



The Nuts and Bolts of UKCA Marking

Alexander Toohie – Element Materials Technology

Agenda

What is UKCA marking?

Isn't this just CE marking again?

What are my obligations?

UKCA Marking Example

What about Northern Ireland?



UK
CA

CE

UKCA Marking Legislation

STATUTORY INSTRUMENTS

2016 No. 1091

ELECTROMAGNETIC COMPATIBILITY

The Electromagnetic Compatibility Regulations 2016

STATUTORY INSTRUMENTS

2016 No. 1101

**CONSUMER PROTECTION
HEALTH AND SAFETY**

The Electrical Equipment (Safety) Regulations 2016

2016 No. 1107

HEALTH AND SAFETY

The Equipment and Protective Systems Intended for
Use in Potentially Explosive Atmospheres
Regulations 2016

2017 No. 1206

TELECOMMUNICATIONS

The Radio Equipment Regulations 2017



STATUTORY INSTRUMENTS

2019 No. 696

**EXITING THE EUROPEAN UNION
CONSUMER PROTECTION
ELECTROMAGNETIC COMPATIBILITY
ENVIRONMENTAL PROTECTION**



**UK
CA**

UKCA Marking Legislation

Equipment for explosive atmosphere	Outdoor Equipment Noise Emissions
Construction Products	Personal Protective Equipment
Eco-design/Energy related product	Pressure Equipment
Electromagnetic Compatibility	Pyrotechnics Articles
Explosive (civil uses)	Radio Equipment
Gas appliances	Machinery
Low Voltage Electrical Equipment (safety)	Recreational craft and personal watercraft
Lifts	Restriction of certain Hazardous Substances
Measuring instruments	Simple Pressure Vessels
Medical devices	Toys safety
Non-automatic weighting instruments	

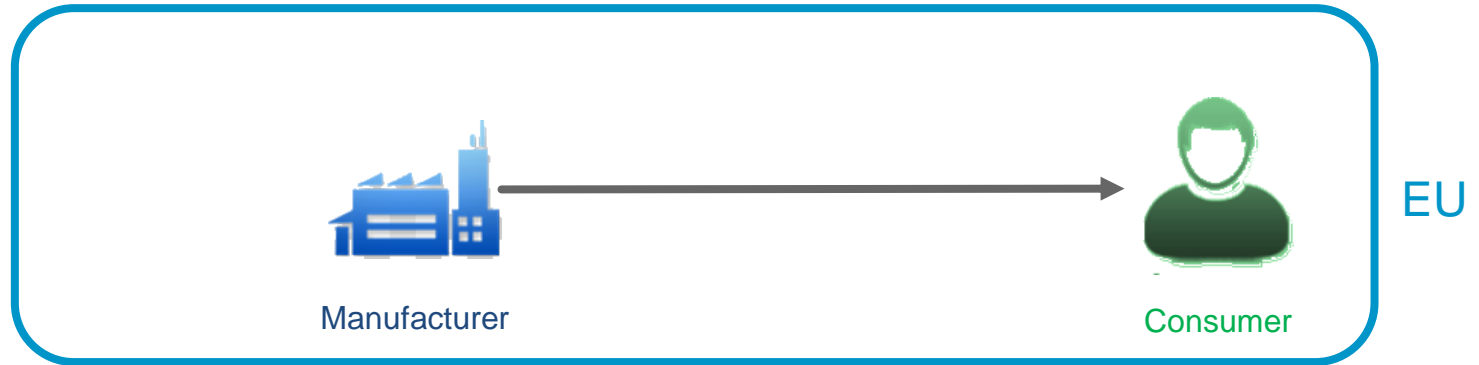
6. Nothing in these Regulations prevents the making available on the market, or the putting into service in the United Kingdom, of equipment which is in conformity with Part 2 when the equipment is properly installed, maintained and used for its intended purpose.

Article 5

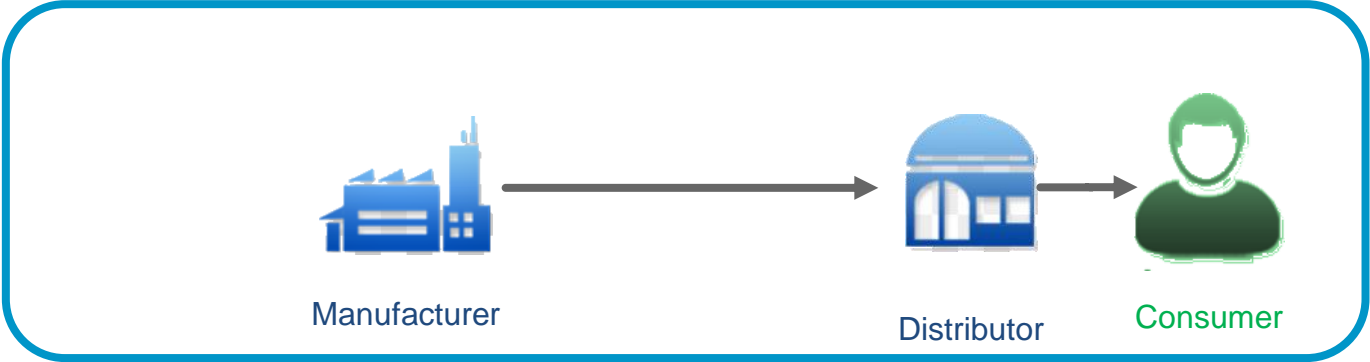
Free movement of equipment

1. Member States shall not impede, for reasons relating to electromagnetic compatibility, the making available on the market and/or the putting into service in their territory of equipment which complies with this Directive.

