard

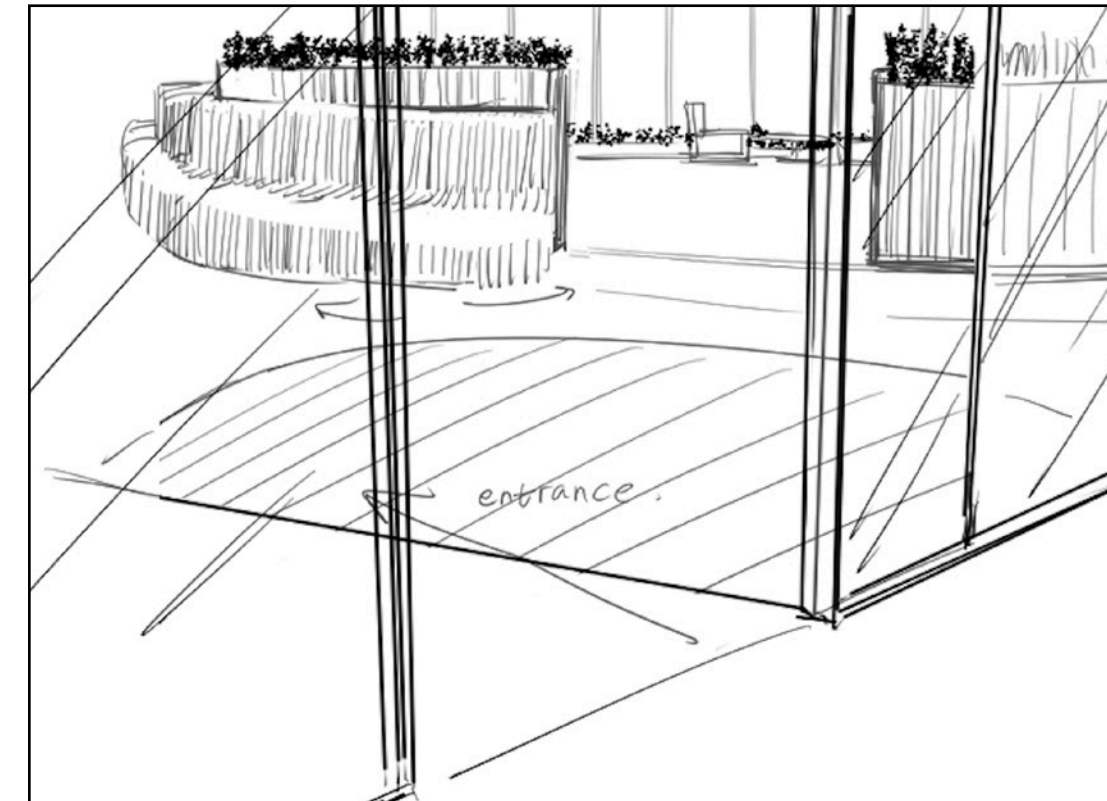
- Spacious
- Sophisticated
- Expressive
- Elegant
- Energetic



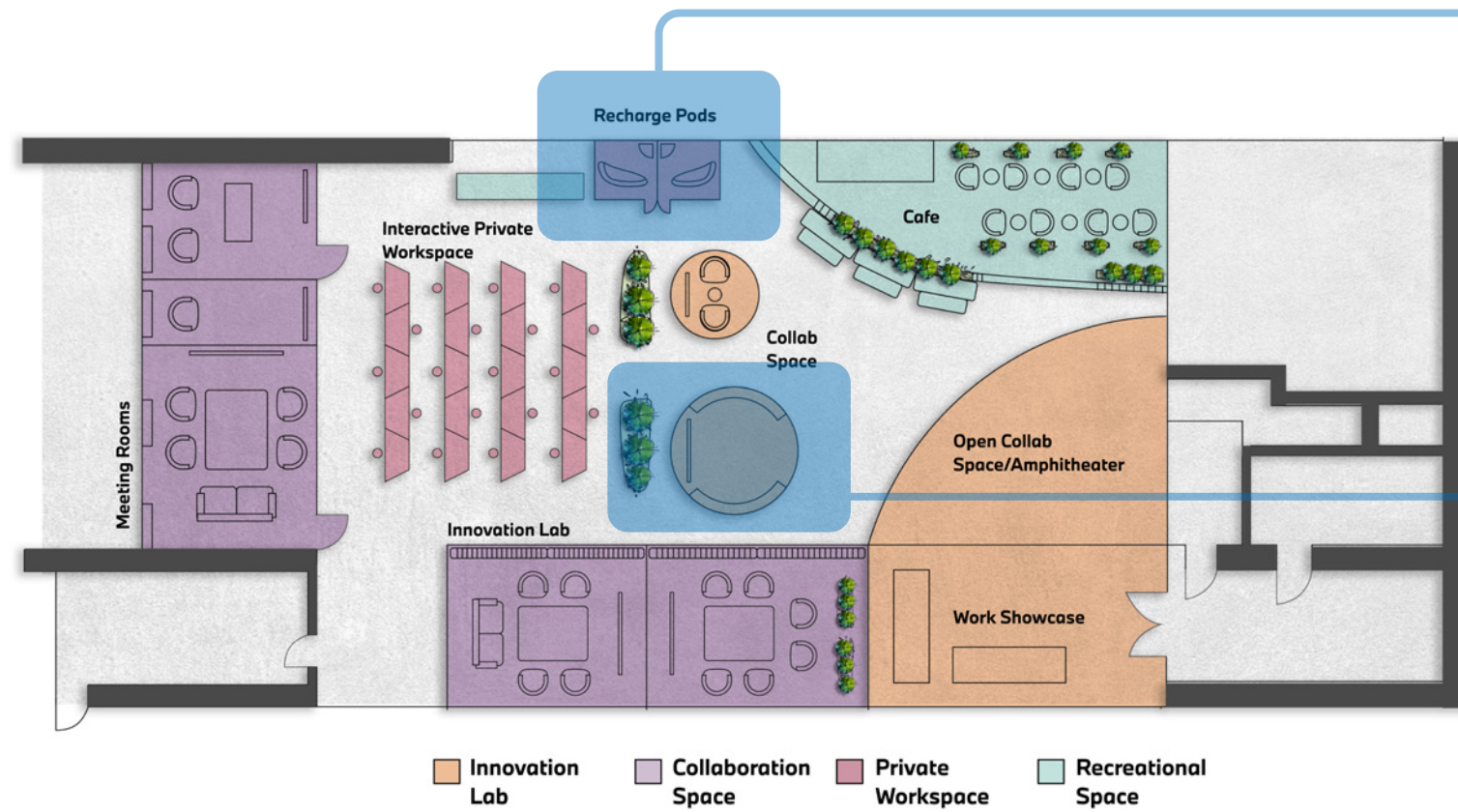
# Floorplan



# Perspective Sketches



# Floorplan

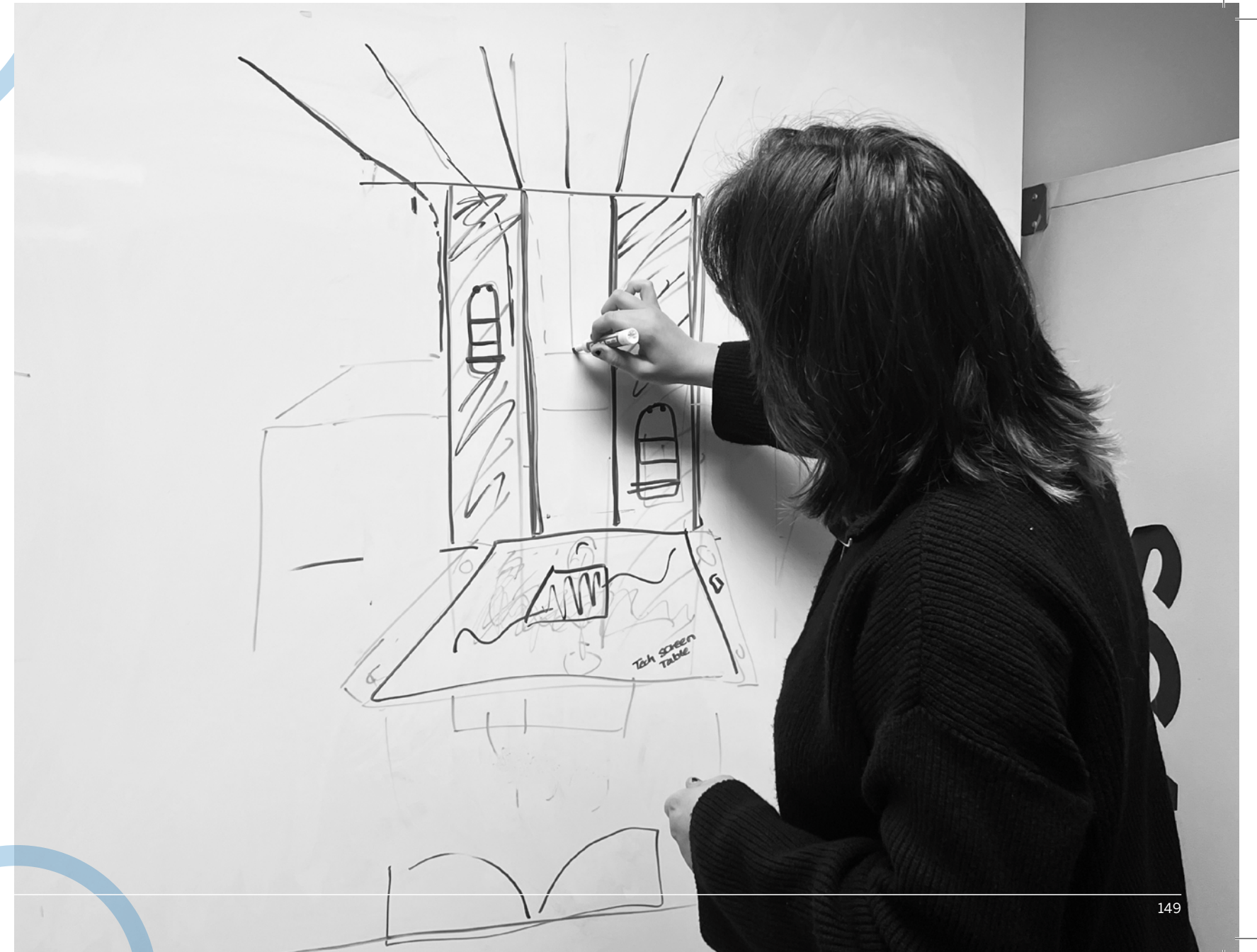
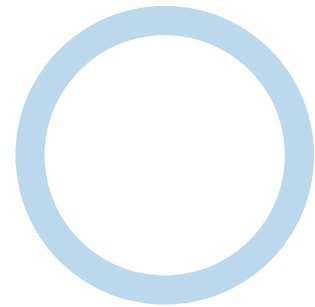


# Perspective Sketches



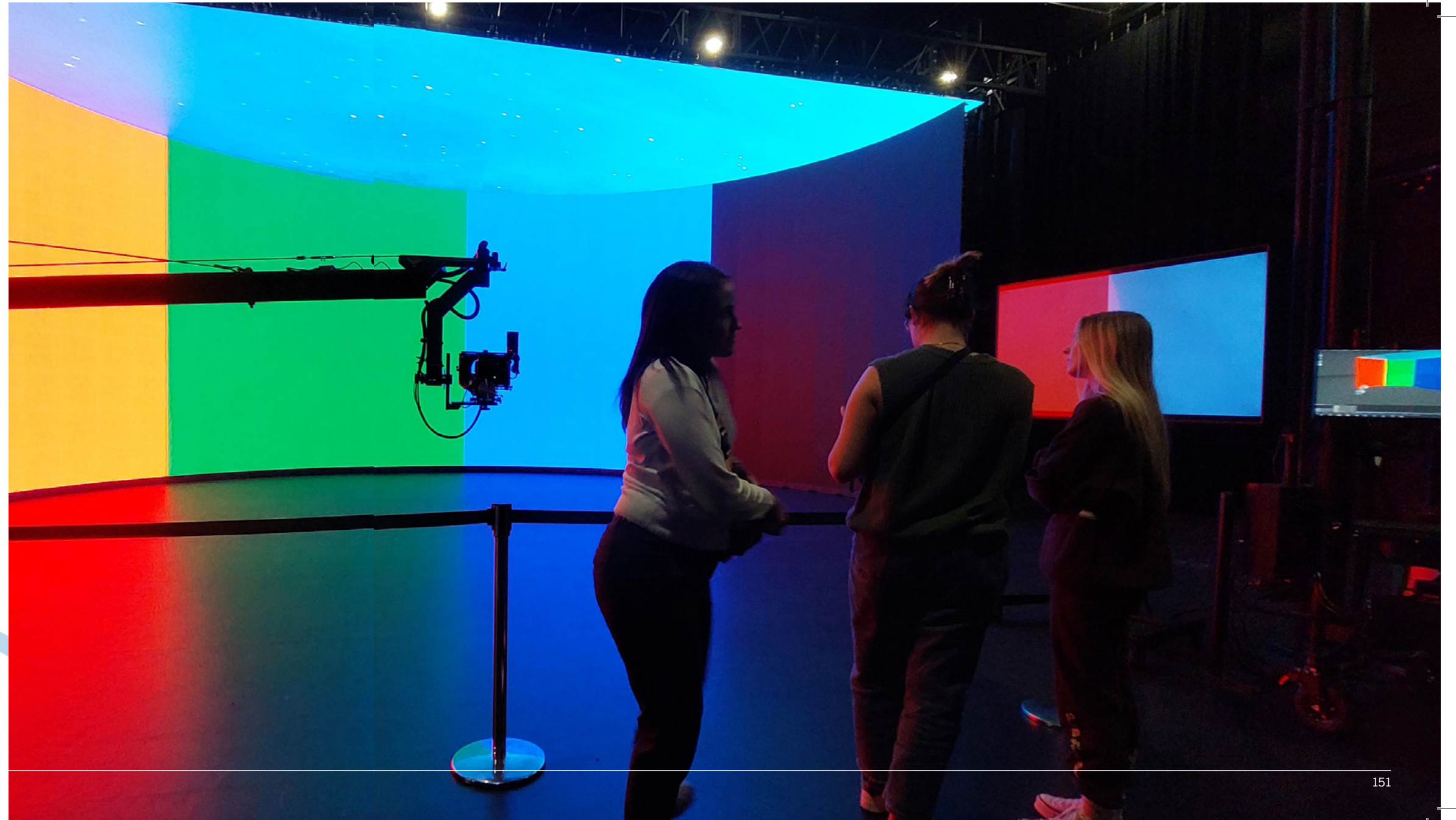
## Iteration

By actively seeking and incorporating feedback, we iterated on our concepts, fostering continuous improvement and refinement in our project development.



## Exploring Research

In our quest for continuous improvement, our team actively explored additional research avenues to enhance and refine our concept, ensuring a strong foundation for innovative and user-centric solutions.



## XR Stage Color Research

Our team embarked on a valuable field trip to the XR stage, delving into the immersive world to explore the intricate relationship between color and emotions within a space, enriching our understanding and influencing our design decisions.



## Technology Research

Our team has conducted research on the topic of "How to use screen-based interfaces in BMW's workspace to connect people and departments." This exploration includes the utilization of mobile interactive displays, digital screen walls, enhanced meeting room glass, and AR/VR technologies to investigate further possibilities of information and space interaction.



## Consolidated Concepts

Our consolidated concept seamlessly combines the strengths of all three concepts, presenting a unique solution that not only addresses user needs but also aligns harmoniously with our mission statement, highlighting innovation and purposeful design.

