WATCHING THE RISK FACTORS
WARIFA
ARTIFICIAL INTELLIGENCE AND THE PERSONALIZED
PREVENTION AND MANAGEMENT OF CHRONIC CONDITIONS

Project title	Artificial intelligence and the personalized prevention and management of chronic conditions		
Project acronym	WARIFA		
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D8.2 – WEB SITE

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Work package	8 - Communication, dissemination and exploitation including policy recommendations		
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Version	1.0		

Dissemination level

Please select only one option according to the GA		
☒	PU: Public	☐ PP: Restricted to other program participants
☐	RE: Restricted to a group specified by the consortium	☐ CO: Confidential, only for members of the consortium

VERSION AND AMENDMENTS HISTORY

Version	Date (MM/DD/YYYY)	Created/Amended by	Changes
0.1	25/06/2021	Marina Dora Tavano (CIAOTECH)	Creation of the document
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1.0	30/06/2021	Merethe Drivdal (NSE)	Final version

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LIST OF ABBREVIATIONS

Acronym	Definition
EC	European Commission
EU	European Union
DoA	Description of Action
URL	Uniform Resource Locator
WPs	Work Packages
D&C	Dissemination & Communication

1   INTRODUCTION

This document provides a description, supported by pictures, of the WARIFA project website's overall structure. The website was released at M6, as planned in the Description of Action (DoA).

As stated in D8.1 Plan for the Dissemination and Exploitation of Results, the project website has been conceived as the main tool for dissemination and communication strategy implementation.

The project website will enable effective communication with external stakeholders, the press and the wider EU public. It provides information on the project, the consortium, the project results and updates, list of the scientific publications, subscription to the project newsletter and much more.

The WARIFA website is available at the URL: http://warifa.eu/ and has been developed by WP8 leader CIAOTECH, in collaboration with the project coordinator and the partners of the consortium.

2   WARIFA PROJECT STRUCTURE

The WARIFA website is available at the URL: http://warifa.eu/. An overview of the main sections of the website is given below and shown in Figure 1:

- HOME PAGE
- THE PROJECT – WARIFA; Work Packages; Milestones, Deliverable and Publications, Media Kit
- PARTNERS
- NEWS & EVENTS – News/Events; Media; Newsletter; Press Release
- D&C TOOL (private area for partners)
- CONTACT
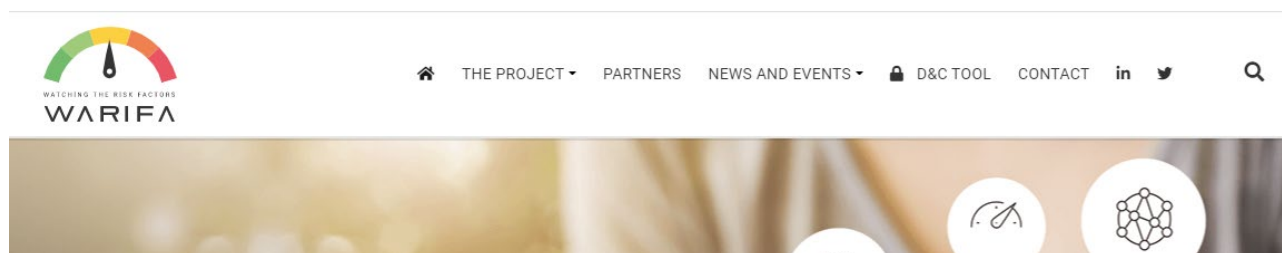
Figure 1 WARIFA's web section

2.1 HOME PAGE

The Home Page clearly communicates the website's purposes and shows all major contents available. It provides a short description of the project and the direct links to the different available pages (The Project – Partners – News and Events – Contact) and direct links to the project Social Media channels (Twitter and LinkedIn).

