

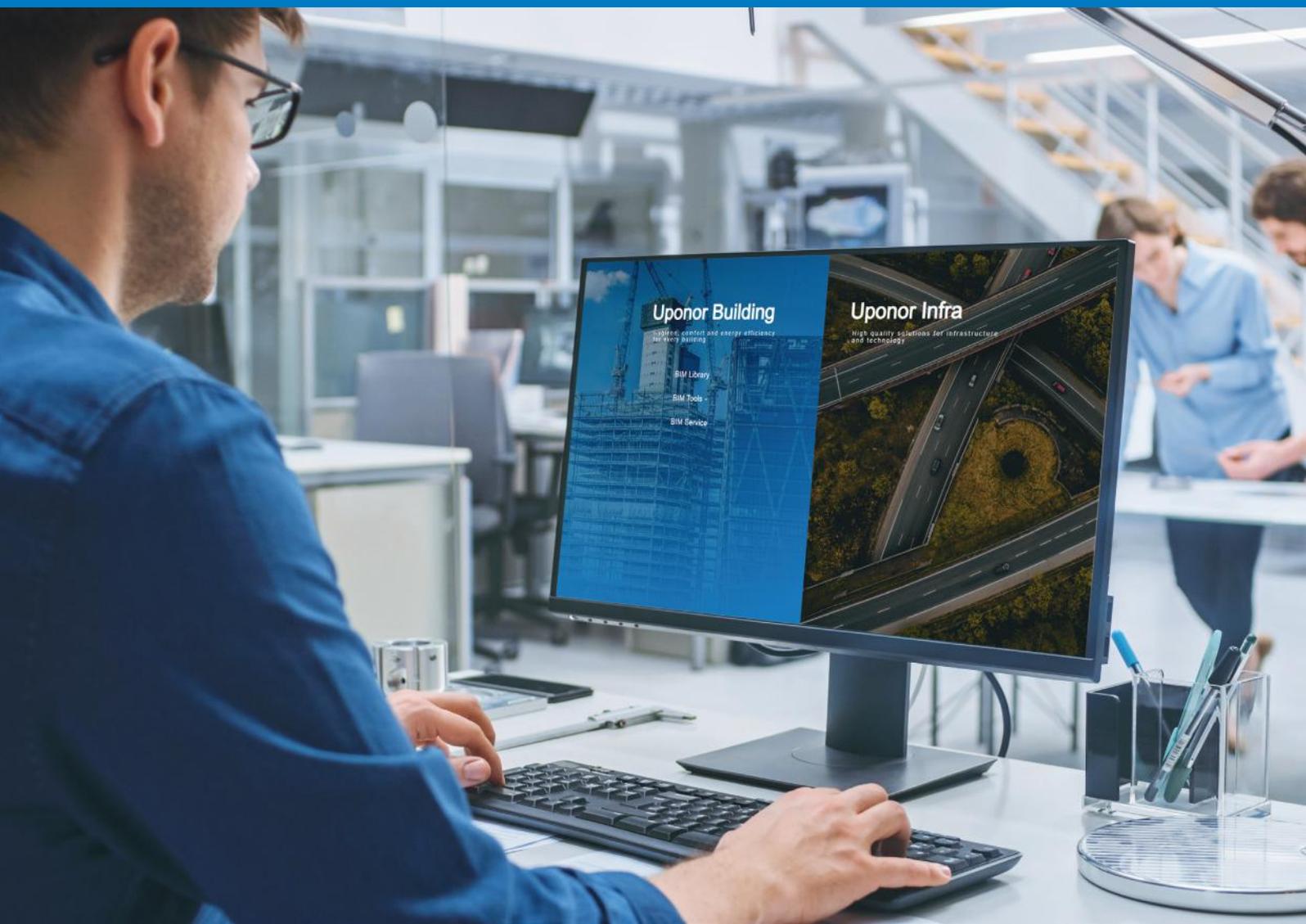
Interview

Building Information Modeling

The new BIM platform from Uponor

Uponor

Michał Ledziński,
BIM Centre Manager at Uponor



»» Our goal is to maximise our customers' options. ««

Digitalisation in the building industry is spelled BIM (Building Information Modeling). The approach, in which buildings are constructed virtually first, then in real life, is becoming the industry standard across Europe, with the UK and Scandinavian countries at the forefront of the development. BIM combines several dimensions in one model—a three-dimensional rendering, analyses of time and cost, sustainability assessments, and the subsequent management phase of the building—and also connects all trades involved in planning and execution. BIM projects are complex, and in order to best support engineers, Uponor has launched a comprehensive BIM platform with tools and services. A conversation with Michał Ledziński, BIM Centre Manager at Uponor, who managed the development of the new platform.

An all-in-one solution for engineers

In general, what do engineers expect from a BIM platform?

Michał Ledziński: BIM is a highly complex approach that incorporates many different dimensions and aspects of building as well as many experts from all important trades all in one comprehensive virtual model. What engineers—and everyone else who is involved in the building process—need is reliable and high-performance software that enables collaboration across different types of construction trades. Another important factor are the products used in the model, because obviously engineers can only work with components that are available in files compatible with their software. So, that is where suppliers like Uponor are responsible for providing the data in a useful way. In this context, and with international collaboration on the rise, access to reliable data plays a major role. BIM, unlike with previous technologies like CAD, offers engineers more options of visibly expressing their ideas in a clear 3D environment. They do not just draw a building, but instead virtually prototype it by using digital copies of real products. Only this way of designing ensures that the project can later be executed on site, because the BIM model already shows potential limitations in design,

installation and real-life operation before the actual building process begins. For example, products are not equally available on different markets, and they differ in geometry and the required space for installation or maintenance as well as packaging size and warranty policy. Consequently, it is very important that these data change dynamically during the entire product lifecycle. That is why engineers need and expect a high degree of reliability when it comes to BIM solutions. How does the Uponor BIM platform address these expectations?

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Ledziński: We approached the development of the new platform with exactly these requirements in mind. The result is a comprehensive, data-driven system for building and infrastructure projects that emphasises reliability, customisation as well as automation and supports its users in the best way possible. The platform is an all-in-one solution with three main components: the library, the tools, and additional services. In the library, the entire Uponor product portfolio is available in different CAD and BIM formats like Revit, IFC and DWG, ensuring that engineers can use it across different software solutions.



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The platform is available across Europe, but the content is region-specific. This means, engineers anywhere can choose their language, draw on a local customer support contact, and utilise a country-specific product portfolio, which always includes a 3D model of the product as well as information such as technical properties in various market classifications. Our BIM Platform is the one source of data for all Uponor BIM solutions and always provides up-to-date information.

You mentioned customisation and automation. Where do these concepts come into play on the platform?

