



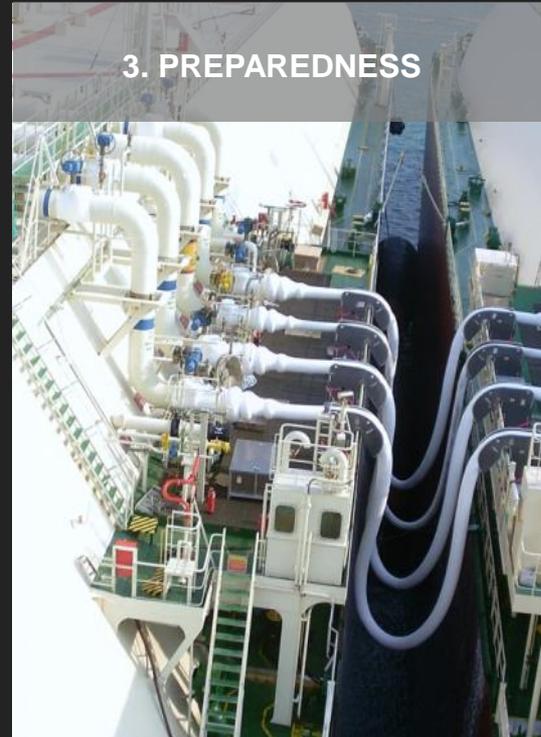
Emergency Preparedness and Response in Petroleum
Industry in Mozambique / November 2015

INTEGRATED EMERGENCY MANAGEMENT





Contents





INTRODUCTION



Ownership Structure

**Svitzer (Maersk)
50% Shareholder**

A long standing market leader
in emergency management

SVITZER

**Crowley
50% Shareholder**

A long standing market leader
in wreck removal



Ardent

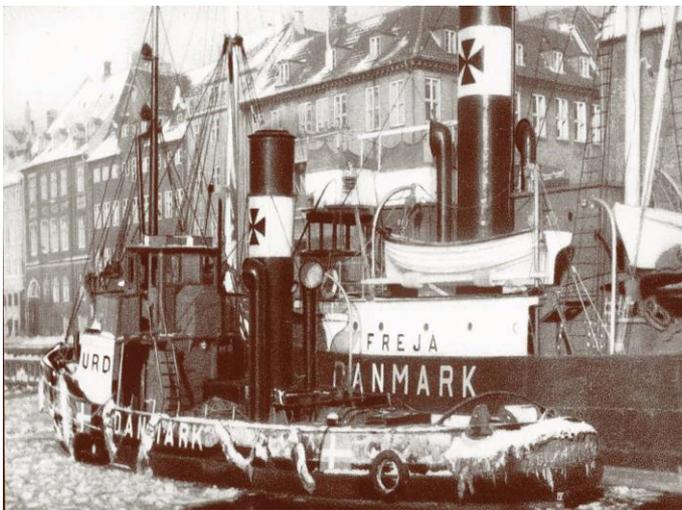
- Market leader in emergency management and wreck removal
- 0 LTIs to date, performing complex operations in harsh and dangerous conditions
- Headquartered in Houston, Texas
- Regional hubs located in the Netherlands, South Africa and Singapore
- Supporting offices in United Kingdom, Australia, Brazil, South Korea, Greece, United Arab Emirates amongst others
- Global pool of 150 salvage experts



ARDENT



Rationale Behind the Merger



- To provide a more modern and effective service to the maritime and offshore Oil and Gas sector
- We believe that businesses need a marine services partner that is both responsive and responsible. One that always remains focused on the long-term interests of its clients.
- Creating an independent global marine services provider backed by two strong shareholders to deliver turnkey solutions and packages
- Leveraging on Titan and Ardent Salvage's heritage, combining market leader emergency response and wreck removal specialists



