

D 4.2.2 – E-CHAIN platform (first release)

Activity 4.2 – Software development

June, 2021 - Version draft

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VERSION CONTROL

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ACRONYMS / ABBREVIATIONS

ACRONYM	DEFINITION
SoA	State of the Art
PP	Project partners
PT	Project Team
TC	Technical task coordinator
WP	Work package
IT	Information Technologies

REFERENCE DOCUMENTATION

No	TITLE	REPORT No.	PUBLISHER
1	Application Form – E-CHAIN - Enhanced Connectivity and Harmonization of data for the Adriatic Intermodal Network 2014 - 2020 Interreg V-A Italy - Croatia CBC Programme Call for proposal 2017 Standard - E-CHAIN Priority Axis: Maritime transport	Application ID: 10048282	Lead Applicant: Municipality of Ancona

1. INTRODUCTION

1.1 PURPOSE OF THE DOCUMENT

This document is relevant to the activity 4.2 Software Development of E-CHAIN project - Enhanced Connectivity and Harmonization of data for the Adriatic Intermodal Network.

The purpose of this document is to provide the status of the SW application development.

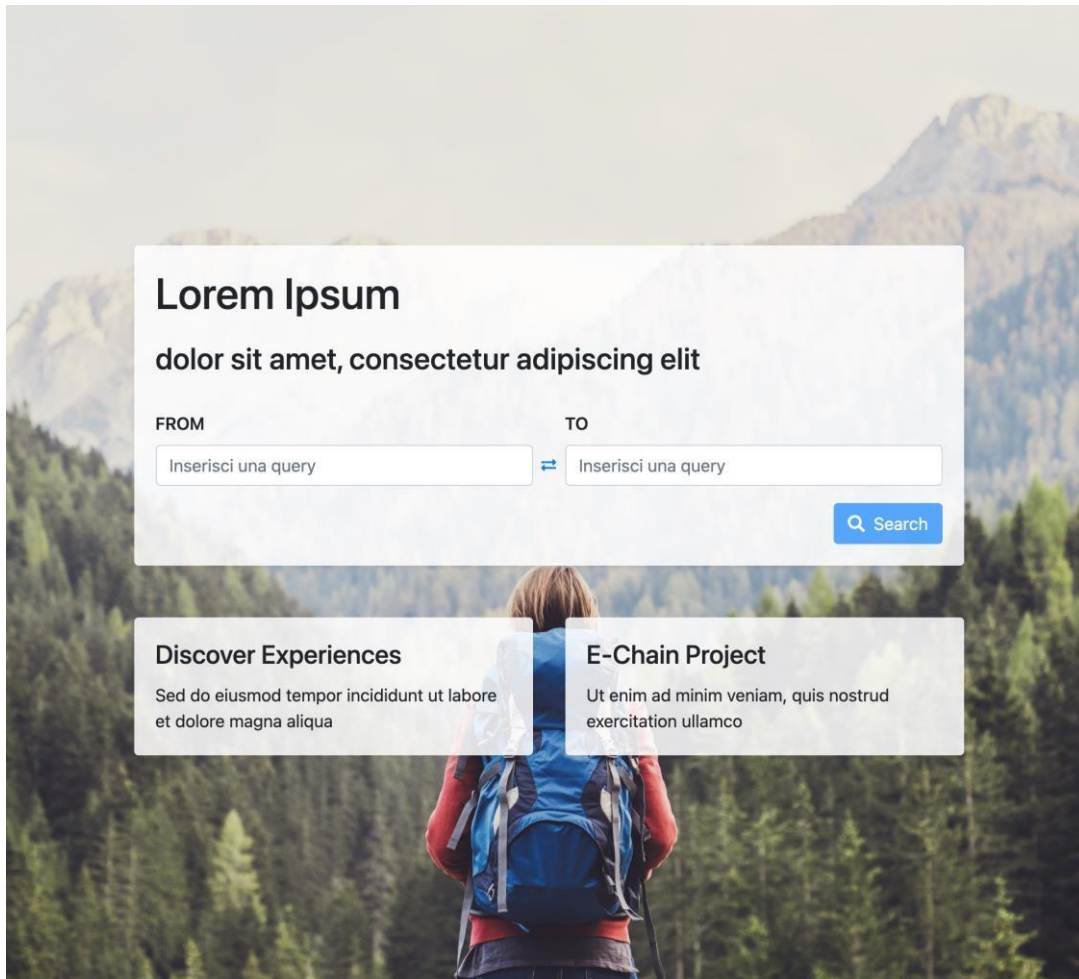
The application can be divided in 3 different components:

