

From digital deliverables to project value.

Beyond BIM

Designing the system that creates
project value

*Why mindset, processes and roles
must change.*

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Three Forces, One Industry

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| 1 | Regulation & Standards | SIA norms, sustainability rules and the shift toward machine-readable standards are raising the baseline for every project. |
| 2 | Technology | BIM, models, data and increasingly AI are more mature than ever — but adoption still outpaces transformation. |
| 3 | People | A generation shift is underway. The industry needs new competencies — not just new tools. |

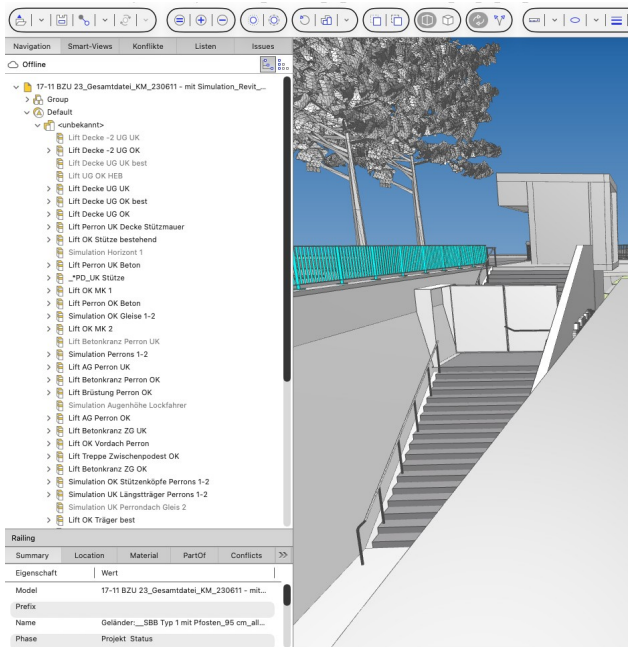
Are we transforming the way we deliver projects — or are we simply digitising the way we have always worked?

The Handrail

You receive a commission.
A new SBB station.
Handrails and guardrails throughout.

What do you do first?

We are translators between customer and user.
We are adding information to our models.
The information becomes more and more machine interpretable.
We follow FAIR Data principles...



But are we also translating into the right language for production?

The Vision and the Reality

We model the object. We schedule the dates. What connects them — the production workflow — we rarely model at all.

SCHEDULE

Delivery week 32 / Installation week 35

- Milestone dates
- Percentage complete
- Budget tracking
- Baseline plan

Reality!

- Fabricator order book
- Surface treatment queue
- Logistics to station
- Trade sequence on site
- Certification & sign-off

"The schedule is a vision. The production system is reality." — Zabelle & McCann

The Tribal Problem

We have become very good at modelling the product. Rarely the system that produces it.

“BIM changed the tool. Not the tribe. We still use methods we know don’t work — because we want to belong.

**The conversation
always about**

Design · Material · Form · Detail

Rarely about

How is it produced?

In what sequence? By whom?

With what lead times?

Every object treated as one-of-a-kind — keep the production system invisible.

From Digital Twin to Production Twin

More parallel work extends the project.

Your BIM model — parametric, increasingly generative — already defines 12 fundamental variants, and growing.

WHAT BIM ALREADY DEFINES

Geometry	Material spec.	Surface treatment	Fixing type	Norm requirements
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WHAT BIM DOESN'T ANSWER

Product 12 variants — worth standardising?	Process Bill of Process documented?	Capacity Matched to real throughput?	Inventory Delivery synced to installation?	Variability Managed — or ignored?
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Earned Value tracks money spent — not variability absorbed.

The production system carries complexity that nobody modelled, and nobody is responsible for seeing it.

The production twin models what the BIM model doesn't: the system that produces it.

The Same Pattern, at Every Level

The handrail is one component. The same gap between BIM and production repeats at every level of the industry.

PROJECT LEVEL

We optimise individual services
— rarely the process as a whole.

ORGANISATIONAL LEVEL

BIM responsibility gets
delegated — without changing
decision paths, roles or
procurement.

INDUSTRY LEVEL

We build the integration layer
that lets separate systems talk
to each other. Soon, that data
must survive the handover into
facility management, not just
the project.

Open standards create the foundation — not the transformation. What we still need is governance, ownership and trust.

The People Who Run the System

A generation shift is already underway — and it is an opportunity, not a shortage.

NEW GRADUATES

Digitally fluent from day one — but rarely trained to think in production systems.

EXPERIENCED PRACTITIONERS

In DACH countries over 30% of the workforce will be 55+ by 2030 — time to pass on deep production knowledge, if anyone designs the transfer.

Education is where both meet. Teaching production-system thinking alongside digital tools — not after graduation, but from day one.

Three Shifts

Information is not valuable because it exists. It becomes valuable when it changes a decision.

1

Decisions

Not which model must be delivered — but which decision needs to be better. Information creates value only when it changes a decision or an outcome.

2

The System

Not only milestones and disciplines — design process, capacity, dependencies and variability as one connected system.

3

The Ecosystem

Not isolated project models — standards, product, production and facility management data, connected through linked data, and owned beyond the project's end.

Start with value. Define responsibility. Change the system around the technology.

Going beyond BIM does not mean better models, more data or smarter software alone.

It means changing how we decide, who is responsible, and how information is used across the system that produces the asset.

Better decisions. Clear responsibility. A system that connects and learns.

Construction does not lack digital technology.

What it lacks is a consciously designed production system.

Over to Christoph — from information to measurable value.