Future Smart Office Framework

NTT Germany

Once a time before COVID-19

- old-fashioned office – a place to work
- "my own" onsite dedicated office desk
- classic remote video only meetings
- always-on equipment
- high energy consumption

During the pandemic people were forced to stay at home

All offices were forced to shut down to limit spread of corona virus:

- People were forced to work from home without equipment over night.

- Social contacts took place over video / online meetings.

- New culture developed during this time – the new normal

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…some of them never returned to the office.

[Images: DALL-E]

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The new way of designing office space post pandemic

Employee Experience

Ask employees for their preferences without the right to enforcement: Build creative places, offer different types of meeting place sizes: 1:1 // 2-5 // 5-10 // >10 (open vs. confidential)

Covid-19 and beyond

Calculate on basis of workplace blueprints the need of space in dedicated NTT locations and co-work locations

Cooperation & Integration

Being attractive for employees by a EX centric workplace culture – carried by trust and commitment

Use innovative technology for being innovative toward customers

Ask employees for their way of working – survey

Culture & Vision

Promote between NTT legal companies the opportunities and willing to work physically under one roof
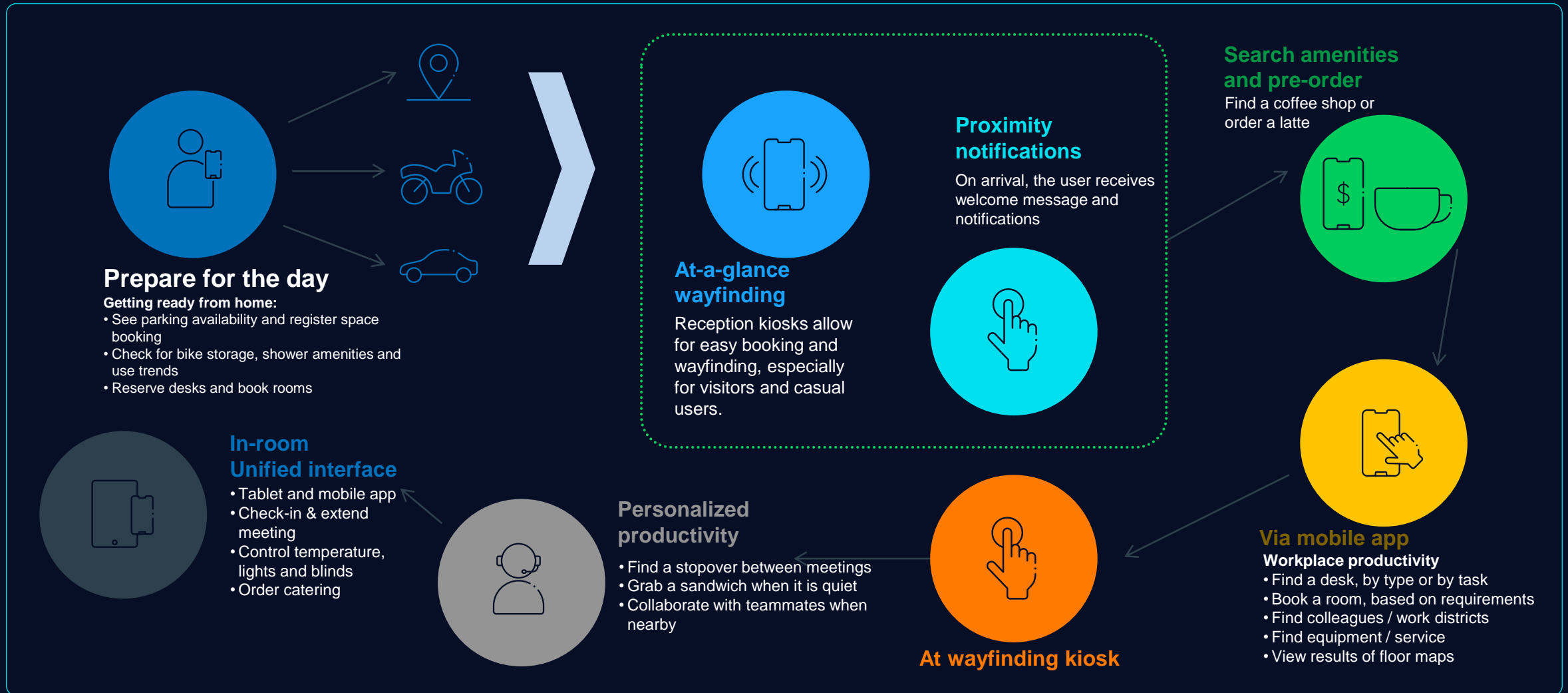
Technology

Define „persona"-blueprints - type of workers-profiles to derive workplace needs

Cost Optimization

Check the potential need of additional technology. At which working place the technology is not supportive enough to have a good interactive working --> enhance and expand. Reduce systems with no or less use in the past

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A typical day of an employee in our new office world

Prepare for the day

Getting ready from home:
- See parking availability and register space booking
- Check for bike storage, shower amenities and use trends
- Reserve desks and book rooms

At-a-glance wayfinding

Reception kiosks allow for easy booking and wayfinding, especially for visitors and casual users.

