



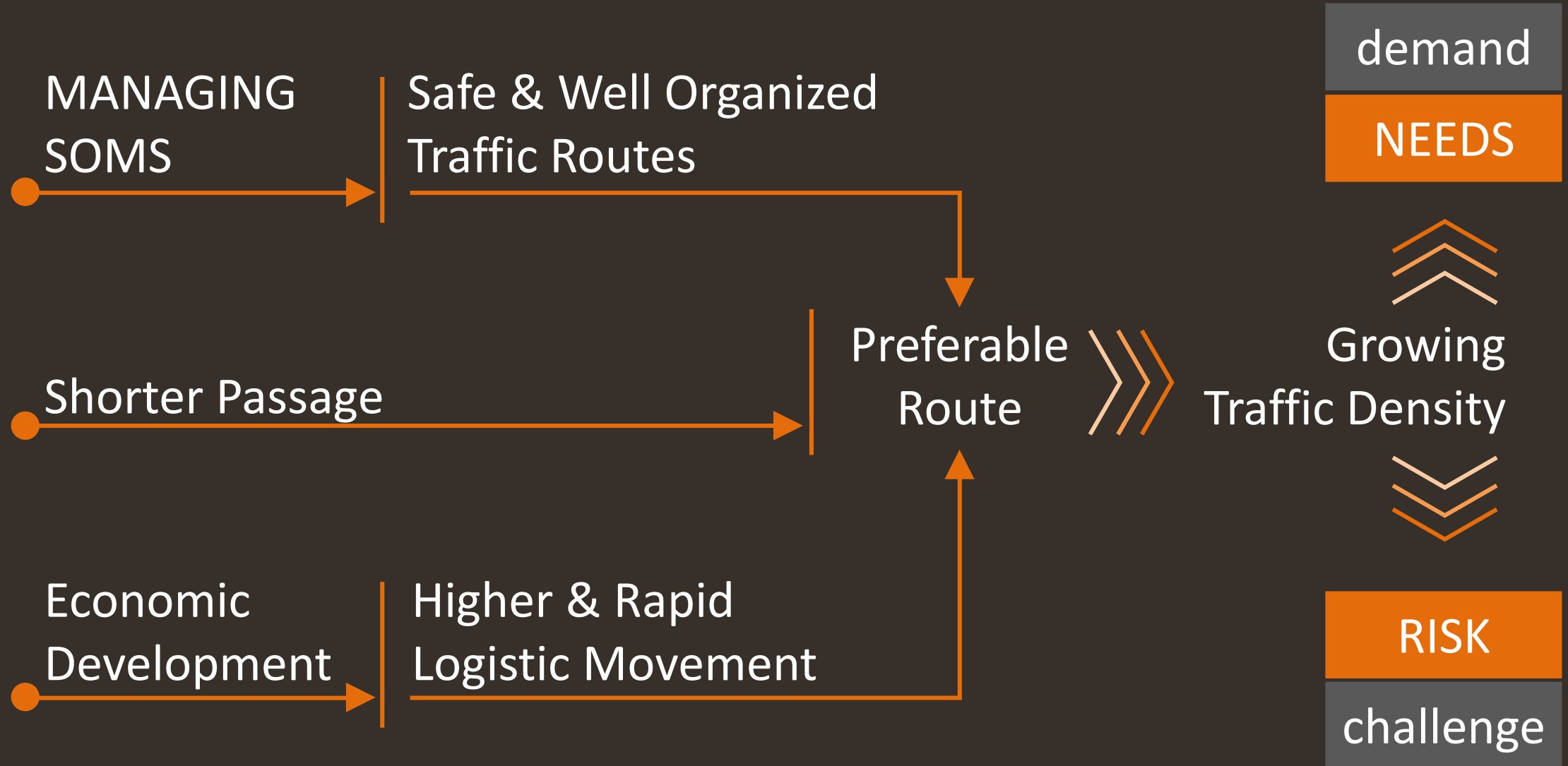
MINISTRY OF TRANSPORTATION
DIRECTORATE GENERAL OF SEA TRANSPORTATION
REPUBLIC OF INDONESIA

FUTURE OF INFORMATION SHARING

*Way Forward
for Safety Of Navigation & Sustainable Shipping
in Environmentally Protected SOMS*