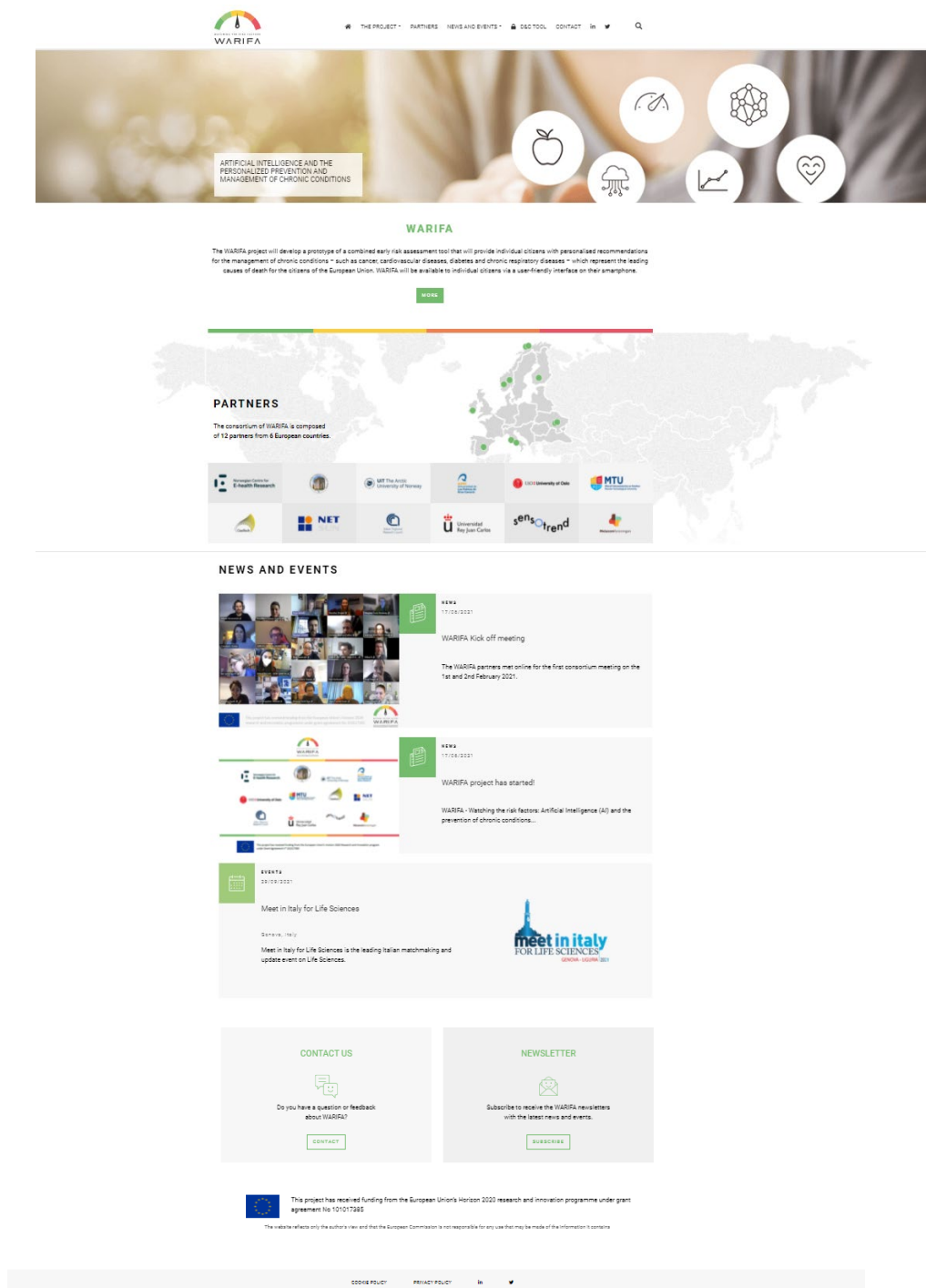The figure below shows the Home Page of WARIFA website (Figure 2).

Figure 2 Home Page

All logos from partners are shown at the center of the Home Page, together with a map showing their geographic position and the European Countries involved in WARIFA. This is an easy way to locate who is involved in the development of the project.

