

<b>Title:</b> Transposition of Recast Marine Equipment Directive (2014/90/EU) <b>IA No:</b> DfT00335 <b>RPC Reference No:</b> RPC-3167(2)-DfT <b>Lead department or agency:</b> Maritime Coastguard Agency <b>Other departments or agencies:</b> Department for Transport	<b>Impact Assessment (IA)</b>			
	<b>Date:</b> 01/08/2016			
	<b>Stage:</b> Final			
	<b>Source of intervention:</b> EU			
	<b>Type of measure:</b> Secondary legislation			
<b>Contact for enquiries:</b> Hazel Christie				
<b>Summary: Intervention and Options</b>			<b>RPC Opinion:</b> GREEN	

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
£0.15m	£0.71m	-£0.12m (QRP) / £0.04m (NQRP)	Not in scope	Qualifying provision

**What is the problem under consideration? Why is government intervention necessary?**

The EC Marine Equipment Directive, regulating safety equipment at sea, was transposed into UK law through the Merchant Shipping (Marine Equipment) Regulations 1999/1957. The original transposition extended the application of the regulations to all UK ships. Problems in the operation of the existing Directive, which include the administrative burden put upon Member States via updating testing standards and lack of enforcement mechanisms, were resolved in a recast Directive. Intervention in the form of transposition of this recast Directive and the proportionate removal of gold-plating, is needed to ensure UK ships remain safe and UK manufacturers retain access to the EU single market.

**What are the policy objectives and the intended effects?**

The policy seeks to ensure the safety of UK ships and the marine environment, through transposing the requirements of the Marine Equipment Directive (MED). The MED sets out approval requirements for marine equipment placed on board such ships. Additionally, the policy sets out a framework for UK manufacturers to seek European approval of their products allowing them to be placed on the EU common market place. Finally, the policy objective is to enhance the safety of marine equipment marketed in the UK by introducing an enhanced enforcement system for compliance with relevant standards for marine equipment.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

Three policy options have been considered:  
 Option 1 – Transpose the Directive and remove all gold-plating, sticking strictly to the Directive’s requirements.  
 Option 2 – Transpose the Directive and apply a proportionate removal of gold-plating such that the requirements of the Directive apply to ships within the scope of the Directive and other higher risk UK ships.  
 Option 3 – Transpose the Directive and apply the Directive to all UK ships (i.e. keep the gold-plating).

Option 2 is the preferred policy. This reduces the gold plating within existing marine equipment Regulations which currently apply to all UK ships, whilst maintaining Gold Plating for some higher risk ships.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 10/2021

<b>Does implementation go beyond minimum EU requirements?</b>		Yes		
<b>Are any of these organisations in scope?</b>	<b>Micro</b> Yes	<b>Small</b> Yes	<b>Medium</b> Yes	<b>Large</b> Yes
<b>What is the CO<sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO<sub>2</sub> equivalent)</b>		Traded: N/A		Non-traded: N/A

***I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.***

Signed by the responsible Minister: John Hayes Date : 31st October 2016

# Summary: Analysis & Evidence

# Policy Option 1

**Description:** Transpose the Marine Equipment Directive and remove all gold-plating

## FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -0.94	High: 0.90	Best Estimate: 0.17

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.2
High	0.0	0.1	1.3
Best Estimate	0.0	0.1	0.6

### Description and scale of key monetised costs by 'main affected groups'

The key monetised costs for Policy Option 1 are the costs of transposing the EU directive. This includes costs to manufacturers of familiarisation, adding formal obligations, and translation services. There are also transitional costs to notified bodies, and costs to the MCA of regulation and enforcement. The total undiscounted cost of Policy Option 1 is £0.613m over 10 years, and these are the costs associated with transposing the EU directive.

### Other key non-monetised costs by 'main affected groups'

There are non-monetised costs to notified bodies through purchasing scanning technology equipment. There is uncertainty around how this will be implemented in practice as they are not obliged to purchase scanning technology. There are also non-monetised safety costs associated with the void left by the removal of all gold plating. As this is not considered a viable policy option, these costs have not been monetised - It is expected they would be large.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.4
High	0.0	0.1	1.1
Best Estimate	0.0	0.1	0.7

### Description and scale of key monetised benefits by 'main affected groups'

The monetised benefit is the reduction in all gold plating, which has been calculated using the difference between MED and non-MED equipment (new ship operators that are removed from gold plating can now purchase cheaper Non-MED equipment). This benefit has been calculated at £0.852m undiscounted over 10 years, and is considered a Qualifying Regulatory Provision.

### Other key non-monetised benefits by 'main affected groups'

The main non-monetised benefit of Policy Option 1 is the reduction in fraud for ship operators. This is through an enhanced market surveillance and enforcement programme across the EU, which is expected to lead to a reduction in the use of fraudulent equipment. This will have safety benefits for those on board EU flagged ships, and have positive impacts on the marine environment.

<b>Key assumptions/sensitivities/risks</b>	<b>Discount rate (%)</b>	3.5%
--	--------------------------	------

The monetised figures are based on a number of assumptions, which have been based on available data. However, it is often difficult to assess what equipment currently exists on ships. The analysis has also used assumptions to calculate the number of ships joining the UK register during the next 10 years (largely basing them on past trends). A standard appraisal period of 10 years has been used for the analysis.

## BUSINESS ASSESSMENT (Option 1)

<b>Direct impact on business (Equivalent Annual) £m:</b>	<b>Score for Business Impact Target (qualifying provisions only) £m: 0.1</b>		
Costs: 0.0	Benefits: 0.1	Net: 0.1	

# Summary: Analysis & Evidence

# Policy Option 2

**Description:** Transpose the Marine Equipment Directive and apply a proportionate removal of gold-plating

## FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -0.95	High: 0.87	Best Estimate: 0.15

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.2
High	0.0	0.1	1.3
Best Estimate	0.0	0.1	0.6

### Description and scale of key monetised costs by 'main affected groups'

These are a number of monetised costs from transposing the EU directive, including costs to manufacturers of familiarisation, adding formal obligations, and translation services. There are also transitional costs to notified bodies and costs to the MCA of regulation and enforcement. The total undiscounted cost of Policy Option 2 is £0.613m over 10 years.

### Other key non-monetised costs by 'main affected groups'

There are non-monetised costs to notified bodies through purchasing scanning technology equipment, to register electronic tagging which ship operators use. The uncertainty around how this will be implemented in practice, given that the notified bodies are not obliged to purchase scanning technology - it will depend on the extent to which ship operators use electronic tagging, which is not clear at this stage.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.4
High	0.0	0.1	1.0
Best Estimate	0.0	0.1	0.7

### Description and scale of key monetised benefits by 'main affected groups'

The monetised benefit is the reduction in some gold plating, which has been calculated using the difference between MED and non-MED equipment (new ship operators that are removed from gold-plating can now purchase cheaper Non-MED equipment). This benefit has been calculated at £0.828m undiscounted over 10 years, and is a Qualifying Regulatory Provision.

### Other key non-monetised benefits by 'main affected groups'

The main non-monetised benefit of Policy Option 2 is the reduction in fraud for ship operators. This is through an enhanced market surveillance and enforcement programme across the EU, which is expected to lead to a reduction in the use of fraudulent equipment. This will have safety benefits for those on board EU flagged ships, and have positive impacts on the marine environment.

<b>Key assumptions/sensitivities/risks</b>	<b>Discount rate (%)</b>	3.5%
--	--------------------------	------

The monetised figures are based on a number of assumptions, which have been based on available data. However, it is often difficult to assess what equipment currently exists on ships. The analysis has also used assumptions to calculate the number of ships joining the UK register during the next 10 years (largely basing them on past trends). A standard appraisal period of 10 years has been used for the analysis.

## BUSINESS ASSESSMENT (Option 2)

<b>Direct impact on business (Equivalent Annual) £m:</b>	<b>Score for Business Impact Target (qualifying provisions only) £m: 0.1</b>	
Costs: 0.0	Benefits: 0.1	Net: 0.1

# Summary: Analysis & Evidence

# Policy Option 3

**Description:** Transpose the Marine Equipment Directive and apply the Directive to all UK ships

## FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -1.35	High: -0.15	Best Estimate: -0.56

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.2
High	0.0	0.1	1.3
Best Estimate	0.0	0.1	0.6

### Description and scale of key monetised costs by 'main affected groups'

These are a number of monetised costs from transposing the EU directive, including costs to manufacturers of familiarisation, adding formal obligations, and translation services. There are also transitional costs to notified bodies and costs to the MCA of regulation and enforcement. The total undiscounted cost of Policy Option 3 is £0.613m over 10 years.

