



European Nuclear Safety Regulators Group

1st Topical Peer Review
Public event – 22nd November 2018
Brussels

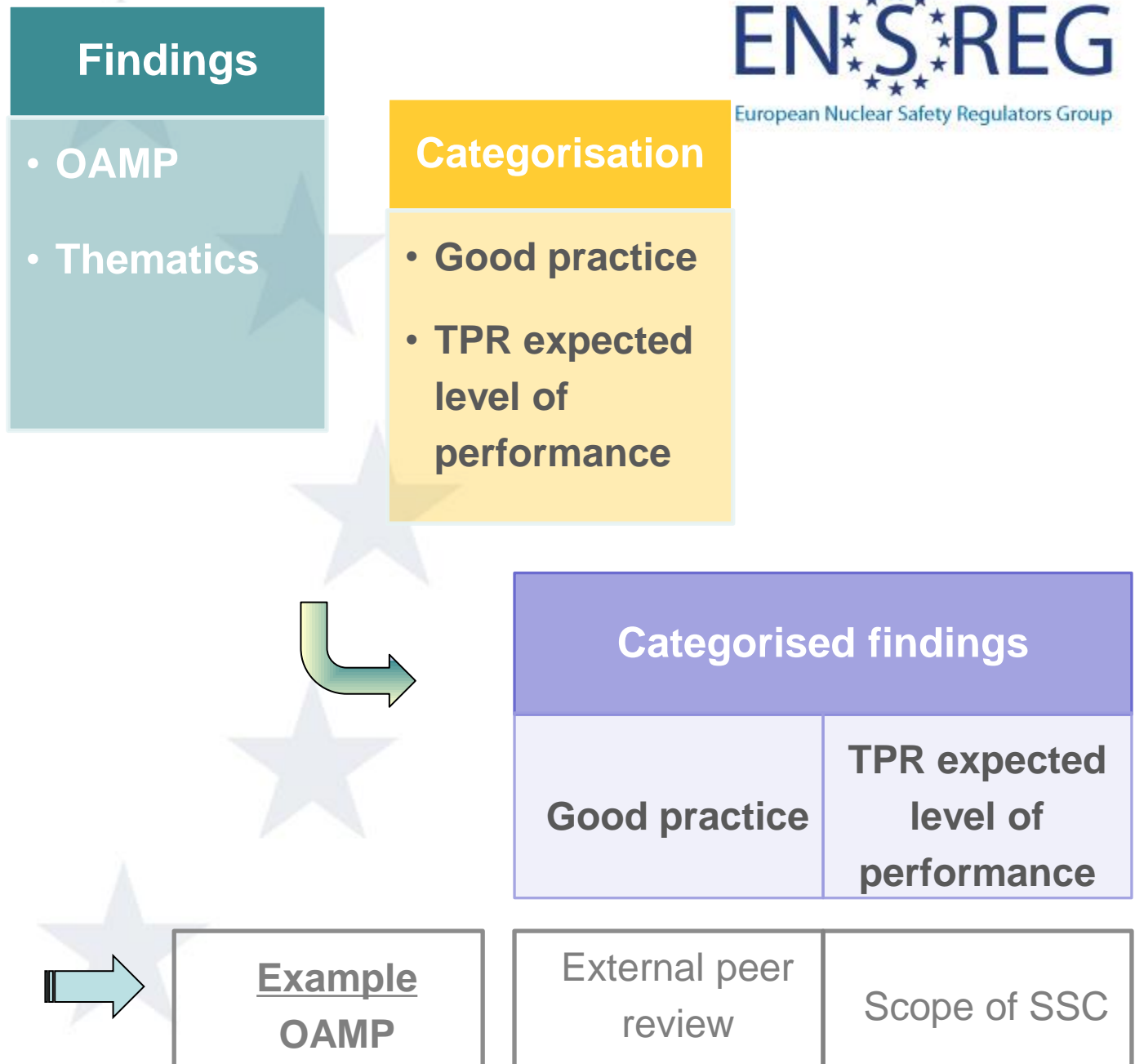
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TPR Vice-Chair

