Working together: innovative thinking in OSR best practice

Premiam Conference
June 22nd 2016

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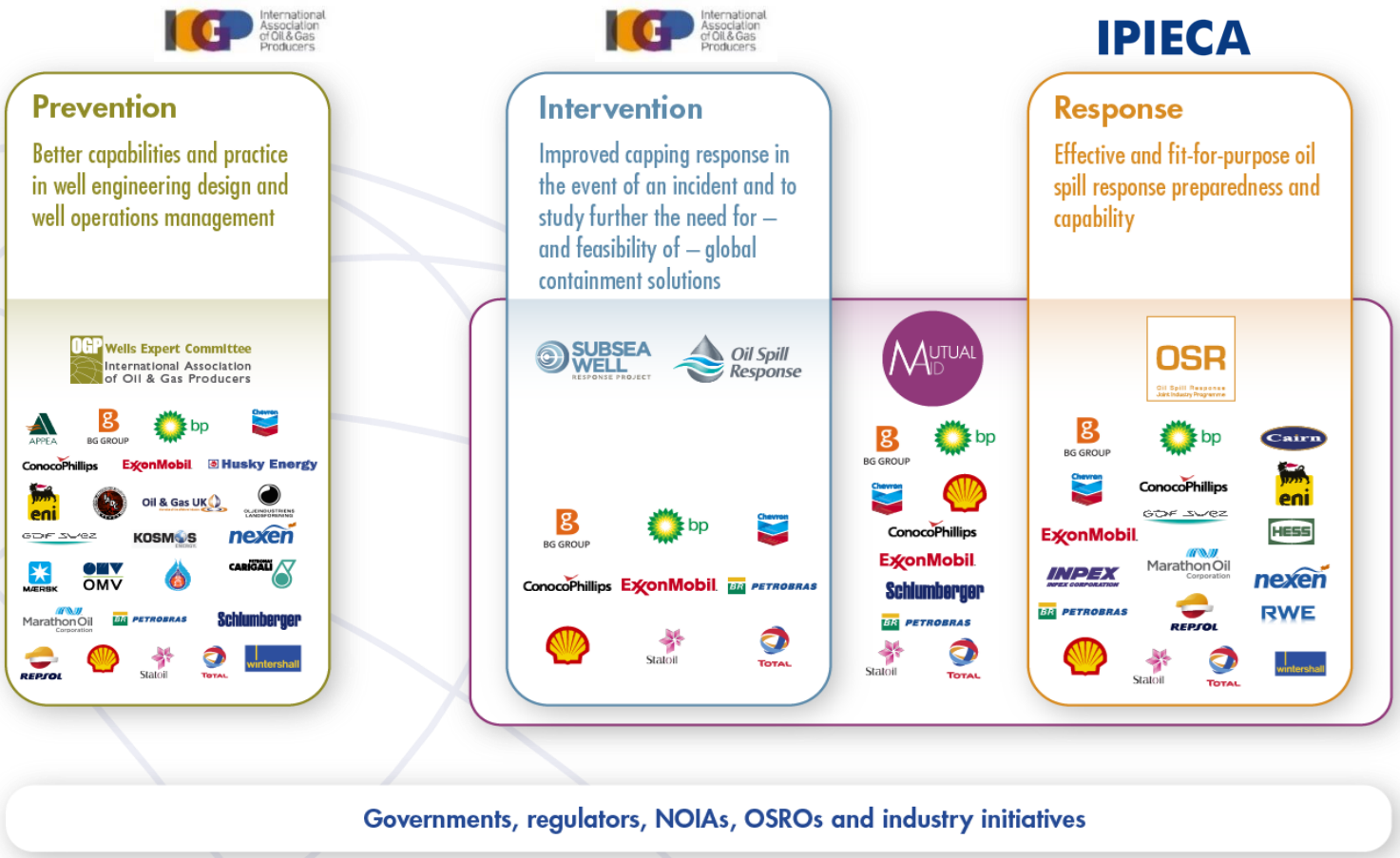
This presentation:

1. What is the OSR – JIP? What has it done?
2. Some examples of innovative thinking/work developed as part of the JIP:
   - SIMA: (formerly known as NEBA)
   - Tiered Preparedness and Response: the new model
   - Our work with international Offshore Petroleum Environment Regulators Forum
3. I'll also mention:
   - Risk-based offshore preparedness
   - Promoting a common Incident Management System