Furthermore, at the bottom of the homepage two boxes (Figure 3) have been added to call to action the web user. The first one is to get in touch with the project consortium with a direct link to the "CONTACT" page. The second one is for subscription to the newsletter. These two boxes are visible in all pages of the website.
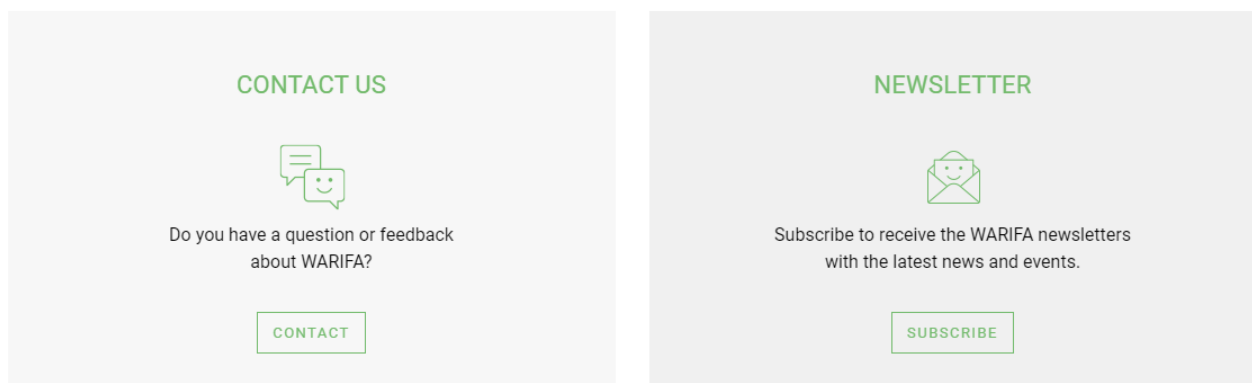
Figure 3 Call to action boxes

Finally, according to the EC dissemination rules, in the footer the flag of EU and the text stating the funding of the project as Horizon 2020 project appears, together with the disclaimer excluding the Agency's responsibility (Figure 4).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017385

The website reflects only the author's view and that the European Commission is not responsible for any use that may be made of the information it contains
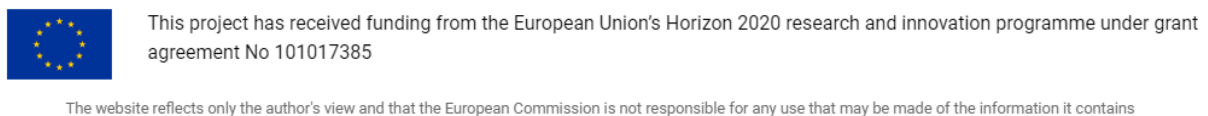
Figure 4 Footer

2.2 SECTION "THE PROJECT"

This section includes:

- A brief description of the WARIFA project and of its main objectives, the focus areas on which it focuses on and the impact it will generate at individual level and at Health care system level
- WORK PACKAGES: the section illustrates the main objectives of the eight WPs included in WARIFA project activity work plan. Furthermore, the lead partner of each WP is shown by means of its logo.

- MILESTONES: the page shows the six milestones that the consortium will reach during the project lifetime. They are listed in a graphic timeline.
- DELIVERABLES & PUBLICATIONS: in this page, the consortium will list all the public deliverables produced during the project lifetime, as well as the scientific publications to be published by the partners.
- MEDIA KIT: in this webpage, the dissemination material (i.e., brochure, poster, and roll-up) is made available for consultation and download.

Figure 5-9 illustrate the specific above-mentioned pages.
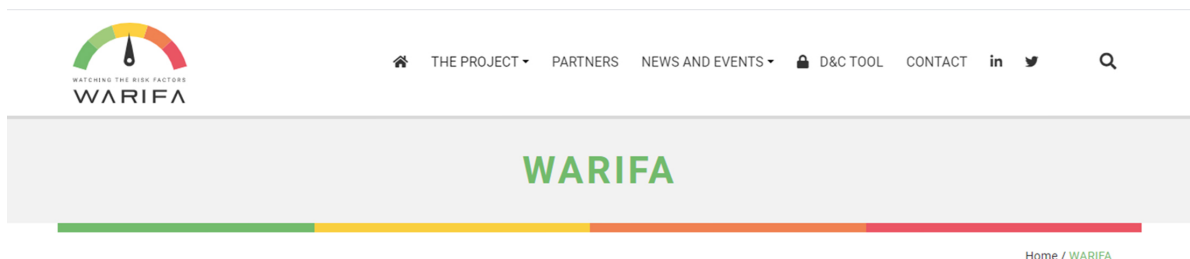
The WARIFA project will develop a prototype of a combined early risk assessment tool that will provide individual citizens with personalised recommendations for the management of chronic conditions – such as cancer, cardiovascular diseases, diabetes and chronic respiratory diseases – which represent the leading causes of death for the citizens of the European Union.