Presentation Outline

- 1. Methodology to allocate the Country Specific Findings**
- 2. About the results**
- 3. Conclusion**



Methodology to allocate the Country Specific Findings



Methodology to allocate the Country Specific Findings

| Categorised findings | |
|----------------------|-----------------------------------|
| Good practice | TPR expected level of performance |

| Country Specific findings | | |
|---------------------------|------------------|----------------------|
| Good practice or not | Good performance | Area for improvement |



NARs
Q/A



Workshop
discussions



Country
consultation



TPR expected level of performance

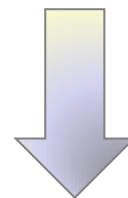


Methodology to allocate the Country Specific Findings

Example

External peer review is a
good practice

Country NAR/QA/workshop
indicate external peer review
was performed



For this **country**, a good practice is
allocated for this finding



- ✓ Country-specific findings documented in a Topical Peer Review report
- ✓ Presentation adopted in the table short and succinct

OAMP example

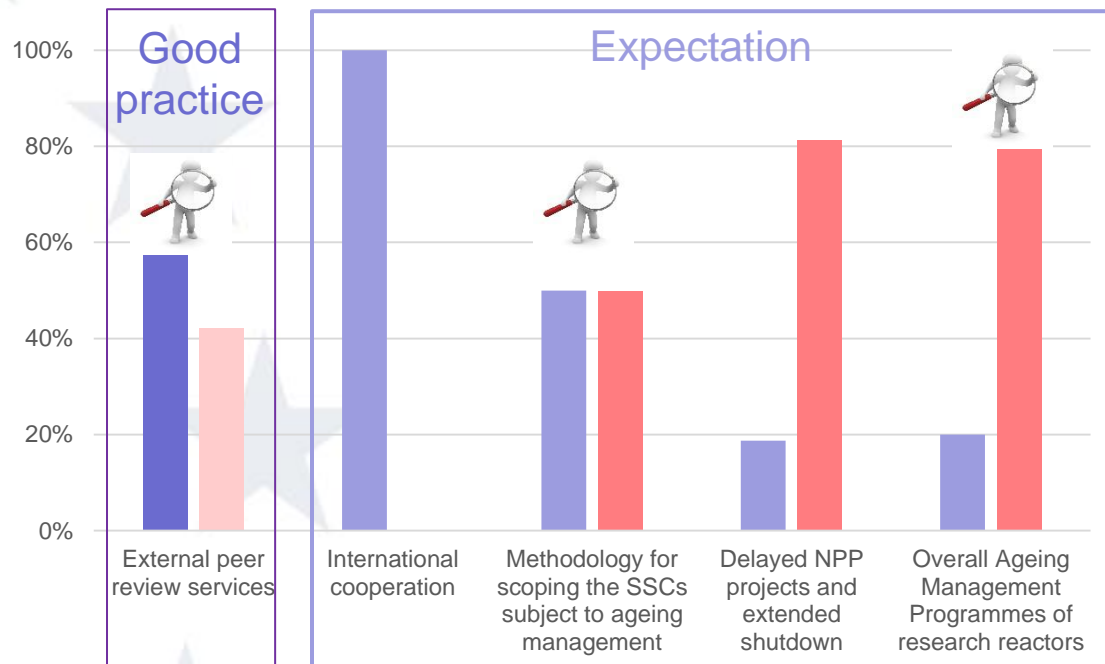
| Findings | Belgium | Bulgaria | Czech Rep | Finland | France | Germany | Hungary | Italy | NL | Poland | Romania | Slovakia | Slovenia | Spain | Sweden | UK | Norway | Switzerland | Ukraine |
|--|---------------------|----------|-----------|---------|--------------|---------|---------|-------|-------|--------|---------|----------|----------|-------|--------|-------|--------|-------------|---------|
| Good practice | | | | | | | | | | | | | | | | | | | |
| <i>External peer review services:</i> External peer review services (e.g. SALTO, OSART-LTO, INSARR-Ageing) are used to provide independent advice and assessment of licensees' ageing management programmes. | GP (for NPP and RR) | GP | GP | GP | GP (for NPP) | | GP | | GP | | | GP | GP | GP | GP | | GP | GP | |
| Expected level of Performance | | | | | | | | | | | | | | | | | | | |
| <i>International cooperation:</i> Participation in international projects, experience exchange within groups of common reactor design and the use of existing international databases are used to improve the effectiveness of the OAMP. | GPerf | GPerf | GPerf | GPerf | GPerf | GPerf | GPerf | NC | GPerf | NC | GPerf | GPerf | GPerf | GPerf | GPerf | GPerf | NC | GPerf | GPerf |
| <i>Methodology for scoping the SSCs subject to ageing management:</i> The scope of the OAMP is reviewed and, if necessary, updated, in line with the new IAEA Safety Standard after its publication. | GPerf | Afi | GPerf | GPerf | GPerf | Afi | GPerf | NC | GPerf | NC | Afi | GPerf | Afi | GPerf | Afi | Afi | NC | Afi | Afi |
| <i>Delayed NPP projects and extended shutdown:</i> During long construction periods or extended shutdown of NPPs, relevant ageing mechanisms are identified and appropriate measures are implemented to control any incipient ageing or other effects. | GPerf | Afi | Afi | Afi | Afi | Afi | Afi | NC | Afi | NC | Afi | Afi | Afi | GPerf | Afi | Afi | NC | GPerf | Afi |
| <i>Overall Ageing Management Programmes of research reactors:</i> A systematic and comprehensive OAMP is implemented for research reactors, in accordance with the graded approach to risk, the applicable national requirements, international safety standards and best practices. | GPerf | NC | Afi | NC | Afi | Afi | GPerf | Afi | Afi | Afi | Afi | NC | NC | NC | NC | NC | Afi | NC | NC |

