BUILDING THE FUTURE TOGETHER WITH BETTER BIM

SOLIBRI

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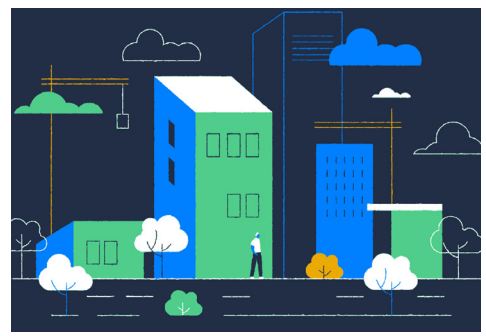

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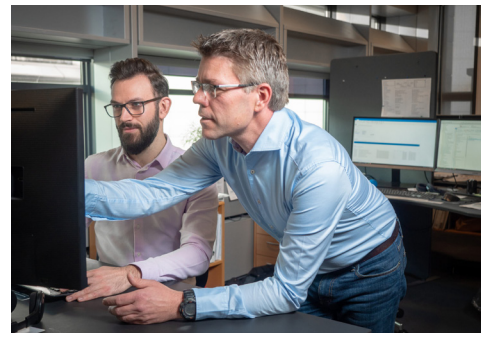

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WHERE TALENT MEETS PASSION

We work in a field of constant change. Our job is to keep up with the changes and provide industry professionals with tools with which they can tackle the problems of the construction industry.

Solibri 25 Years

Building the world together since 1999

4700

Customer count

26K

Monthly active users

100%

of the top 5 global architecture companies in the world are using Solibri software

80%

of the top 5 global construction companies in the world are using Solibri software in BIM projects

+90%

of Solibri software users are recommending Solibri to colleagues

1999
Established

Solibri was founded by Pasi Paasiala, Heikki Kulusjärvi, and Anne Urrila in 1999

2001
First product release

First Solibri Product press release and launch of Solibri beta

2002
First ruleset manager

First participation in AEC Interoperability event & First Ruleset Manager in SMC

2004
Sitra investment

Sitra Finnish Government invests in Solibri

2010
Introducing ITO

SMC severity categories & ITO created

2012
Common BIM standards

SMC Role Selection and Ruleset Selection established & Solibri involved in creating Common BIM Standards in Finland

2015
Joined Nemetscheck Group

Solibri was acquired by Nemetschek in December 2015

2017
New office

Solibri HQ relocated to Ruoholahti in Helsinki, Finland

2019
Product Family renewal

Solibri Office, Solibri Site and Solibri Anywhere were introduced

2021
Entered e-commerce

Solibri e-commerce buy.solibri.com was launched

2022
Entered SaaS

Solibri Inside released, an integrated SaaS solution within Nemetschek authoring tools & Solibri Benelux office opens

2023
Steps towards the future

RAVA3Pro and Solibri collaboration toward digital building permitting process in Finland & introducing Solibri Carbon Checker

Built from relationships

My 25 years of Solibri

Some would say that curiosity killed the cat. But for me, curiosity fuels my creativity. Maybe that is a sign of being an engineer at heart? Probably. Yet, curiosity and creativity, for me, have both been derived from the relationships throughout my past and present.

Whether this is from my brightly colored shirts our CMO (Chief Marketing Officer) is highly jealous of. Agility training with my dog Viivi, however, she is now 17 and lives a more relaxed lifestyle. My love and passion for music – from Namibian bands to Dim and Tonic. But most importantly my relationship with my family, my two beautiful children and my grandchildren.

Relationships, for me, bring a deep and valued meaning to everyday life and they are incredibly important for me as an individual. So, before I get into this piece, I'd like to thank everyone who has been part of this Solibri journey over the past 25 years. Whether part of the company or my life, I am grateful for you all.

Relationships have built this company from the ground up and will continue to drive the company forward for the next 25 years.

THE STARTING FOUNDATION

Back in 1992, myself and a young lady known as Anne Aaltonen (now Urrila) were conducting a research project at the University of Tampere. Anne and I were a solid team and complimented each other very well.

She was the knowledge provider whilst I created the algorithms on a software called Design++. This software was used to encode engineering knowledge as rules to create designs based on the user input.

Whilst working with various companies, it dawned on me how difficult it was to put all the knowledge in an explicit form, and that it would be easier to capture constraints that need to be fulfilled and let people do the design; it would be easier to be critical, rather than constructive. Essentially, this is where the idea of 'Checking' as we know it today was born. I actually started working on a PhD on the subject, which was never finished, but one could say that Solibri is a continuation of the idea.

Fast forward the cogs of time to 1996, Anne and I were destined to reunite. Design Power was where our team reconnected again. Having worked closely with this company during our research project,

Pasi Paasiala

Paasiala is one of the co-founders who founded Solibri in 1999 together with Heikki Kulusjärvi and Anne Urrila.

Anne was hired first, with myself joining the company a year later.

Heikki Kulusjärvi at the time led the European side of Design Power. After working with him for a while, conversing with him overtime, and with efforts of convincing, I had successfully pitched the concept of checking to him. However, at that time and with the company's direction and objectives, the idea was never implemented, but also never forgotten.

Heikki believed in it. Now, there were three of us believing in the same vision. A complete band with our lead singer, drummer, and my spot for guitarist.

THE EARLY DAY CLASHES

With many stories, fiction or not, there are turbulent times. Unfortunately, this was true for Design Power too. Heikki decided to move away from the company and invited both Anne and I to join him. Solibri was essentially born, but not as we know it today.

Solibri didn't originate as a product company. In fact, the early days were spent consulting for construction companies, creating our own technology to deploy within tailored customer projects. Yet, the millennium was on the horizon, and with the change of the year brought something incredible to our doorstep; IFC (Industry Foundation Classes).

I always held onto this aging idea of checking. But because we never had models to check, the idea stayed lurking in the background. Yet, now with the imminent arrival of IFC in the early 2000's, Heikki agreed the time was right.

We finally could have models to start checking, which turned our consultancy company from a service to a product company.

THE FOUNDERS
Heikki Kulusjärvi, Pasi Paasiala and Anne Aaltonen (now Urrila).

ALIGNING THE STARS

With a product in development, we needed the team to put the plan into action. Just like the theme running throughout the whole of this story, we leveraged relationships and brought in people we highly appreciated, some even our close friends.

We soon found out that the industry did not start using IFC as we expected. The business was slow, and tension and blaming between the old guard and the new hires started. Everybody knew it all. This led to people leaving and soon we were back to a core team.

We were lucky to get Sitra to invest in us which gave us time to breathe, realign and do some new recruiting. Now learning from mistakes, we did not hire the people we know, but someone who is perfect for the job. And that is where the second longest serving Solibrian, to this date, joined the company – Matti Kannala.

However, the market was still not there. It was down to us to make it. We first approached architects with the idea of checking, but they do not make mistakes and did not see the value in our solution (at the time).

Then we started climbing up the value chain. Together with like-minded collaborators, like Calvin Cam and Richard See, we approached construction companies and building owners. They gradually started appreciating the benefits of openBIM.

We established checking and BIM (Building Information Model) coordination as a thing. Solibri became the consumer of IFC files. Angel Velez, the man behind Revit's IFC functionality, once told me that that they surveyed their customers about their IFC use and most of them said that they exported IFC to be imported in Solibri.

Nemetschek buying us in the final days of 2015 was the icing on the cake, displaying what we had achieved. Our hard work and good luck made the stars align, at least a little bit, although there is still a lot to do in digitizing the construction industry.

MY CONTINUED RELATIONSHIP

This is a question I am still asked to this day. I always say that Heikki and Anne put so many extra hours to Solibri, while I have always been an 8 to 4 guy, so, I have some hours left. And, I suppose, it also comes full circle back to the theme of this article – my relationship to both Solibri and this industry.

The importance of IFC for Solibri's development initiated a burning desire to commit to continually improve and better the construction industry. Whether this has been through collaborative work with buildingSMART, creating the first non-IFC standard known as BCF, or even developing new IFC versions.

Over 25 years later, my interest has always remained, never wanting to be elsewhere. Solibri, as well as the whole digital construction industry, is a relationship that I not only hold dear to my heart, but a relationship that has built who I am today.

As much as my interest has remained in improving the industry, which holds my continued commitment. My relationships with my colleagues and loved ones are my foundation.

Every weekend when it is warm enough, my wife and I go to our summer house. Whilst I handle the cooking and mishandle the guitar, she attends to our garden. And when our summer ends, we spend time in the forest collecting blueberries and chantarelles.

Life is what you make of it, but it is nothing without relationships.

Unveiling the Power of BIM Clash Detection

Small things can have a significant impact in both a positive and negative way. For example, you can imagine the consequences if not every designer notices a structural designer's systematic 100-millimeter increase in the concrete beams' height of a building. In the worst-case scenario, the unnoticed change causes costly on-site rework, which already takes up 28% of project time (How We Build Now Report, 2023, by Censuswide).

In the days of 2D drawings, it took a lot of scrutiny to detect potential clashes between designs. Overlaying drawings on a light box was a typical procedure. With three-dimensional BIM and models, we should have a better chance of identifying and avoiding conflicts. After all, designers can combine each other's models and immediately see if an MEP designer's pipe goes through a beam or if an architect's door does not have a corresponding opening in the load-bearing wall.

