



XtreeE®  
The large-scale 3<sup>d</sup>



Our partnership for the  
future of construction

together @ VINCI 

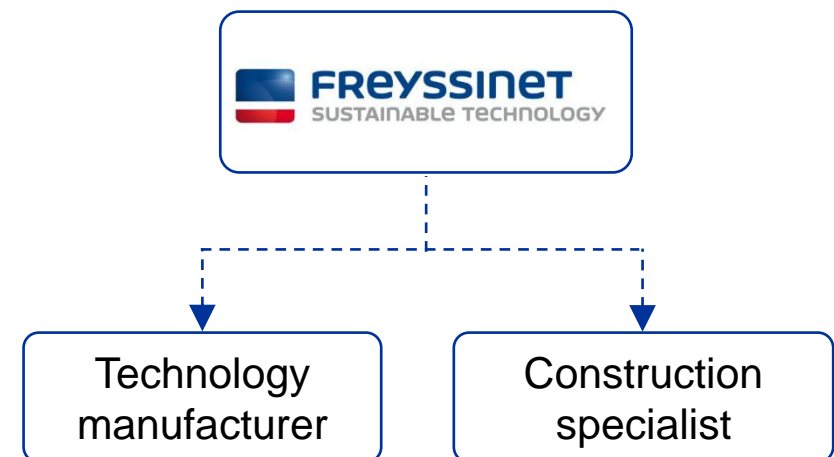
# Freyssinet : A global leader in the construction sector



Subsidiary of Vinci Construction  
Leader in specialized civil engineering

(\$) 800 Mil. €

👥 7 500 employees worldwide



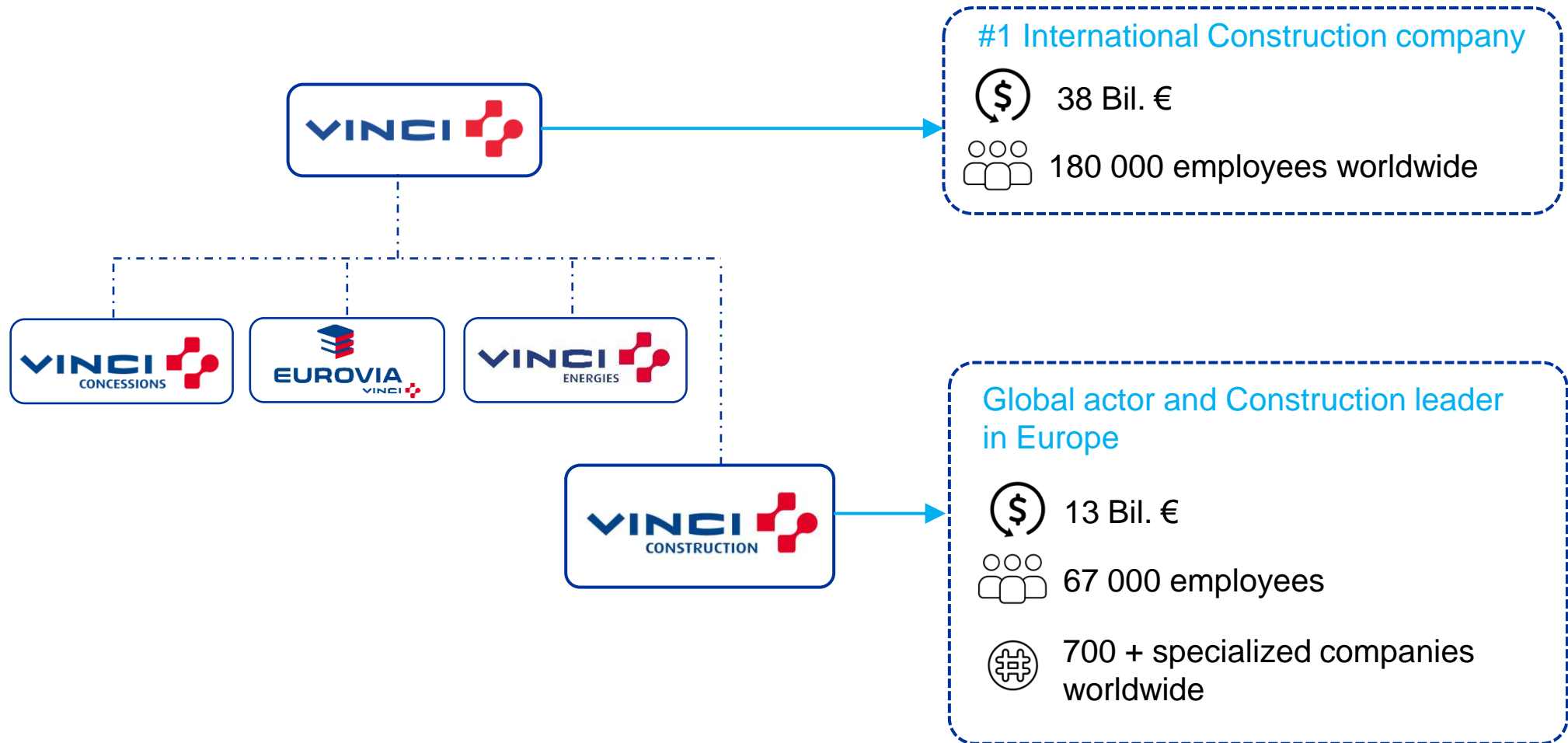
# Freyssinet : Use prestressing at the service of 3D printing