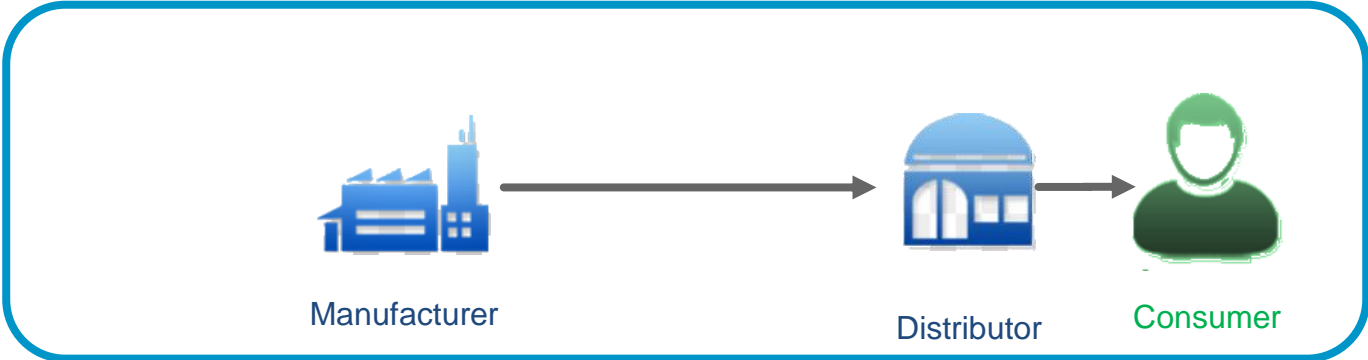
Economic Operators



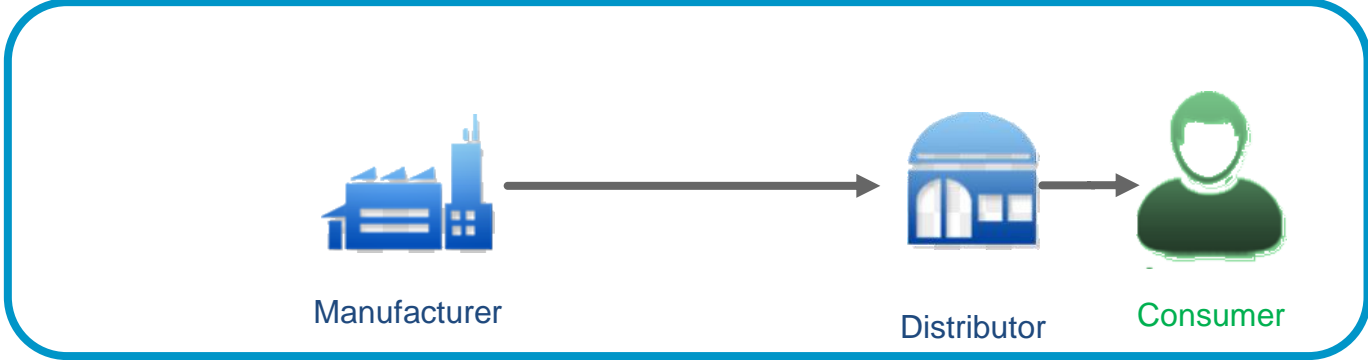
Economic Operators



Economic Operators

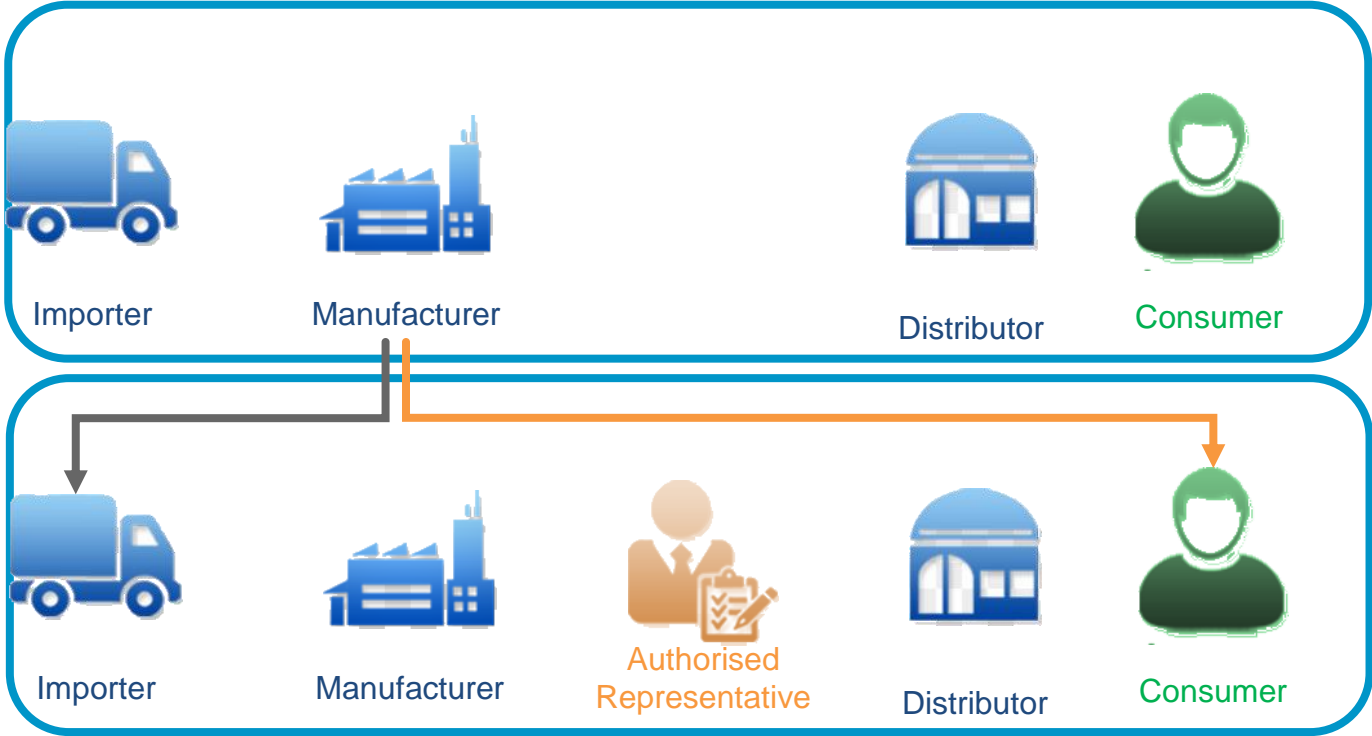


UK

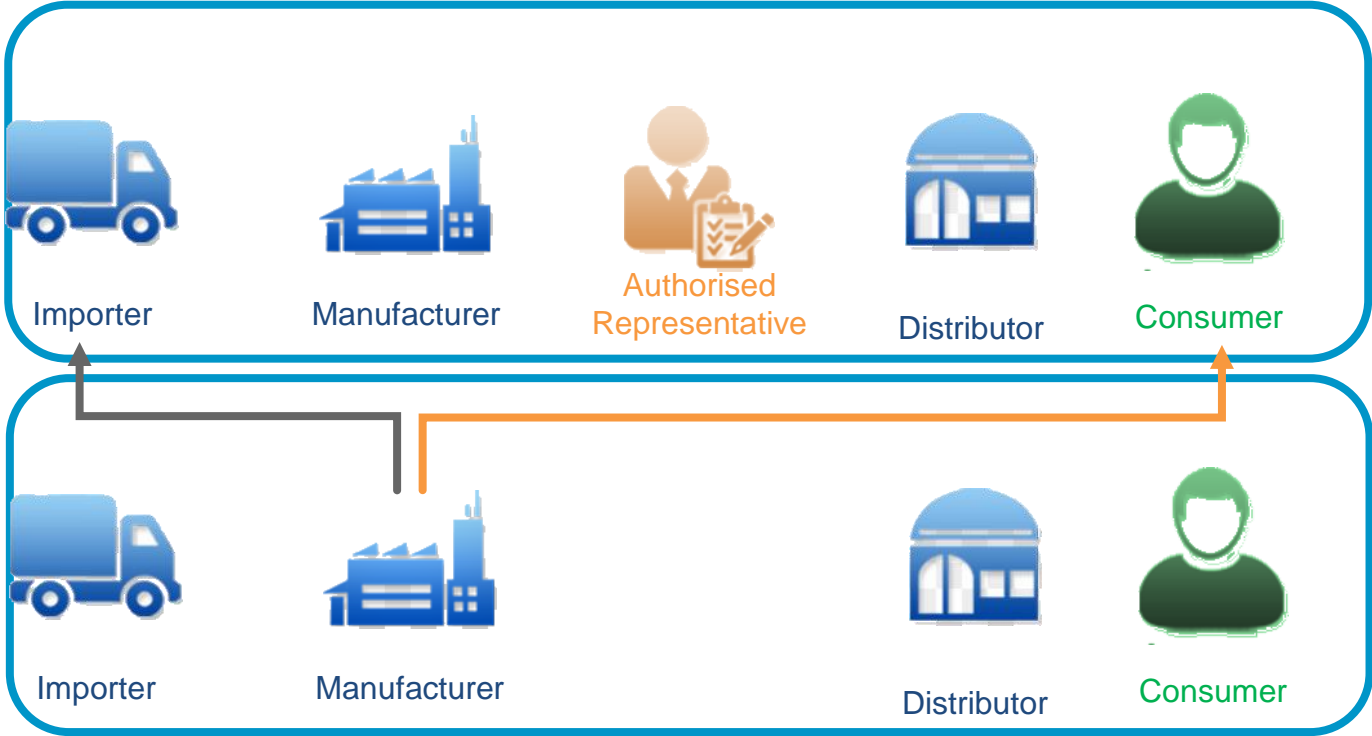


EU

Economic Operators



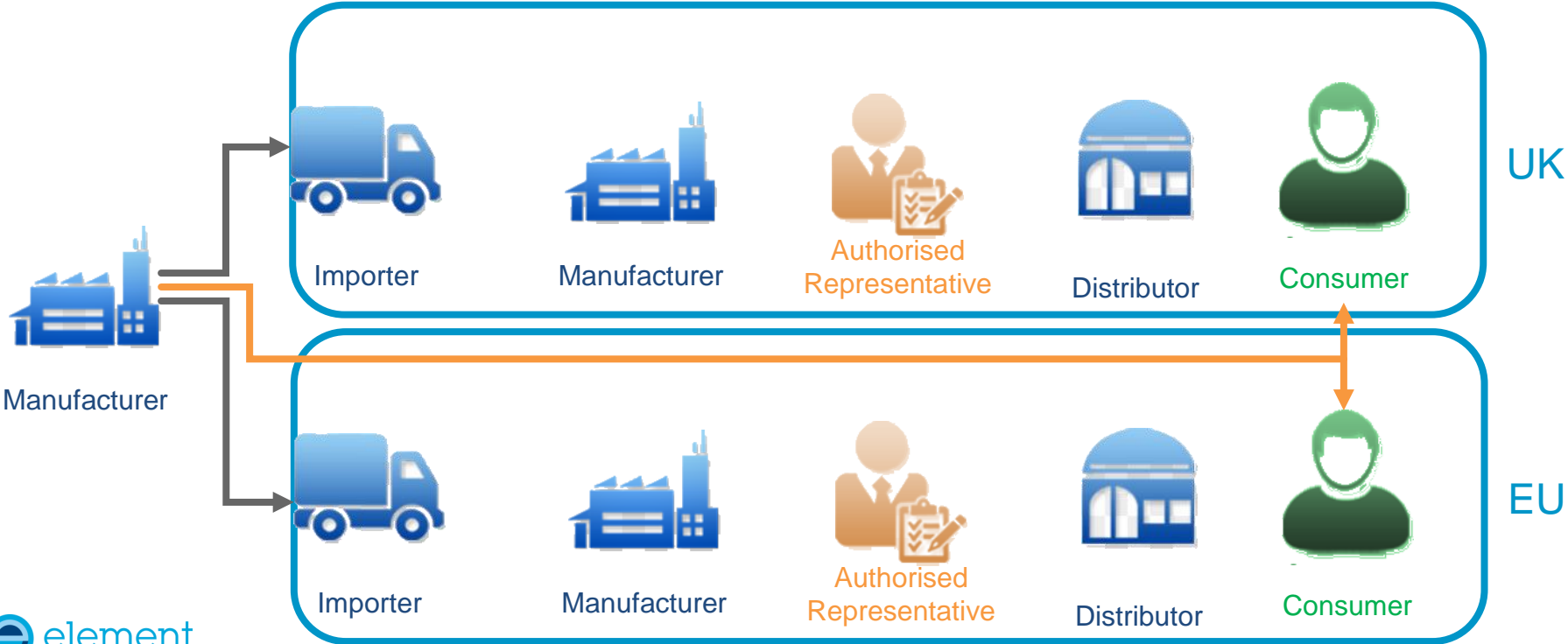