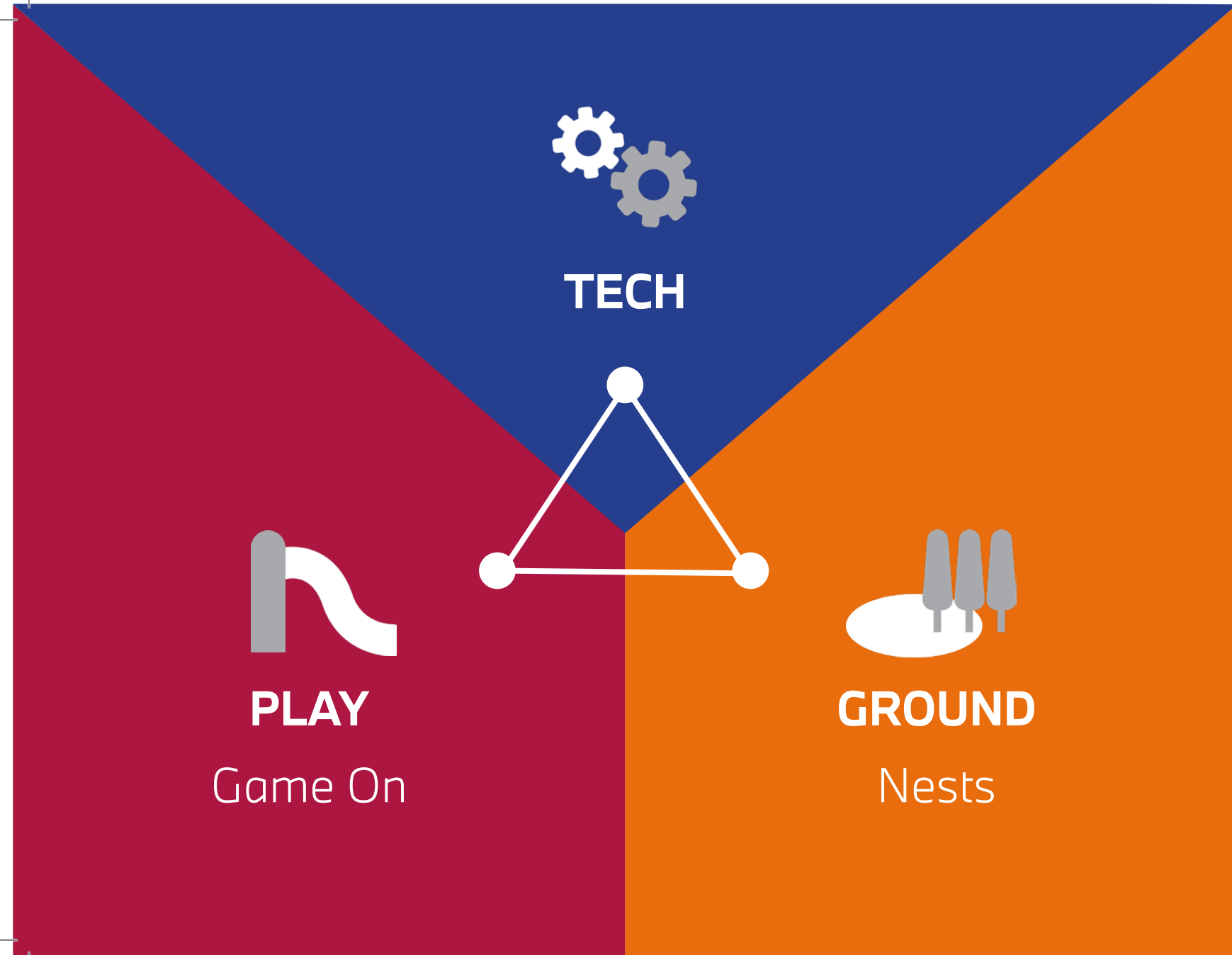


## Study Facts

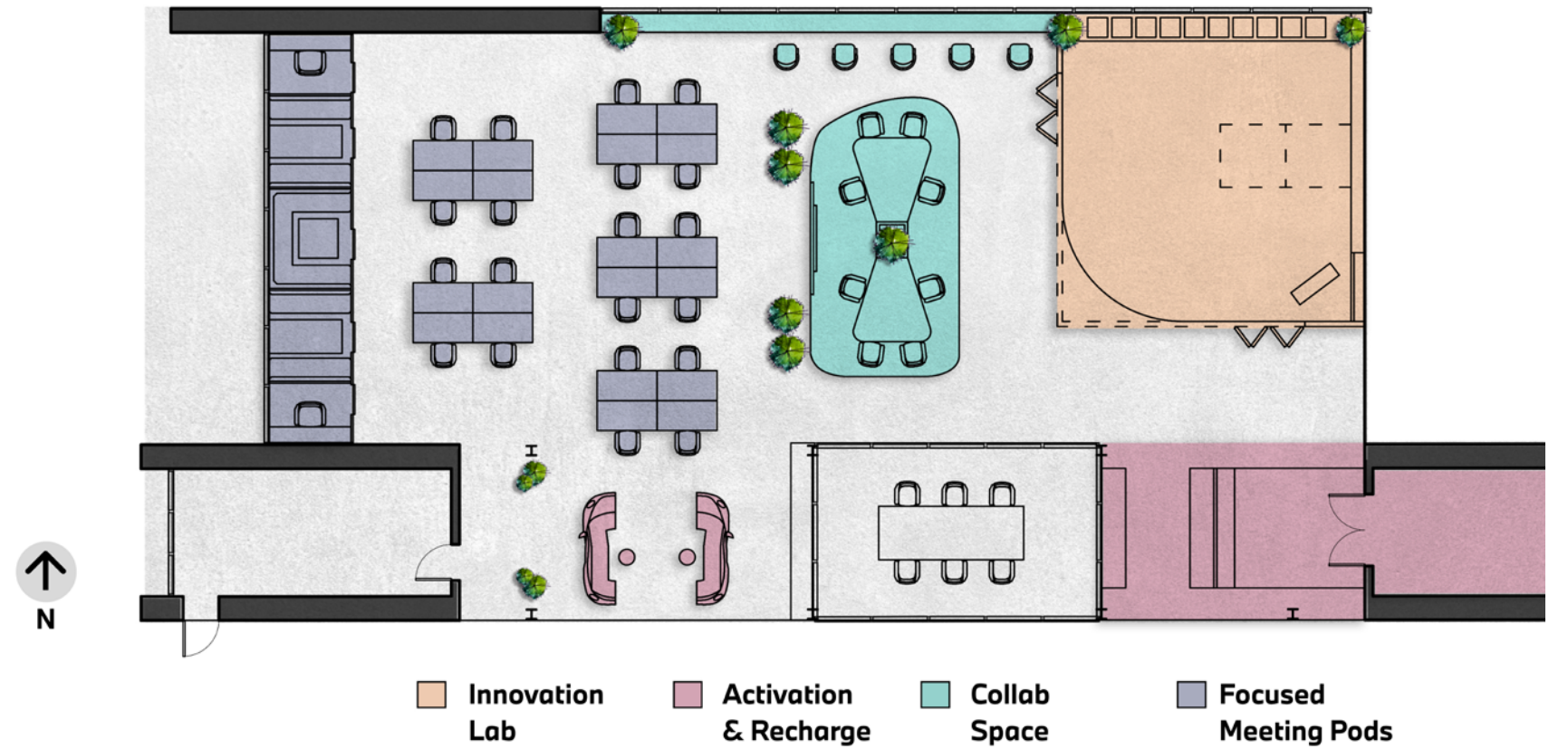
**Survey of 800+ employees in 32 US companies with workplace art collections found that art aids in stress reduction (78%), boosts creativity (64%), and encourages expression of opinions (77%).**

**“It'd be nicer if we had an actual area for testing devices. And also just being able to bring our business partners in and showcase the emerging tech so they can think about how it can apply to them”**

