Shaping the future of Real Estate
Smart Buildings

Legal framework conditions and risks
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Smart buildings lead the way into the future for all asset classes

Digitalisation has reached all areas of our lives and it is has become hard to imagine our private or professional environments without it. Not only does it shape the way in which we work. Digitalisation has also become increasingly important in the building sector in the context of “smart buildings” and is equally relevant for all asset classes.

These buildings are characterised by an interconnection between individual building technology components which enables automatically optimised building control functions in combination with the option to intervene externally in order to increase energy efficiency, comfort and/or the user experience.

Which are the drivers of building digitalisation?

This development is driven by various factors. While traditionally digitalisation efforts focussed on increasing building comfort and wellbeing, the field of “smart buildings” currently experiences a renaissance due to the necessity to reduce CO2 emissions in order to comply with the ambitious climate targets of the European Union (“European Green Deal”) and of the German federal government. The German Climate Protection Act (Klimaschutzgesetz, KSG) aims to achieve a 65% decrease in emissions in Germany by 2030 and climate neutrality by 2045.

Especially the building sector has a large footprint with approx. 40% of the Germany-wide CO2 emissions, but at the same time also has a significant reduction potential. Smart buildings can make an essential contribution to the CO2 reduction of buildings. Astonishing reduction potentials can be realised especially if smart building components are combined with the products of the numerous PropTechs which work in this area.

In addition, a further driver of building digitalisation is the increased use of assistance systems in the care sector which are intended to help elderly or care-dependent persons to live independently, safely and comfortably. Furthermore, the digital registration and analysis of visitor flows is a significant factor, especially in the area of retail, in order to positively influence the sales figures of entire shopping centres, specialist stores or shop units with the help of smart building components.

| Investments in innovation and digitalisation as a percentage of the annual turnover |
|---|---|---|---|---|
| Owners and investors | Planners and developers | Managers | Facility management service providers |
| 20% | 34% | 19% | 27% |
| 15% | 48% | 22% | 15% |
| 21% | 42% | 26% | 11% |
| 22% | 34% | 22% | 22% |

Source: Digital Real Estate Index 2022 (DRE-i), pom+
97% of corporate executives state that the pandemic has accelerated their digital transformation.

63% of businesses state that the complexity of technology and related laws makes it challenging to assess their risk and liability.

Only 15% of businesses are “very confident” that they will anticipate upcoming changes in legislation at an early stage.

Download the study here
Increasing complexity of the legal framework conditions

Even though there are no direct statutory obligations to construct smart buildings, the array of legal requirements which make it appear recommendable or financially reasonable to construct or upgrade buildings with smart components is becoming increasingly dense.

**Building certification systems**
For example, the highest standards of the relevant building certification systems (LEED, Breeam, DGNB) have become almost impossible to achieve without smart technologies. A certain digitalisation standard is therefore a vital value-creating factor in the marketing of the respective buildings.

**EU Taxonomy Regulation**
This development is further promoted by the fact that the Taxonomy Regulation of the European Union, in connection with its delegated acts of law, now gave the “installation, maintenance and repair of devices for the measurement, regulation and control of the overall energy efficiency of buildings” the status of an economic activity which significantly contributes to climate protection. We have thus been provided with a uniform standard for sustainable management in connection with “smart buildings”. This has already prompted real estate funds in particular to increase their focus on this issue in order to be able to market their funds as “green” or “ESG compliant”.

**“Green leases”**
“Green leases”, which have become quite common, also often include provisions which oblige the contractual parties to exchange consumption data of the properties and to optimise the user behaviour accordingly. This would be almost impossible without the respective data basis provided by a smart building infrastructure.

**Act for the Allocation of Carbon Dioxide Costs**
In addition to these indirect legal incentives, purely financial considerations will also bring “smart buildings” into the spotlight in the future. On 25 May 2022, the German federal government agreed upon the draft of an Act for the Allocation of Carbon Dioxide Costs (CO2KostAufG). The draft provides for an allocation of the CO2 costs incurred in connection with the heat supply for a building between tenants and landlords depending on the energetic quality of the building. With this draft, the governing parties intend to use the price signal of the CO2 costs as an incentive to prompt landlords to carry out energetic restorations. Also in light of the supply shortages and energy cost increases which are to be expected in the current situation, the reduction potential of smart buildings is of paramount relevance in all building classes. Sooner or later, this will lead to a further digitalisation of building control functions in Germany.
“Businesses are unsure as to how digital tools can be used in a legally safe manner. Our digitalisation study also came to this conclusion. This is not least related to the various new regulations for buildings and their refitting.”

Sebastian Woschech, LL.M. | Lawyer
Eversheds Sutherland, Real Estate
Manifold Challenges and Risks

The challenges associated with the digitalisation of existing buildings are as diverse as the aforementioned reasons for such digitalisation.

**Objectives of the building digitalisation should be defined early**
Digitalisation already begins in the design and planning phase of a building as its full digitalisation potential can only be realised if it is prioritised right from the outset. Accordingly, the objectives to be achieved by the building digitalisation already have to be specified and defined within the framework of the architect and general planner contracts.

