Sam Hughes 0:01
Picture an office. What do you see? Open plan, desks, meeting rooms, maybe a coffee machine. For many, these places were like a second home before the pandemic. No wonder the office layout can have such a big effect on our well-being. That's why great office design is so important. But after months of remote work, we've got to grips with what was great about the office and what wasn't. One thing's for sure: the traditional way of working isn't cutting it. So, what needs to change before we return to normal?

Sam Hughes 0:46
Welcome to The Flow of Urban Life, a podcast by KONE that explores how urbanization and digitalization are transforming the way we live, work, and commute in cities. I'm your host, Sam Hughes. In this episode, we'll imagine what our future offices could look like. What type of work will get done at the office compared to home or other remote options? Will it change how we interact with our colleagues? How will physical spaces change and what role will technology play in the transformation?

Sam Hughes 1:19
In the last year, we've been surprised by how easy the shift to remote work has been. And because it hasn't affected our productivity, some companies are rethinking their office-first work model. But the office is more than a place for productivity. We're missing out on those casual chats with colleagues, spaces to collaborate and innovate in person, or simply having that change of scenery. Amazon Web Services, Accenture, and KONE created a vision for the future office based on new behaviors that could change how we work. Although some of us will continue working remotely, those that do return will need a good reason to justify the commute. I spoke to Etti Seppä from KONE about how companies can use behavioral trends to create transformation. Thanks for joining me today, Etti, how are you?

Etti Seppä 2:08
I'm fine. Thank you. Thank you very much for having me here.

Sam Hughes 2:11
You're welcome. It's a pleasure to have you. Now I'm very interested in speaking with you about your projects at KONE. But before that, could you tell me a little bit about what you do at KONE?

Etti Seppä 2:20
Yeah, sure. So around, I think it's around two years ago, we built a new organization called KONE Worx, and I work there as a business designer. So basically, we're prototyping and searching for new business for KONE. And we do that together with our customers. So, we strongly believe in outside-in innovation. And I'm a really big fan of that as well myself.

Sam Hughes 2:48
Yeah, that sounds great. And what is your typical day-to-day, kind of, include?

Etti Seppä 2:53
Well, obviously, with a customer – where the customer joins us as part of the team, we're hosting different kinds of workshops. But on the other hand, outside-in innovation can be also that you're searching for market signals or how people's behavior is changing.

Sam Hughes 3:10
Now one of the projects you're working on looks at how the office might change in the future. How did you approach that research?

Etti Seppä 3:17
We were approaching different customers that are in the office segment. And we've had interviews together with them. We create hypotheses, and we see whether those are in the right direction or not,

then we correct the course after that. We've created a joint team with one of our office customers as well.

Sam Hughes 3:39
So what are some of these biggest trends that you've seen?

Etti Seppä 3:42
We definitely focus on experience, for example. More than anything, servitization and experience is increasing user demands, and user requirements are increasing – so that that is definitely there in the office business segment. But then there are other ones as well. Then hybrid work is something that has been ongoing for some time already. COVID has accelerated it. But it's not the only reason. So I think COVID kind of just brought it into a bigger, wider audience. But it's been years, this hybrid work trend. And we're talking quite a bit about hub-and-spoke model, for example – which means that you have multiple different locations where you can go and work. Personally, I don't think it's only about the space itself – the physical surroundings – I think it's a mentality. How you manage your work as well. It's a behavioral thing as well. And I think when it comes to companies and organizations, it's about operating models and how you're leading people, and how you're actually then making policies to ensure it's allowed. Because change management and enforcement are needed there. So, I think it's multi-dimensional. Then one really, really interesting topic is sustainability. I think that is going quite across holistically, but especially in the office side.

Sam Hughes 5:22
And when you're talking about hybrid models and servitization, could you maybe go into a bit more detail there about what you're referring to?

Etti Seppä 5:28
Yeah. So we're talking about space-as-a-service, or office-as-a-service or then facility-as-a-service even. Basically, what it means is that you have pay-per-use models – so you're only paying what you're using – or then you have a flat fee for a set of services including the space. This gives predictability for the tenant, but then also new revenue streams for the owner. So it is relatively interesting direction. WeWork has been driving that trend forward, but there's others as well. Regus, for example, has a brand under them who are working in that model. And we've seen that in the biggest cities around the globe – the same trend emerging. But then when we're talking about the facility-level, we're talking about the building-as-a-service. Because an office building can be a single tenant as well; so there is one tenant in the whole building. So, then we're starting to talk about quite a bit of data. And then operational efficiencies and energy savings**.**

Sam Hughes 6:55
Wow, quite a lot of factors there to look into as well.

Etti Seppä 6:58
Yeah, it's super interesting.