Global Presence



 Ardent Location

 Ardent Subtech Location



AR DENT



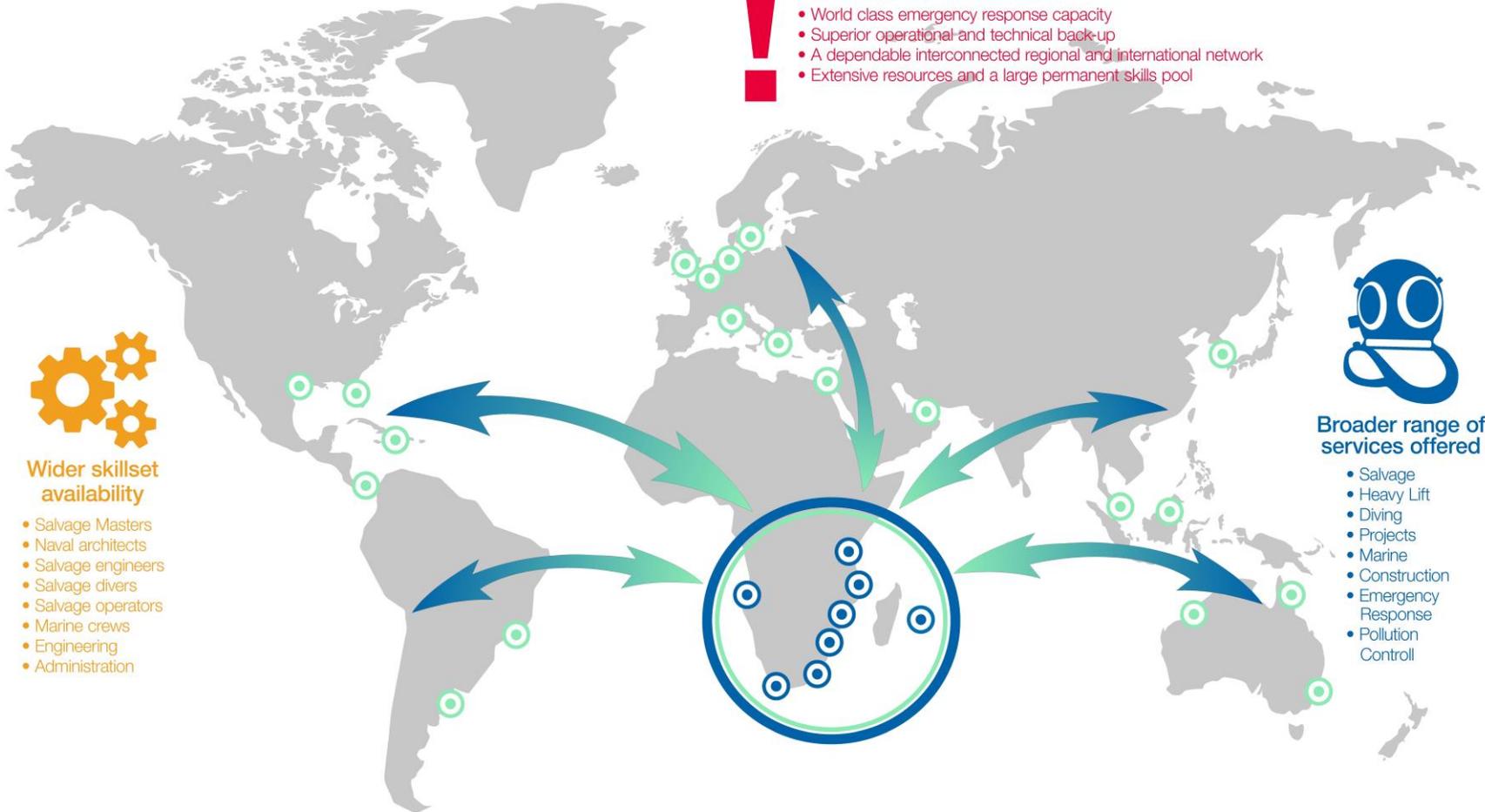
LEADING THROUGH UNITY

Unrivalled regional capacity combined with a network of skilled experts and infrastructure from around the world, enabling us to provide unparalleled response time and project capacity. All of this makes Ardent-Subtech the world leader in marine emergency response and salvage.