The GIRG Process



OSR-JIP outputs comprise four elements

1. **Good Practice Guidance**: 24 Good Practice Guides and their translations. Replaces the existing Oil Spill Response report series
2. **Short technical reports** in the "JIP" series, developed to communicate technical good practice or to make it accessible to external parties.
3. **Pure research** & longer technical documents: detailed technical research and information
4. **Outreach, Communications** and "outreach" materials, videos/animations, "Glance/Scan" materials

Dispersants

- Bench scale testing

- Dispersant logistics/supply chain planning

- Regulatory Approval of Dispersant Products and Authorization of their Use

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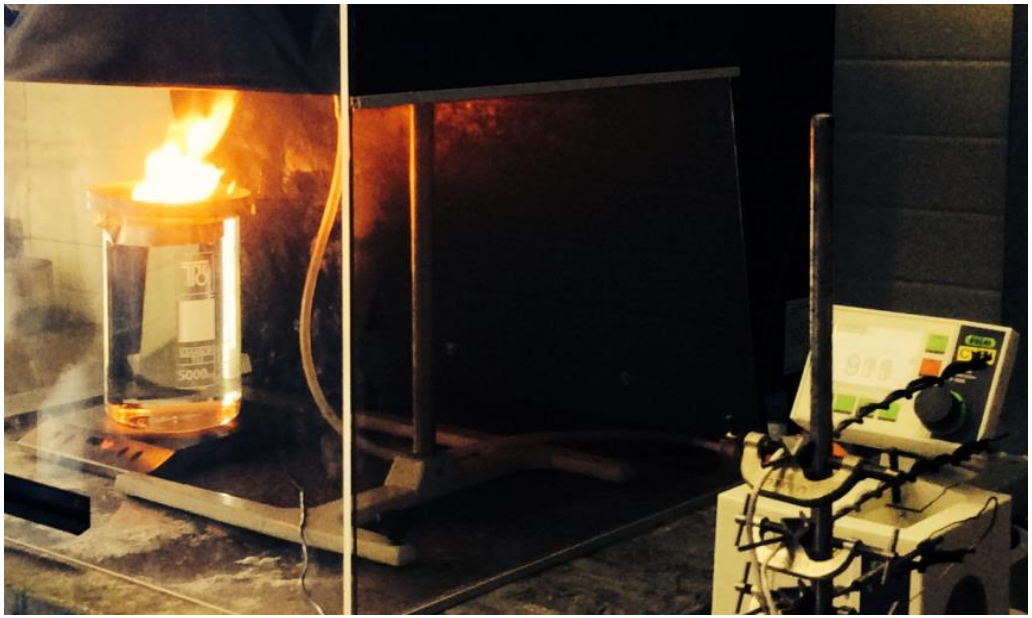
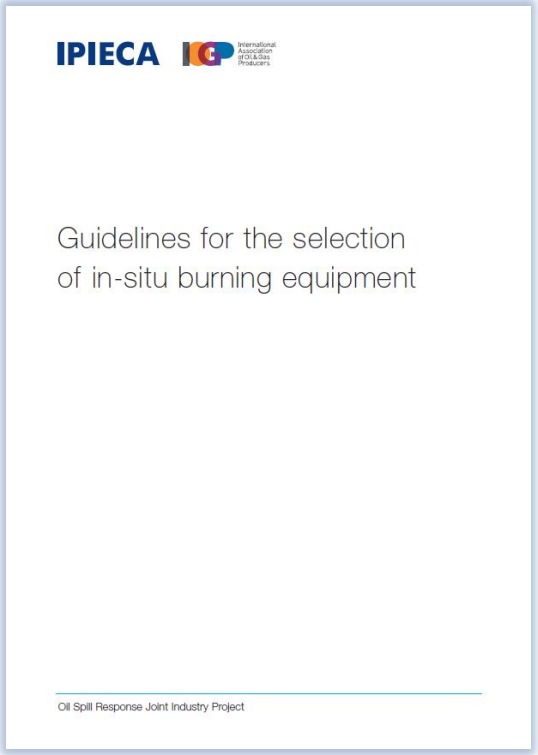
In-Situ burning