However, the reality is not as perfect as it appears. That's why we need tools for BIM clash detection. They aim to ensure a model's building components have the correct quantities, dimensions, and positions.

DETECTION OF HARD AND SOFT CLASHES

The clear-cut way to think about clash detection concerns checking the geometrical properties of a model or a combination of models, a so-called federated model. A model can have internal clashes or conflicts with other models.

A clash happens when two building components occupy the same space. They can be objects within objects or intersecting objects. These are called **hard clashes**. Duplicate parts fall into this category as well.

The other category of clashes is **soft**. They occur when a component is placed within another component's buffer zone. This could be a tolerance zone or, for example, a free service space required in front of an electrical cabinet.

THE PREREQUISITES FOR EFFICIENT BIM COLLABORATION

A necessary starting point for successful model checking is a BIM Execution Plan. It explains the practices, requirements, roles, and responsibilities in the model-based process. One of the things to agree on is the BIM formats you use for model collaboration. As an open standard, IFC is the ideal choice.

From the clash detection perspective, a critical role is that of the BIM Manager or BIM Coordinator. They are responsible, among others, for the interdisciplinary BIM process and coordinating clash detection.

To make sure the clash detection workflow is smooth, a project should implement a CDE, Common Data Environment, at the project's outset. It allows auditable communication and controlled sharing of the project's digital assets. You also need a capable and trustworthy tool for model checking and clash detection. Many BIM coordinators use **Solibri Office** for the task.

WHAT IS THE BUSINESS CASE FOR AUTOMATED CLASH DETECTION?

If clash detection with BIM is manageable with proper processes and tools, what is the payback for the investment?

A research paper, Cost-benefit analysis of BIM-enabled design clash detection & resolution (Chahrour et al., 2020), tried to quantify the benefits of BIM clash detection in substantial infrastructure projects. The estimated savings using the developed clash detection and resolution schema were 20% of the contract value. For example, the cost implications of a medium-category clash in the project were estimated at $1.6 million, whereas the corresponding BIM clash detection cost was $5,800.

Another case study by Simon Graham, Director at Opencore, compared the cost of manual design coordination versus automated BIM clash detection. The task was to review and approve the size and position of the builder's work openings and the coordination of building services passing through them. The study concluded that for this single specific design coordination exercise, costs were reduced by 62.4%.

Several other studies on the subject arrive at the same conclusion: Automated clash detection has an exceptional ROI. It saves the design teams' time, gives designers more time to resolve the issues, and reduces the number of field conflicts that lead to costly rework.

62.4%

reduced costs for a single specific design coordination exercise with automated clash detection.

HOW TO RUN CLASH DETECTION

The process of clash detection is a standard routine in BIM-powered projects. It should start early in the project and continue until the positions or dimensions of the building components are fixed in the models. This implies that changes during the construction phase should be included in the models and checked before procurement and production.

1 - MODEL IMPORT AND AGGREGATION

After internal checks for clashes, designers submit IFC files for BIM coordination. The coordinator uses Solibri to combine these into a single model for extensive clash detection across disciplines.

2 - RULE-BASED CHECKING

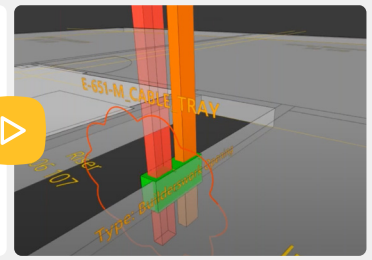
Using Solibri Office, designers and coordinators set specific clash rules, ranging from simple geometric clashes to complex functional clashes, like ensuring clearance around equipment. Solibri then scans the BIM model, identifying and ranking clashes by severity.

3 - ISSUE COMMUNICATION AND RESOLUTION

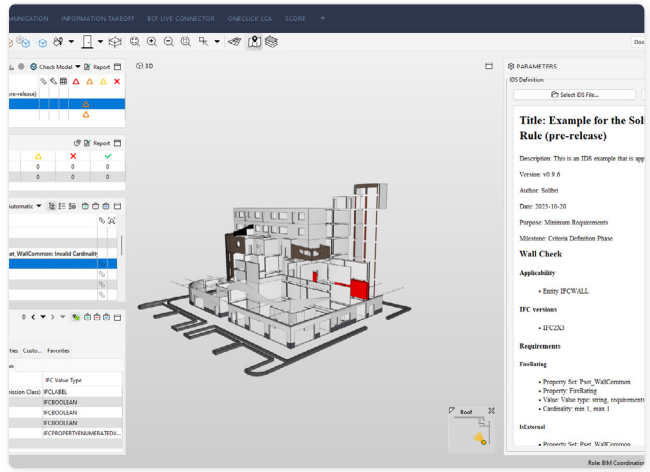
BIM coordinators categorize clashes by severity, discipline, or location, create issues in Solibri Office, and assign responsibilities. They also provide detailed clash reports and facilitate weekly meetings to discuss these and other design issues. Additionally, Solibri Office tracks issue statuses and automates model version comparisons, supporting the fast-paced design and construction process.

SEE THE WEBINAR

BIM strategies for streamlined design and cost-effective construction presented by Simon Graham, director of Opencore.



INDUSTRY TOPICS – BUILDING THE FUTURE TOGETHER WITH BETTER BIM



SEE THE WEBINAR

Learn more from industry experts exploring the transformative potential of IDS.

BIM data standards
Information Delivery Specification (IDS)

IDS stands for Information Delivery Specification and has been proposed by buildingSMART as a visionary approach for defining information requirements and exchanging them within BIM workflows.

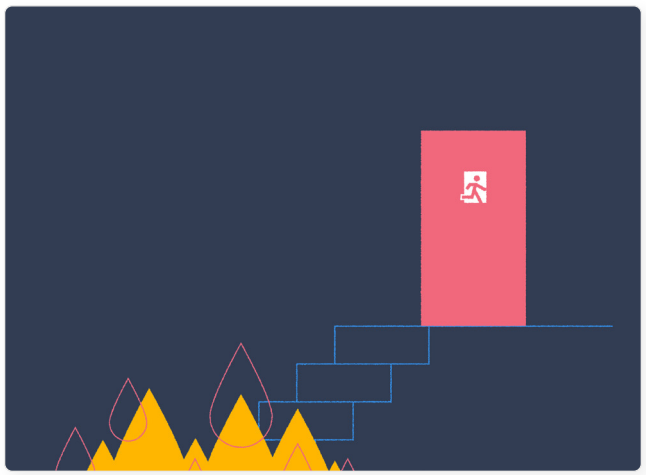
Previously, BIM coordinators needed to manually create information rules within their BIM tools, which increased possible mistakes and costs.

However, an IDS file enables faster, automatic model verification. IDS files are a standardized machine-readable format for tools, such as Solibri, to automatically check and verify if a BIM model matches the requirements set from the IDS file.

WHY IS IDS IMPORTANT?

Simply put, IDS helps people in the built asset industry by creating a format to define and automatically check BIM requirements within a chosen tool.

The advantage of IDS is that it can be used to ensure that the requested information is contained in the model. This means that the necessary information is also available for other stakeholders, and tasks such as advanced quality checks, ITOs, or classification can be carried out without missing information that would block the execution of these tasks.



SEE THE WEBINAR

Learn about the new game-changing fire safety design process developed by Laing O'Rourke, BDP and Solibri.

Themed rules

Fire stopping of service penetrations

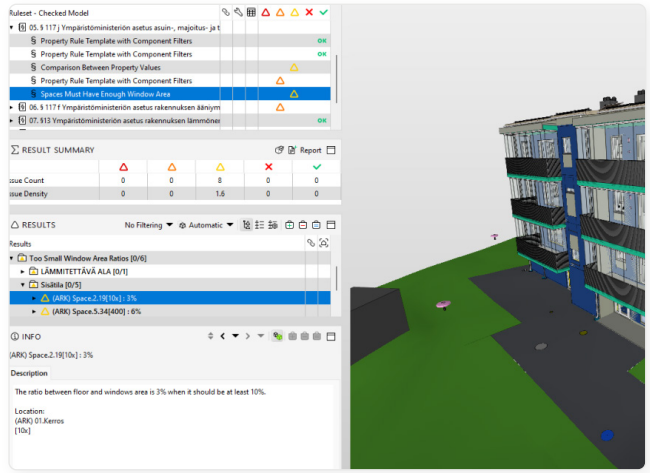
Solibri is introducing new fire safety checks developed with Laing O'Rourke and BDP that enable industry professionals to efficiently identify service penetrations to ensure they uphold the fire protection of the supporting construction.

Fire stopping of service penetrations involves installing fire-resistant materials around pipes, ducts, cables, or other services that pass-through fire-rated walls and floors. This limits the spread of fire and smoke, prevents heat from reaching critical components, and helps maintain building structure stability in the event of a fire. Therefore, ensuring that the fire-stopping of service penetrations has been designed correctly is crucial.

