4helix+

Empowering the 4 helix of MED maritime clusters through an open source/knowledge sharing and community based approach in favour of MED blue growth

D.4.2.1
4helix+ Blue Matchmaking Environment
Due delivery date: 30/04/2019
Actual delivery date: 30/04/2020

PROGRAMME	INTERREG MED
AXIS	PO 1 – *Promoting Mediterranean innovation capacities to develop smart and sustainable growth*
SPECIFIC OBJECTIVE	SO 1.1 – *To increase transnational activity of innovative clusters and networks of key sectors of MED area*
PROJECT ACRONYM	4helix+
PROJECT WEBSITE URL	https://4helix-plus.interreg-med.eu
DELIVERABLE NUMBER	D.4.4.1
TITLE OF DELIVERABLE	4helix+ Blue Matchmaking Environment
WORK PACKAGE/TASK N°	4.4
NAME OF ACTIVITY	Matchmaking
PARTNER IN CHARGE (AUTHOR)	PP1 – University of Camerino (UNICAM)
PARTNERS INVOLVED	LP, PP1, PP2, PP4, PP5, PP6, PP7, PP8, PP9
STATUS	Draft
DUE DATE	30/08/2020
ADDRESSEE OF THE DOCUMENT[1]	4helix+ PROJECT PARTNERS; PROGRAMME MED JOINT SECRETARIAT
DISTRIBUTION[2]	PP

Document Revision History

Version	Date	Author/Reviewer	Changes
1.0 - Draft	30 April 2020	PP1 - UNICAM	Version presented at Steering Committee Meeting Ancona Sep. 2019 FinalVersion 30 04 2020

[1] *WPL (Work Package Leaders); PP (Project Partners); AP (Associates); Stakeholders; Decision Makers; Other (Specify)*
[2] *PU (Public); PP (Restricted to other program participants); CO (Confidential, only for members of the consortium)*

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Abstract

The cyberspace provides an advanced matchmaking environment to encourage KP and MSME collaborations. More precisely, the matchmaking environment uses MSMSs and KPs information in order to match KPs and MSMEs with common interests. Matching can be used to favour project collaborations and voucher submissions. The matchmaking also allows moderators to animate the interaction between matching KPs and MSMEs. A public version of the matchmaking environment has been released as a search engine that allows the searching of KPs by means of "blue" keywords.

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1 Introduction

The cyberspace provides an advanced matchmaking environment to encourage KP and MSME collaborations. The matchmaking engine uses information retrieval techniques to create an efficient indexing of the MSMSs and KPs information. The KPs and MSMEs indexing will allow the discovery of KPs and MSMEs with common interests. Matching can be used to favour project collaborations and voucher submissions. The matchmaking also allows moderators (in the following also referred to as matchmakers) to animate the interaction between matching KPs and MSMEs.

A matchmaker can enter the matchmaking at the following link 4helix.unicam.it/matchmaking.php. The matchmaking engine takes as an input an MSME and outputs the 5 KPs with the closest indexes. The matchmaker can email the matching result to the MSME via the cyberspace. A moderator can be added to the email in order to encourage the MSME in interacting with the KPs.

The matchmaking is also a content management system (CMS) which allows the generation of web sites for meeting events. These events can include matching KPs and MSMEs for face-to-face discussions on topics of interest. The matchmaker can create web sites for meeting events by adding the text related to the following pages:

(i) home;
(ii) an agenda;
(iii) the location;
(iv) the participants.

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The cyberspace automatically generates the following web pages: home.php, agenda.php, location.php and partecipants.php. These pages are automatically generated from the event id and contains the gallery of KPs and MSMEs that will participate to the event. Web site generation has been successfully used for the bootcamps and the brokerage. The sites that have been generated are available at the following link:

https://4helix.unicam.it/kp_fiches.php.

The cyberspace supports the interaction between KPs and MSMEs. KPs and MSMEs can see the participants of bootcamps or Zadar brokerage and decide to join the on line discussion with them or join the event.

The rest of this document is organised as follows: Chapter 2 shows the matchmaking web functionality; Chapter 3 shows the matchmaking environment from the KPs and MSMSs point of view; Chapter 4 shows the matchmaking CMS functionality; Chapter 5 concludes with various options that have been considered for the final release of the matchmaking environment and describes the final version that have been implemented at the end of the project.