Sam Hughes 7:00
Yeah. It's really fascinating stuff. And it's kind of cool these trends that you've noticed during your research. How are you working with your clients to kind of meet those trends?

Etti Seppä 7:09
Well, we create hypothesis' – and we don't do those together – but it's quite a bit of data that we look into, and it's from different sources. So, market studies are something that we are really fond of. And then when we're working together with customers, we need to have the trust between us so that we can share our ideas. It's always a journey to the unknown, so to say, because you have such different perspectives and backgrounds; one word can mean another thing. We're spending quite a bit of time in the beginning to understand what are the problem areas we want to tackle together with our customer before we're jumping into the solution. We human beings have a tendency to jump quite fast into solution because we want to solve the problem. But I think the biggest threat is the fact that you're solving the wrong problem.

Sam Hughes 8:10

So speaking of research and studies and everything, there was one study that found that more than 85% of office workers were dissatisfied with their office. Why do you think that's the case?

Etti Seppä 8:22
Well, I think one of the reasons could be that the space just doesn't respond to the needs. Most of the time the office has been designed without having the people involved who are actually using the space; so that might be something that has been there. Then on the other hand, one aspect is the constant digitalization and technology; technologies are changing, updating, and getting old faster than ever – and then the integrations and everything for the technologies and the space itself – so kind of combining the physical and digital together. I think there is some lack there within the market. The change is increasing even. It might be that there are plugs everywhere, or cables and so forth – but actually you've just glued the digital elements on top of the physical office space, which is then affecting the user experience. Then on the other hand, the space should adapt to the user, and not the other way around. So, a person should not search for a space that fits their need – it should go the other way around. And that is expected as well. It's a hard equation to solve. Then I think it's also the fact that users really need to lead themselves as well. There is no space that can make you focus if you don't focus in your own head. It's really becoming clear now during COVID, when people have been at their homes, that they really need to learn to lead themselves and their work.

Sam Hughes 10:17
Yeah, definitely. Everyone's got a very different view of the office or workspace in general now. Whereas before it was just kind of like a desk that you went to, and had to go there, and you had that pressure of having to be in the office – you just had to deal with it because it's your job. But now, there's so many things. How has COVID changed our attitude towards the office?

Etti Seppä 10:43
There was a peak in the beginning that 'this is excellent'. First it was a little uncomfortable, like 'what's going to happen' – and there was quite a bit of fear. But then it picked up in a way, like 'this is great, I can work wherever'. And then comes to little slope when you start to understand that you're missing your colleagues and the meaningful encounters that you had with your colleagues, and the coffee breaks. Then, if I give my opinion, when you're working in an innovation function – collaboration is actually part of the piece that I really like – then you start to understand that it might affect the productivity. There are multiple different dimensions there, but all in all, the hybrid work trend seems to stay. So, it will have different kinds of forms and applications, not technology applications, but companies will enforce it in a different levels. So, some kind of a policy adjustment will be coming to the companies. All in all, I think the hybrid work trend is here to stay.

Sam Hughes 12:04
Yeah. And when everyone goes back, it's going to be completely different. Their attitude will be different once we've made it through this.

Etti Seppä 12:11
Yeah, yeah. And then I think that people are actually really looking forward to going back to the office as well – not necessarily five days a week – but when they do go there, it might be that they're expecting the whole office space is of more high quality – that it suits to their need. They're demanding more from it when they actually go there.

Sam Hughes 12:36
And it becomes like a different 'being' to them, for lack of a different word. Because whereas before it had a kind of hold over you – like, 'I can't stay home for packages, because I've got to be at work', or 'I can't do this because I've got to be at work' – now the workspace has become this flexible entity. Like, 'I need to stay home for this', or 'I have an appointment near home at this time, so I'll just work from home', or 'I'll work a half-day in the office'. And there's a different perspective completely on the workspace now.

Etti Seppä 13:05
If we take another perspective, which is then the company perspective, some companies want people to get back to the office. Some are saying that it's okay to work from home or wherever, in the future as well. But it's strongly stated that a certain type of a space is a cultural temple for companies. So, it

is easier to build this company image culture, and the community inside the company, when you have some physical space where the where this can happen and flourish.

Sam Hughes 13:48
And the office, as you said, is a space for collaboration and connection as well as focused work. Now, KONE, AWS, and Accenture believe we need to redesign office spaces to be more flexible and responsive. How could this boost productivity?