### Other key non-monetised costs by 'main affected groups'

There are non-monetised costs to notified bodies through purchasing scanning technology equipment, to register electronic tagging which ship operators use. The uncertainty around how this will be implemented in practice, given that the notified bodies are not obliged to purchase scanning technology - it will depend on the extent to which ship operators use electronic tagging, which is not clear at this stage.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.0
High	0.0	0.0	0.0
Best Estimate	0.0	0.0	0.0

### Description and scale of key monetised benefits by 'main affected groups'

There are no monetised benefits for Policy Option 3.

### Other key non-monetised benefits by 'main affected groups'

The main non-monetised benefit of Policy Option 3 is the reduction in fraud for ship operators. This is through an enhanced market surveillance and enforcement programme across the EU, which is expected to lead to a reduction in the use of fraudulent equipment. This will have safety benefits for those on board EU flagged ships, and have positive impacts on the marine environment.

<b>Key assumptions/sensitivities/risks</b>	<b>Discount rate (%)</b>	3.5%
--	--------------------------	------

The monetised figures are based on a number of assumptions, which have been based on available data. However, it is often difficult to assess what equipment currently exists on ships. The analysis has also used assumptions to calculate the number of ships joining the UK register during the next 10 years (largely basing them on past trends). A standard appraisal period of 10 years has been used for the analysis.

## BUSINESS ASSESSMENT (Option 3)

<b>Direct impact on business (Equivalent Annual) £m:</b>	<b>Score for Business Impact Target (qualifying provisions only) £m: 0.0</b>	
Costs: 0.0	Benefits: 0.0	Net: 0.0

# Evidence Base

## Nomenclature

**British Marine:** A membership organisation for the leisure, superyacht and small commercial marine industry.

**COLREG:** International Regulations for Preventing Collisions at Sea, 1972

**COSS:** Committee on Safe Seas and the Prevention of Pollution from Ships

**DoC:** Declaration of Conformity

**EMSA:** European Maritime Safety Agency

**EPIRB:** Emergency Position Indicating Radio Beacon

**EU-flagged ship:** A ship entitled to fly the flag of an EU Member State.

**Flag Administration:** The Government of the State whose flag a ship is entitled to fly responsible for issuing safety certificates pursuant to IMO Conventions.

**GT:** Gross Tonnage

**IA:** Impact Assessment

**ILAMA:** International Life-saving Appliance Manufacturers' Association, a membership organisation which exists to promote excellence in manufacturing, training and maintenance of life-saving appliances globally to enhance safety at sea.

**IMO:** The International Maritime Organization, a United Nations' body with its office in the UK.

**IMO Conventions:** In the context of the MED, this means the following conventions SOLAS, MARPOL and COLREG, together with their protocols and codes of mandatory application.

**International Instruments:** The requirements applicable to marine equipment formed by the IMO Conventions, relevant resolutions and circulars.

**ISO:** International Organization for Standardization

**MarED:** The co-ordination group for the Notified Bodies appointed by the Member States to carry out the conformity assessment procedures referred to in the Marine Equipment Directive. Its website contains information on Notified Bodies, manufacturers, equipment available and the Directive.

**MARPOL:** The International Convention for the Prevention of Pollution from Ships, 1973

**MCA:** The Maritime and Coastguard Agency

**MED:** The Marine Equipment Directive.

**MGN:** Marine Guidance Notice

**NB:** Notified Body

**OEM:** Original Equipment Manufacturer

**RSS:** The Registry of Shipping and Seamen, Cardiff

**RTC:** Red Tape Challenge, the government's initiative to reduce the overall burden of regulation through abolishment or simplification in order to boost business and economic growth and save taxpayer money.

**SEA EUROPE:** The European Ships and Maritime Equipment Association is the voice of the European maritime technology industry. SEA Europe promotes and supports European business enterprises which are involved in the building, construction, maintenance and repair of all types of ships and other relevant maritime structures, including the complete supply chain of systems, equipment and services.

**SI:** Statutory Instrument

**SOLAS:** The International Convention for the Safety of Life at Sea, 1974

**UKAS:** The United Kingdom Accreditation Service, which is the national accreditation body in the UK

**UKSR:** United Kingdom Ship Register

# 1 Problem under consideration

## 1.1 Background to the original European Council Directive

International Maritime Organization (IMO) Conventions require ships to carry safety and counter pollution equipment that is approved by the ship's Flag Administration. However, the requirements of the IMO leave room for interpretation and potentially differing levels of safety may be experienced on board ships flying the flags of the EU Member States. Therefore, the European Community considered it necessary to create an EU-wide system of approvals for marine equipment to reduce inconsistencies in approval of marine equipment, and thus introduced Council Directive 96/98/EC on Marine Equipment (MED). The MED requires the uniform application of the relevant International Instruments by all Member States for marine equipment placed on board EU flagged ships.

Compliance with the existing MED is mandatory for any ship issued with a safety certificate in accordance with the IMO Conventions. This is mainly internationally trading passenger ships and internationally trading cargo ships over 500 Gross Tonnage (GT). However, during initial transposition, it was decided to extend the application of the MED to UK domestic ships as no equivalent approval system for marine equipment was available, and aimed to ensure marine equipment would not jeopardise the safety of any UK ship or to the UK marine environment wherever UK ships operate.

## 1.2 Problem under consideration for the Recast Directive

In gaining experience of operating the MED (96/98/EC) the European Commission and Member States have identified a range of issues which have arisen. In order to address these issues, the European Commission has promulgated a recast of the Directive. The identified issues addressed in the recast MED (2014/90/EU) are summarised below and are shown in more detail later in this document. The UK response to the recast Directive will also include regulatory action in harmony with the Red Tape Challenge (RTC) objectives.

### 1.2.1 Communication of Standards for Marine Equipment

At present any time an IMO or Standardization Body Instrument is updated, the list of equipment in Annex A of the MED requires an associated update in turn. The present system has shown inefficiency given the inevitable time lag between these two exercises and the administrative burden frequently put onto EU Member States. The recast of the Directive could introduce a more effective system in order to update the lists of marine equipment in harmony with changes to the IMO regulatory framework. The equipment list will become an EU Regulation and will not require transposition action by the EU Member States. This will ensure that as IMO requirements are altered, a minimal time delay occurs in introducing such changes to the MED and no additional administrative burdens will be faced by the UK in transposing such measures, and clarify specifically which standards are applicable to marine equipment at point of manufacture, approval and placing on board, removing ambiguity currently observed when standards are amended or updated.

### 1.2.2 Notified Bodies

The conformity assessment procedures referred to in the MED require the intervention of a NB. These bodies are private companies appointed by the Member States and notified to the European Commission. Member States are responsible for ensuring that NBs have a sufficient level of competence, impartiality and integrity to perform these tasks. However, the requirements for NBs to meet are relatively out of date, taking into account the New EU Legislative Framework. Accordingly, the Recast MED sets out a harmonised criteria for NBs to meet ahead of appointment. These requirements are more onerous to meet, however, ensure that marine equipment is only approved by bodies which have properly demonstrated impartiality, technical competence and quality management criteria. It should be noted that whilst some Notified Bodies are non-profit, they are treated as businesses in this Impact Assessment and count towards the Business NPV. These services are meant to ensure and assess compliance to defined standards and regulations, but also to provide an official certification mark or a declaration of conformity.

### 1.2.3 Obligations to Manufacturers, Ships and Administrations

Currently there are obligations and expectations placed on manufacturers, ship owners and operators and Administrations to apply conformity standards which are not formally required in the MED (96/98/EC). Whilst in most cases these requirements are practiced, the recast MED (2014/90/EU) formally sets out these requirements. Examples of these requirements include retaining a copy of the manufacturer's declaration of conformity on board a ship carrying MED approved marine equipment and marking marine equipment with the manufacturer's trade name and serial numbers etc. Such requirements will increase the traceability of marine equipment once it is placed on the EU market and on board a ship.

