



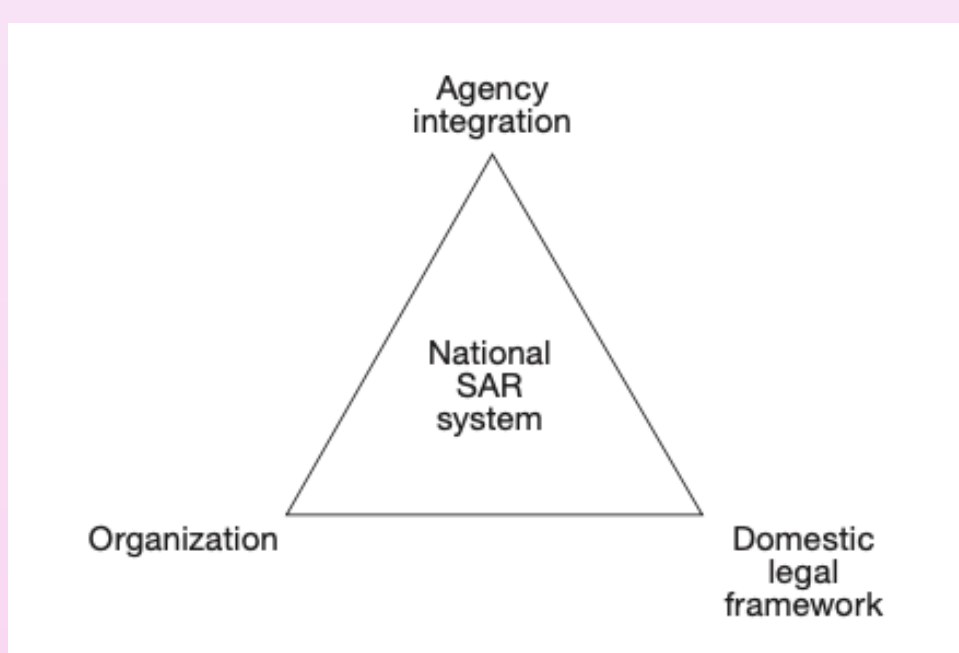
Corso di Dottorato di Ricerca in Scienze della Vita e dell'Ambiente - Ciclo XXXVII

Coordinating Search and Rescue activities (SAR) at sea

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Introduction



The "1979 UN International Convention on Maritime Search and Rescue" defines "Search" all those operations aimed at locating people that are in distress or immediate danger, and "Rescue" those operations aimed at recovering people in peril and providing them with medical first aid or any other care and support they may need.

Worldwide SAR protocols have been developed over the years as a result of drills and training that have led to the creation in North Europe of Maritime Incident Response Groups (MIRG). In case of naval accidents, these MIRG purpose to help the crew on board of the ship in distress, supporting the operations to contain the accident. The goal is to avoid abandonment of the ship, allowing them to return to port where possible.

Methodology and preliminary results

Accident Event Type	Nr.	%
Human action	447	78.0%
Collision	212	37.0%
Grounding	172	30.0%
Contact	63	11.0%
Other agent or vessel	78	13.6%
Grounding	36	6.3%
Collision	28	4.9%
Contact	14	2.4%
System/ equipment failure	44	7.7%
Grounding	21	3.7%
Collision	12	2.1%
Contact	11	1.9%
Unknown	4	0.7%
Collision	2	0.3%
Grounding	1	0.2%
Contact	1	0.2%
Total	573	100.0%

Table 1 - Accident event directly associated to navigation accidents

Starting from a comparative and multi-scale analysis of the scientific maritime emergency literature, covering socio-cultural, anthropological and technical perspectives, this research focuses on:

- Deepening our understanding of the SAR at sea procedures in Italy;
- Comparing such state of the art with that of other advanced countries;
- Understanding role and authority of the Commander of a ship in distress;
- Understanding the modus operandi of MIRG rescue teams;
- Developing a specific disaster management model for maritime maxi-emergencies.

Circular number	Adoption by MSC	Entry into force
MSC/Circ.999	MSC 74: June 2001	1 July 2002
MSC/Circ.1044	MSC 75: May 2002	1 July 2003
MSC/Circ.1080	MSC 77: June 2003	1 July 2004
MSC/Circ.1124	MSC 78: May 2004	1 July 2005
MSC/Circ.1173	MSC 80: May 2005	1 June 2006
MSC.1/Circ.1181	MSC 81: May 2006	1 June 2007
MSC.1/Circ.1249	MSC 83: October 2007	1 June 2008
MSC.1/Circ.1289	MSC 85: December 2008	1 June 2009
MSC.1/Circ.1311	MSC 86: June 2009	1 June 2010
MSC.1/Circ.1367	MSC 87: May 2010	1 June 2011
MSC.1/Circ.1415	MSC 90: May 2012	1 July 2013
MSC.1/Circ.1513	MSC 95: June 2015	1 July 2016
MSC.1/Circ.1594	MSC 99: May 2018	1 July 2019