Economic Operators



UK

EU

Economic Operators



Obligations of Manufacturers

Electromagnetic Compatibility Regulations 2016

1 Ensure equipment meets Essential Requirements

2 Carry out a Conformity Assessment Procedure

3 Accompany with Declaration of Conformity and UKCA Marking

4 Keep technical documentation for 10 years

5 Ensure series production is in conformity

6 Mark with trade name and postal address

7 Accompany with instructions for use

8 Agree to take corrective measures

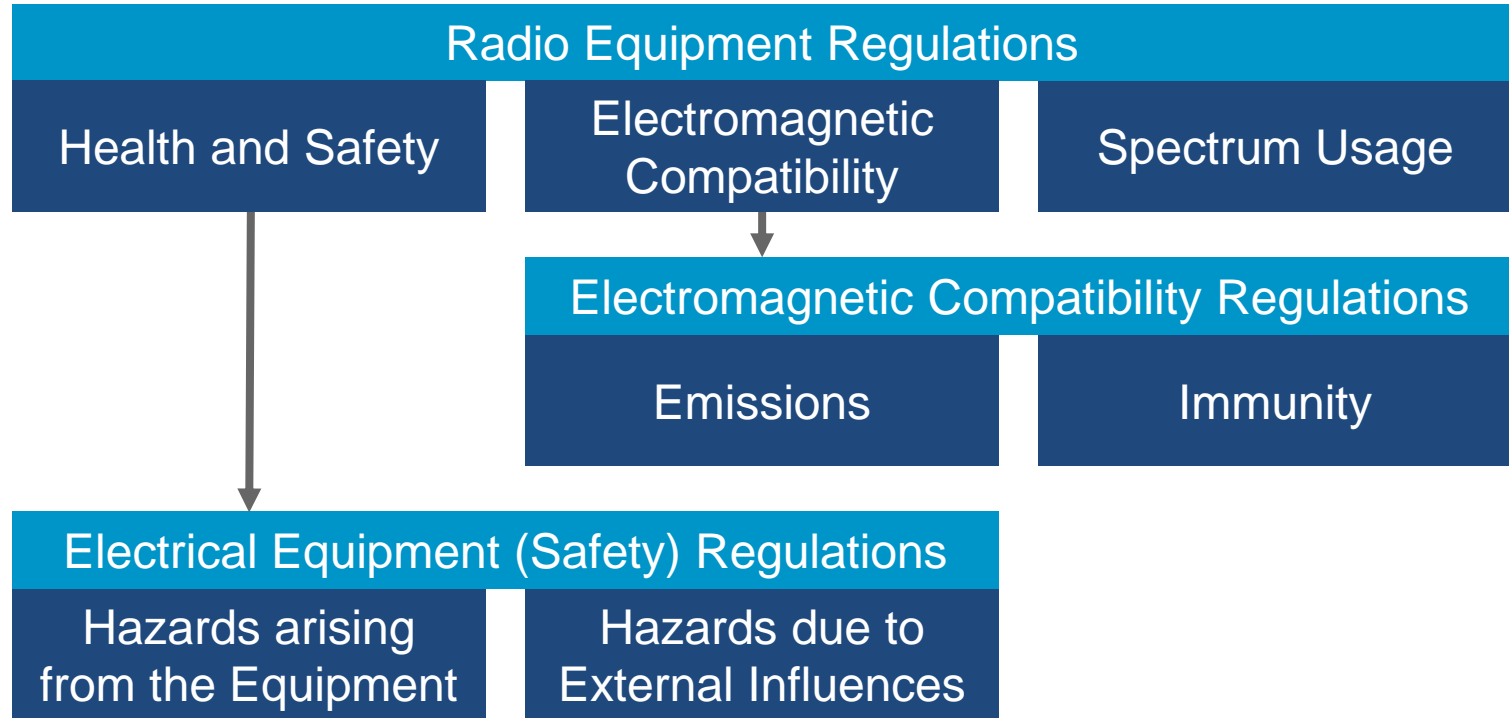
9 Agree to comply with market surveillance requests