- ISB equipment selection
- Residue and burn studies





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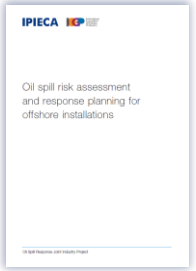
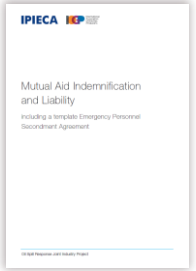
- A scenario-based/risk assessment based planning standard for an upstream release and estimation of the associated quantities of equipment required

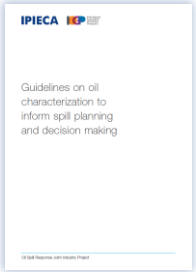
- Current status and future industry needs for aerial dispersant application

- Mutual aid indemnification and liability including pro-forma legal templates for global use

- Guidelines on oil characterization to inform spill response decisions







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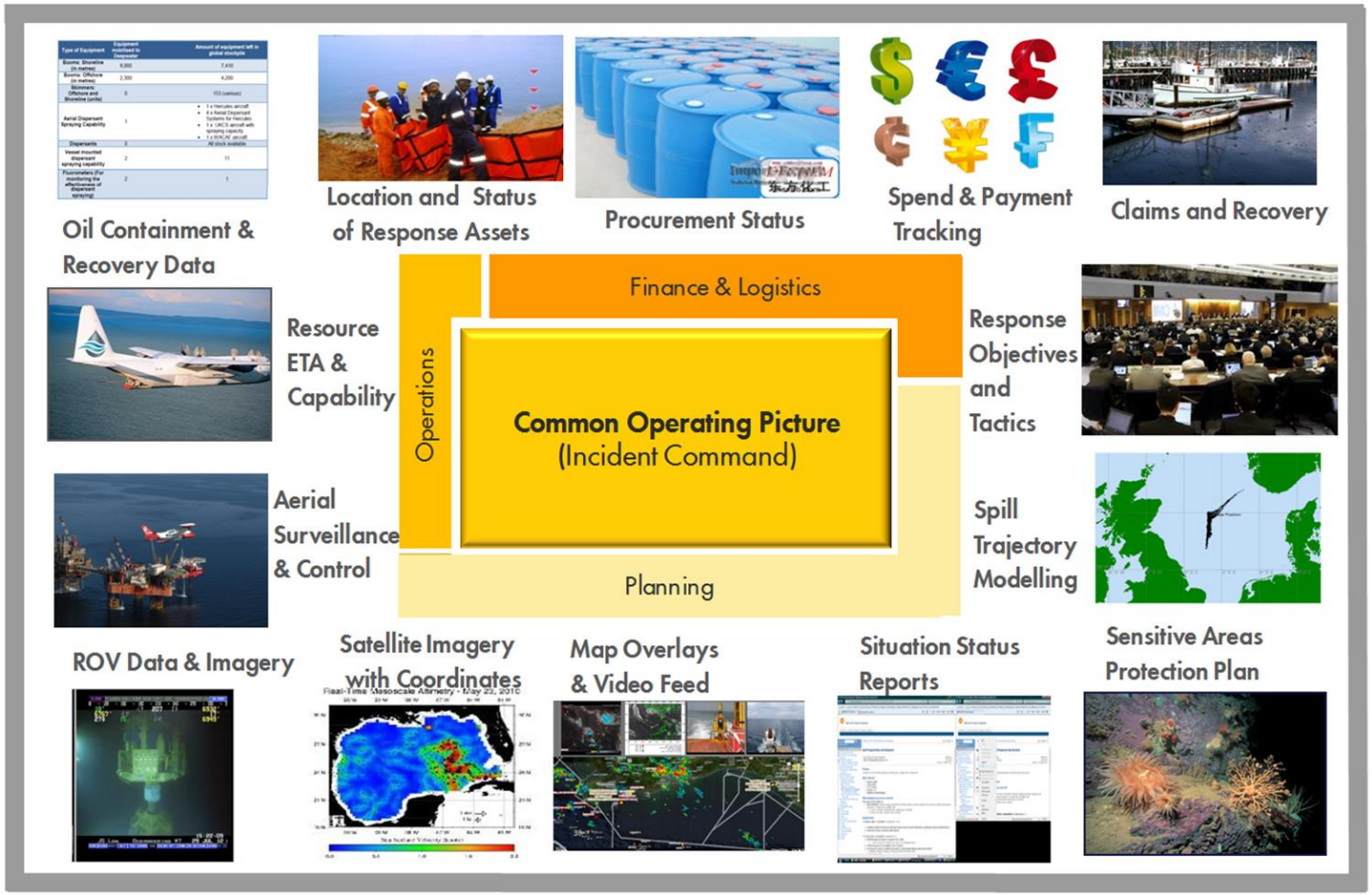
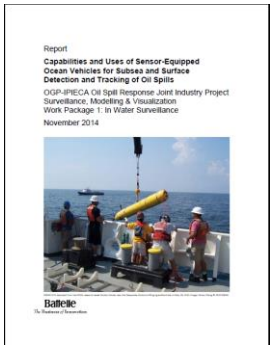
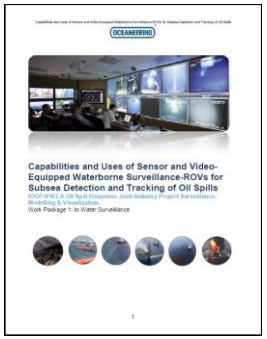
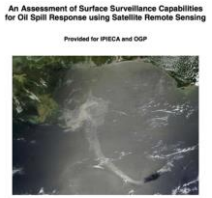
Surveillance, Modelling & Visualization