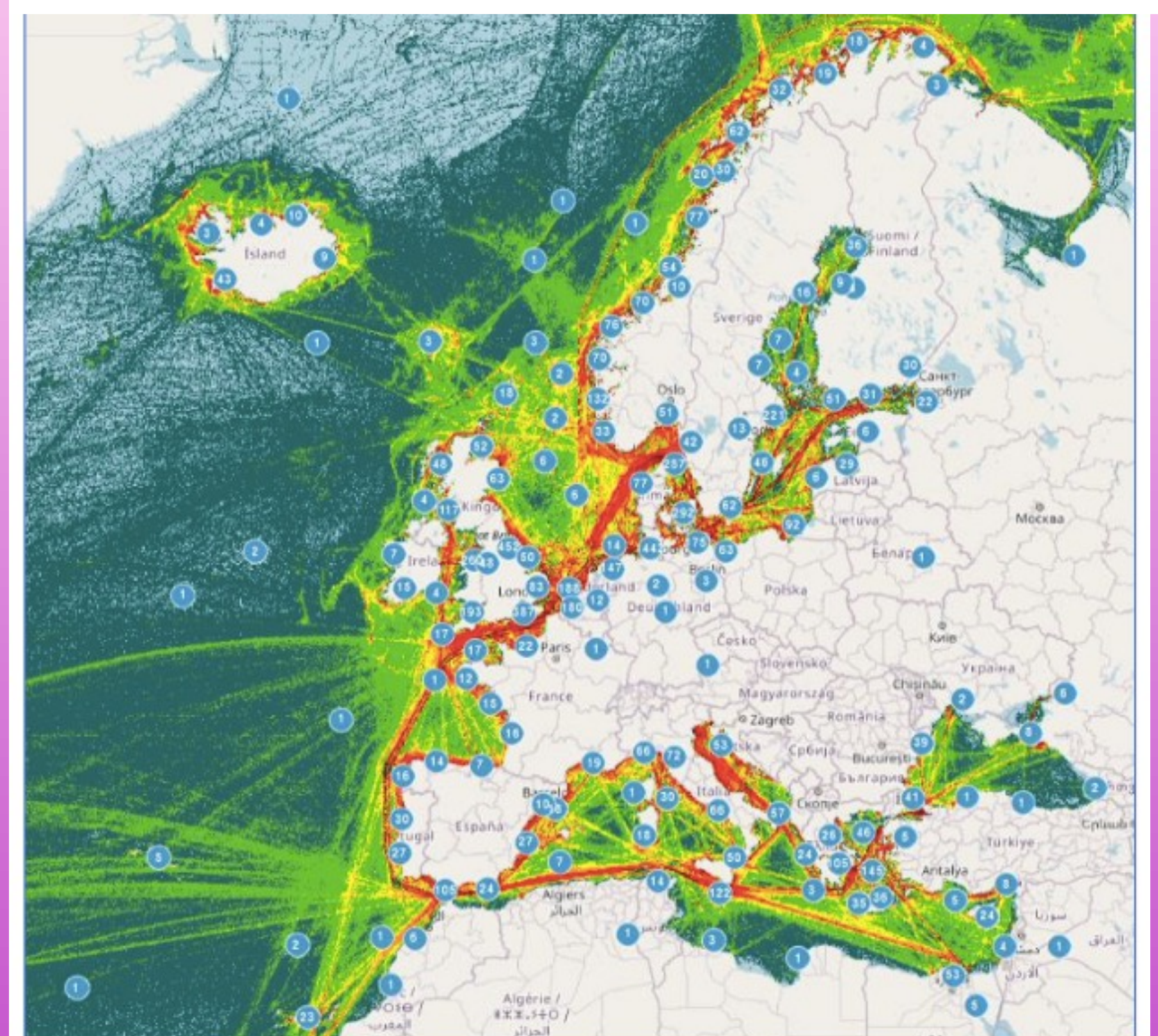
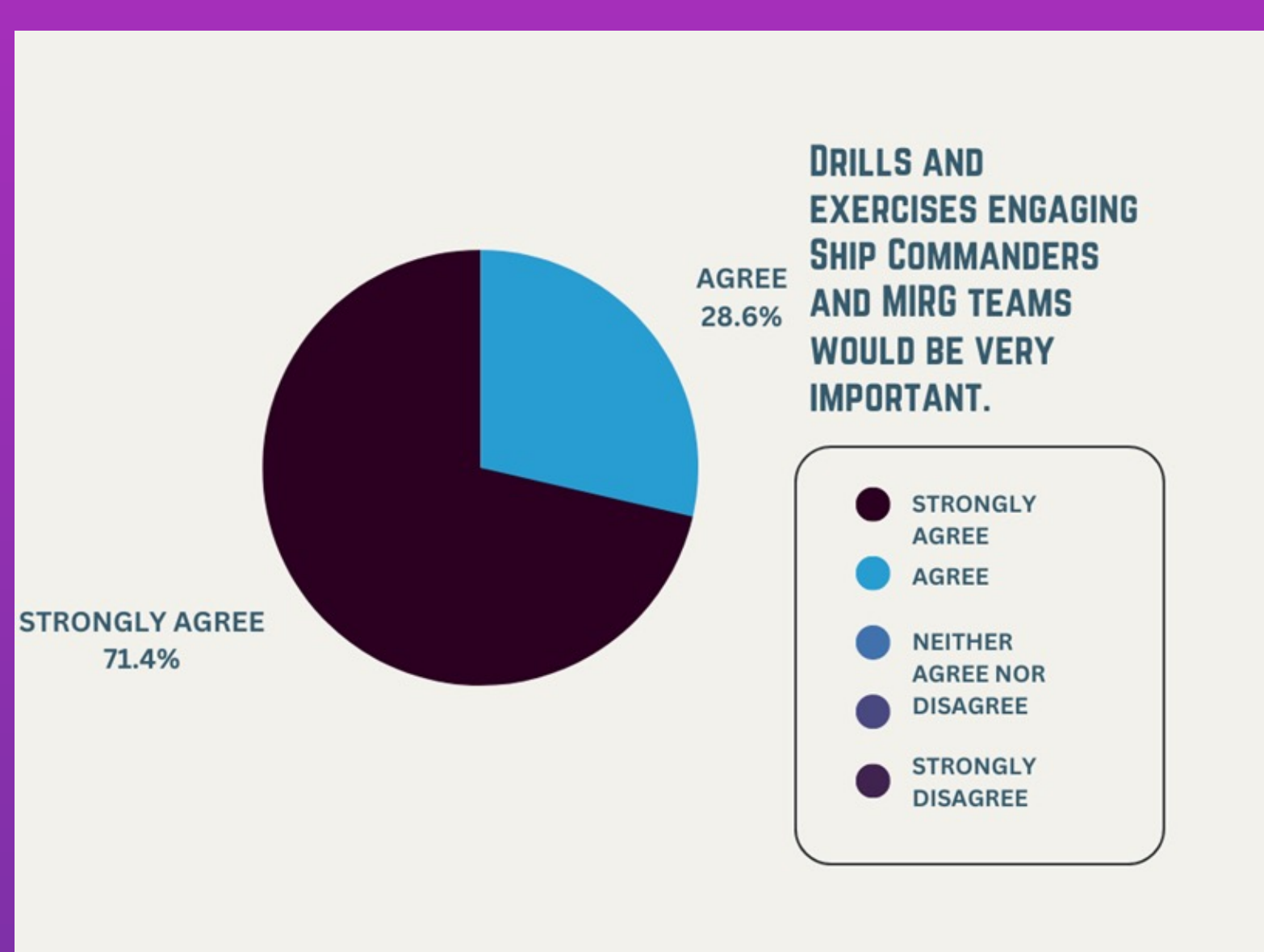