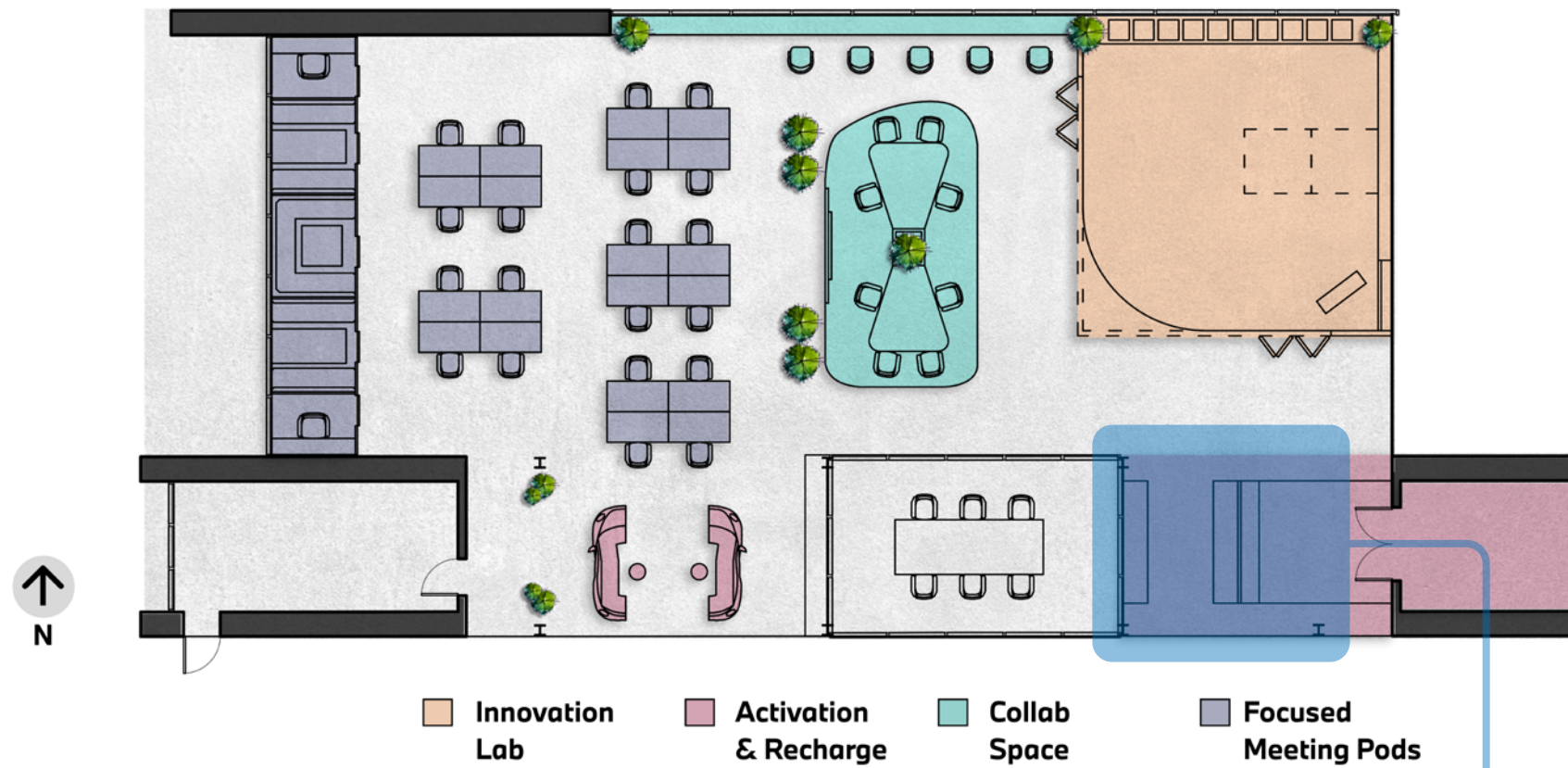
- ITRC Interviewee



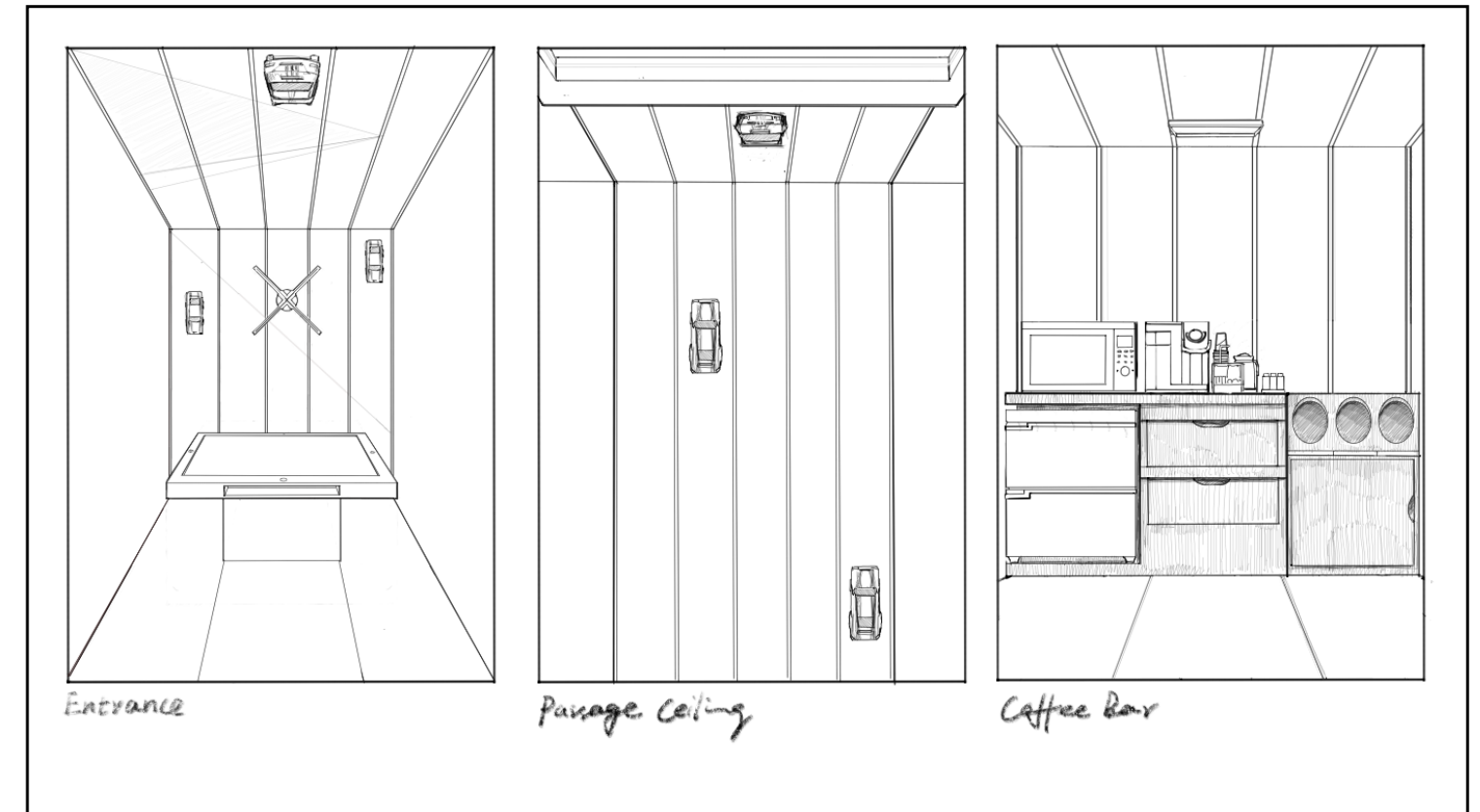
## Revised Floorplan



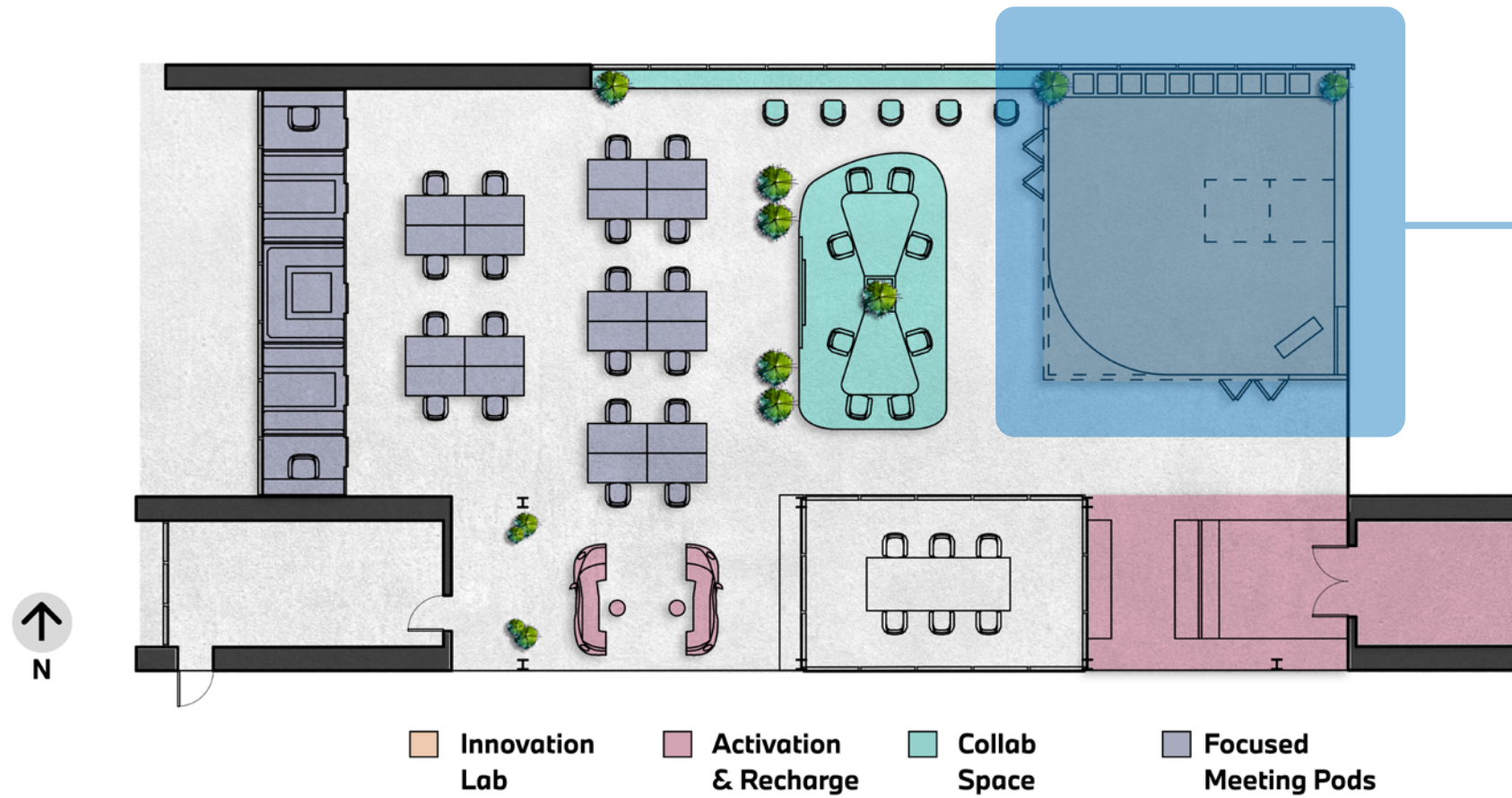
# Floorplan



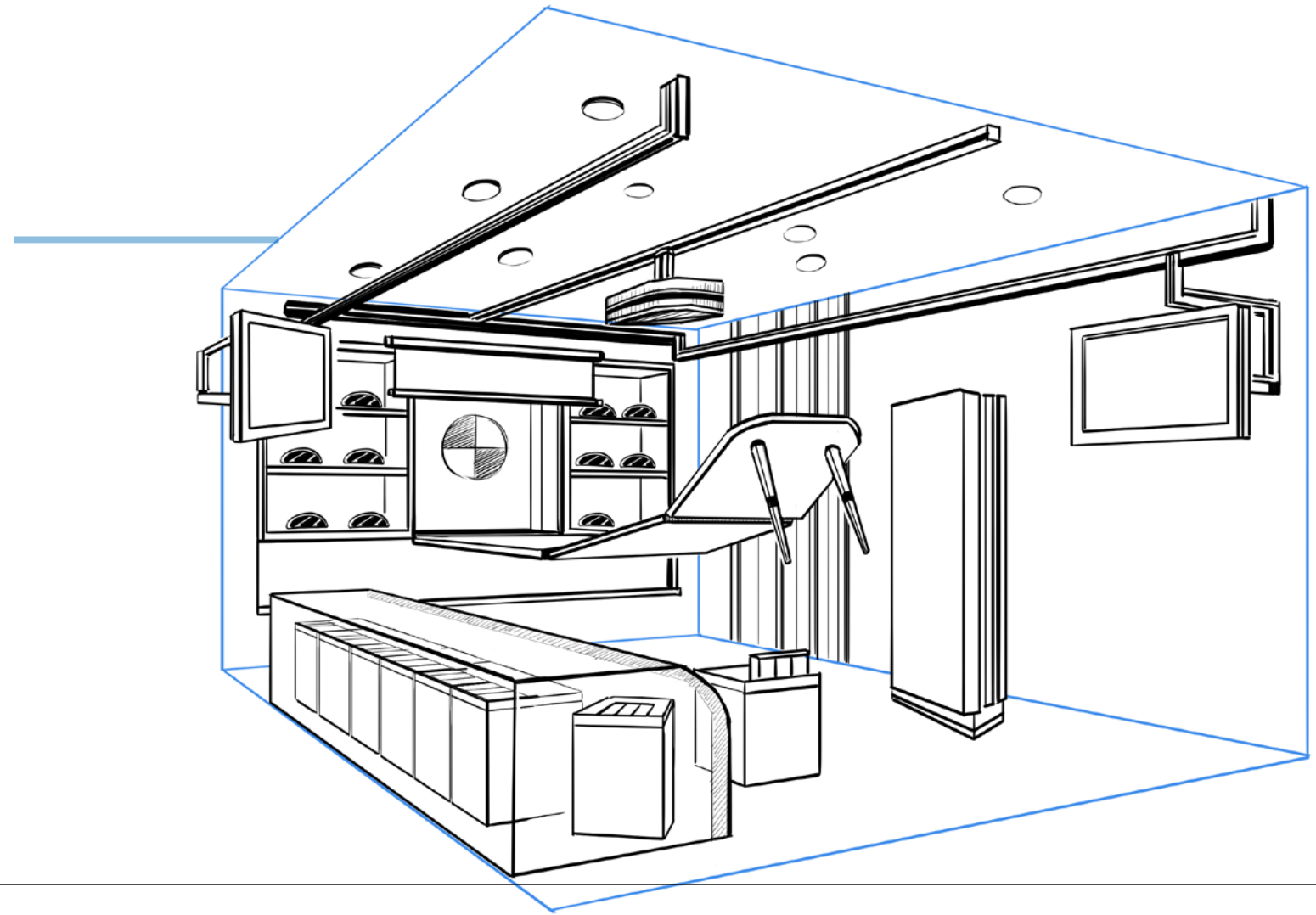
# Perspective Sketches



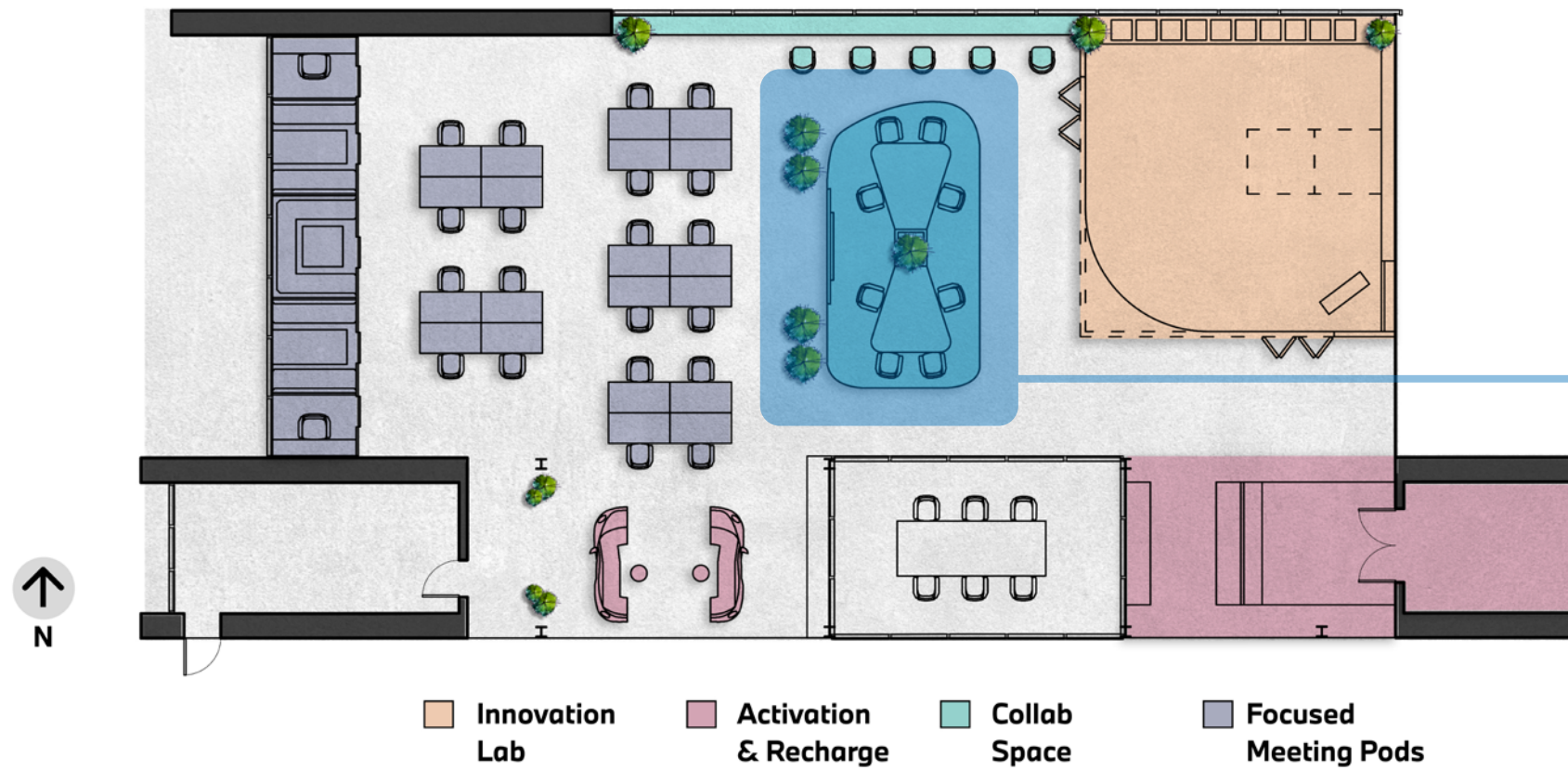
## Floorplan



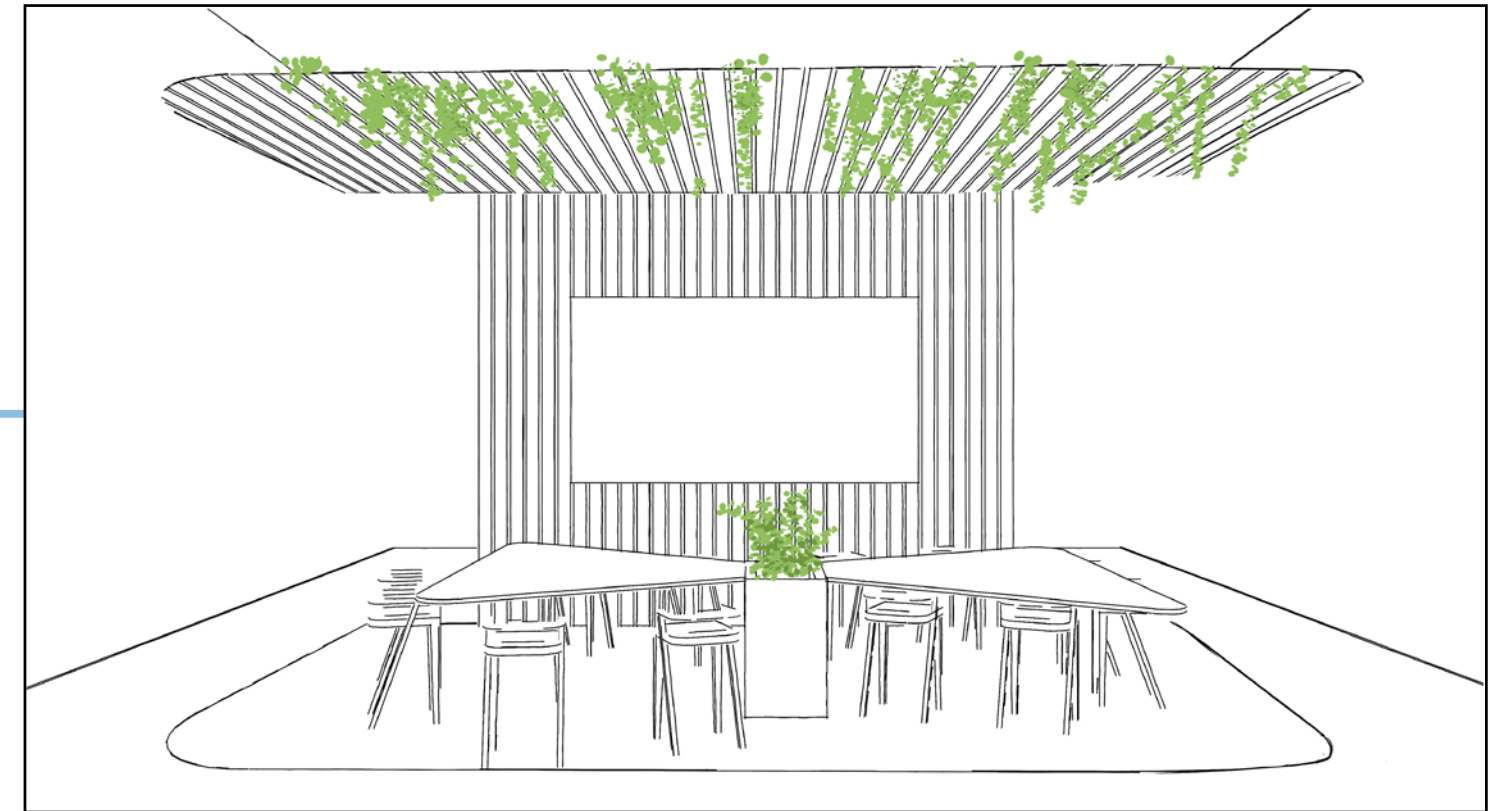
## Perspective Sketches



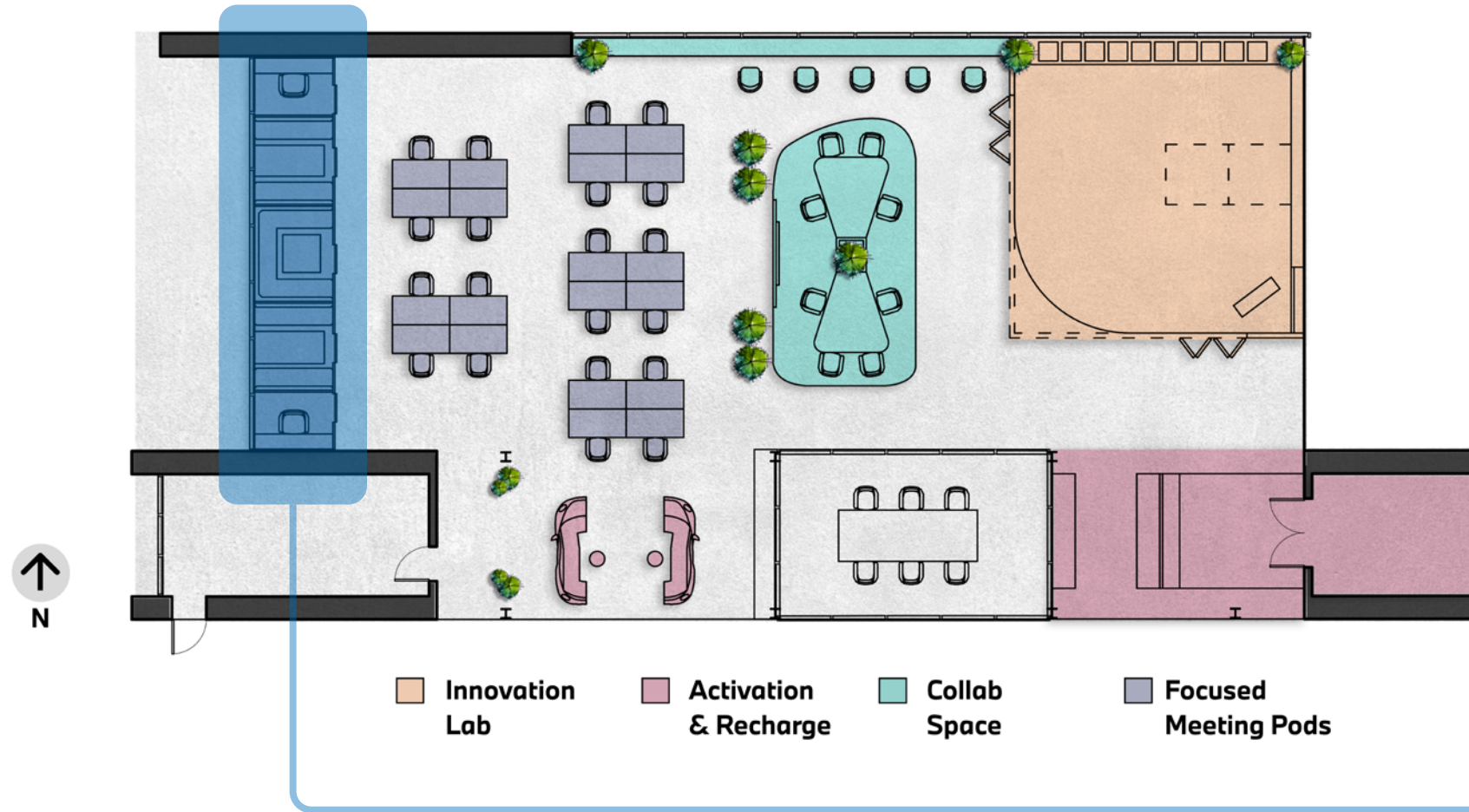
# Floorplan



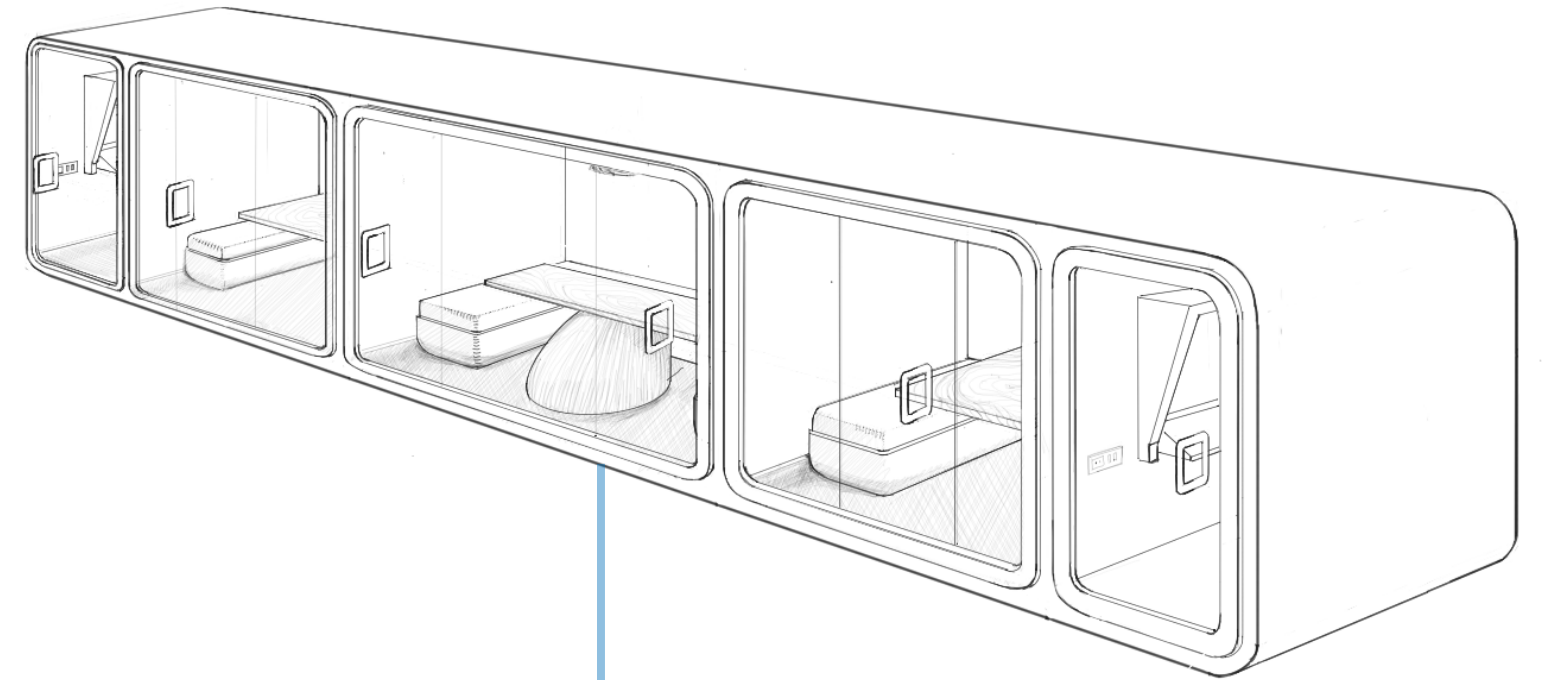
# Perspective Sketches



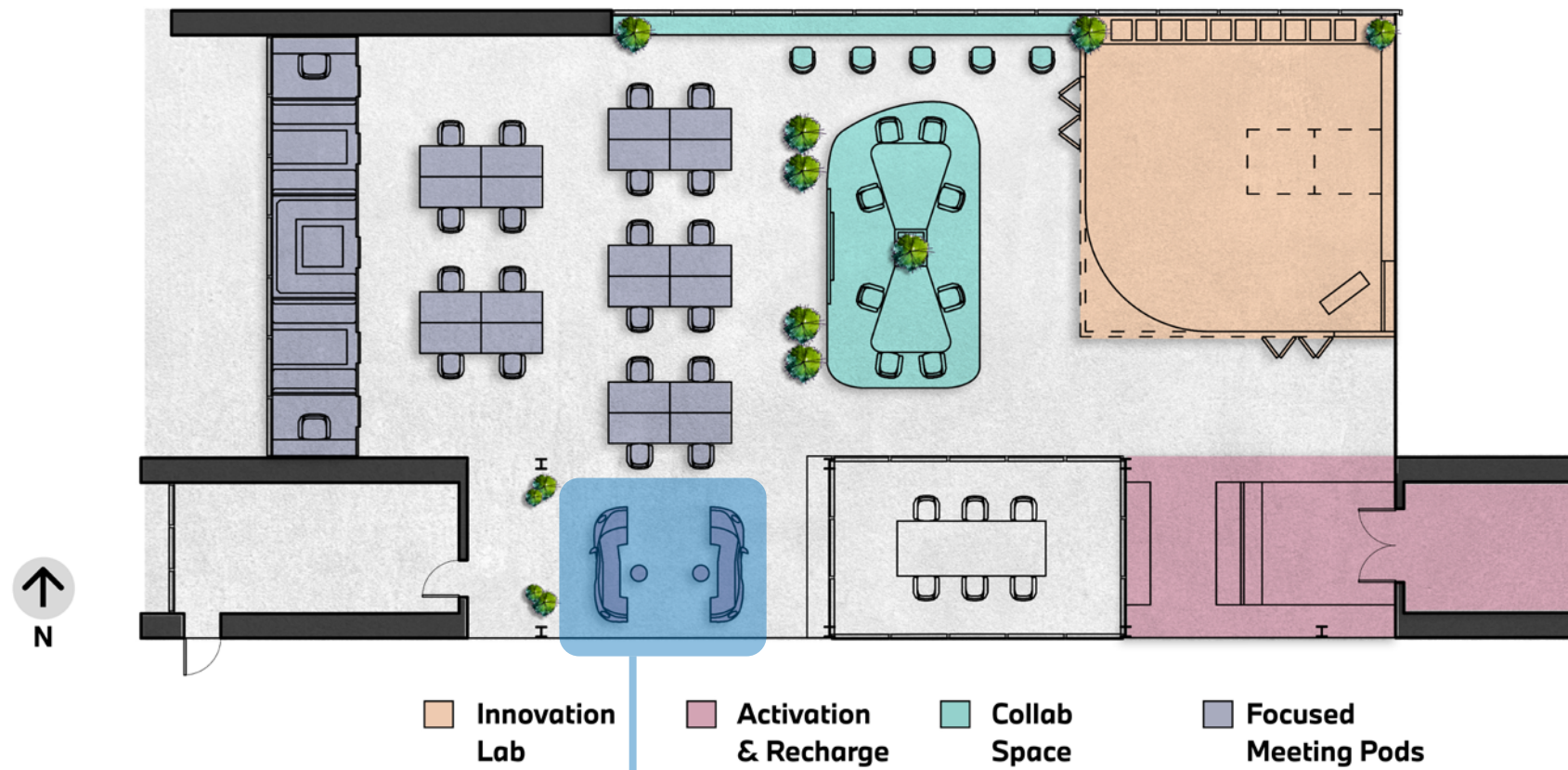
# Floorplan



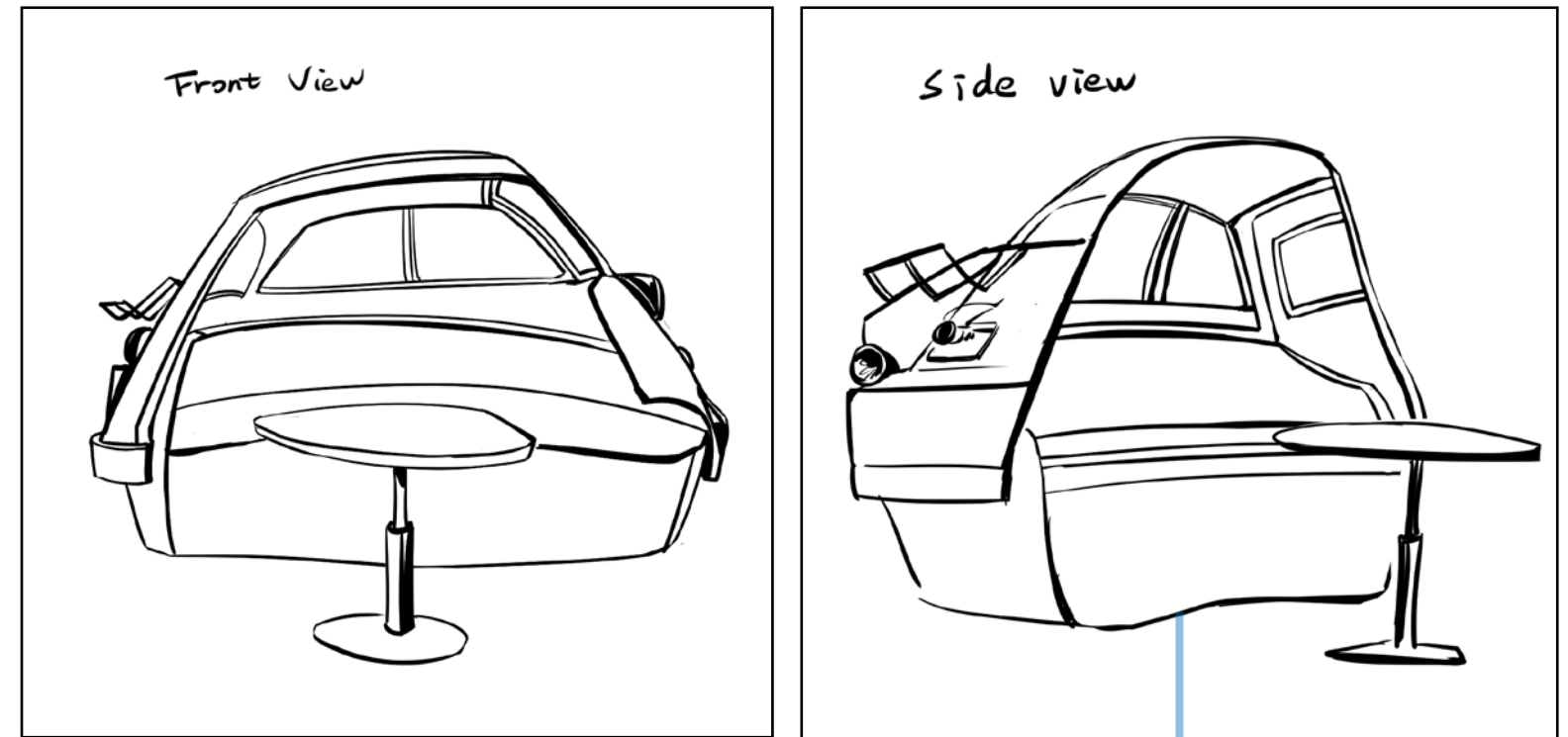
# Perspective Sketches



# Floorplan



# Perspective Sketches



The background of the slide is a detailed architectural floor plan in a light teal color. It shows various rooms, corridors, and furniture layouts. Labels such as 'SECURITY', 'LOBBY', 'RESTROOM', and 'OFFICE' are visible within the plan. The overall style is technical and precise.

# 06

## Final Concept

1. Final Floorplan
2. Final Ceiling Plan
3. 3D Model
4. Furniture Design
5. Physical Model
6. ITRC Branding

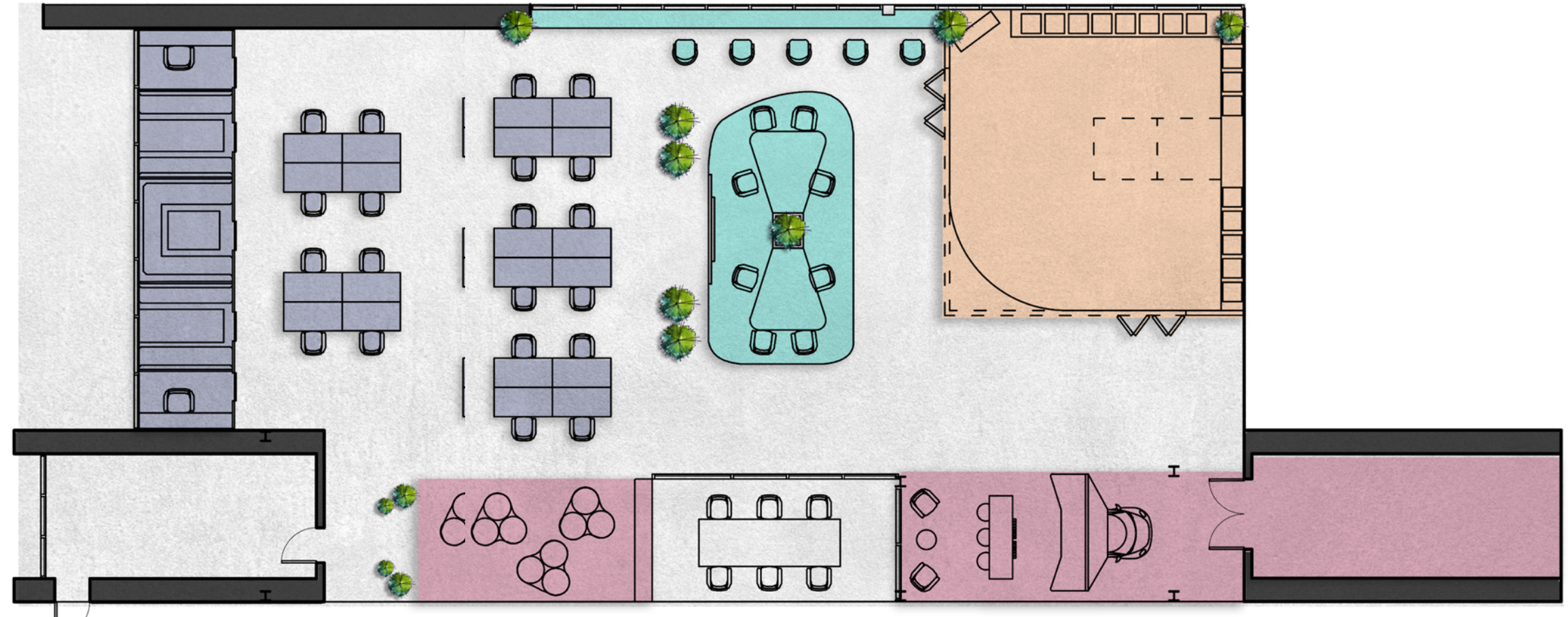
## Final Storyboard

In this storyboard overview, Emma, our representative persona, takes us on a journey through a day in her life as an ITRC employee, guiding us through the intricacies of the project space. This narrative approach vividly captures and communicates