Currently, users have to manually check every service penetration one by one. The time taken is directly proportional to the number of penetrations that require fire stopping on a project and is prone to human errors.

To help the industry address this issue, Solibri is introducing a set of fire stopping checks designed to efficiently identify where services breach fire compartmentation walls and floors.

The checks were developed in collaboration with Laing O'Rourke and BDP during the design and construction of Everton FC's New Stadium. They allow industry professionals to save time on manual work, avoid human errors when the price of a mistake may cost human lives, and ensure information transparency and accountability. We believe that they have the potential to revolutionize the checking process for fire stopping and make a real difference in people's lives.



READ THE FULL ARTICLE

Learn more about RAVA3Pro and how Solibri collaborates towards ePermitting process in Finland.

Digital permitting

RAVA3Pro

Finland's building permit process is set to revolutionize with the new construction law coming into effect in 2025, making the building permit process BIM model-based. This transition is made possible by the model specifications and inspection rules of the RAVA3Pro project, with Solibri as the lead executor.

Finland pioneered BIM use for building permits already in 2018, and the RAVA3Pro project made the practice nationwide in 2024. Solibri has been the leading partner in all Finnish BIM permitting development projects and continues to provide the technology and knowledge for automated compliance checking.

Using BIM models instead of 2D plans offers many advantages for the building permit process. One of the biggest is the automatic checking of plans, freeing time for permit authorities from manual work to more value-adding tasks. RAVA3Pro also provided designers with tools to check their plans before applying for a building permit.

The significance of RAVA3Pro is not limited to the building permit phase. A model-based building permit promotes the comprehensive adoption of modeling in Finland's property and construction sector.

Building information models are becoming the framework for digital twins, to which all design, procurement, construction, and property maintenance information is attached. Thus, modeling really generates value by automating information management throughout the building life cycle.

Achieve Carbon Neutrality with BIM

Aarni Heiskanen
Heiskanen is an entrepreneur, architect and author working as the innovation agent, and co-founder of a business software company. At present, he runs the communication firm AE Partners.

We're witnessing history's most significant building boom from 2020 to 2060. We'll add about 240 billion square meters of new buildings worldwide. That's like building a new city as big as New York every month for 40 years. We also have existing buildings that need repair and care for decades. How can we both build and keep our planet habitable for future generations?

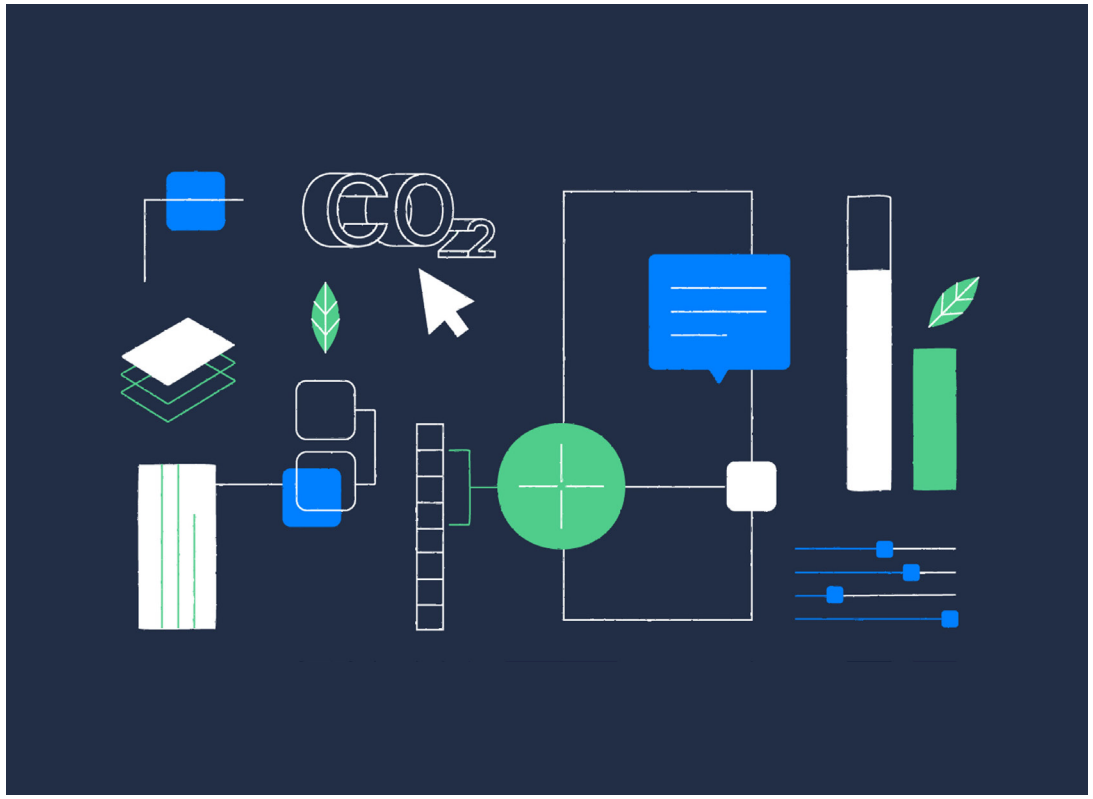
As construction sector professionals, we are responsible and able to make a massive impact on our environment's future. Fortunately, we have the technologies and skills to meet the challenge. In addition, we need commitment and knowledge to transform into an environmentally friendly construction.

CONSTRUCTION'S ENVIRONMENTAL IMPACT

The built environment is one of the world's largest economic ecosystems. It also considerably impacts the environment, releasing more greenhouse gasses than the transportation or industrial sectors. Consequently, it has a special responsibility and opportunity to decarbonize its processes and products.

These numbers illustrate the built environment's emissions on a global level (McKinsey, 2023):

- It accounts for 14.4 metric gigatons, or 26%, of greenhouse gas emissions annually. Its share of CO_2 emissions from fuel consumption is even higher, up to 37%.



- Of the 14.4 gigatons, approximately two-thirds are operational (for example, daily electricity consumption) and one-third are embodied (related to the materials used to build the structures).

If we look in more detail at a typical building stock in the Nordic climate, we obtain this greenhouse gas distribution (Climate 2035 project, 2021):

- Energy consumption of buildings: 76 %
- Construction materials: 15 %
- Logistics and jobsite functions: 7 %
- Deconstruction and waste: 2 %

The environmental impacts of the built environment go beyond GHG emissions. They include material and resource use, waste generation, impact on water systems, habitat harm, biodiversity loss, soil health, and more.

TECHNOLOGIES AND TOOLS

Until recently, incorporating carbon emission data into the design and construction process has required tailored solutions. As the demand for embodied carbon calculations has increased, there are now commercially available solutions to do the math at various stages of a construction project.

Specialized Lifecycle Assessment Software

Life Cycle Assessment (LCA) is a methodology for assessing environmental impacts associated with all the life cycle stages of a commercial product, process, or service. When applied to building projects, LCA considers material production, construction, operation, and end-of-life.

Various software solutions are available that support LCA for building projects. Remember that they often require information on material quantities and energy use that can come from BIM models. Therefore, it's beneficial when the LCA software can integrate directly with popular BIM software, such as Revit or ArchiCAD.

26%

of greenhouse gas emissions annually is made up by the built environment's emissions on a global level (McKinsey, 2023)

REGULATION

Regulation has proven to be a powerful change accelerator in the construction sector. Regarding environmental issues, there are regulations on the global, EU, and national levels.

Global regulation

The Paris Agreement represents a critical international commitment to combating climate change. One hundred and ninety-six parties have agreed to this legally binding agreement, effective November 4, 2016 (United Nations, 2023).

The agreement aims to keep the rise in average global temperatures below 2.0°C when compared to pre-industrial levels and limit this increase even further to 1.5°C. This emphasis on the 1.5°C limit has become even more crucial recently.

Achieving the 1.5°C limit will require drastic measures, including the peaking of greenhouse gas emissions before 2025 at the latest and achieving a 43% reduction by 2030. This means there's a specific carbon budget we can spend before surpassing the target.

EU Regulation

The European Green Deal aims to make Europe the first climate-neutral economy and society by 2050 (The European Commission, 2019). As an intermediate goal, the EU is committed to reducing its net greenhouse gas emissions by at least 55 percent by 2030, compared to 1990.

The climate targets for 2030 and 2050 are included in the Regulation on the European Climate Law adopted in 2021. In the future, the Regulation will also be amended to have an EU climate target for 2040.

To increase material efficiency and reduce climate impact, the EU is launching a comprehensive new strategy for a sustainable built environment based on lessons learned. This strategy will ensure coherence across relevant policy areas such as climate, energy and resource efficiency, construction and demolition waste management, accessibility, digitalization, and skills. It will promote circularity principles throughout the lifecycle of buildings by:

- Addressing the sustainability of construction products in line with the Construction Product Regulations revisions, including potential recycled content requirements for certain construction products,
- Promoting the durability and adaptability of built assets in line with the circular economy principles for building design,

National regulation

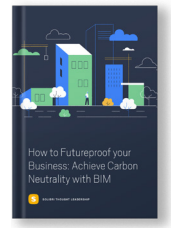
Only a small number of countries have national regulations for construction sustainability. The table on the following page includes European countries with voluntary certification and present or soon upcoming regulations (One Click LCA, 2022).