Etti Seppä 14:06
Wellness is a key thing and it's driven for like lights that we have, or then different kinds of digital solutions that we have there in place. But then when it comes to light; there is natural light and then there is artificial light; and in every research it is stated that those are key things that are affecting the productivity. I think that has become up quite clear when you're working from home. The ergonomics are an example – so on what kind of level are those there versus the office space? I was referring to this higher quality office expectation – that will be something that that would rise. And when it comes to responsiveness, there might be personal settings that you can apply to the environment. Let's put it this way; you have a meeting room, and you can change the theme of the meeting room based on what kind of meeting you're having there. The office recognizes that it's me who's coming there and greets me or knows about my behavioral habits already. So, it's kind of predictive rather than reactive.

Sam Hughes 15:31
Yeah, well, that makes sense. You know, that's amazing stuff. To have this customizable and adaptable office space – it's kind of a nice new way of looking at the office. And you no longer just buy machines that suit a purpose within the office, or you don't adapt to the office space, the office space adapts to you. Everyone knows the hassle of trying to set up a meeting room and someone else has had it set up completely differently. And you go in, and they've turned this input off, unplugged that, and then you must redo it. To have this meeting room that's like, 'Welcome, Sam. I've now hooked up all the presets that you had last time – I assumed you're doing a similar presentation', you know?

Sam Hughes 16:11
One of the ideas that came from the collaboration between KONE, AWS, and Accenture that we mentioned before, was this concept that you touched on already, which is the office-as-a-service. Can you explain a bit more about what this means?

Etti Seppä 16:26
So, office-as-a-service is when you're bundling different services for a tenant, for example, it's easier for them to buy it – whether it's a building owner or operator. Normally there are quite a bit of different services that you need to make different contracts with. So more than anything like contractual efficiency and convenience towards the tenant. But then there might be just the one person who wants to go to an office space. Then we're talking about this hot desking – so pay-per-use-model – you're stepping into the space, once a week or whatnot. But the pay-per-use model is something that is relatively common. And again, using what only what you need and not paying anything extra for the rest. Then when it comes to the building owners – we looked at the user perspective and then the tenants – so now if we look at the building owner perspective; obviously you can reach other types of tenants than what you're used to. So, you're able to get access to startups that you wouldn't earlier, if you had fairly big office rentals earlier. And then you secure new revenue streams as well because you can bundle different services inside. So, you're not only actually talking about the physical space, but you're also talking about collection of different services – including the space.

Sam Hughes 18:05
So in terms of the key benefits for building owners and tenants, what would you say those are?

Etti Seppä 18:10
I think it's really the convenience what you're actually buying – the contract to our side. That is fundamental there – you don't have to make multiple different agreements with different providers. There is a cost-efficiency point of view there as well. I think for tenants, predicting costs is something that is fundamental. And then also flexibility in the contract or terms – so the fact that you don't have to make a one-year agreement, but you can actually then have two months' notice and get out.

Sam Hughes 18:54

And I'm just curious now – because I'm thinking that all this is really cool and really forward thinking and all this innovation in the office space is really good – but commercial buildings in the States (and I know for a fact back home in England we have a ton of old buildings as well), but in the US they are an average around 50 years old; how can the older buildings keep pace with the need for change?

Etti Seppä 19:16
Hmm, there is an upgrading and modernization trend around the globe at the moment. Basically, it's that you want to make your building and property as attractive as possible. So, investors and owners are looking for a return-on-investment to attract tenants to their buildings. If it's an older building surrounded by plenty of new ones, then obviously you need to differentiate. So, you need to make sure that you're upgrading so that you're responding to the future needs and keeping up the existing tenants, but also attracting new ones.

Sam Hughes 20:06
Before I let you go, this has been an amazing conversation. But I have one more question that I want to put to you. What are you most excited about in the future with regards to the future of the office space?

Etti Seppä 20:18
Being out there and seeing how things change! That's why I'm in the innovation function – I want to understand what might happen in the future. And when it happens, for me, it's little old already. So, when it comes to life, I'm like, 'okay, I already saw something like this happening' – so I'm already on the next one.

Sam Hughes 20:48
Next, I spoke to Mahwesh Khan, a Research Associate at the Institute for Management Development in Switzerland. She's been looking at how design and technology can make tomorrow's office more effective as social learning and innovation spaces.

Sam Hughes 21:07
It's a pleasure to have you. Now, just for the benefit of our listeners, could you introduce yourself and tell us a bit about IMD?

Mahwesh Khan 21:15
So my name is my Mahwesh Khan. I'm currently working at IMD as a Research Associate. IMD is the Institute of Management Development and is an independent academic institution here in Lucerne, Switzerland. At IMD, we work towards developing business leaders who can transform organizations and contribute to society.

Sam Hughes 21:40
I'm just curious, what is your typical day-to-day like?

