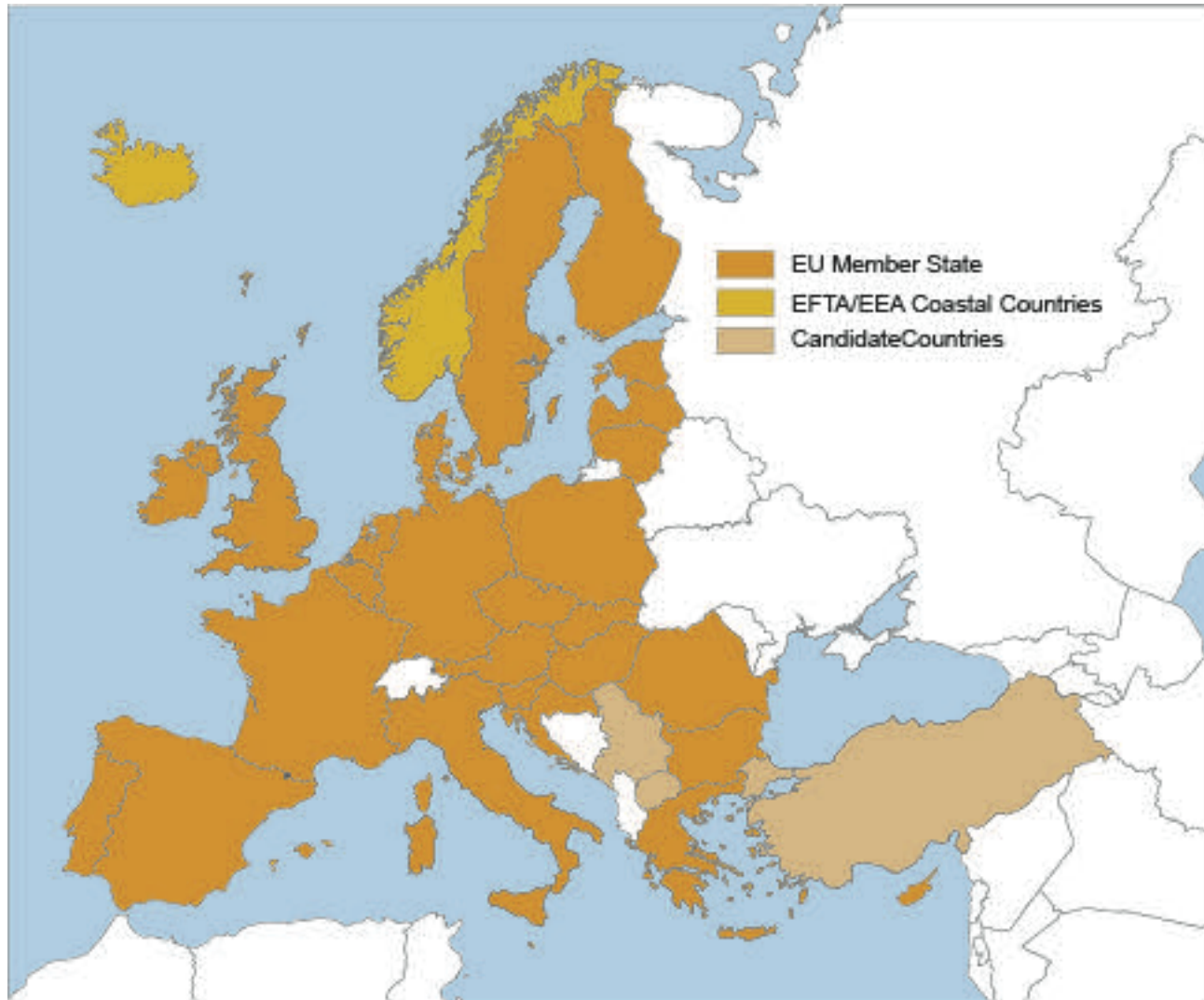




**Independent Verification:
Requirements of the New Regime**

**Bill Noble
Verification Technical Authority
Bureau Veritas Marine & Offshore Division**

EU Offshore Directive – Timetable of Impact



All Member State Timetable

18th July 2013

Directive came into force

19th July 2015

Legislation in place

1st January 2016

Publication of information by Member States in accordance with Article 24 of Directive 2013/30/EU, a common format for sharing of information on major hazard indicators (Implementing regulation 1112/2014)