Emma's interactions, emotions, and decision-making processes at key touchpoints, allowing us to gain valuable insights into her expectations, challenges, and moments of satisfaction. By closely following Emma's experience, we ensure that our final design decisions align seamlessly with the diverse needs and perspectives encapsulated within her persona, contributing to a more user-centric and tailored project outcome.



## Final Floorplan

Our final floorplan represents a meticulously spatial arrangement, optimizing flow and functionality to meet the diverse needs of users. It reflects thoughtful consideration of both aesthetic and practical elements, creating the optimal workspace for BMW's team.



 Innovation Lab

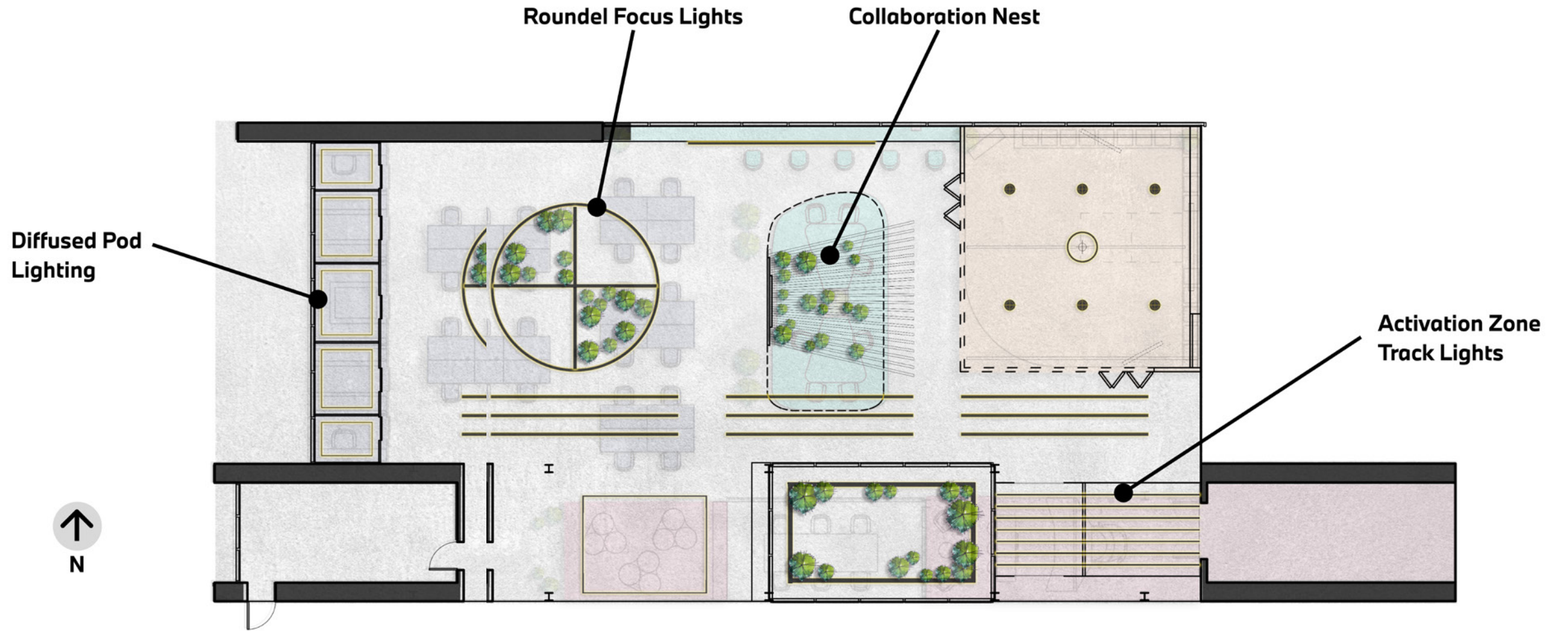
 Activation & Recharge

 Collab Space

 Focused Meeting Pods

# Ceiling Plan

Our ceiling plan showcases a meticulous design incorporating lighting, ventilation, and architectural elements to create a harmonious and functional overhead environment that complements the overall aesthetic and purpose of the space.



## Material Board

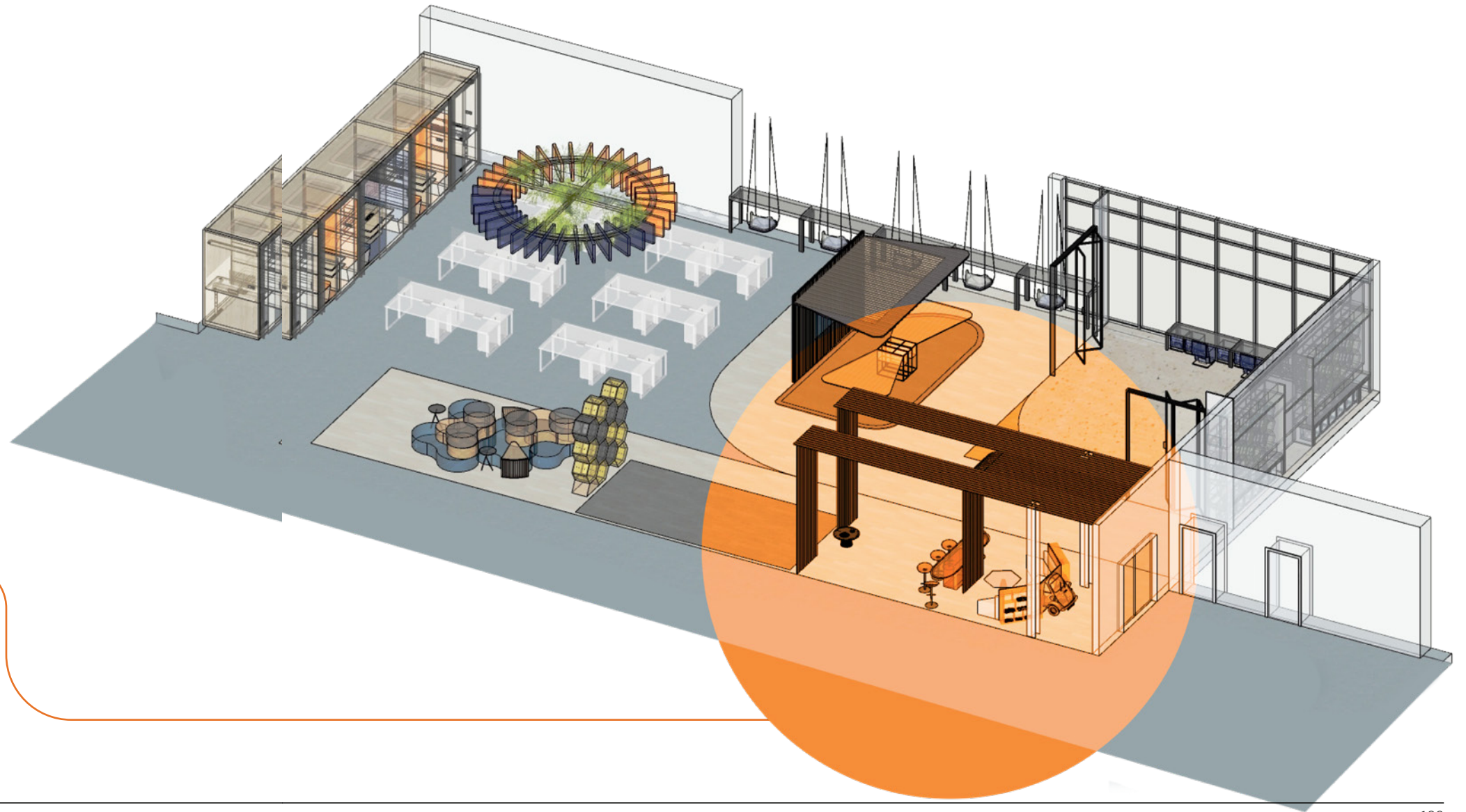
We equipped the team with a physical material board, showcasing a curated selection of materials intended for incorporation into their spatial design. This tactile and visual reference served as a tangible source of inspiration.