#### **1.2.4 Increased Safety and Enforcement of Marine Equipment Standards and Reduction in Fraud**

Within the existing MED (96/98/EC) there are provisions for the Member States to voluntarily check MED approved marine equipment offered for supply on said Member State's market and on board ships flying its flag. Through this activity of Market Surveillance, there have been issues raised both in the UK and within the EU of noncompliance with such equipment and accounts of counterfeit equipment claiming to be compliant with the Directive. These occurrences highlight a large concern about the safety of the ships flying the flags of the EU Member States. Additionally, there is a potential for equipment to be compliant with the Directive by virtue of its compliance with the international instruments but still poses a risk to safety and the marine environment. The recast Directive provides for a formal market surveillance regime to be used by the Member States to ensure enforcement of the Directive takes place uniformly across the EU, ensuring that equipment that has been approved in accordance with the MED provides a high level of safety. The recast Directive also offers manufacturers the use of an electronic conformity mark which is less susceptible to being counterfeited, unlike the existing mark of conformity and offers the European Commission the ability to create interim standards for equipment where an unacceptable risk to safety or the marine environment is experienced regardless to compliance with the international instruments.

#### **1.2.5 Red Tape Challenge and Partial removal of Gold Plating**

The MED (96/98/EC) applies only to ships which are issued safety certificates pursuant to the IMO Conventions by EU Member States. The UK application of the MED was extended to include all UK ships because no alternative standards or UK approval system for marine equipment was available at that time, and it assisted in ensuring marine equipment would not jeopardise the safety of UK ships or to the UK marine environment by virtue of the independent approval and quality systems put in place for marine equipment. Since the application of the MED 96/98/EC the Government made an obligation to review and reduce UK Regulations, with a view to reducing regulatory burden on UK industry. Additionally, several impracticalities have been observed such as the physical impracticality of fitting IMO Convention, MED approved equipment on board domestic ships and disproportionate costs of equipment to such ships which are often significantly smaller than the types of ships for which MED equipment was intended. One of the objectives of the RTC was to look at gold plating of EU Directives in UK Regulations (Industry Safety Star Chamber 14 March 2012). The introduction by the European Commission of the recast Directive (2014/90/EU) provided an opportunity to review the extent to which the MED (96/98/EC) was applied to UK ships and where appropriate the ability to remove disproportionate gold plating.

As part of transposing the 2014/90/EU Directive, the future application of the MED to UK ships, within the preferred Policy Option, will be reduced to cover only those ships within the scope of the Directive, and certain passenger ships and fishing vessels which are highlighted as requiring a higher level of ship's safety and pollution prevention equipment due to the risks presented by their operation. These ships are Fishing Vessels over 24m in length and Passenger Ships operating on tidal waters. These ships are highlighted as higher risk than other domestic ships outside the scope of the International Conventions (and therefore the Directive). Large Fishing Vessels over 24m in Length are required to carry equipment in accordance with a separate international Convention (Torremolinos International Convention for the Safety of Fishing Vessels) which mandates the carriage of marine equipment otherwise the same as MED approved equipment, due to the size of vessel, types of operation and voyage embarked upon. They are therefore highlighted as posing a level of risk to safety proportionate to ships within the scope of the MED. Passenger ships are those which carry more than 12 persons which are not engaged in the operation of the ship's voyage. Due to the potential number of persons that are unskilled and unfamiliar in ship and maritime operations, passenger ships are deemed, internationally to pose a higher risk to safety and therefore require a higher standard of safety equipment. This is reflected

in the international conventions such as SOLAS which highlights passenger ships irrespective of size as requiring such marine equipment and it is therefore deemed to be proportionate to require the same standard of marine equipment on board passenger ships operating domestically.

## 2 Rationale for intervention

Government intervention (in the form of transposing the recast directive) is required to remedy the issues with the original EU Directive and to reduce the regulatory burden from the transposition of said Directive.

Intervention also ensures that UK equipment manufacturers and NBs remain competitive with their counterparts in other EU Member States and ensures products manufactured and marketed in other EU Member States, can be used on UK Ships and supplied to the UK market. Furthermore, that only equipment in compliance with the international instruments is placed on board a UK ship and that fraudulent equipment is removed from the UK market and does not further enter the UK.

## 3 Policy objectives

The policy objective is to ensure the safety of UK ships and the protection of the marine environment. Also to maintain a level playing field for UK manufacturers of marine equipment by transposing the requirements of the 2014 Directive which will:

- Maintain harmonised approval of Marine Equipment required by IMO Conventions.
- Ensure UK manufacturers' equipment remains accepted on ships registered with all EU Member States, promoting the UK economic growth through export.
- Ensure the marine equipment used on board UK ships continues to meet the performance and testing standards within the international instruments without the need to create a UK specific approval regime, and to enhance safety and pollution prevention at sea.
- Ensure marine equipment placed on the UK market and on board UK ships is lawfully placed on the market and on board ships, and that fraudulent equipment does not enter the UK market.
- To permit the appropriate and proportionate removal of gold plating in harmony with the UK Government RTC commitment.

## 4 Description of options considered

### 4.1 Do Nothing Option

To do nothing would imply the 2014/90/EU Recast Directive is not transposed and no changes are made to UK instruments. This is not considered a feasible option as:

- UK manufacturers will no longer be able to seek approval from UK NBs for the purpose of MED approval and would need to seek approval from NBs in another EU Member State to market their products for supply to EU flagged ships.
- UK NBs would no longer be able to carry out approval of products for use in the EU and would lose contracts with manufacturers both in the UK and in other EU Member States /outside of the EU.
- The UK would also not meet its obligations as a contracting government to the IMO conventions by not facilitating an approval system for equipment fitted to its ships. This would also cause knock on effects to UK ships operating outside of UK waters as they are subject to port state control, where such ships could be detained for prolonged periods due to not complying with IMO Regulations. In turn, this could lead to the UK falling off the white list on the Paris Memorandum of Understanding (MOU) on Port State Control as UK ships would cause a higher risk to safety to persons on board and to the marine environment. In a worst case scenario, Governments internationally could prohibit UK



ships from stopping at their ports, causing a huge detriment to UK shipping and to the UK economy, with a rapid depletion of ships registered to the UK.

- The UK would also not join an EU wide effort to increase safety through the EU safeguard procedure for non-compliant marine equipment and would not implement an enhanced market surveillance programme for marine equipment which aims to reduce the amount of fraudulent equipment entering the UK.
- Non-compliance is not considered a viable option as the non-compliance impacts far outweigh the costs of transposition. However, for proportionality reasons – the non-compliance impacts have not been calculated in the IA.

For the purposes of assessing the costs and benefits of the following Policy Options, a baseline of no Recast Directive has been suggested, and the old directive would apply.

The three policy options considered in this impact assessment all include transposition of the recast Directive, but vary in the types of ship that would be within scope of the regulations. The preferred option has been chosen based on a qualitative judgement on the balance between the costs of the Directive and the potential safety risks or cost of setting up an alternative regulatory framework.

## **4.2 Policy Option 1 – Transpose the 2014/90/EU Directive and remove all gold-plating**

Policy Option 1 proposes to transpose the Directive and to reduce the application in existing UK Regulations of the MED to only those ships within the Directive's scope. This would apply the MED to equipment carried on board UK ships required by the IMO conventions to carry such marine equipment in accordance with the Directive's scope.

However, Option 1 does not consider domestic arrangements for equipment not required by the IMO conventions but which is required by UK instruments for UK domestic ships. By not considering such equipment or ships, a void would be created regarding the standards of vital safety related marine equipment placed on board small commercial vessels, domestic passenger ships, fishing vessels and other cargo ships as no standard would be required for a variety of equipment types on a large proportion of UK domestic ships. Instead, equipment would not be independently approved as compliant and therefore the compliance of equipment with internationally recognised standards would not be proven.

## **4.3 Policy Option 2 – Transpose the 2014/90/EU Directive and partially remove gold-plating**

Policy Option 2 proposes to transpose the Directive and to reduce the application in existing UK Regulations to ships within the Directive's scope and other higher risk ships. Gold-plating will therefore remain where there is a proportionate requirement and or operational risk for selected ship and equipment types. Specifically, this would apply to certain fishing and passenger ships in cases where there are no alternative equivalent safety standards. This is the preferred option (Further detail on ships affected has been incorporated in Costs and Benefits in section 5 and further details on the rationale for which ships are being removed from gold plating can be found in the 'Red Tape Challenge and Partial removal of Gold Plating' section).

