

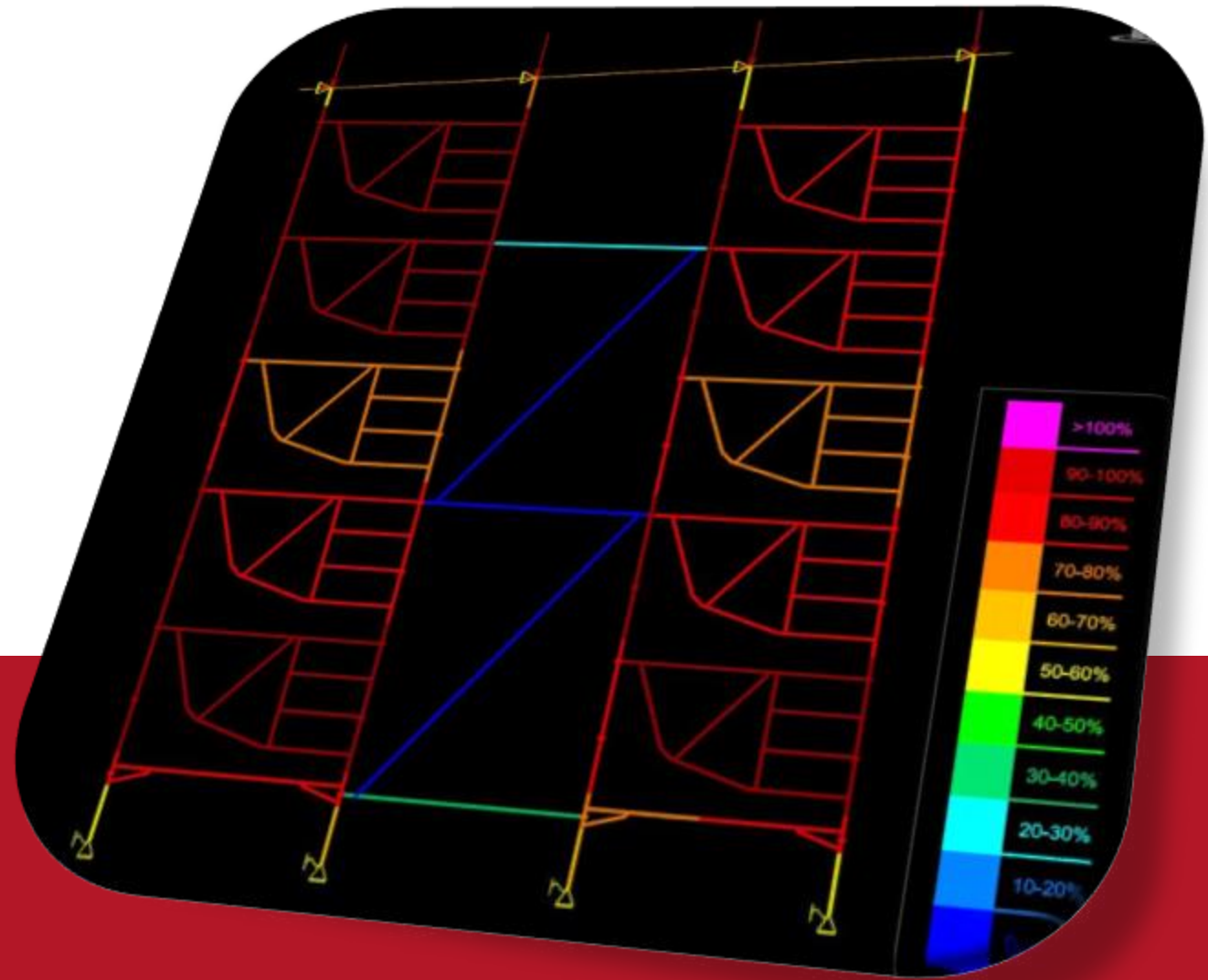
# SMART SCAFF

WE BRING EFFICIENCY  
INTO THE  
SCAFFOLDING MARKET

WITH  
OUR SOFTWARE

**FFC<sup>2</sup>**

(FORCE-FLOW-CONTROL AND CONFIGURATION)



SCAFFOLDING PLANNING SEEMS TO BE EASY, BUT HANDLING THE STATICS ISN'T. THEREFORE PLANNERS OFTEN FAIL TO DESIGN EFFICIENT SCAFFOLDS WASTING LOTS OF MATERIAL AND TIME.



