ADDITIVE HYBRID TECHNOLOGY

3D FAST BUILD

The ability to build and create anything!
Presentation Summary

Points to Cover

- About the Technology
- Technology features
- Advantages
- Demo video
- Construction objects to print
- Co-Offer
- Calculate your project
- Contacts
About the Technology

What is It

3D FAST BUILD - innovative, safe and industrial multi-purpose platform for 3D construction objects printing. Technology features: concrete printing on polymer binders with composite reinforcement of building structures of any shape without formwork. The technology allows you to print horizontal overhanging elements and integrate insulation.

COP-printers. Construction Objects Printing

FAST BUILD 2019
Technology features

**CONCRETE COMPOSITION.**
Printing with concrete on polymer binders improves productivity

**COMPOSITE REINFORCEMENT.**
Using glass and carbon fiber as a reinforcing mesh

**HORIZONTAL OBJECTS.**
Reinforcing mesh allows you to print horizontal floors and overhangs.

**CURVILINEAR SHAPES AND SURFACES.**
Additive technology allows printing designs of any shape and surface with a reverse bend

**NO CONCRETE FORMWORK.**
The use of formwork at the construction site is completely eliminated.

**INSULATION.**
The ability to integrate thermal and sound insulation in building structures
Additive hybrid technology of COP-printing.

WE CREATE THE FUTURE THAT EVERYONE DREAMED OF
WHY HYBRID?

- Concrete on polymer binders
- Composite reinforcement
- Integrating insulation
Additive hybrid technology of COP-printing

Offers significant benefits over traditional methods

- **Installation Savings**: до 70%
- **Reduction of Workforce**: до 50%
- **Total Cost Cutting**: до 50%
Problem with conventional methods

Custom-made scaffolding solutions are expensive and time-consuming: huge amount of material and machinery need to be transported to and from the site. Plus, a lot of construction workers are required to do manual work that often leads to dangerous situations.

It is not possible to obtain curved shapes and surfaces.
**Fast Build technology for construction**

FAST BUILD - is an adjustable mobile platform that ensures safe construction work in the shortest time.

The technology allows you to completely eliminate the use of formwork and the delivery costs, as well as reducing the workforce costs. Moreover, Fast Build helps achieve a safe, productive and sustainable buildings.
DISADVANTAGES OF EXISTING SOLUTIONS

- **NO FINISHED SURFACE**
  - Ribbed surface and lack of finish increase the total cost

- **NO OVERHANGS OBJECTS**
  - Inability to print overlays and overhangs objects

- **NO REINFORSMENTS**
  - All kind of reinforcement interlayer, horizontal and vertical is not provided
3D FAST BUILD ADVANTAGES

**SMOOTH FINISHED SURFACE**
Finished surface of construction objects

**HORIZONTAL OBJECTS PRINTING**
Printing of overlappings and overhanging elements due to reinforcing

**COMPOSITE REINFORCEMENT**
Reinforcement of structures and interlayer reinforcement with composite materials

**INTEGRATING INSULATION**
The ability to fill structures with thermal and sound insulation
VIDEO

Additive Hybrid COP-printing Technology Demo
SERVICES AND PRODUCTS
what to print

CURVED BUILDINGS AND STRUCTURES.
Printing high-rise buildings, as well as building structures of curved shape and surfaces with a reverse bend.

HOLLOW-CORE AND OVERHANGING OBJECTS
Hollow-core plank, ceilings, lintels above windows, horizontal overhanging construction elements.

CONSTRUCTION OBJECTS WITH INSOLATION.
Ability to print construction objects with thermal and sound insolation: wall, roof, and etc.
SERVICES AND PRODUCTS
what to print

HARD LANDSCAPING AND STREET FURNITURE.
Design and improvement of landscape, street and courtyard using curved shapes and surfaces

INFRASTRUCTURE OBJECTS.
Trays, ramps, retaining walls, sidewalks, bridges, engineering infrastructure

FACADE FURNITURE AND ELEMENTS.
Decorative facades printing of any complexity and accuracy at the construction site
We are open to cooperation
check our offers below.
Offers

OFFER FOR INVESTOR
Future's contract for ready COP-hybrid-printer

OFFER FOR CLIENT
Future's contract for ready objects printed by COP-hybrid-printer

OFFER FOR MONO-SUPPLIER
Partner company on the basis of a mono-supplier of raw materials: plasticizers and modifiers for concrete mix, polymer materials
<table>
<thead>
<tr>
<th>Offer for Investor</th>
<th>Offer for Client</th>
<th>Offer for Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>€0.5 M</strong></td>
<td><strong>€0.15 M</strong></td>
<td><strong>€0.25 M</strong></td>
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<td>VALUE OF THE CONTRACT</td>
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<td>It is placed by the customer on deposit until the delivery of the finished printer. The contractor performs work at his own expense.</td>
<td>It is placed by the customer on deposit until the delivery of samples of finished products. The contractor performs work at his own expense.</td>
<td>To develop the technology of raw materials supplied by the supplier in the future. The parties perform work together.</td>
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<td>Risk lvl. 0%</td>
<td>Risk lvl. 0%</td>
<td>Mono-supplier benefits</td>
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Calculate your project with us.

SEND US YOUR PROJECT OR CONSTRUCTION OBJECTS AND WE WILL CALCULATE TOTAL COSTS AND ALL THE BENEFITS
Our Team
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We'd Love To Hear It.

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UPCOMING EVENTS

1. AURU 2019
   Exhibitor

2. UKCW 2019
   Exhibitor

3. 100+
   Exhibitor

4. AULV 2019
   Exhibitor