



NEOX

NEXT GENERATION OFFICE EXPERIENCE

# NEXT GENERATION OF LIVING AND WORKING



NEOX

# SMART BUILDING INVESTMENT BENEFITS

30%

Digital buildings also attract a higher presence of tech, media and telecoms occupiers with a 30 % share of occupancy to their names. In non-digital buildings, this share drops by more than half at 14%.

44%

Smart Buildings, those who mix Smart features, a connected infrastructure, and a green strategy, offer a 44% premium on net rents and transaction prices per square meter

35%

Intelligent buildings commanded an estimated 5% to 35% higher sales value

43%

Investors highlighted the importance of implementing smart technology to deliver a best-in-class user experience. In fact, 43% wouldn't invest in a property that doesn't have smart technology.

30%

Optimized energy usage through the implementation of smart technologies, can achieve energy savings of around 30% compared to conventional buildings.

79%

79% of office workers would like their office to be technologically advanced.

# SMART BUILDING VALUES

## HEALTH PHYSICAL AND MENTAL WELL BEING



**Environmental Monitoring and Control:** Smart buildings maintain optimal indoor air quality, regulate temperature, and adjust lighting to ensure physical comfort and reduce health risks. Air quality sensors monitor pollutants, allergens, and CO<sub>2</sub> levels, helping to create a healthier environment.

**Wellness Features:** Fitness centers and meditation rooms with integrated technology help support physical and mental well-being. Intelligent lighting systems can adapt to circadian rhythms to improve sleep and reduce stress.

**Noise and Light Control:** Advanced systems adjust lighting for relaxation or productivity and reduce unwanted noise pollution, promoting mental clarity and reducing stress.

## SECURITY PHYSICAL AND CYBER



**Advanced Security Systems:** Smart buildings use facial recognition, biometric access, and surveillance systems to ensure a high level of security for occupants. Cameras, motion detectors, and alarms are connected to a central system that can notify authorities in case of emergencies.

**Emergency Response Systems:** Intelligent buildings are equipped with automated fire suppression systems, emergency lighting, and clear evacuation routes. They can also have integrated alert systems to notify residents or tenants about threats like fire, flooding, or intruders.

## RELATIONSHIPS FAMILY, FRIENDS AND COMMUNITY



**Connected Social Spaces:** Smart buildings foster social interaction by providing well-designed communal spaces like lounges, parks, and dining areas with adjustable environments for gatherings. Smart technologies adjust ambiance to create comfortable social spaces.

**Remote Communication Tools:** Integrated communication systems (video conferencing, high-speed internet, etc.) allow for seamless connection with family, friends, or coworkers, supporting meaningful relationships across distances.

**Community Engagement Platforms:** Buildings can offer digital platforms for organizing social activities or events, encouraging engagement and relationship-building within the community.

## PURPOSE CAREER, PASSION AND MEANING

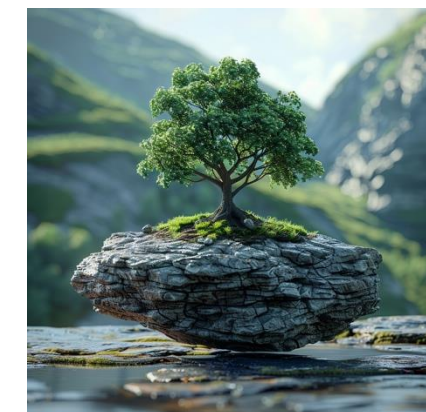


**Smart Workspaces:** Intelligent buildings provide optimized work environments with high-speed internet, adaptive lighting, and ergonomic furniture, enhancing productivity and creativity for those working from home or within the building.

**Creative and Learning Spaces:** Many smart buildings feature designated areas for personal projects, creativity, or collaboration, equipped with technology to support a range of activities from art to software development.

**Personalization:** Occupants can customize their living or working spaces through connected devices to suit their needs, helping them achieve better focus, comfort, and motivation in pursuing their goals.

## STABILITY FINANCIAL AND FREEDOM



**Energy Efficiency:** Smart systems monitor and control energy usage based on occupancy and time of day, reducing utility costs for heating, cooling, and lighting. This can significantly lower operating expenses, helping occupants manage their finances.

**Predictive Maintenance:** Intelligent buildings use sensors to predict when maintenance is needed (e.g., for HVAC systems or plumbing), preventing costly repairs by addressing issues early.

# SUCCESS ELEMENTS

## DATA is the New Oil



**Data is abundant:** Like oil, data is immensely valuable for smart buildings. Data serves as the lifeblood of smart buildings, driving their core functionalities. By capturing and analyzing data from an array of sensors, devices, and systems, smart buildings gain actionable insights. This enables real-time monitoring, predictive maintenance, and optimal performance management, all of which contribute to energy efficiency, cost reduction, and improved occupant comfort. Accurate, high-quality data is crucial for making informed, strategic decisions.

## INTEGRATION unlocks Its Power



**Integration is Key:** However, without the right integration systems in place, this data is fragmented and underutilized. Effective system integration is crucial for transforming isolated building systems—like HVAC, lighting, security, and energy management—into an interconnected network. Integration enables the comprehensive collection and analysis of data from these systems. Without proper integration, the building cannot access the rich data needed for insights and automation, making it the backbone that supports all other smart building functionalities.