Key objectives behind JV

- World class emergency response capacity
- Superior operational and technical back-up
- A dependable interconnected regional and international network
- Extensive resources and a large permanent skills pool



Wider skillset availability

- Salvage Masters
- Naval architects
- Salvage engineers
- Salvage divers
- Salvage operators
- Marine crews
- Engineering
- Administration



Broader range of services offered

- Salvage
- Heavy Lift
- Diving
- Projects
- Marine
- Construction
- Emergency Response
- Pollution Control

AFRICA'S MOST COMPLETE MARINE EMERGENCY RESPONSE



SERVICES OVERVIEW



Value Creation Through Three Pillars

Emergency Management



- **Recognised leader** in Emergency Management, more than 800 successful operations in the last 30 years
- **Specialised response** to protect the environment and preserve property once all shipboard personnel are safe and accounted for
- **Global preparedness portfolio** of more than 35 agreements and growing
- Services include **training, standby and pre-arranged protocols** in order to allow quicker action to minimise the impact of emergencies

Projects



- Reputation for **innovative** shallow and deep water wreck removal solutions
Shallow,
- **Strong project management experience** to facilitate pollutant recovery, environmental rehabilitation, port clearance and broad remote project support.
- **Leading wreck removal capability:** successfully completed the largest and most complicated wreck removal project in history – Costa Concordia
- **Tailor-made decommissioning** services.

Underwater Services



- **One stop solution** for Hull Cleaning, Propeller Polishing, Condition Inspections, Class Surveys, Grounding Inspections, and Underwater Repair
- Use of heavily vetted **local expertise** allowing for optimal cost efficiency which passes through to the client



Wide spectrum of clients



GOVERNMENTS



PORTS & TERMINALS



OIL & GAS COMPANIES



SHIPPING



INSURANCE

12+ endorsements





High Profile Cases



Costa Concordia

(Isola del Giglio - Italy)

SCOPE: Wreck Removal by refloating in one piece via steel caissons and pulling cables fixed to an undersea platform



Hurricane Katrina Response

(The US)

SCOPE: Refloat about 65 vessels with the use of pneumatic lift bags, linear hydraulic pullers and jack-ups



Hoegh Osaka

(Southampton - UK)

SCOPE: Car carrier with severe list of Southampton. Operation included refloat, stabilization and redelivery in port.



West Atlas

(Australia - Timor Sea)

SCOPE: Wreck Removal project, which involved the removal of debris, rig lowering and towage of the drill rig



PREPAREDNESS



Integrated Emergency Management provider

At Ardent we aim to be the maritime industry's long-term loss mitigation partner. Our Global Preparedness Cover is the product to help realise these goals.

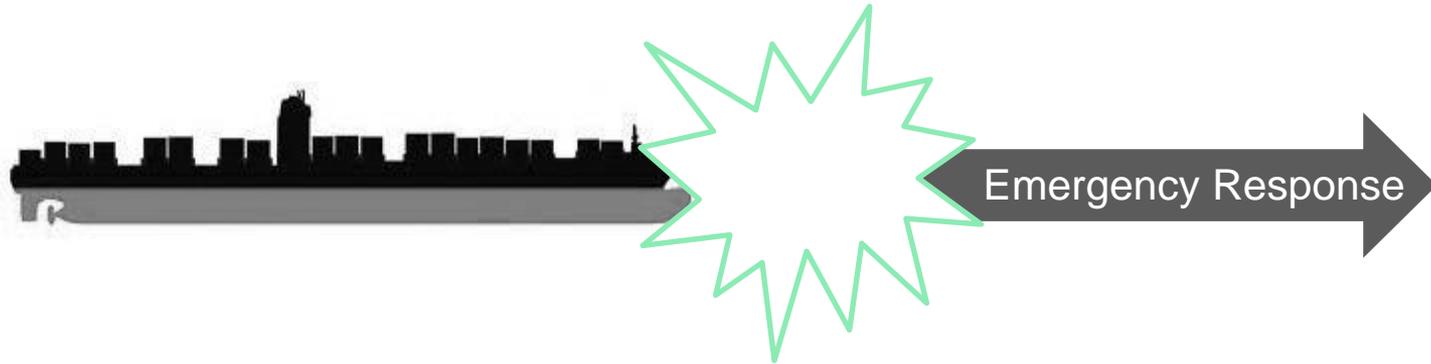
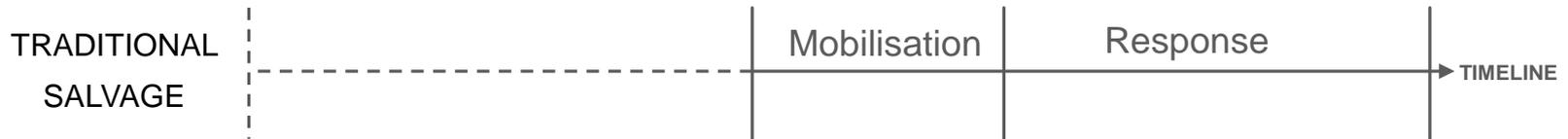
- Market leader in providing loss mitigation services to our customers
- Over 35 global preparedness agreements in place
- 40% global market share in Emergency Response
- Guaranteed worldwide response by Ardent Response Teams
- Emergency Response according to pre-agreed T&C
- Non-exclusive arrangement
- Endorsed by main H&M and P&I Clubs