CONCLUSIONS AND NEXT STEPS

The UN's 2022 Global Status Report for Buildings and Construction states that raw resource use is predicted to double by 2060 – with construction materials, such as concrete and steel, already significant contributors to greenhouse gas emissions (United Nations, 2022). To reach the 2050 target of a zero-carbon building stock, we need to accelerate our efforts considerably.

We live in a linear economy. 93% of the materials we use end up in landfills or are not reused. This is not sustainable even in the short term. We must adopt circularity to maintain our current level of well-being and live within our planetary boundaries.

Circularity includes three principles: eliminating waste and pollution, circulating



Read the full guidebook

Strategies and tips for businesses using building information modeling and updated environmental data.

www.solibri.com/solibri-sustainability-guidebook

NATIONAL REGULATIONS

COUNTRY	VOLUNTARY CERTIFICATION	METHODOLOGY FOR PUBLIC BUILDINGS	REGULATIONS
DENMARK	DGNB	Den frivillige bæredyg-tighedsk lasse - methodology.	Building regulation to enter into force by 2023.
FINLAND	RTS label Zero carbon method-ology (in development)	Voluntary guidelines for assessing pub-lic buildings.	Building regulation to enter into force by 2024.
FRANCE	Bâtiments Bas Carbone (BBCA). Haute Qualité Environ-nementale (HQE). Bâtiment à Énergie Positive & Réduction Carbone (E+C-). The regional variants of Effinergie, Quartiers et bâtiments durables.	E+C-	RE2020
NETHER-LANDS	BREEAM NL GPR Gebouw	-	MPG and BENG
NORWAY	BREEAM NOR FutureBuilt Powerhouse	Simplified NS 3720:2018 Statsbygg requirements	TEK17
SWEDEN	Miljöbyggnad NollCO$_2$ BREEAM SE	Klimat-deklaration av byggnad	Law (2021:787) on climate
UK	BREEAM UK Home Quality Mark Whole life carbon for the built environment (RICS) PAS 2050	-	London Plan (London only) Part Z (proposed)

products and materials (at their highest value), and regenerating nature.

Eliminating waste also entails an efficient use of resources. For example, the utilization rate of a car is around 4%. Alternative ways of mobility will, therefore, be a crucial circularity solution.

Kalle Saarimaa, CEO of Tana Oy and a circularity expert, claims that if our only sustainability goal would be carbon neutrality, we could reach it within the linear economy. However, more is needed to ensure biodiversity and cope with material scarcity.

It's now essential for every construction industry business to adopt sustainable practices. The most effective method is to weave sustainability into the company's strategic planning and daily operations.

It is time to start implementing building information modeling collaboratively, ensuring the models' quality for embodied carbon management, and enriching models with the latest environmental data.

Every individual working on a project should understand how their choices impact the sustainability of the end product, the building. They should also have the skills and tools to assess, improve, and verify a design's carbon emissions.

Remember, the integration of sustainability into every facet of your operations isn't just beneficial for the planet - it's a crucial step in positioning your business as a forward-thinking leader in the construction industry.

-55%

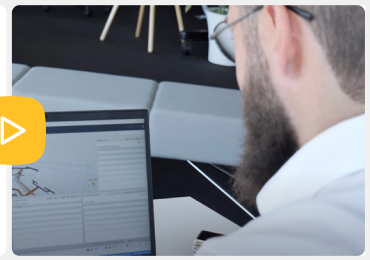
As an intermediate goal, the EU is committed to reducing its net greenhouse gas emissions by at least 55 percent by 2030, compared to 1990.

FUTUREPROOF YOUR BUSINESS

Discover how Solibri Carbon Checker can transform your approach to sustainable design and construction, making carbon footprint analysis more efficient and effective. Presented by David Jirout, CEO & Founder of Illuminum.

SEE THE WEBINAR

Speed up carbon calculations with Solibri Carbon Checker, that helps AEC industry to quickly analyze the model's carbon footprint.



Better three hours too soon than a minute too late
— William Shakespeare

Solibri was offering a solution that would define how our skylines get built. It was based on BIM, something that was defined but not yet fully adopted. That opportunity, the idea that there was a company with a soon-needed technology, that was looking to define its brand and public persona, while already delivering a solid solution was a dream come true for me.

I had the opportunity to join early and be part of a fantastic ride. What follows next is what continues to keep me excited about this company based in the frozen reaches of Northern Europe.

10 YEARS OF ENSURING QUALITY

I've had the pleasure to be in Solibri for 10 years. In that time, we've grown, moved three times to bigger premises, quadrupled in team size and reached a point where we see active users from Norway to New Zealand. When I joined, it was 9 people and occasionally a visit from Pasi's dog (Pasi being the mastermind behind Solibri's tech).

I wasn't looking for Solibri. I always say I was lucky that Solibri found me. I saw the job vacancy and applied for two reasons. Firstly, I've always loved design and architecture – so much so that I married a designer.

Secondly, and God knows why, I love brands and communication. In the first interview, the former CEO challenged me to build him a brand for an existing product that was gaining a good reputation within the industry. His ambition and the freedom he gave me to build the brand is what really ignited my enthusiasm – although I do wish he'd told me how much budget he wasn't going to give me for the first years.

Fast forward 10 years and here we are. Bigger, more successful and living in a world where finally BIM is being mandated in many ways – by owners, by governments and by individuals who understand what BIM offers to the industry.

BUILDING A BRAND STARTS WITH A SOLID FOUNDATION

The brand we've built has been a mixture of experience – from my previous work

Russell Anderson
Anderson is the CMO at Solibri, running the brand & marketing strategy at Solibri since 2013.

building and defining Nokia's brand to working with branding professionals. My starting point was to revisit these professionals, by contacting a former colleague in Agency Leroy in Helsinki.

My first brief to him was simple; to create a brand – its colors, its tonality, its positioning and most importantly, its value to the customer.

I undertook the mission of understanding the value we provide to customers by jetting off to both Sweden and the UK within the first week of starting, to interview real users to truly understand how we help them and to experience Solibri's software in practice.

Their knowledge and expertise really blew me away. I knew Solibri had a decent offering, yet experiencing first-hand usage really brought a deeper level of understanding on how flexible a tool it was to build model validation and visualizing major projects.

Those same customers graciously also offered to go on film for free to showcase what they did for Solibri. Very quickly – 3 months after starting, we had a new brand, new website and new literature on who we were, what we did and how we did it.

Since then, it's been a case of building, adding, regenerating and engaging the industry with the same values. Why blue? Well, it' a trusted color for people. Why yellow? Well, that's a warning color that something is wrong in a process. Simple ideas, but true to our offering.

NOT REWORK BUT RENOVATION

Thinking of where we go next, I guess the sky(line)'s the limit as they say. Now we live in a much more interconnected world. We see Solibri as part of a world where data needs to be checked, shared, recorded, tracked and used in ways that simply wasn't done 10 years ago.

Our role is increasingly about allowing that validated data to be used in multiple other platforms simultaneously and for us to allow cloud connectivity within our Nemetscheck family and beyond. I personally feel that's important because we've always believed in digital construction and that belief can only happen by having open protocols, standardization and processes.

If we do that right, the next 25 years will be interesting. Solibri may be driving governmental processes on building, it may be helping to validate designs that will live (and be recycled) for another 50 years and beyond.

I have always thought it's cool that I have stayed in hotels across the world that have been built using Solibri. Just think, my son may end up being educated in a building or then maybe delivering his child in a hospital that we have helped design, check and deliver.

That's a way more interesting job to me than working in something like the gaming industry. But that's the exciting part. Now it's back to chasing the team to deliver headlines and web pages for our next product launch. As you can imagine, the best thing about growing is that you get to work with other brand marketeers who are cleverer than you...

Success stories

We're continually helping our customers in their daily work. Discover what our customers say and think about the BIM revolution.

How we've helped our clients succeed

"Solibri is our preferred tool for coordination. Solibri is not only clash detection for us. In Solibri we can go a bit forward, and check information in the models, and check relations between elements in the models, which we cannot do in other tools.

SARAI ZABALLA
BIM CONSULTANT AND OPERATIONS OFFICER
MODELICAL

"To get quality assurance done, there are a lot of things you can do with Solibri: e.g. standard quality checking such as find missing elements, you can coordinate different models such as architectural vs. structural, and make sure the model information is according to requirements.

JOHAN APPELQVIST
CEO
BYGGNADSEKONOMI

"Solibri Office has quickly become an integral part of our QA system for both model validation and COBie exports; within just weeks of completing the training we had successfully handed over six new-build projects for the Department for Education, which would not have been possible without Solibri.

TIM COX
BIM MANAGER
ELLIOTT UK

"For me, Solibri has always been the first choice BIM tool that I have worked with as a BIM coordinator. But once we started to use it for visualizing carbon and cost at Sweco, it gained a new value. We connect carbon calculations with objects in Solibri.