Report
Capabilities and Uses of Sensor-Equipped Ocean Vehicles for Subsea and Surface Detection and Tracking of Oil Spills
OGP-IPIECA Oil Spill Response Joint Industry Project
Surveillance, Modelling & Visualization
Work Package 1: In Water Surveillance
November 2014
Battelle


OCEANEERING
Capabilities and Uses of Sensor and Video-Equipped Waterborne Surveillance-ROVs for Subsea Detection and Tracking of Oil Spills
OGP-IPIECA Oil Spill Response Joint Industry Project Surveillance, Modelling & Visualization
Work Package 1: In Water Surveillance

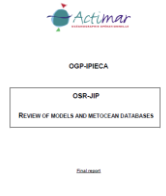

An Assessment of Surface Surveillance Capabilities for Oil Spill Response using Satellite Remote Sensing
Provided for IPIECA and OGP
10 April 2014
Kim Partington
Polar Imaging Limited


An Assessment of Surface Surveillance Capabilities for Oil Spill Response using Airborne Remote Sensing
Provided for IPIECA and OGP
21 May 2014
Kim Partington
Polar Imaging Limited


JIP SMV: WP 2 Final Report
Surface Surveillance Capabilities for Oil Spill Response using Remote Sensing
Provided for IPIECA and IOGP
31 March 2015
WP 2 Steering Committee:
Prepared by Polar Imaging Limited


IPIECA
Work Package 5: Common Operating Picture
Recommended practice for Common Operating Picture architecture for oil spill response
FINAL REPORT
OGC


Actimar
OGP-IPIECA
OSR-JIP PROJECT
RECOMMENDATIONS ON VALIDATION TECHNIQUES
Report


Actimar
OGP-IPIECA
OSR-JIP
REVIEW OF MODELS AND METOCEAN DATABASES
Final report

STRATEGY

- Oil Spill Preparedness & Response: a framework
- Incident Management Strategies
- Net Environmental Benefit Analysis

PREPAREDNESS

- Contingency Planning
- Sensitivity Mapping
- Tiered Preparedness & Response
- Training