## AI makes it as a Product



**AI Turns Data into Intelligence:** AI transforms automation into intelligent action, but it depends on large-scale data provided by integrated systems. AI algorithms learn from this data to predict patterns, optimize resource usage, and adapt the building's operations in real-time. This creates smarter, self-regulating environments that continuously improve efficiency, energy management, and occupant comfort. AI is the key that unlocks advanced decision-making and automation, making smart buildings more intuitive and effective.

## SECURITY protect its Value



**Safeguarding Data and Systems:** With interconnected devices and systems generating vast amounts of data, cybersecurity becomes critical. Protecting this data from cyber threats ensures the security of both the building's operations and its users. Robust cybersecurity protocols—such as data encryption, access control, and threat detection—are essential to prevent breaches, ensuring users' confidence and the integrity of the building's systems. Without strong security, data-driven intelligence and user experience are vulnerable to disruption, which could compromise the entire smart building ecosystem.

## USER EXPERIENCE sells it



**Putting People at the Center:** successful user experience (UX) in smart buildings is more than just technology—it is about addressing the five fundamental human priorities: **Health, Security, Relationships, Purpose, and Financial Stability.** Through smart building systems, users benefit from healthier, safer environments, enhanced connectivity, and personalized interactions, all while the building optimizes operational costs and energy savings to contribute to financial well-being. UX is built on AI-driven intelligence and security, ensuring that interactions are smooth, personalized, and intuitive. Whether through touchless controls, voice commands, or mobile interfaces, the building adapts to users' needs, enhancing comfort and productivity.

# SMART BUILDING INVESTMENT BENEFITS

## Financial benefits

- Cost Reduction in energy consumption / energy costs (i.e. through HVAC analytics)
- Reduction in equipment maintenance costs (due to fault detection / predictive maintenance)
- Reduction in maintenance staff time, and subsequent staff costs (cleaning route optimization, dynamic scheduling)

## Asset valuation

- Increase asset value associated with more future-proofed smart buildings
- Increased revenue
- Reduced rental voids – smart buildings attract and retain better tenants

## Non-financial benefits

- Human productivity – i.e. health & wellness

Example: Air Quality – increased cognitive performance with good air quality. Smart technology to link building utilization to air flow (HVAC) means more productive end users across various cognitive domains.

STAND OUT IN A COMPETITIVE REAL  
ESTATE MARKET

**OCCUPIERS PREPARED TO  
PAY 20% PREMIUM**

# VISION

Our vision is to revolutionize the intelligent building industry by delivering innovative, sustainable, and integrated solutions that increase the return of investment to Real Estate Developer, enhance the efficiency to Real Estate Operators and create the BEST place for people to live or work and having an innovative experience to feel more safe, connected, balanced

We aim to lead the region in smart building technology, setting new standards of excellence, and expanding our footprint globally to shape the future of intelligent infrastructure worldwide



# WHO IS NEOX?



WE CREATED THE ONE OF THE MOST  
APPRECIATED AND AWARDED SMART  
BUILDING IN EUROPE



WE HAVE 7 YEAR OF EXPERIENCE WE  
LEARNED FROM OUR FAILURES

**SAVE MILLIONS AND SEVERAL  
YEARS WITH US**



**PRODUCTIVITY**



**MOBILITY**



**INNOVATION**



**TEAMWORK**



**TALENT  
ATTRACTION**



**SUSTAINABILITY**



**AWARDS AND CERTIFICATES**



WORLD GOLD WINNER  
M&I Category  
Office Category  
FIABCI World Prix d'Excellence Awards 2024

WORLD GOLD WINNER  
M&I Category  
Sustainable Development Category  
FIABCI World Prix d'Excellence Awards 2024