ARDENT
**GLOBAL
PREPAREDNESS
COVER**



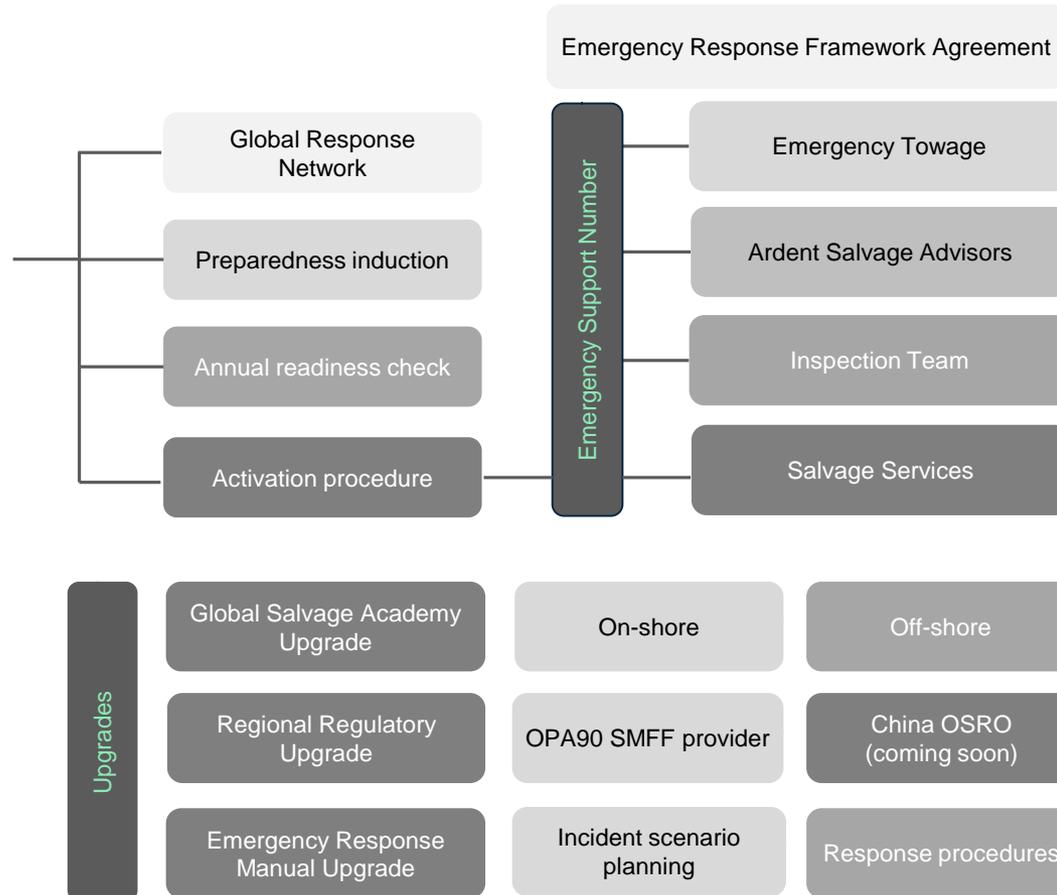
Loss Mitigation Partner



- Partnering will save time, reduce cost and environmental impact of marine and offshore incidents