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- Freyssinet has been involved in the assembly and prestressing works of the **Office of the future**.
- **Freyssinet's aim** : Put our expertise at the service of 3D concrete printing projects

# VINCI Construction : Key figures



# VINCI Construction: Our vision of 3D printing expansion

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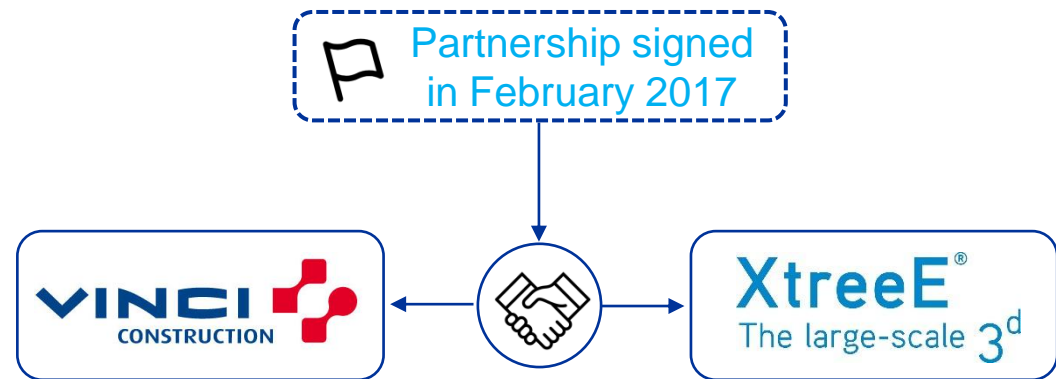
*3D printing offers **revolutionary potential** for the construction sector and VINCI Construction plans to be in the vanguard of the move to introduce it.*

”




*Jerome Stubler  
Chairman of Vinci Construction*



# A long-term partnership to expand the use of 3D printing



## Aims of our partnership :

-  Accelerate the expansion of XtreeE
-  Boost the cooperation between XtreeE and VINCI Construction teams
-  Develop opportunities for using 3D printing technologies in construction

# Thank you for your attention.



FREYSSINET GULF LLC

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# XtreeE

The large-scale 3<sup>d</sup>





# OVERVIEW

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## OFFERS

Access : product design & workshops

Core : connected 3D printing systems

Our team

Our skills & partners

## MANUFACTURING METHODS

Operating principle

Stand-alone concrete

Formwork- concrete

Formwork- clay

## APPLICATIONS

3D Pavilion

USH Sinusoid Wall

Circular Vase

Krypton Post

*Imprimer le Monde* Exhibition

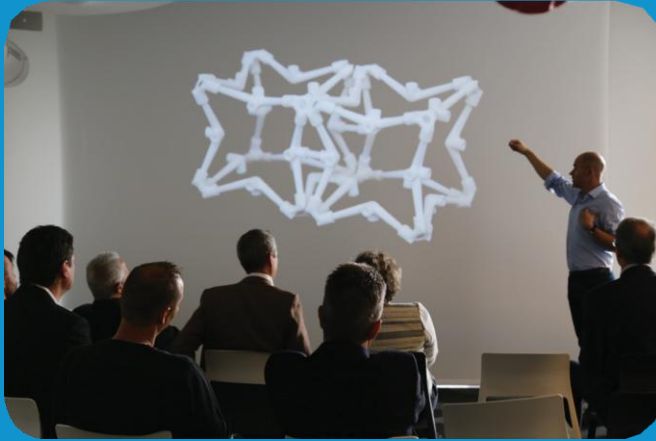
Urban Furniture

Stormwater Collector

YRYS Concept House



# XTREEE ACCESS PRODUCT DESIGN & WORKSHOPS



By organizing workshops, conferences and other forms of collaboration with its clients, XtreeE shares its knowledge of 3D printing during product co-design sessions with its clients. Thus, we are able to help our clients develop products that will enable them to take the best advantage of XtreeE's 3D printing techniques.