Proximity notifications

On arrival, the user receives welcome message and notifications

Search amenities and pre-order

Find a coffee shop or order a latte

Via mobile app

Workplace productivity
- Find a desk, by type or by task
- Book a room, based on requirements
- Find colleagues / work districts
- Find equipment / service
- View results of floor maps

At wayfinding kiosk

Personalized productivity
- Find a stopover between meetings
- Grab a sandwich when it is quiet
- Collaborate with teammates when nearby

In-room Unified interface
- Tablet and mobile app
- Check-in & extend meeting
- Control temperature, lights and blinds
- Order catering

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Our prime environmental sustainability aspects

Measure and control - energy
- Smart desk power controller
- Disable wifi when not used
- Usage of low power digital signage

Integration with building automation systems
- Integration of energy control systems with building automation systems
- Coordinate energy-saving measures with lighting, HVAC and security systems

Non-office hours reduction
- Automated shutdown procedures
- Deactivate wifi automatically
- Automatic switch-off of smart desks

React on occupancy
- Smart desk power controller
- Disable wifi when not used
- Switch off lights if not used

Smart desk power controller
- Allow users to control the power supply to their desks
- Enable the scheduling of power outlets based on occupancy or work hours
- Provide real-time energy consumption feedback to users, encouraging responsible energy use

Education and awareness
- Energy monitoring dashboards
- Raise awareness among employees about conscious energy use
- Train employees on the proper use of smart office devices and systems

User-controlled automation
- Allow employees to control the workspace environment through mobile apps and desktop interfaces and save energy
- Provide options for personalized settings to accommodate individual preferences for lighting, temperature, and other factors for human wellbeing

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Visualization in smart office

Provides transparency for daily usage and awareness

Booking and occupancy status
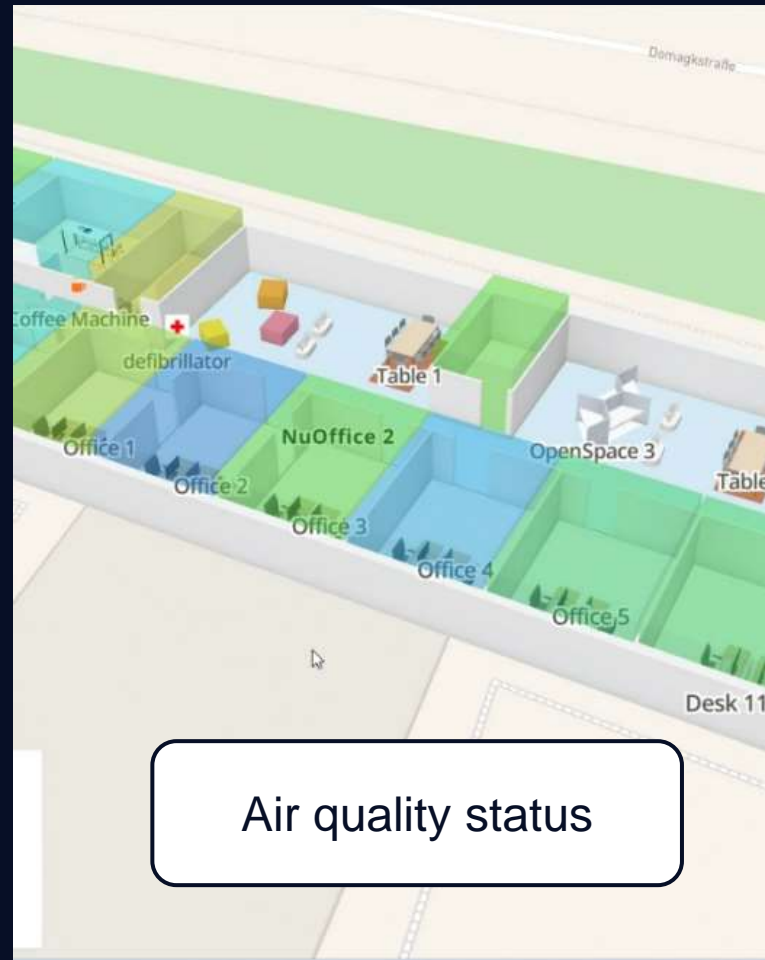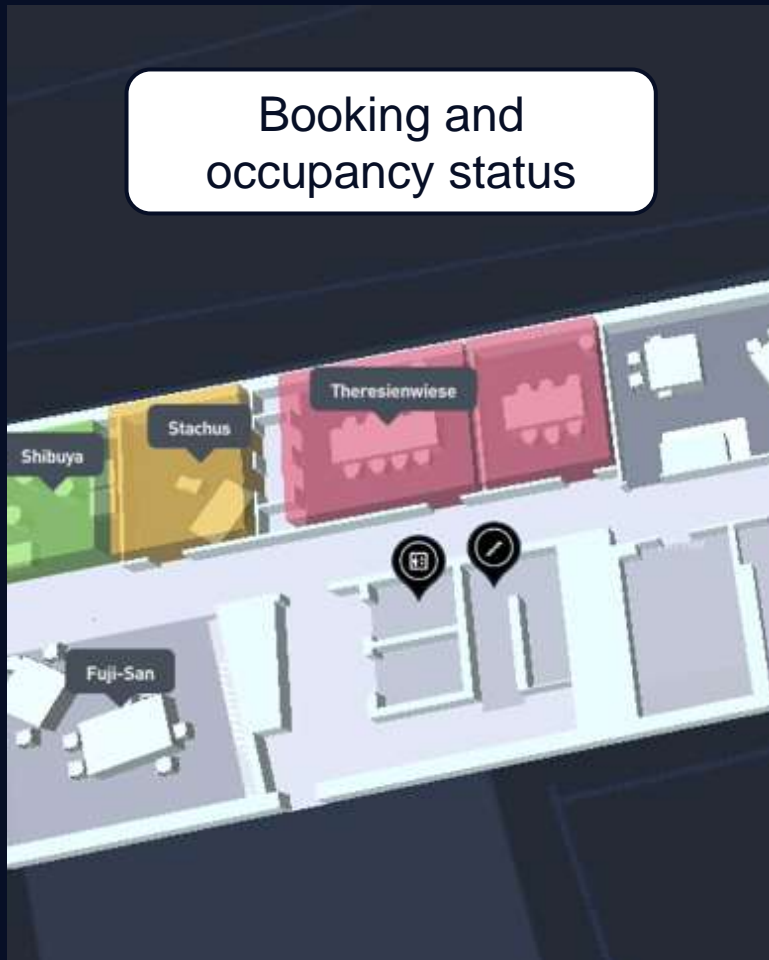
Air quality status