WARIFA will be available to individual citizens via a user-friendly interface on their smartphone.

WARIFA uses artificial intelligence (AI) and the analysis of user-generated and big data to provide a personalized set of recommendations on lifestyle factors according to the risk score of each individual. Citizens are motivated to change unhealthy habits while supporting good lifestyle choices.

WARIFA will inform citizens about the improvements on the management of a known chronic condition while, simultaneously, raising awareness on the risk of developing another condition. The individuals with a high-risk score will be advised to contact the health care system.
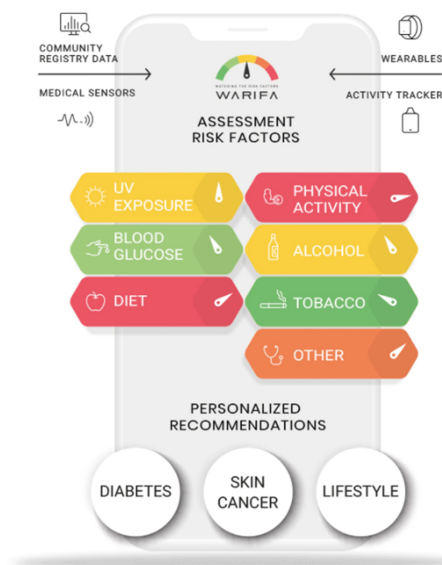
FOCUS AREA

WARIFA has its main focus on the prevention of melanoma skin cancer, complications of diabetes and lifestyle risk factors for chronic conditions. This is achieved by providing citizens with personalized recommendations that help to improve lifestyle risk factors such as excessive sun exposure, unhealthy diet, harmful alcohol and tobacco use, and physical inactivity. WARIFA will contribute to health promotion and disease prevention actions which will help relieve the burden on health care systems and economies.

IMPACT

AI-based combined early risk assessment can empower citizens to adopt healthier habits and a better lifestyle by providing personalised recommendations on how to change their risk behaviour. The benefits of early risk assessment, prevention and intervention will be evident at:

- **Individual level**
  Citizens will be supported in improving by at least 20% each risk factor by increasing the level of physical activity; reducing sun exposure; or reducing the number of hypoglycaemic events.
- **Health care system level**
  WARIFA will contribute to the early diagnosis of chronic conditions by promoting early identification of risks. WARIFA will provide clinicians with an overview of high-risk behaviours enabling a more rapid assessment and monitoring of the patient, thus, making counselling more personalized and efficient. WARIFA will improve efficiency and resource utilization by reducing the number of consultations for risk assessment.WARIFA is AI-based which allows for scalability, making the system ready to be used with other chronic conditions to which changes in behaviour can contribute to better health.

Figure 5 WARIFA page

Work Packages

Home / Work Packages

WP1 - Project Management

The aim of this WP is to establish a project management structure capable of an appropriate reporting to the EU funding body; directing the scientific and technological tasks within the project; ensuring that project objectives are met on time and within the budget; exploiting the projects results; conducting quality assurance activities; coordinating project meetings and events; and performing necessary risk analyses. To obtain the above-mentioned objectives the WP is organised in five tasks.

Norwegian Centre for E-health Research

WP2 - User and stakeholder needs

The Work Package aims to provide the blueprint for the development of the preventive WARIFA tool using Artificial Intelligence (AI), by: 1) mapping the roles and needs of stakeholders relevant for the project.; 2) mapping the risk factors for the selected focus areas for the investigated communities; 3) defining the required input and output variables for the AI tool development and 4) monitoring the process of AI tool development and validation from the perspective of concordance with stakeholders needs and community relevance. Seven tasks are included in this WP to reach the above-mentioned goals.