Mahwesh Khan 21:45
No two days are similar. Some days, it's a lot of work. Just studying and looking at, you know, different research projects going on either within our own institution or around areas of interest. So, it's a lot of work that I do on my own; upgrading or upskilling myself on a daily basis. Other days, it means working on IMD's advisory clients and working on projects where you really roll up your sleeves and work together to challenge and co-create with organizations that come to IMD for support in their transformation agendas.

Sam Hughes 22:36
So the pandemic has changed a lot of things about the way we work. We've learned we can get most things done at home. But there are some things that we are actually missing out on. What would you say those are?

Mahwesh Khan 22:46
I think in answering that you force me to go back to last year March, where I remember I was in my office where I received a text message from my children's school saying that, as of this afternoon, we're sending back your kids home with their school bags with all of their books, and we hope to open in six weeks. But you know, this is a pandemic situation, and we don't know. And within that one hour,

you know, there was curiosity, there was a slight bit of panic. And when I reached out to my other colleagues, I was physically in the IMD building. And my other colleagues said, yeah, we heard the same. We're based in Lucerne, so we've got some big corporate head offices like Nespresso, Nestlé, the International Olympic Committee – so we were hearing from all of these organizations that they are mandating several work-from-home policies or restrictions on travel and such things. So, it was a bit chaotic. But what was very surprising is that the switch to remote working, that happened almost overnight, followed with a pleasant surprise. And the surprise was that the work continued as normal. However, I was working at that time with Professor John Weeks on a project pre-pandemic. And we started talking about the fact that there has to be more to this seemingly smooth transition. We were nudged by John's ex-colleague Anne-Laure Fayard, who is now an Associate Professor at NYU Tandon School of Engineering. We started talking to various organizations to different individuals to find out what was missing. And that's how we got ourselves into months of research over the pandemic summer of 2020, where we talked to organizations, we talk to individuals about what going remote meant. And what we discovered, in summary were three core areas: that being physically present in an office space really nurtures our relationship, collaboration and learning. And as a result of that research, we recently published our article in Harvard Business Review's March-April edition this year. And the article essentially shows that the role of the office of the future would be to foster social connections built by a culture of learning, enabling serendipitous encounters, by combining various design elements, technology elements and a different management mindset. Because we have demonstrated that the act of doing your daily tasks can be done from anywhere, basically. But there are these other tacit, non-material elements which can't be touched, or which can't be physically moved from one place to another – but which are really present all around us in what we call our workplace. Rather than being just a workplace – a desk and a chair – the office will need to evolve to be a culture space, where you can utilize all these non-tangible factors into achieving organizational objectives.

Sam Hughes 26:44
Definitely, and I'm sure a lot of people listening out there are relating quite strongly. I've spoken to many people throughout the pandemic, and whether you prefer working at home or not, you notice the lack of interaction you have with colleagues in the same way. And just those little moments of conversations in the corridor and meetings in person make a massive difference. So, it's interesting to see how the world is evolving to adapt to this, because obviously the technology was there, but are we there? It's quite fascinating to see how we've kind of dealt with the whole thing from that perspective.

Mahwesh Khan 27:19
Very true.

Sam Hughes 27:20
And it also means that some companies are considering a remote-first office policy. But as we've just discussed, there are pros and cons to this. What would you say those are?

Mahwesh Khan 27:32
If we just take a step back and think about the world pre-COVID-19; the concept of the all-remote office is not very new. There were companies, particularly tech companies that had very successfully tried to work on this model of all-remote. We do know of several companies that were able to successfully implement the concept. We also know about companies like Yahoo that had to roll back their work from home program. So, you're absolutely right, there are there are pros and cons. And I think a lot depends on the nature of the industry and what kind of objectives the organization is trying to achieve. If you don't have very intentional systems built-in to provide and nurture those collaboration moments, those moments of building trust within teams – then probably 100% remote might not work as efficiently as we've seen it to work. I'll give you an example of a company called Automattic, which owns WordPress and Tumblr. They're fully 100% remote company. But even on their website, they say that they bring the whole Automattic community together at least once a year for about seven days. And the core purpose of that is those face-to-face interactions is what enables them to work very well remotely. Because those bonds, those relationships are in place, and, you know, these kinds of interactions foster trust. So, you asked me about what effect being 100% remote office could have on employees? It could be positive or negative depending on who, what personal preference, organizational objectives etc. – but the one thing that I think is consistent is that you do have to build in these moments that foster collaboration and learning. Because there's a lot that we

learn from each other in an unstructured way – in a way we don't even realize we are learning, particularly for more junior employees or newer people in an organization. So, you don't want all of that to go missing if you do choose to be 100% remote.

Sam Hughes 30:15
You made me think, especially for those of us who went home during the pandemic and stayed working where we are; we built those relationships beforehand. And speaking of those inadvert conversations, some managers think that chatting by the coffee machine etc. is unproductive, and it's wasted work time. But your research suggests otherwise, is that correct? Could you tell me a bit more about that?