Heatmaps on occupancy

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SMART METER

Electricity Dashboard

TODAY   **MONTH**   YEAR

October 2023

Dashboard
Cost
Usage-by-area
Devices
Emissions
ESG report

POWER CONSUMPTION (AREAS)

POWER CONSUMPTION (OVERALL)

Oct 2023
1.318,2 kWh

POWER CONSUMPTION NIGHT/DAY RATIO

working days

NIGHT   17,4
DAY   28,8

RATIO: 0,6

40%   60%
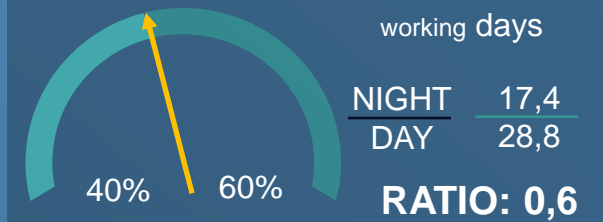
ENERGY INTENSITY

120 m²

0,385 kWh / m²

POWER CONSUMPTION (busy office)

working days 7 to 7
604,8 kWh

POWER CONSUMPTION COMPARISON

1.025   1.318

▲ 28,55%
INCREASE

Oct22   Oct23

CARBON FOOTPRINT

kg CO2
356,57

POWER CONSUMPTION (empty office)

off business times
713,4 kWh

CHANGE IN COST

€20,12

€18,72

▲ 7,48%
INCREASE IN COST

Sep   Oct

How does it feel?