1. Intermodal transit search based on GTFS
2. Plan based message system
3. KPI visualization system

2. E-CHAIN SOFTWARE OVERVIEW

E-CHAIN (Enhanced Connectivity and Harmonization of data for the Adriatic Intermodal Network) main objective is to enhance connectivity and harmonization of data for the Adriatic Intermodal Network, through the realization of a modular integrated software (E-CHAIN platform) for the management of intermodal transport services in port areas for passenger transport. To enhance the current situation, E-CHAIN will focus on providing new services such as an improved Port multimodal info mobility system for the passengers, a ticketing system integrated with other transport modes, an advanced touristic co-marketing tool for the operators. These services will be designed and deployed in the selected pilot sites (Ancona, Split and Venice).

2.1 INTERMODAL TRANSIT SEARCH BASED ON GTFS



Intermodal Transit Search is the application module that interfaces with tourists and allows them to search for travel solutions with a low environmental impact. The user can enter a departure address and a destination address and the system proposes a "standard trip" and a series of alternative solutions with low impact. The system also offers a series of thematic cards with tourist local transport information regarding the surrounding area for installations on totems.

The information regarding the trips is taken and optimized from the GTFS files provided by the partners (agencies) who deal with national and local transport by making a specific endpoint available on the web to systematically retrieve the GTFS data.

Da Roma RM, Italia a Atene, Grecia

Driving ANCONA → SPLIT
260.7 kg CO2 165.8 kg CO2

Expected departure time
Choose a travel option

 306.3 km /i\ 3:23 ⌚

From Piazza della Repubblica, 12, 00185 Roma RM, Italia

To Ancona Le port, Acona Le Port_,
Banchina Nazario Sauro, 1, 60121 Ancona AN, Italia