# Cafe Recharge Space

Our coffee recharge space's final design welcomes in guests and employees alike, with strategically placed amenities to create an inviting and innovative environment for users to communicate and recharge.

- Spontaneous Interactions
- High Quality Beverages
- Comfortable Seating



## Before/After

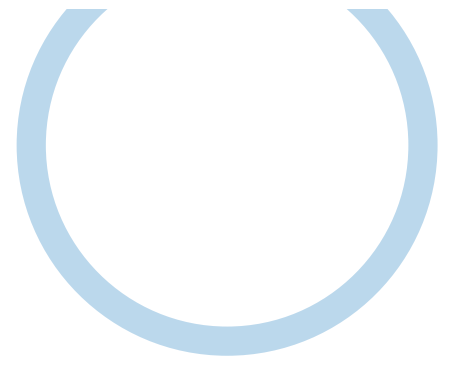
Before, the coffee bar lacked the rejuvenating energy, comfortable seating, and opportunities for spontaneous interactions. After the transformation, Emma enters the office without her usual Starbucks, opting for the inviting coffee bar. She not only relishes her coffee but also takes a seat with a coworker to catch up on the weekend, storing her snacks in the mini fridge. Emma raves about the excellent coffee and engages in friendly conversations with friends from other departments who are visiting the transformed coffee bar, turning it into a vibrant hub of community and relaxation.



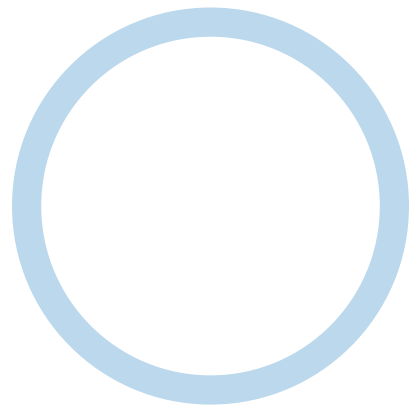
# Entrance



# Coffee Bar



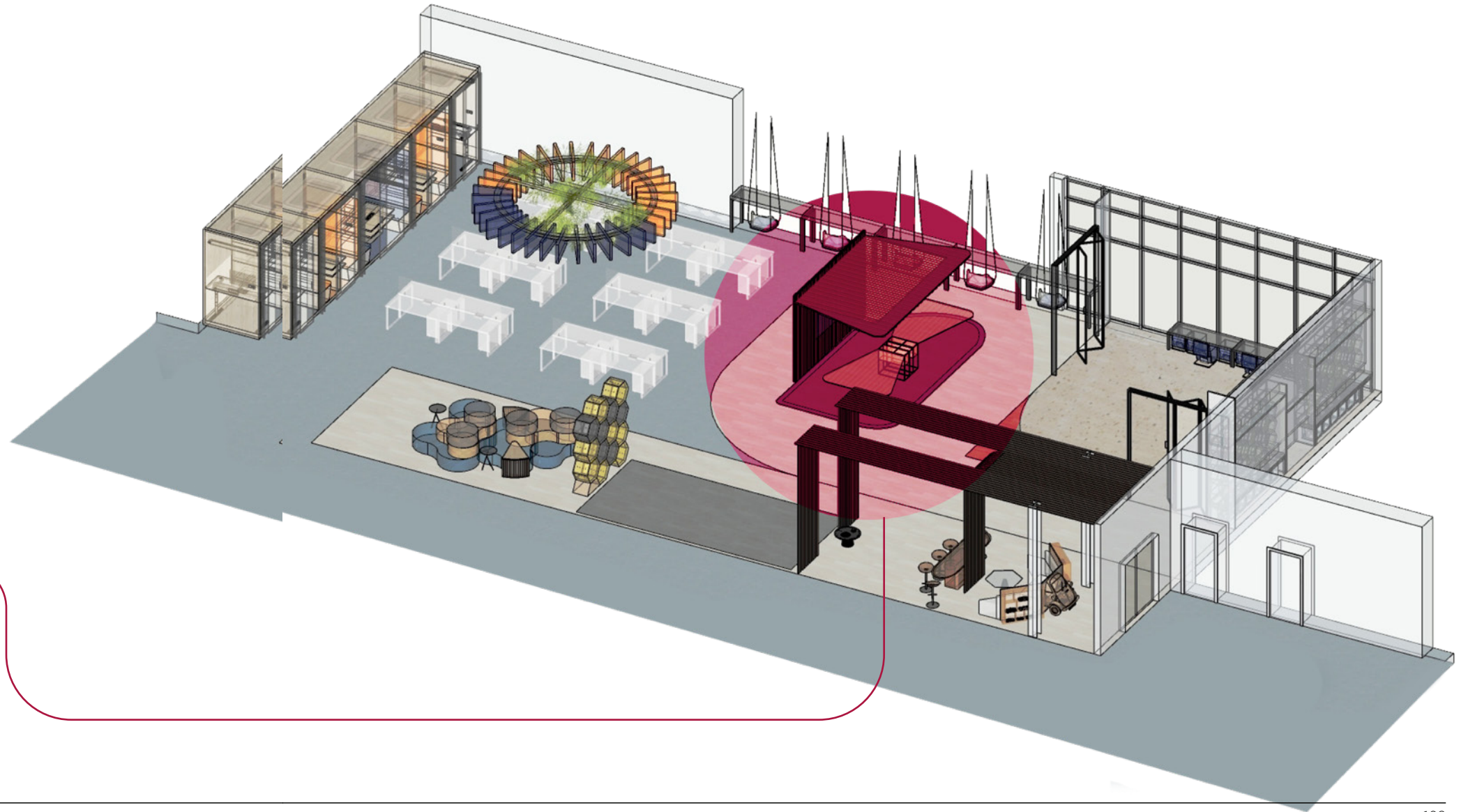
# Seating & Fixtures



# Collaboration Space

From its humble beginnings, our collaboration space has undergone a remarkable transformation, emerging as the central hub for collaborative endeavors within the project. The carefully curated fixtures and furniture surrounding the area not only enhance its functionality but also provide crucial support, fostering an environment conducive to dynamic teamwork and innovation.

- Easier & Open Collaboration
- Space for Brainstorming
- Flexible Group Meetings

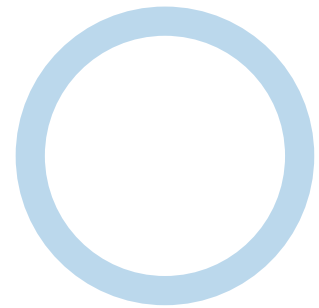
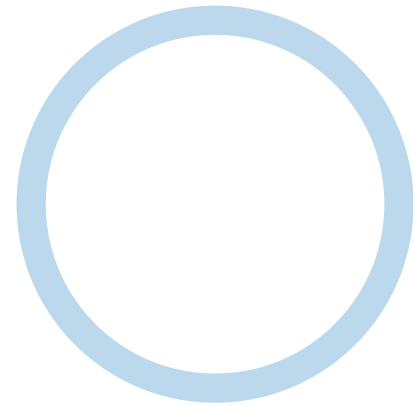
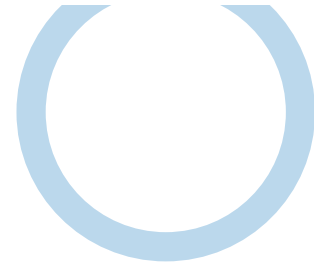


## Before/After

Before, the collaboration space lacked comfort and failed to accommodate hybrid meetings effectively. Now, we can see Emma in the collaboration space, with swings that offer a unique blend of comfort and functionality. As her meeting progresses, she effortlessly swivels on the swing, enjoying her coffee and managing her laptop while staying engaged with the team. Post-standup meeting, the collaborative spirit continues with a spontaneous brainstorm session, where she readily pulls up a chair, grabs a whiteboard, and actively contributes to the creative dialogue.



# Colab Desks



# Colab Swings



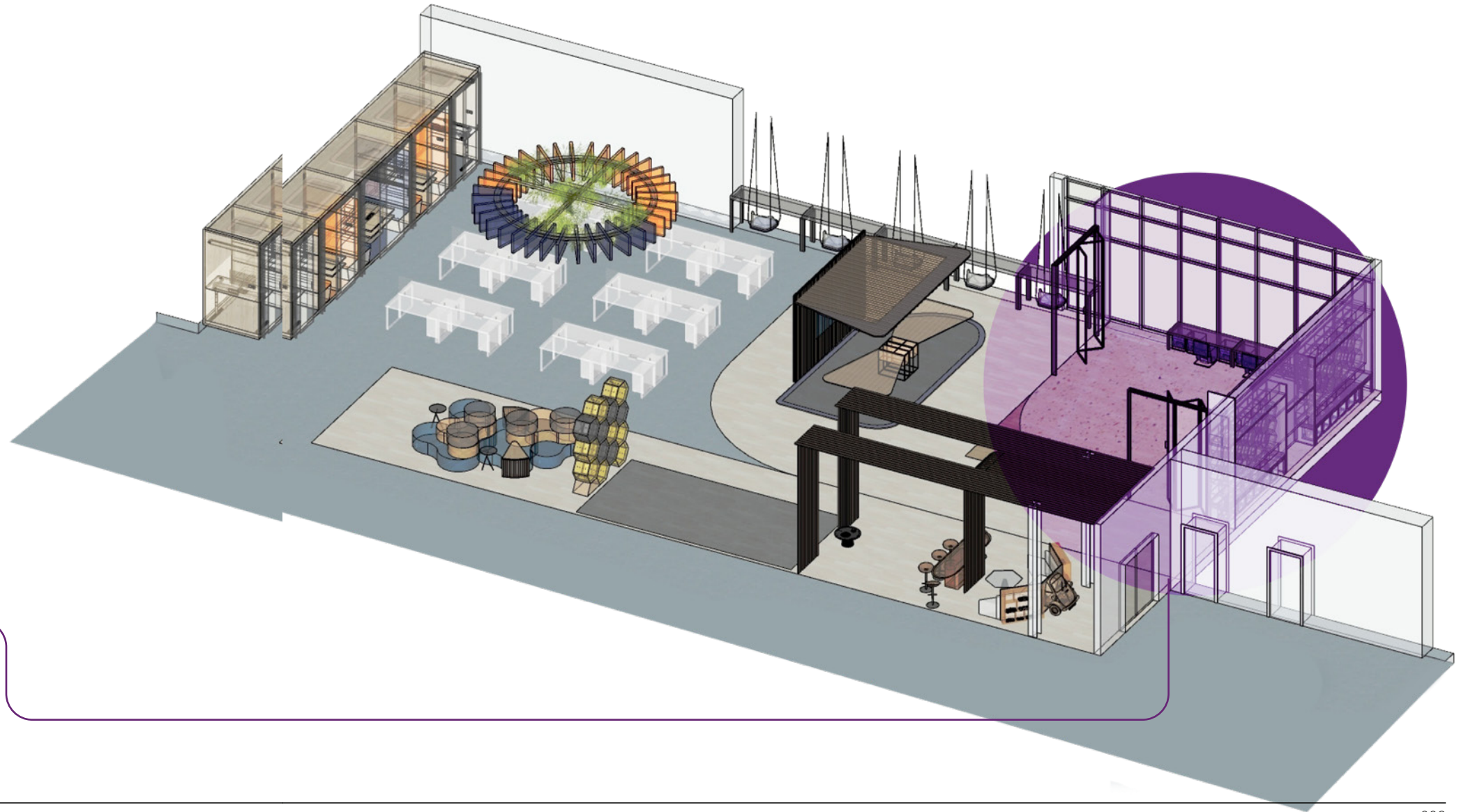
# Colab Lighting



# Innovation Lab

Our innovation lab has come to life through a series of meticulous iterations and transformative changes. The journey involved refining the design to address the users' needs: showcasing projects and work while also having a space to test technology. The final result is a designated area that not only reflects our commitment to innovation but also ensures a conducive environment for experimentation and the seamless presentation of BMW's cutting-edge projects.

- Flexible Work Tables
- Small Group Presentations
- Group Collaboration

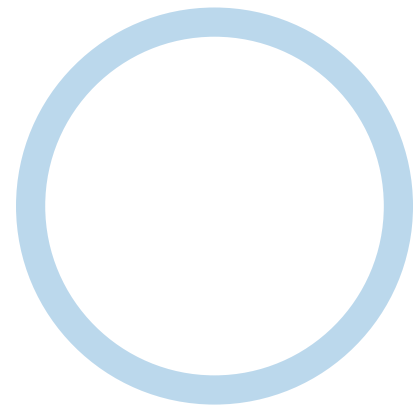


## Before/After

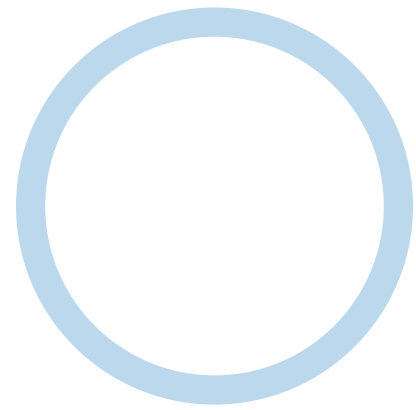
Before, there was no designated area with flexible and accessible materials for testing devices. After the transformation, Emma kicks off her day working with a small group, testing the new vision pro shipment in the innovation lab. The team efficiently sets up recording equipment, folds away elements for ample room, and engages in testing tasks. Afterward, they rearrange the space, pulling out benches and stools, unfolding tables, and utilizing whiteboards for collaborative ideation around the screen. As she leaves, she assists in preparing the innovation lab for upcoming visitors, ensuring it's ready for an engaging workshop the following day. The space is now more equipped for testing and collaboration.



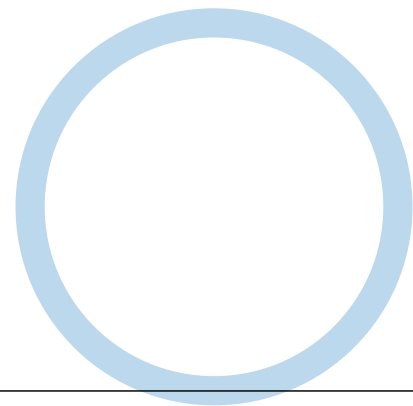
# Inno Lab



# Inno Lab Table



# Modular Seating



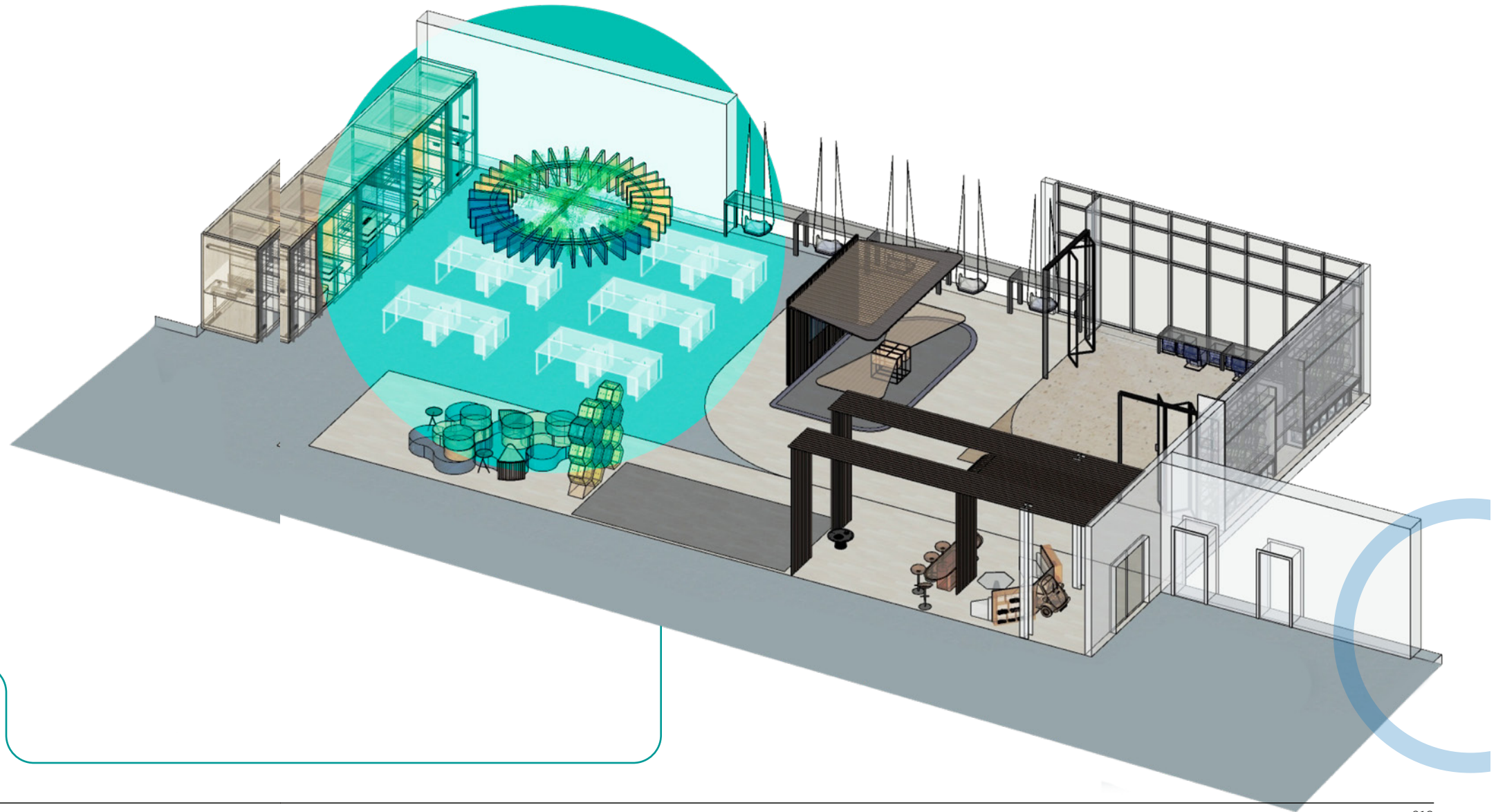
## Focus Area

Our redesigned focus area successfully addressed the challenges of meeting solutions in our existing space. By minimizing physical boundaries between employees, we have substantially improved communication and collaboration. Additionally, the incorporation of soundproof areas caters to the individual needs of employees and facilitates group discussions, fostering a more flexible and conducive work environment. The thoughtful design not only enhances overall communication but also ensures that employees can engage in focused work or collaborative sessions with the privacy and acoustics required for optimal productivity.