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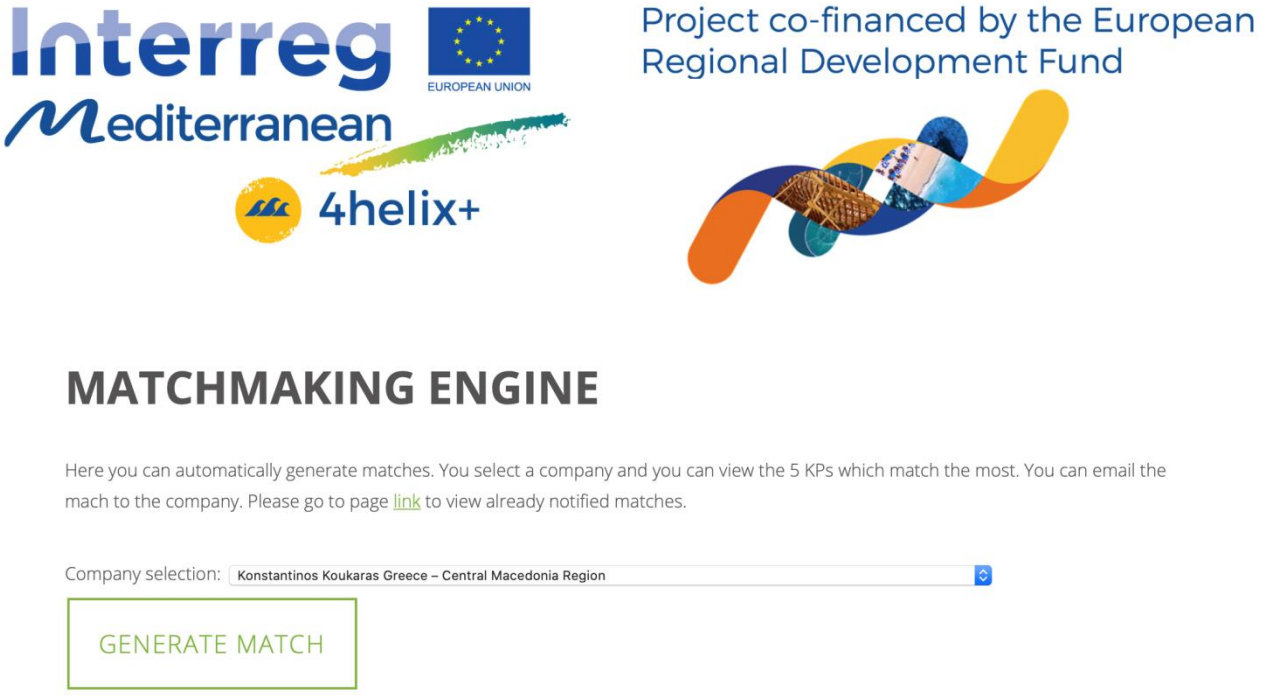
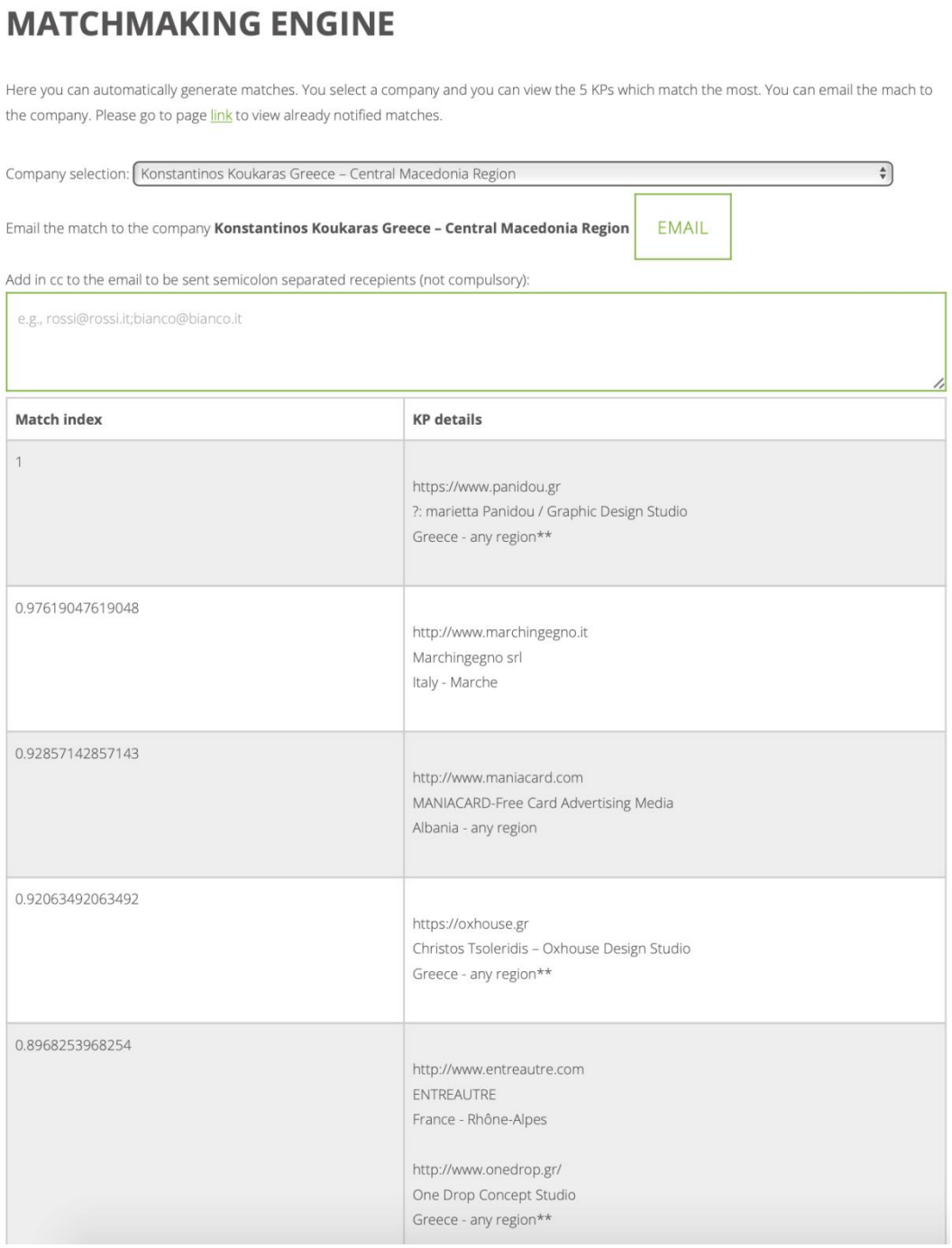
2.Matching functionality: the matchmaker view