**50**

years there was no major change in the planning methods. Paper and tables with standard values are still the base of daily work.

**tons**

of material are planned and built uselessly into projects – optimization is not yet considered (up to 40% material per project wasted).

**weeks**

of downtime on construction sites are caused by short-term changes or material shortages.

*The cause of these inefficiencies is the complexity of the technical peculiarities of scaffolding.*

A SOFTWARE THAT COMBINES PLANNING AND STATICS TO RADICALLY SIMPLIFY THE HANDLING OF STATICS BY AUTOMATICALLY GENERATING THE ANALYTIC MODEL – SAVING TIME AND UP TO 40% MATERIAL



*“Planning scaffolding systems as they are needed, not planning them as they are designed upfront.”*

**2x**  
Faster

### **3D CAD-Scaffold Configurator (BIM)**

Automated scaffolding design on the CAD model of the building project (BIM)

Allows the easy use of the full flexibility of scaffolding systems and to optimize them

**>5x**  
Faster

### **Analytical Model Generator (AMG)**

Automatic conversion from CAD into an element structure

Enables economical, project-specific planning & precise calculation for any application

Save  
**20 to 40%**

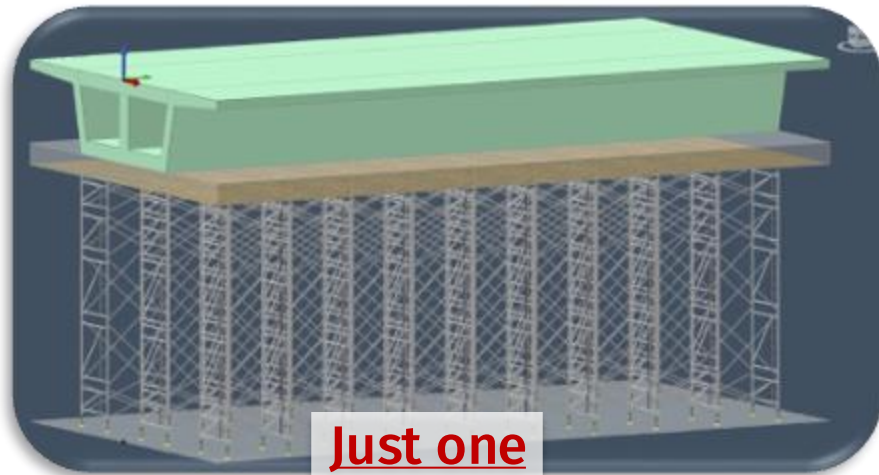
### **Analytical Model Analyzer (AMA)**

2D structural analysis including all non-linear and force-locked connections

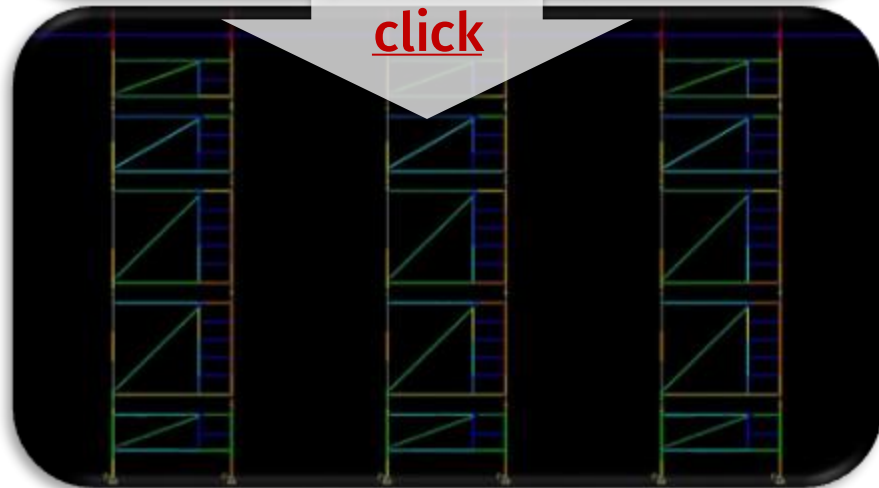
Instant overview of component utilisation enables build-up optimisation on material usage

The reduction in material usage (-40%) affects the entire value chain (production, logistics, assembly and dismantling).