1 on 1 Meetings

Private Workspace

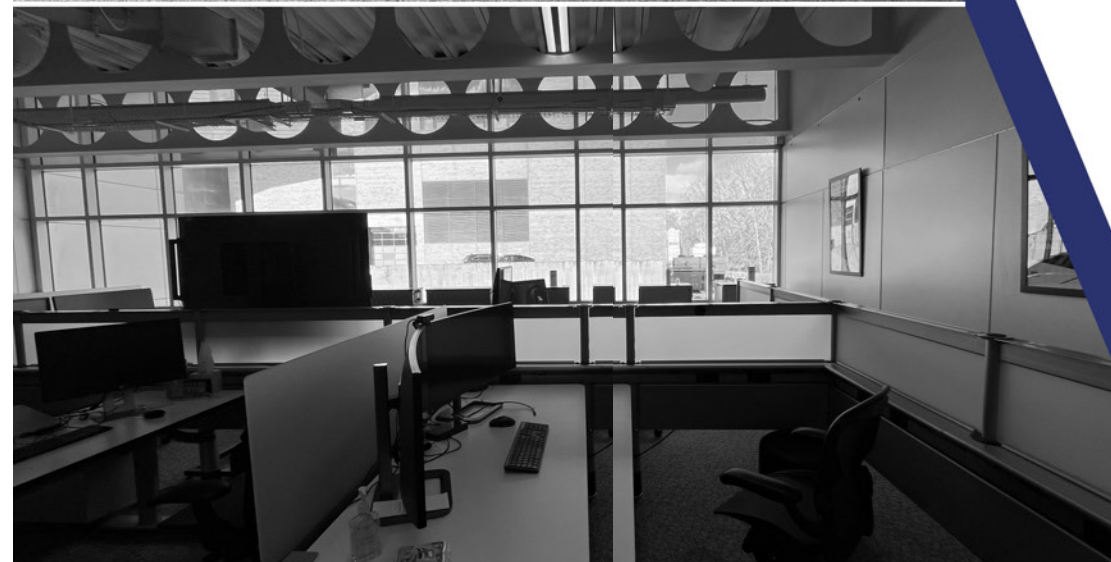
Meeting Solutions



## Before/After

Before, 1:1 meetings were not always comfortable or easy to share screens. Overall, meeting solutions were not prioritized in the current space.

Now, we follow Emma to a 1:1 meeting with her manager to discuss the progress of a current deliverable. The availability of pods proves invaluable, providing a private and comfortable space for their discussion. The TV in the pod facilitates seamless screen sharing, enhancing the collaborative and communicative aspects of their meeting. The curtains in the pods also create a cozy atmosphere, making the midday meeting more comfortable for both participants.

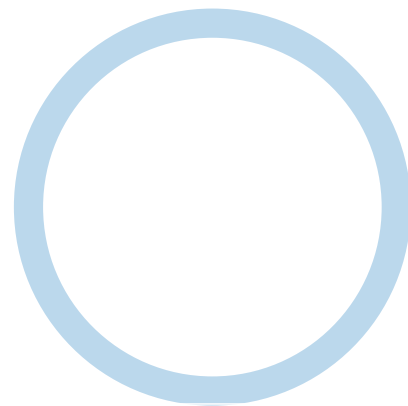




# Focus Area



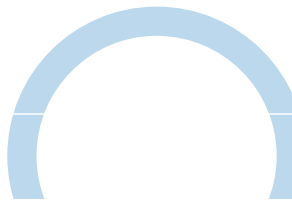
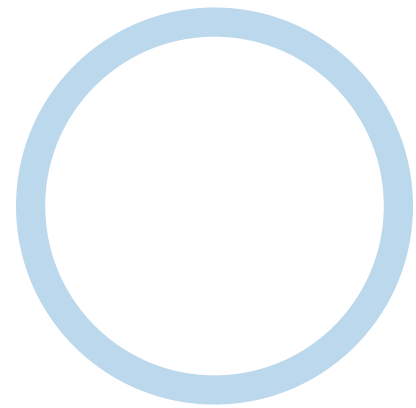
# Focus Area



# Individual Pods



# 2-4 Person Pods



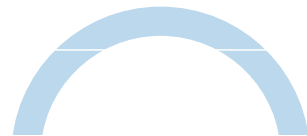
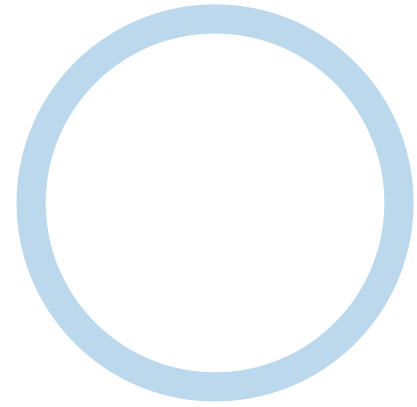
# Group Pod



# Desk Overview



# Desk Closeup



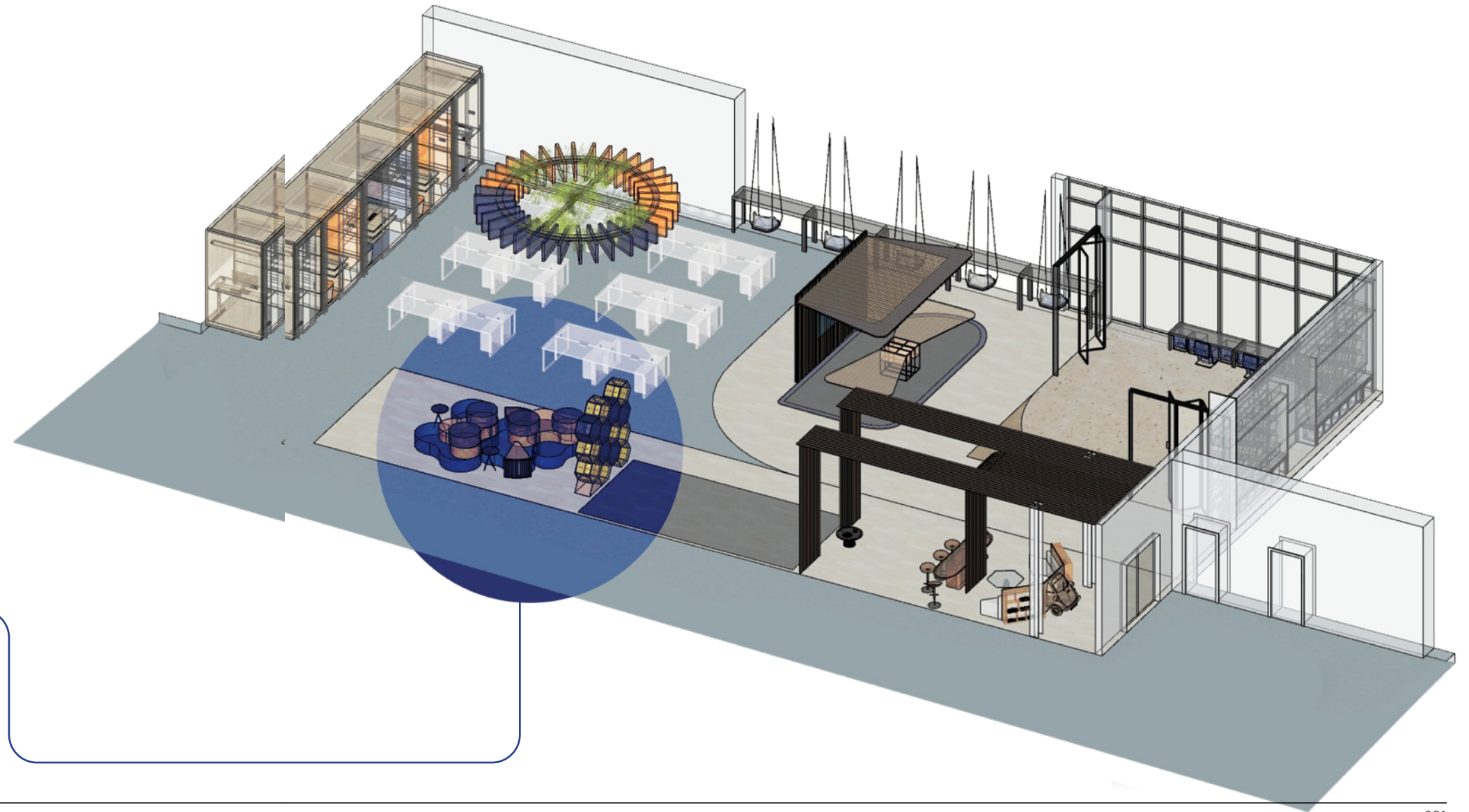
## Storage & Recharge Area

Our recharge area is meticulously designed to prioritize employee well-being, offering a dedicated space for unwinding and fostering a more enjoyable work atmosphere. The incorporation of a fun storage solution not only adds an element of playfulness but also serves as a practical and efficient storage option. This approach not only supports the mental well-being of our employees but also enhances the overall work experience, providing a balance between relaxation and productivity within the workspace.

Fun

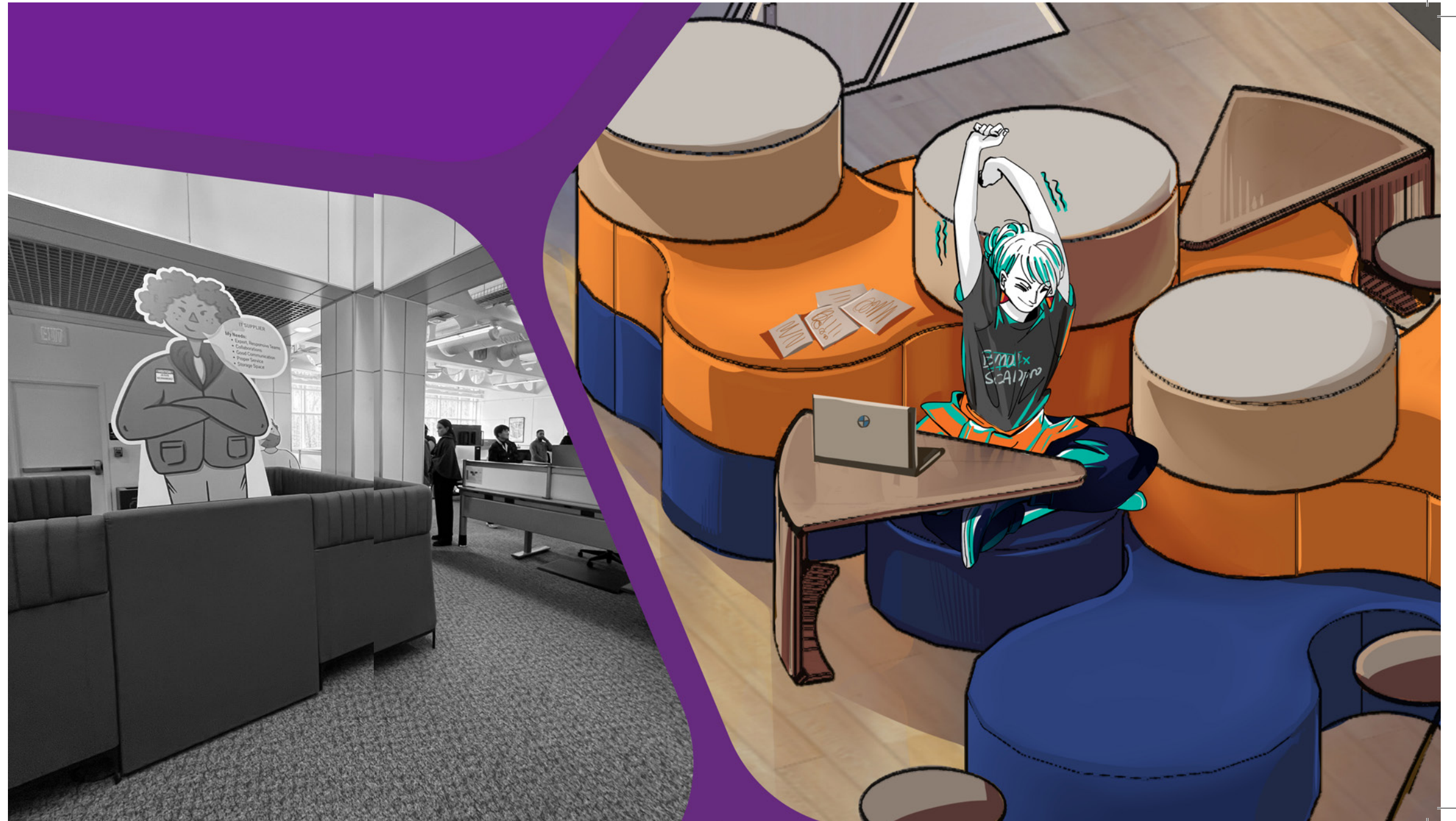
Playful

Adaptable



## Before/After

Before, there was no designated space for recharging or focusing on well-being. After the transformation, to conclude her workday, Emma retreats to the recharge area, where she crafts a to-do list for the next day and addresses her emails. This dedicated space not only provides comfort but also fosters a sense of calm, allowing her to unwind and conclude her workday on a positive note.

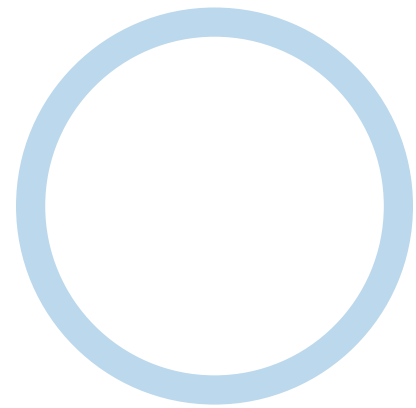




# Recharge Overview

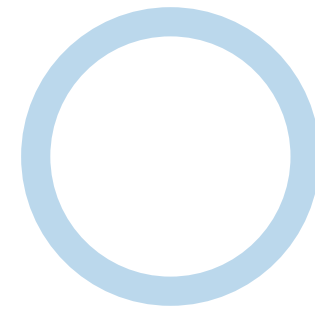


# Recharge Seating

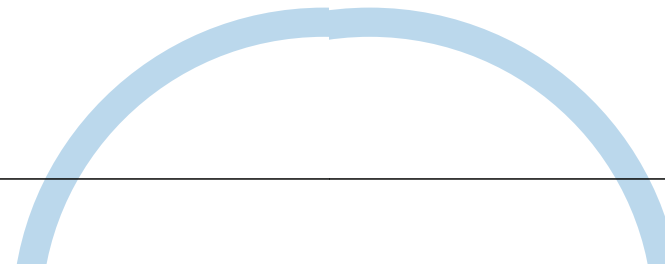


## ITRC Branding

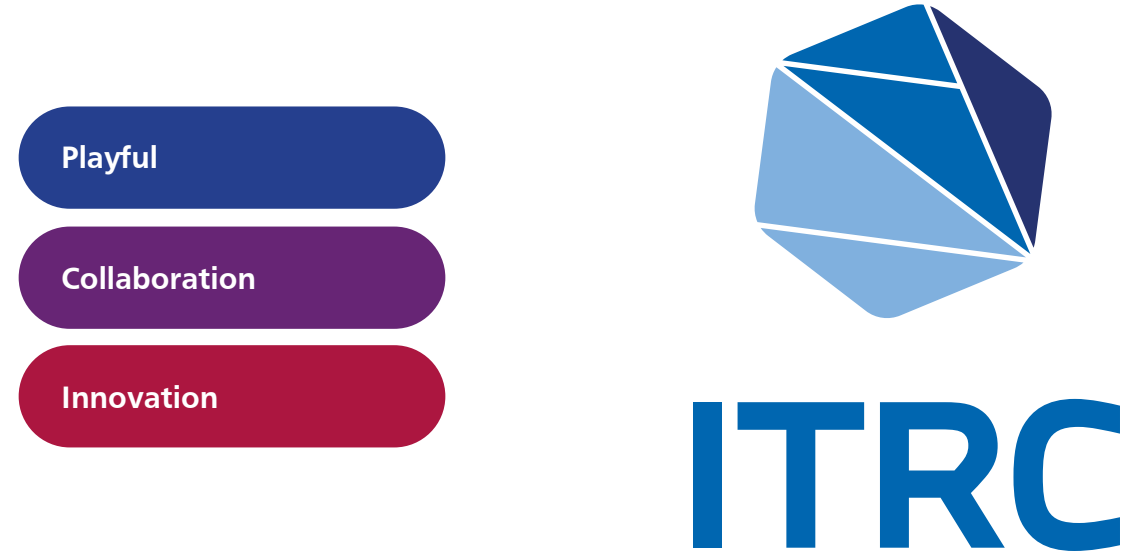
This logo design for BMW utilizes a hexagon, a shape often associated with efficiency and structure, to represent the brand's core values. However, the hexagon is not whole. Sections are strategically recolored and removed to create a sense of transparency and openness, reflecting BMW's commitment to clean energy and environmental responsibility. This logo design for BMW strives to be a visual representation of the brand's commitment to clean technology, transparency, and collaborative excellence. The interplay of color, shape, and line is intended to evoke a sense of trust, innovation, and a forward-thinking mindset.