WP3 - Data acquisition and preparation

Within the six tasks of Work Package 3, the partners are focusing on data sources and implanting data acquisition functionalities by: 1) assessing relevant data sources based on the output from WP2; 2) establishing a procedure to acquire possible data sources that can be used in the WARIFA tool, 3) selecting a realistic and available set of data sources, and 4) designing and implement a user-friendly interface for the WARIFA tool for data acquisition.

UiT The Arctic University of Norway

WP4 - Data processing and machine learning algorithms

The scope of Work Package 4 is to: 1) define the input and output variables of AI algorithms, after data pre-processing and feature extraction stages; 2) Identify which existing risk calculators are best suited to process individual risk for the identified areas involved in the WARIFA system; 3) setup a model based on machine learning (ML) techniques which includes all relevant input and output variables and utilizes the risk calculators; and 4) Integrate the developed model in the WARIFA tool and system testing. To obtain the above-mentioned objectives the WP is organised in four tasks.

Universidad Rey Juan Carlos

WP5 - Context awareness and simulation of big data

In the framework of WP5, the consortium will identify how information from WP4 can be used to describe usage patterns to extract context data. The contextualized information, based on pre-defined rules, will then be fed to the simulation algorithm to generate the optimum set of context data for WP6 - Bayesian belief networks and output of recommendations. Five tasks are included in this WP to reach the above-mentioned goals.

Norwegian Centre for E-health Research

WP6 - Bayesian belief networks

WP6 is devoted to developing a subject personalized Bayesian belief hierarchical network of factors-variables, possibly dynamic, defined by means of local probabilities modelling causal effect between pairs of variables. The network can be used to identify some alternative action patterns to be suggested to the subject using WARIFA app in order to minimize the overall risk of the different pathologic conditions considered. The Work Package includes three tasks.

Italian National Research Council

WP7 - Usability, personalisation and validation

In WP7 - Usability, personalisation and validation, the partners will ensure that the work performed within other WPs is translated to relevant, comprehensible, evidence-based recommendations and adapted to the needs and preferences of the end-users. End-users and other key stakeholders will be invited to participate with individual input and feedback and with group discussion (focus groups). This information will be summarized and shared with the AI teams (WP2-6), to be taken into consideration in the design of the WARIFA solutions. Furthermore, once an advanced version of the WARIFA solution is available, it will be tested by end-users and other key stakeholders not previously involved in the co-creation process. To obtain the above-mentioned objectives the WP is organised in three tasks.

ULPGC Universidad de Las Palmas de Gran Canaria

WP8 - Communication, dissemination and exploitation including policy recommendations

The main objectives pursued by the WP are to assess the expected impacts of the project at European level in relation to the emerging trends of personalised early risk prediction, prevention and intervention sector, setting up an exploitation process of the project results in line with the specificity of the consortium members, and to communicate and disseminate the project outcomes in Europe through the website, social media, the media & press, as well as event participation and organisation (tasks 8.1-3). Finally, a policy recommendation will be developed to inform the decision makers and the authorities of the policy options emerging from the WARIFA project (task 8.4).