## **4.4 Policy Option 3 – Transpose the 2014/90/EU Directive and retain full gold-plating**

Policy Option 3 proposes to transpose the Directive but to sustain the full level of gold plating currently applied through the existing Marine Equipment Regulations. This would ensure that all marine equipment placed on board all UK ships is to the international standards recognised in the international instruments. This would maintain the highest level of safety on board all UK ships due to the independent approval of the equipment by a NB and due to the increased quality assurance measures in place.

## **4.5 Preferred option**

The preferred option is Policy Option 2. This would transpose the recast directive, ensuring that UK manufacturers of marine safety equipment are not locked out of EU markets. The proportionate removal

of gold-plating would mean a reduced regulatory burden (compared with Policy Option 3), whilst still ensuring the safety of UK ships not covered by IMO (and MED) regulations. The transposition of this measure has been assessed in accordance with the government guiding principles of EU regulation.

## 4.6 Rationale for OI30 status

Given that the last EU directive gold plated to UK domestic ships. Policy Options 2 and 1 are considered reductions in Gold Plating and are therefore considered as a Qualifying Regulatory Provision.

## 5 Costs and benefits of options

The transposition of the recast MED (2014/90/EU) will affect UK manufacturers, UK Notified Bodies, UK Nominated Bodies, UK ship operators and the MCA. For the purpose of this impact assessment, the costs and benefits of the recast MED (2014/90/EU) have been monetised as far as possible, against a baseline where there is no Recast Directive. Given the limitations of the available evidence base, it has not been possible to monetise some of the other costs and benefits, in which case, a narrative explaining the scale of the costs and benefits has been provided.

For the purpose of this IA, we have only considered direct costs where they are first borne (e.g. to UK manufacturers, UK Notified Bodies, and UK Nominated Bodies). It is expected that these costs will be passed on to ship operators on a one-for-one basis.

As Policy Options 1 and 2 of the IA reduce gold plating across the UK fleet, it is envisaged that, once placed on board, even with a reduced requirement for compliance, ship operators will not sell and replace their MED equipment (as we have been informed via consultation that doing so would not be beneficial). Therefore the savings will be seen most starkly for new build, new to flag ships<sup>1</sup>. Therefore, we have assumed that all benefits will be attributed to new ships and existing ships will see no benefits from the removal of gold plating.

It should be noted that the number of Manufactures and Notified bodies is assumed to be static during our appraisal period.

### 5.1 Costs and benefits applying to all Policy Options (i.e. costs of simply transposing the EU directive – Non-Qualifying Regulatory Provision)

#### 5.1.1 Costs to manufacturers (Business Impact)

The recast Directive imposes three additional regulatory costs to businesses, relating to the provision of the Declaration of Conformity and formal obligations put upon them for the supply of MED equipment. In assessing impacts to manufacturers, it has been assumed that there are 156 manufacturers in the UK (based on number of UK manufacturers which hold MED certification stored in an EMSA database).

##### 5.1.1.1 Familiarisation costs

With the introduction of new regulation there is scope for manufacturers to have to familiarise staff with the recast Directive. There may be some need for production and delivery staff to undergo a familiarisation session to be made aware of new requirements put upon manufacturers (where relevant).

Utilising the membership of the MCA's Safety Equipment Advisory Committee (SEAC) and United Kingdom Radio communication and Navigation Equipment and Standards committee (UKRNES), we have been informed that the hourly rate for such staff varies, but is commonly £10-£15 per hour. Therefore we have used a low estimate of £10, a high estimate of £15 and a best estimate of £12.50. Applying a 30% uplift to this to include non-wage costs and overheads the estimates are £13 for the low estimate, £19.5 for the high estimate and £16.25 for the central estimate.

Familiarisation sessions will vary between manufacturers but is likely to take approximately half a day (3 hours) per staff member but it should be noted that not all manufacturers will deem familiarisation necessary as the existing and recast Directive follow the same system to obtaining MED approval. It has therefore been assumed that only 1 staff member will have to do this, and then the information will be

---

<sup>1</sup> More information is given in section 6, regarding this assumption

cascaded down as necessary. This will have costs but they have not been monetised as they are expected to be negligible. This is then multiplied by the 156 manufacturers. This is likely to be a one off cost undertaken in year 1, thus the monetised estimates are as below:

**Table 1**

Scenarios (£000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (Not discounted)
Central estimate	7.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.61
Low estimate	6.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.01
High estimate	9.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.13

### 5.1.1.2 Marketing of Marine Equipment – Additional formal obligations

The recast Directive creates formal requirements for manufacturers of MED approved equipment to improve traceability. From manufacturers that have been consulted, this has been reported as an industry standard which is already used. These requirements include the need to add the manufacturer's trademark and contact details to equipment they supply and to add serial/ batch numbers to assist in traceability. Whilst conversations with manufacturers have suggested that this is widespread practise already, a conservative assumption has been made that 5% of manufacturers do not currently carry out these additional obligations. No further information was provided about compliance at consultation, we consider 5% a reasonable conservative assumption.

It is possible to state that there will be minimal cost to a manufacturer who does not currently include their contact details or branding on their products, as a simple label could be affixed. Information provided to us by industry was that the additional cost for such labels per unit is approximately 0.1p if printed in bulk (1000s). For serial numbering this is slightly more demanding, sequential printing is also an option and would add an estimated 1-5p per unit of marine equipment depending on the type of affixing of such serial numbers, with a best guess of 3p.

The bigger costs will be associated with record keeping and registering of serial numbers. This can be achieved using a simple spreadsheet or database with relatively small labour costs of minutes per product to register. Considering labour of this level is between £10/h and £15/h, with a best guess of £12.50, marginal increases in cost would be created in the cases of a manufacturer not facilitating this at present.

To quantify how this requirement may affect manufacturers at different estimates, the range of costs associated with labels and sequential printing were used, and multiplied against the equipment totals that would be associated with the inventories of the projected new build, new to flag vessels in year 1. The figure can provide an estimate of how many pieces of equipment would need to comply with the requirements of the new directive, approximately 5,356, and a conservative estimate could be that an employee could affix and input data for 10 products per hour, inevitably depending on the product.

**Table 2**

Scenarios (£000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (Not discounted)
Central estimate	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	4.43
Low estimate	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	3.51
High estimate	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	5.36

### 5.1.1.3 Declaration of Conformity – Translation services

The recast Directive further requires manufacturers to supply the Declaration of Conformity, translated into a language required by the relevant Flag state of the ship. A manufacturer may take differing approaches. To translate into all 24 languages of the EU Member States upfront or to use for example French, German and Spanish (as some of the commonly used EU languages) and then translate into other languages as demanded by market surveillance authorities or ships.

A low estimate is that there is no demand for the translation into new languages. A best estimate is that the demand will be such that translation is needed for French, German and Spanish. A high estimate is that it will need to be translated into all 24 EU languages.

Based on information from industry, the cost to each manufacturer is based on a fee for professional translation services being between £120 - £150 to translate a document of 1000 words or less, with a best guess of £135. It has been assumed that all the costs are borne on year 1, however they will be borne as requested, and this could be at any time. It is estimated that 6.4 certificates will be required to be translated per manufacturer based on the 994 certificates valid on MED for the 156 manufacturers.

Therefore for all 156 manufacturers the costs are as below:

**Table 3**

Scenarios (£000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (Not discounted)
Central estimate	134	0	0	0	0	0	0	0	0	0	134
Low estimate	0	0	0	0	0	0	0	0	0	0	0
High estimate	1,193	0	0	0	0	0	0	0	0	0	1,193

#### 5.1.1.4 Declaration of Conformity – Provision of copy to ships

The requirement to provide ships with a Declaration of Conformity when MED equipment is placed on board, also adds a cost. However, as this is common practice among manufacturers that were consulted, the magnitude of this cost and the proportion of manufacturers that this will affect is not certain. In almost all cases these are and will be issued electronically and the time taken to supply these by manufacturers will not change. The only added issue is the storage on board a ship. Again the change is that the DoC has to be kept on board for the life of the equipment concerned and this would likely be kept electronically on board the ship's computer system. From manufacturers that have been engaged with so far, either hard copies of DoCs or electronic copies are emailed or available on the manufacturers' websites. There is also discussion at an EU level for setting up and maintaining an EU wide database for DoCs so this could alleviate some of the distribution burden of manufacturers to supply a DoC to a ship. For the reasons above, the costs of the declaration of conformity have not been monetised.