DAVID JIROUT
SUSTAINABILITY COORDINATOR
SWECO SWEDEN

"Solibri is used for the validation of our requirements – we built a ruleset in Solibri that lookws for the properties that are set in the BIM documentation. We have got a lot of positive feedback from the Site Managers on how well built our models are. Our designers also want to produce something that is usable in the end, to feel pride in their work.

JOEL ÖMAN
DIGITAL LEADER
SKANSKA SWEDEN

“We’re literally helping build the future”

Cordeel Group
The Netherlands
Residencial Building

In honor of Solibri’s 25th anniversary, we take a moment to look back at the milestones and achievements that have shaped us into what Solibri is today. But as we reflect on our history, we also look forward to the future, focusing on the individuals who will define the next 25 years.

In this special anniversary edition, we share the inspiring story of Emma van Nuffel, a young project manager at the Cordeel Group. We glimpse into her personal journey and accomplishments, while also illustrating how her work and vision are part of the evolution of the construction industry towards a more sustainable and innovative future.

As we look back on our history, and ahead to what’s to come, individuals like Emma become the catalysts for change and progress.

A YOUNG PROJECT MANAGER AND ONE OF CORDEEL’S BIM AMBASSADORS WITH AN EYE FOR CREATIVITY AND PROGRESS

Emma van Nuffel, a driven young project manager at Cordeel Group, has progressed in her career from a background in calculation to a role where she is responsible for realizing and coordinating projects, ensuring that everything is executed within specified timeframes and budgets on-site.

But how did Emma find herself in this project manager role? “ First we formed our construction team with specialists, where we developed the project in terms of design with project developer Kolmont, worked towards a contract and schedule, the whole project,” explains Emma. “That’s a phase between calculation and execution, which started a year ago, and I’ve been involved in it ever since.”

“From a younger age I was always inspired by engineering and construction, so that’s why I decided to focus on a career in the construction industry. Creativity and my interest in sciences have always attracted me.” Her choice to study industrial engineering sciences was fuelled by her love for the visual aspect of construction and her desire to literally contribute to building the future.

A PARTNER IN INNOVATION AND SUSTAINABILITY

Cordeel Group is a construction company known for its innovative approach and focus on sustainability. As a rapidly growing company, they create smart, energy-efficient, and low-carbon solutions for the construction sector. Their vision is not just to build but to build with a purpose, inspiring other companies to collaborate towards a better future. The Montgomery Parc project in Brussels reflects Cordeel Group’s commitment to circularity and innovation in construction.

Emma van Nuffel van Nuffel is project manager and one of the BIM ambassadors at Cordeel Group.

BUILDING THE FUTURE
"The Construction World is fantastic; it shows you visual results. You're literally helping build the future." says Emma van Nuffel, project manager and BIM Cordeel's BIM ambassador

Visit montgomeryparc.eu to learn more about the project.

BUILDING INFORMATION MODELLING; A CENTRAL AND UNIFYING ROLE IN THE DIGITAL TRANSFORMATION STRATEGY

"At Cordeel, BIM stands for integral collaboration, enables the sharing of project data from a single source, which are essential for the success of our projects. BIM has been part of our workflow since the tender and estimation phase, with Solibri software allowing us to collect and share the right data.

As soon as a project begins, our project leaders use Solibri, with guidance from the BIM coordinator of our BIM Cell, to ensure that validated models can indeed be delivered and realized."

A SHOWCASE OF COLLABORATION AND EFFICIENCY

The project features two buildings with a total of 22.000 sqm, of CO2-neutral and circular offices. The eye-catchers are the green roofs and the large enclosed garden offering a green oasis with a footbridge and underground spaces connecting both buildings featuring a large garden.

An important aspect of this renovation project and also a challenge are the structural modifications being made. Due to limitations regarding load capacity, the upper levels of the buildings are recreated with a steel structure.

By transforming old offices into Brussels' most sustainable office complex, a large amount of existing material is reused. Extensive concrete testing has been carried out to ensure that the concrete structure meet the new requirements.

In the Montgomery Parc project, Building Information Modelling (BIM) plays a central role from the very beginning of the process. Emma explains, "We received the tender, after which we analysed the 3D-design in BIM. The measurement status was automatically extracted based on all the identical codes of each element in the model. This use of BIM ensures that all disciplines like architecture, technical installations, and stability are fully integrated in the design."

By integrating the use of BIM and 3D modelling, the project team can work more efficiently, save costs and time. The end result in 2025 is a modern and energy-efficient office building ready for future demands regarding green buildings. Solibri and the expertise of all concerned team members contribute to the success of this project.

A VISION FOR TOMORROW

Emma's vision for the future includes further development of BIM and sustainable construction practices. She believes that through the use of technologies and standardization, the construction sector can move towards a more sustainable future.

Transitioning into her role as project manager, Emma recognizes the prominent role of motivation in driving teams towards success. "Motivating people is what I like to do most, it's in my nature, and I'm committed to expanding my expertise to elevate my impact as a project leader," she shares.

Emma's forward-thinking approach prioritizing the graphic capabilities of BIM, acknowledging its ability to optimize workflows and improve project management efficiency.

"This allows us to accelerate our work. Utilizing technology to visualize architectural features in 3D we unlock potential for automation, leading to significant time savings for the long term," Emma mentions. This strategic approach allows her to allocate resources more effectively, amplifying her focus on holistic project management." As we look back on the past 25 years and ahead to the next 25, we see individuals like Emma as the driving forces behind progress. Their stories not only highlight the challenges they face but also the successes they have achieved.

MIEKE WOUDENBERG

The efficiency of finding issues early

Roche Pharma AG **Germany** **Flexible Office Building**

Thriving in large projects, Itten+Brechbühl AG manages the Flexible Office Building (FOB) project—a 4-storey office with an underground technical center for Roche Pharma AG in Grenzach-Wyhlen, Germany.

Itten+Brechbühl AG is a Swiss architectural and general planning company focusing especially on complex buildings and larger projects. With over 300 employees, the company has seven offices in Switzerland and three in Germany.

"The models we deal with contain so much information that it's impossible to check them manually or visually," says Constanze Hopf, BIM Manager at Itten+Brechbühl AG. She continues: "When you invest in the BIM method and model checking, you find issues or planning problems a lot earlier in your projects that may otherwise not arise until on the construction site. In the end, in my opinion, this brings largely savings on the construction site and this is what our clients benefit most from."

At Itten+Brechbühl AG, ensuring the aggregated model contains no hard clashes between different disciplines is seen as the business as usual, the basic work. "For us, one of the main purposes of Solibri is that on top of the simple clash detection, there are so many other possibilities to actually look at the design qualities, planning qualities, and so on," says Marc Pancera, Head of BIM Research & Development at Itten+Brechbühl AG. "For instance, we aim at assuring that the required information is in the right place in a model. Therefore, we work a lot with Solibri to make sure that the quality of a model is at the needed level, that it contains all the required information and only then we proceed with it in the project," he adds.

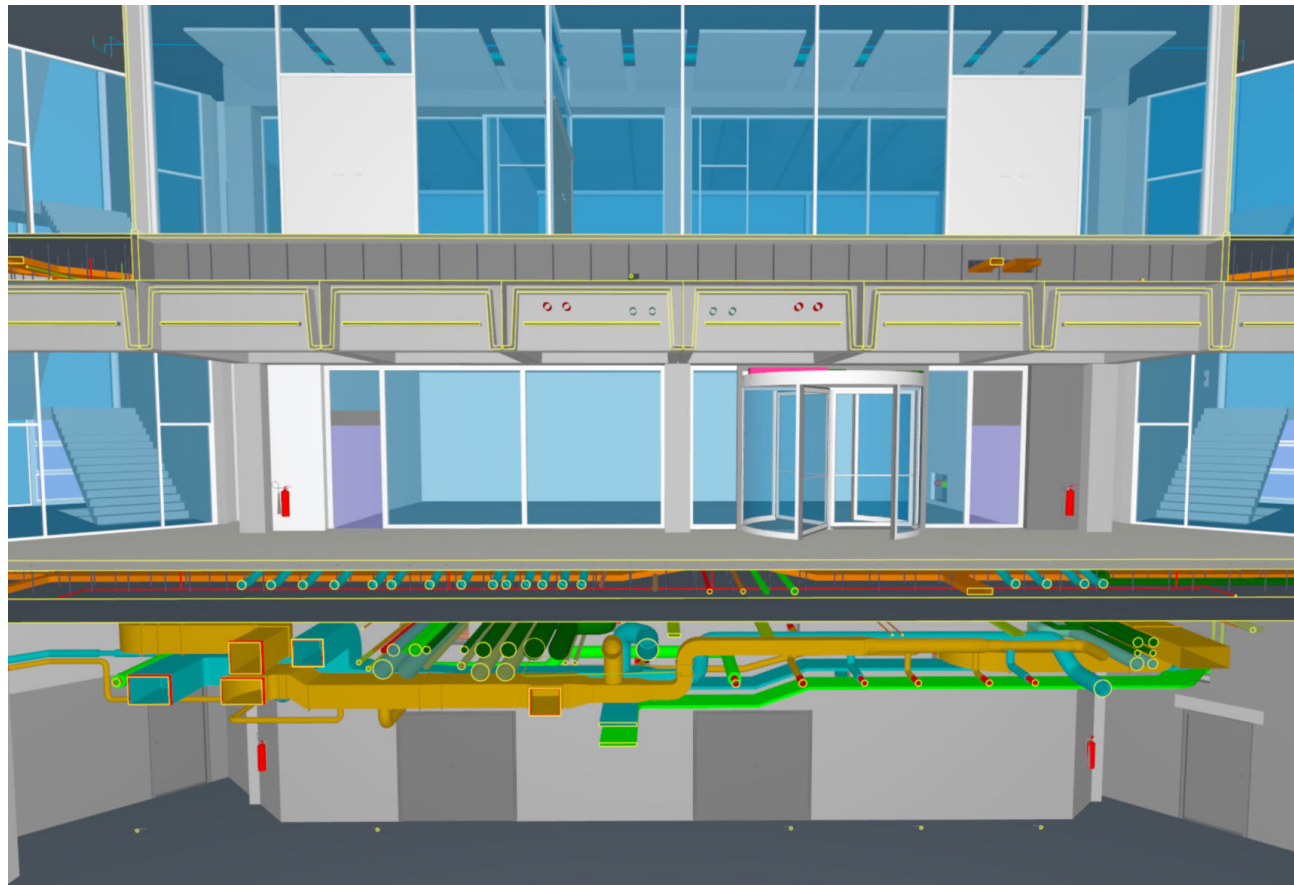
Marc Pancera
Pancera leads the BIM Research and Development team at Itten+Brechbühl AG, which focuses on the digitalization and automation of processes.