# MARKET PLAYERS

Building Automation

**Honeywell**

**Schneider Electric**

**ABB**

**Johnson Controls**

**EMERSON**

Technology Platforms

**CISCO**

**intel**

**aws**

**Google Cloud**

**Microsoft**

**Interop.io**

**SIEMENS**

**NEOX**



**EDGE**

**IBM**

**CRESTRON**

**VECOS**

**spaceOS**

**smartspaces**

**bGrid**

**SAMSUNG C&T**

**EMAAR**

**NAKHEEL**

**HYUNDAI ENGINEERING & CONSTRUCTION**

**JLL**

**SKANSKA**

**BECHTEL**

**POWERCHINA**

**STRABAG**

**CCCC CHINA COMMUNICATIONS CONSTRUCTION COMPANY**

**VINCI**

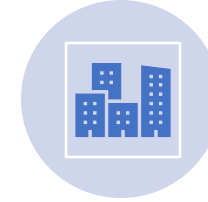
Real Estate Developers

Smart Building Solutions

# WHY NEOX?



WE KNOW THE MARKET



WE HAVE A CLEAR  
DEFINITION OF SMART  
BUILDING



WE HAVE APPROPRIATE  
KNOWLEDGE AND  
EXPERTISE AND A STEEP  
LEARNING CURVE



WE HAVE A FUTURE-  
PROOF TECHNOLOGY,  
CONFIRMED BY THE  
MARKET



WE KNOW THAT NO  
READY-MADE  
SOLUTION IS AVAILABLE  
ON THE MARKET

## SAVE MILLIONS AND SEVERAL YEARS WITH US

# HOW WE DESIGN THE BEST SMART BUILDING?

## FACILITY-CENTRIC SMART BUILDING

- REDUCE ENERGY CONSUMPTION AND CARBON FOOTPRINT OF THE BUILDING
- MAINTAIN INFRASTRUCTURE
- COMPLY WITH REGULATIONS
- REDUCE OPERATING COSTS.
- REDUCE THE NEED FOR INSPECTION.
- REDUCE ERRORS AND FAILURES.
- IMPROVE BUILDING SAFETY
- STABLE ENVIRONMENT AND LESS TOLERATED WITH CHANGES



## PEOPLE-CENTRIC SMART BUILDING

- STARTS WITH PEOPLE'S JOURNEYS
- IMPROVE EFFICIENCY OF PEOPLE
- MAINTAIN WELLBEING OF PEOPLE
- FOCUSES OF DESIGN/UX/ENJOYMENT
- CONSTANTLY CHANGING ENVIRONMENT, FOCUSES ON INDIVIDUAL RATHER THAN SPACES, ROOMS, FACILITIES

SMART BUILDING SHOULD COMBINE ALL AS A STRONG BASIS

# NEOX SERVICES



## Consultancy

Our Service can bridge the gap between traditional building management practices and the latest in smart building technologies, ensuring that investments in smart technologies deliver maximum value in terms of sustainability, efficiency, productivity, and security.

## Program management

Smart Building Program/ Project Management plays a crucial role in the successful implementation of smart technologies within buildings, ensuring that the integration of these systems delivers tangible benefits. Our service facilitate the strategic integration of technology into building projects, focusing on achieving high standards of sustainability, efficiency, productivity, and cybersecurity

## System Integration

As an Integrator specializes in combining various Smart systems and services within a building to create a cohesive, intelligent environment. This integration enhances the functionality, efficiency, and comfort of the building, making it truly "smart."

- System Design and Integration
- IoT Devices and Sensor Implementation
- Software and Platform Development
- User Interface and Experience Design
- Security and Access Control Systems
- Energy Management
- Data Collection
- AI based rep

## Certification

We can aid clients to achieve various certifications plays a crucial role in demonstrating a building's adherence to industry standards. Through strategic guidance, management of the certification process, and implementation of best practices, such companies help clients demonstrate their commitment to sustainability and well being.



# NEOX VALUES



## Sustainability

Conducting detailed analyses to identify areas where energy and resources can be reduced using Smart Solutions.

Helping clients develop long-term sustainability goals and actionable plans, including the selection of renewable energy sources, materials, and waste management systems.

Assisting with sustainability reporting based on possible data points and ensuring compliance with local and international environmental regulations.

## Efficiency

Advising on the implementation of smart building technologies to optimize building operations, reducing energy costs and improving overall efficiency. Create scenarios how to use data analytics and AI to provide insights into energy and operational efficiency, identifying patterns and areas for improvement.

Offering strategies for the entire lifecycle of building assets to ensure they are maintained efficiently and replaced in a cost-effective manner.

## Productivity

Advising on the use of smart technologies to create adaptive workspaces that improve occupant comfort and productivity. Recommending integrated technology solutions that enhance communication and collaboration among building occupants.

Providing strategies for leveraging smart building technologies to enhance the user experience, making buildings more intuitive and responsive to occupant needs.

## Cyber Security

Conducting cybersecurity risk assessments specifically for smart building systems and infrastructure.

Advising on cybersecurity policies, best practices, and compliance with standards such as ISO/IEC 27001 and NIST 800 SF.

Offering training programs for building managers and staff on cybersecurity best practices and awareness, ensuring they understand the potential cyber security risks and how to mitigate them.