COOPERATION FORUM

SEMARANG, 30 SEPTEMBER – 1 OCTOBER 2019



- Collision
- Pollution
- Piracy & Armed Robbery
- Threat to Local Fishing
- Threat to Offshore & Underwater Installation

RISK

- Better Maritime Safety
- Better Maritime Security
- Improved Marine Environment Protection
- Capacity Building

NEEDS

- Congested Traffic
- Longer Voyage Time
- Threat Domestic Shipping

CHALLENGE

- Extended Maritime Services
- Application of Latest Marine Technology
- Seamless & Expeditious Navigation

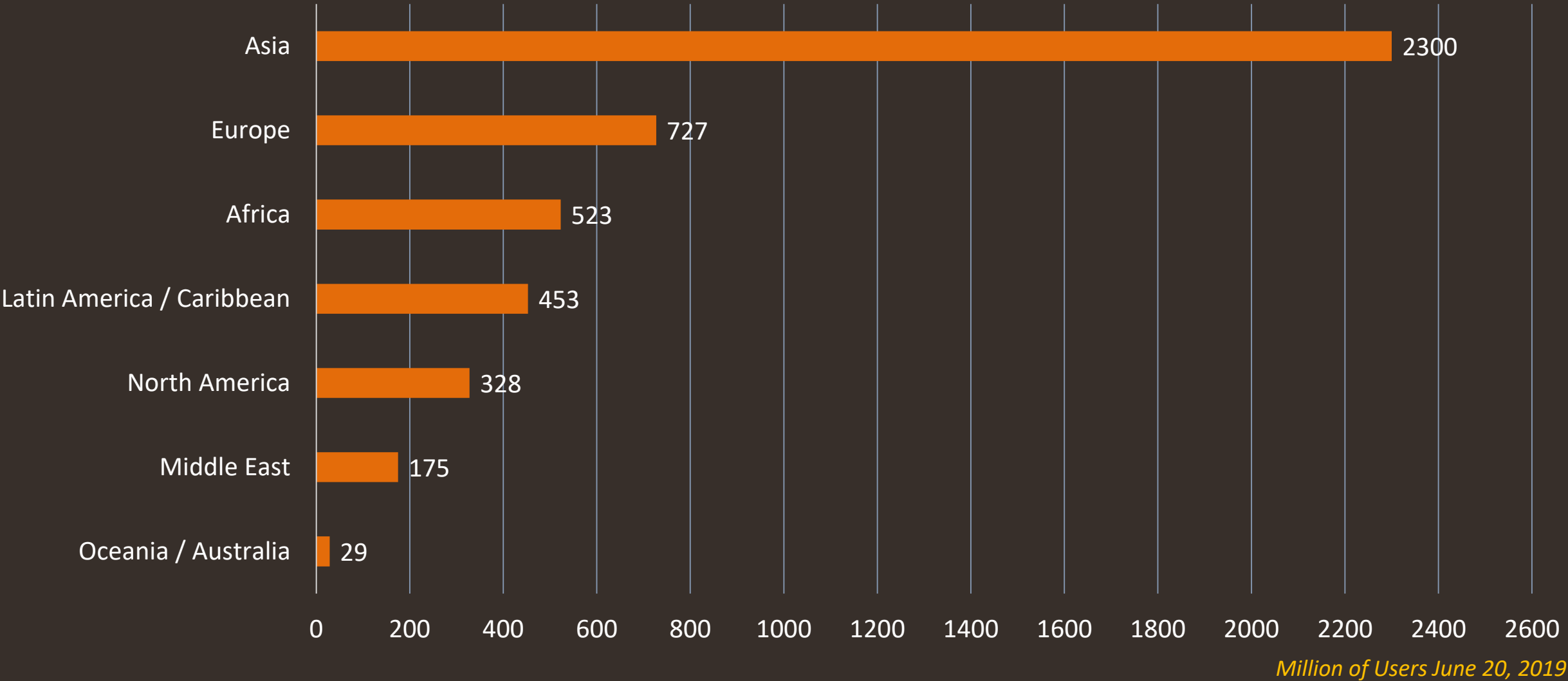
DEMAND







Internet Users in the World

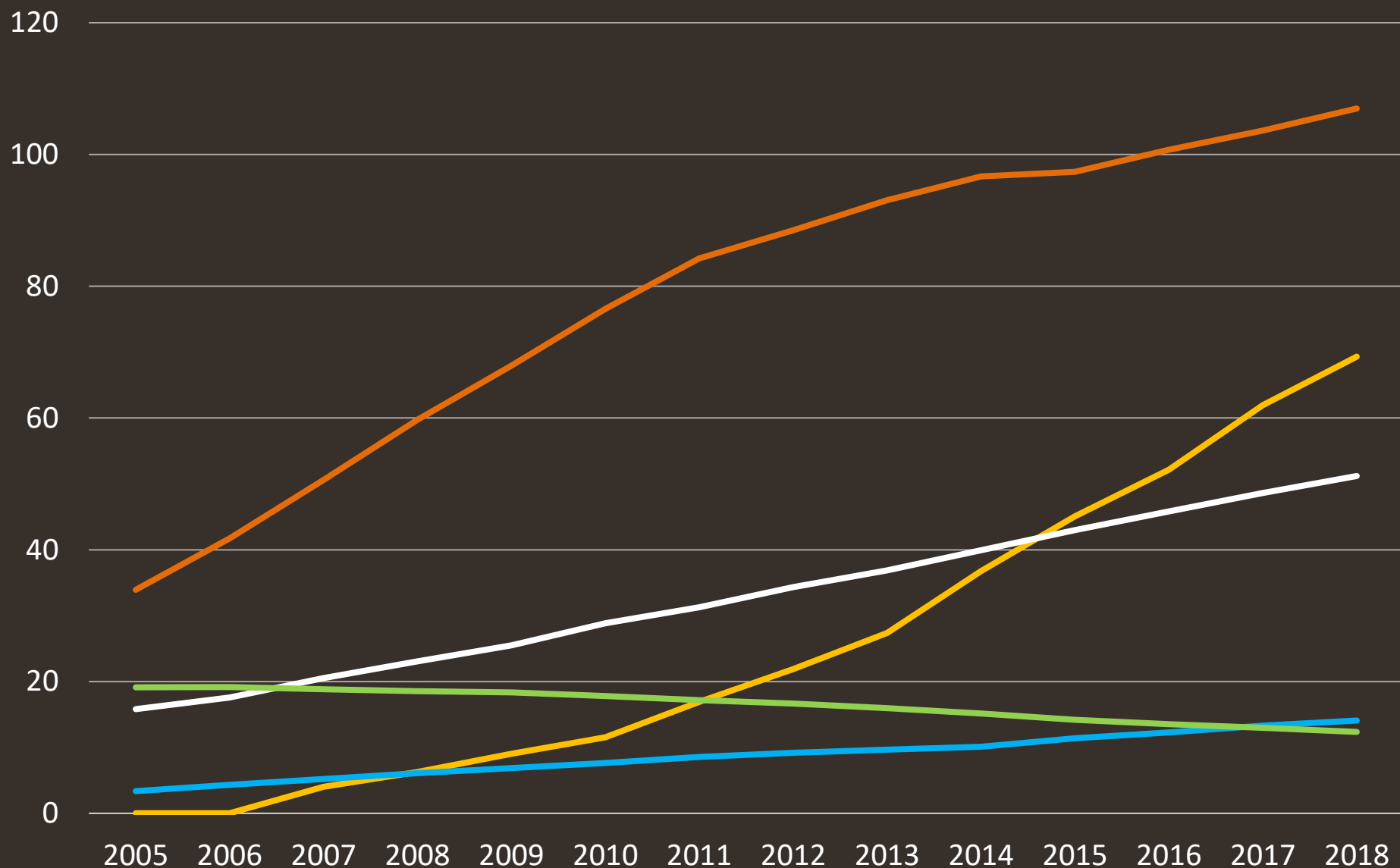


June 20, 2019 : 4.536.248.808 Internet Users

Source: Internet World Stats www.internetworldstats.com



Global ICT Development 2001-2018



ITU estimates that at the end of 2018, 51.2% (3.9 billion people) of the global population were using the Internet

- Mobile-cellular telephone subscriptions
- Active mobile-broadband subscriptions
- Individuals using the Internet
- Fixed broadband subscriptions
- Fixed-telephone subscriptions



Source:
ITU ICT Indicator Database
www.itu.int/en/ITU-D/Statistics

Annual Digital Growth



Source: Global Digital Overview www.datareportal.com

undeniable

NEW LIFESTYLE

Higher Dependency
on Vast, Rapid & Autonomous Information



SHIPPING ?

