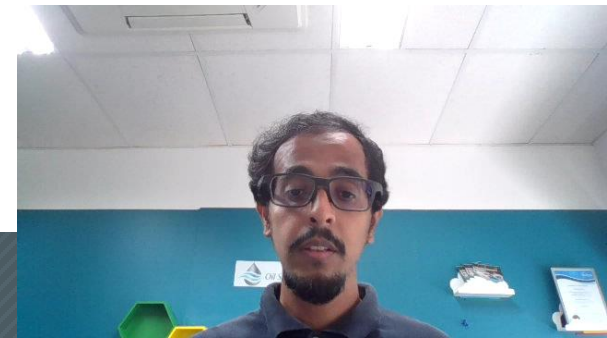


HNS Working Group Update



Background

- 💧 HNS response was identified as gaps in OSRL membership response capability during 2019 ASR
- 💧 HNS response can be an added value by broadening the utilization of readily available OSRL equipment beyond oil spill
- 💧 OSRL looks to provide the following additional service within SLA
 - 💧 Remote technical advice
 - 💧 Global deployable response teams
 - 💧 HNS preparedness services



Current Status

💧 Training

- 💧 Completed in March for 6 responders (2 US, 2 UK and 2 SG)
- 💧 Competency Level National Fire Protection Association (NFPA) 1072 Hazardous Materials / WMD Emergency Response Personnel Professional Qualification









FEASIBILITY STUDIES

- 💧 Chemical Characterisation
- 💧 Equipment Compatibility
- 💧 Response Strategies
- 💧 Member's Engagement



Chemical Characterisation

💧 Bulk Chemical List

- 💧 Regulations covered by IMO & SOLAS for chemical tankers
- 💧 OSRL compiled a comprehensive list of likely bulk chemical list from the IBC code* (680)

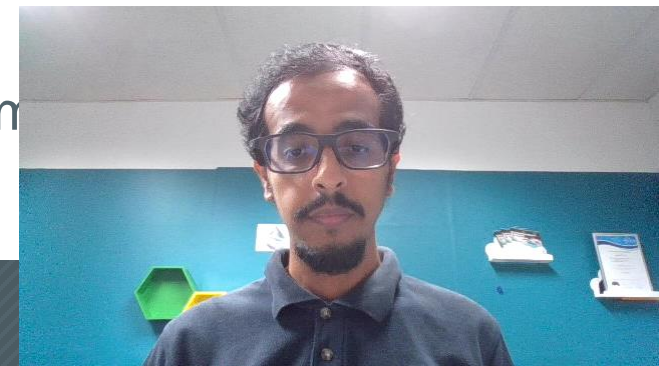
*The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

💧 Reactive Groups

- 💧 Aware of the risk of deterioration of chemical protective clothing and response equipment.
- 💧 Categorise into different groups based on similar reaction.
- 💧 Detailed in a spreadsheet.

💧 Floaters, Sinkers, Dissolvers and Evaporators

- 💧 Classify based on the physical and chemical properties
- 💧 Bonn Agreement Counter Pollution Manual
- 💧 OSRL will be able to respond to persistent floaters using existing equipment
- 💧 Mostly chemicals with oil like characteristics