Obligations of Manufacturers

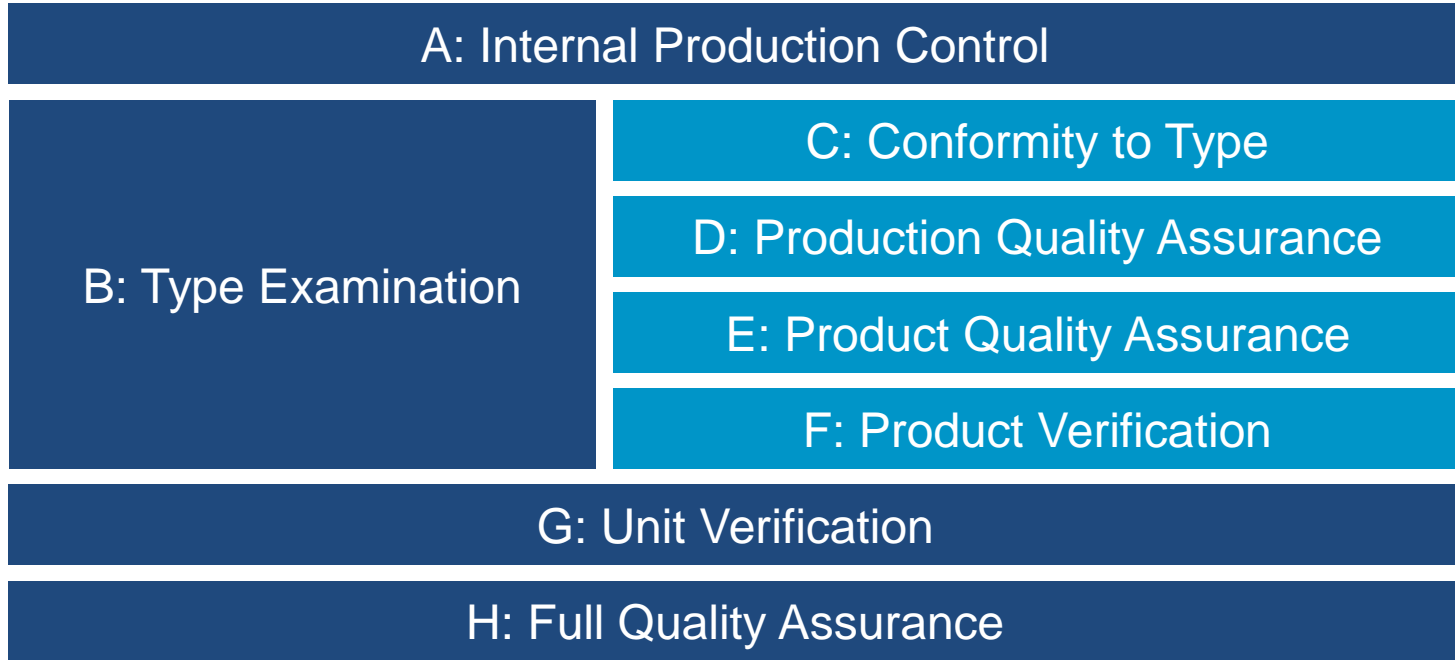
Electromagnetic Compatibility Regulations 2016

- 1 Ensure equipment meets **Essential Requirements**
- 2 Carry out a **Conformity Assessment Procedure**
- 3 Accompany with **Declaration of Conformity** and UKCA Marking
- 4 Keep technical documentation for 10 years
- 5 Ensure series production is in conformity
- 6 Mark with trade name and postal address
- 7 Accompany with instructions for use
- 8 Agree to take corrective measures
- 9 Agree to comply with market surveillance requests