SAFETY | SECURITY | ENVIRONMENT | SERVICES

MILESTONES – SOMS & DATA TELECOMMUNICATION

13 CM PROJECTS

	2019 >>>	WHAT NOW ?
	2011	Marine Electronic Highway MEH
	2010 2017	Batam VTS Dumai VTS Belawan VTS
Cooperative Mechanism CF – ANF - PCC	2007	<ul style="list-style-type: none"> • Mandatory Ships' Reporting System • Singapore VTS & Klang VTS
Jakarta Meeting - Singapore Meeting – KL Meeting	2005 - 2007	
Batam Agreement	2005	
Extension of TSS-SOMS	1998	
Extension of TSS-SOMS	1981	Coastal Radio Station NAVAREA 11 NAVTEX
Establishment of TSS-SOMS	1977	
1 st Meeting of TTEG	1977	
Ministry Meeting – Joint Statement	1977	
Study Hydro Survey Wreck Removal 51 AtoN Chart	1969 - 1975	
Ministry Meeting – Joint Statement	1971	
Unreliable Water & Chart	1968	

6

- Proposed Minimum Luminous Range for existing Lighthouses in the Age of GNSS by using the correlation between Light Intensity & Luminous Range
- Enhancing Safety through e-Navigation
- Future of Autonomous Shipping, Malacca Straits Perspective
- Customizable Alerting Platform (CAP)
- Introduction of The Workshops on Smart Maritime Management and Service in SOMS
- New Challenges & Opportunities for Coastal States in Strait Regime

EXISTING & FUTURE SYSTEM

DSC

DIGITAL SELECTIVE CALL

VDES

VHF DATA EXCHANGE SYSTEM

INMARSAT

GLOBAL EXPRESS

NAVTEX

NAVIGATIONAL TELEX

NAVDAT

NAVIGATIONAL DATA

INMARSAT-C

AIS

AUTOMATIC
IDENTIFICATION SYSTEM

DIGITAL DIGITAL
VHF HF

IRIDIUM

LRIT

LONG RANGE
IDENTIFICATION & TRACKING
OF SHIPS

5G

MRCP

MARITIME RADIO
COMMUNICATION PLAN

WIFI 4G

ISSUES

SAFETY ISSUES

Aids to Navigation

Ship & Crew Certification ➡ SOLAS | NCVS | STCW

Coastal Radio Station,
GMDSS & NAVTEX

SECURITY ISSUES

Strengthening
Sea & Coast Guard Patrol

SOLAS | NCVS | STCW

Maritime
Law Enforcement

MARINE SERVICES

Bunkering, Ship Chandler

Towing, Ship Repair

Reception Facilities

Crew & Supplies Services

TMAS, Voluntary Pilotage

ADVANCE TECH

Implementation of
Maritime Service Portfolio

Development of
E-Navigation

GSW / NSW ?

Expansion of VTS Infrastructure & System

STRENGTHENING THE OPERATION & ROLE OF VTS

VTS-MSP | ELECTRONIC STRAITREP - IMO Res. MSC433(98)

IMPROVEMENT OF ROUTING SYSTEM OF SHIP

Hydrographic Survey | Zone Designation | Mapping

LONG RANGE IDENTIFICATION & TRACKING OF SHIPS

Strengthening the Role & System of LRIT | Ship's Compliance

Wide Adoption of
Millennial Technology
in Maritime

Participation of
National Telecommunication Provider
in Maritime

Participation of
National Satellite Service Provider
in Maritime

RECRUITMENT & CAPACITY BUILDING ➡ VTS Operator | ICT | Hydrographic Survey & Cartography | Deep Sea Pilot

HARMONIZED

Data Structure | System | Solution



COMPATIBLE

COASTAL STATES | SHIPS | CUSTOMERS

Q

WHAT WE REALLY NEED ?