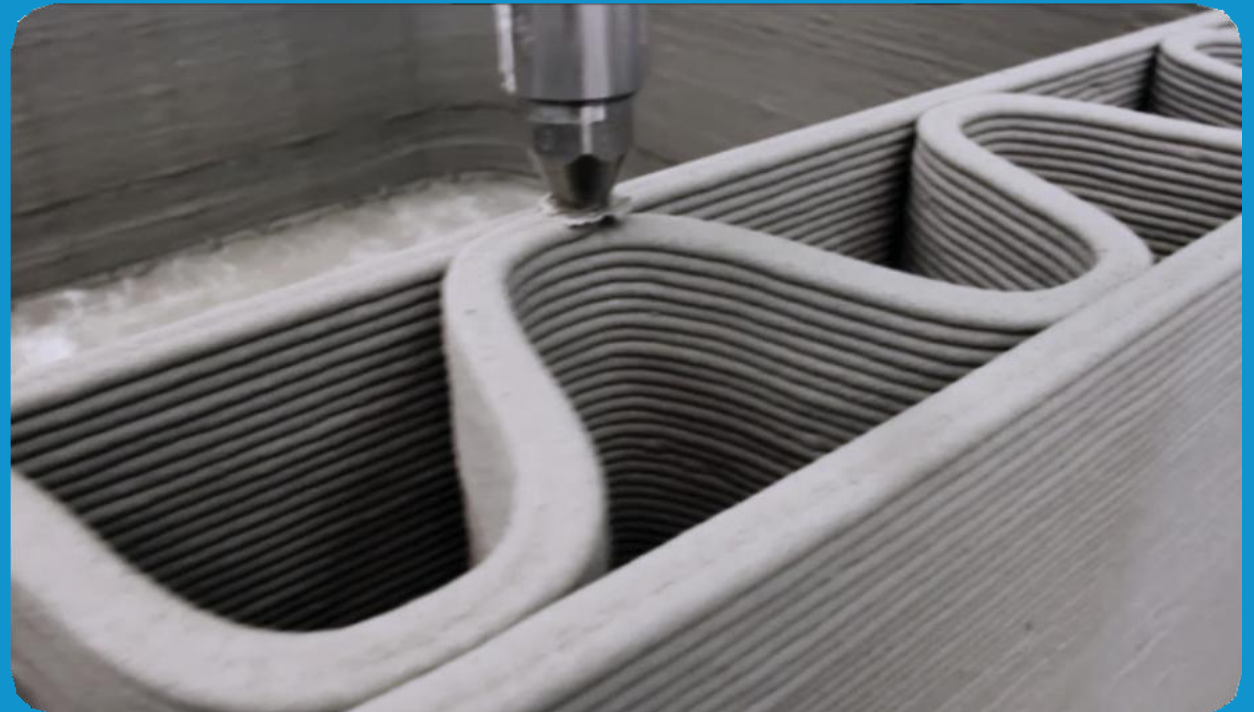
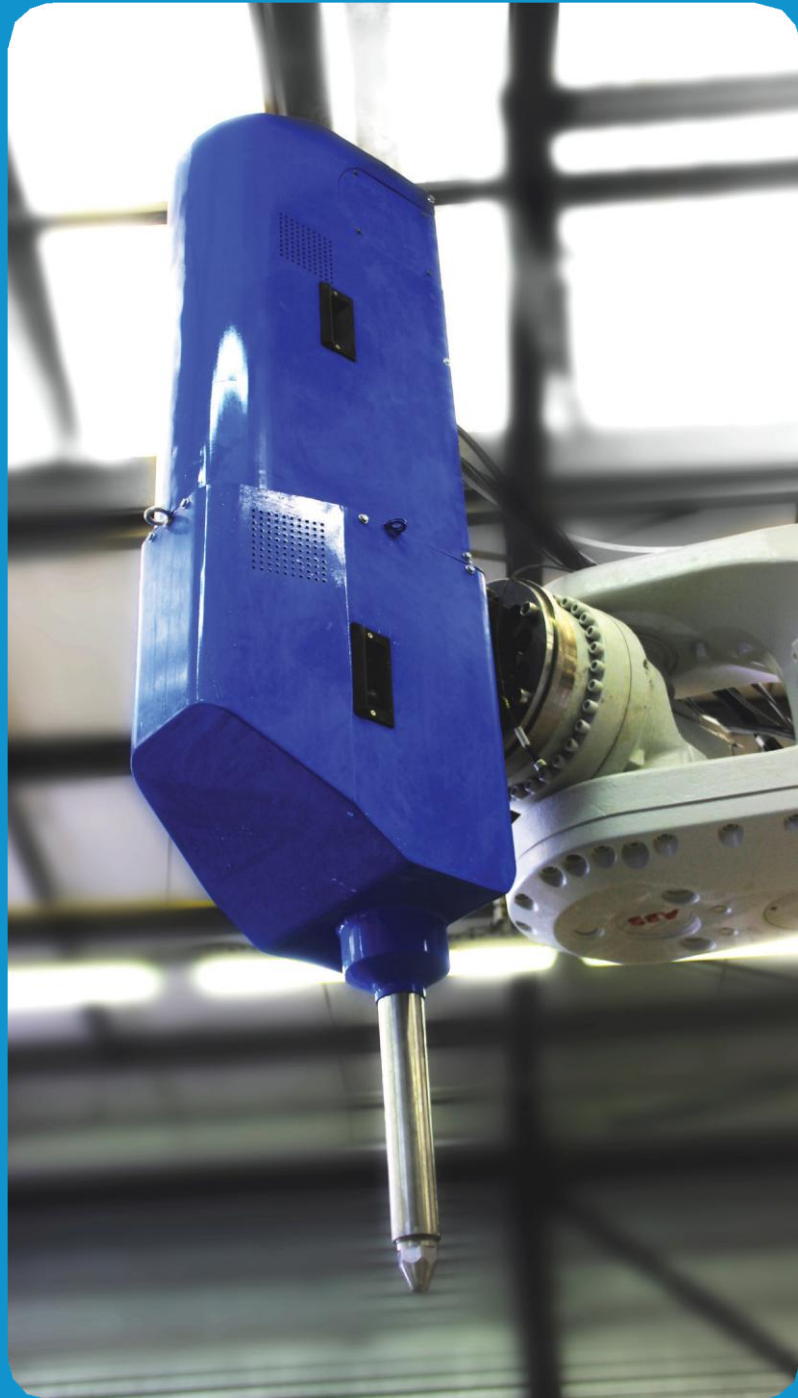
XTREEE ACCESS  
PROTOTYPING