# NEOX PLATFORM



SOLID FOUNDATION IS  
ALWAYS THE MOST  
IMPORTANT



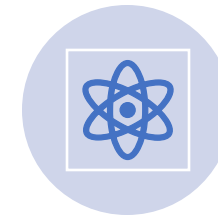
ROBUST AND SCALABLE  
ARCHITECTURE



API BASED



CYBER SECURITY FROM  
DESIGN



FUTURE-PROOF  
TECHNOLOGY

## SAVE MILLIONS AND SEVERAL YEARS WITH US

# PLATFORM DESIGN PRINCIPLES

1. Vision of the whole ecosystem end-to-end



2. Modular approach



3. API first design



4. N-tier microservices



5. Focus on end user experience



6. Bring together IT, IOT and OT systems



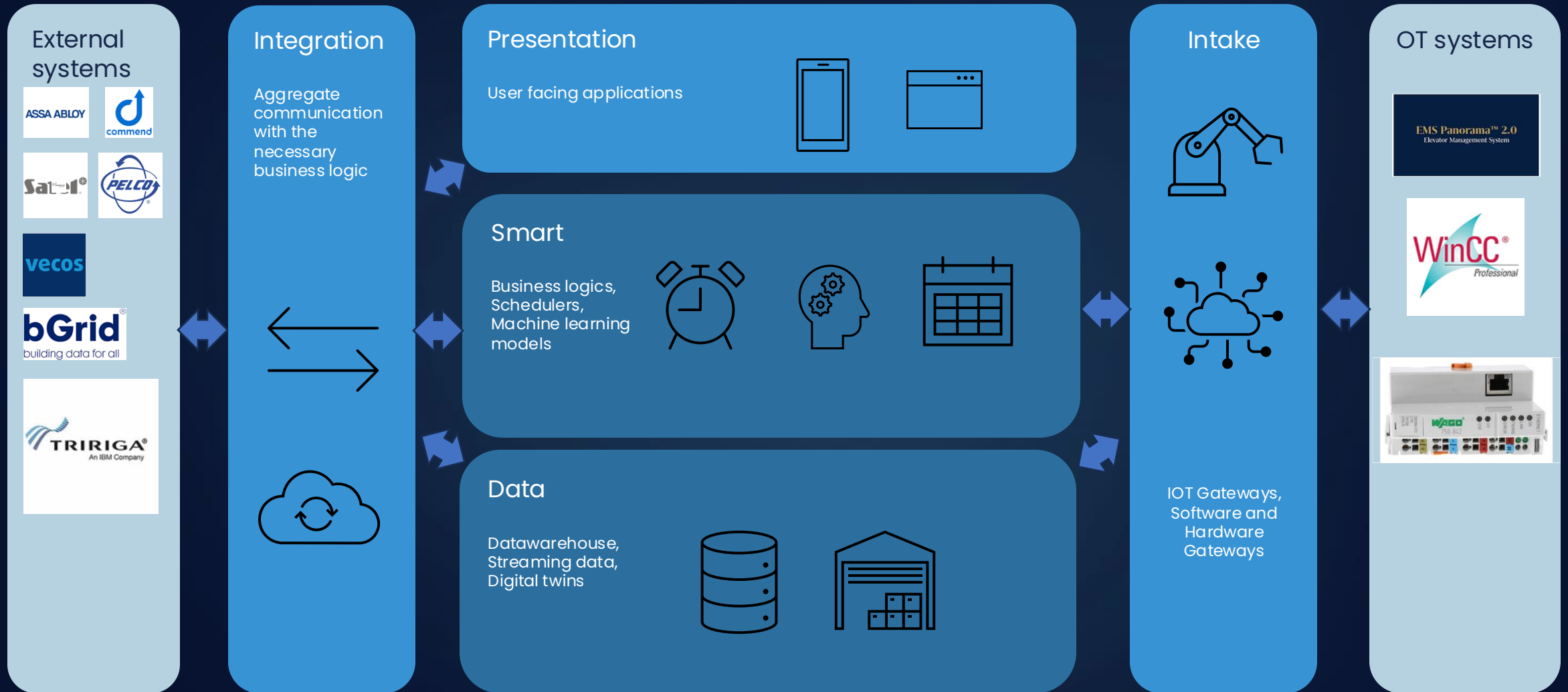
7. IaaS for easy reproduction



8. Cloud first design



# NEOX PLATFORM





# NEOX PRESENTATION LAYER

## Presentation

User facing applications



IOS mobile application



React Web application



Administrator application



Report application



API endpoint

# NEOX INTEGRATION LAYER

## Integration

Aggregate communication with the necessary business logic



API  
Gateways



API  
Developer  
portal



Backend  
for  
Frontend



Data  
Exchange  
Gateways

# NEOX INTAKE LAYER

## Intake

IOT Gateways, Software and Hardware Gateways



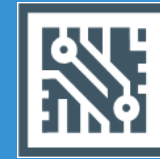
IOT Hub



IOT  
Software  
Gateways



IOT  
Hardware  
Gateways



Datapoint  
logic and  
buffer

# NEOX SMART LAYER

## Smart

Business logics, Schedulers, Machine learning models



Event-driven



Serverless microservices



Scheduler and booking services



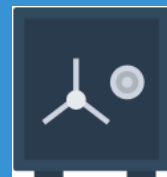
Machine learning models



Notification engine



Central user provision



Locker management



Parking management

# NEOX DATA LAYER

## Data

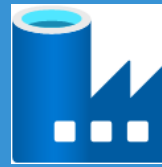
Datawarehouse, Streaming data, Digital twins



Streaming  
Databases



Data warehouse  
Lakehouse  
architecture



Extract,  
transform  
and load



Data lake  
storage



Database  
caching



Stream  
analytics



Digital Twins



Time Series  
insights

# POWER OF AI

- NEOX Platform capable to collect all Smart Building Data and Events
- Artificial Intelligence based Operational Dashboard
- Machine Learning for predictive maintenance
- Intelligent Chatbot for User Experience