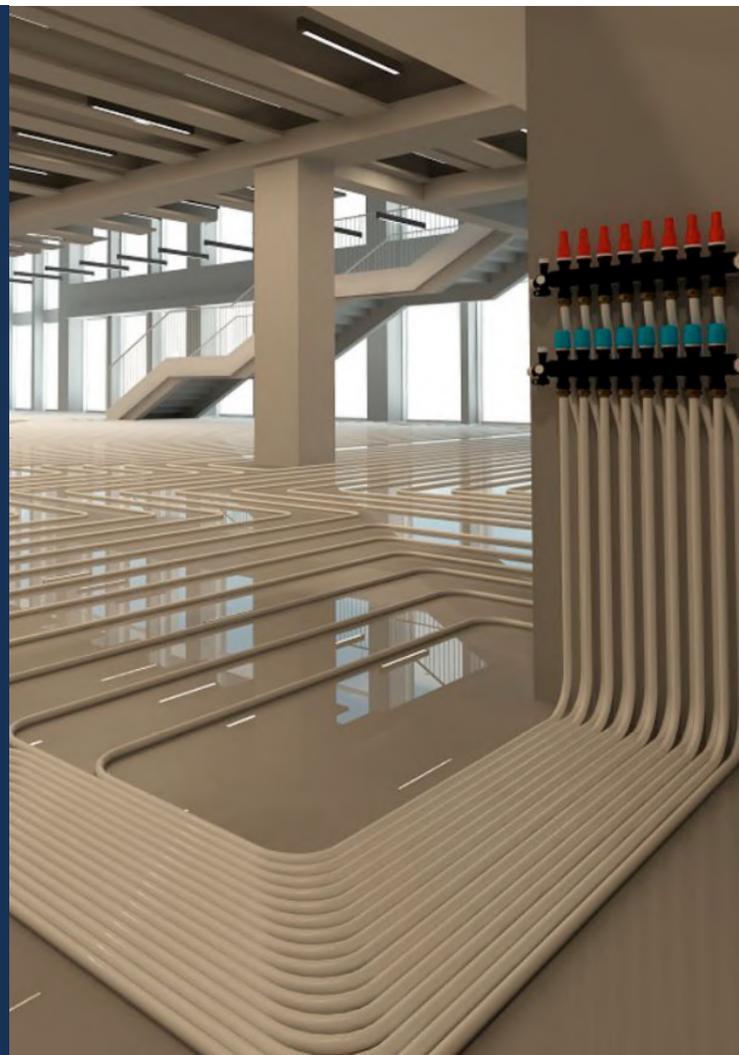
Ledziński: In the two main features that make this platform one of the most advanced in the market, the tools and the data-driven automation. We have always had the goal to make engineers' lives easier when it comes to

tackling big building or infrastructure projects: Utilising the Revit plug-in for example automates the designing process considerably. Users can integrate the product library into their software, and the platform will automatically make product suggestions based on the embedded data, or even design an entire underfloor heating system at the touch of a button—the user does not need to draw every single pipe by hand. This way, engineers can start with their model, instead of having to consult the catalogue first to choose suitable pipes and fittings because the platform does it for them. And because the BIM platform is data-driven, product information is automatically updated in the model when it is altered in the master data source. This makes the whole process much more reliable, easier to use, and eliminates errors relating to product data. The “Services” component of the platform, then, connects

Michał Ledziński, BIM Centre Manager at Uponor, managed the development of the new, comprehensive BIM platform.



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engineers with their local service team, who supports them in any and every project phase along the building's life cycle. Our BIM experts offer to design all Uponor systems for our customers, so they can focus on other aspects of the planning process in the meantime.

It sounds like the platform was modelled to answer industry needs. What is Uponor's experience with BIM so far?

Ledziński: We can rely on many years of hands-on experience with BIM. In order to fully understand the challenges that engineers face, we at Uponor ensure that all our BIM experts are subject matter experts who have practical experience with the challenges engineers face. Uponor took its first steps with BIM back in 2014 with an initial portfolio of Revit packages that were locally available in the UK. Most of the work, like updating product

information, was still done manually. Based on customer feedback, an analysis of market requirements and business opportunities, we decided to take a step forward. In 2017, we launched the segment organisation BIM Centre, supported by local BIM teams in all European countries. Because we have experience with the realities of BIM, we can provide engineers with realistic and useful solutions. This is also why we have been working on customising and automising a comprehensive BIM solution—because we know how important that is to an efficient planning process, and our goal is to share our expertise and findings with our planning partners.

Why are customisation and automation so important with regard to BIM?