**Data protection and IT security are essential**
Before and during the operation of a smart building, there is a plethora of requirements regarding data protection, information security and information technology to be considered. The more diverse the data basis collected by the building is, for example, the easier it is to misuse this data, for example through detailed user profiling. It is therefore pivotal to assess the entire data lifecycle at an early stage. If the processing of personal data is inevitable within the framework of digitalisation projects, the principles of “privacy by design” should play an important role in the project plan. For a project to be realised in a GDPR compliant manner, it is imperative that all data subjects affected by the data processing are informed transparently.

**Ranking of digital technologies regarding their use and benefit in the building and real estate sector**

<table>
<thead>
<tr>
<th>Not in use</th>
<th>Planning stage</th>
<th>In use/development stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platforms &amp; Portals</td>
<td>13%</td>
<td>83%</td>
</tr>
<tr>
<td>Building Information Modeling (BIM)</td>
<td>28%</td>
<td>16%</td>
</tr>
<tr>
<td>Data Science (Advanced Analytics &amp; Big Data)</td>
<td>27%</td>
<td>9%</td>
</tr>
<tr>
<td>Decentralized Energy Technologies</td>
<td>40%</td>
<td>17%</td>
</tr>
<tr>
<td>Sensors &amp; Actuators (Internet of Things)</td>
<td>37%</td>
<td>14%</td>
</tr>
<tr>
<td>Virtual &amp; Augmented Reality</td>
<td>45%</td>
<td>13%</td>
</tr>
<tr>
<td>Robotics &amp; Drones</td>
<td>52%</td>
<td>10%</td>
</tr>
<tr>
<td>Navigation &amp; Location Based Services</td>
<td>50%</td>
<td>17%</td>
</tr>
<tr>
<td>Artificial Intelligence &amp; Machine Learning</td>
<td>51%</td>
<td>20%</td>
</tr>
<tr>
<td>Additive Manufacturing (3D Printing)</td>
<td>81%</td>
<td>8%</td>
</tr>
<tr>
<td>Blockchain (Internet of Things)</td>
<td>78%</td>
<td>11%</td>
</tr>
<tr>
<td>Smart Materials &amp; Nanotechnologies</td>
<td>83%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Digital Real Estate Index 2022 (DRE-i), pom+
Within the framework of digitalisation projects, companies should furthermore ensure compliance with the core process of “data subject rights”. Especially complying with requests for the erasure of data and access to data may be a huge challenge for companies. Building owners or asset managers should therefore always keep an eye on how to comply with data subject rights within the framework of digitalisation projects.

Due to the risks of misuse related to data collection, the requirements for the underlying IT security and the protection of data from third-party access eventually also increase. Cyber security is another important topic in connection with smart buildings. A “cyber response plan” should be at the centre of every business.

“The results of our digitalisation study show that less than 20% of businesses feel ‘safe’ concerning their handling of customer data. It is often disregarded that this is also an important issue for smart buildings.”

Dr Gerhard Molt | Partner, Munich Lawyer, Head of the Real Estate practice group
How we can assist you

The versatility of our team of advisors by your side matches the diversity of the issues, driving factors and risks surrounding smart buildings. From construction and planning law questions to complex assessments during the operation of smart buildings, our advisors work together across their respective areas of expertise covering all aspects and risks related to building digitalisation.

Our team has years of experience in this area.

- Preparation and negotiation of building and planning contracts, in particular against the background of certifications and energy standards to be achieved
- Review of auditing contracts in connection with the achievement of certifications (DGNB, BREEAM, LEEDS etc.) and property management contracts regarding the ongoing adjustment of certificates, if any
- Preparation and negotiation of (green) lease agreements for all sectors (residential, commercial and special real estate), including built to suit
- Ongoing advice on all topics of asset management, in particular allocatability of cost positions, maintenance obligations etc.
- Definition of contractual interfaces between smart building components and the requirements of PropTech companies
- Advice to PropTech companies on questions of real estate law
- Advice on all legal issues of data protection and cyber security

“Eversheds Sutherland stands out in terms of professional competence, exceptional responsiveness and targeted advice. This means that our interests are efficiently pursued and maximised.”

Client in Legal 500 Germany 2022 regarding the German Real Estate practice

“The team at Eversheds Sutherland provided the perfect mix of technical excellence and innovative skill, a strong negotiating stance, knowledge of the market and its negotiating norms, the ability to work round the clock and, most importantly, a great sense of humour! These are people who are great to work with.”

Nick Raby
Lead Facebook Counsel
A selection of our smart building expertise

- Advice during the construction phase within the framework of the smart fit-out of a telecommunications and network provider’s headquarters
- Advice with respect to the tailor-made construction and leasing of a high-rise building, including advice on smart building solutions (deal volume: EUR 500 million)
- Ongoing advice regarding green lease agreements, in particular advice to an Asian insurance company regarding the conclusion of a green lease agreement for its head office in Germany
- Ongoing negotiation of built-to-suit lease agreements with an eye on certification requirements
- Advice regarding the implementation of a smart building app for the tenants of a business quarter

The smart, sustainable city

Smart buildings form an important part of the smart city – the sustainable and digitally connected city of the future.

Working together with our clients, Eversheds Sutherland’s international team of experts helps shaping the smart city of the future.

Download the presentation here

Invest, Connect, Sustain
The smart, sustainable city
Your experts for smart buildings at Eversheds Sutherland

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