Preparedness Cover





Economical Benefits



CONTAINER VESSEL 180 NM on fire off Yemen:

1. No contract negotiations: immediate response
2. 18 hrs after first call: Salvage team onsite
3. 30 hrs: First response salvage & FIFI gear on-site. Incl. salvage permit, overall clearance
4. Due to prompt response fire didn't exceed accommodation
5. 90% of cargo saved = **approx 150 mio USD**



CRUISE VESSEL fire off Bahamas:

1. Response through framework agreement
2. Joint plan of action between owner, insurer and salvor
3. Svitzer tugs tasked conducted standby services and port operations
4. Due to tailor made response, no delays avoiding incident to escalate
5. Minimize daily loss of hire – exceeding the **400 k USD p/d**

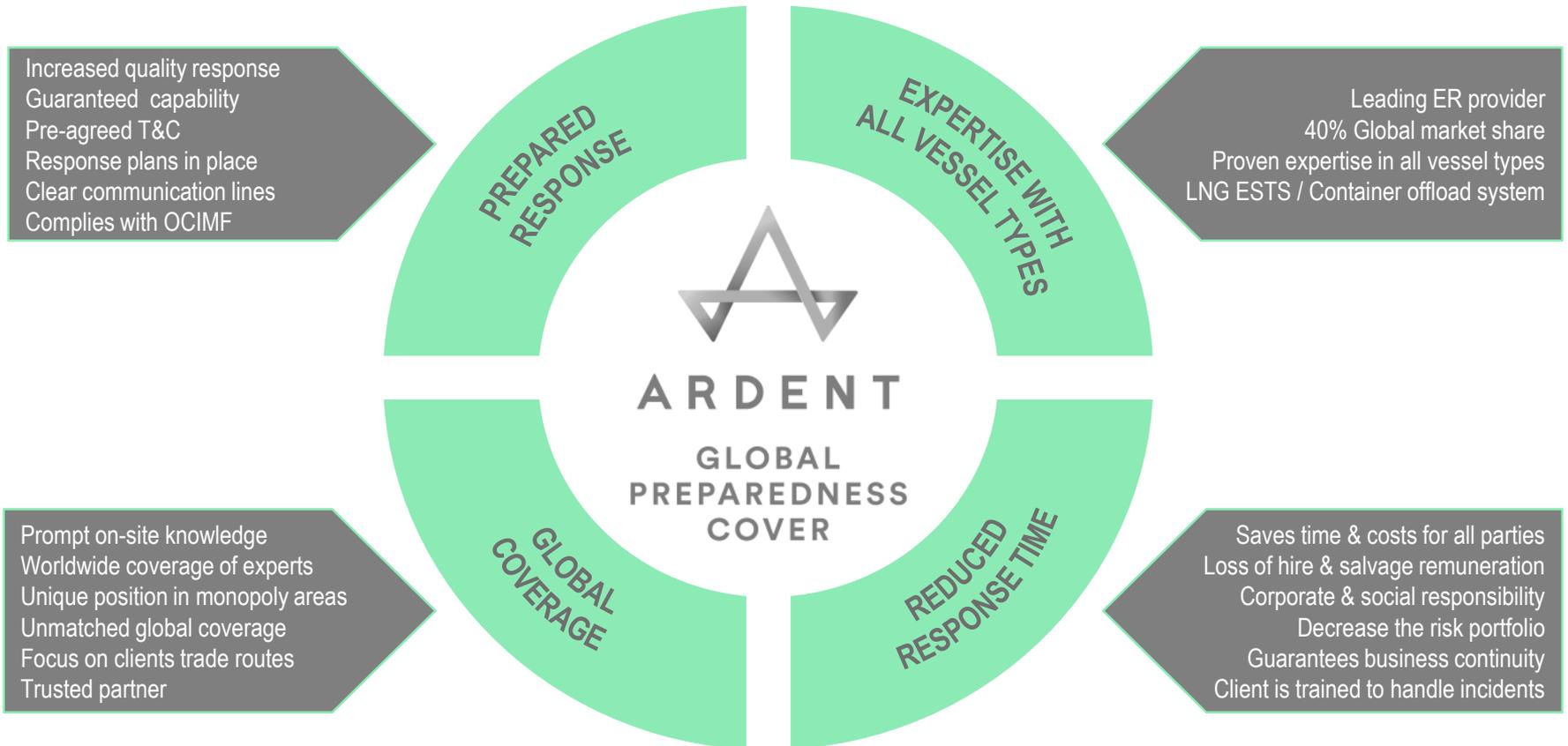


Q-FLEX LNG vessel collision off Malaysia:

1. Global Response agreement in place
2. Dedicated LNG ESTS equipment ready
3. No pre-negotiations required, immediate response
4. LNG ESTS in Singapore waters
5. Prompt response and readiness of specialized gear – limiting loss of hire - & limit down time of LNG train - exceeding **500 K USD p/d**



Benefits Loss Mitigation Partner





SOLUTIONS



Emergency Management in Brazil



PETROBRAS

- 60 owned and 77 chartered units - multiple year contract
- Fully equipped warehouse & salvage team in Macae, Brazil
- Petrobras units modeled and yearly inspected
- Agreed emergency procedures
- Damage control kits on units and Petrobras crew trained
- Naval architect and additional salvage team on standby
- Strict response times agreed
- Update salvage licenses and trainings required to perform salvage operations in Brazilian waters

