



CPQP

CONSTRUCTION PRODUCT
QUALITY PLANNING

Technical Insights

#FutureQuality

Technical Insight:

Digital Routes to Compliance (DRTC)

Compliance with technical standards is mandatory when bringing construction products to market. However, it is not always clear which standards are applicable in the case of innovative new construction products. The Digital Routes to Compliance (DRTC) tool provides a tool where standards and requirements can be reviewed in a single, easy-to-use, digital database.

The Independent Review of Building Regulations and Fire Safety (**Hackitt Report**) and subsequent Building Safety Act have generated an explicit requirement for clear, transparent, and effective testing regimes. Meanwhile, the emergence of Modern Methods of Construction (MMC) such as platform solutions, has generated new compliance checking challenges, such as where product performance needs to be assessed as part of a system rather than as individual components.

The complex regulatory and compliance landscape provides a further obstacle, with standards scattered across many sources. It is not always clear which are applicable in an environment where developers are creating innovative new construction products or utilising offsite rather than traditional manufacturing techniques.

Developers also need to consider calls to reduce the practice of desktop assessments in lieu of physical tests, and to periodically review their testing methods in order to drive continuous improvement and higher performance.

What is DRTC?

The aim of DRTC is to quickly inform users which testing regimes are needed for any given construction product to ensure that it is compliant with the Building Safety Act and meets relevant technical standards. DRTC is based on a standards database containing over 400 standards and more than 800 verification methods relating to the 13 sub-assemblies identified by the [Hub's Platform Design Programme](#).

The database is used to power a web-based compliance tool that maps out the different routes to compliance for construction products and platform sub-assemblies.

The database comprises British Standards (BS), harmonised European standards (hEN), European Assessment Documents (EAD) and other industry standards, which define the verification methods and testing criteria for assessing the performance of various construction products. The DRTC database also consists of basic and essential requirements determined by the CPR – Construction Products Regulation [\(EU\) No 305/2011](#).

How does it work?

The user enters the product specifications, characteristics and types of use of their product into the DRTC tool, which then returns a report containing a full testing regime with a requirements map, verification and validation methods and a list of standards specific to the product.

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Future Impact

The Hub's vision is for construction product manufacturers to identify validation requirements and relevant standards at an early stage and promote a cultural shift from defect correction to defect prevention.

DRTC will help define the best approach for compliance, certification, and the right route to market for new platform assemblies and other construction products. It will support decision-making processes and planning for future testing. Through this process, it is also expected that DRTC will save time and reduce the costs associated with product validation.

Ultimately, DRTC will support further investment and improved perception of platform methods of construction by facilitating a clear path to evidenced compliance for buildings built utilising Modern Methods of Construction such as platform solutions and offsite manufacturing.

What's next? Intelligent Regulation Compliance

The standards database for the DRTC tool and the Platform Design Programme has been developed manually by researching the relevant standards and defining their applicability to the 13 sub-assemblies listed in the Platform Rulebook.

This will require continuous maintenance, as standards are updated and new ones are introduced. This introduces the additional risk of standards being missed or not being updated by the database operator.

Therefore, the Hub has identified the ability to automate or semi-automate the generation of the database from the standards documents as a crucial area of development for its Platform Programme. Work has been carried out in this area through the Intelligent Regulation Compliance (iReC) project.

I-ReC's approach is to apply Natural Language Processing and Semantic Web technologies to regulation documents. This allows for the automatic generation and maintenance of the compliance database, and assignment of the standard to the relevant sub-assembly, with far less manual effort than currently required.

Find out more about the Hub's Product Validation Programme here [Product Validation - Construction Innovation Hub](#)

The Hub developed DRTC and I-ReC demonstrators as part of its Product Validation programme. Further applied research is required to test and verify these solutions against new regulatory reforms and building control requirements.

If you'd like more info about being involved in further research, please contact info@constructioninnovationhub.org.uk

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