CiaoTech

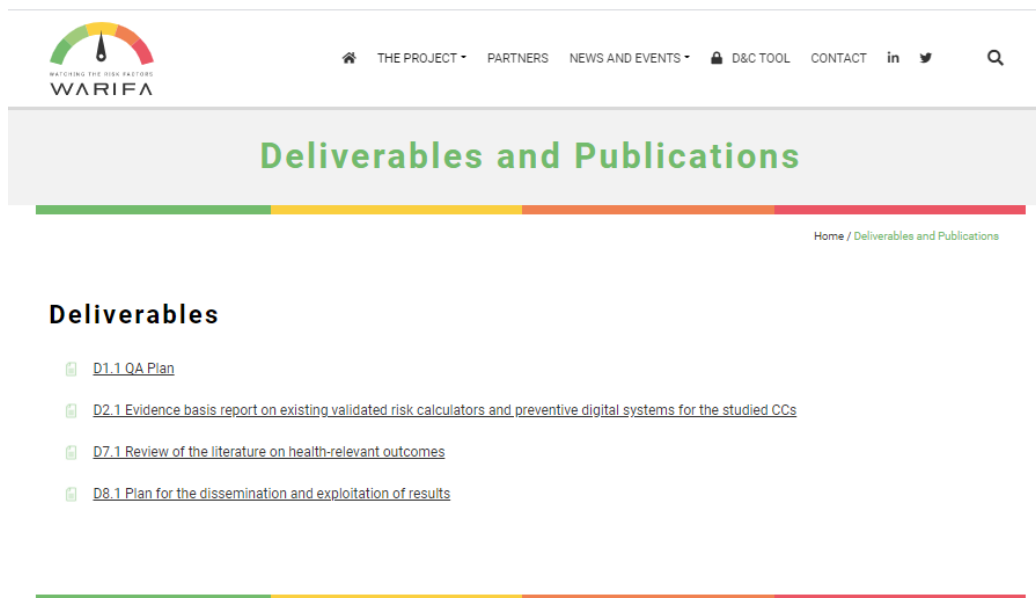Figure 6 Work Packages

Figure 7 Milestones

Figure 8 Deliverables & Publications

The "DELIVERABLES & PUBLICATIONS" page, shown in figure 8, will be continuously updated with the available public project deliverables and the scientific publications produced within the project. The section dedicated to the scientific publications will be visible once content is available.
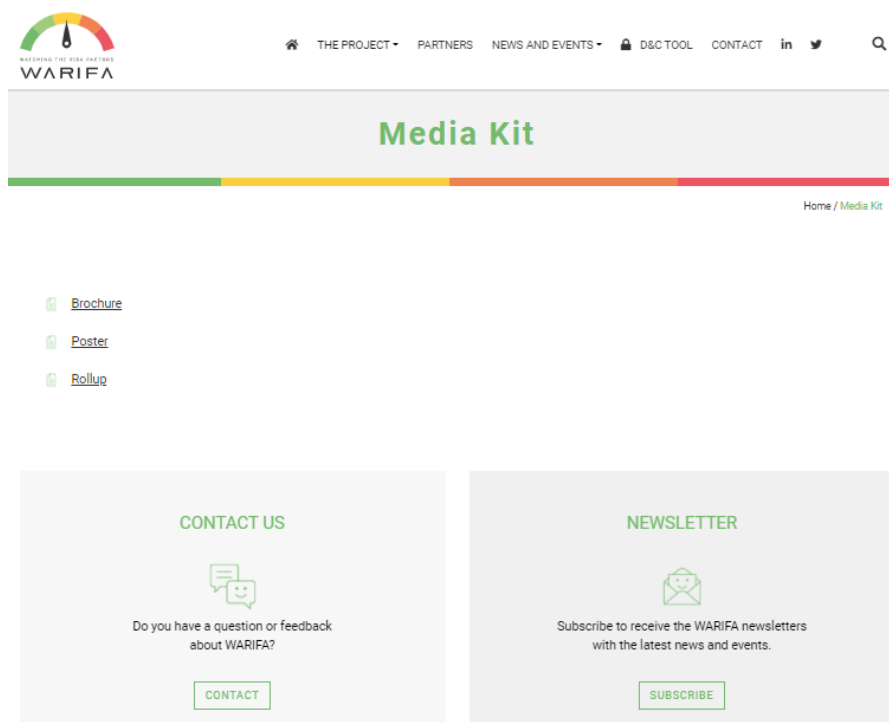

Figure 9 Media Kit

2.3 PARTNERS

The section "PARTNERS" hosts information about each partner in the WARIFA consortium. For each partner organization, a brief description is provided, including the logo, the full name, the country and a link to the official website of the organization (Figure 10).

Partners

The consortium of WARIFA is composed of 12 partners from 6 European countries.

COORDINATOR

The Norwegian Centre for E-health Research (NSE), Project Coordinator.

The Norwegian Centre for E-health Research (NSE) is legally a part of the University Hospital of North Norway HF and will be the responsible party for the project.

🌐 https://ehealthresearch.no/en/   Norway
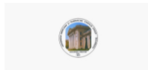
University of Medicine and Pharmacy "Carol Davila" Bucharest (UMFCD)

University of Medicine and Pharmacy "Carol Davila" Bucharest (UMFCD) is the largest medical university in Romania. and has a wide network of university hospitals in Bucharest, covering all clinical specialities It Includes preclinical departments equipped for the various aspects of fundamental and translational research in human medicine. It collaborates for melanoma patients care with a wide network of physicians and medical centres nationwide, serving as national reference centre.

