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Deliverable Lead authors	Tomislav Budic, Marko Prpic (MMPI)
Deliverable Contributors	
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1. Executive Summary

The Croatian Ministry of the Sea, Transport and Infrastructure (MMPI) collected and pre-processed data from Croatian Integrated Maritime Information System (CIMIS), sharing them with the GUTTA partnership for the purpose of achieving the project objectives.

2. Introduction

According to the AF The GUTTA project’s SO 3 is about preliminary assessment of a new ferry CB routes between Italy and Croatia. However, in the aftermath of the COVID-19 pandemic, it will be challenging to stick to this plan and a project Major Amendment is currently in preparation. It will be proposed that SO3 deals with people and freight mobility and its interplay with the COVID-19 spread in Croatia. In fact, mobility data could reveal insights into the pandemic diffusion in its early stages, as recently demonstrated on some high-impact publications¹. For this purpose, the present deliverable is renamed and adjusted for supporting this new aim.

During RP4, MMPI started extracting mobility data from the Croatian Integrated Maritime Information System (CIMIS). This included, inter alia, the number of transported passengers and freight, in both weight and number of units. This report documents such an activity.

Note: for shortcuts, please refer to GUTTA Glosary available at <https://zenodo.org/record/3676344>

¹ <https://www.nature.com/articles/s41598-020-72611-5>

3. CIMIS

Croatian integrated maritime information system (CIMIS) was created for shipping companies, their agents, Port Authorities, harbour-master offices and their branch offices. Its primary function is to simplify administrative practices when ship enters or leaves the port. According to the European Directive 2010/65/EU, shipping companies and their agents are supposed to send electronically all documents and other forms that are necessary when the ship arrives or leaves the port, while harbour-master offices and branch offices check the documentation or approve it, and can release necessary permissions via web-application

This report contains datasets relative to four ro-pax vessels (Table 1) that sailed in the Adriatic sea between Croatia and Italy in a period of 10 months in year 2020.

More details about data provided by MMPI to the GUTTA LP are described in the section 3.1

Table 1 Basic information about vessels included in provided datasets

	Vessel name	Operator	IMO number	MMSI
1	Aurelia	SNAV	7602120	209510000
2	Dubrovnik	Jadrolinija	7615048	238143000
3	AF Francesca	Adria Ferries SpA	7602089	247312600
4	Marko Polo	Jadrolinija	7230599	238144000

3.1 Information about the database

The database is organized in two datasets provided by MMPI, referring to the same voyages and dates. However, one dataset includes freight information (weight and number of units) while the other one includes passenger information. The period considered period from 01.01.2020 to 30.09.2020. The datasets are organized into seaports. Thus, the voyage phases (arrival, departure) do not refer to the vessel voyages but to the calls at the actual port. The ports with full-featured CIMIS information (departures/arrivals; unloads/transit/loads) are three (the ones listed with international seaport code in Table 2), while the datasets also include other two Croatian and two Italian ports linked to them.

Table 2 Seaports included in the CIMIS datasets; the ones with seaport code are featured in the database

Port code	Port location	Port type	Lat	Long
HR202	Gaženica	Cargo and passenger port	44.095390	15.268980

HR479	Split	City port	43.508133	16.440193
HR489	Gruž Dubrovnik	Cruise and ferry port	42.650661	18.094423
	Kostrena	Shipyard Viktor Lenac		
	Stari Grad	Cargo port		
	Ancona			
	Bari			

Each dataset includes the fields reported in Table 3:

Table 3 CIMIS dataset fields.

Field name	Field explanation	Field units or enumeration values
Port name	Port of call	
Previous port	Port of previous call	
Port next	Port of next call	
ATA	Actual Time of Arrival at port of call	
ADA	Actual Time of Departure from port of call	
Type cargo	Type of vehicles transported	Passanger buses Pasenger vehicles motorcycles and accompanying trailers/caravans Road freight vehicles with accompanying trailers
Load/Unload	Flag relative to the type of operation	Load/unload/transit
Unload_TNE	Weight of unloaded cargo	tons
Unload_No unit	Number of items of cargo unloaded	
Transit_TNE	Weight of cargo in transit	tons
Transit_No unit	Number of items of cargo in transit	
Load_TNE	Weight of loaded cargo	tons
Load_No unit	Number of items of cargo loaded	

4. Conclusions

MMPI has started providing CIMIS data to the GUTTA partnership. This activity will contribute to the new version of project SO3, about people mobility and COVID-19, to be approved through the project Major Amendment.