2.1 Matching generation

The matchmaker has the possibility to automatically generate matches. He/she can select an approved MSMEs from a drop down menu and can view the five KPs which match the most. The following Figure shows the matchmaking matching page and the company selection dropdown menu:



Once the company has been selected and the "GENERATE MATCH" button has been pressed the matchmaking proposes a list of KPs. This is shown in the next Figure:



MATCHMAKING ENGINE

Here you can automatically generate matches. You select a company and you can view the 5 KPs which match the most. You can email the mach to the company. Please go to page link to view already notified matches.

Company selection: Konstantinos Koukaras Greece – Central Macedonia Region

Email the match to the company **Konstantinos Koukaras Greece – Central Macedonia Region** EMAIL

Add in cc to the email to be sent semicolon separated recepients (not compulsory):

e.g., rossi@rossi.it;bianco@bianco.it

Match index	KP details
1	https://www.panidou.gr ?: marietta Panidou / Graphic Design Studio Greece - any region**
0.97619047619048	http://www.marchingegno.it Marchingegno srl Italy - Marche
0.92857142857143	http://www.maniacard.com MANIACARD-Free Card Advertising Media Albania - any region
0.92063492063492	https://oxhouse.gr Christos Tsoleridis – Oxhouse Design Studio Greece - any region**
0.8968253968254	http://www.entreautre.com ENTREAUTRE France - Rhône-Alpes http://www.onedrop.gr/ One Drop Concept Studio Greece - any region**

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In our example the company Kostantinos has been matched with 5 KPs. For each matching there is a matching index (a number between 0 and 1). A higher matching index means an higher amount of blue keywords between the company and the KP. The KP matching list can be sent to the company by pressing the button email. One or more moderators can be added in cc to the email. These can favour the MSME and KPs interaction.

2.2 Matching history

The matchmaking engine keeps an history of all matchings that have been sent via email. This is shown in the following Figure.

MATCHMAKING HISTORY

id	sme	email recipient
16	Leonardo Start up	leonardo.mostarda@gmail.com
17	UNICAM	leonardo.mostarda@unicam.it;
18	UNICAM	leonardo.mostarda@unicam.it;leonardo.mostarda@gmail.com;leonardo.mostarda@unicam.it
19	Konstantinos Koukaras	kkoukaras@gmail.com;
20	Obrt Dario Marinov	dario.marinov@yahoo.com;ijadresko@hgk.hr
21	Konstantinos Koukaras	kkoukaras@gmail.com;
22	Carlo De Mattia	demattia.carlo@gmail.com;
23	Zara agent d.o.o. pomorska agencija	operations@zara-agent.hr;
24	Obrt Dario Marinov	dario.marinov@yahoo.com;
25	R.T.O. KNEŽAK	oliver.grzunov@gmail.com;
26	Obrt LANĐIN	rozalindabanic@gmail.com;
27	Magic Croatia d.o.o.	info@magic-croatia.hr;
28	Foka doo (LTD)	fokadive@gmail.com;
29	Maloižanin d.o.o.	tina.rokov@gmail.com;
30	Sub mission j.d.o.o.	mikecin22@yahoo.com;
31	My dream for you	anja@mydreamforyou.eu;
32	AVGITA N & CO LP	info@thinkgreen.gr;
33	gmpro	gmprocontact@gmail.com;
34	gmpro	gmprocontact@gmail.com;
35	Polenta Raffaela	polenta1968@gmail.com;
36	Adriatic Techno Park S.r.l.	danielemariani@hotmail.com;
37	RAPSODIA	info@rapsodia.al;
38	LIFE ON A BOAT	genta.ahmeti@gmail.com;
39	DEA LINES	arjana.isaku@hotmail.com;
40	Giulio Lonzi	giuliolonzi@gmail.com;
41	La Baia srl uninominale	info@spiaggiabonetti.it;
42	Konstantinos Koukaras	kkoukaras@gmail.com;
43	Carlo De Mattia	demattia.carlo@gmail.com;
44	Daevi	eli@daevi.net;

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The matchmaker uses the history to perform the following activities:

- Keep track of all matchings in order to avoid sending duplicated matches via email
- Check animation activities and discussions between KPs and MSMEs
- Check the email where the matching has been sent to.

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3.Matching functionality: the KP and MSME view

3.1 MSME matchmaking pages

A company can access the matchmaking webpages by using the matchmaking menu link on the upper corner. The following Figure shows the MSME home page:

A company can access the matchmaking webpages by using the matchmaking menu link on the upper corner. The following Figure shows the MSME home page:

The matchmaking page shows to the company the ten KPs that have the closest match. The following Figure shows the matchmaking page of an MSME:

3.2 KPs matchmaking pages

A KP can access the matchmaking webpages by using the matchmaking menu link on the upper corner. The following Figure shows the KP home page:

The matchmaking page shows to the KP the ten MSMEs that have the closest match. The following Figure shows the matchmaking page of a KP:

MATCHMAKING ENGINE

Here you can automatically generate matches. You can view the 10 SMEs which match the most with your company keywords.