 ANCONA → SPLIT

4/7/2021 Lunedì
19:45 → 07:00

6/7/2021 Mercoledì
19:45 → 07:00

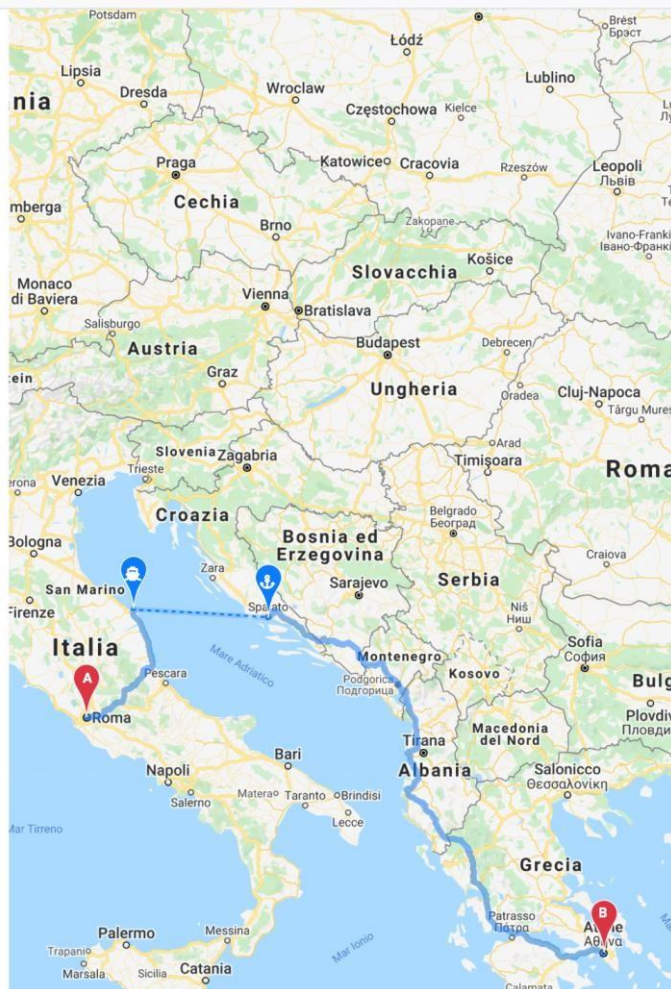
8/7/2021 Venerdì
19:45 → 07:00

 1201.3 km /i\ 15:36 ⌚

From Gat Svetog Duje 1, 21000, Split, Croazia

To Pl. Omonias 25, Athina 105 52, Grecia

Estimated time of arrival
Choose a travel option

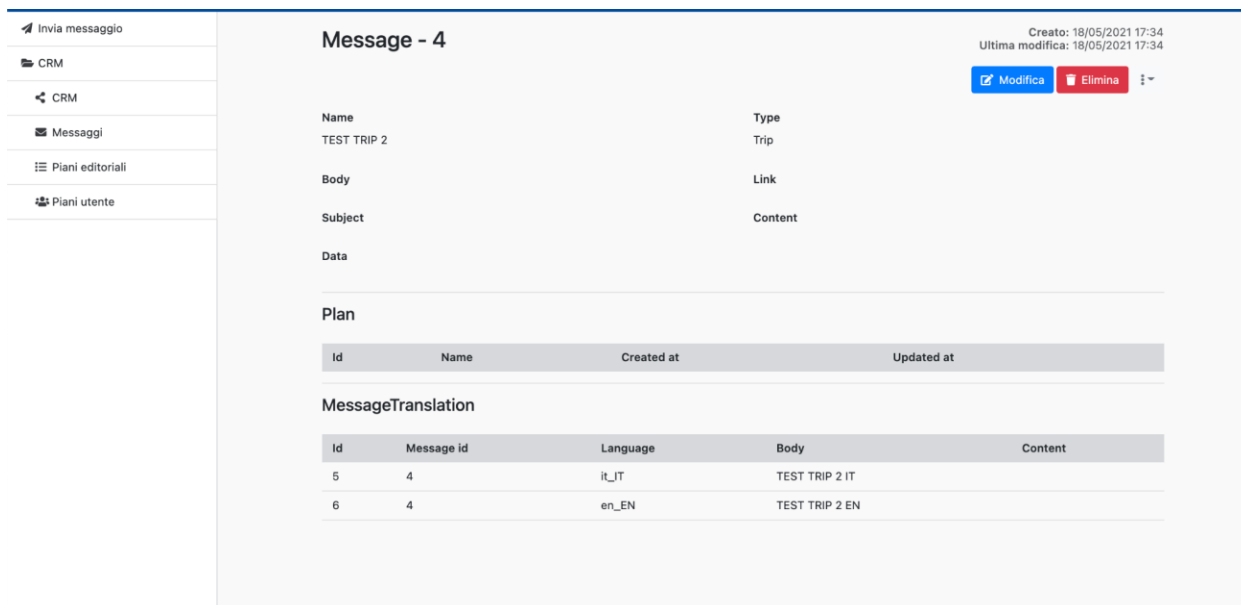


The search system works briefly as follows:

- the system asks Google for the fastest route from the starting address to the destination.
- the system searches for the availability of transport of the agencies compatible with the requested journey and verifies if there is a reduction in the environmental impact
- the interface provides the user with one or more alternative solutions. In the current version the supplied GTFS are uploaded by hand.

For solutions that use low-impact means of transport taken from the GTFS, the system proposes the timetables of the various means and proposes a date and time of departure and arrival, also considering the transfer by car from the address to the stop and from the last stop to the destination address. Once a time has been selected, it is possible for the user to book by going to the relevant ticket office website for that route.