Team spirit

Motivation

Excitement

Change ahead

Satisfaction
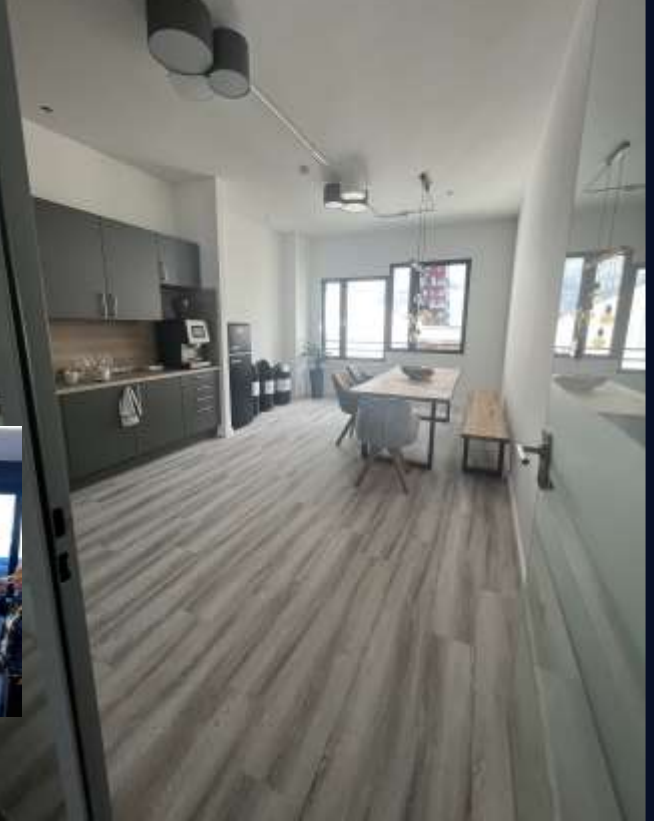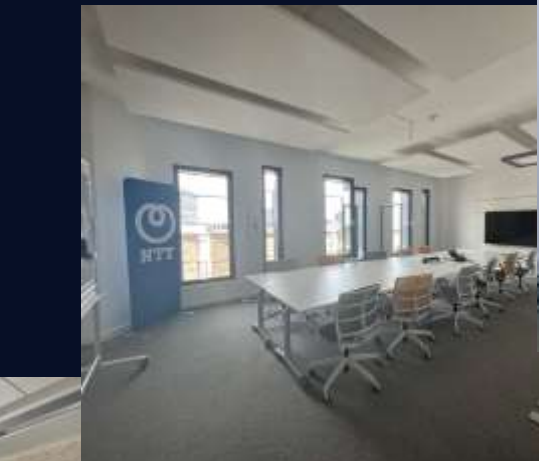
Our future office: perfectly aligned to NTT DATA sustainability priorities

100% revenues from sustainable-by-design services and products in 20xx

Prosperity Positive

Transform businesses and society for successful growth with 100% sustainable services and solutions involving our end-to-end value chain.

Net zero emissions across our operations by 2030, and value chain by 2040

Planet Positive

Lead by example to disrupt industries for good innovating services and solutions to regenerate our planet.

100% of employees' sustainability engagement "acting today"

People Positive

Shape a better world for all, applying our digital capabilities to improve livelihoods and contribute to a diverse, equitable and inclusive society.

✓ **Future of Work**

With our framework we enable maximized performance by providing the presented new ways of working for the purpose of wellbeing for all stakeholders, like employees, partners and customers.

✓ **Net Zero**

Becoming net zero is our company goal. We support that goal with innovative, technical solutions in our framework by monitoring, analyzing and acting in an energy efficient way in our office buildings.

✓ **Digital Connectivity & Community Engagement**

The innovative digital capabilities used in the framework providing equal access to that technology that improve livelihoods. Furthermore, in partnership with our people and communities we enrich the lives of our global citizens.

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Our future smart office framework:
A blueprint for current and future office environments

- Improvement of employee and guest experience, health and safety

- Increasing productivity in a changing world of work

- Energy, cost and resource optimization

- Enabled by NTT core competencies:
  deep understanding of business processes & technology, system integration & connectivity

- Based on the knowledge and for the benefit of our stakeholders:
  Employees, partners and customers

- An innovative, flexible and cross-manufacturer architecture to meet an increasing demand

- Supporting our sustainability agenda: Future of Work, Net Zero and Digital Connectivity

We are #OneNTT.

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Voice of our stakeholders

In the NTT smart office *"a powerful and secure network infrastructure guarantees reliability and capabilities to communicate easy, quick, fast and safely."*

"NTT and Cisco are strategic partners jointly developing solutions for our customers. In NTT's smart office customers can experience these solutions and even how they can benefit."

RÜDIGER WÖLFL

MANAGING DIRECTOR CHANNEL & PARTNERMANAGEMENT, CISCO

What's next?

- Roll-Out to all German offices

- Automation of ESG reporting beginning with electricity metering in German offices

- Further customer demos, opportunities and projects

- Further expansion of the agile working environment

- Integration of the access control system into the IoT landscape

- Estimate market potential "Office-as-a-Service"

- Analysis of the data and derivation of new action areas

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NTT Future Smart Office Framework at a glance

Interested in more information? https://services.global.ntt/about-us/case-studies/ntt-data-in-munich

- Virtual walk –
  new smart office Hamburg

- Virtual walk –
  new smart office Munich

- Occupancy and booking
  Web Site

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