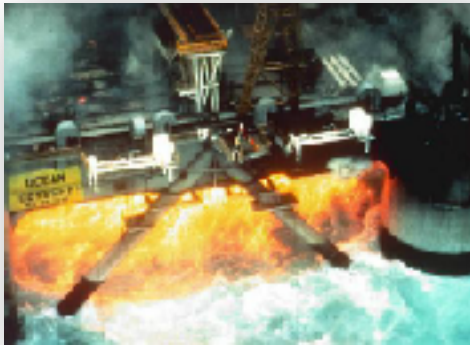
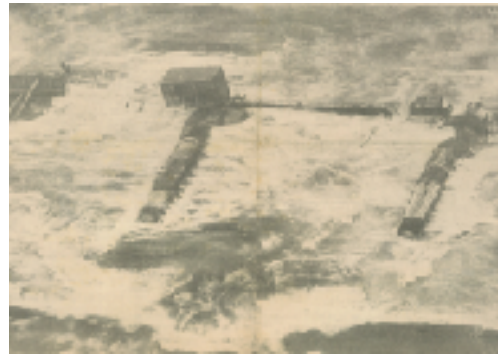
19th July 2016

Legislation complied to for NPIs and new assets

19th July 2018

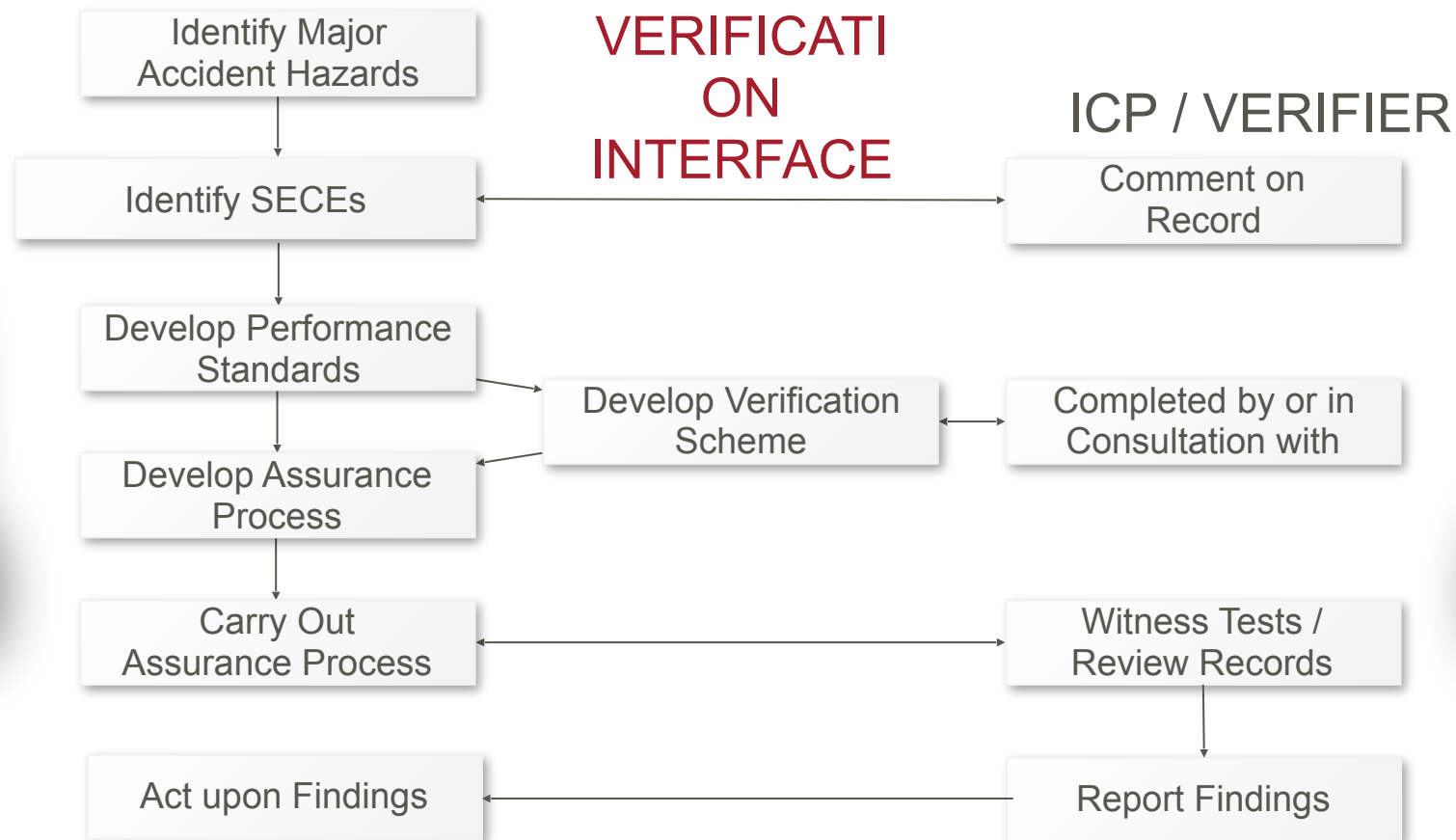