Mahwesh Khan 30:39
Sure. You see, if the office is only about having a desk and a chair and a computer, most of us have that at our homes. Now, with a good Wi-Fi connection, you're good to go. If the office is just about a quiet spot to get focused work done, most recent surveys have suggested that that kind of work is better done at the privacy of one's own home, café, or whatever. However, when it comes to those serendipitous encounters, that that fireside chat environment that, 'Oh, can I ask you a question because you're more senior, you've been in this organization longer', when it comes to that transfer of tacit knowledge and an immersion in the culture of an organization of how things are done here, then it's harder to do remotely. This is where we can rethink what the purpose of the offices is. If all of the stuff that is quiet work, or meetings, or very focused work is better done outside the office, then the need for the office is to evolve into some sort of a social space – a place where you can be immersed in the culture of the organization, where you can develop the joint culture, where you can be aligned on a shared vision between the employees and the organization. That will require perhaps changes in terms of the physical design of the office, but also changes in the mindset of how you want to manage the organization. So those organizational changes are key to the question you ask; you don't want to be viewed as being lazy or unproductive if you know your manager crosses you twice and you're still chatting by the coffee machine, right? That's the mindset. But if the management walks the talk, if you're explicitly and intentionally told that 'guys, the whole objective of us coming to the office is so that we spark interesting conversations, have good ideas, perhaps innovate – and it's absolutely fine for you to do that in little alcoves or coffee areas or the water cooler', then it becomes very easy for offices to transform into those hubs of activity which cannot happen when everyone is remote. And I would say, the design the physical infrastructure and design of the office, as well as how people are managed – it just goes hand in hand. It has to.

Sam Hughes 33:31
Yeah, the whole system has changed, pretty much. And speaking of you did mention the physical layout even has a dramatic effect on how people will interact. How does that change productivity and wellbeing?

Mahwesh Khan 33:46
So, this is an interesting area where we have noticed an accelerated focus and attention in the recent past, of course, accelerated by COVID-19. Creating spaces, and most often with the help of technology, that allow for fluidity in working at the office or remotely is going to be extremely important going forward. And of course, technology is a big, big factor; whether you can access files, security, praise, privacy – all of those things kind of come together to make it a system that enables that fluidity. Waking up in the morning and deciding whether or not you want to go into work? Which probably was unthinkable even three or four years ago, particularly before the pandemic. Now, because all you need is a good laptop and perhaps a good internet connection, and in most cases teams are good to go – at least the knowledge workers. But this fluidity also means that rather than optimizing the physical space of an office to fit as many employees as possible, the office floor plans need to be reconsidered. They have to be intentionally designed to encourage collaboration so that when you do go into the office, you're not stuck at your desk still doing Zoom meetings for five hours out of eight. There has to be something more. If you want to bring back your employees to the office and allow them to benefit from the physical office, then you have to give them the space that's required to do the job. Because if the office is still doing what your work desk at home is doing then what's point? So, I think the physical layout of the office does have an impact on productivity and well-being. Plus, humans are embodied creatures, right? We still like that contact. We speak with our tongues but there's a whole lot of body language that goes around all right. There's a lot of research

around neuroscience and what makes people trust each other, or like each other, or teams really click and there is something to be said about physical proximity.

Sam Hughes 36:18
For sure. It sounds obvious when you say out loud, but people don't often realize how much things like proximity and how often you see someone. And all those sorts of interactions add up to building relationships and building trust. You know, they take that for granted I think sometimes. Now as part of your research, you've been studying the Olympic House; can you walk me through the design of this building – what it is and how they've changed how it works?