Match for New Media Communications

March index	SME details	
1	TEAM WINDS MEDITERRANEE	France – Région Sud – Provence-Alpes-Côte d'Azur
0.92	TSTS GROUP	Albania – Durres**
0.77333333333333	Vasilios Zamanis - MY DREAM FOR YOU	Greece – Central Macedonia Region
0.56	RAPSODIA	Albania – Shengjin**
0.54666666666667	Shuttle Tours d.o.o.	Croatia – Zadar County Region
0.53333333333333	Luís Rafael Mendes Gameiro	Portugal – Lisbon Region
0.49333333333333	Konstantinos Koukaras	Greece – Central Macedonia Region
	TURISMON TRAVEL	Spain – Catalonia Region

4.Matchmaking web site generation

The matchmaker has the possibility to automatically generate web sites for meeting events. These events can include matching KPs and MSMEs for face-to-face discussions on topics of interest. The matchmaker can create web sites for meeting events by adding the text related to the following pages:

(i) home;
(ii) Participants
(iii) Agenda;
(iv) Location
(v) Gallery;

The home page contains various details about an event, the contact person and his email. The following Figure shows the matchmaking web page where the home information is provided.

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MATCHMAKING ENVIRONMENT WEB GENERATION

Here you can update the event website information here.

Home healine:

Brokerage event zadar

Home content:

The Transnational Brokerage Event aims at providing an effective matching between Knowledge Providers (Research, Development and Innovation Bodies /RD&I Skilled Enterprises having specific expertise in the fields of Cultural and Creative Industries or Non Institutional New Innovation Agents such as fab labs, maker spaces, co – working spaces, living labs etc.) and SMEs / Start – ups operating in blue growth or blue economy sectors (fishing, aquaculture, coastal and maritime tourism, shipbuilding, blue biotechnologies, etc.).

Home page news:

call is now open link

Write the detials of the contact person:

Leonrdo Mostarda

Write the email of the contact person:

4helix@unicam.it

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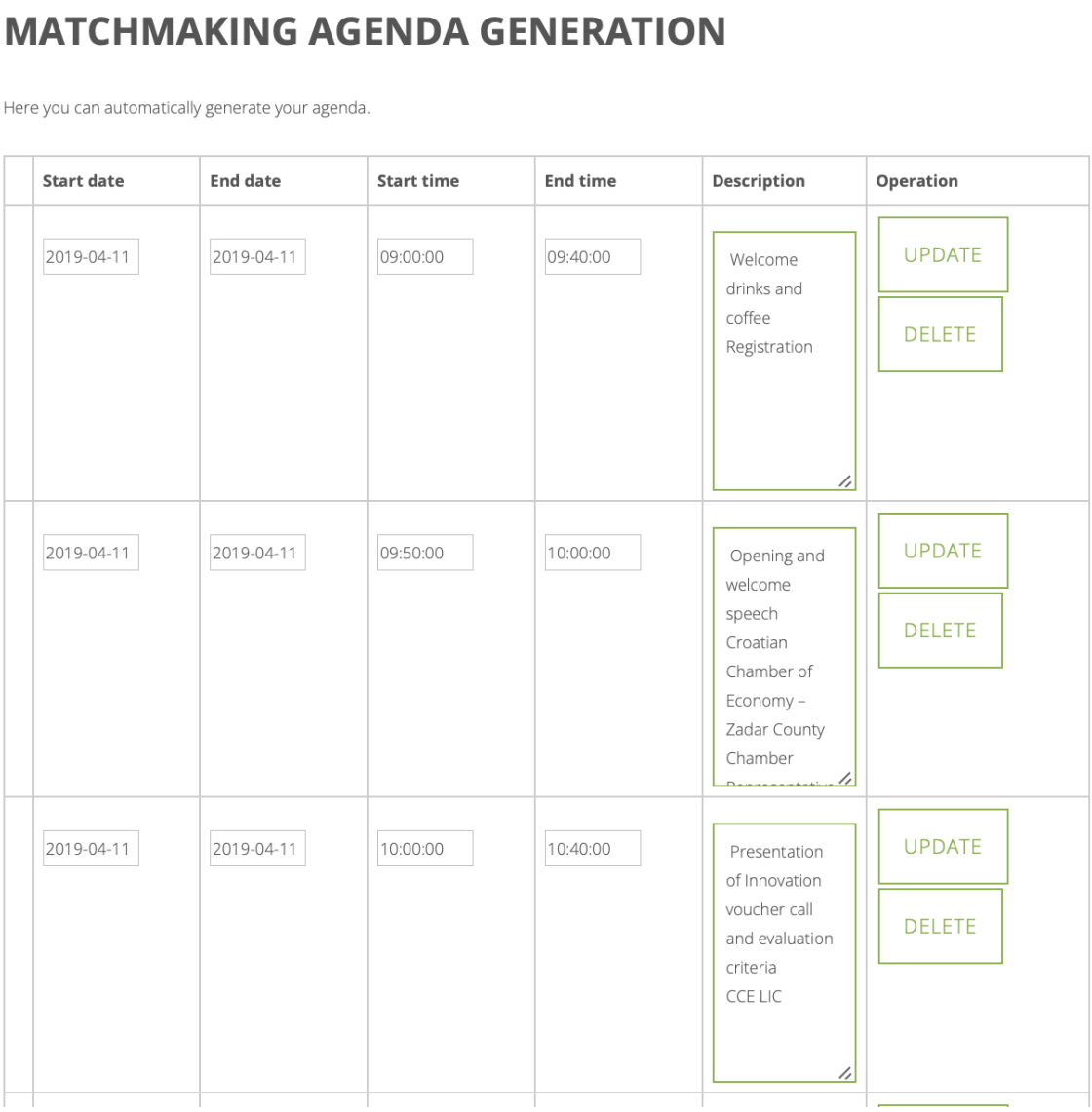
The agenda home web page contains the details of the events that are meetings, round tables, presentations and so on. The following Figure shows the matchmaking web page where the agenda information is provided.