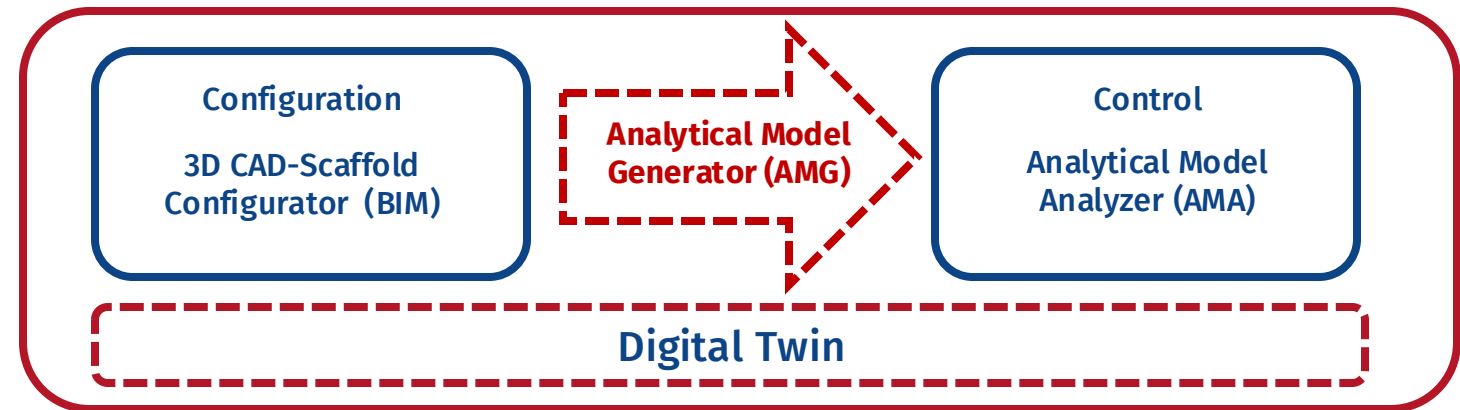
# FFC<sup>2</sup> – TWO IN ONE – CONFIGURATION AND CONTROL WE'RE OPENING THE BLACKBOX OF STATICS TO IMPROVE THE PROCESS AND THE RESULTS SIGNIFICANTLY



**Just one  
click**



## Software FFC<sup>2</sup>



- Stand-alone product – provided on a server – running local
- Programme-supported configuration of the scaffold
- Handling loose, non-linear, force locking connections
- Providing all necessary proofs
- BIM compatible
- Open for all system scaffolds (Industry solution)
- Open programmable interface to other programmes (API)
- Preparation of verification reports as pdf.

*To free the engineers from these restrictions, we have the perfect tool to handle this complexity!*

# B2B – SAAS | WE PROFIT FROM SCALABLE SAAS RECURRING REVENUE BOOSTED BY ONGOING ENGINEERING SERVICES FEES (I.E. DIGITAL TWIN CREATION)



1.

**ARR: license fees are currently about € 3.300,- user/p.a. (Ø) – margin 48%**

**Selling subscriptions to Manufacturers, Engineering Offices, Construction Companies, Consultants and Inspectors.**

2.

**Digital Twin Creation results in a turnover of € 60k to € 100k – margin 10%**

**Creation and maintenance (ongoing business) of the digital twins (customised data of system scaffoldings) for the OEM's.**

3.

**Currently billing according to time and effort**

**Services: Training, Support, Consultancy (OEM's regarding development, certification and application of scaffoldings).**

**Out-look**

Enhancement of communication with other software (CAD, structural analysis), introduction of 3D analysis, AI implementation in planning/configuration, Cloud Computing.

WE OPERATE IN A STRONGLY GROWING MARKET, WHICH IS CURRENTLY UNDERSERVED BY TECHNICAL INNOVATION AND STILL MAINLY FOCUSED ON MANUAL TASKS BUT SAFETY REQUIREMENTS ARE INCREASING WORLDWIDE

Worldwide growing shoring market<sup>a</sup>

€ 27.5Bn (2024)

Planning is about 10%<sup>b</sup>

€ 2.75Bn

Software is about 6%<sup>c</sup>

€ 165Mil

TAM

SAM

SOM

**No scaffold – No building!**

The scaffolding market is a growing (estimated with 5,2% p.a. until 2030) and secure market. Working and planning methods are still very traditional and there is a lot of catching up to do.

In the shoring market the statics are most relevant. FFC<sup>2</sup> can be adapted to the requirements of industrial- and access scaffolding as well → additional market potential: (2x of shoring market size = € 55Bn).

PLUS: The concept of FFC<sup>2</sup> could be applied to additional markets characterised by modular systems (i.e. Rack Systems).

a) Insights Leader research – extracted shoring; b) market insides (common); c) estimation

First of all, we want to conquer the shoring market and therefore gain the manufacturers as customers.