Mahwesh Khan 36:46
The IOC is a super interesting example. IOC is the International Olympic Committee. Lucerne is where they're headquartered. For many decades, they were housed in four different buildings scattered throughout the city. So about two decades ago, around 2012, they decided that they needed to (this is even before anyone had heard of COVID, or would have imagined something like COVID), the IOC management made the decision to create a state-of-the-art head office that was that was really a physical manifestation of the organization's overarching mission: to make the world a better place through sport. Olympic stands for diversity, it stands for peace and progress. So, the design of the Olympic house actually revolves around those elements such as integration, flexibility, collaboration, sustainability – particularly. And so, in 2019, 500 employees -who were like I said, spread all across Lucerne – got for the first time to be together under one roof. And in addition to bringing everyone under one roof, the IOC President Thomas Bach is quoted as saying they wanted to create more than just an office building, the intent was for this head office to demonstrate through its design the elements of sustainability, credibility, transparency, and youth. And they achieved that. Because the building has the as minimum pillars as possible. One of the individuals we interviewed there who was very involved in designing this building said that the only thing we knew was that the future of work was uncertain. In 2012, we couldn't really imagine what the future of work would be. And so we wanted to give ourselves as much flexibility as possible. So, you know, the building itself, even today can be curated into different spaces in different ways, according to need. And so those kinds of design elements, at a subconscious level, really impact people – whether they're employees, or your clients, or extended stakeholders; it impacts how they view the organization. So, a lot of that organizational identity and sense of purpose comes in through these physical spaces. Also, again, going back to neuroscience; what we're told or what we say is one thing, but the environment in which we operate has an influence on the kinds of decisions we'll make or the kinds of work that we will do. And I think the IOC was able to really manifest that very well. The building is one of the most sustainable buildings in the world. And when we talk to people at the IOC, it was a marked difference in morale and how they view themselves as employees, how they view their own organization. And it wasn't just the design, it was also about what technology to use - making sure no matter which location in the building you are, you have access to Wi-Fi, or making sure there were in sitting areas around big communal spaces. So, you want to be out there in the kind of semi-public areas, but you also want to have some privacy to have a conversation between two or three colleagues. So it worked very well for them.

Sam Hughes 40:36
That sounds amazing. Can I go work there now? That sounds like the perfect building to work.

Mahwesh Khan 40:41
But there you go. You see? That is one of the unique selling propositions! I think when the war for talent starts, the employee experience is something that's really picking up as one of those core factors that organizations must think about.

Sam Hughes 41:05
And it sounds like there was a lot of innovation and intuition from the IOC there, because like you say they had it in place before COVID. So, they obviously knew that this was sort of the way forward for the working environment.

Mahwesh Khan 41:18
I think what kept them on task was their humility in acknowledging that the future is unknown. And doing the right thing. So, it's a building that really takes the energy consumption into account. It's a

building that takes water consumption into consideration. There are areas to recharge your electric vehicles.

Sam Hughes 41:44
So you mentioned the technology earlier. Apart from the obvious ways, like the internet and everything else and the connectivity; how can technology help us build better spaces?

Mahwesh Khan 41:54
I think before I go in and answer your question, myself and my co-authors talked a lot about technology before writing about it. It could be misused. It could be used as a surveillance tool. Knowledge workers increasingly work best when they have very clear objectives. Or when they are well aligned with organizational objectives. And also, if there is an inherent trust – not only between the organization and its employees, but also amongst team members between subordinates and management. So, putting all of that out there, is for me personally super important. Because when we say technology, we don't say surveillance. As the pandemic spreads for longer and longer, there are quite a few novel solutions in which you can configure – temporarily or permanently or iterate at least- to try and see how the flow of the office would work best. We also interviewed another European based company which had initially said, 'okay, teams that work together come two days a week, and then other teams come in two days a week', (this is again last summer), just to maintain social distancing rules – and by the end of it, there was a reduced a reduction in productivity. Because it turns out that although you're not always working together, you're leveraging a lot of institutional knowledge and tacit knowledge from people in the periphery that you don't always work with on a daily basis, but we're there to support I mean – that's the whole purpose of organizations. We have all sorts to deliver on an objective. So yeah, there is definitely an increased use of these technological tools. Companies are coming up with quite innovative products. There are there are concerns about privacy. And I think as long as organizations can address those, we will see some very interesting outcomes.

Sam Hughes 44:08
Yeah, I have to say I for one am very excited to see what kind of technology people develop based on all this. So, I have to say it's been an absolutely fascinating conversation today Mahwesh. Thanks for joining me today.

Mahwesh Khan 44:21
Thank you very much, Sam. It was a pleasure to be here.

Sam Hughes 44:27
Technology can improve the way we use offices and help us create more personalized experiences. It's something we're sure to see more of too, especially as offices become smarter. But what if we took the smart office a step further? I spoke to architect Torben Østergaard about Cube Berlin – Europe's smartest multitenant office building.

Sam Hughes 44:54
It's a pleasure to have you with us today. So just for the benefit of our listeners, could you tell me a bit more about yourself? What you do at 3XN?

Torben Østergaard 45:01
I've been with 3XN since the mid-90s, when I was still a young man – I still am. And now I'm a partner at 3XN. So, we're meeting today to talk about the Cube in Berlin. It's located just in front of the main railway station, in front of the German chancellor's office.

Sam Hughes 45:22
How were you involved in the design of Cube Berlin?