Legislation complied to for ALL assets

Disasters and Recurring Trends



Verification Interface and Requirements

DUTY HOLDER / OPERATOR



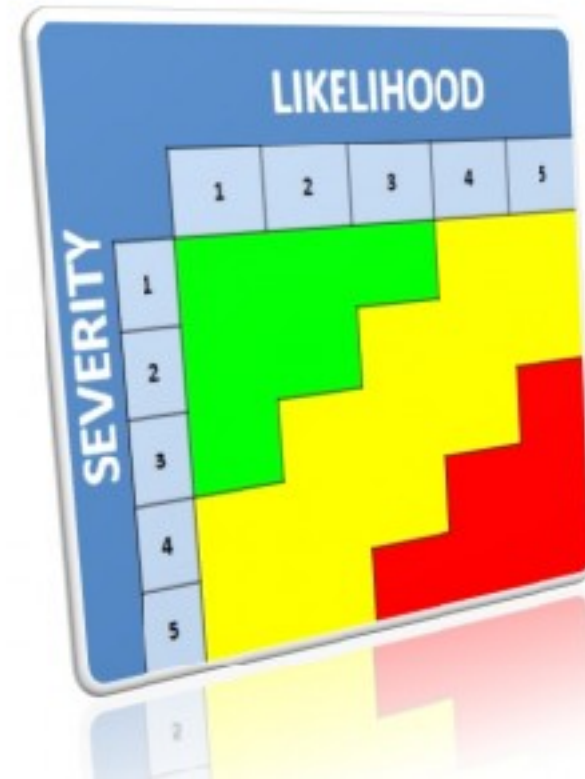
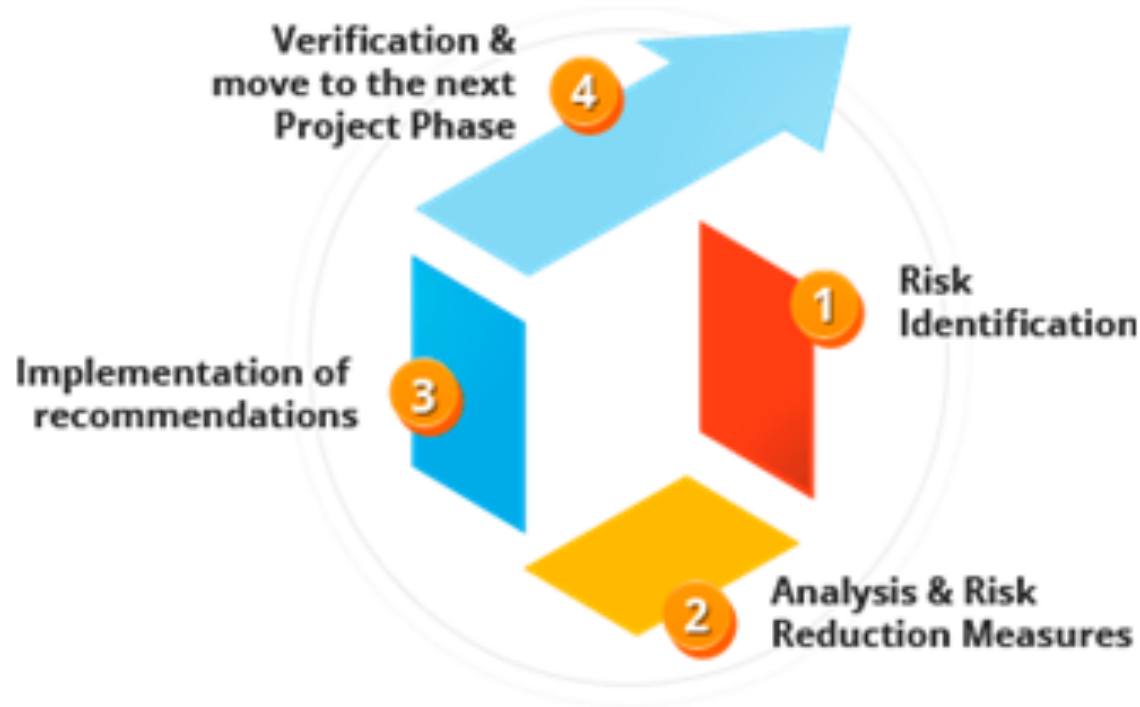