Ledziński: To answer this question, we have to look at the way BIM has developed over time

and what previous BIM solutions were able to offer. For example, previous approaches were smaller-scale and depended on manual work, which was error-prone and labour-intensive. BIM models were provided only in the Revit format for a limited number of products. This was a good start and provided us with important market insights, so we could better understand and subsequently address and fulfil planners' needs. They have to tackle large and complex projects, collaborate with architects and other trades, and incorporate all of this and more in one central model. A more effective way we can support them is with a comprehensive platform that addresses all the challenges, not just a small part. And the only way we can efficiently do that is when we utilise

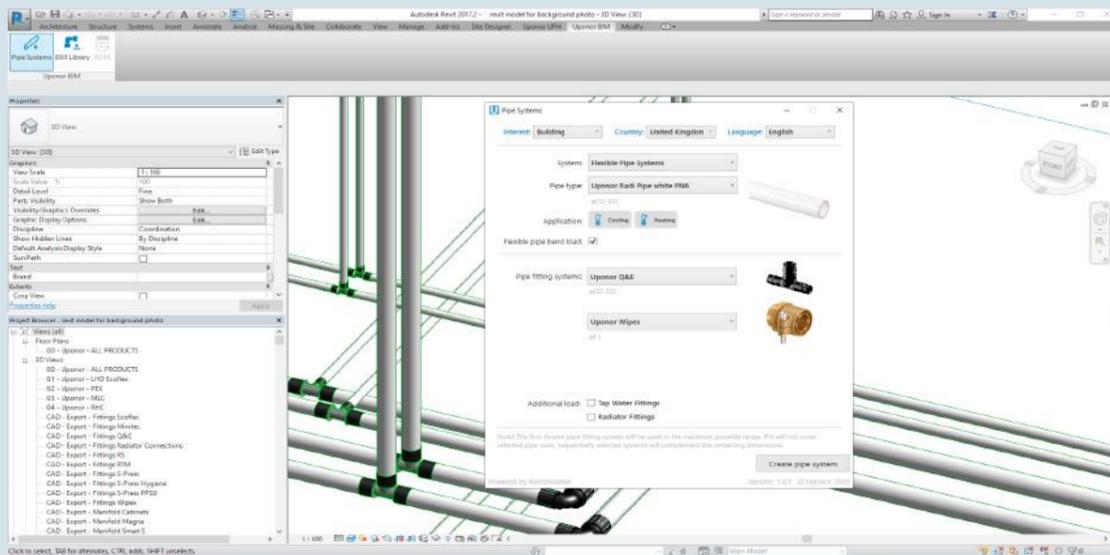
automated processes, like the product information that is updated across the entire platform. Customisation is more important on the customers' end: They largely benefit from a tool or data access when it is tailor-made to their needs and speeds up the planning process. In the end, our goal is to maximise our customers' options have when it comes to building BIM models.

How will the BIM industry and the Uponor platform develop in the future? What are the main trends to look out for?

Ledziński: The biggest challenges for the industry are standardisation and the unification of data. Currently, the BIM market is very fragmented and even if engineers

carry out the same tasks, they often do not speak the same "BIM language". This results in misunderstandings, project deliverables not meeting contract requirements, or costly issues on site. There are several international standards that aim to address these issues, for example ISO 19650 for the consolidation of BIM processes, and ISO 23386:2020 as well as ISO 23387:2020, which both aim for the unification of project data. In our opinion, all three standards are important milestones, but they alone will not meet all market needs. Standardisation is one approach we plan to pursue, in addition to many local initiatives that address specific market needs in more detail. Our main goal is to support our customers with a pragmatic approach. That is why we have built the new platform to

quickly respond to changing market trends and individual customer requirements. We are confident that automation and customisation are the trends that are here to stay and will shape the industry in the years to come. Projects and the way BIM is utilised are likely going to become even more complex. This is why customisation is one of the features we will focus on in the future, ensuring that Uponor BIM solutions support engineers in efficiently doing their work. With our data-driven platform, we are ready to build on what we have accomplished so far and able to easily integrate new features to further customise, automate, and facilitate the planning process with BIM.



By using the smart functionalities of the platform, BIM objects can be placed directly into a project.



Moving > Forward

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That's moving forward.
And that's what Uponor is all about.

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