

CS501218

Unlocking the World of Industrialized Construction

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<http://kope.ai>

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<http://kope.ai>

Learning Objectives

- Learn how we've harnessed Autodesk's suite of Autodesk Forge APIs to build a real-time configuration platform for IC systems.
- Gain an overview of the industrial construction landscape, including its key players.
- Learn about the particular challenges of building a multisided B2B marketplace.
- Discover the many ways in which industrialized construction will impact architecture, design, and technology.

Description

"Factory-made buildings have been the next big thing since the Romans" - so where are they?

Join our talk for a glimpse at the near-future of industrialized construction-the ultimate marriage of the Autodesk Forge APIs, manufacturing, building information modeling (BIM), and construction. Despite its promises of improvement, off-site construction has continually struggled to achieve the significant momentum it requires in order to become self-sustaining.

What's missing? At KOPE we've cracked one of the thorniest aspects in industrialized construction (IC) - supply chain transparency. Supplier secrecy is both a bug and a feature of the construction world. Through our MMC Market, we've been building a free forum to democratize, open up, and interconnect the world of suppliers, projects, builders, and consultants. At KOPE, we're using Autodesk Forge technology to build the online platform for the coming world of off-site construction. We look forward to showing you what that looks like.







Speaker(s)

David Flynn is one of the Co-Founders of KOPE, having previously worked as an architectural technologist. [in LinkedIn](#)

Oliver Green is a Product Manager at KOPE, having formerly worked as an architect and software engineer. [in LinkedIn](#)

Issues with Existing Databases

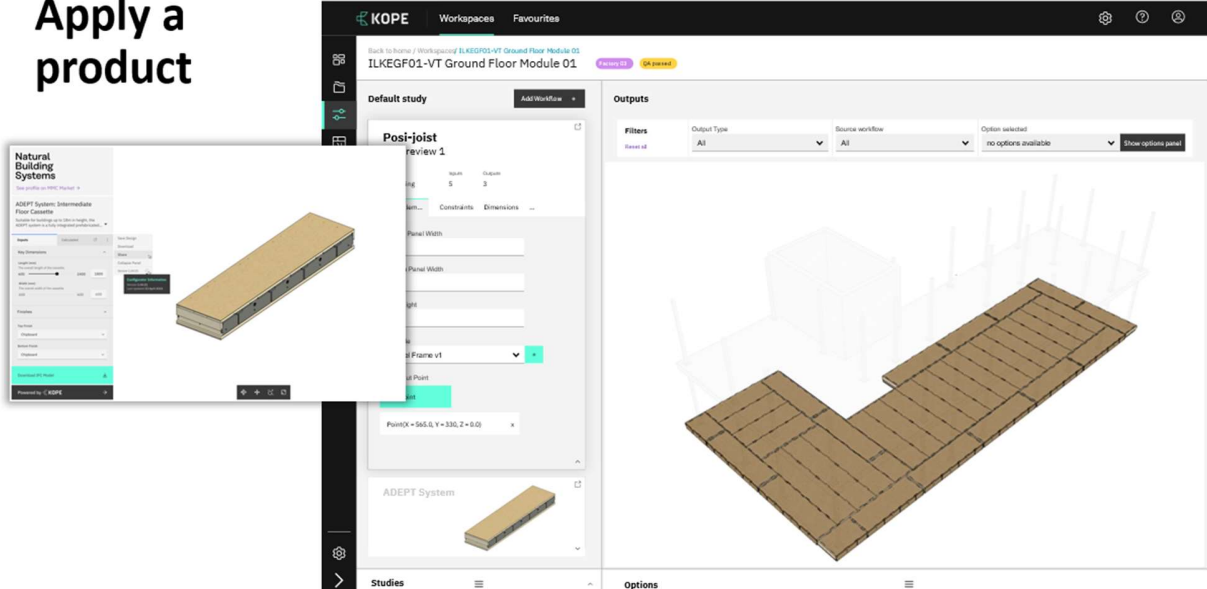
In researching the UK's public offsite construction data we found a few different offerings, some paid-for services, some attempts at open sourcing information. People had already had the same idea as us, however none of these projects had been a roaring success. As we tried them out, we identified 6 main problems. We set out to build a new, open, completely free industry service that would tackle all 6 of these problems for good.

	<p>Paywalls</p> <p>Most supply chain databases live as premium products behind paywalls, often behind lengthy registration processes. This commercial opacity is typical of the UK's construction sector and is something we're looking to challenge.</p>		<p>Lack of MMC Focus</p> <p>There is a lack of databases targeted specifically at MMC categories and companies, and those that do such as the Kier and SCSS portal deliver poorly on that promise.</p>		<p>Lack of Oversight</p> <p>Other than basic forms, there is no clear way for external parties to contribute to existing databases and no visibility on validation.</p>
	<p>Critical Mass</p> <p>A successful database will require critical mass. Once big enough it will generate its own network effect and self-sustain momentum. The NBS is closest to this, but looks specifically at product-level detail.</p>		<p>Technology / User Experience</p> <p>All databases we reviewed lacked any consideration for modern technologies and UX. The need for registration, confirmation emails, closing cookie banners, newsletter popups and absence of adaptability across different devices was common place.</p>		<p>Trust</p> <p>Trust in the data is important in an industry renowned for being risk-adverse. Inclusion of industry accreditations, whilst visibility in any validation process for inclusion will be key.</p>

KOPE

Our offsite construction platform, KOPE, uses the Autodesk Forge suite of APIs to generate downloadable Revit models directly from the outputs of our multi-step workflow builder.

Apply a product



The screenshot displays the KOPE software interface. On the left, a sidebar shows a list of products, including 'Natural Building Systems' and 'ADEPT System Intermediate Floor Cassette'. The main workspace is divided into several panels: 'Default study', 'Posi-joint review 1', 'Filters', 'Outputs', and 'Options'. The 'Posi-joint review 1' panel shows a 3D model of a building structure with a highlighted section. The 'Outputs' panel shows a 3D model of a building structure with a highlighted section. The 'Options' panel shows a 3D model of a building structure with a highlighted section.

Helpful Links & Resources

KOPE

Our website – <https://kope.ai>

MMC Market

Home page - <https://mmc.market>

Register as a Supplier - <https://mmc.market/register/supplier/>

Register as a Consultant - <https://mmc.market/register/consultant/>

Register a Project - <https://mmc.market/register/project/>

Reports & Reading

UK Government - [Farmer Review \(2016\) AKA 'Modernise or Die'](#)

UK Government – [The Construction Playbook](#)

Construction Innovation Hub – [The Product Platform Rulebook](#)

McKinsey & Company – [Modular Construction: From projects to products](#)

McKinsey & Company – [Rise of the platform era: The next chapter in construction technology](#)

McKinsey & Company – [The next normal in construction](#)

McKinsey & Company – [Reinventing construction through a productivity revolution](#)

NobleFrancis – Industry Analysis [Twitter Feed](#)

History of Modular Construction

Construction Physics - <https://constructionphysics.substack.com/>

Instant House Blog - <https://instanthouse.blogspot.com/>