IMPACTS

- Impacts on Marine Ecology
- Impacts on Shorelines

RESPONSE

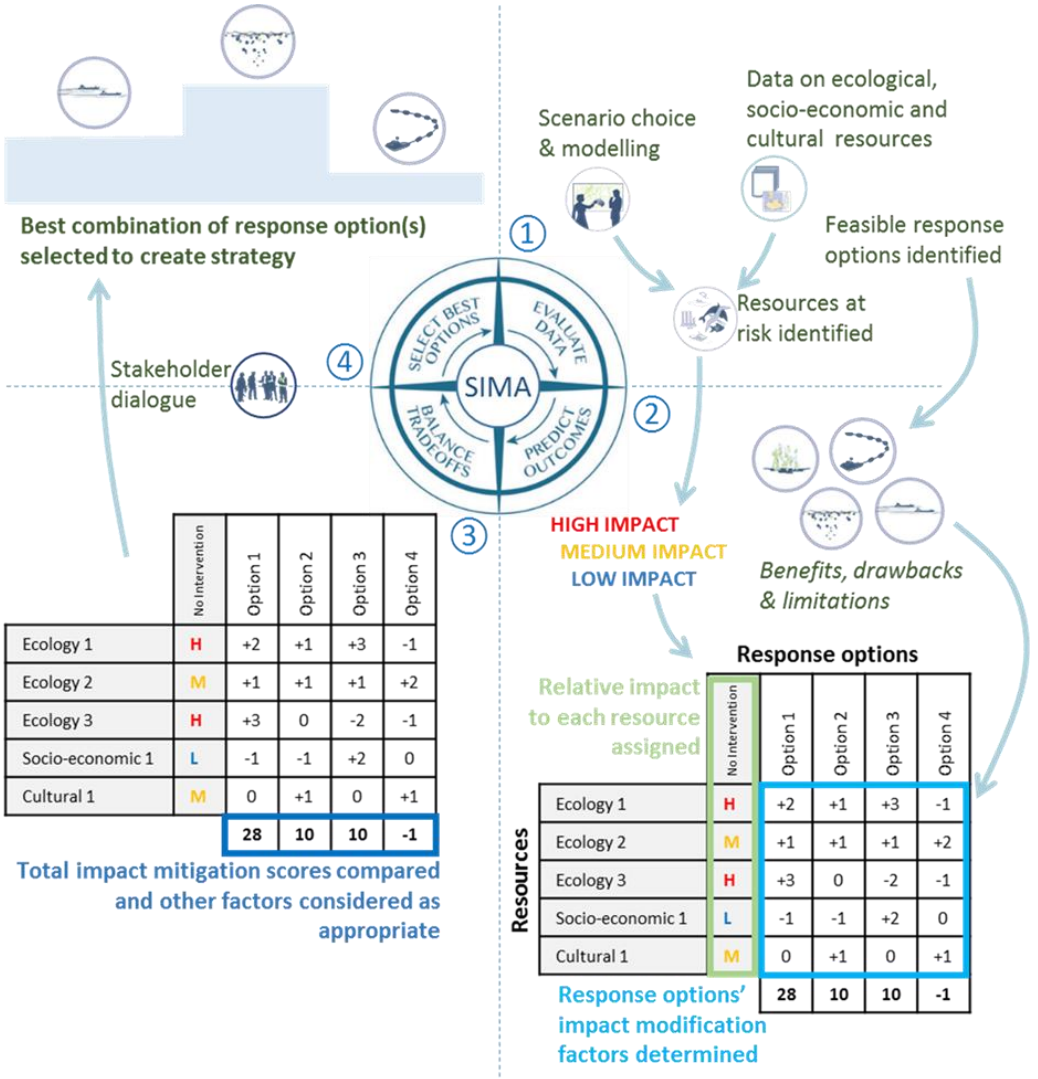
- Aerial Surveillance
- Satellite Remote Sensing
- In Water Surveillance
- Dispersants: Sea surface
- Dispersants: Subsurface
- At Sea Containment and Recovery
- In-Situ Controlled Burning
- Shoreline Response Planning and SCAT
- Shoreline Cleanup Techniques
- Inland Responses
- Waste Management
- Oiled Wildlife Management
- Economic Assessment & Compensation
- Responder Health and Safety

NEBA (SIMA) Joint work with American Petroleum Institute (API)

- Good Practice Guidance completed two years ago….
- Feeling that more detailed implementation (“how-to”) guidelines were needed
- Work product developed jointly between API and OSR-JIP
- Simultaneous bridging to “SIMA” in a parallel process
  - Consulted widely on this process
  - Transition to a term that better reflects the process and its objectives
  - Includes ecological, socio-economic and cultural aspects (“NEBA in its broadest sense”)
  - We realize that this will take time
  - Widely supported by regulators