#### 5.1.2 Costs to Notified Bodies (Business Impact)

The recast Directive also creates costs for UK appointed Notified Bodies largely with regards to transition, both in terms of their appointment as a NB and with regards to reissuing of certification. The UK currently has 10 appointed NBs all of which are assumed to continue work as NBs for the purpose of the MED. There is also a potential cost burden to NBs if manufacturers to which they have contracts with adopt the use of the electronic conformity mark and the scanning technology requires investment.

##### 5.1.2.1 Transitional costs

When transitioning to the recast Directive there may be costs associated with re-issuing certificates currently issued by NBs to be in line with the recast Directive, including additional administrative costs. However, due to the wildly differing operation of each NB, the variance in infrastructure and number of certificates that will need to be re-issued, it is not possible to quantify the magnitude of this cost.

The recast Directive does however set out increased scrutiny of NBs regarding competence and impartiality. This will lead to additional costs which will be faced by NBs in gaining the necessary accreditation to remain Notified for the MED. Annual costs to obtain accreditation from UKAS, as reported from the NBs consulted is indicative of £7,000, with annual assessment fees of £2,090. The recast MED would also require NBs to be assessed by UKAS outside their accreditation cycle to transition to the recast MED. There are also further administrative and staff costs of meeting the standards, but the size of these costs will vary by NB. These costs are fall on business. These costs are across all 10 notified bodies as set out below:

**Table 4**

Scenario (£000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (Not discounted)
Central estimate	70.0	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	258.1

### 5.1.2.2 Electronic Conformity Mark – Costs for Scanning Technology

NBs are not normally directly responsible for the affixing or enforcement of the wheel mark or electronic tag according to the Directive. This is to be done by the manufacturer or their authorised representative only. The NB is only responsible for ensuring their NB number is placed on products under their supervision. However, the NB for reasons of practicality and auditing would likely need to have the ability to read the electronic tag to ensure it contains the correct information. The cost burden to the NBs would be either very little if a Quick Response code type technology is needed as only a smart phone app would be needed, or substantially more to buy scanners for more sophisticated technologies. The bigger difficulty in quantifying this is that each NB has a differing structure. Some use their head office staff to travel the world auditing manufacturers' premises and others have regional offices with 100s of staff, so would in theory need a few scanners per office globally. However, it is important to reiterate that from the Directive's text there is no mandatory requirement for the NBs to be able to read electronic tags and so NBs may opt to not invest in any emerging technology. For the reasons above, this costs has not been monetised.

### 5.1.3 Costs to MCA (Non-Business Impact)

#### Cost through Enhanced Market Surveillance

A new introduction of the MED recast, is an enhanced market surveillance programme across the EU. This will be an additional cost to the MCA, as has been incorporated into the MCA budget, and thus will not be passed onto businesses. The impacts are as follows (per financial year):

- £1,400.00 - To pay for travel and expenses for attendance at European level coordination meetings between EU market surveillance authorities. This is a new provision of the recast Directive as requiring mandatory compliance with EC Regulation 765/2008/EC.

Other budgeted activity includes:

- £8,300.00 - for Travel and Expense associated with MCA staff carrying out market surveillance inspection in the UK.
- £1,300.00 - for Travel and Expenses associated with MCA staff to carry out market surveillance overseas, as required.
- £5,400.00 - to pay for testing of equipment at UK test houses.

It is assumed that the MCA will therefore bear staff and administration costs of £16,400 per year for regulation and enforcement of the recast Directive. The MCA will perform the same level of market surveillance irrespective of policy option, as the amount of marine equipment available for supply in the UK will not substantially alter between policy options. These costs will be funded through the MCA budget and will not be passed on to ship owners or manufacturers.

**Table 5**

Scenario (£000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (Not discounted)
Central estimate	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	164.0

### 5.1.3.1 Electronic Conformity Mark – Costs for Scanning Technology

The MCA may have to ensure that smart phones issued to surveyors and policy staff are enabled with any app that is needed if a Quick Response code type technology is adopted with regards the electronic conformity mark. This would be a very minimal set up cost to the MCA and with adopting the technology only, a basic familiarisation training session would be needed for such staff. There may also be some labour costs in Information and Communications Technology (ICT) to ensure that such smart phones are

compatible. Based on past experiences, this would typically be one day's work for a Senior Executive Officer which would amount to £140 in staff time.

However, if a more sophisticated Radio Frequency Identification system was adopted, the MCA would need to gain access to any reading software, which could be in the region of £10,000, based on a case study with a manufacturer of marine equipment using this technology on their own initiative and the scanners being approximately £1,500 each. There are two approaches for the distribution of scanners; either it is approached from a market surveillance and policy perspective to purchase a couple of scanners and one per marine office (14), or to provide two for each marine office or one per surveyor. The reality is that the MCA would likely look to provide one per marine office to start with or provide a couple to each marine office in order to factor in redundancy. This would equate to 28 scanners for field surveyors and an additional two for MCA HQ. Therefore, 30 at £1,500 would be £45,000. Again, these costs will be funded through the MCA budget and will not be passed on to ship owners or manufacturers.

**Table 6**

Scenario (£000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (Not discounted)
Central estimate	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0

#### 5.1.4 Costs to ship operators through increased cost of MED equipment (Business Impact)

Ship operators are likely to bear any increase in costs in MED equipment, which will reflect the increased costs of production and approval of products as a result of the recast Directive. **These costs have already been captured in the costs to manufacturers and notified bodies, where the cost of equipment increases.**

#### 5.1.5 Benefits to ship operators from reduction in fraud (Business Impact)

This is through an enhanced market surveillance and enforcement programme across the EU, a reduction in the use of fraudulent equipment may occur. This will have safety benefits for those on board EU flagged ships, in addition, it will also have positive impacts on the marine environment. Unfortunately, this benefit cannot be monetised, as there is no indication of the number of ships affected by fraudulent equipment or the costs that the use of fraudulent equipment incurs on ship operators. An added benefit is that it will save the cost of ship operators having to replace equipment found to be fraudulent, as it would have been caught at source. This is a large benefit, and the rationale for the guidance regarding electronic tagging, as previously stated, fraudulent equipment has become an increasing problem and this is a worked solution aimed at helping ship operator's benefit from a reduction in fraud.

## 5.2 Additional Costs and benefits to option 1 – Transpose the 2014/90/EU Directive in accordance with the directive's scope (In scope of OI30).

### 5.2.1 Benefits of new UK ships outside the scope of the directive not having to purchase MED equipment (Business Impact)

MED equipment would no longer have to be purchased for new UK ships which are now outside the scope of the directive (by the reduction in gold plating). Policy Option 1 would remove the gold plating across the domestic fleet, including those ships that are deemed to pose a higher risk to safety or the environment, and adhere strictly to the applicable requirements of IMO conventions under the scope of the Directive. Although this would be a financial saving for some ship operators, it could be to the detriment of maritime safety.

The projected numbers of ships that are no longer Gold Plated can be seen in **Table** below. In total there are 402 ships that would no longer need to comply with MED.

**Table 7 – Projected new ships no longer covered by Gold plating (Policy Option 1)**

Ship category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
International trading ships	0	0	0	0	0	0	0	0	0	0	0

<b>Domestic passenger ships</b>	0	0	0	0	0	0	0	0	0	0	<b>2</b>
<b>Fishing vessels</b>	11	11	11	11	11	10	10	10	10	10	<b>105</b>
<b>Small commercial vessels / other</b>	30	30	30	30	30	29	29	29	29	29	<b>295</b>
<b>Total</b>	<b>41</b>	<b>41</b>	<b>41</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>39</b>	<b>39</b>	<b>402</b>

\* Numbers may not add up due to rounding

This is then multiplied by the difference between MED and non-MED equipment for each of these categories. As these ships would no longer need to purchase more expensive MED standard equipment. It should be noted that no individual ship has the same MED equipment and thus these are best guesses based on the available data.