# NEOX WORKING METHODOLOGY



AGILITY IS THE  
FOUNDATION



WE BELIEVE IN TO  
PROVIDE EXPERIENCE



UNDERSTANDING THE  
NEEDS IS CRUCIAL



IT IS A MUTUAL WORK



DELIVER ON BUDGET  
AND TIME

## SAVE MILLIONS AND SEVERAL YEARS WITH US

# IMPLEMENTATION JOURNEY

1. Definition of Smart building with Management. Find the most flexible and most demanding concept



2. Focus group interviews with stakeholders to define personas and user journeys



3. Establishing the experience principals and working model and employee focused service-based concept



4. Defining the personas and user journeys for services and use cases



5. Define and deconstruct the journeys to new services by Blueprinting for use cases



6. Design the ideal architecture for our new way of working and the smart building fundamentals



7. Customize NEOX smart building platform, build up the ecosystem and develop the touchpoints and frontends



8. Design, develop & deliver our touchpoint ecosystem and digital companions for all services





# 1-2. RESEARCH & DESIGN WORKSHOPS



# 3. EXPERIENCE PRINCIPLES

Be transparent and understood

Know the process by name, title, flow, status

Know the activities that are handed off or I'm interacting with

Knows who I work with and how I could best work with

Be my guide and support

Scenarios and goals users want to achieve

Take off the load, make it easier

Where does it start and end; what is required from me

Be personal and human

Find and build relationships with colleagues

Personalized

Know who I'm interacting with

Know what I'm interacting with

Be around me and adapt

Surrounding adapts to the needs of the users

Personalized

# 4. PERSONAS & USER JOURNEYS

Personal profile



since some weeks  
IT Team member  
Satisfied with job

Makes me sad / happy



I don't like meetings. I try to make them as short as possible!



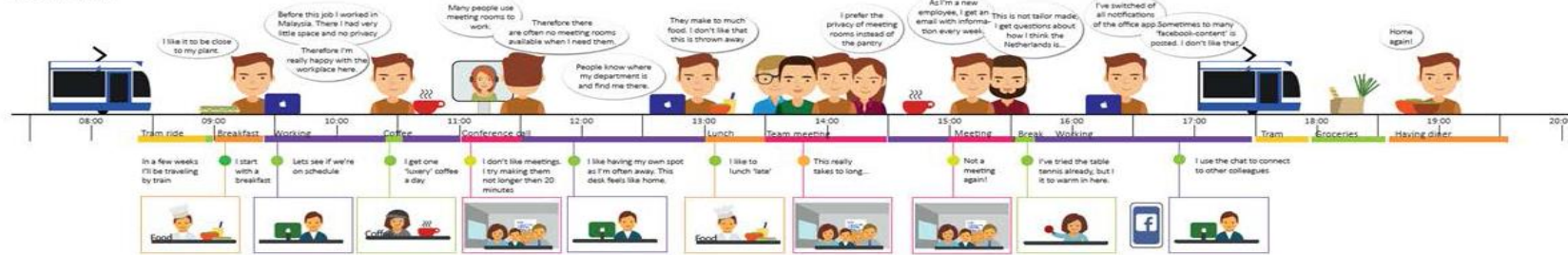
I like my workplace and the fact of having my own place.

A smart tool I would like to have



Finding people on a people finder app would help. We have so many people in the building, this would make it easy to find everyone. I don't think there is a privacy issue.

Actual journey



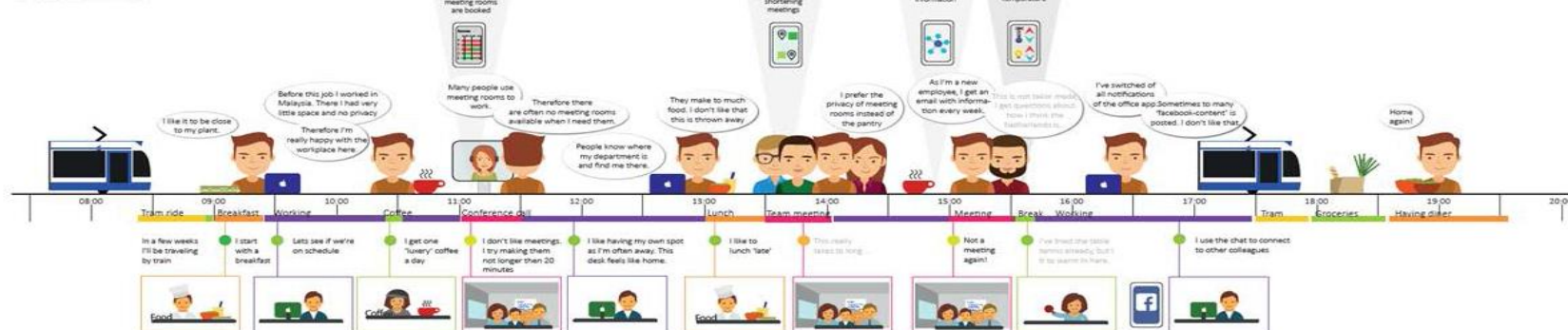
Are problems solvable with a tool?



Is the problem related to the workplace?