Sam Hughes 45:26
Cube Berlin has a long story with us. Initially, we participated in a competition more than 10 years ago, for a building on the prominent side in Berlin. That building was aimed to be the headquarters for the Deutsche Bahn, which is the German railway system. And we won the competition. Luckily, we worked on it for a year or so and then the process stopped. And the process or the project was lying still for some years. So, when we picked it up again in 2015, with the client on board (the same client),

we had the opportunity to explore a gradually emerging context. When you arrive in Berlin, by train, and now also by air, most people would actually use the main railway station as a gateway to enter Berlin. And when you exit the building, you will actually see the Cube and the Chancellor's offices lurking in the background across the River Spree. Basically, millions of people passing by on a yearly basis.

Sam Hughes 46:34
Yeah. Well, it sounds like a very impressive building. What kind of tenants are there at the moment? Who are the tenants working in that building?

Torben Østergaard 46:42
It's a commercial – a multi-tenant building. I believe there are five or six tenants. So, there was a law firm, there are consultancies and even a software developer. The initial super user for our first design, Deutsche Bahn, is also there – they took three floors. And at street level, there is a food operation – like a food court, if you like. So, our hope is that when corona is over, people would start attacking the offerings and sit outside and enjoy good weather – or bad weather. So that's very important for the building- the street level thought is, or ground floor is, is the most important floor for this building.

Sam Hughes 47:35
And speaking of the kind of floors and the layouts; Cube Berlin has activity-based workstations and dynamic office layouts – what inspired this?

Torben Østergaard 47:44
We see every building, every project, as a chance to create social activity and create engaging spaces for people to explore. There's a growing understanding of how people would ideally want to work. We're not just dealing with square meters. But we're dealing with a set of facilities that can help people achieve their individual and collective goals.

Sam Hughes 48:13
Now, technology plays quite a large role in the Cube Berlin. What smart features might someone encounter as they move through that space?

Torben Østergaard 48:22
It's a thing going on now: what can digitization offer buildings? And for an owner of hundreds or thousands of square meters, that question that also pops ups. Is there something we can do smarter? Can we do a smarter energy flow in our buildings? Is there something we can do with facilities management? Can we make our buildings safer? What kind of features can we offer our tenants so that their everyday becomes more playful and effective? If we can create a building that embraces digitization in such a way that the users feel it's a benefit to them, then there's a better chance that it's going to be a success. I would say in that respect, it can be quite a battlefield.

Sam Hughes 49:21
Yeah, I can imagine.

Torben Østergaard 49:22
Because the more the more properties you build into something, the risk was that we'd be turned into a gadget heaven. And that was what we wanted to avoid. So you could say that the first thing you would encounter when you get inside the Cube, is that it should look as a perfectly wonderful normal – and is not overloaded with all kinds of gadgets. The benefit is that as a user or a visitor, you can get around the building using your own phone. So, the idea was not to introduce a new gadget, but to use your phone as your main device for communicating with the building. And we wanted as much technology to be hidden. It's not what you see. But you should, as a user, feel the benefits of a building that you can communicate with. And that helps you to have a better every day. Currently, the things can be done in a smart building are things like access control, lift control, the way that doors open, the way you can control the climate in your room, how you book a room, find something or even someone – those are things that are commonly discussed. And then we run into the issue of data security, and things like that. And those are discussed heavily within digitization of buildings.

Sam Hughes 49:22

Right, yes. Well it's discussed heavily everywhere. I can only imagine in this sort of scenario where hundreds, if not more, people are coming through – it's even more of a challenge.

Torben Østergaard 51:11
The main thing about digitization of buildings, is to actually provide a system that is 'a system'. Ten or fifteen years ago, we also did office-type buildings that were fully digitized. Only all these systems they ran in parallel. So, you'd have an access control system, you would have a room booking system, you would have a climate control system, you would have a lift operation system – you would have all kinds of systems that would run in parallel. The trick with the Cube is that all these systems, otherwise running in parallel, are connected in one server. That's called 'the brain'. And the idea is to make a system, which is 'platform thinking' – it's a building that has a platform, where you can generate data based on the user's interface with the building. Or with the operation of the building, where the energy flows in the building, with the number of people that enter the building, the lift operation system, and so on. It's a system that can generate data. And this data can be used to monitor the operation of the building. And I'll be saying the dangerous word: machine learning. Because what it does is gather data from its users and processes these data. So, you can actually learn in what way the building is used on an everyday basis? Where do people spend most time? How often do they use the lift? Are there areas in the building that are underused? Are there areas in the building that nobody uses? Other meeting rooms that nobody cares to spend time in? And then you can start exploring all this, in many ways. Cube is an experiment – a German paper titled 'the cleverest building in Europe'. And it's super. It does all kinds of tricks with you. It recognizes your voice and all that. Yeah, it's very advanced – that if it only did. But the most important thing about the Cube is the way that the infrastructure and the interface between this infrastructure and the user has been conceived. So it's a platform, and it talks to you via an app. And to make this happen in a building is quite an achievement. Cube opened in February 2020 – and guess what? Ever since, we've been working from home - in our gardens, in our kitchens – and we haven't really seen what the digitization of Cube can actually do for us.