The Five Step Process

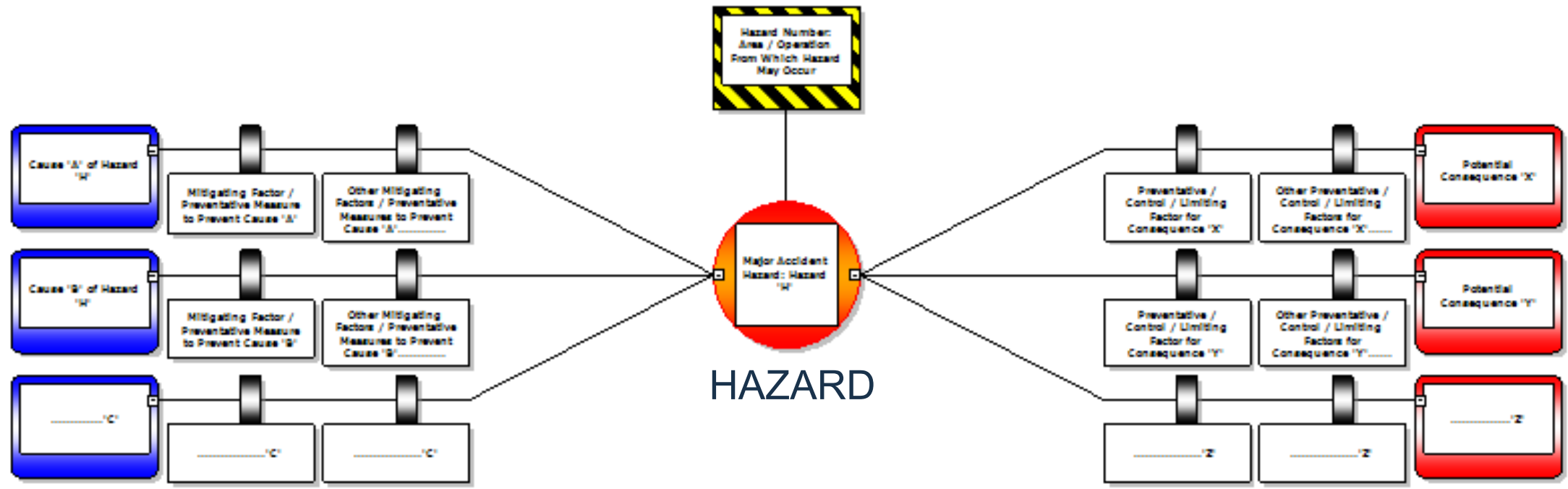
Step One – Major Accident Definition EU Directive