Redesigned journey



Equipment Management

Energy Management

Security and Safety

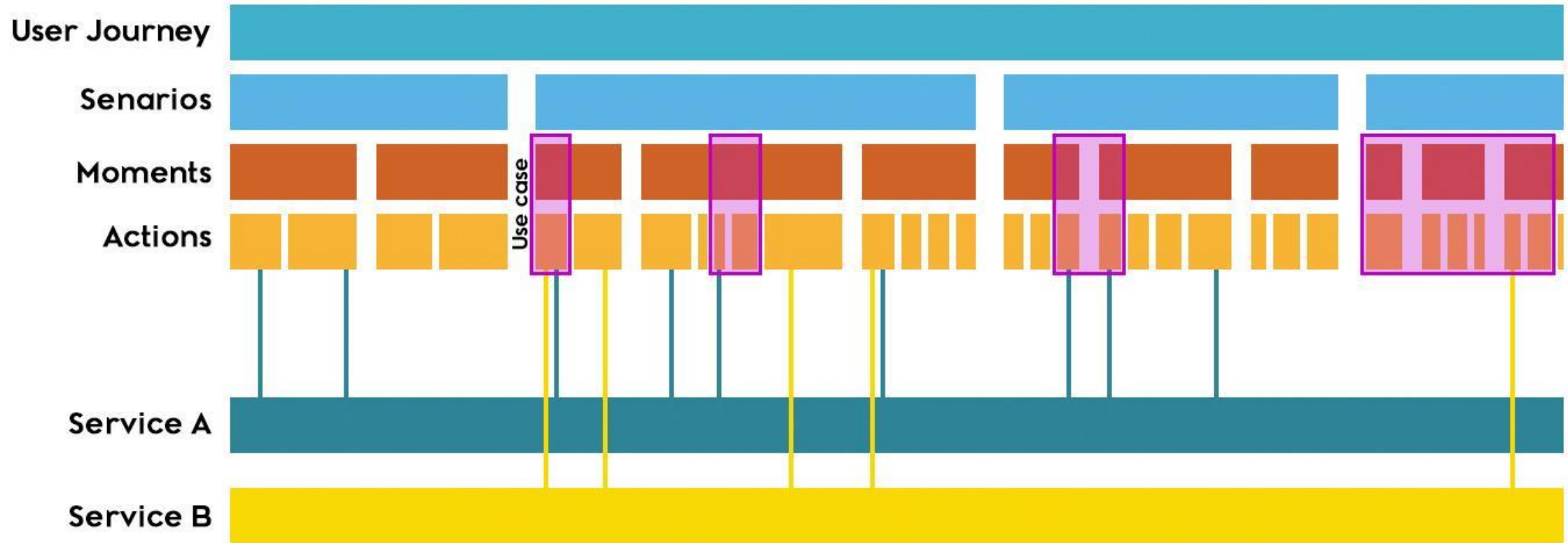
Space utilization

Physical Workspace

Digital Workspace

# 5. SERVICE DESIGN

DEFINE AND DECONSTRUCT THE JOURNEYS...