- ✓ Country specific findings not used to compare countries
- ✓ Country specific findings can provide objective inputs





1 Good Practice 3 Expected level of performance



■ % of countries meeting the expectation ■ % of countries not meeting the expectation

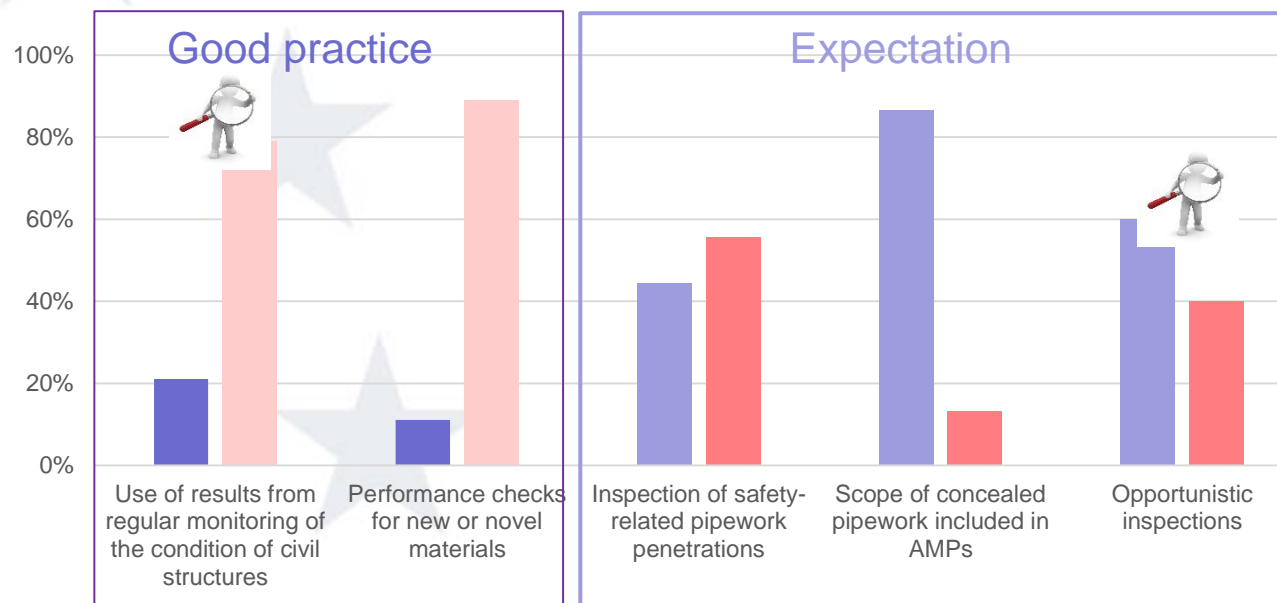
- ✓ Already a good use of the peer review services (60%)
- ✓ A good anticipation of new standards for SSC scoping (50%)
- ✓ More systematic and comprehensive OAMP necessary for Research for 80% of concerned countries