Sam Hughes 54:19
Yeah, it's very unfortunate timing indeed. But there's still an exciting opportunity for the future when we return back to the office. And it sounds amazing. Like you say, it doesn't do anything as you go in, but it's more of a building you interface with. And it sounds very, very complex. I can imagine there are some major challenges when building an office like this – and building offices in general. How do you tackle those challenges – and what are they when building offices that are fit for the future of work?

Torben Østergaard 54:52
That's a wonderful question. Thank you.

Sam Hughes 54:54
You're very welcome. I look very much I very much look forward to this answer. It's going to be fascinating.

Torben Østergaard 55:01
It's just a question of. So how far do you want to go? And you can say, there are technical challenges, but there are there are legal challenges. And I would say, of all those – the legal challenges are probably the most difficult ones to look at in a qualified way. Because the GDPR regulations – the new EU thing – is putting quite hard restrictions on what kind of data you can gather and how you process them where you store them. Consent, confidentiality etc. And I think it's perfectly sane. It's quite a good idea. I think we need all that. But in our minds, there's also no real question 'if we should digitize our buildings?' – because if you don't, we will miss some opportunities to be developing more effective buildings. We're looking at not square meters but the number of workspaces. And not only a desk and a computer, but smarter workspaces where you can you look at the offerings – what do people actually need to work? And in the end, office layouts will be a function of the activities – and then we're back at the activity-based design. There is no way around that. Of course, you need to look at what people do when they work. If you don't, it will be very hard for you to design anything.

Sam Hughes 56:33

Oh, yeah. Because you need to know how they're going to use the space for a start. And so we've spoken about the people that you design these buildings and workspaces for. But of course, we also need to consider the environment more these days. How is Cube Berlin designed to be sustainable?

Torben Østergaard 56:51
Well, even without digitization Cube is – in terms of energy consumption – a very, very effective building. We want to get away from the point that we do buildings that are twice as big as we actually need them to be. And digitization can help us to understand our behavior in space. There is no reason to clean a toilet if it's not being used for two days. So by focusing on people, and the flow of people and their needs, we think there's a good chance we can make the world a better place. Obviously, there is no reason to have the ventilation system running at full speed if nobody is in the space. The light is the same. So it will enable maybe some more sophisticated choices.

Sam Hughes 57:44
Yeah, and it's kind of interesting, when you think about it, how much waste of electricity and many other things are going on purely because we just sort everything. Like you were saying with the cleaning: we just clean all of the rooms, we clean every toilet, all the lights are usually quite on. I'd love to see the difference before and after – you know? Like, 'okay, so this was your office before you incorporated smart solutions and this is your office afterwards' and look at how much you're saving and doing better for the environment.

Torben Østergaard   58:14
I think one of the interesting points on digitization is not that it only happens in new buildings. We're expanding the built mass by 1% or 0.5% per year. So, the remaining 99% also needs an upgrade. And that that is also one of the reasons why this particular client chose to embark on this. Because the more we learn how to master and actually use digitization as means of creating a better interface between the user and the building, and also to be able to monitor buildings, how they're used, and to make them more effective – as long as you do sustainable buildings where resources are harvested in a mindful way and you digitize buildings, then you're on the right track. We think it's just super wonderfully important that we do all this without sacrificing our need for beautiful buildings, socially interactive spaces, spaces that allow s you to negotiate your way around the way that you work. And we should remain focused as architects and designers and clients, om doing buildings that potentially could live for 100 years, or even more.

Sam Hughes 59:45
I have to say Torben, it's been an absolute pleasure speaking with you today and talking to you about Cube Berlin and everything else. It's been such an interesting conversation.

Torben Østergaard 59:54
Same here, thanks Sam.

Sam Hughes 59:57
Remote work has become the norm – but the office is far from over. Now's the perfect time to rethink how we've done things in the past. So where to from here? We can make progress by retrofitting old buildings and using smart innovations in new ones. As we heard from Torben, there's still plenty of work to do, but we're getting there. Now's the time for businesses, developers, architects, and engineers to act now to bring about meaningful change. Reimagining the office through design and technology can help us choose what makes better sense. And by creating more purposeful spaces, companies can justify the commute to work and support return to the office.

Sam Hughes 1:00:46
Hey everyone, this is Sam. Thanks for listening to The Flow of Urban Life - a podcast produced by KONE. I hope you enjoyed this episode. Be the first to listen to the next episode in this series and subscribe to The Flow of Urban Life wherever you listen to your podcasts.