SMART

SCAFF

WE ARE ENTERING A MARKET THAT IS STILL AWAITING ITS DIGITIZATION. STARTING WITH SELLING OF DIGITAL TWINS WE WILL GROW OUR BUSINESS OF SUBSCRIPTIONS EXPONENTIAL

## 1. Adding more Digital Twins (DT's)

*Main approach:*

**Develop DT's on Manufacturers account**

Activities: Direct Contact to C-Level; Fairs; Lectures; Association work; Social Media; Price model

*Alternatively:*

**Develop DT's on our account**

Valid business case; Financing ensured

**Develop DT's on third parties account  
(i.e. Big Contractor)**

Activities: Lectures; Association work; Social Media

## 2. Selling subscriptions to OEM's

**Follow-Up Business with OEM's**

Activities: Trainings; Support; FCC<sup>2</sup>-Forum; Experience days

## 3. Selling subscriptions to the market

**With growing traction, trust and number of DT's,  
market acceptance will rise.**

Activities: Fairs; Lectures; Association work; Social Media

## THREE MEGATRENDS MAKE A PERFECT TIMING: CO2-REDUCTION, COST PRESSURE, LACK OF SKILLED PEOPLE



The construction industry is meanwhile open for digitization to improve their processes.



**CO<sub>2</sub>** CO2 reduction and sustainability are increasingly important factors (i.e. ESG, Tenders).



Lack of skilled people and growing safety requirements demands new solutions.














The pressure is increasing due to rising costs of material, energy and interest rates.



# NO DIRECT COMPETITORS – OUR COMPETITION OFFERS ONLY VERY SPECIFIC SOLUTIONS FOCUS ON PLANNING OR ON ANALYTICS BUT NONE PROVIDES THE SPECIFIC ANALYTICS FOR SCAFFOLDS

Program supported planning and automatic generation of an element structure are USP's

Feature	FFC <sup>2</sup> 	Scaffmax 	Smart Scaffolding 	ScaffPlan 	REVIT 	AVONTUS 	R-FEM R-Stab 	SCIA 	Sofistik 	Scaffcalc 	Layher API to R-Stab 
CAD Planning	X	X	X	X	X	X	–	–	–	X	X
3D Scaffold Configurator	X	X	X	X	–	–	–	–	–	X	–
Analytical Model Generator	X	–	–	–	o	–	–	–	–	o	X
Analytical Model Analyzer	X	–	–	–	–	–	X	X	X	o	X
Force-dependent proofs	X	–	–	–	–	–	o	o	X	o	–
Loose and non-linear stiffnesses	X	–	–	–	–	–	–	o	X	o	o
Auditable reports	X	–	–	–	–	–	X	X	X	X	X

X = available | – = not available | o = with limitations

FFC<sup>2</sup> users love and trust our solution because it is easy to handle and gives them safety.



WE HAVE ALREADY TWO INDUSTRY LEADERS AS CUSTOMERS AND OUR SOFTWARE IS USED DAILY IN MORE THAN 8 COUNTRIES AROUND THE WORLD (€ 90K ARR)



**35** Subscriptions (Jan. 2025) used in:  
GER, PL, F, UK, AUS, AE, US, ARG, NOR

**2** OEM's as customers:  

**3** Construction companies:   

**6** Digital Twins from PERI-, DOKA- and SGB-Systems could be launched within a short time.

WE BELIEVE IN FFC<sup>2</sup>  
A COMPETENT TEAM, WHICH PERFECTLY COMPLEMENTS IN AGE,  
EXPERTISE AND EXPERIENCE



### Lars Trittel

Business Graduate  
(University Mannheim)

Commercial,  
Management,  
Marketing and Sales  
more than 25 years of  
industry experience  
2<sup>nd</sup> start-up