NEBA (SIMA) Joint work with API

- Primarily for large or higher consequence spill scenarios
- Develops response strategy maximising mitigation of impacts - across ecological, socio-economic and cultural sensitivities
- Transparent approach, engages relevant stakeholders



		No Intervention	Option 1	Option 2	Option 3	Option 4
Ecology 1	H		+2	+1	+3	-1
Ecology 2	M		+1	+1	+1	+2
Ecology 3	H		+3	0	-2	-1
Socio-economic 1	L		-1	-1	+2	0
Cultural 1	M		0	+1	0	+1
			28	**10**	**10**	**-1**

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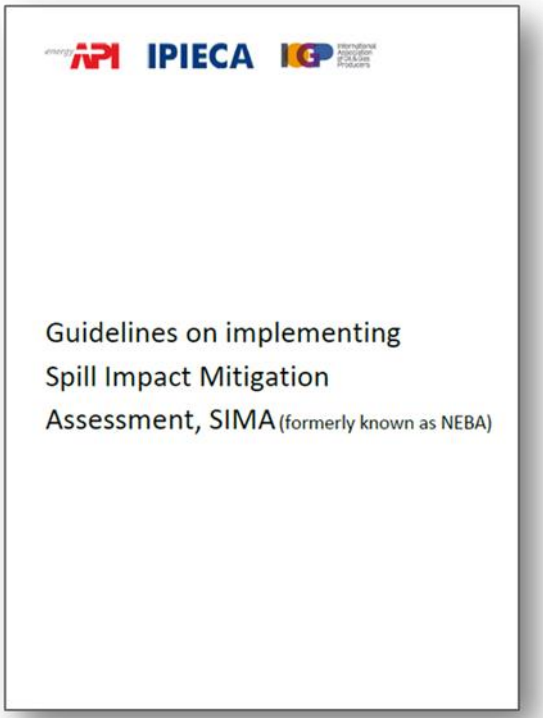
NEBA (SIMA) Joint work with API

- Adheres to existing NEBA principles
- Qualitative basis: expert knowledge and judgement remain important
- Assesses how much each feasible response option mitigates (or exacerbates) the impact to each key resource cf. no intervention
- Each options' benefits, drawbacks and effectiveness are considered
- Strategy outcome: a combination of primary / secondary / supplementary response options



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International Offshore Petroleum Environmental Regulators

- IOPER Guiding Principles for Regulating Offshore Oil Spill Response Preparedness:

1. Response capability should be fit for purpose
2. Performance levels are set to promote effective preparedness
3. Response capability is built to be adaptable
4. Roles and responsibilities are clearly stated
5. Levels of response are scalable
6. Response capability is sustainable

- We have mapped these principles to the key issues and priorities as we see them

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1. Response capability should be fit for purpose

- The key to defining “fit for purpose” is understanding scenarios, which lead to understanding risks and defining needs

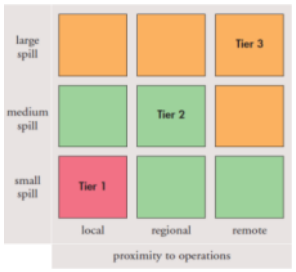
Example:

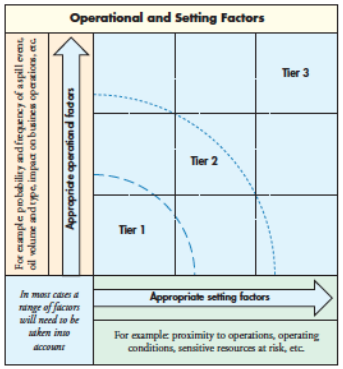
- “Risk Assessment and Response Planning for offshore installations” presents a detailed methodology for an operator to carry out an assessment of response resource needs and capability and to prove to themselves and the regulator that they have the ability to cascade resources in to the spill area

