



BIBM CONGRESS 2023

STAY LEAN & BE RESILIENT WITH NEWGEN UNICAM

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IN THE PRODUCTION PROCESS OF PRECAST CONCRETE ELEMENTS

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Unitechnik with > 50 years of expertise in logistics and production:

- Automation
- Material flow and master computer technologies
- Electrical Cabinet Production

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CHALLENGES AND DIFFICULTIES

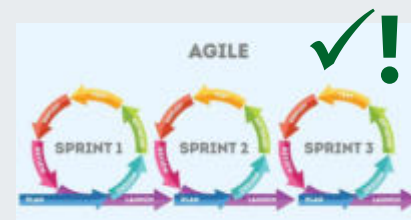
Green !



Digital !



Resilient!



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RESILIENCE – THE POWER TO OVERCOME DIFFICULTIES AND CHALLENGES

No News – Well-known Challenges

- permanent lack of know-how (high staff turnover)
- production cost increases (energy, personnel, construction)
- market fluctuations
- increasing product requirements in terms of quality and composition (green)
- target for technology improvements (speed vs. operational capability)

Becoming resilient?

Become and stay lean!

Make permanent improvements...



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THE RESPONSE: BECOME AND STAY LEAN!

In the highly automated precast concrete production process:

Lean Management empowers the right steps at the right time.
KAIZEN calls for small steps to raise productivity.



- ✓ Customer added value
- ✓ Process efficiency
- ✓ Adaptability

Customer's journey with UniCAM KAIZEN:

2016	2017	2018	2019	2020	2021	2022	2023
Launch of UniCAM.10	Paperless Manufacturing	Dashboard	CAD interface IFC4 Precast	Photo documentation	Upright concreting for narrow bars	Extended detection of machine malfunctions	New GUI
	Cycle time homogenisation		Optimization of manual occupancy	Integration LAP interface	Half shutter concreting	Easy Storage for loading yard	CHEKKER API interface
				PDF editing	Stacking display & element control during lift-off	Performance dashboard	Update-Ability
					Support of MS-SQL Server		Digital blueprint

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STATUS QUO UNITECHNIK

Status of master computer development UniCAM.23

- ✓ Improved shuttering algorithm
- ✓ Optimised energy management
- ✓ Digitalised fault detection and troubleshooting (Quality Control Tools)
- ✓ Improved concreting algorithm (reduction of post-concreting)
- ✓ dashboards & tools to increase availability and factory output
- ✓ simplification of operation and display optimisation

"Knowhow-independent" workplaces & suitable working conditions

- ✓ Use of automation and robotics
- ✓ Visualization of work steps
- ✓ Software-supported training
- ✓ Automatic recognition of errors
- ✓ Use of technology (AR, VR, gamification, Big Data, AI)
- ✓ Simplification, standardisation, robustness



Software and technology
will play a key role in dealing with
current and future challenges!

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UPDATES FOR TECHNOLOGY, INNOVATION & EFFICIENT SERVICES

An approach of UniCAM

Continuous improvement of the production process

The UniCAM full service package with permanent updates

- ✓ Latest technology
- ✓ Adaptable and comprehensive function package
- ✓ Interface optimization & fast integration of new technologies
- ✓ Maintained software with continuous productivity increase
- ✓ Stable and scalable costs
- ✓ Lifetime partnership



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IN THE PRODUCTION PROCESS OF PRECAST CONCRETE ELEMENTS

With the decisive piece of the puzzle into the common future

