

Standards Are...



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Introduction

Dan Rossiter MCIAT

- Sector lead at BSI
- Chartered Architectural Technologist
- UK BIM Alliance Ambassador
- UK Standards Committee Member
- CEN Convenor, ISO Convenor (Terminology)
- Author of www.BIMblog.house



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Standards Are...



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Definition

standard

document, **established by consensus** and **approved by a recognized body**, that provides, for common and repeated use, rules, guidelines, or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.

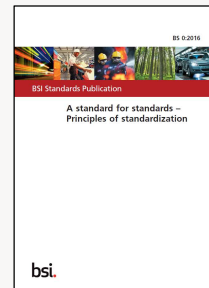
[SOURCE: ISO/IEC Guide 2:2004, 3.2]

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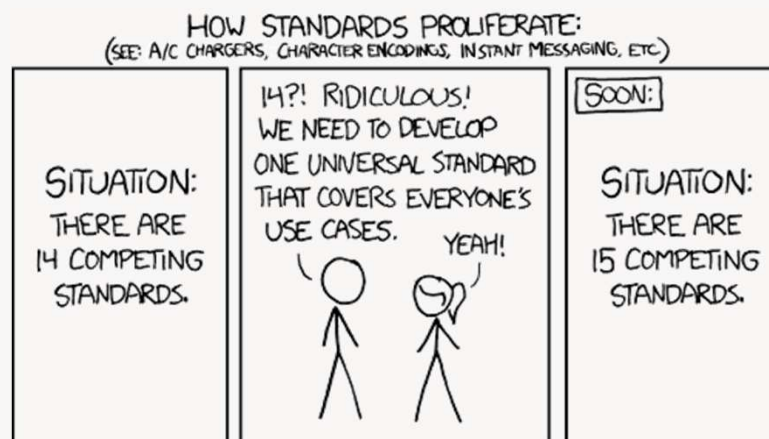
Types

British Standards typically fit into one of the following types:

- Specification;
- Management Systems;
- Code of Practice;
- Guide;
- Method (test or specifying);
- Vocabulary; and
- Classification.



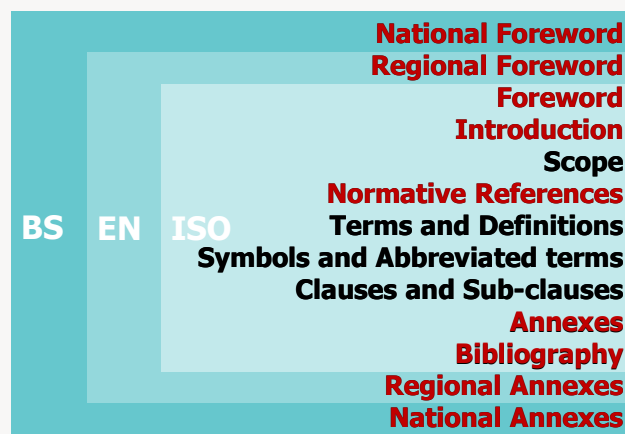
Hierarchy



Hierarchy



Structure



normative

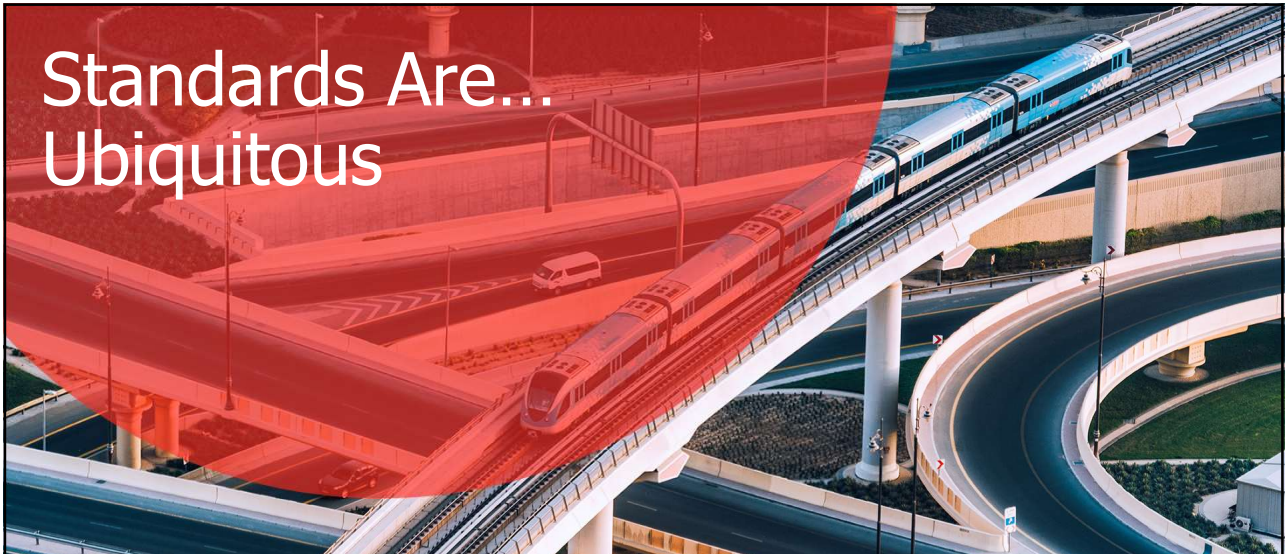
characteristic of material in a standard that is **essential to the application** of the standard in the manner intended, and against which it is possible to demonstrate and claim conformity to the standard [SOURCE: BS 0:2016, 3.34]