Registered MSMEs and KPs can sign up for the event by logging in into their accounts. They can choose whether or not to give a presentation, have a

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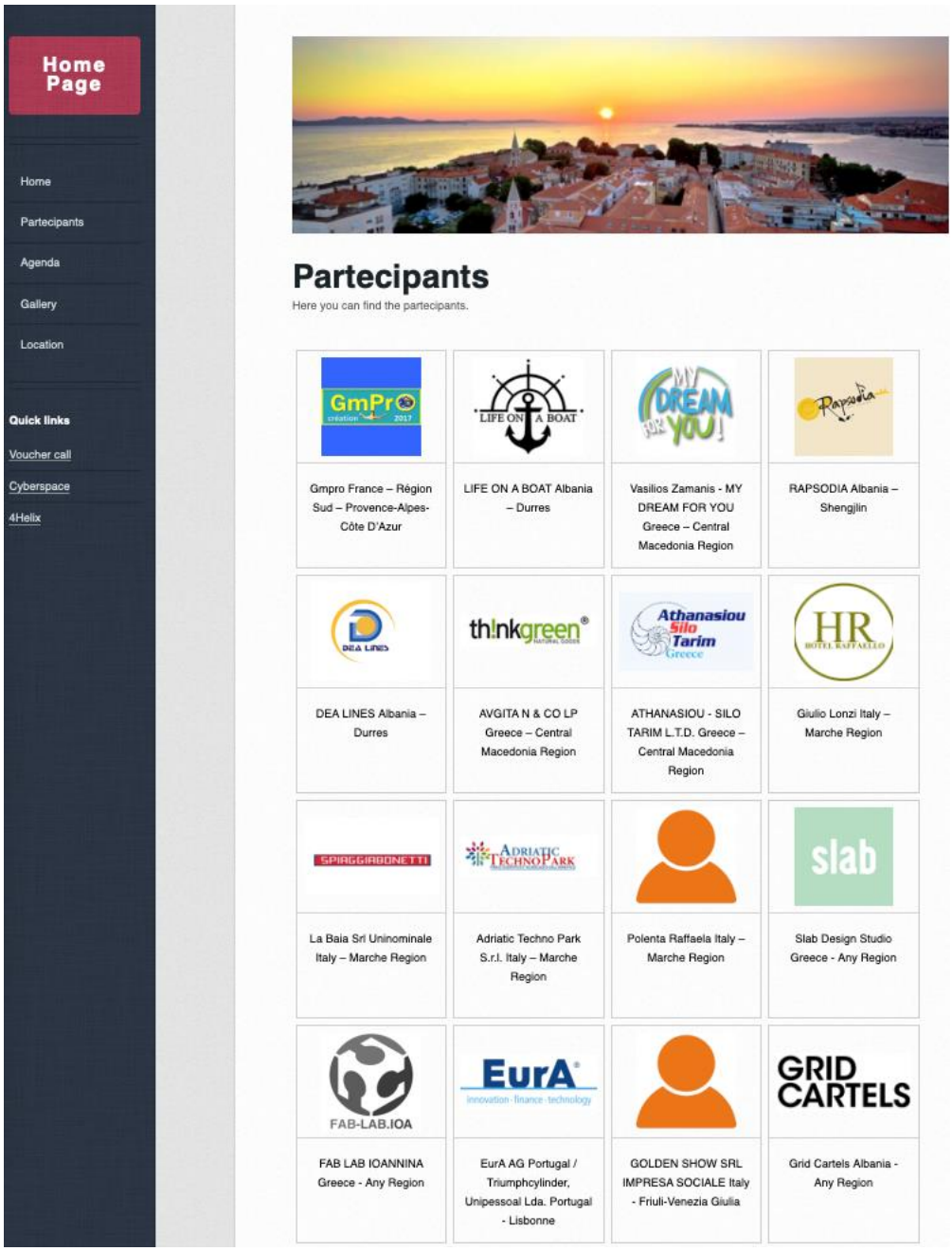
one-to-one meeting during parallel session. The matchmaking will automatically generate a participant page that contains the gallery of KPs and MSMEs that will participate to the event. Web site generation has been successfully used for the bootcamps and the brokerage event of Zadar. The links of the web sites that have been generated are available at the following link:

https://4helix.unicam.it/kp_fiches.php.