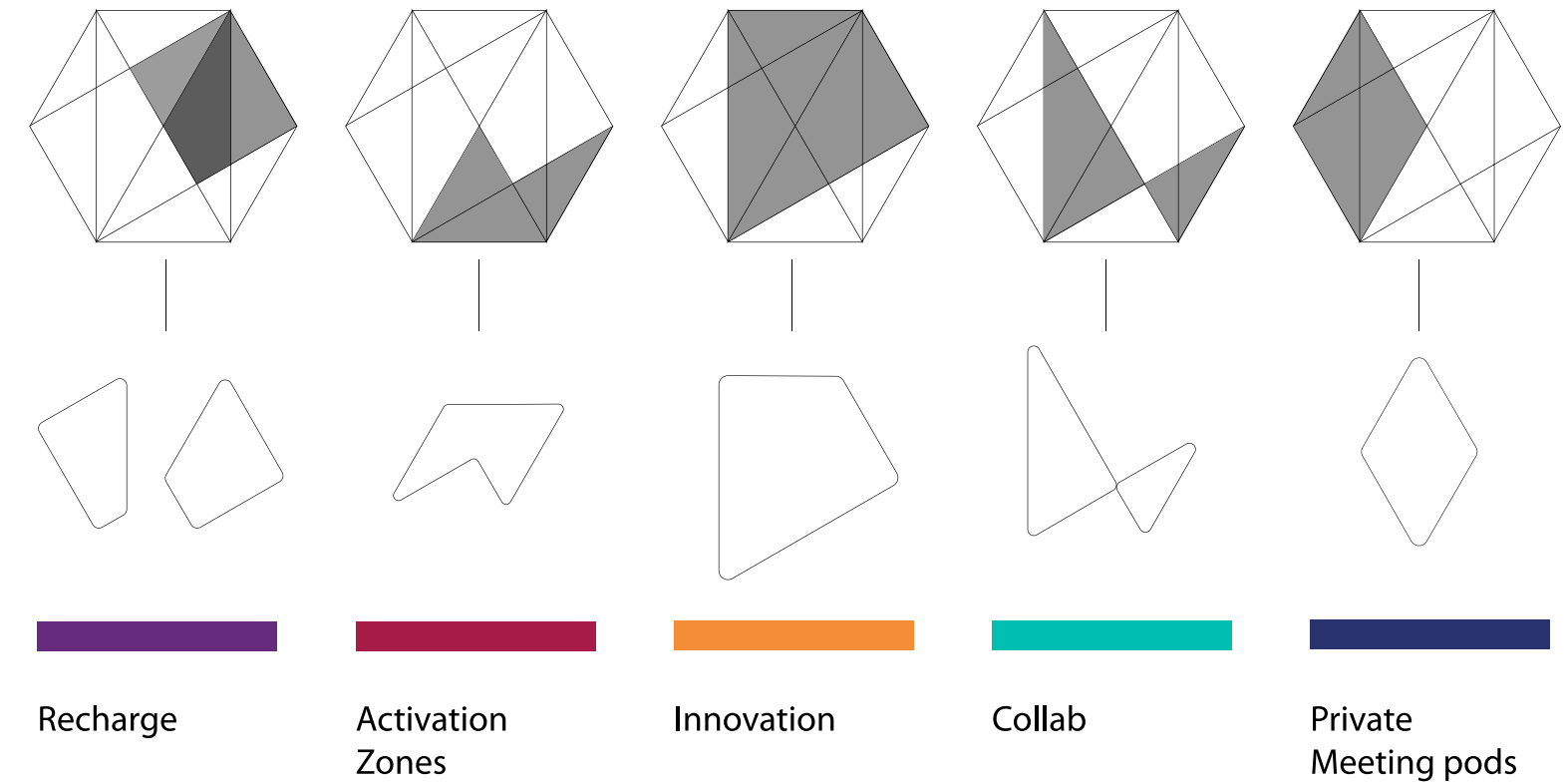
**ITRC**



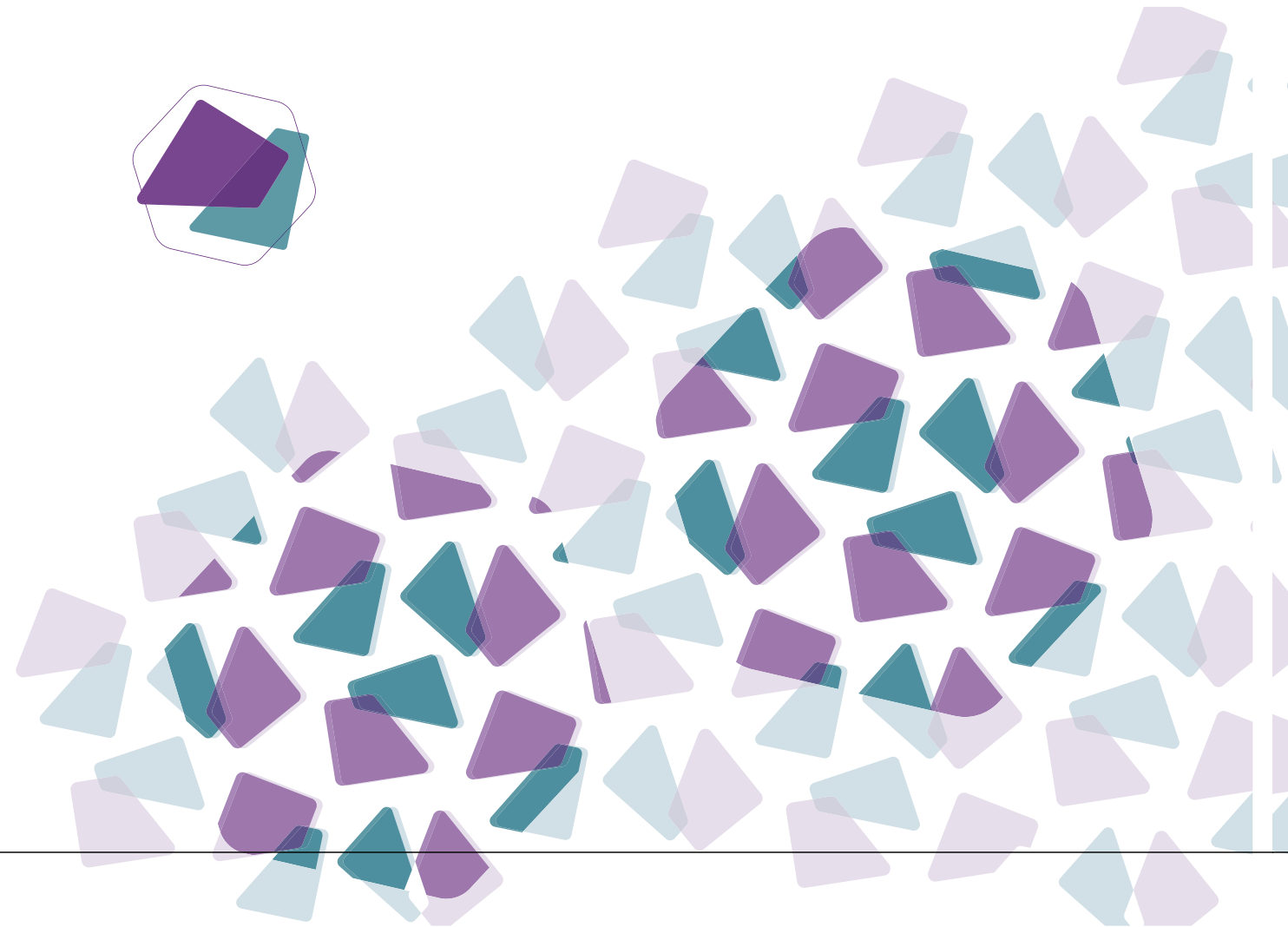
# Hexagonal Brand Language



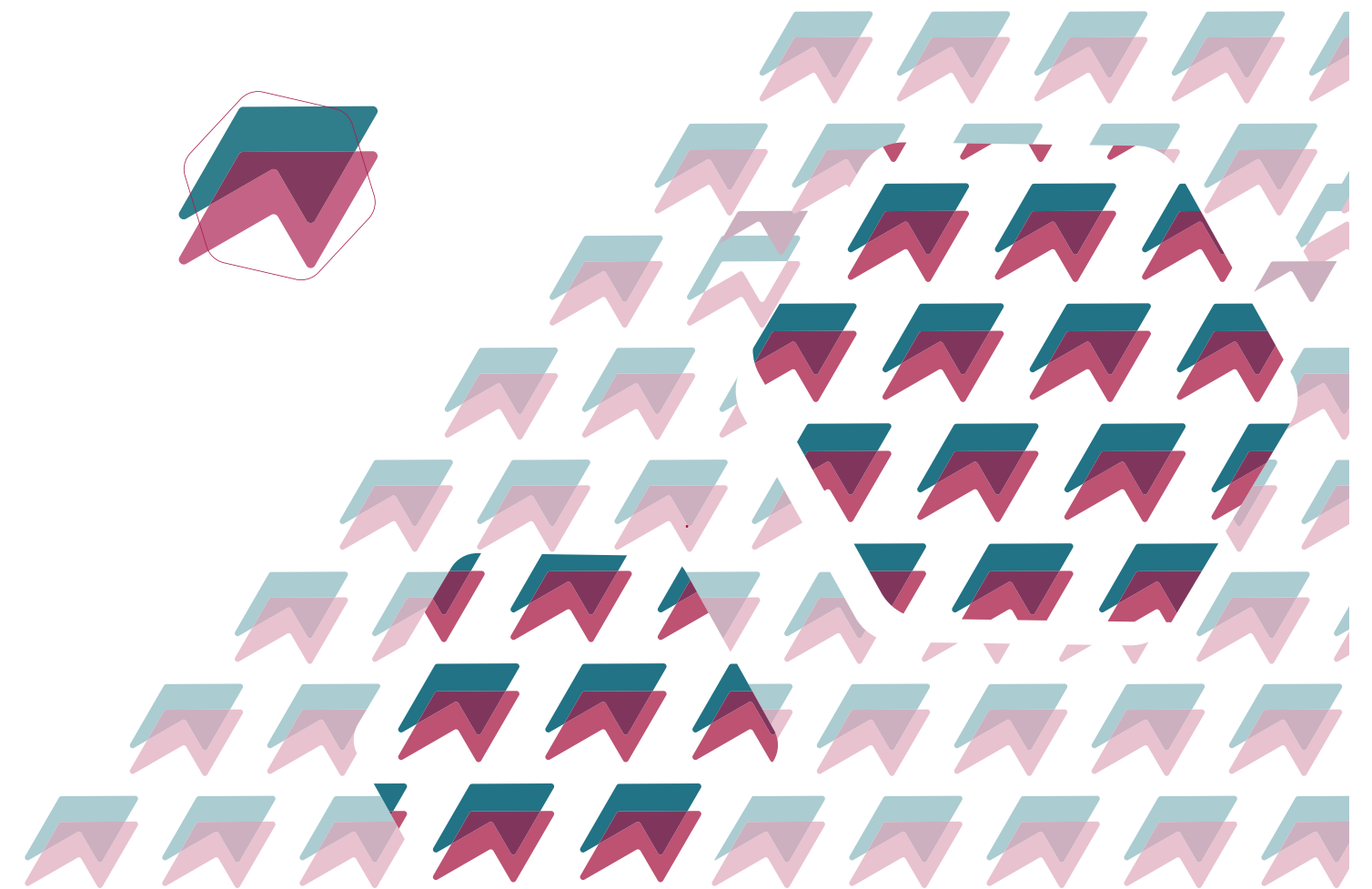
# Hexagonal Brand Language



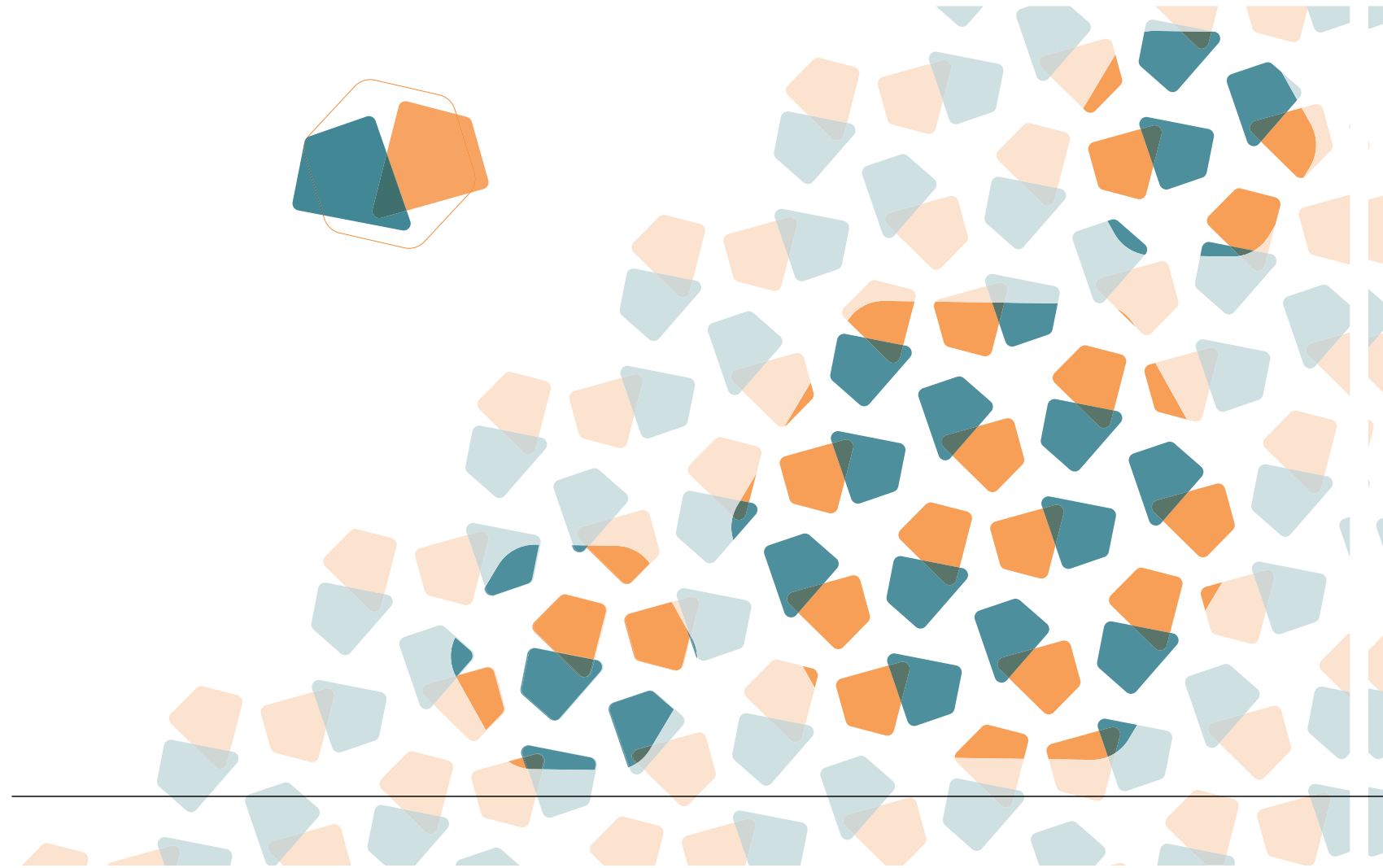
## Recharge Zone



## Activation Zone



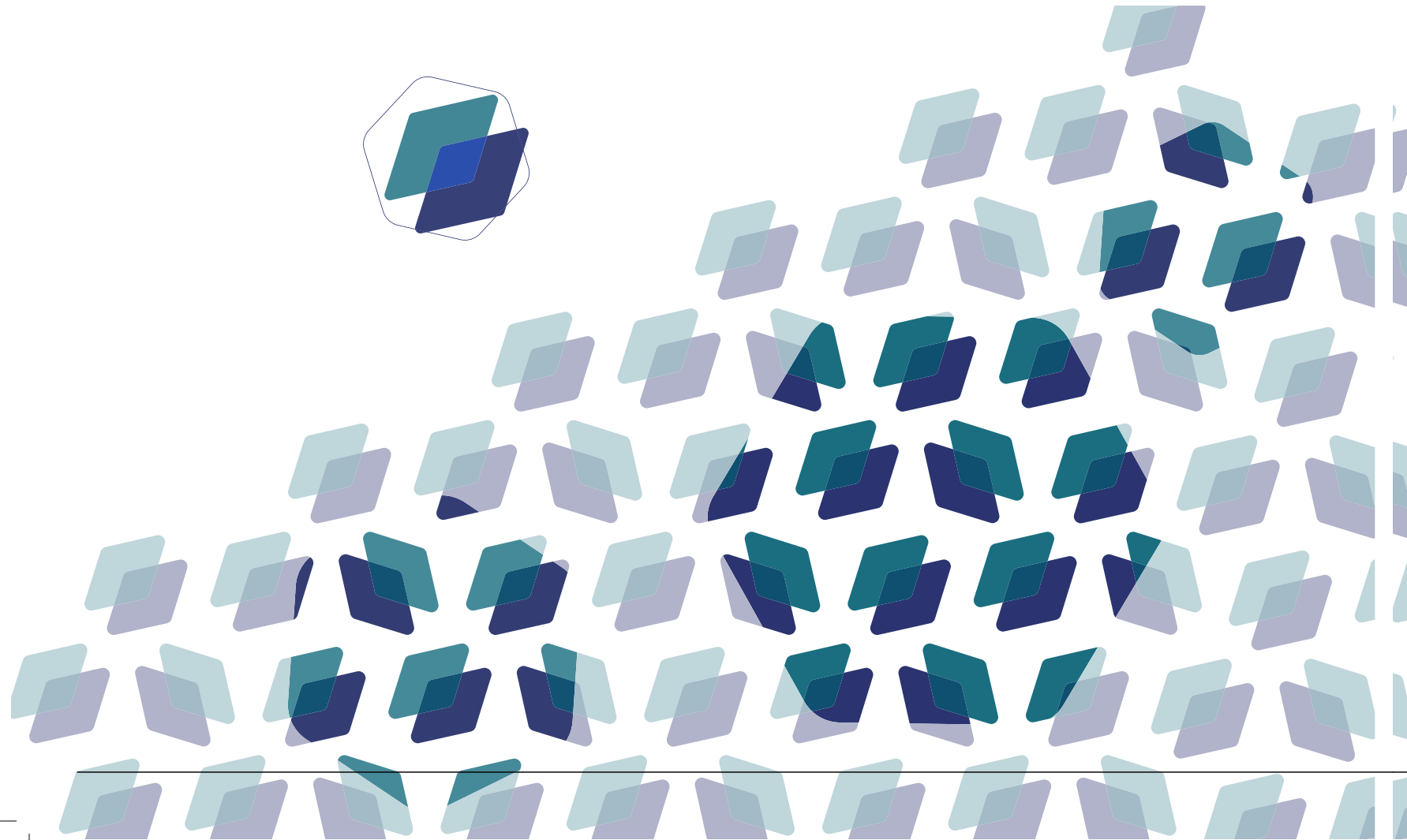
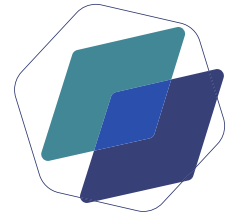
## Innovation Zone