informative

characteristic of material in a standard that **supplements normative material** by offering advice, information and guidance [SOURCE: BS 0:2016, 3.28]

National forewords and national annexes are normally informative in status.

Standards Are... Ubiquitous



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Portfolio

Over **59,000** different areas of collective good practice:



BS EN ISO 9000
Quality



BS EN ISO 27001
Information Security



BS 8300
Inclusivity



BS ISO 3103
Tea

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Laptops

How many standards are implemented in a modern laptop? **250+**



BS EN IEC 62680-1-3
USB-C Specification

BS EN ISO/IEC 29500
Open Office XML

BS ISO/IEC 10646:2017
Unicode

Standards Are... Voluntary



Portfolio

While some standards are mandatory such as:

- **BS EN 199X** Eurocodes

The vast majority of our **59,000+** are voluntary!

Standards are tools devised for the **convenience** of those who wish to use them.

Approved Documents

“...there is **no obligation to adopt any particular solution** contained in an Approved Document if you prefer to meet the relevant requirement in some other way.”

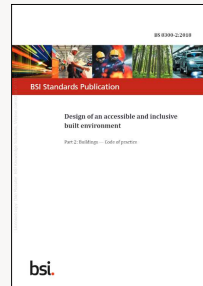
Requirement	Limits on application
PART M ACCESS TO AND USE OF BUILDINGS	
Access to and use of buildings other than dwellings	
M1. Reasonable provision must be made for people to— (a) gain access to; and (b) use, the building and its facilities.	Requirement M1 does not apply to any part of a building that is used solely to enable the building or any service or fitting in the building to be inspected, repaired or maintained.
Access to extensions to buildings other than dwellings	
M2. Suitable independent access must be provided to the extension where reasonably practicable.	Requirement M2 does not apply where suitable access to the extension is provided through the building that is extended.
Sanitary conveniences in extensions to buildings other than dwellings	
M3. If sanitary conveniences are provided in any building that is to be extended, reasonable provision shall be made within the extension for sanitary conveniences.	Requirement M3 does not apply where there is reasonable provision for sanitary conveniences elsewhere in the building, such that people occupied in, or otherwise having occasion to enter the extension, can gain access to and use those sanitary conveniences.

Approved Documents

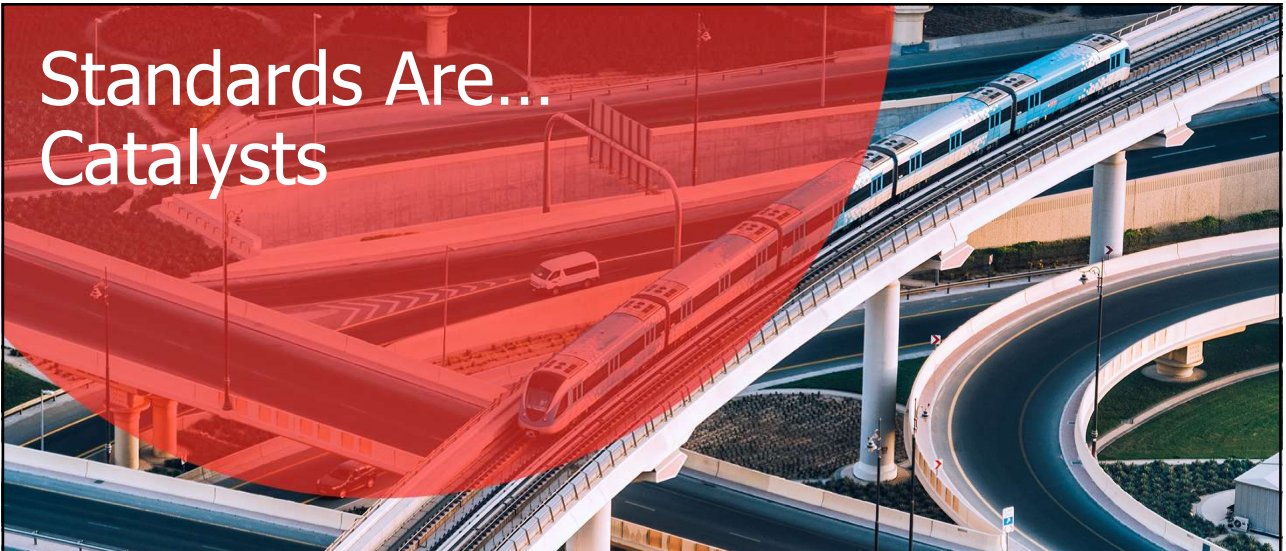
Option 1:

- Research solution;
- Test with users;
- Test with building control;
- Iterate to suit; and
- Defend our solution.

Option 2:



Standards Are... Catalysts



For the Economy

The adoption of Standards:

- Supported **~37%** labour productivity growth translating to **~28%** of annual GDP growth in the UK, France and Germany; and
- Boosted the sale of products abroad by **0.3-9.9%**.

#BSI8bn



is the amount that standards contribute to the UK economy



of annual UK GDP growth can be attributed to standards, equivalent to **£8.2 billion**



37.4% of UK productivity growth can be attributed to standards



of additional UK exports per year can be attributed to standards



SMEs are **41%** more likely to export if they use standards and larger companies are **36%** more likely to export

Standards boost UK productivity and improve performance, kick-start innovation, and support UK and domestic trade

[bsigroup.com/EconomicBenefits](https://www.bsigroup.com/EconomicBenefits)

Source: Centre for Economics and Business Research (2015). The Economic Contribution of Standards to the UK Economy, published by BSI, June 2015.

Economic Benefits of Standards <https://www.bsigroup.com/en-GB/standards/benefits-of-using-standards/research-reports/>

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For Government Strategy

“Government as a client can derive significant improvements in cost, value and carbon performance through the use of open sharable asset information”

The strategy consisted of a push/pull methodology:

PUSH (how to make it easier)

- Guidance
- Training
- Standards**

PULL (how Government would specify)

- Specifying information as a delivery requirement
- Definition of deliverables (**standards**)

Shared requirements and **standards** will encourage investment into readily available interoperable components to drive faster delivery

Contracting authorities should seek opportunities to collaborate in order to develop and adopt shared requirements and **common standards**

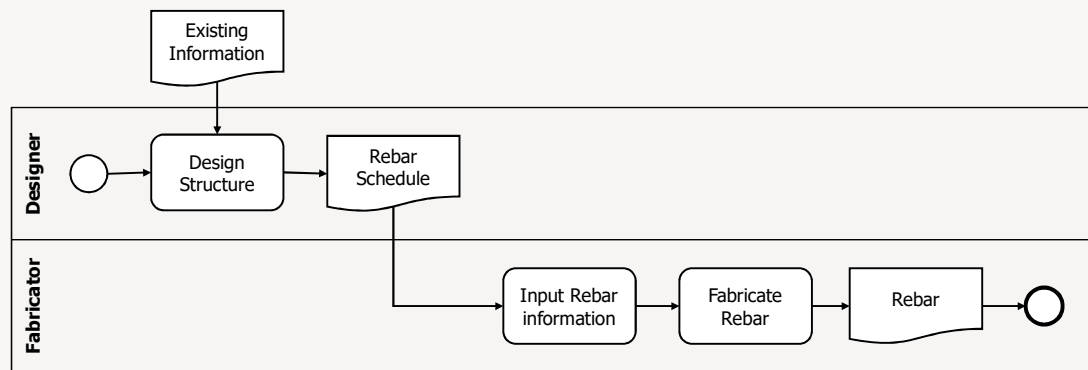
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BIM Working Party Strategy Paper <https://www.cdbb.cam.ac.uk/system/files/documents/BISBIMstrategyReport.pdf>
The Construction Playbook https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/941536/The_Construction_Playbook.pdf