There is a significant difference between the low and high estimates here given the uncertainty around which MED equipment is bought. Through consultation, we were not able to gain any further evidence on these figures, they still represent an appropriate range. The figures for the different ship types came from collective business logic, and the prices of the different pieces of equipment came directly from retailers.

**Table 8 – Costs of MED equipment**

<b>Category</b>	<b>Best estimate</b>	<b>Low estimate</b>	<b>High estimate</b>
<b>International trading ships</b>	£193,809	£7,297	£380,321
<b>Domestic passenger ships</b>	£15,003	£5,575	£24,349
<b>Fishing vessels</b>	£5,862	£4,796	£6,887
<b>Small commercial vessels / other</b>	£5,001	£2,296	£7,706

**Table 9 – Costs of Non-MED equipment**

<b>Category</b>	<b>Best estimate</b>	<b>Low estimate</b>	<b>High estimate</b>
<b>International trading ships</b>	£115,970	£4,366	£227,575
<b>Domestic passenger ships</b>	£8,977	£3,336	£14,570
<b>Fishing vessels</b>	£3,508	£2,870	£4,121
<b>Small commercial vessels / other</b>	£2,992	£1,374	£4,611

This then gives the benefit to new UK ships who no longer have to comply with the MED, the reduction in Gold Plating. This can be seen in **Table 10**.

**Table 10 Benefit to new UK ships who no longer have to comply with the MED**

<b>Scenarios (£000s)</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>	<b>Year 10</b>	<b>Total</b>
<b>Central estimate</b>	87.0	86.6	86.2	85.8	85.4	85.0	84.6	84.2	83.8	83.3	<b>851.9</b>
<b>Low estimate</b>	48.9	48.6	48.4	48.2	48.0	47.7	47.5	47.3	47.0	46.8	<b>478.4</b>
<b>High estimate</b>	125.0	124.4	123.8	123.2	122.7	122.1	121.5	120.9	120.3	119.7	<b>1,223.6</b>

The central estimate benefit for ships that no longer need to purchase MED equipment as a result of Policy Option 1 is £851,886 (with a low estimate of £478,354 and a high estimate of £1,223,619)

### 5.2.2 Cost of Safety to lower Risk UK domestic ships

The operation of small commercial vessels and pilot boats are not considered to have any cost to safety as they are still covered by the various Codes of Practice and MGN 280. The MCA, when developing

regulations, takes into account the Range and Risk philosophy whereby the safety standards and other key elements are more onerous the further a vessel is operating to seaward.

### 5.2.3 Costs of Safety to higher risk UK domestic ships

As previously stated, Policy option 1 would only apply the Directive to equipment and ships within scope of the directive, leaving higher risk domestic ships (domestic passenger ships and fishing vessels over 24m) vulnerable to being exposed to a lower non-verified standard of equipment. The 2008 MAIB report analysed the UK fishing vessel safety covering the years 1992-2006, and deemed fishing vessels as significantly more dangerous than many other UK professions, and there was therefore a need to regulate Fishing Vessels over 24m. In general, the larger fishing vessels will have a greater seaward range than those under 24m, and in addition, are likely to have larger pieces of machinery and other more dangerous equipment on-board that increases the risk to those on-board. It should also be noted that domestic passenger ships are also entitled to an expectation of higher safety standards due to the higher risk associated with the passage of non-seafarers, the potential carriage of children and passengers with reduced mobility. If Policy Option 1 was adopted, then both large fishing vessels and passenger ships would be left unregulated and their safety would be heavily compromised, thus new domestic regulation would need to be created.

### 5.2.4 Costs of a UK void in maritime equipment standards

It is considered that the costs of filling the regulation void for large fishing vessels and domestic passenger ships are extremely large. There would be large costs to the MCA to administer this regulation, as well as time and effort by industry to create it, there would be associated cost of enforcement attributed to the MCA, and the burden to business through familiarisation costs and the costs of purchasing the regulated equipment. Unfortunately, this cost is unknown and therefore not quantified or monetised, however it is considered to be higher than the benefits of not having to purchase MED equipment. This assumption is considered to be reasonable and therefore Policy Option 1 is not considered a viable Policy Option.

## 5.3 Additional Costs and benefits to option 2 – Transpose the Directive and retain partial gold plating. (In Scope of OI3O)

### 5.3.1 Benefits of a reduction in MED equipment for some ships (Business Impact)

Policy Option 2 proposes to transpose the Directive and to reduce the application in existing UK Regulations to ships within the Directive's scope and other higher risk ships. Gold-plating will therefore remain where there is a proportionate requirement and or operational risk for selected ship and equipment types. This involves the removal of gold plating for small commercial vessels and smaller fishing vessels. The vessels that would no longer be covered by gold plating have different regulations that reflect the different situations and risk levels associated with their passage. The financial burden on the aspects of the UK fleet is seen as disproportionate, and domestic legislation reflects this. For example, the operation of small commercial vessels and pilot boats is covered by various codes of practice.

Legislatively, the transposition of Policy Option 2 would decrease the amount of MED approved equipment required on the fleet. The gold plating has been partially retained on ships that pose a higher risk to safety or the environment which have been classed as domestic passenger vessels and fishing vessels over 24m. Therefore, with Policy Option 2, because of the removal of the historical gold plating from all other classes, it will be removing a financial burden on the rest of the UK fleet.

The number of ships who no longer have to purchase MED equipment is shown in **Table** below. In total there are 395 ships that would no longer need to comply with MED.

**Table 11: Projected new ships no longer covered by gold plating (Policy Option 2)**

Ship category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
International trading ships	0	0	0	0	0	0	0	0	0	0	0
Domestic passenger ships	0	0	0	0	0	0	0	0	0	0	0



<b>Fishing vessels</b>	10	10	10	10	10	10	10	10	10	10	<b>100</b>
<b>Small commercial vessels</b>	30	30	30	30	30	29	29	29	29	29	<b>295</b>
<b>Total</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>395</b>

\* Numbers may not add up due to rounding

As in Policy Option 1, this is then multiplied by the difference between MED and non-MED equipment (See table 7 and table 8 above) for each of these categories. As these ships would no longer need to purchase more expensive MED standard equipment. It should again be noted that no individual ship has the same MED equipment and thus these are best guesses based on the available data.

This then gives the benefit to new UK ships who no longer have to comply with the MED, the reduction in gold-plating. This can be seen in **Table 12**.

**Table 12: Benefit to new UK ships who no longer have to comply with the MED**

<b>Scenarios (£000s)</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>	<b>Year 10</b>	<b>Total</b>
<b>Central estimate</b>	84.6	84.2	83.8	83.4	83.0	82.6	82.2	81.8	81.4	81.0	<b>828.0</b>
<b>Low estimate</b>	47.5	47.3	47.1	46.8	46.6	46.4	46.2	45.9	45.7	45.5	<b>465.0</b>
<b>High estimate</b>	121.5	120.9	120.4	119.8	119.2	118.7	118.1	117.5	116.9	116.4	<b>1,189.4</b>

The central estimate benefit for ships that no longer need to purchase MED equipment as a result of Policy Option 1 is £828,009 (with a low estimate of £464,998 and a high estimate of £1,189,366)

The removal of some gold plating from the recast directive will mainly affect new fishing vessels under 24m and new small commercial vessels. These vessels are those that have been identified as disproportionately affected by the previous gold plating of the MED, and the level of retention has been applied only to those deemed to pose a higher risk to safety or the environment. After the initial transposition, this would only cover two new build, new to flag domestic passenger vessels, and approximately one fishing vessel larger than 24m.

The benefits of this option would predominantly be safety based, with the added non quantifiable benefit of public perception when UK passengers are travelling on domestic passenger vessels, which are still considered within MED application.

### 5.3.2 Cost of Safety to lower risk UK domestic ships

The operation of small commercial vessels and pilot boats are not considered to have any cost to safety as they are still covered by the various Codes of Practice and MGN 280. The MCA, when developing regulations, takes into account the Range and Risk philosophy whereby the safety standards and other key elements are more onerous the further a vessel is operating to seaward.