Constanze Hopf
Hopf is in charge of defining processes and supporting the planning teams at Itten+Brechbühl AG, with all their BIM process related issues.

In the FOB project, Hopf easily lists a host of situations where Solibri has been a significant help for the team. "You get a quick overview, for instance, in terms of which provisions for voids have been accepted by the civil engineer, which have already been taken over by the architect, or which don't fit with the HVAC planning. We've also found it very helpful to have the rules for checking the space in front of doors or windows to see that they open," Hopf remembers back. Another important check on the FOB project has been ensuring there's enough space in front of the HVAC components. "This is really important for the operation of the building in terms of maintenance in the future," Hopf explains.

Pancera sees that Solibri has become the gatekeeper for quality and the main core of his team's actions. "We started customizing and creating our own Solibri rules about a year ago. We started with our first ideas with classifications and as our team grew, we started building up rulesets by ourselves. Now, we are at a stage where we go further and start implementing rules which we can then even offer to others out there," he says. The new Solibri Developer Platform, still in the BETA phase, opens up even more possibilities for developers to create even more detailed or complex rulesets, and Itten+Brechbühl AG is keen on being a part of the development. "It's very interesting how it makes using rules even cleverer and improves our daily processes. This creates many advantages and is very useful for us and our clients," Pancera reflects.

Watch video
Learn more about the benefits of quality assurance at at Itten+Brechbühl AG



400.000+ euro in cost savings

Copenhagen Airport
Denmark
Aviation

Copenhagen Airport has around 100 projects every year to accommodate the needs of increasing number of passengers. With the help of BIM and Solibri, the quality of the projects has improved – in addition to achieving generous cost savings.

The sounds of trolley bags' wheels rolling against the floor, announcements on departing flights and lively chatting echo in the terminal as people are walking towards gates to catch their flight. Some are lingering in the stores looking at gifts to take home, while others sit in cafes enjoying a cup of coffee, relaxing before embarking their journey from Denmark. This is everyday life at the airport of Copenhagen.

The number of passengers traveling through Copenhagen Airport is increasing. Currently it serves around 30 Million people yearly. It is the biggest airport in the Nordic countries in Europe, located very close to the center of the country's capital.

"Our strategy is to have one airport that has all the terminals and piers under one roof. We are increasing the capacity of the existing buildings and areas to accommodate the rise in the number of passengers and improve the passenger experience. Due to this, we have around 100 different projects every year," explains Michael Ørsted, the Head of Department Technical Knowledge at Copenhagen Airport.

TURNING QUALITY ASSURANCE STANDARDS INTO RULES

Michael and his team are handling all data and BIM models, offering a link between asset management, operations and ongoing projects at the airport. One challenge Michael and his team have faced together with the Asset Managers in the projects is ensuring the quality especially, as they have been getting a lot of 2D drawings. It is harder to see the big picture and how different designs are linked without using 3D models.

"We are trying to offer a better tool for our Asset Managers to ensure better quality, for all the building projects we have here at Copenhagen Airport. We were used to using Solibri in our projects for clash detection and consistency checks, so it was a natural choice for us to start using it more. Now we are automating quality checks in Solibri by creating the Asset Managers' quality assurance standards into rules and use them to check all the models," Michael elaborates.

"We are handing out these rulesets through our website to all the participants in the projects. It allows our Asset Managers to demand that these rules are being used by all the stakeholders. This means that the errors should be found by

Michael Ørsted
Ørsted has been working at Copenhagen Airport for over 10 years as the overall responsible for GIS, BIM and data to support building projects and daily maintenance. Ørsted is the chairman of the Digitalization group within the Danish Building Owners' organization.

the construction and engineering teams at an early stage, instead of the Asset Managers discovering them later. This has also improved collaboration between all the different teams and given us a way to make sure every demand from the operations is considered early on," Michael explains.

FINDING ISSUES EARLY LEADS TO SIGNIFICANT COST SAVINGS

Michael is already seeing some concrete benefits of using Solibri in their projects.

"Our engineering team has calculated that we have saved more than 400.000 euros in this project, by finding issues that we wouldn't have recognized before. The external contractors are motivated to use the system, because after all they want to handover projects that are compliant with our needs and have the discussions about whether or not to take actions on findings that they have."

OPEN RULESETS FOR DENMARK'S WHOLE CONSTRUCTION INDUSTRY

Besides his work at Copenhagen Airport, Michael also strives to develop the whole industry in Denmark by acting as the chairman of the Digitalization group within the Danish Building Owners' organization.

"We share our Solibri knowledge to other building owners. We have just recently started collaboration with some of the largest building owners here in Denmark in order to convert some of our national building requirements into rulesets. The idea is to have an open system that is free in Denmark, where we could hand out these rules to every project to make sure that our building regulations are met. We are seeking external funding for this initiative to be able to work more on it, and to have the majority of our national regulations as rulesets in the future. It means that every project in Denmark would have assurance that as a minimum, our building regulations are met on all the projects."

Watch video
Michael Ørsted shares how BIM and Solibri have helped to improve the quality of their projects – in addition to achieving generous cost savings.

IMPROVED COLLABORATION
Solibri has improved collaboration between all the different teams, says Michael Ørsted.

BIM for the UK Ministry of Justice – Quality assured

Ministry of Justice **United Kingdom** **Public sector**

Bond Bryan Digital collaborated with two contractors on the UK Ministry of Justice estate transformation from Dec 2017 to Aug 2018. The successful project resulted in nearly 20,000 Solibri rules and 16 federated models with minimal errors.

A part of the Bond Bryan architectural company, Bond Bryan Digital (BBD) is an award-winning consultancy offering expertise especially in information definition and management throughout building projects. Their goal is to help clients gain better value for the entire life-cycle of their built assets. Therefore, rather than just modeling, BBD Associate Director Rob Jackson defines BIM as Better Information Management – supported by OpenBIM processes.

In the estate transformatio project, the original scope for BBD was quality assurance with Kier and another contractor, but after getting started, the scope extended to also re-align the requirements with open standards. Jackson reflects: "The original requirements were very good, actually, probably the best requirements we've seen. We really wanted to finesse those." As a starting point, BBD received a set of documents with various data where one of the focus points was the categorization used by the Ministry of Justice. For example, there were items in the requirements that are outside the scope of the COBie standard or that are not supported in the IFC (Industry Foundation Classes) schema.

The two contractors also had different authoring software in use and there were data exchanges between different systems where there was room for clarification. Furthermore, the models were quite complex, for example, as they were also designed for manufacture and assembly. This made it even more important to ensure the requirements aligned with the model checking.

Rob Jackson
Jackson works as the Information manager & BIM consultant AT Bond Bryan Digital. He is an advocate of OpenBIM workflows and the use of open standards.

Watch video
See how Bond Bryan Digital took part in the UK estate transformation for the Ministry of Justice to work collaboratively with the contractors.

"That connection is very important, so we spent some time reorganizing the requirements in order to then build the checking rules around them," Jackson explains. For true consistency of the data, the information needed to be aligned with open standards as far as possible, going further than merely mapping the authoring tool models for IFC classification. There was a clear need for OpenBIM.

OpenBIM allowed for all the parties to deliver in the COBie and IFC formats regardless of the tools they were using. Jackson emphasizes: "When I talk about delivering in IFC, I don't mean a model which is coded in IFC with some data in it. What I mean is a model which is as compliant as can be with the IFC schema." Along with OpenBIM, the original data was reconfigured to use the IFC classifications instead of the original categorization. Some of the attributes were amended, for example, the original attribute for heating and cooling capacity was broken down into two attributes, one for heating and another one for cooling. In addition, BBD wanted to be very clear not just about which attributes were wanted, but also where in the IFC they were wanted. This resulted in a requirement document for how the data was going to be delivered, setting a very clear framework for the actual model checking processes.