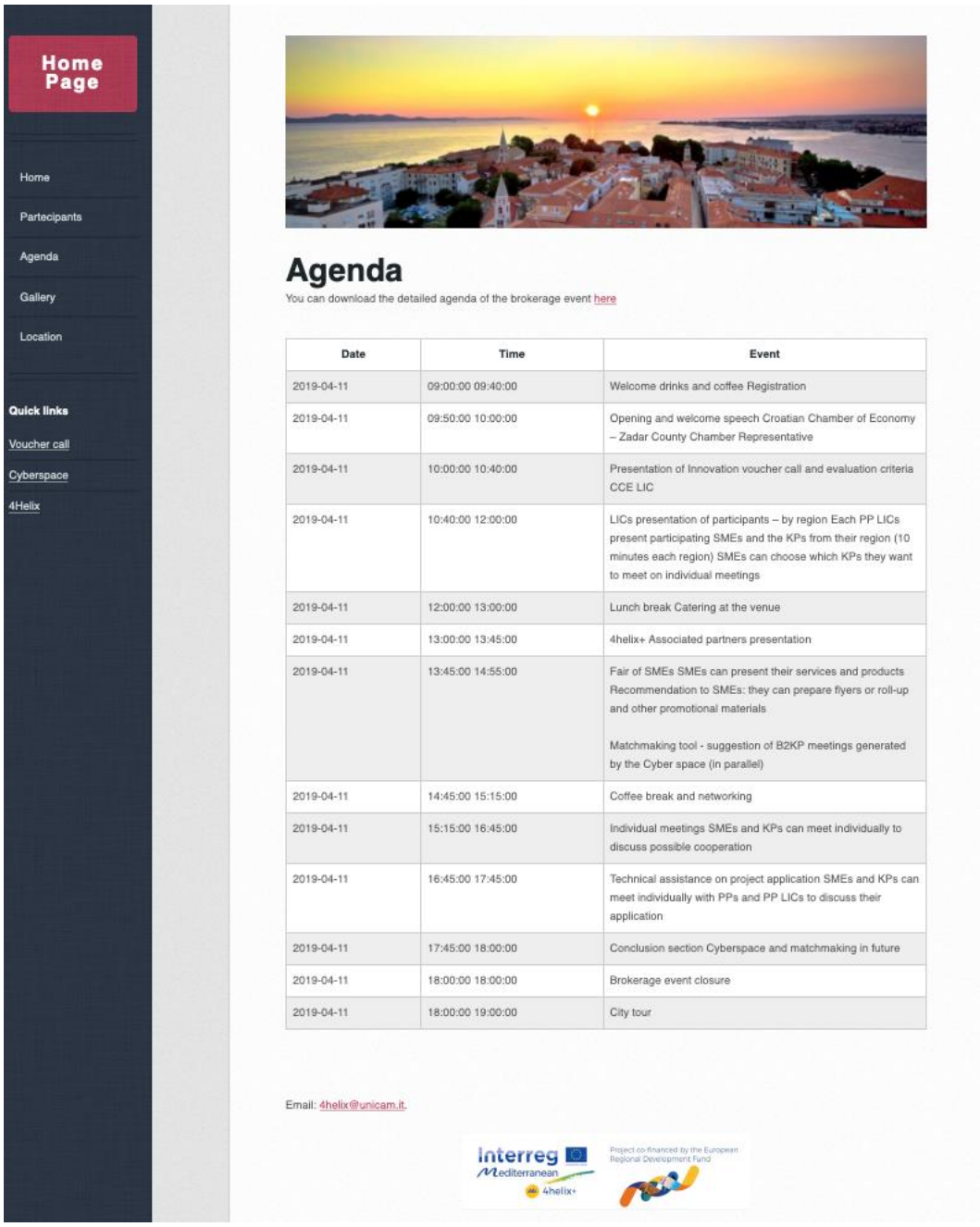
In the following we provide all screenshots for the site that has been generated for the Brokerage event of Zadar.