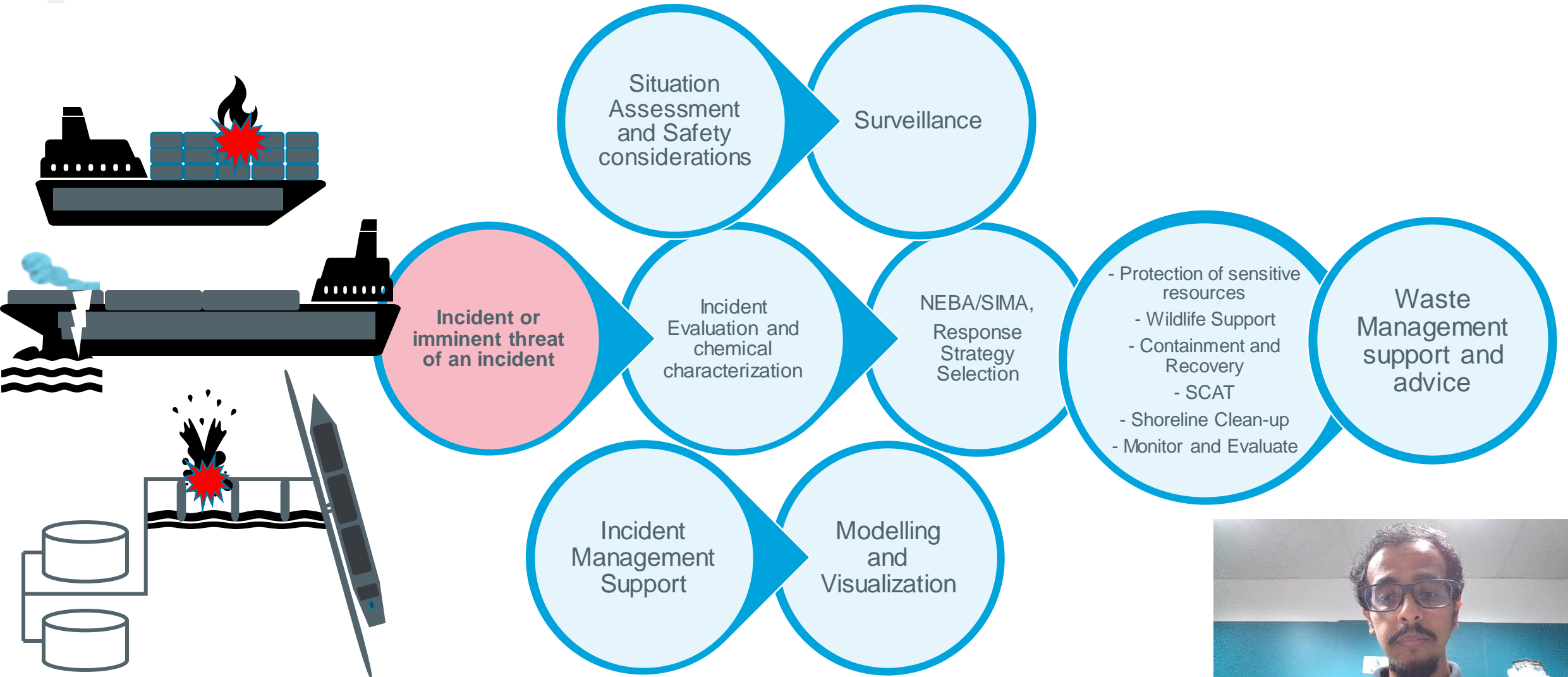
Equipment Compatibility



- 💧 Suitability by Reactive Group
- 💧 Gathering information of equipment materials
- 💧 Compatibility of the equipment materials with each reactive group
- 💧 Identifying



Potential OSRL HNS Response Tools



Member Engagement

Started engagement with members/clients

Understand member chemical risk

- Shipping
- Petrochemical Plant
- Distribution



Member Engagement - Preparedness

- 💧 Collecting member chemical database
- 💧 Deliver member HNS response plan update in their National Oil Spill Contingency Plan for 2022-2023
- 💧 Developed member chemical response plan in 2018



HNS Group Next Steps

Maintain

Competency

- 2023 Refresher Training (TEEX)
- Joint training & exercise w/ local agencies or partners

Right Size Resources

- 2023 – 3 responders to TEEX

Resources

CAPEX - Training

- PPE
- Level A & B Suits
- Air monitoring equipment

Assessment Resources

- Plume modelling tools
- Partners

Service Delivery

Scope

- 1st focus on oil-likes.
- Serve as TA in IMT. If needed, be able to do entries.

OSRL's processes & procedures