As the project output, BBD created nearly 20 000 Solibri rules for checking different concepts, disciplines, element types and stages in the models. Some of the rules were re-builds from earlier projects. Although initially a massive task, it's bringing great benefits and time-savings also in the long run. Jackson describes: "Some of the work was a part of the estate transformation project and some of it we took as our own research and developed the rules further. It has involved most of this year, but I've just taken a very similar set of rules for another project and it took me less than half a day, now that I've got those rules, to re-configure."

The role of BBD in the estate transformation project ended with a successful delivery of 16 federated models, fully checked with very, very few errors, from where the models could be taken forward and developed further in the project.

“Worth its weight in gold”

GMP Hamburg **Germany** **Stadium**

The architects at GMP in Hamburg will spare themselves a lot of anxiety, a lot of money and a lot of time by using Solibri for their future projects.

The software supplier Mensch und Maschine (MuM) made a major contribution to this upgrade: not only are they providing GMP with CAD software and training, but they’re also offering a never-ending supply of good ideas for making GMP’s work easier and safer.

Shanghai’s Oriental Sport Center, Estadio Mineirao in Belo Horizonte, Estadio Bernabeu in Madrid, Berlin’s Hauptbahnhof, Villa Guna in Jurmala, Moses Mabhida Stadium in Durban ... Anyone who wants to visit the construction projects of the GMP architects, Gerkan, Marg and Partners, can look forward to an interesting trip around the world.. With 13 locations from Rio de Janeiro to Shanghai, the agency focuses on diversity, unity and unmistakable uniqueness. As it says on their website, “Our ideal is to make our designs so simple that they will stand the test of time.”

BIM, OBVIOUSLY

It’s obvious from the global scope of their activities that GMP has been dealing with the issue of Building Information Modeling (BIM) for many years. It’s difficult to acquire projects in Asia and the Anglo-Saxon countries without BIM, explains Markus Carlsen, who has been responsible for the systematic development of BIM infrastructure at GMP since he took the position of BIM Manager and Developer a year ago. GMP’s BIM team now has 6 employees at their German locations.

“Luckily, we’ve had the right partner from the very beginning: Mensch und Maschine,” explains Markus Carlsen. Mensch und Maschine (MuM) has provided the architectural agency with CAD software for a long time, mainly from the Autodesk software corporation, but also with their own tools and interfaces that facilitate design and documentation work. MuM also knew that GMP was interested in Building Information Modeling, so their consultants presented new software, new approaches, new ideas.

Markus Carlsen
Carlsen is responsible for systematic development and BIM infrastructure at GMP.

SMC FINDS ERRORS QUICKLY AND RELIABLY

Markus Carlsen mentions two examples of typical errors: When designers are marking supports in the floor plan view, all it takes is for the phone to ring at the wrong moment, and suddenly they’ve clicked the top edge of the floor in the story above as a reference height, instead of the bottom of the finished ceiling. In large building projects, often nobody notices the mistake at first. It’s also likely that no opening is provided for some of the many hundreds of ventilation ducts. Such an error may even go under the radar in the 3D view.

It’s precisely this kind of error that SMC found during reproduction of these projects. Files were periodically exported from Autodesk Revit, the building services and structural engineering software, as IFC data (Industry Foundation Class, a software-neutral model description language), and then imported into SMC and tested. The indicated errors could then be fixed quickly and easily.

Solibri helps to detect very complex errors early—errors which, in the worst case, wouldn’t be visible until construction work had already started.

If the model of planning through to construction were to remain the same, errors would be nearly unavoidable. Huge numbers of them can be found quickly and easily using BIM. To be sure, the model has to be present from very early on with a great level of detail. However, this effort in the earliest phase pays off later in a big way. We have to try to avoid changes as much as possible. They result in high costs later in the planing process, even with BIM.

Can the savings from the use of SMC be quantified? Markus Carlsen laughs: “I can’t express it in terms of numbers. But one thing is for sure: It’s A LOT! ...GMP will spare themselves a lot of anxiety, a lot of money and a lot of time once Solibri is firmly incorporated into the team’s work. “We know that we’re on the right track,” says Markus Carlsen. “And we’re very grateful to the people at MuM that they always keep the easier and safer work of their customers in mind. Their tip about SMC has already proven to be worth its weight in gold.”

SEE THE WEBINAR

Learn about the new game-changing fire safety design process developed by Laing O'Rourke, BDP and Solibri.

SEE THE WEBINAR

Learn about how the new district of Helsinki is being made almost entirely from timber.

UK

Constructions digital manufacturing revolution

The automation shift can be clearly witnessed at the UK's Explore Industrial Park. Conceived and owned by Laing O'Rourke – a global general contractor with some 13,000 staff and an £8bn pipeline – the vast factory is the most automated concrete products facility in Europe.

Errors in production can slow the overall progress of projects, affect other activities out on the construction site and mess up the factory's work schedule, costing time and money.

Once a project lands at Explore, Laing O'Rourke works with all stakeholders to ensure the desired level of component standardisation is delivered across the project, while tackling the challenge of taking the architects'/engineers' concept and making it a reality through the offsite process.

To ensure the accuracy of their digital information, the team use Solibri Office to validate its contents. Pulling information from various different members of the design team into a single combined or "federated" information model in Solibri, the tool can then be used to check the quality of that data, communicate any issues, enable quantity take-off and classify components.

With their design information quality checked, the team then issues digital production information directly to the factory floor, where the process of component manufacture begins.

Laing O'Rourke's manufacturing process is highly automated, helping projects delivered through Explore to take significant strides in productivity.

ADAM SAVAGE
THEB1M.COM

Finland

Why Finland is Building a Wood City

Developed by Finnish construction company SRV in cooperation with Stora Enso - the largest supplier of wooden construction material in Europe - the new offices at Wood City are being built using so-called "massive wood products" - mainly laminated veneer lumber, or LVL.

Accuracy was key and the project team worked in an information modelling environment, effectively building the city virtually, before construction.

The undulating cross-laminated timber ceiling in the lobby of the office building was especially complex and had to be coded using detailed algorithms to create diagrams, that were then fed to the cutting machines offsite.

Timber arriving at site cut to the wrong size or shape could seriously slow down construction, costing time and money to sort out.

To avoid this, the team de-risked the project by checking their virtual models in Solibri. The Helsinki-based software firm's platform allowed the team to combine and co-ordinate their virtual designs.

Solibri Office gave designers the ability to overlay and compare their models, discussing issues and maintaining the flow of construction information to the factory, while Solibri Anywhere meant that any party working on the project could access the data they needed, wherever they were.

Used in almost every meeting between the designers, the software is a critical element of their workflow.

With construction advancing, Wood City is already a striking feature in a city known for its diverse architecture.

ADAM SAVAGE
THEB1M.COM

Building the future

The next steps for Solibri

I remember the warm sunny day of June 2018, when I was handed a folder by a recruiter with “Solibri” written on it. Clinging to the folder, unwilling to let it go, made me think of the sustainability challenges we face globally and particularly, in construction.

I genuinely believe that there’s a lot we can improve in construction, yet with the new technologies available to accelerate global change is something that motivated me then and now.

THE SKYLINE IS NOT THE LIMIT

The vision has always been to make better builds – safer, more functional and sustainable with economic success. Yet, the challenge we face is to package what we can do today in such a way that more people, construction, BIM or design professionals, benefit from Solibri every day, and in every project.

Solibri has always been about quality, and my vision for the company is to develop a certification of quality given for all construction data checked through Solibri. Ideally, this would form a baseline measurement for quality assurance across the construction industry.

We are strongly connected to the digitalization of the industry. It is interesting to see how different countries differ in their ways of working and how the same problems are being solved differently. We are now reaching a stage where 3D design is overtaking traditional 2D drawing to designing. However, 3D is still different from actual BIM.

The key difference is in the information richness of the model and how that can be used – I think Solibri is still showing an example to the global market on how to utilize and mine the data that is already available in the BIM.

This company was started by dreamers and believers. And from that, we must give special thanks to Pasi Paasiala, as well as Heikki Kulusjärvi and Anne Urrila, as this ethos has grown deep into the roots of Solibri, showing us that our future aspirations can be attainable.

Ville Kyytsönen
Kyytsönen is the CEO of Solibri since 2018. With 20 years of experience in the software industry, He has a passion for improving digital construction and solving global challenges.

CLASS CHECKING TO SUCCESS

Just as our solution highlights model clashes and alerts them to the user, we also have our own clash checking process. This comes in the form of listening to you, taking on feedback and driving the product to meet industry needs.

It is very apparent that Solibri is far from a plug-and-play solution, which people can just pick up and use. Although some would argue a negative, I see this as a positive conundrum. I have seen frustration amongst customers for this, but it also shows a huge drive in commitment and engagement as users have taken the time to learn and master the way Solibri works whilst matching it to meet their needs.

When speaking recently with a customer, it was great to hear how much they appreciate the power that Solibri gives them.

