



Improving infrastructure programme productivity:

A 'lean' justification for eviFile

Whitepaper

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Infrastructure organisations such as Network Rail, United Utilities and Highways England are in the vanguard of applying lean construction principles to eliminate waste and improve productivity, efficiency and quality.

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The Lean Construction Institute defines this as:

“Lean Construction requires a Lean Supply Chain so that information, materials, equipment and manpower for each task in a project come in on-time, complete and to quality.

This requires collaboration and mutual commitment to:

- Creating reliable production in both design and build phases
- Planning
- Improving long-term relationships
- Committing to high performance and continual improvement”*

The challenge

It is simple for project teams to communicate information, but genuine collaboration is about people working together to create value that could not be achieved by working separately. Lean thinking has to be translated into lean behaviours and actions. We need information technologies that help infrastructure providers collaborate more efficiently with their contractors, designers and suppliers.

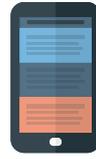
*https://leanconstruction.org.uk/about_lean/

The solution



With technology likely to be the biggest single contributor to improving construction productivity, lean tools can help teams to:

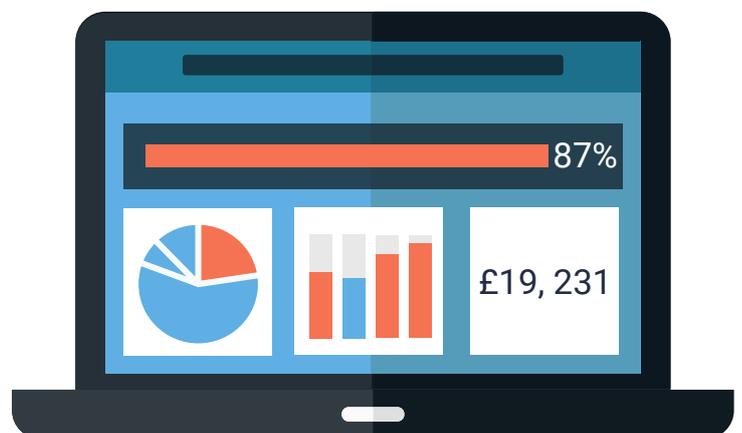
- Understand customer requirements and the resulting perceptions of value
- Identify, optimise and support collaborative processes that deliver customer value (the value stream)
- Identify and eliminate potential duplication, waste and errors as early as possible (and capture the associated learning and carry it forward to later projects)
- Improve communication, including use of models and visualisation
- Improve work planning and scheduling - getting it 'right first time'
- Enable and manage positive change
- Manage risks
- Promote working practices and environments that are safe, healthy and reflect sustainability best practice
- Support appropriate offsite fabrication and modular construction and apply efficient logistics (eg: just-in-time deliveries)
- Streamline commissioning and handover processes and provide feedback loops for continuous improvement on future projects



Being responsive, flexible and adaptable is not always possible with traditional centralised or hierarchical information tools and

processes, so mobile and web-based tools are well suited to lean approaches narrowing the gap between site and office. Software as a Service tools allow teams to:

- Respond swiftly to changes at the site level
- 'Pull' information as they need it
- De-silo: break down barriers between companies, teams and projects
- Handle information efficiently: a single version of the truth, WORM (write once, read many)
- Share data
- Work within consistent quality and security constraints
- Be software and hardware-agnostic



How eviFile supports lean construction

Slow identification and communication of site quality, health and safety, environmental and progress issues have historically hampered timely resolution. Existing processes were often delayed by poor location data, with data having to be manually converted and associated with GIS, BIM or other systems. Until recently, this was a time consuming and error prone process. We now have proven enterprise-strength technologies.



Geo-located workflows

eviFile can help with specific geo-located workflows including:

- Condition surveying and scoring – building knowledge of the condition and performance of existing assets base (potentially contributing data to Asset Management Information Systems)
- Construction quality, health and safety and environmental monitoring
- Progress reporting and assurance
- Commissioning and handover to operational maintenance teams
- Integration of routine maintenance with coordination and planning of capital renewal schemes



Single cross-project data capture and reporting

With a single cross-project data capture and reporting system, infrastructure providers can:

- Encourage and then accelerate supply chain progress reporting and completion approval processes
- Achieve richer, more accurate real-time data about their assets
- Ensure high levels of data consistency and quality
- Standardise cross-project quality, health and safety and environmental reporting
- Provide auditable, secure, time, date, location-stamped and tamper proof compliance data in the event of any dispute or claim

Geo-located workflows are vital. eviFile lets suppliers report proactively on their own progress and provide visual evidence of their work. Once approved, they can move on to the next task, helping commercial teams with their certification and payment processes.

Additional benefits

BIM and other digital and mobile tools such as eviFile will also help infrastructure providers:

- Meet National Infrastructure Delivery Plan and Government Construction Strategy objectives to improve project delivery and performance outcomes – in particular reducing cost by sharing performance data, innovation and best practice across projects
- Facilitate collaborative approaches to drive innovation and reduce waste
- Learn more about the causes of, and opportunities to reduce waste
- Identify best practice across their projects and support continuous performance improvement throughout both routine maintenance and new-build investment programmes

**eviFile is a new
evidence standard for
field data collection
and reporting
(ACPO compliant)**

Summary

Uniquely designed to capture, preserve and authenticate a chain of live digital evidence eviFile is the ultimate project and client reporting platform that accurately narrows the gap between field and office.

Capture, trust and share the progress of a build, the inspection of an asset or simply a photograph of work done (or not done) providing invaluable evidential proof for defence against any future quality challenges or legal disputes.

eviFile enables faster decisions, enhanced team collaboration and is proven to significantly cut project

time and cost. eviFile is accessible on mobile, tablet and desktop devices and can easily integrate with existing systems and processes.

Suggested applications

- Progressive quality assurance
- Condition scoring of linear assets
- Risk assessments
- Defect management
- Planned and reactive maintenance
- Asset commissioning
- Health and safety
- Quotations and proposals
- Payments and budgeting
- Legal and litigation

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Client satisfaction (Network Rail) and trust has become highly regarded, as a result this has become a welcome change to the project following issues with the previous construction contractor.

”

Ed Williams
Product Director
eviFile

To discover more or view a live demo get in touch:
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