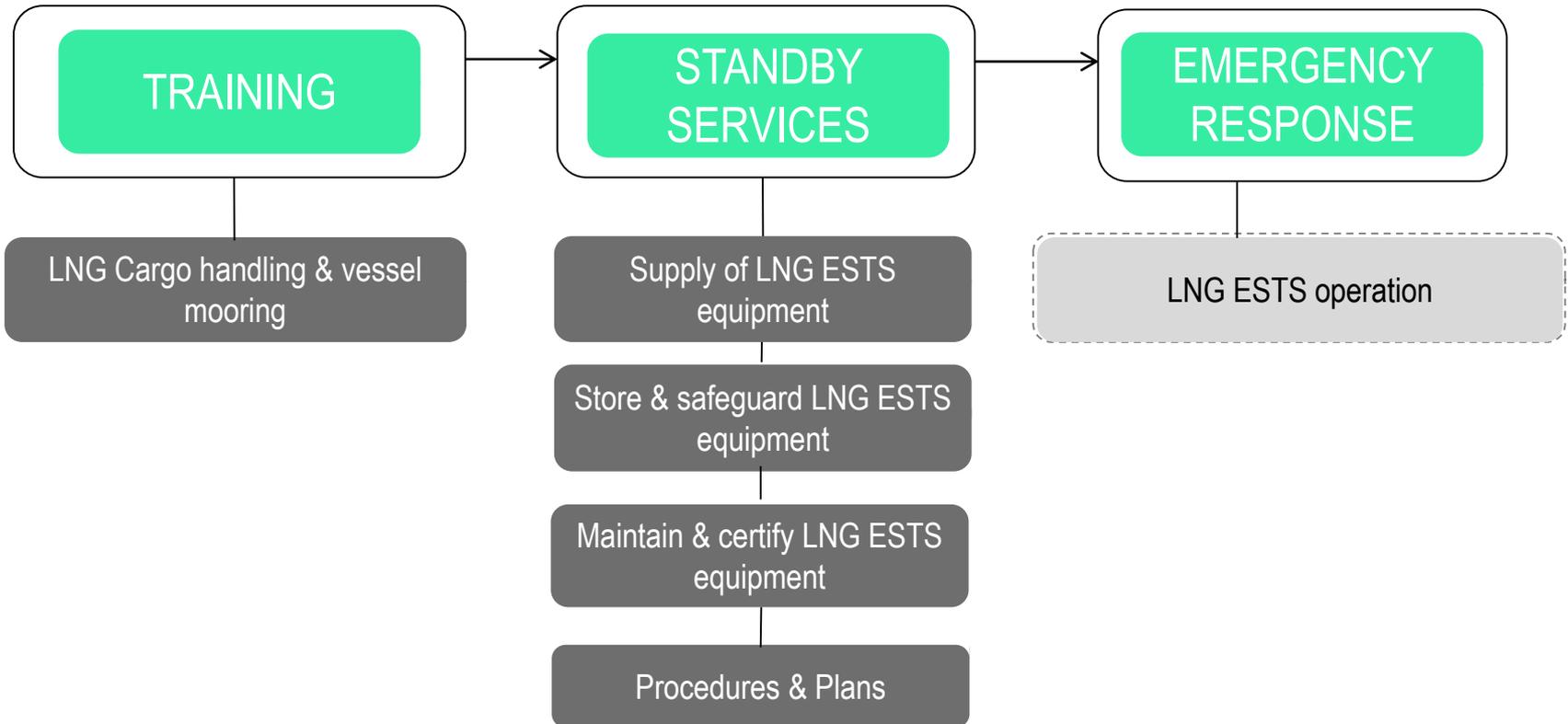


Samarco

- Recently awarded terminal standby services in Ponta Ubu
- Fully equipped warehouse & salvage team in Macae, Brazil
- Units modeled and yearly inspected
- Agreed emergency procedures
- Damage control kits on units and crew trained
- Naval architect and additional salvage team on standby
- Strict response times agreed