About the results

Concealed pipework



- 2 Good Practice
- 3 Expected level of performance



■ % of countries meeting the expectation ■ % of countries not meeting the expectation

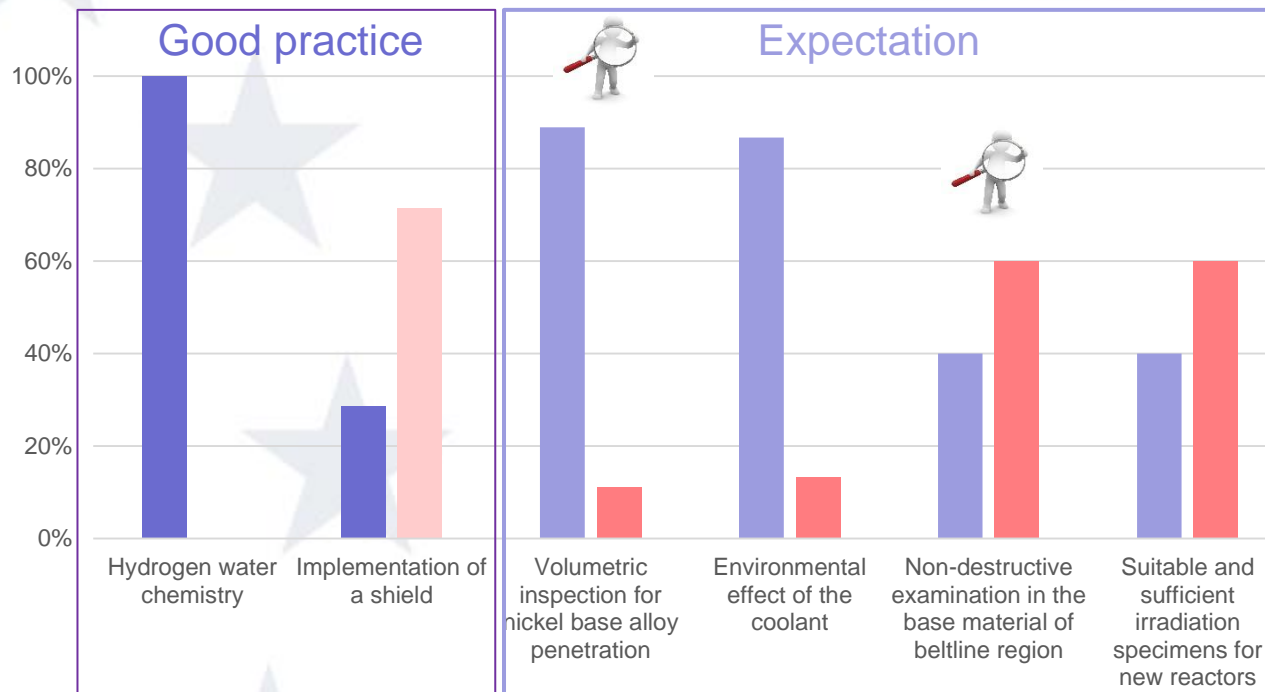
- ✓ 20 % of countries use civil structures results as an input of concealed pipework AMP
- ✓ 60 % of countries perform opportunistic inspections when pipework accessible for any purpose, but still some don't