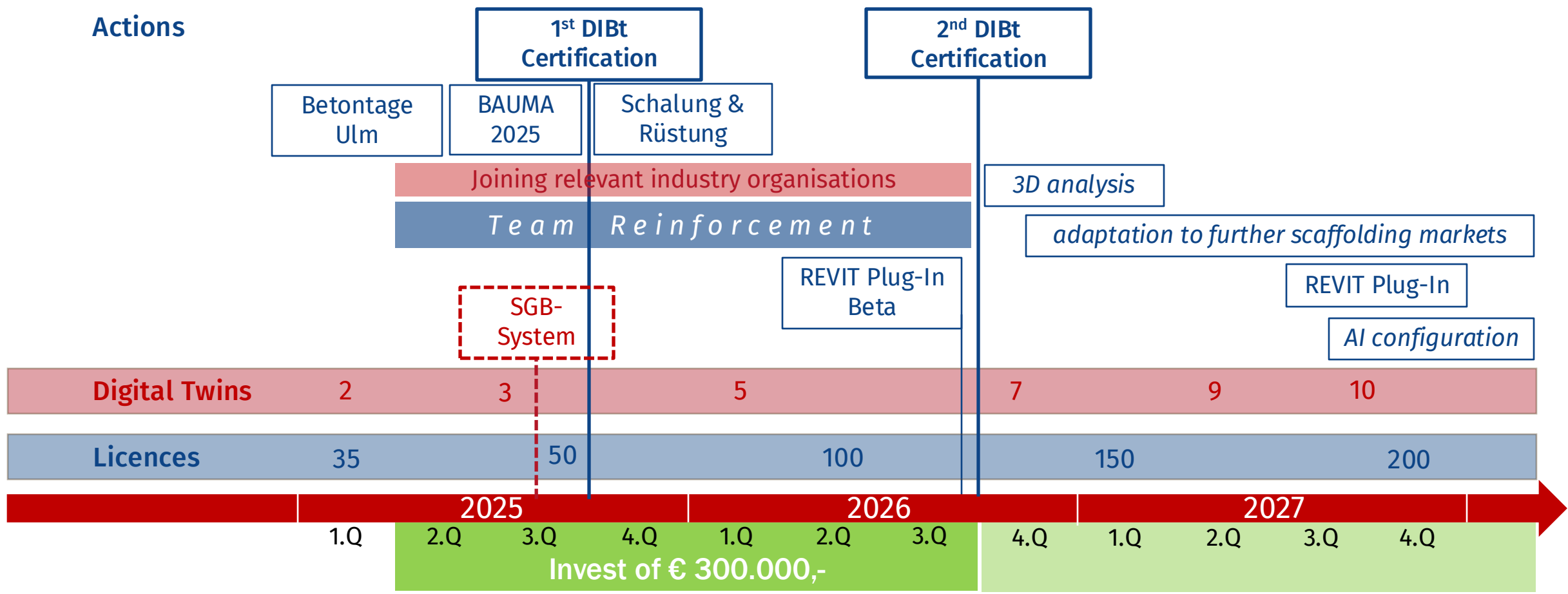


### Tyll Ringe

B.Sc. Civil Engineer  
(RWTH Aachen)

Focus on scaffolding  
technology, analytic  
modelling and  
structural design. Six  
years of experience  
in scaffolding

# OUR CLEAR VISION IS THAT FFC<sup>2</sup> BECOMES AN INDUSTRIAL STANDARD IN THE PLANNING AND DIMENSIONING OF LOAD BEARING SCAFFOLDING SYSTEMS WORLDWIDE



The path has been mapped out, but the right resources are now needed.



1<sup>ST</sup> ROUND FOR EXTERNAL CAPITAL  
TO IMPROVE OUR PRODUCT, SELL 70 SUBSCRIPTIONS, EXPAND OUR TEAM  
AND LEVER UP THE WORKING CAPITAL, WE ARE RAISING A € 300.000,-



### STATUS: 100% self-financed

All loans are given by the owners Lars & Christine Trittel and a member of the family

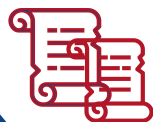


Current value estimation € 1.000.000,-



Additional financial request of at least € 300.000,-  
within the next 18 months for:

- Additional team members (Development, Sales, QS)
- Product Development
- Marketing and Sales



Shares of the GmbH are provided via capital increase,  
up to 23% in total in this round.

### Goals in this time:

- ❖ 2 new OEM's as customers
- ❖ 2 new Digital Twins integrated
- ❖ 70 Subscriptions
- ❖ REVIT Plug-In BETA version ready

*Establishing FFC<sup>2</sup> as the industry solution  
for planning & statics in the scaffolding  
market*

# INTERESTED?

# LET'S INTRODUCE OURSELVES AND TALK!

Contact: [\*make an appointment\*](#)

Lars Trittel | [l.trittel@smartscaff.com](mailto:l.trittel@smartscaff.com)

Auerstraße 1 | 76227 Karlsruhe | ☎ +49 171 7471002

<https://www.smartscaff.com>