## XTREE CORE

### CONNECTED 3D PRINTING SYSTEMS

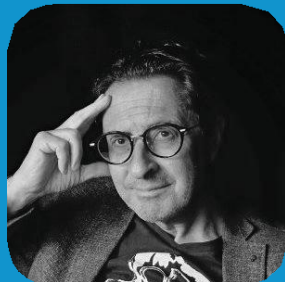
XtreeE seeks to develop technologies making quality construction available to everyone, by renting/selling connected large-scale 3D printing systems using multiple materials. Our systems include 3D printing heads, stationary 3D printing units, mobile 3D printing units and a cable robot, under development. XtreeE also offers training sessions necessary to launch production at our clients' facilities.



## OUR TEAM



A. MALLET  
CEO  
Architecture



A. GUILLEN  
MD  
Development



J.D. KUHN  
MD  
Operations



C. BOUYSSOU  
Robotics



M. ZAKERI  
Architecture



N. GAUDILLIERE  
Architecture



P. ROUX  
Industrial Engineering



R. DUBALLET  
Civil Engineering



Y. PAPEGAY  
Computer Sciences



J. DIRRENBERGER  
Material Sciences

XtreeE's team brings together a vast array of complementary skills and experience (architecture, civil engineering, robotics, computer science, material science), which allows us to master 3D printing's complete production chain, from design to manufacturing, and gives us the ability to intervene at every step of an architecture or design project.