## 5.4 Additional Costs and benefits to option 3 – Transpose the Directive and retain full gold plating

With Policy Option 3, there would be no reduction in gold plating, and could affect 395 new build, new to flag vessels across the domestic fleet over the next 10 years, given the demand projections shown in Annex A, compared to Policy Option 2 and 402 compared to Policy Option 1. This is seen as an unnecessary and disproportionate cost burden to many ship owners that may not be able to install MED approved equipment on their ships and financial capacity to do so. Many MED approved products on the market are designed for larger ships, and are simply too cumbersome for small code boats for example. However, given that in the current situation, these ships would have to purchase MED equipment – there are no additional costs and benefits to option 3 over and above those that exist for all of the policy options.

## 5.5 Summary tables of Costs and Benefits

Tables 13, 14 and 15 below shows the best estimates of the costs and benefits for all of the Policy Options. The table also shows the OI3O calculations (undiscounted).

**Table 13**

Policy Option 1 (Best estimate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (undiscounted)
<b>Costs not in scope of OI3O</b>											
Costs to manufacturers - Familiarisation costs	£7,605	£0	£0	£0	£0	£0	£0	£0	£0	£0	£7,605
Costs to manufacturers - Adding formal obligations	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£21,045
Costs to manufacturers - Translation costs	£63,180	£0	£0	£0	£0	£0	£0	£0	£0	£0	£63,180
Costs to Notified bodies - Transitional costs	£70,000	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£258,100
Costs to the MCA of regulation and enforcement	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£164,000
Costs to the MCA for electronic tagging	£45,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£45,000
<b>Total costs out of scope of OI3O</b>	<b>£204,290</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£558,930</b>
<b>Total Costs</b>	<b>£204,290</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£558,930</b>
<b>Benefits in scope of OI3O</b>											
Benefits of the reduction of all Gold Plating	£84,591	£84,193	£83,796	£83,398	£83,000	£82,602	£82,204	£81,806	£81,408	£81,010	£828,009
<b>Total benefits in scope of OI3O</b>	<b>£84,591</b>	<b>£84,193</b>	<b>£83,796</b>	<b>£83,398</b>	<b>£83,000</b>	<b>£82,602</b>	<b>£82,204</b>	<b>£81,806</b>	<b>£81,408</b>	<b>£81,010</b>	<b>£828,009</b>
<b>Net Benefit</b>	<b>-£117,458</b>	<b>£45,275</b>	<b>£44,877</b>	<b>£44,479</b>	<b>£44,081</b>	<b>£43,683</b>	<b>£43,285</b>	<b>£42,887</b>	<b>£42,489</b>	<b>£42,092</b>	<b>£275,690</b>
<b>Net Benefit OI3O</b>	<b>£84,591</b>	<b>£84,193</b>	<b>£83,796</b>	<b>£83,398</b>	<b>£83,000</b>	<b>£82,602</b>	<b>£82,204</b>	<b>£81,806</b>	<b>£81,408</b>	<b>£81,010</b>	<b>£828,009</b>

**Table 14**

Policy Option 2 (Best estimate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (undiscounted)
<b>Costs not in scope of OI30</b>											
Costs to manufacturers - Familiarisation costs	£7,605	£0	£0	£0	£0	£0	£0	£0	£0	£0	£7,605
Costs to manufacturers - Adding formal obligations	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£21,045
Costs to manufacturers - Translation costs	£63,180	£0	£0	£0	£0	£0	£0	£0	£0	£0	£63,180
Costs to Notified bodies - Transitional costs	£70,000	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£258,100
Costs to the MCA of regulation and enforcement	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£164,000
Costs to the MCA for electronic tagging	£45,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£45,000
<b>Total costs out of scope of OI30</b>	<b>£204,290</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£558,930</b>
<b>Total Costs</b>	<b>£204,290</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£558,930</b>
<b>Benefits in scope of OI30</b>											
Benefits of the reduction of some Gold Plating	£84,591	£84,193	£83,796	£83,398	£83,000	£82,602	£82,204	£81,806	£81,408	£81,010	£828,009
<b>Total benefits in scope of OI30</b>	<b>£84,591</b>	<b>£84,193</b>	<b>£83,796</b>	<b>£83,398</b>	<b>£83,000</b>	<b>£82,602</b>	<b>£82,204</b>	<b>£81,806</b>	<b>£81,408</b>	<b>£81,010</b>	<b>£828,009</b>
<b>Net Benefit</b>	<b>-£117,458</b>	<b>£45,275</b>	<b>£44,877</b>	<b>£44,479</b>	<b>£44,081</b>	<b>£43,683</b>	<b>£43,285</b>	<b>£42,887</b>	<b>£42,489</b>	<b>£42,092</b>	<b>£275,690</b>
<b>Net Benefit OI30</b>	<b>£84,591</b>	<b>£84,193</b>	<b>£83,796</b>	<b>£83,398</b>	<b>£83,000</b>	<b>£82,602</b>	<b>£82,204</b>	<b>£81,806</b>	<b>£81,408</b>	<b>£81,010</b>	<b>£828,009</b>

**Table 15**

Policy Option 3 (Best estimate)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total (undiscounted)
<b>Costs not in scope of OI30</b>											
Costs to manufacturers - Familiarisation costs	£7,605	£0	£0	£0	£0	£0	£0	£0	£0	£0	£7,605
Costs to manufacturers - Adding formal obligations	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£2,105	£21,045
Costs to manufacturers - Translation costs	£63,180	£0	£0	£0	£0	£0	£0	£0	£0	£0	£63,180
Costs to Notified bodies - Transitional costs	£70,000	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£20,900	£258,100
Costs to the MCA of regulation and enforcement	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£16,400	£164,000
Costs to the MCA for electronic tagging	£45,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£45,000
<b>Total costs out of scope of OI30</b>	<b>£204,290</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£39,405</b>	<b>£558,930</b>
Total Costs	£204,290	£39,405	£39,405	£39,405	£39,405	£39,405	£39,405	£39,405	£39,405	£39,405	£558,930
<b>Total benefits in scope of OI30</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>	<b>£0</b>
Net Benefit	-£204,290	-£39,405	-£39,405	-£39,405	-£39,405	-£39,405	-£39,405	-£39,405	-£39,405	-£39,405	-£558,930
Net Benefit OI30	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0

## 6 Risks and assumptions

If the recast is not transposed then the European Commission has powers to open formal infringement proceedings and refer the UK to the European Court of Justice to apply financial sanctions in the form of infraction fines. These infraction fines are likely to be substantial, with the minimum lump sum based on the UK's Gross Domestic Product (in 2014, this potential fine stood at €9.938m), and possible daily fines for continuing non-compliance (up to €237,864 per day, correct as of 2014). This option causes a higher risk to safety, reputational risk to the UK as a Member State of the EU and a contracting government to IMO conventions and poses a high economical risk to the UK that is not foreseen as a viable option and is therefore not further considered in this IA.

This IA assumes that, any existing UK ship owner or operator no longer regulated to carry equipment compliant with the Directive will not replace any MED approved equipment with non-MED equipment unless such equipment no longer functions or has reached the end of its serviceable life.

Similarly, ship owners regulated to carry MED equipment that may not have been previously, will not replace their existing equipment unless the same conditions are experienced as the regulations will only apply to equipment placed on board a ship after their coming into force date. Given the difficulty in estimating what equipment that will need replacing in existing ships over the 10-year appraisal period, and the unlikelihood of ship owners and operators replacing equipment before the end of their serviceable life, this IA assumes that the recast directive will affect only new build ships that are flagging into the UK. As there are provisions within the Directive to permit the use of non-MED equipment when existing ships join the UK flag from another Country outside the EU, it is assumed that across the three policy options only those ships which are new build and new to the flag will be effected by the requirements for MED equipment as they will be required to newly install equipment after the date of the regulations coming into force. Therefore, some of the costs and benefits to ship operators should be considered a conservative estimate.

We have also assumed a standardised set of equipment for MED and non-MED equipment based on the best available data. In reality, the equipment that ships have on board will vary based on their individual requirements. To simplify the analysis, we have grouped these differences into 4 categories. International trading ships, Domestic passenger ships, Fishing vessels & Small commercial vessels/other.

We assume that there is a 3% annual increase in the number of new build ships over the 10-year appraisal period. The analysis behind this assumption is detailed in Annex A.