2.2 PLAN BASED MESSAGE SYSTEM



The screenshot shows the 'Message - 4' administrative interface. It includes a sidebar with navigation options: 'Invia messaggio', 'CRM', 'Messaggi', 'Piani editoriali', and 'Piani utente'. The main content area displays the following details:

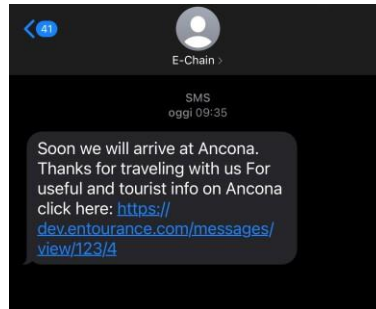
- Message - 4** (Title)
- Creation and modification dates: **Creato: 18/05/2021 17:34**, **Ultima modifica: 18/05/2021 17:34**
- Buttons: **Modifica** (blue), **Elimina** (red)
- Name:** TEST TRIP 2
- Type:** Trip
- Body:** (empty field)
- Link:** (empty field)
- Subject:** (empty field)
- Content:** (empty field)
- Data:** (empty field)
- Plan:**

Id	Name	Created at	Updated at
- MessageTranslation:**

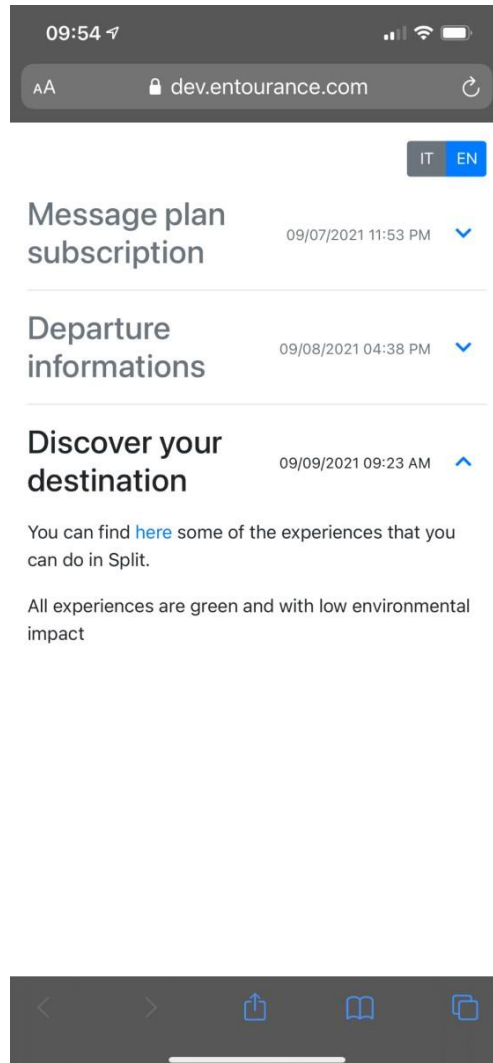
Id	Message id	Language	Body	Content
5	4	it_IT	TEST TRIP 2 IT	
6	4	en_EN	TEST TRIP 2 EN	

The system allows you to create timed editorial plans and to send SMS or email messages to the user. The texts of the messages can be managed from an administrative panel that also allows you to associate a message with one or more editorial plans. The administrator can specify for each message the time distance from the start date or the end date of the plan.

The system also allows you to upload the recipients of the editorial plan and the respective dates of departure and end of the trip. Once the recipients have been loaded, the system sends the user an acceptance message when the messages are sent. If the user accepts, the messages are queued according to the associated editorial plan.



Subsequent messages are those included in the editorial plan and concern travel or tourist information. The message will contain an invitation to go to a link that represents the page where the information for the end user is updated from time to time.



2.3 KPI VISUALIZATION SYSTEM

This component of the application allows you to view a series of charts and infographics related to the collected data. The information is extrapolated from the behavior of users in using the platform anonymously, both for the transit search and for the messaging system. The data is stored in the Analytics component which processes them and proposes them in an aggregated and usable form for the interface to the end user. The platform administrator can decide on the basis of the role which data to send to the user.



KPI Test - CRM

Dal

26/07/2021

Al

26/08/2021