## Collab Zone

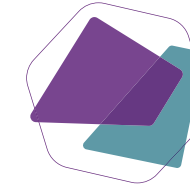


## Private Meeting Zone



## Signages Symbols

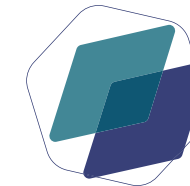
Recharge Zone



Activation Zone



Private Meeting  
Zone



Innovation Zone



Collab Zone





**Collab  
Zone**



**ITRC**



# 07

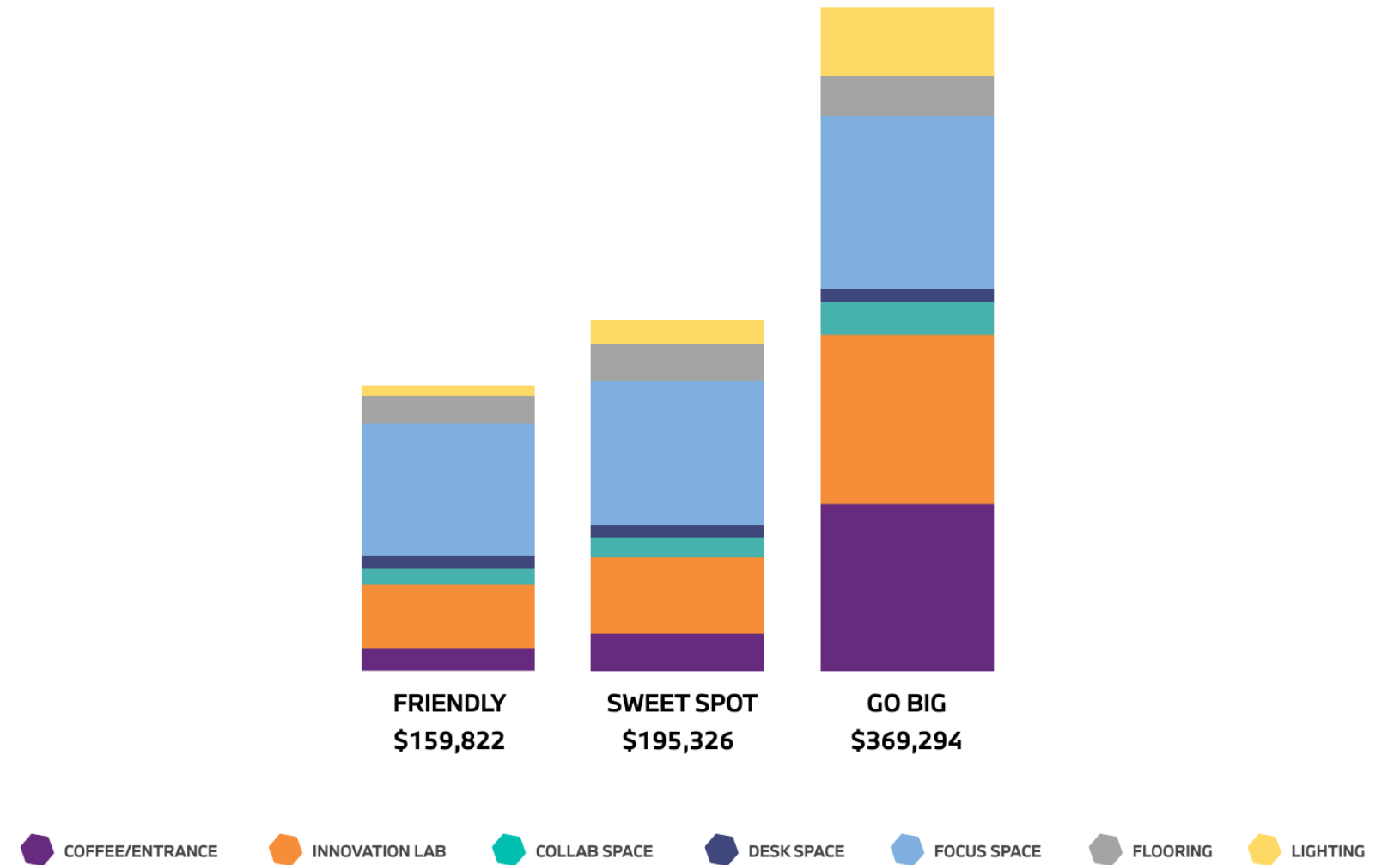
## Implement

1. Feasibility
2. Impact
3. Behind The Scenes Story

# Feasibility

When considering budgets for an office redesign, it's important to balance functionality, aesthetics, and cost-effectiveness. Let's explore the three budget levels, each budget option has its advantages and trade-offs. The friendly budget prioritizes cost-effectiveness, while the go big budget emphasizes premium features and amenities. The sweet spot budget aims to strike a balance between the two extremes, providing a high-quality workspace without excessive extravagance.

Ultimately, the choice of budget will depend on BMW's specific goals, priorities, and financial constraints. It's essential to consider the long-term impact of the design on employee satisfaction, productivity, and the company's brand image.



## OPTION 1: Friendly Budget

This budget option would focus on maximizing the impact of the design while keeping costs relatively low. It could involve using more affordable materials, repurposing existing furniture, and implementing cost-effective solutions for lighting, acoustics, and layout. The emphasis would be on creating a functional and comfortable workspace without breaking the bank. This option might be suitable for startups or companies with limited resources.







# How will this design **Impact** your employees and business over time?

Our team conducted extensive research into the potential impact of our designs, assessing how they would influence and benefit the team over time. We aimed to understand the ways in which our designs would contribute to increased efficiency, collaboration, and overall satisfaction. The research not only provided insights into the immediate benefits but also forecasted the long-term advantages, demonstrating to the team how their investment in our designs would yield sustained positive outcomes and enhance the overall work environment. This proactive approach ensured that our designs were not only aesthetically pleasing but also strategically aligned with the team's evolving needs and aspirations.

Collaboration Rates will

# INCREASE.

Bringing people together in closer proximity—but not so close that they feel awkward or threatened... can foster feelings of trust and a spirit of collaboration. Providing both “me” and “we” spaces in a work environment enhances employee comfort and well-being.

- (Haworth)



By strategically planning the office layout to bring employees together, BMW can create an environment that promotes collaboration. This balance between “we” spaces that encourage interaction and “me” spaces that offer privacy is crucial for enhancing employee well-being. When colleagues feel comfortable and at ease in their work environment, they are more likely to engage in spontaneous conversations, share ideas, and collaborate effectively. Moreover, by providing versatile spaces that cater to different work styles and preferences, BMW can accommodate diverse needs, further facilitating collaboration among teams and individuals. Ultimately, by thoughtfully designing the office space to seamlessly blend collaboration zones and personal retreats, BMW can cultivate an atmosphere that nurtures innovation, productivity, and a sense of community among its employees.

Employee Retention will

# GROW.

“Workers who like their office environment are 31% more likely to be satisfied in their job”

- American Society of Interior Designers



Employee retention is a critical factor for BMW's success, and the office environment plays a pivotal role in fostering job satisfaction. By creating a workspace that employees genuinely enjoy, BMW can significantly increase the likelihood of retaining its talented workforce. According to the cited statistic, workers who appreciate their office environment are 31% more likely to be satisfied with their jobs. By carefully crafting a collaborative yet comfortable space that meets the diverse needs of its employees, BMW can cultivate a positive work culture where individuals feel valued and motivated. An engaging office design that strikes the right balance between collaborative zones and personal spaces can directly contribute to heightened job satisfaction, leading to improved employee retention and a more committed, productive workforce.

Productivity Rations will

# SKYROCKET.

65% of workers believe that, if the design of their office reflected their ideal workplace, their productivity levels would rise.

- Savills Study



Employee productivity is a key driver of success for any organization, and BMW can leverage thoughtful office design to unlock its workforce's full potential. The compelling statistic that 65% of workers believe their productivity levels would rise if their office reflected their ideal workplace highlights the profound impact of the physical environment on output. By actively involving employees in the design process and incorporating elements that cater to their preferences, BMW can create a workspace that fosters focus, inspiration, and efficiency. An office layout that seam-lessly integrates collaborative hubs, quiet zones, and amenities tailored to employee needs can empower individuals to thrive in their roles. By cultivating an environment that resonates with employees' aspirations, BMW can tap into a wellspring of motivation, leading to heightened pro-ductivity, accelerated innovation, and a competitive edge in the industry.

Design & Creativity will

# Flourish.

More creative ideas may arise in the workplace when imagination and creativity are encouraged to flourish. It gives room for unique and fresh thinking, liberating workers' minds. By doing this, workers can take pleasure in their work and feel less like machines. Enhancing satisfaction creates an atmosphere that is conducive to collaboration and encourages a sense of involvement.

- Forbes



Creativity is the lifeblood of innovation, and BMW can unlock this vital asset by crafting an office environment that inspires and liberates the minds of its workforce. By intentionally incorporating elements that stimulate imagination and encourage unique perspectives, BMW can cultivate a workspace that transcends the confines of traditional office settings. An atmosphere that celebrates individuality and provides outlets for creative expression can ignite a sense of passion and fulfillment among employees, allowing them to approach their work with renewed enthusiasm and inventiveness. When workers feel empowered to think outside the box and embrace their innate creativity, they are more likely to generate novel ideas, propose unconventional solutions, and drive transformative change within the organization. By fostering an environment that actively nurtures creativity, BMW can tap into a wellspring of fresh thinking, enabling its employees to thrive and propelling the company towards continuous innovation and sustained competitive advantage.

Think

# GREEN.

A study by the Agricultural University of Norway found that the introduction of plants to an office environment decreased symptoms of ill health by 25%. This included fatigue, concentration problems, dry skin and irritation of the nose and eyes.

- Agricultural University of Norway



Employee well-being is a critical factor in maintaining a productive and engaged workforce, and BMW can harness the power of nature to create a healthier and more invigorating work environment. The study by the Agricultural University of Norway highlights the remarkable impact of introducing plants into office spaces, with a 25% reduction in symptoms of ill health, including fatigue, concentration issues, and physical discomforts. By strategically integrating greenery throughout the workspace, BMW can create an atmosphere that promotes physical and mental rejuvenation. The presence of plants can purify the air, introduce a calming natural element, and foster a sense of vitality and tranquility. When employees feel physically and mentally refreshed, they are better equipped to tackle challenges, maintain focus, and contribute their best efforts. By prioritizing employee well-being through the thoughtful incorporation of biophilic design principles, BMW can cultivate a workplace that nurtures both productivity and personal fulfillment.

Reduced Sound increases

# PRODUCTIVITY.

With auditory distractions reduced & or eliminated, employees reported a 25% increase in satisfaction with their overall work environment and a 27% reduction in stress. On the whole, worker productivity increased an average of nearly 20%.

- Hagerstone International



Excessive noise and auditory distractions in the workplace can significantly hinder employee well-being, leading to increased stress levels, dissatisfaction, and diminished productivity. By implementing effective noise reduction strategies, BMW can create a more conducive environment for its workforce to thrive. Studies have shown that when auditory distractions are minimized or eliminated, employees experience a remarkable 25% increase in satisfaction with their overall work environment and a substantial 27% reduction in stress levels. This quieter, more focused atmosphere not only fosters a sense of tranquility and mental clarity but also directly translates into a nearly 20% average increase in worker productivity. By prioritizing noise mitigation through strategic office design, acoustic treatments, and noise-canceling technologies, BMW can cultivate a serene and distraction-free workspace, enabling employees to concentrate more effectively, experience less fatigue, and ultimately enhance their overall well-being and performance.

# Behind the Scenes

11 Majors

10 Weeks



1 Goal



# Dear BMW Team,

Working on the design of your workspace has been an incredible experience. From the very beginning, we felt incredibly grateful for the opportunity to collaborate with such a prestigious and innovative company. The entire project wouldn't have been possible without the fantastic support and collaboration we received from all of you at the BMWgroup of North America. Your openness to our ideas, your willingness to answer our questions, and your overall enthusiasm for the project truly made it a rewarding journey. Designing a space that reflects BMW's forward-thinking spirit and fosters a collaborative work environment has been a privilege. We are incredibly excited to see the final design come to life and witness how it positively impacts your team's work experience. Thank you once again for this amazing opportunity. We are truly grateful for the partnership and look forward to seeing the finished product!

Sincerely,

BMWxSCADPro Workspace Design Team

*Matthew Hitt*

*Ava Carroll*

*Bonnie*

*Nandita Arand*

*[Signature]*

*Aligail Schneider*

*Roxana Gonzalez T.T.I.*

*Weichen Zhang*

*[Signature]*

*Yao Zhang*

*[Signature]*

*Shiyuan Huang*

*Lester D'sa*

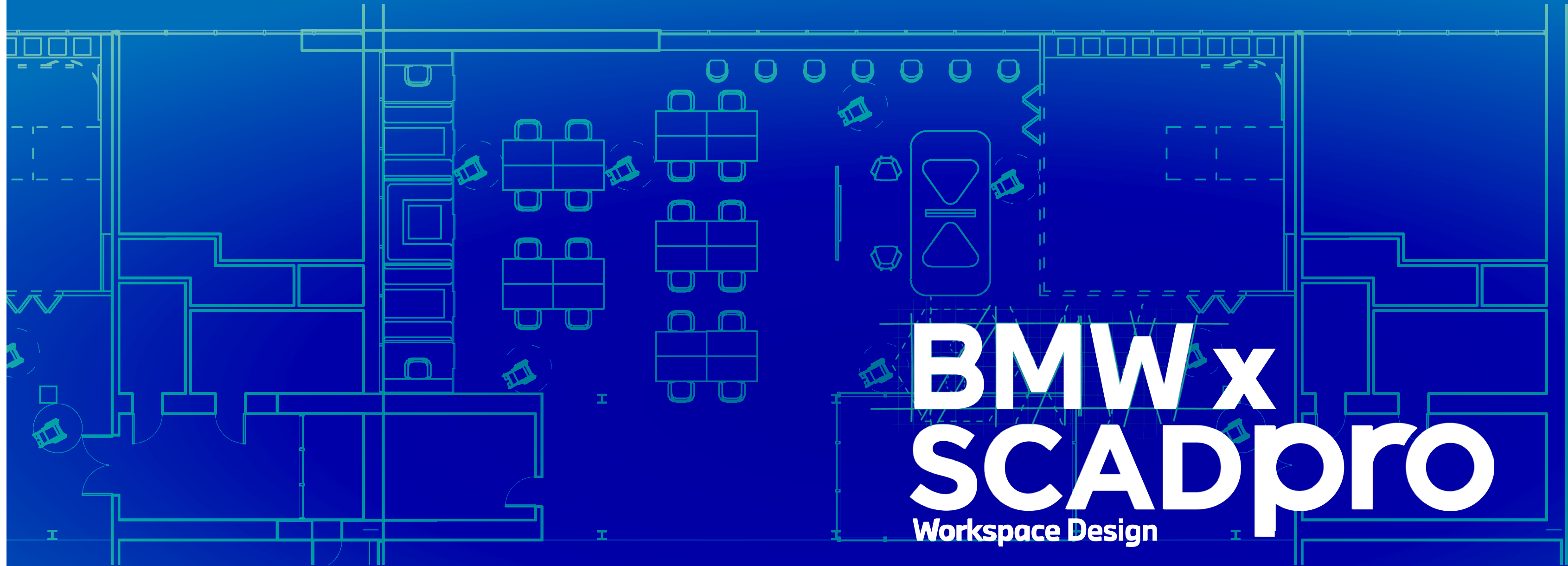
*[Signature]*  
*Cindy Liu*

*Zulin*  
*刘琳*

*Aayushi Doshi*

*Hongyuan Wang*

# Thank you



# BMW x SCADpro

Workspace Design