# 5. SERVICE DESIGN

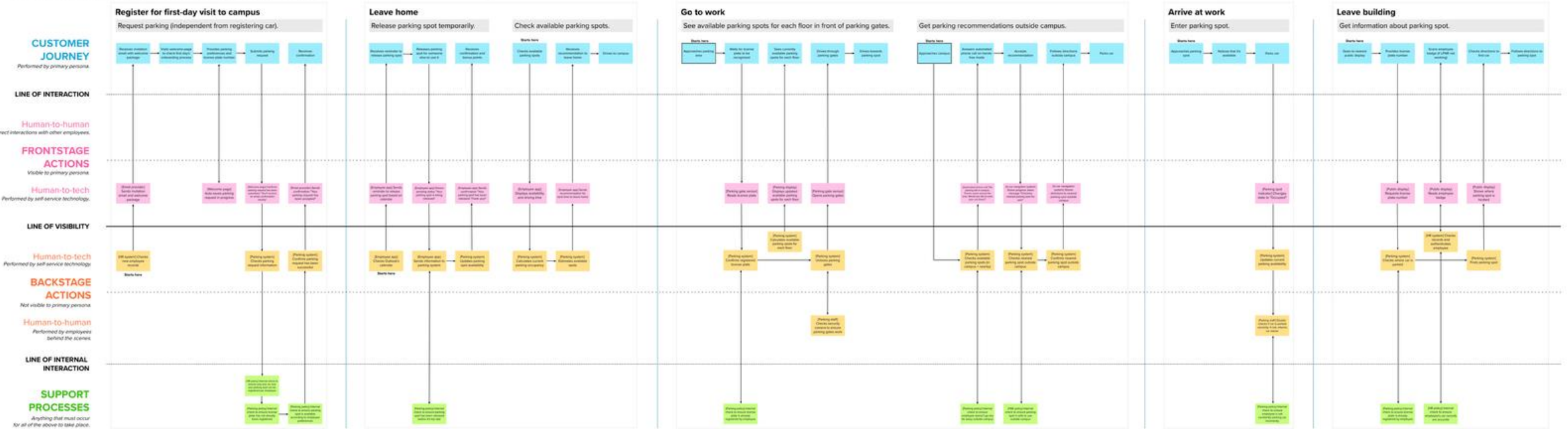
... TO NEW SERVICES BY SERVICE BLUEPRINTING

## Parking service blueprint

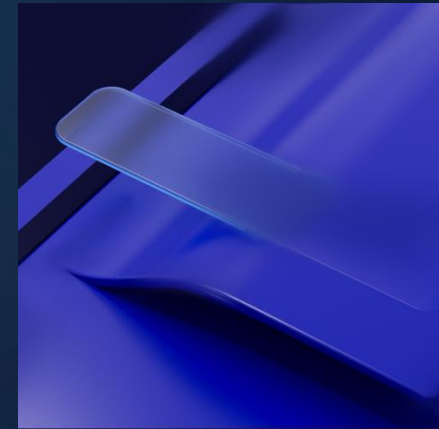
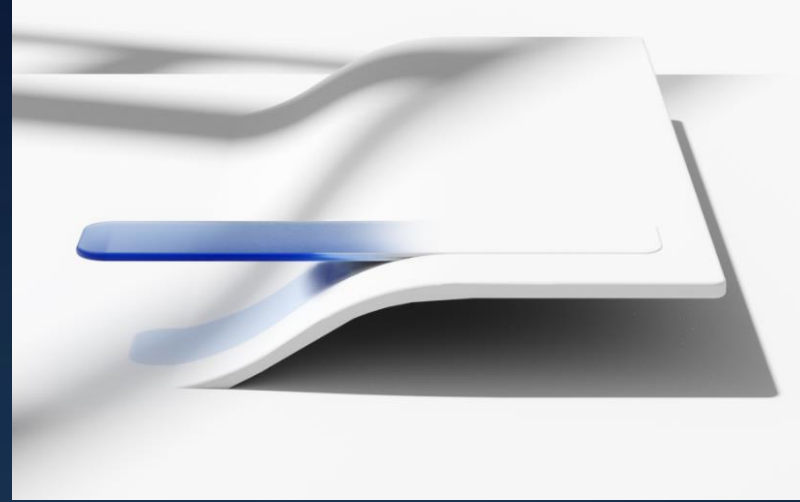
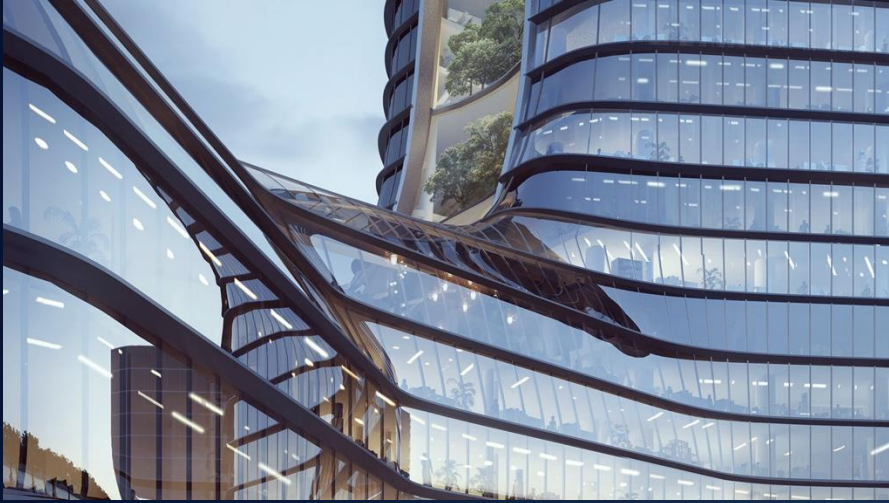
Persona: primary (employee).

Scenarios to consider: register for first-day visit, leave home, go to work, arrive at work, leave building.

*A scenario has specific tasks or goals (see cases) associated with it. What is the user trying to accomplish through this set of actions?*