A

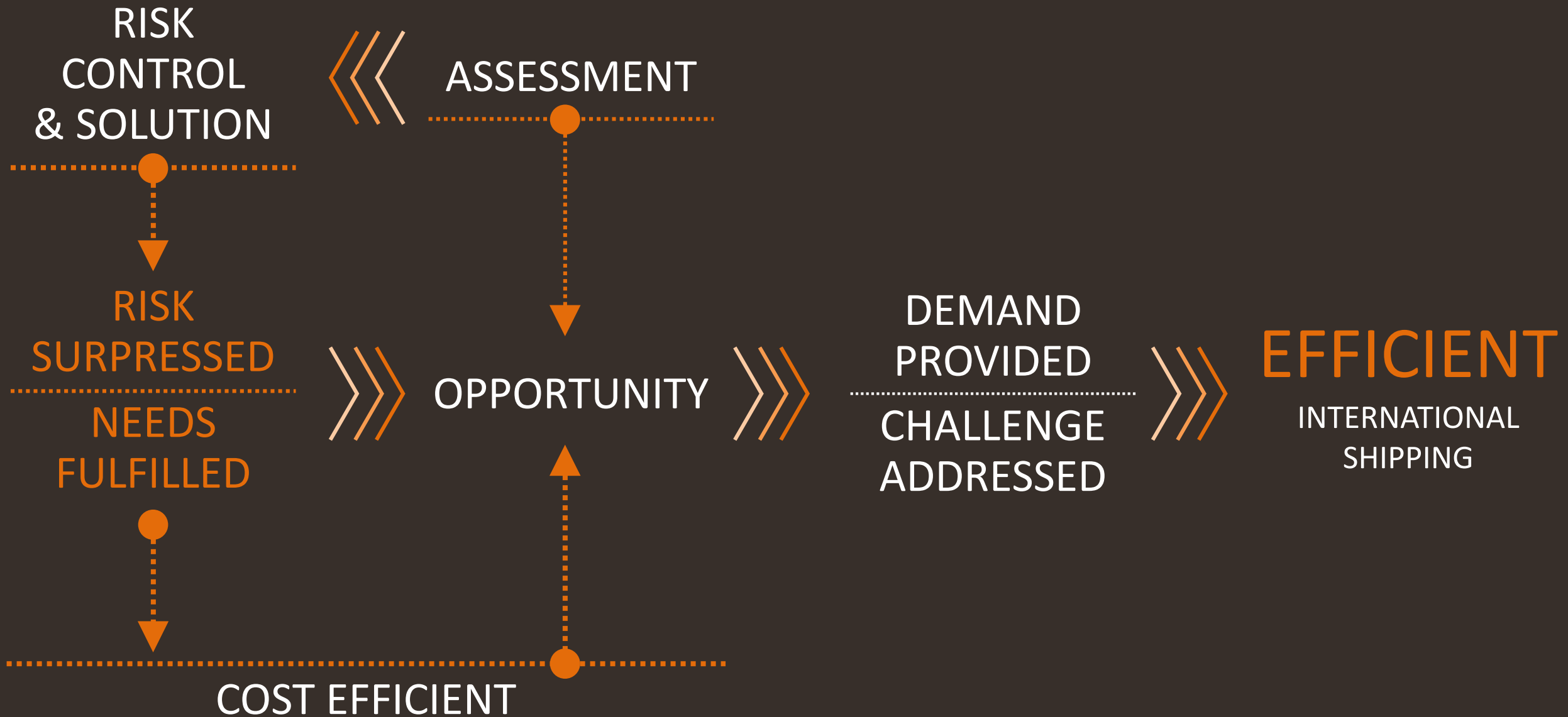
Consolidated & Collaborative Solution

W

To cope with the future needs & demand

*To sustain
the safe &
efficient
passage
for international
navigation
in SOMS*

THE CYCLE





HARMONIZED MSP | ENAV + NSW | IMPROVED VTS | MEH FUTURE ROLE | MILLENIAL TECH
E-STRAITREP | NETWORKS | DATA INTERFACE

FULL STOP



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