Yet, the challenge here remains ever apparent, that it takes time to master and learn Solibri. Usability and ability to deploy Solibri to the masses is a challenge we need to overcome. While we work on usability and making it simpler and faster to get value from Solibri, we also need to keep an eye on the other market trends and needs – digital collaboration, AI, sustainability etc and how to incorporate these into the product.

CHECKING OUT WITH A QUALITY ASSURANCE

There is no Solibri without Solibrians – the know-how and understanding of customer needs and what is possible lives deep in the combined understanding of everyone at Solibri and with our valuable partners. You are the backbone of how we, as a global brand, drive quality and enable a profound change across the construction industry.

I raise a glass to the fantastic team, both past and present, to get the company to where it is today. Across the board, across all departments, the teamwork and enthusiasm shown to constantly improve and deliver quality is profound.

Whether that is within the Design team finding ways to improve user interfaces, or the Product team delivering new features based on customer feedback, or even the unsung heroes who keep the day-to-day of Solibri running.

Each and every Solibrian plays an important role in how far we have come, and in how far we can reach. We grow and extend our abilities as digital construction develops. We strive to stay on the bleeding edge of development and incorporating all major stakeholders.

Furthermore, without our loyal, committed and enthusiastic customers, the construction industry would lack the utmost quality that we strive for today. It is with your determination, passion and hard work that we can bring to life this vision of implementing and maintaining profound quality, as well as improved changes, within construction. And for that, I commend my deepest thanks for making that vision happen.

Solibri Headquarters

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Benelux Office

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Bart Bol
Customer Success Manager

Vic Bensdorp
Account Manager

Tjeerd Smilde
Sr. Account Manager

Mieke Woudenberg
Marketing Manager & E-commerce Manager

> "As humans have been building for the past 400 000 years, you'd think we would have this figured out by now. – V. BENSDORP, 2024

Where early humans came to Europe from the south, digital construction moves in from the north. With the BeNeLux following the footsteps of Scandinavia in digital construction, we have been a part of this 25 year journey for the last 3 years.

Gradually we have grown into a miniature Solibri with our own support, sales and marketing representatives and work every day to make buildings better!

We build this team on the strong mix of extensive experience and young energy! Not just within our team, but this is also reflected in our enthusiastic users that come up with new ideas to continue to perfect the art of building.

The oldest house in the Netherlands dates back to 1130. I can only imagine how long the buildings constructed over the past 25 years will last! – and on to many more!

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DACH Office

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Annabelle Speth
Customer Service Specialist

Sarah Hielscher
Customer Service Specialist

Claudia Maschitzki
Territory Sales Executive

Catalina Urkötter
Administrative & Sales Assistant

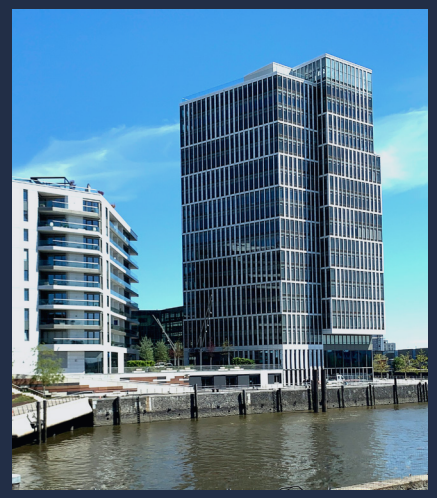
> Nothing less than saving the world: preserving the earth as a place worth living in.
> – SARAH HIELSCHER

Once upon a time Solibri DACH was founded in 2016 in the heart of Hamburg's HafenCity. It all started with lone knight Andreas Verfürth who was responsible not only for sales but also for support and marketing. In those first 4 years he had to fight his way through the jungle of the German construction industry as a Country Manager all by himself.

Slowly but surely Andreas gathered more heroic fairies in 2020, 2022 and 2023 to help him with tasks like Customer Service, Sales and Administrative Assistance. Until today Andreas Verfürth, Annabelle Speth, Sarah Hielscher, Claudia Maschitzki and Catalina Urkötter are forming the team of Solibri DACH.

We do not only offer a software solution for rule-based model checking, but also support services, training and consulting to enable our customers to realise their BIM projects more successfully in terms of time, costs, resources and quality.

As BIM champion, awarded by buildingSMART Germany, we want to drive forward further innovations - as leader in BIM QA/QC we are doing this with full conviction.



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Ken Good
Customer Success Manager

Jack Dean
Sales

> Solibri UK team remain focused on delivering an exceptional service to all our customers, and ensuring Solibri continues to be recognized as a leader in design quality assurance. – LEE MORRIS

Celebrating its 25th anniversary, Solibri has significantly impacted the AEC industry in the UK and Ireland with its openBIM software, enhancing project quality, accuracy, and efficiency. Valued for its model checking capabilities, Solibri encourages collaboration and innovation in digital construction, reflecting on its growth and looking forward to future advancements.

Together, Solibri UK team has over 30-years experience in BIM and design quality assurance. This is just one of the many reasons why people continually look for our support on a wide range of projects.

The UK team would like to thank all our customers for the continued support, and we look forward to working with you in the future.

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Gabriel Castel
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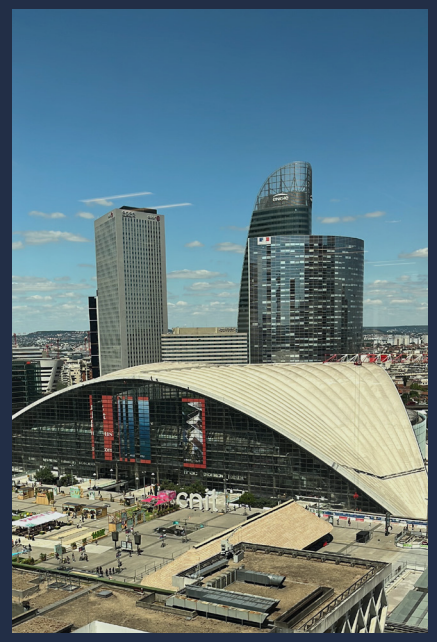
Isabel Rassmann
Sales representative

Nicolas Valette
Customer Success Manager

> Solibri stands at the intersection of innovation and tradition, ensuring the integrity of building models today and pioneering the BIM technologies of tomorrow. – GABRIEL CASTEL

As we celebrate 25 years of excellence, we're not just looking back at our achievements but forward to a future where our solutions empower every building project to reach its highest potential.

Our team is a dynamic mix of BIM experts, Solution oriented specialists, with «customer first» approach. Each member brings a wealth of experience and a unique perspective, contributing to our innovative solutions and unparalleled customer support. From the early adopters who laid our foundation to the fresh talents propelling us into new frontiers, our team is united by a shared passion for shaping the future of construction."



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Finland Office

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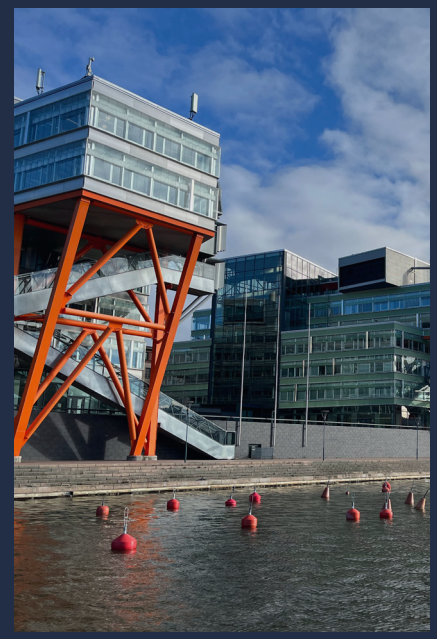
Matti Jaatinen
Country Manager

Peter Peltonen
Customer Success Manager

> The quality of the data defines the value of the data. As one of our client has mentioned, the best business cards for a designer is a high-quality and accurate design. Solibri has helped designers to have the best business card. – MATTI JAATINEN

The Finnish team is agile and accessible providing a premium support to our customers. The team works diligently ensuring the customers to achieve great results with Solibri. Like our product ensures high-quality designs, our team strives for high-quality support and service.

Our focus is not only on customers but on the whole Finnish construction industry. For the 25 years Solibri has helped the Finnish industry to be forefront on BIM utilization. It's our privilege to lead the construction sector in to more productive, sustainable and digitalized industry.



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Americas Office

3 employees

Jason Reichel
Country Manager

John Lipp
Customer Success Manager

Paula Cooper
Marketing

> In my decade at Solibri, I've had the fortune of working alongside wonderful friends, connecting with great customers, and visiting remarkable places around the world. – JOHN LIPP

We are proud to partner with some of the most well-known AEC firms in North and South America, supporting their projects with our leading technology and local support. The U.S. specifically is a large, mature, and competitive market and we look forward to the challenge of being a key part of Solibri's future success and growth initiatives.

Our team has many years of experience both with Solibri and other supporting companies in the industry.

The love of construction with all team members shows through in our sales, support and marketing activities. The Americas is a big piece of land but is covered by a Solibri team with big ambitions and big support from the rest of the world's Solibri work colleagues.

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