Step One – Major Accident Hazards – HAZID



Step One – Major Accident Hazards – Bowtie



Format of Typical Bowtie Diagram used for Hazards on the Installation

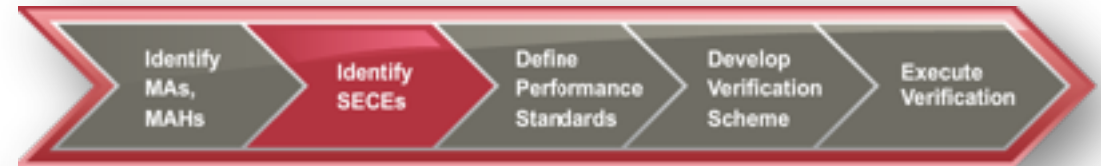
CAUSES

PREVENTATIVE MEASURES

CONTROL MEASURES

CONSEQUENCES

Step Two – SECE Definition



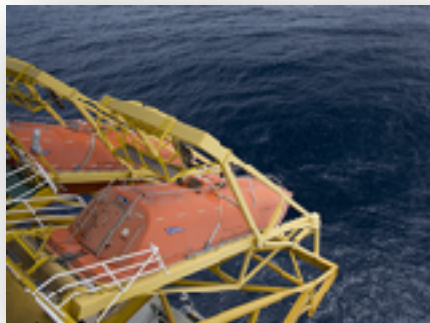
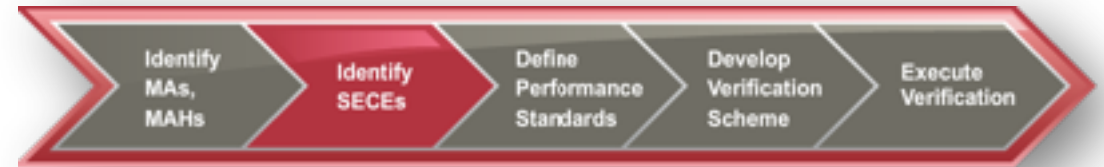
“Safety and environmental critical elements” means such parts of an installation and such of its plant (including computer programmes), or any part of those -

- (a) The failure of which could cause or contribute substantially to a major accident; or
- (b) A purpose of which is to prevent, or limit the effect of,

