



MARITIME 5G TRIALS

AN OVERVIEW





MARITIME IS A KEY SECTOR FOR SINGAPORE



CONTRIBUTES **7%** TO OUR
NATION'S GDP



OVER **170,000** EMPLOYEES



MORE THAN **5,000** MARITIME
ESTABLISHMENTS



WORLD'S BUSIEST
CONTAINER TRANSHIPMENT
HUB



IN 2018, VESSEL ARRIVAL
TONNAGE REACHED **2.79**
BILLION GT



36.6 MILLION TEUS OF
CONTAINER
THROUGHPUT IN 2018



APPROXIMATELY **1,000**
SHIPS IN THE PORT OF
SINGAPORE AT ANY ONE
TIME

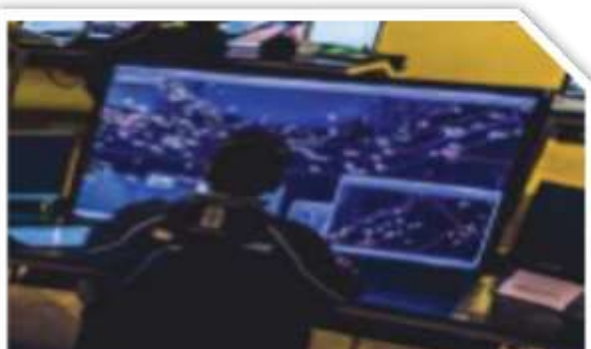


SUPPLIED **49.8 MILLION**
TONNES OF BUNKER IN 2018



SINGAPORE REGISTRY OF
SHIPS (SRS) AMONG WORLD'S
TOP 5 LARGEST SHIP
REGISTRIES

CHALLENGES IN THE MARITIME SECTOR



**Increasing Vessel
Traffic & Size**



Limited Sea Space



**Disruptive Tech
& Business Model**



Manpower Constraint



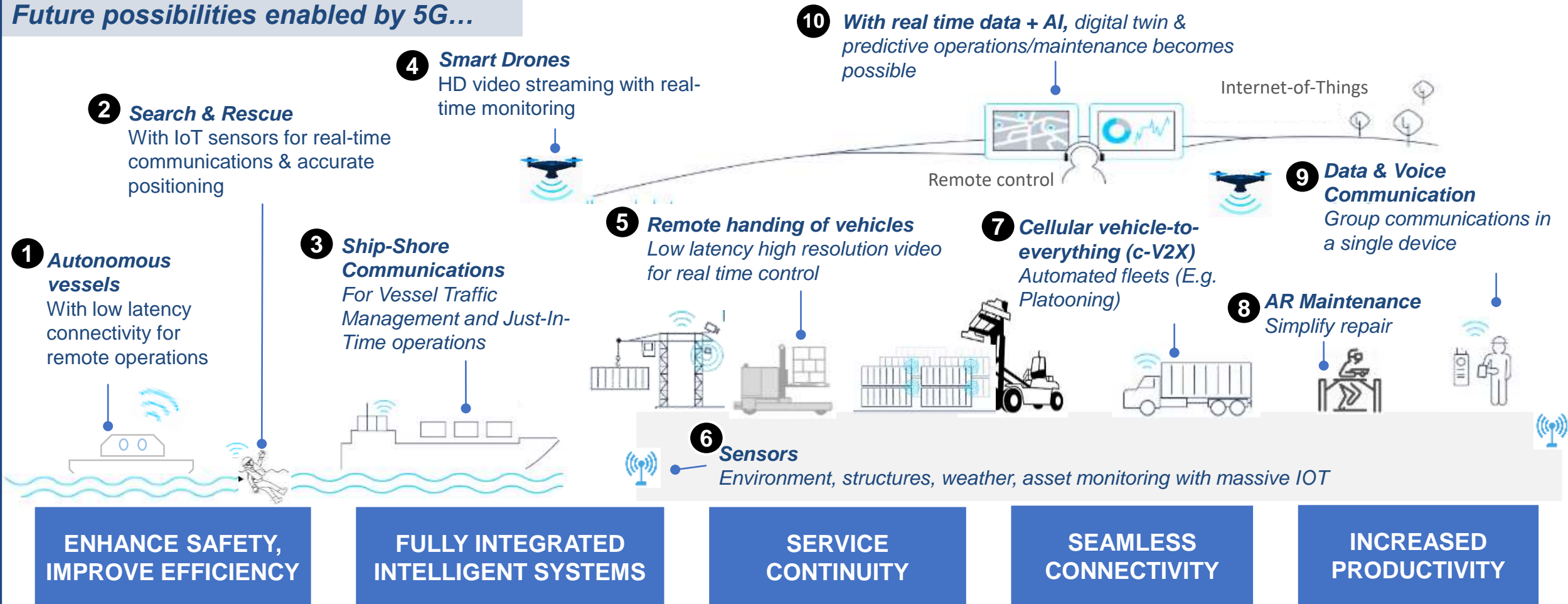
**Expectation of Higher Safety
Standards and Efficiency**



Sustainability

5G CAN ENABLE SOPHISTICATED USE CASES IN MARITIME

Future possibilities enabled by 5G...



MARITIME 5G TRIAL PROPOSALS SHOULD INCLUDE



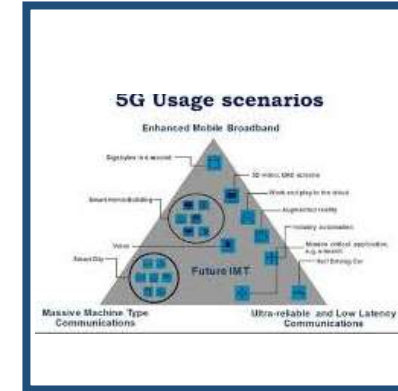
Objectives of Trial



Proposed initial set of use-case(s)



Proposed Trial Location(s)



Use of 5G Technology & Capabilities & features addressing the challenge(s) stated



Deployment of a 5G trial network

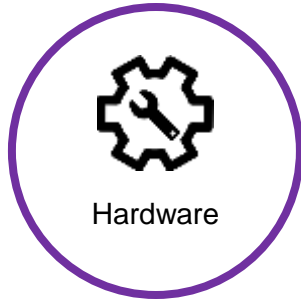
- Proposals should include detailed technical assessments of performance of deployed infrastructure (e.g. coverage quality)
- Proposals should include use of sub 6Ghz and mmWave spectrum where reasonable
- IMDA & MPA will facilitate engagements with industry to on-board more use cases after infra is deployed
 - Proposals should include estimates of additional requirements (e.g. infra capacity headroom, manpower needed to provide infra-related technical integration support) to onboard new use cases

EXAMPLE OF POSSIBLE TRIAL SITES



FUNDING SUPPORT AND ELIGIBILITY

Co-funding of **up to 70%** of qualifying costs:



ELIGIBILITY

Singapore-registered companies with at least 30% local shareholding are eligible to receive the grant for project funding

(Local shareholding refers to shareholding that belongs to individuals who are Singapore Citizens or Permanent Residents)



Interested applicants, please submit the **completed Proposal** template to 5GSG@imda.gov.sg with email subject header:

5GSG Trial Maritime - *<Company Name>*

For enquiries, please email to 5GSG@imda.gov.sg with email subject header:

5GSG Trial Maritime Enquiry - *<Company Name>*