Figure 9 - TDM and distribution of navigation accidents (focus on waters surrounding EU-EEA MS)

Recipients of debrief (Category of debrief)	Situation report	SAR debrief	SAR mission report	Formal debrief	SAR operation report
SAR facilities (Operations)	•	•	•	•	
SMCs (Operations/Liaison/Administration)	•	•	•	•	•
SAR managers (Operations/Liaison/Administration)	•	•	•	•	•
SAR coordinators (Administration)				•	•
International audiences (Operations/Administration)				•	•

Next steps



- In June 2023 is planned a visit to the MIRG base in Rotterdam (Netherlands) and the participation at the World Maritime Rescue Congress (<https://wmrc2023.com/>)
- Summer 2023 visit at Galileo European SAR System in Brussels (<https://www.euspa.europa.eu/>)
- At the begin of 2024 is scheduled a visit to the MIRG base in Stockholm (Sweden) and to the RI.SE. (<https://www.ri.se/en>) research institutes of Sweden.
- I am working also on the planning of a training exercise at the Port of Piombino where a Floating Storage Regasification Unit (FSRU) is moored. This unit perform a very critical role during this time of international unrest, transforming the liquefied natural gas (LNG) gas into ready to use methane. During the drill I will observe and assess the emergency procedures including the aspects related to communication, organization as well as the interaction among the different teams (thus evaluating the the professional culture divides). Hopefully, this exercise will prompt for a serious exchange at the institutional level to develop a MIRG approach in Italy.
- Additionally, I would hope to also to participate to an official MIRG exercise engaging the Italian Fire Service and the Italian coast guard, with navy support, as done in Northern Europe.

References:

Alexander, D. (2000), *Confronting Catastrophe*, Oxford, Oxford University Press.
 Ligi, G. (2009), *Antropologia dei disastri*, Bari, Laterza
<https://www.imo.org/en/OurWork/Safety/Pages/IAMSARManual.aspx>
<https://www.emsa.europa.eu/it>
<https://www.guardiacostiera.gov.it/attivita/ricerca>