Architecture

Civil Engineering

Material Science

Robotics / Computer Science

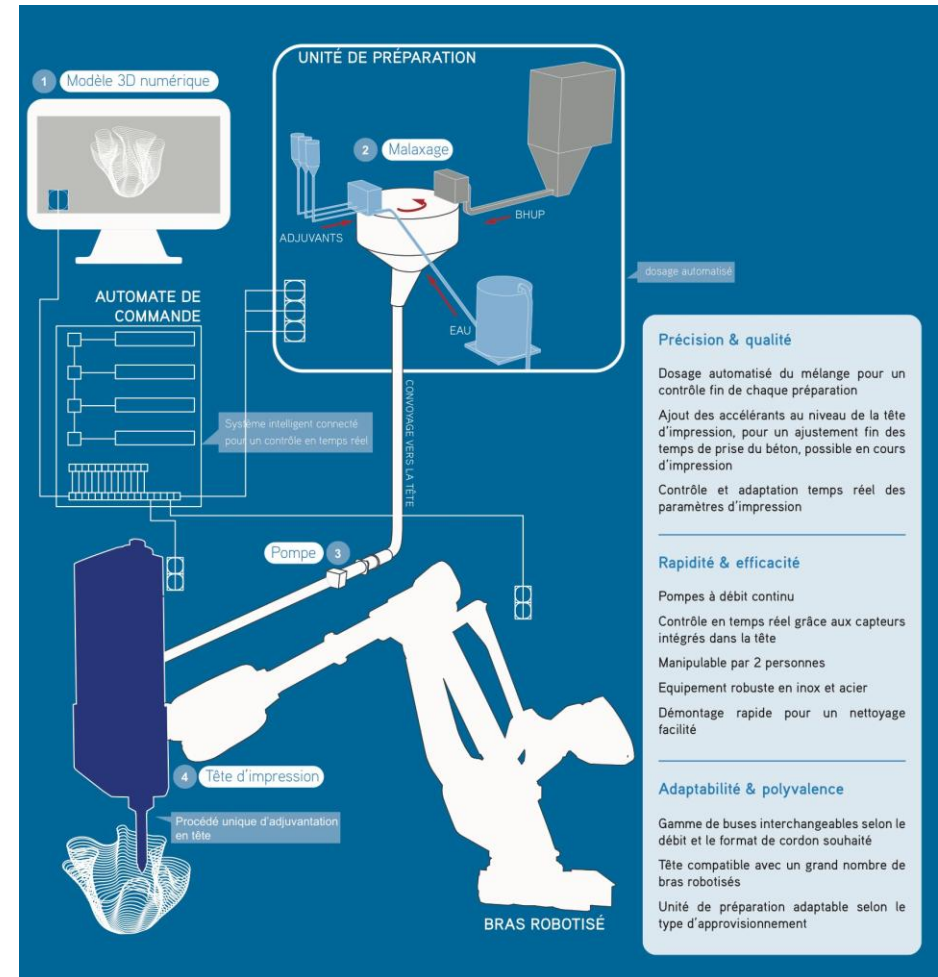
Development / Management



LafargeHolcim



# OPERATING PRINCIPLE



XtreeE's 3D printing system relies on an industrial 6-axis ABB robot, which allows more complexity for the printed shapes. The printed material is brought to the end of the robot's arm, where the printing head developed by XtreeE is placed. The robot deposits material layers that progressively accumulate and form the desired object.

# USH SINUSOIDAL WALL

PARIS, 2016



Client: USH  
Partner: Habitat 76  
Design: XtreeE  
Machine Files & Manufacturing: XtreeE  
Experimental concrete: LafargeHolcim R&D