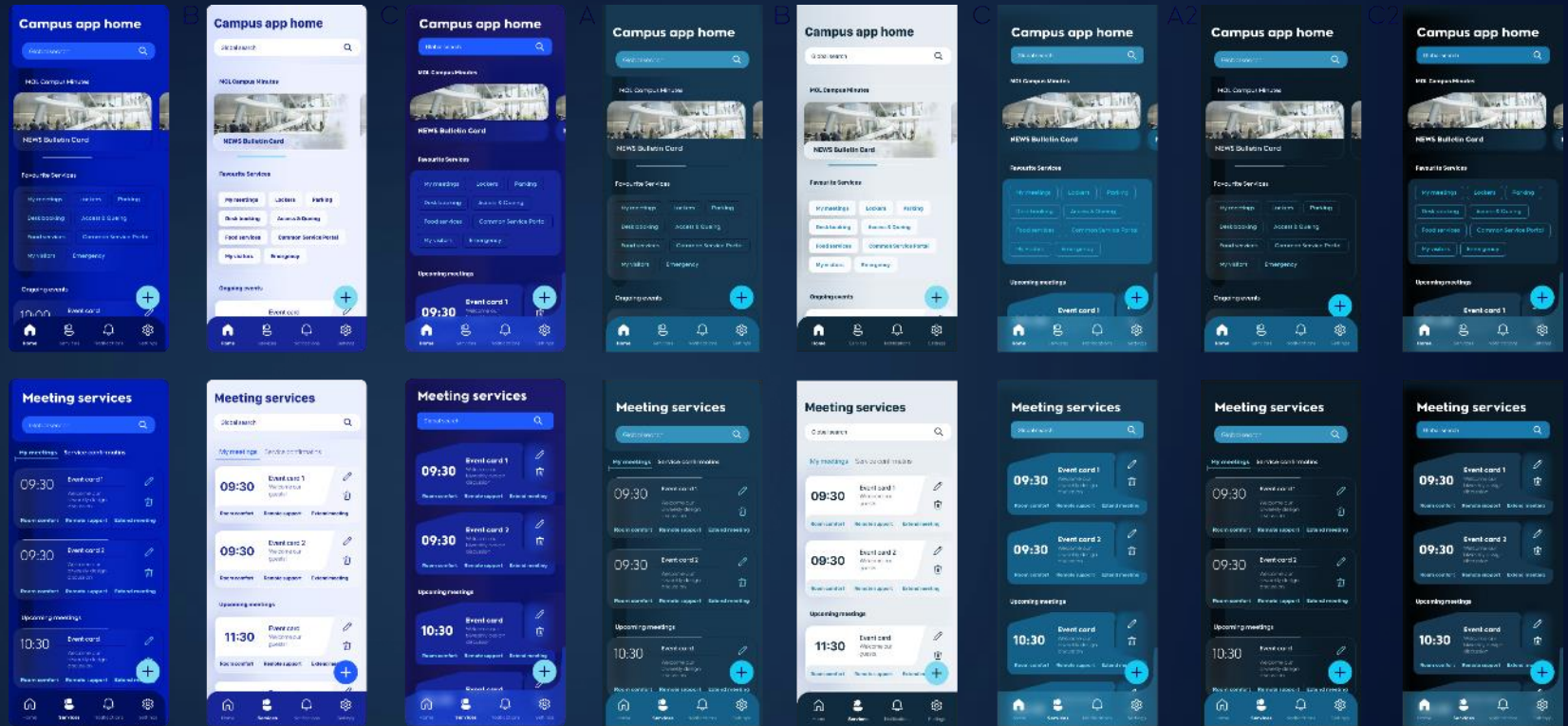
# 8. ART DIRECTION



# 8. IMPLEMENT ART DIRECTION TO UI DESIGN

Designing our applications with the highest standards

- Multi touchpoint design systems
- Human Interface Guidelines
- Fluent Design System
- Experience & design principles
- Design sprints
- Prototyping
- Usability tests



# 8. IMPLEMENT ON ALL TOUCHPOINTS

This screenshot shows a desktop dashboard with a sidebar on the left. The main content area is divided into several sections: 'Lockers' with a grid of locker status indicators, 'My history' with a list of past activities, 'Parking' with a 'Book a parking spot' button, and 'My upcoming events' with a calendar view. At the bottom, there are promotional images for 'New services from today in the HDL Campus'.

This screenshot shows a desktop dashboard with a sidebar on the left. The main content area includes 'Daily Menu' with a 'View menu' button, 'No-Station' with a 'View menu' button, 'Parking' with a 'Book a parking spot' button, and 'My upcoming events' with a calendar view. There are also promotional images for 'New services from today in the HDL Campus'.

This screenshot shows a desktop dashboard for a specific meeting room, '17B.101.W', on '05.01.2022, (Monday)' at '12:55'. It features a 'Very Long Meeting subject...' section with an agenda, a 'Tips' section with instructions on how to use the room panel, a 'Room Control' section with a 'View menu' button, and a 'Screen Sharing PIN: 9547' section with a QR code and a URL. The bottom right corner shows the 'MOLGROUP' and 'HOLCAMPUS' logos.

This screenshot shows a desktop dashboard for the 'Skydeck'. It features a 'Ground floor' header with the time '09:56'. The main content includes a 'Skydeck' section with a 'With your ticket to the Visitor Center, you will be able to:' list, an 'Average occupancy' bar chart, and a 'Skydeck AR application' section with a 'Download the Skydeck AR app' button and flags for Hungary and the UK. A 'Home' button is at the bottom.

This block contains four smartphone app screenshots. Each shows a mobile version of the service dashboard with a search bar at the top and a grid of service tiles for 'Lockers', 'Desk', 'Parking', and 'Meetings'. The bottom navigation bar includes icons for 'Home', 'Services', 'Meetings', and 'Profile'.

This screenshot shows a digital display for a meeting room. It features a large green 'Available' status indicator and a red time slot from 15:00 to 17:00. The room is identified as '15:40 Meeting Room XL'. A 'Book now' button is visible at the bottom right.

This screenshot shows a smartphone app interface for 'Room Control'. It displays settings for 'Light', 'Temperature' (set to 18,3°C), and 'Air Quality'. There is a 'Green Choice' indicator and a 'Fan Speed' control with buttons for 'Auto', 'Low', 'Medium', and 'High'. A 'Back to the Meeting' button is at the bottom left.



QUESTIONS?