Essential Requirements



Conformity Assessment Procedures



Conformity Assessment Procedures

Electrical Equipment (Safety) Regulations Article 41

Internal Production
Control

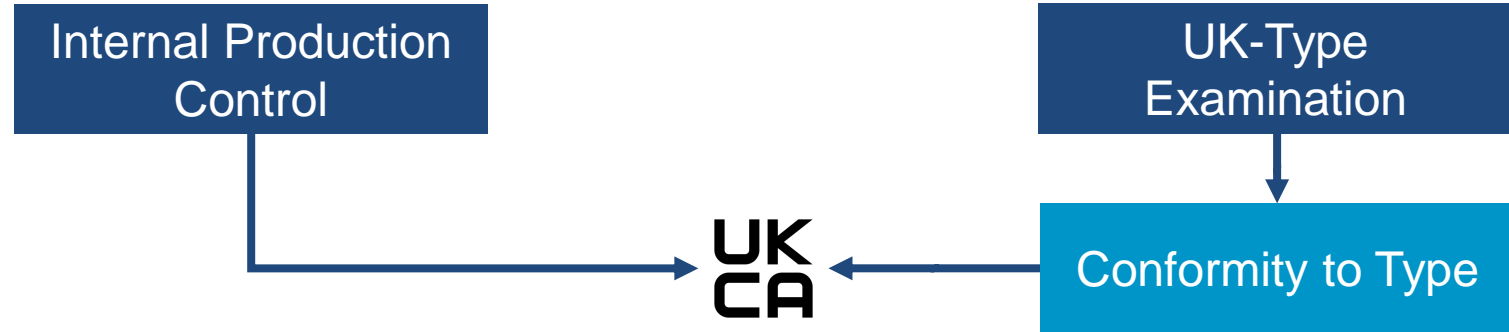


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graph LR; A[Internal Production Control] --> B[UKCA]
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CA