HOME PAGE ZADAR

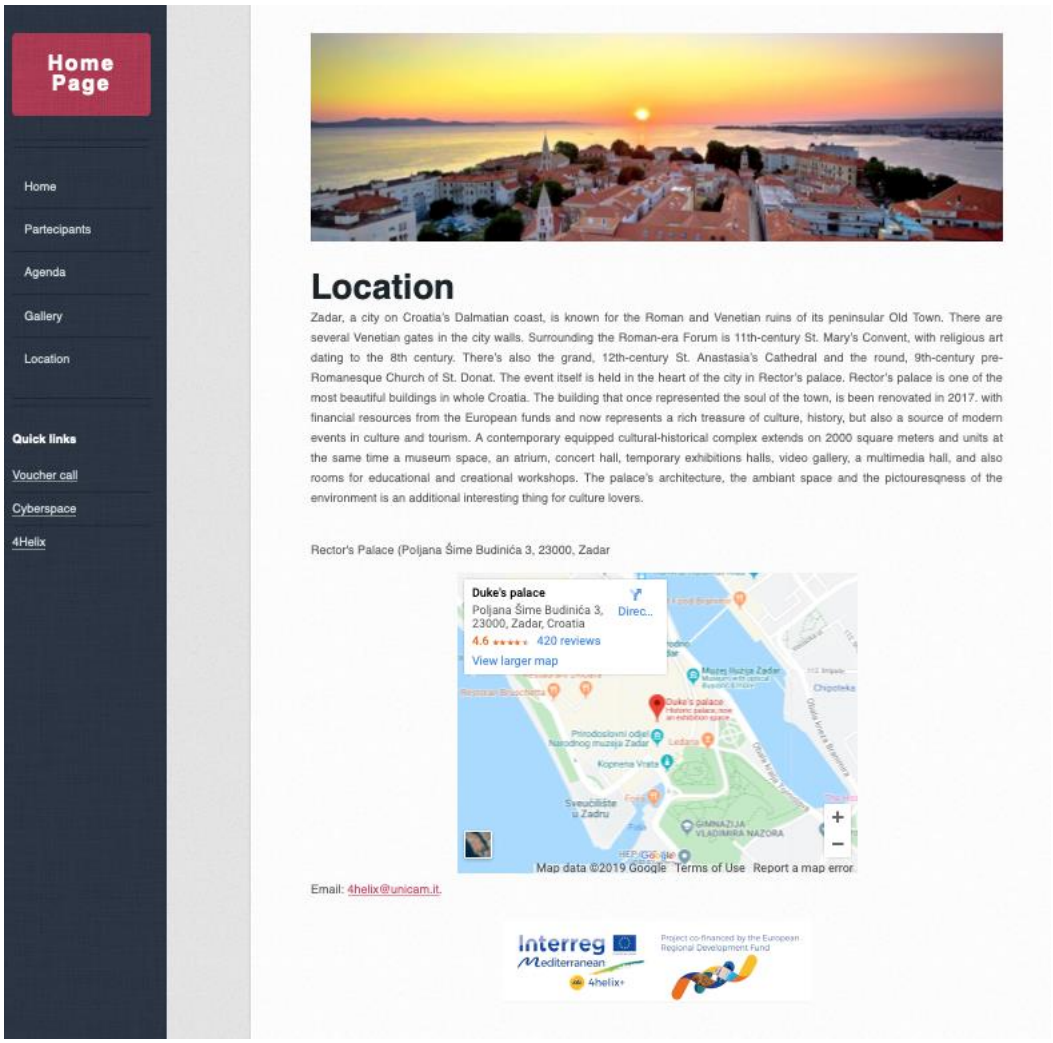
PARTECIPANT PAGE ZADAR



AGENDA PAGE ZADAR



LOCATION PAGE ZADAR



5.Matchmaking final release

In our previous document we have proposed two possible extensions of the Matchmaking Environment (ME). These extensions must consider the main feature of the ME that is **"the ME is the long lasting feature of the 4Helix+ european project that will survive also after the project completion"**. To date the ME is in its final version and is available at (https://4helix.unicam.it/search.php). This document discusses the two final versions of the ME that have been considered and describes in details the final version that has been implemented. While the graphical view of the ME will not be revised, the indexing algorithm could be further improved before the end of the project.

In our previous documents we made the following proposals for ME final version:

(i) open source downloadable software.
(ii) online service for matchmaking;

The technical details of each extensions together with its pros and cons are discussed in the following.

5.1 Open source downloadable software

The code of the Matchmaking environment could be made available online for download. This poses the following two problems:

(i) the selection of the appropriate software licence to be chosen;
(ii) the availability of platform that will host the software in its downloadable form.

We have analysed the state of art software licencing for open source software and we propose the use of Creative Commons. The European Commission encourages authors to retain their copyright and grant adequate licences to publishers. Creative Commons offers useful licensing solutions. This type of licence is a good legal tool for releasing the open software while protecting software copyright. More precisely, we propose the following terms for the Creative Commons:

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- Share — any user can copy and redistribute the material in any medium or format
- Attribution — a user must give appropriate credit, provide a link to the license, and indicate if changes were made. A user may do so in any reasonable manner, but not in any way that suggests the licensor endorses a user or his use.
- NonCommercial — A user may not use the material for commercial purposes.
- NoDerivatives — If a user remix, transform, or build upon the material, the user may not distribute the modified material.

The Creative Commons can be personalised and composed. For the software download a free space will be allocated in the UNICAM servers.

This matchmaking extension has the following advantages:

- Maintenance: after the project ending there is no maintenance to be performed;
- Survivability: the matchmaking will be made available also after the project has ended;
- Cost: No additional costs will be required;
- KP approval: no PPs approvals are needed

This are the main disadvantages:

- Easy to use: the use of the matchmaking will require an expert for its setting up.

5.1 Online service for matchmaking

The following Figure shows a possible geographical solution that was proposed for the matchmaking online search engine.

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The ME searching engine allows a user to enter keywords that are related to blue topics such as fishery and tourism and get a list of blue Knowledge Providers (KPs) i.e., providers expert on the topics. The search is performed over all Blue KPs that are registered on the 4Helix+ Cyberspace and appear in the public gallery. This contains all KPs that have been reviewed by the Project Pilot Partners (PPs) and have been validated.