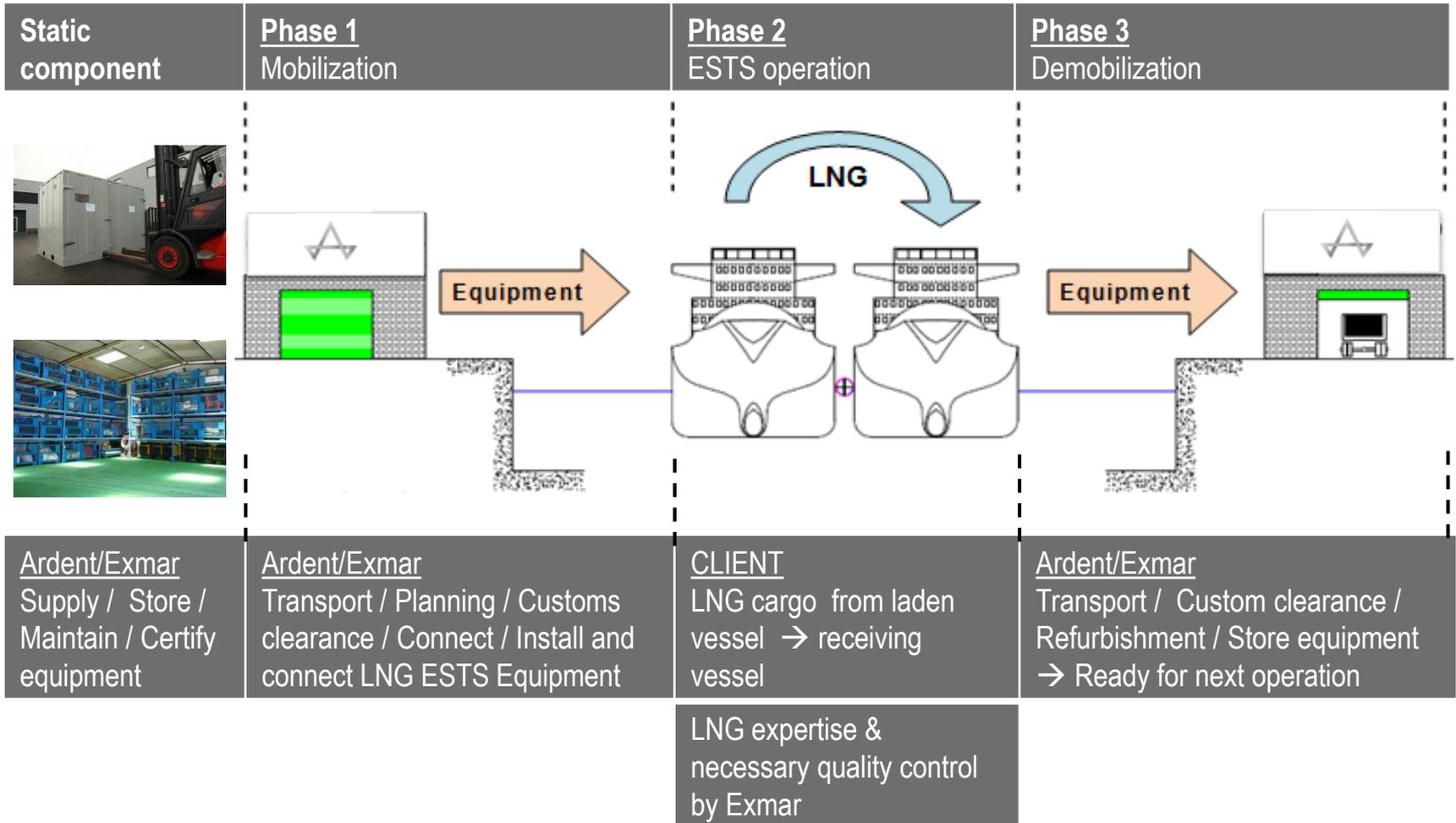
Preparedness – LNG ESTS



- **Guaranteed availability** of LNG experts & mooring masters
- Response terms is conducted under **pre-agreed T&C including commercial rates.**

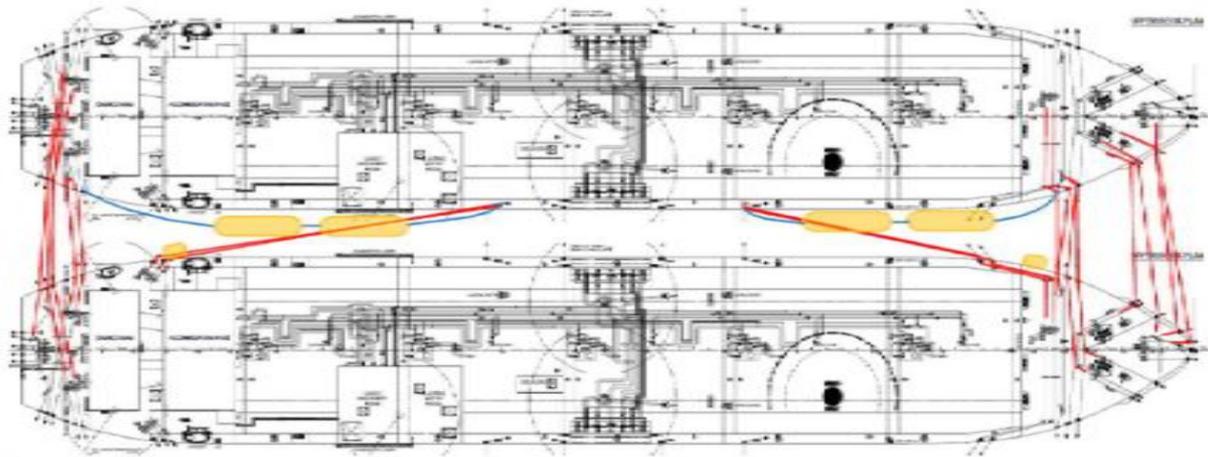


Response Component in Detail





WORLD FIRST LNG ESTS





LESSONS LEARNT



Takeaways



- Effective emergency management requires effective preparation
- Involvement and co-ordination of all stakeholders public and private
- Thorough analysis of requirements, risk based assessment, should drive personnel and equipment resource requirements
- Systems, equipment and personnel require constant, ongoing development to ensure fit for purpose
- Emergency management requires the management of many different types of technical specialists
- Other: Environmental impact; Media management; Disposal of wreckage and cargo
- DRILLS, DRILLS, DRILLS



THANK YOU, OBRIGADO!

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