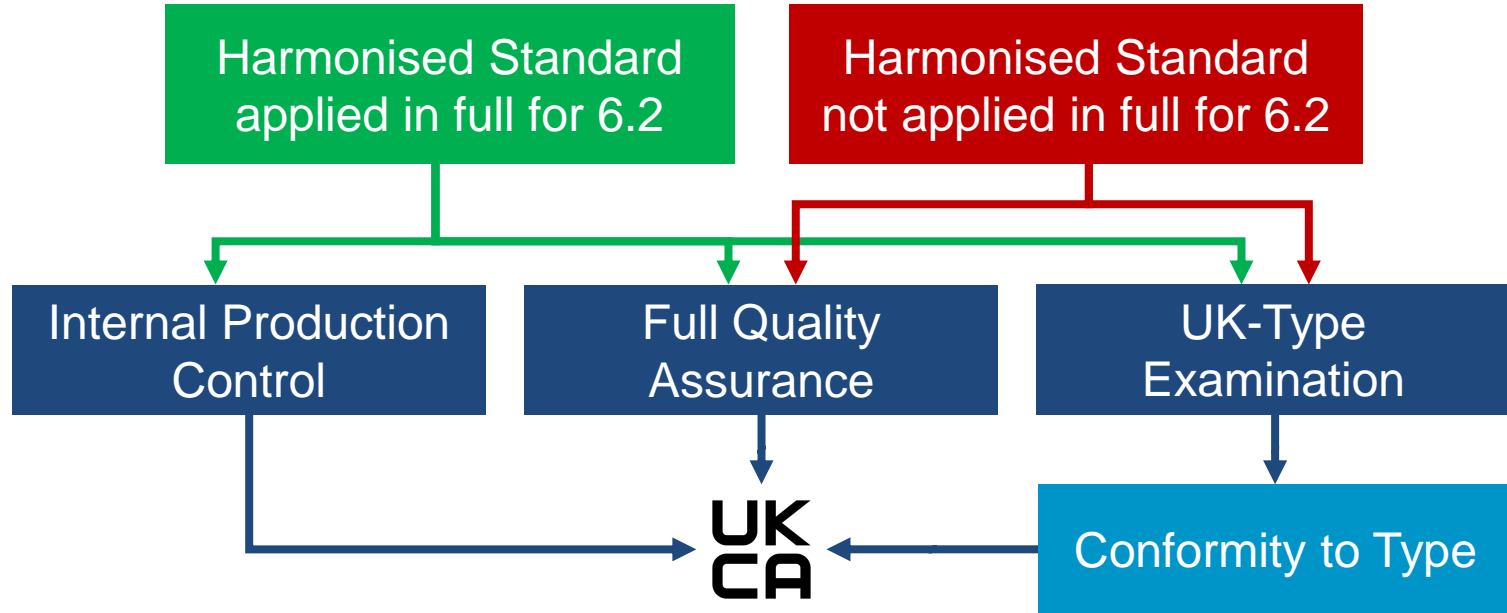
Conformity Assessment Procedures

Electromagnetic Compatibility Regulations Article 41

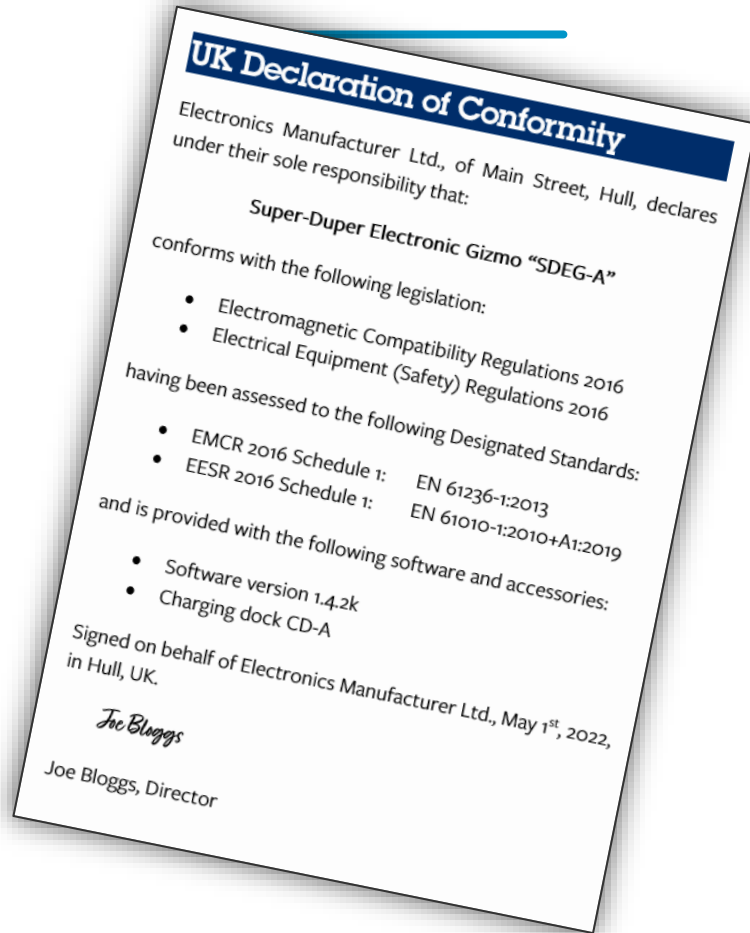


Conformity Assessment Procedures

Radio Equipment Regulations Article 41



Declaration of Conformity



UKCA Example: Temperature Logger



- Battery powered
- Rechargeable via docking station (mains powered)
- Three modes: docked, logging, idle
- No other electrical connections

UKCA Example: Temperature Logger



Equipment for explosive atmosphere	Outdoor Equipment Noise Emissions
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UKCA Example: Temperature Logger



Electromagnetic Compatibility Regulations

Emissions

Immunity

Electrical Equipment (Safety) Regulations

Hazards arising from the Equipment

Hazards due to External Influences



UKCA Example: Temperature Logger



Electromagnetic Compatibility Regulations

Emissions

Immunity

Electrical Equipment (Safety) Regulations

Hazards arising from the Equipment

Hazards due to External Influences



UKCA Example: Temperature Logger



Essential Requirement	Hazard	Risk Assessment	Mitigation and Evidence
EMC Emissions	Conducted emissions on power cables	Power cable present in docked mode only. Combination of logger and dock should be assessed.	Full tests in docked mode.
	Conducted emissions on signal cables	No signal cables, so no risk	None
	Radiated emissions below 1 GHz	The device can operate in three modes: docked, logging, and idle. Path to ground may impact tests, but emissions are likely to be worse in logging mode than idle mode.	Pre-scans in all three modes. Full testing in the docked mode. Full testing in worst-case mode of logging or idle. Test report documenting this.
	Radiated emissions above 1 GHz	The device can operate in three modes: docked, logging, and idle. Path to ground may impact tests, but emissions are likely to be worse in logging mode than idle mode.	Full testing in the same modes as above. Test report documenting this.



UKCA Example: Temperature Logger



EMC Modes of Operation – Considerations

- 1 Test a minimum number of modes to cover all functionality
- 2 Are all functions active simultaneously in each mode?
- 3 What is the cycle time for each mode?
- 4 What support equipment is needed to enable and monitor each mode?

UKCA Example: Temperature Logger



Technical documentation

4. The manufacturer must establish the technical documentation. The documentation must make it possible to assess the conformity of the apparatus to the relevant requirements, and must include an adequate analysis and assessment of the risks.

5. The technical documentation must specify the applicable requirements and cover, as far as relevant for the assessment, the design, manufacture and operation of the apparatus. The technical documentation must, wherever applicable, contain at least the following elements

- (a) a general description of the apparatus;
- (b) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.;
- (c) descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the apparatus;
- (d) a list of the [F1 designated] standards applied in full or in part F2... and, where those [F1 designated] standards have not been applied, descriptions of the solutions adopted to meet the essential requirements of these Regulations, including a list of other relevant technical specifications applied. In the event of a partly applied [F1 designated] standard, the technical documentation must specify the parts of the standard that have been applied;
- (e) results of design calculations made, examinations carried out, etc.;
- (f) test reports.