This matchmaking extension has the following advantages:

- Survivability: the matchmaking will be running also after the project has ended;
- Accessibility: the matchmaking can be easily used by any users at any time;
- Easy to use: the use of the matchmaking does not require any complicated technological skills

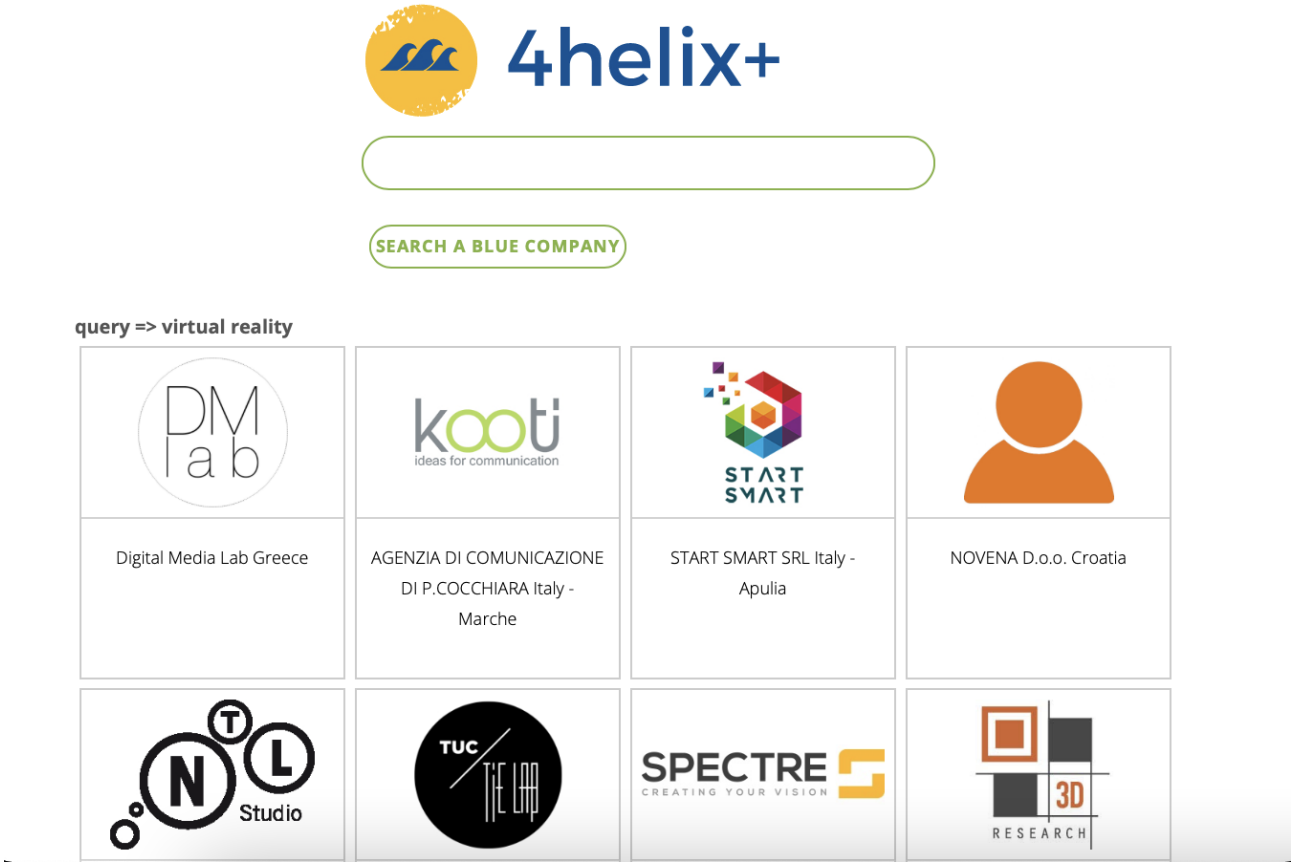
These are the main disadvantages:

- Maintenance: after the project ending the system needs still to be maintained. Patches and upgrade of the software may be still required;
- Cost: the system will require hosting costs;
- KP approval: the system should allow new KPs to register to the platform in order to be part of the search results returned by the ME engine. This requires to perform the approval of the KPs by the PPs partners. These will be no longer available after the project ending

5.3 ME final version

The online ME is available in its final version at the following link: (https://4helix.unicam.it/search.php). It is an online search engine that allows to insert keywords and outputs all KPs that match those keywords. The following Figure shows the matchmaking environment where the keywords "virtual reality" are written:

The result of the "virtual reality" query is showed in the following Figure:



In its current version the ME is using basic search algorithm based on keywords frequency. In its final release a more elaborated search that is based on inverse function will be experimented. To date the main problem is the very short description provided by some companies and KPs. In fact companies providing a longer description with lots of blue terms were more probably selected when compared to companies providing few line of description. This online tool will be available also after the project

ending for at least 2 years. KPs can still apply to be part of the search engine but this will be no longer possible after the project ending.

Project Partners

SVIM – Sviluppo Marche S.r.l. (IT)
Lead Partner

University of Camerino (IT)

Central European Initiative (IT)

Thessaloniki Chamber of Commerce and Industry (GR)

Croatian Chamber of Economy
Zadar County Chamber (HR)

Official Chamber of Commerce, Industry and Shipping of Seville (ES)

XXI Dinamic Network (PT)

Albanian Development Fund (AL)

Barcelona Official Chamber of Commerce, Industry, Services and Navigation (ES)

Chamber of Commerce and Industry Marseille Provence (FR)

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