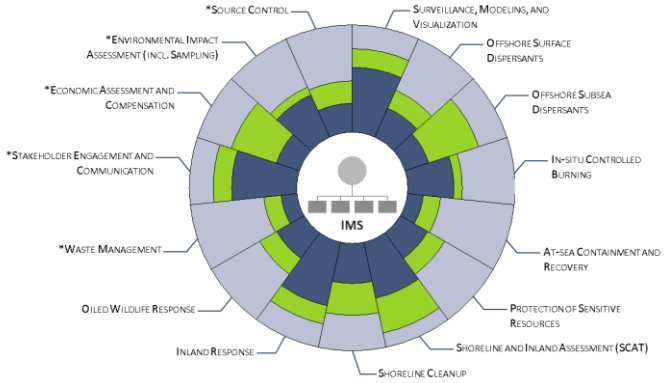
  This provides a validated link into a step-wise contingency planning process, which is how the industry is – or should be - consistently planning for upstream OSR

3. Response capability is built to be adaptable

- As response equipment and services have evolved to become more specialized, so too must the Tiered Preparedness and Response model
- Modern technology, advanced logistics capabilities, and new communication tools have improved industry's ability to cascade resources to an incident location.
- The new model facilitates a tiered response by depicting which response capabilities are needed and in what timeframe







Evolving Model

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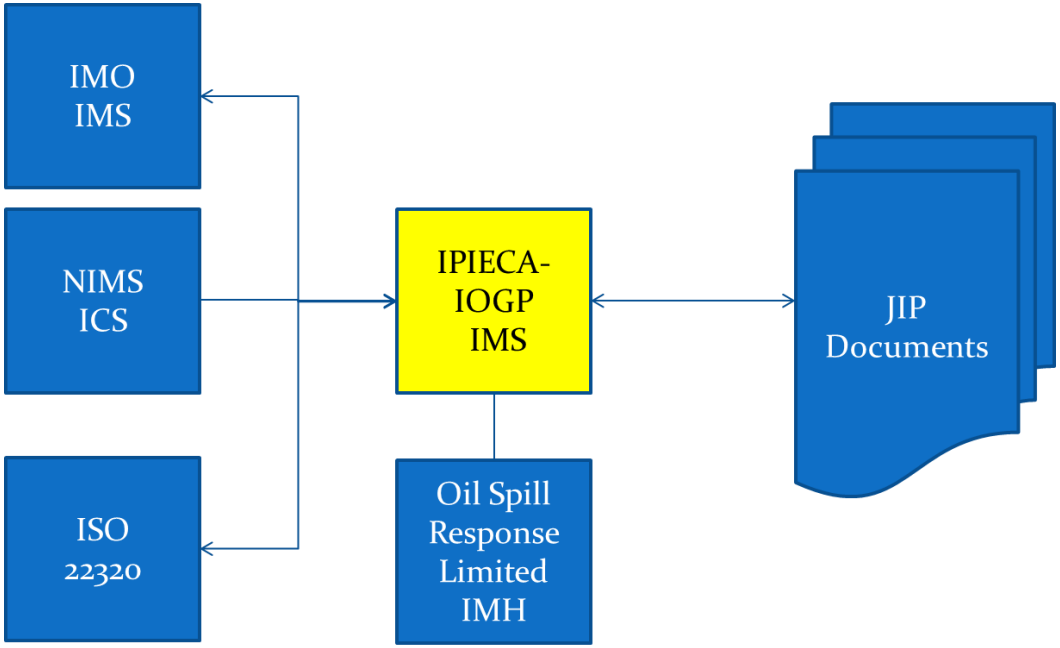
4. Roles and responsibilities are clearly stated

- Our firm view is that ICS or an “ICS – like” approach is required to manage large amounts of equipment, people and transactions
- However our experience with IMS and ICS is that ICS doesn’t always translate well into local “coordinated command” systems
- We have designed an IMS which is “ICS - like” and recognizes multiple command and coordination challenges



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Summary: where we have the opportunity to work together

- Consistent use of global SIMA/NEBA methodology – not Arctic SIMA, US SIMA, European SIMA etc.
- Adoption of pre-approvals where supported by *peacetime* SIMA conclusions
- Ready access to all response tools as supported by SIMA
- Support for utilizing the most effective response tools first
- Adoption of clear TPR principles in planning

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Summary: where we have the opportunity to work together

- Support efforts to remove or reduce barriers (people, equipment….)
- Participation in exercises and drills
- Adopt a risk – based approach to offshore response planning
- Set realistic expectations for OSRO competency and capability
- Set realistic principles for exercise frequencies and the basics of Contingency Planning

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