About the results

Reactor pressure vessel



2 Good Practice
4 Expected level of performance



■ % of countries meeting the expectation ■ % of countries not meeting the expectation

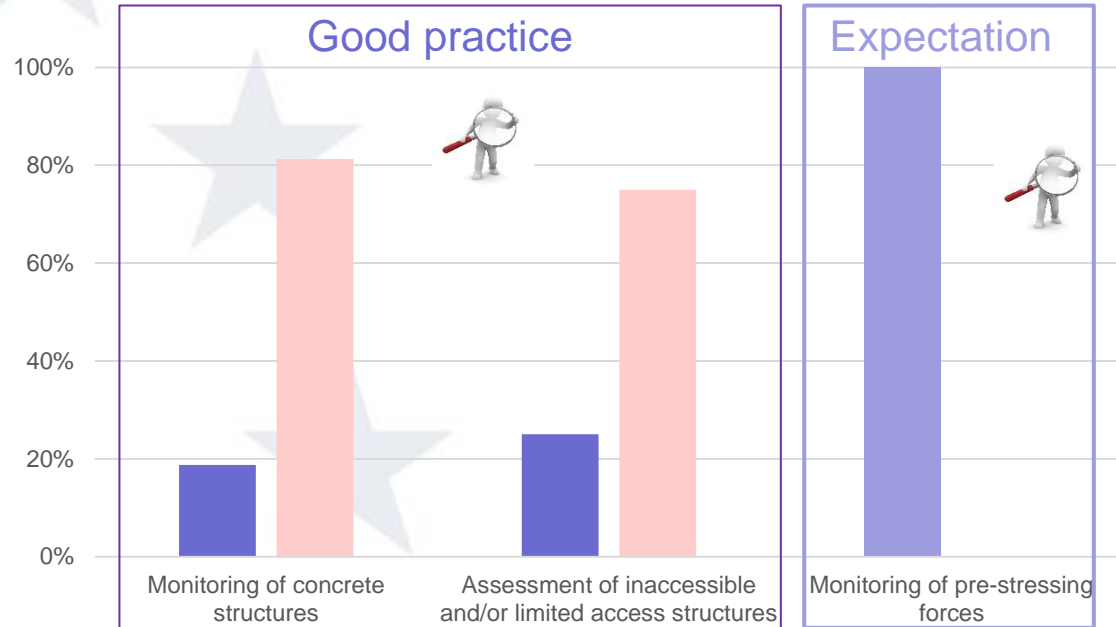
- ✓ A very good use of operational feedback and results from experimental programme (80%)
- ✓ 40 % of countries use comprehensive NDE techniques, even if not required by the regulations

About the results

Concrete containment



2 Good Practice
1 Expected level of performance



■ % of countries with a good practice ■ % of countries meeting the expectation

- ✓ Around 20 % of concerned countries perform actions to better predict mechanical behaviour or implement instrumentation to monitor the inaccessible concrete
- ✓ 100 % of concerned countries monitor the pre stress forces to ensure the containment safety functions

- ✓ Country specific findings allocation based mainly on NARs, Q/A, workshop
- ✓ Countries encouraged to explore all generic findings and their applicability to improve the regulation and implementation of AMP at each Nuclear Installation
- ✓ Country specific findings not used to compare countries
- ✓ Country specific findings provide an objective barometer on how AMP is implemented



Thank you for your attention