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TEST REPORT ON THE SAFETY OF ELECTRICAL EQUIPMENT

FOR

TEMPERATURE LOGGER

WITH RESPECT TO

EN 61010-1:2010+A1:2019

ilac-MRA

UKAS TESTING 0026

UKCA Example: Temperature Logger



Electrical Equipment (Safety) Regulations

Electromagnetic Compatibility Regulations

Internal Production Control

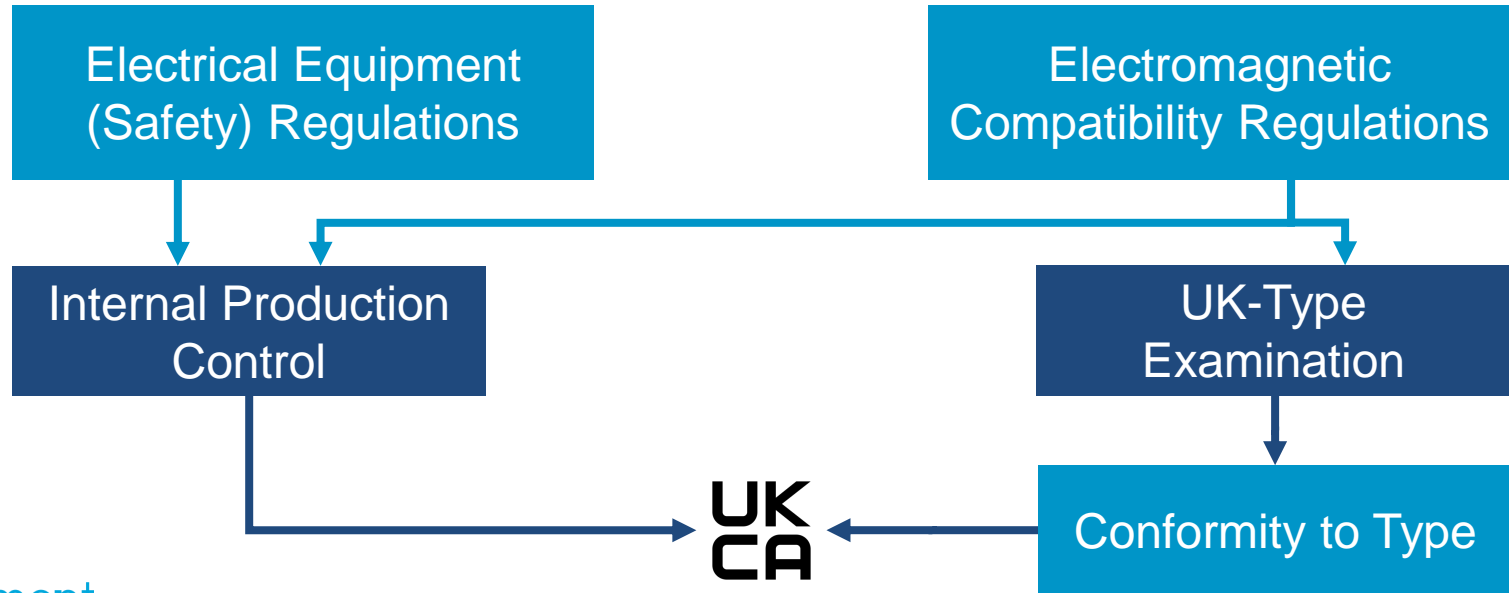
UK-Type Examination

UKCA

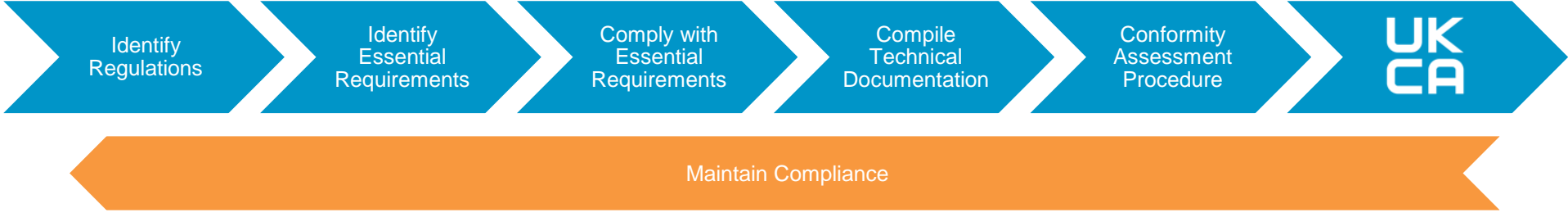
Conformity to Type



UKCA Example: Temperature Logger



UKCA Example: Temperature Logger



Manufacturer



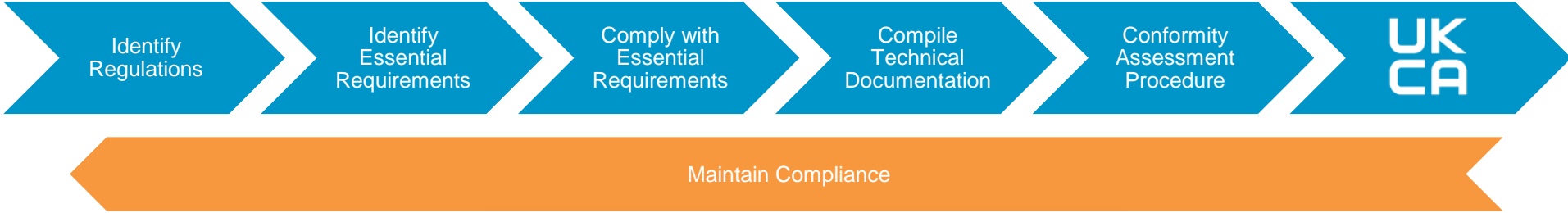
Distributor



Consumer



UKCA Example: Temperature Logger



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INDUSTRIES SERVICES ABOUT RESOURCES CAREERS

standard update SEARCH Q

SEARCH RESULTS | 1 - 12 of 912

SHOWING RESULTS FOR: ALL TYPES

Changing Standards How the EN 62368 Update Affects Your Products

RESOURCES

Medical Equipment Update: EN 60601-1-2:2015 +A1:2021 (IEC 60601-1-2 Edition 4.1)

RESOURCES

Standard Update: EN 55014-1:2021 and EN 55014-2: 2021
Electromagnetic compatibility. Emissions and immunity requirements for household appliances, electric tools, and similar apparatus.

SECTORS

ICES-003 Issue 7 Standard Updates

DEF STAN 00-035 Issue 5 A Guide to the Update



What about Northern Ireland?

**UK
NI**

What about Northern Ireland?

In the majority of cases, the UK(NI) marking is not required

The UK(NI) marking should be placed alongside the CE marking only if all of the following apply:

The goods are being placed on the NI market, not the wider EU market

The goods require mandatory third-party conformity assessment

A UK body was used for the mandatory conformity assessment

Contact Us



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