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For Productivity



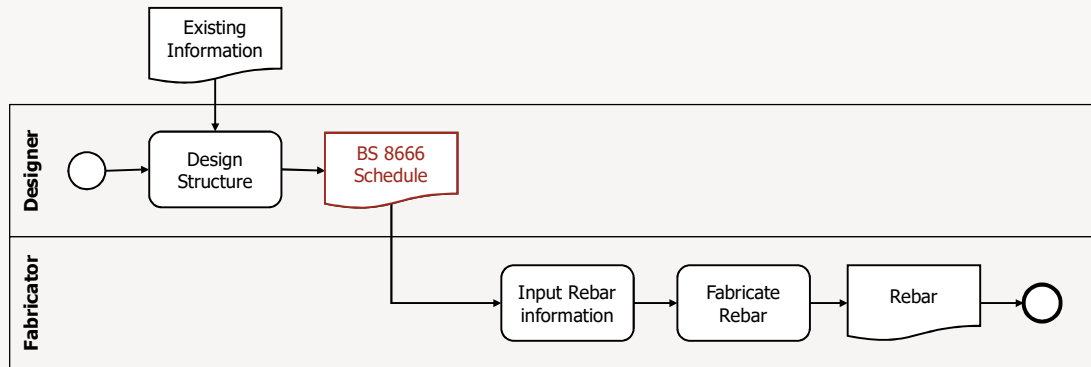
For Productivity

BS 8666 provides a specification for the scheduling, dimensioning, bending and cutting of steel reinforcement for concrete.

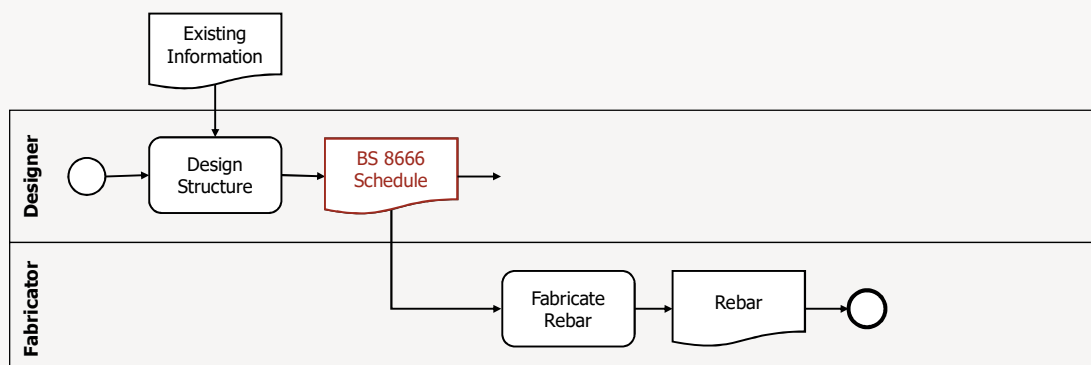
These schedules can be directly input into fabrication machines!

[illegible]

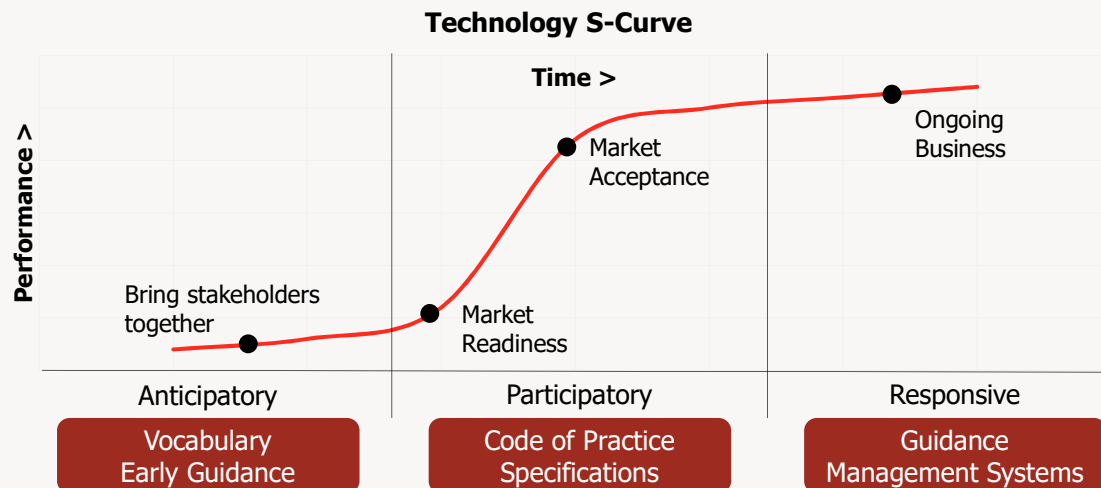
For Productivity



For Productivity



For Innovation



Summary

Standards Are:

- Documents (of many types), established by consensus
- **Ubiquitous**, from Tea to IoT
- **Voluntary**, devised for convenience
- **Catalysts**, for the economy, productivity, and innovation.
- Pretty Cool!

Thank you

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