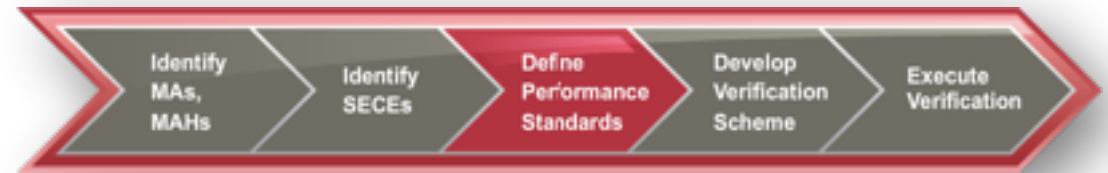
a major accident



Step Two – SECE Examples



Step Three – FARSI & SMART Models



Functionality

Availability

Reliability

Survivability

Interaction

Specific

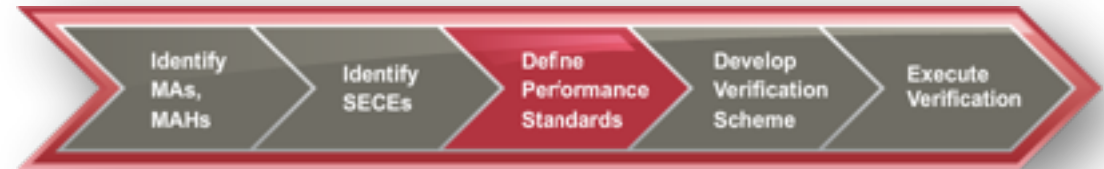
Measurable

Auditable

Relevant

Testable

Step Three – ACTUAL Performance Standards 1



Key Requirements

- Goal
- Description
- Criticality
- References
- FARSI
- Assurance

Linked to MAH

Step Four – Verification Scheme Content

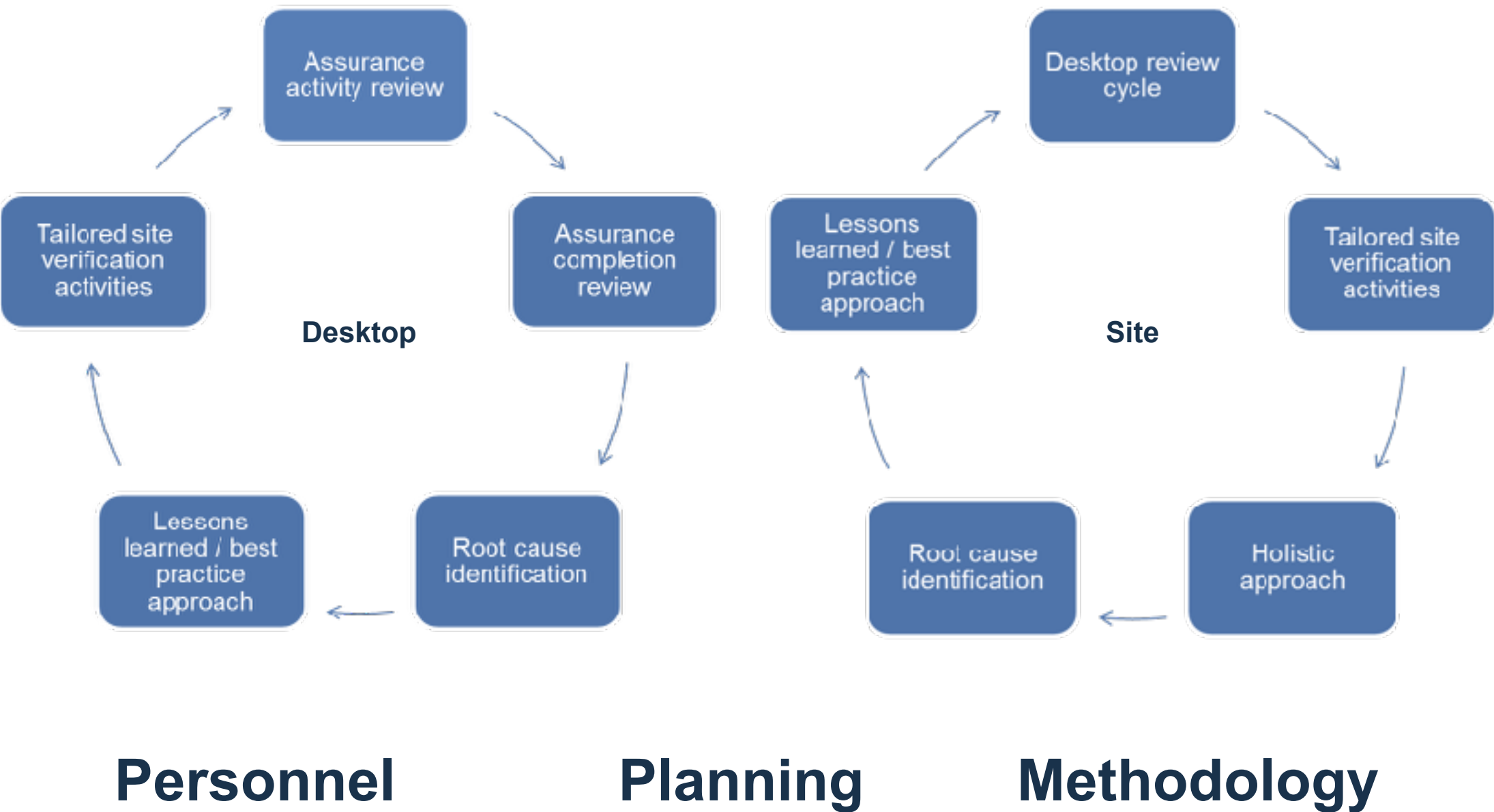
- (a) a statement by the operator or owner, made after considering the report of the independent verifier, that the record of safety critical elements and their scheme of maintenance as specified in the report on major hazards are or will be suitable;
- (b) a description of the verification scheme including the selection of independent verifiers, the means of verification that safety and environmental critical elements and any specified plant in the scheme remain in good repair and condition;
- (c) a description of the means of verification referred to in point (b) that shall include details of the principles that will be applied to carry out the functions under the scheme and to keep the scheme under review throughout the lifecycle of the installation including:
 - (i) the examination and testing of the safety and environmental critical elements by independent and competent verifiers;
 - (ii) verification of the design, standard, certification or other system of conformity of the safety and environmental critical elements;
 - (iii) examination of work in progress;
 - (iv) the reporting of any instances of non-compliance;
 - (v) remedial actions taken by the operator or owner.