## 7 Wider impacts

### 7.1 Equalities Impact Assessment

The MCA considers that there are no effects on individuals in the UK population that could negatively or positively occur in relation to their gender, ethnicity, sexual orientation, disability related differences, age or working hours as a result of this transposition.

### 7.2 Small and Micro-business Assessment

As part of this impact assessment, many industry stakeholders were approached. There is no accurate way of identifying the distribution and sizes of the businesses that could be affected by the new Directive. Some key organisations would be ILAMA, British Marine, and the UK Chamber of Shipping all of whom provide a platform and a voice to represent their members in a larger forum.

Throughout the data gathering stages ship operators, manufacturers, retailers, importers and distributors were all engaged with to gain an overview of opinions, burdens and benefits. With the cumulative total of the businesses in these sectors reaching the hundreds, unfortunately it was too difficult to consult with everyone. The members of British Marine alone categorised with marine equipment and accessories sit at 386. However, a conscious effort was made to engage with a broad sample of each, and therefore the

responses were considered to be representative. There is a similar distribution of micro, small and medium sized businesses within each sector and appropriately, the effects between sectors will be proportionate.

The transposition of this directive applies to equipment and it is therefore not possible to exempt businesses. As it is the equipment itself that is in the scope of the directive businesses may choose to interact with MED approved equipment.

As such, only a partial exemption is possible, whereby small ship operators that are operating domestically are still permitted non-MED approved equipment as per the carriage requirements.

The retention of some gold plating places no additional burden on existing ships and does not disproportionately affect Small and Micro-businesses. The retention of gold plating is based on the risk of ships detailed out earlier in the impact assessment.

### **7.3 Competition Assessment**

No industry player approached stated their business would be changing practice to non-MED approved equipment as a result of the directive, therefore the likely largest impact would be on the demand for MED approved equipment.

This transposition is for a European wide directive and as such it is unlikely to directly or indirectly limit the range of suppliers, or limit the ability of suppliers to compete. There are anti-competition agreement laws in Europe and the UK laws.

### **7.4 Greenhouse Gases Impact Test**

As the demand for marine equipment is unlikely to change from the old directive to the new directive, with the predominant difference being the certification standard of the equipment, there will be no significant impact on greenhouse gases.

### **7.5 Wider Environmental Impact**

Some equipment in the MED is associated with environmental protection, by adopting Policy Option 2, those ships deemed to pose a higher risk to the marine environment will be subject to the directive, somewhat mitigating the gaps left in the transposition of the MED for the domestic fleet.

### **7.6 Family Test**

The MCA considered the transposition of the new Directive not to have a significant impact at the family level of society

### **7.7 Health Impact Assessment**

As the transposition of the MED does not have a direct impact on health, mental health, wellbeing or an impact on social, economic and environmental living conditions, it is not considered to have a significant impact on the health of the UK population.

### **7.8 Human Rights Impact**

Again, as the directive affects marine equipment, there is no significant impact on human rights.

### **7.9 Justice Impact Test**

After considering the impact of the policy across the justice system and taking into account the likelihood of increasing court cases, the MCA deems this transposition does not have a significant effect on both the civil and criminal justice system.

## 7.10 Sustainable Development

As with the wider environmental impact test, the preferred Policy Option 2 seeks to reduce disproportionate regulatory burdens, whilst mitigating environmental effects. This assists in the protection of the marine environment and maintaining healthier seas for future generations.

## 8 Direct costs and benefits to business calculations

Both option 1 and option 2 have a direct benefit to business of £0.08m (2014 prices). With option 1 creating largest benefit to business due to the 7 projected new ships over option 2 which no longer have to comply with MED standards. However, as discussed, option 1 is not a viable Policy Option.

Policy Option 3 retains all gold plating and thus has 0 costs to business over the EU directive.

The EANCB of the non-Qualifying Regulatory Provision is £0.04m. With the total Net Present Value being £-0.50m and the Business NPV £-0.36m.

## 9 Implementation plan

The 2016 regulations are a part of a package of instruments used to transpose the MED into UK law in accordance with article 39 of the Directive. These regulations will set out the legal requirements of UK ships to carry marine equipment which complies with the technical requirements of the Directive and the relevant enforcement, offences and penalties relevant to noncompliance of manufacturers, economic operators and UK ships. The 2016 regulations will be supplemented by Merchant Shipping Notice to set out the technical requirements of the Directive with regards requirements for marine equipment to be considered as compliant with the Directive, responsibilities of Notified Bodies and Manufacturers with regards marine equipment approval and manufacture, and the MCA's provisions for market surveillance.

The Merchant Shipping Notice will also set technical provisions for the approval and standards of other marine equipment not within the Directive's scope in order to communicate national standards.

Additional guidance will be given in the form of Marine Guidance Note with regards measures for market surveillance, taking into account the practical tasks that will be carried out regarding market surveillance and the expectations the UK industry can have to this regards. Guidance will also cover the steps to be taken by a UK conformity assessment body wishing to be notified by the MCA as a Notified Body.

Finally designations will be issued to both UK Notified and Nominated Bodies to set out the relevant requirements and limitations put upon those bodies in order for them to be notified and delegated to carry out and issue approvals on behalf of the MCA.

As part of implementation, the following instruments will be repealed in order to consolidate requirements for equipment placed on board UK ships into the above implementation framework:

- The Merchant Shipping (Marine Equipment) Regulations 1999/1957
- The Merchant Shipping (Marine Equipment) (Amendment) Regulations 2009/2021
- The Merchant Shipping (Delegation of Type Approval) Regulations 1996/0147
- Merchant Shipping Notice 1734 - Type Approval of Marine Equipment (EC Notified Bodies)
- Merchant Shipping Notice 1735 - Type Approval of Marine Equipment (UK Nominated Bodies)

## 10 Post Implementation Review (PIR) Plan for Marine Equipment Directive 2014/90/EU Transposition

### 10.1 Will the level of evidence and resourcing be low, medium or high? (See Guidance for Conducting PIRs)

The level of evidence and resourcing for this review will be low. The Marine Equipment Directive recast carries forward many of the same themes and regulatory measures as were observed in the original Directive (96/98/EC). Any changes have been documented in depth in the impact assessment and consultation documents. They have also been reiterated during frequent consultations with industry both nationally (by the MCA) and at a European level coordinated by EMSA. The IA identified that the changes associated with transposing the recast MED to have an estimated £0.08 million saving to businesses per year for, the preferred, Policy Option due to the removal of gold plating. Further costs may be incurred, however these are not yet quantifiable due to as yet undefined technologies.

### 10.2 What forms of monitoring data will be collected?

Data will be collected from market surveillance activities, a more accurate quantification of non-calculable costs will be obtained when, for example, the electronic tagging technology is established and frequent consultation with industry.

### 10.3 What evaluation approaches will be used? (e.g. impact, process, economic)

Aspects of impact, process and economic evaluation processes will be used. The review will look to establish the actual costs against the costs identified in the IA and whether the qualitative costs and benefits can now be monetised. We will also assess whether there has been any unintended impacts. In addition, we will look to establish the extent to which market surveillance has reduced the prevalence of fraudulent equipment on the market by quantifying reports, severity and frequency in a risk matrix.

### 10.4 How will stakeholder views be collected? (e.g. feedback mechanisms, consultations, research)

Views and feedback will be undertaken through consultation with our established stakeholder groups and the original consultee list. We will contact the Commission and a small number of Member States to gain their views on the impact of the Regulations.



# Annex A

Based on the UK fleet makeup over the past 10 years, it is possible to project to 2025 how many vessels this will be; the main caveat being fleet numbers will not detract significantly off trend, and the fleet makeup will remain proportionally the same. The UK fleet historical and predicted trends can be seen in figure 1. Although the total UK fleet in figure 1 assumes a general decline, it has been calculated that year on year, there is an average 3% increase of new build ships new to the UK flag. Further assumption is made that this addition in new build ships will be consistent over the 10 year reporting period. The linear decline is gradual, and it was felt that this gave a more accurate trend than a polynomial forecast, which provided an unrealistic and accelerating increase. It is not believed that this linear trend will tend all the way to zero, but provided suitably accurate figures for the next decade.

Figure 1: Forecast and historical UK fleet data in numbers of ships (data true up to orange dashed line, data after this point is an extrapolation based on the trend line seen as a dotted blue line on the left of the orange dashed line).