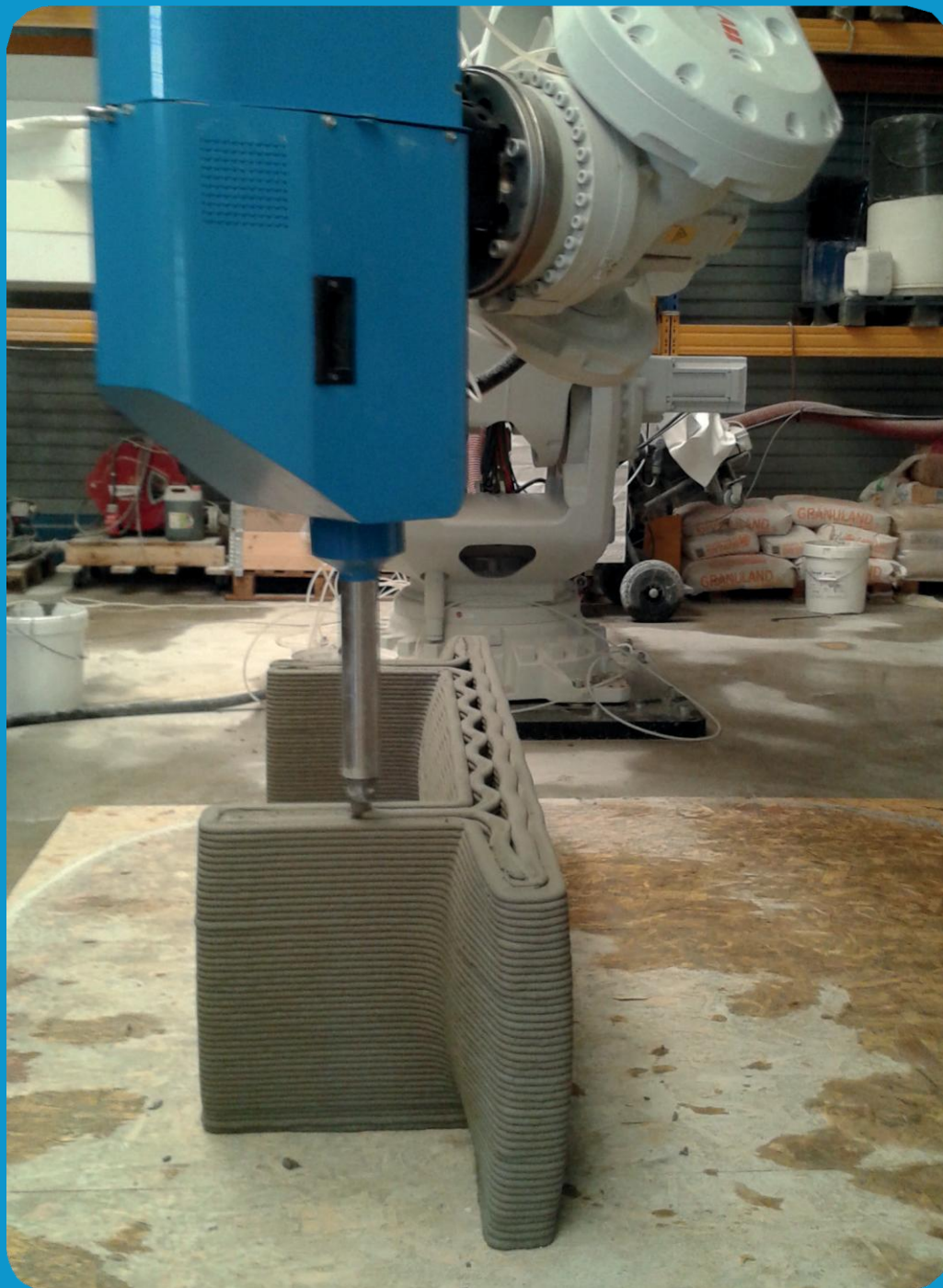
# KRYPTON POST

AIX-EN-PROVENCE, 2016



'Krypton' Post, Aix-en-Provence (France), 2016  
Client: MAM – TPA; Architect: MDSA; Structural engineering: Artelia; Algorithmic design:  
EZCT & XtreeE; Construction company: AD Concept; Machine Files & Manufacturing of  
the Molds: XtreeE; UHPC Casting: Fehr Architectural  
Picture: Lisa Ricciotti

# Mobilier urbain (Paris, 2017)



Partenaire : Studio 7.5  
Conception: Studio 7.5  
Fichiers de fabrication & Production: XtreeE  
Béton expérimental : LafargeHolcim R&D



# PROJECTS



Cirratu Vase, London, 2016  
Design: Zaha Hadid Architects  
Machine Files & Manufacturing: XtreeE  
Urban Furniture, 2017  
Partner : Studio 7.5  
Design: Studio 7.5  
Machine Files & Manufacturing: XtreeE

Maison Concept YRYS  
(Alençon, 2017)



# MAISON CONCEPT YRYS

ALENÇON, 2017



# Stormwater Collector (Lille, 2017)



Client : Métropole Européenne de Lille  
Machine Files & Manufacturing: Point P +XtreeE  
On-site placing: La Sade



# XtreeE

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