Directive 2013/30/EU

Annex I, Part 5
Information to be submitted relating to a Verification Scheme

Step Five: Verification Planning- Overall Process



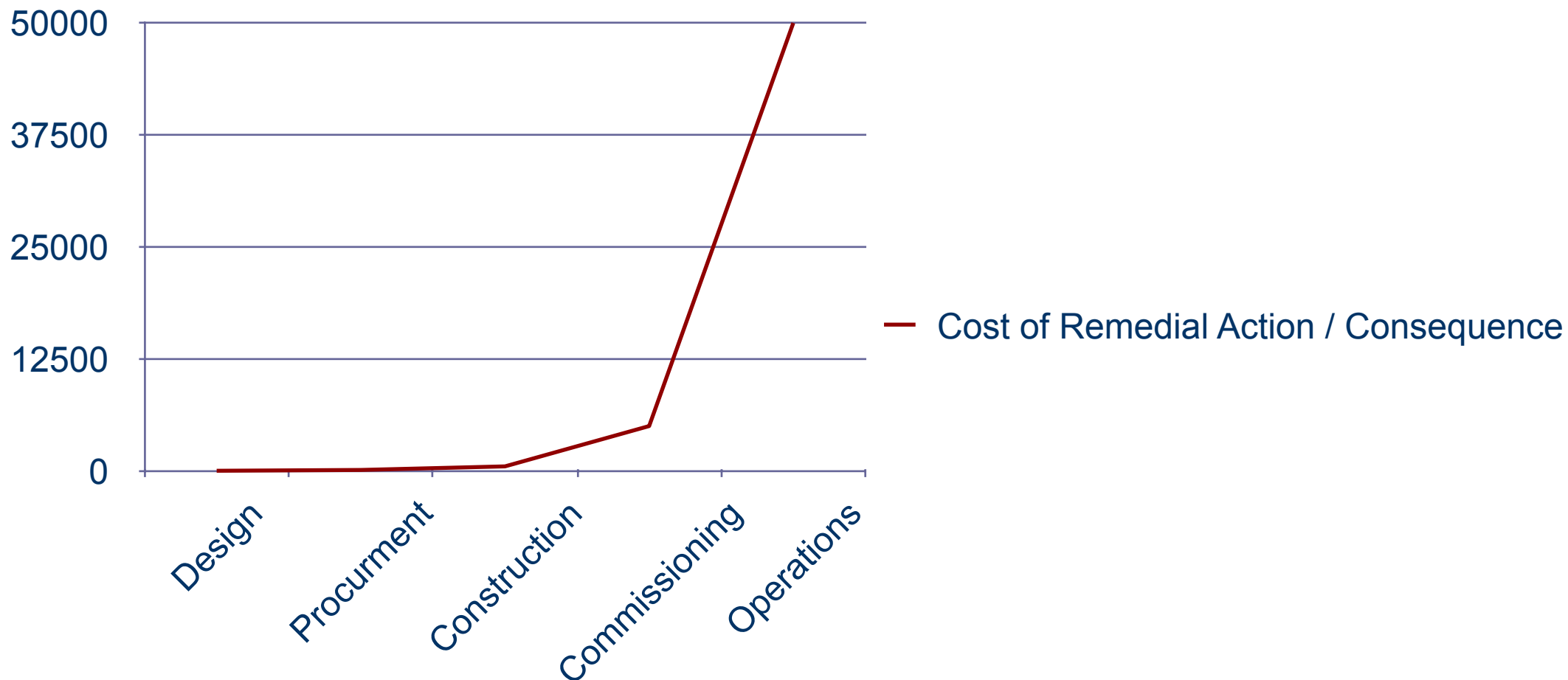


Verification – The Benefits

Verification – The Benefits



Cost of Remedial Action / Consequence



Financial

Reputational

Efficiency



Verification – How Bureau Veritas can help you.

Competency & Training: Recurring Industry Trends



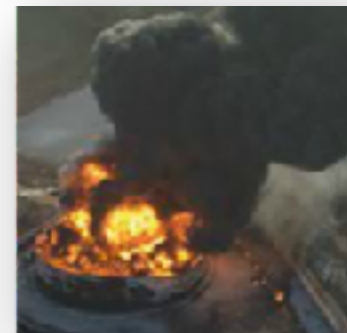
Lack of training



Lack of robust processes and procedures



Failure to follow safety recommendations



Poor design and construction



Competency & Training: BV Verification Academy



- A unique industry offering
- Tailored to suit internal and external organisation's requirements
- Delivered by our in-house experts in Regulatory Compliance and Legislation
- Only UKAS 17020 accredited IVB





Summary and Questions