🌐 https://umfcd.ro/en/   Romania

Arctic University of Norway (UiT)

The **Arctic University of Norway (UiT)** is the third largest in Norway and the northernmost university of the world.

The Health informatics and -technology (HIT) group (former: Medical Informatics & Telemedicine (MI&T) group) was established 1994-95. From the beginning, the group has been responsible for teaching Medical Informatics / Health Informatics courses at the **Department of Computer Science**. Our research approach is experimental with a focus on health technology (artefacts). The group has a long tradition working with clinicians at the University Hospital of North Norway (UNN), as well as various research groups in Europe and USA.

🌐 https://en.uit.no/startsida   Norway

University of Las Palmas de Gran Canaria (ULPGC)

University of Las Palmas de Gran Canaria (ULPGC) is a modern institution with a long academic record of accomplishment located in Gran Canaria, Canary Islands. In this project, two research institutes are involved: the **Research Institute for Applied Microelectronics (IUMA)** and the **Research Institute for Biomedical and Health Sciences (iUIBS).**

🌐 https://www.english.ulpgc.es/   Spain

University of Oslo (UiO)

Oslo Centre for Biostatistics and Epidemiology (OCBE) is a joint centre integrating the activities of the Department of Biostatistics, UiO, and the Section of Biostatistics, Epidemiology and Health Economics, Oslo University Hospital. OCBE develops statistical methods and their application to the design, analysis and interpretation of biomedical, clinical and epidemiological studies and data.

🌐 https://www.uio.no/english/   Norway

Munster Technological University (MTU)

Munster Technological University (MTU) – former known as the Cork Institute of Technology (CIT) – is a leading third level educational institute in Ireland with over 17,000 students across the Faculties of Science & Engineering and Business & Humanities.

🌐 https://www.mtu.ie/   Ireland

CiaoTech Srl, (CIAOTECH)

CiaoTech Srl, (CIAOTECH) the Italian branch of PNO Group, represents Europe's largest independent public funding and innovation consultancy with 30 years of hands-on expertise with more than 500 funding programmes in most EU countries, annually raising approximately 1 Billion Euro for its clients.

⊕ https://www.pnoconsultants.com/it/ ⚑ Italy

NetSun Software (NETSUN)

NetSun Software (NETSUN) is a software company that provide Web, Mobile and Reporting development services for Large enterprises since 2002.

⊕ https://netsun.ro/ ⚑ Romania

CNR

The **National Research Council of Italy (CNR)** is the largest public research institution in Italy, the only one under the Research Ministry performing multidisciplinary activities. Founded as legal person on 18 November 1923, CNR'S mission is to perform research in its own Institutes, to promote innovation and competitiveness of the national industrial system, to promote the internationalization of the national research system, to provide technologies and solutions to emerging public and private needs, to advice Government and other public bodies, and to contribute to the qualification of human resources.

⊕ https://www.cnr.it/en ⚑ Italy

Rey Juan Carlos University (URJC)

The **Rey Juan Carlos University (URJC)** was founded in 1996 with the objective of offering high quality education and academic and scientific excellence. It is the youngest public university in Madrid, and currently more than 46.000 students are enrolled on its undergraduate and graduate programs and more than 1500 lectures.

⊕ https://www.urjc.es/ ⚑ Spain

Sensotrend (Sensotrend)

Sensotrend (Sensotrend) is a SME company focused on making life with type 1 diabetes easier through innovative apps.

⊕ https://www.sensotrend.com/ ⚑ Finland

Norwegian Melanoma Association (Melanoma Assoc.)

The **Norwegian Melanoma Association (Melanoma Assoc.)** is an association for people who have or who has had melanoma/skin cancer, their dependents and others related to this situation.

⊕ http://melanom.no/ ⚑ Norway

Figure 10 Partners

2.4 NEWS AND EVENTS

This section contains an archive of news related to WARIFA, and will provide information on the participation in international and national events joined and/or organised in the framework of the project (Figure 11).

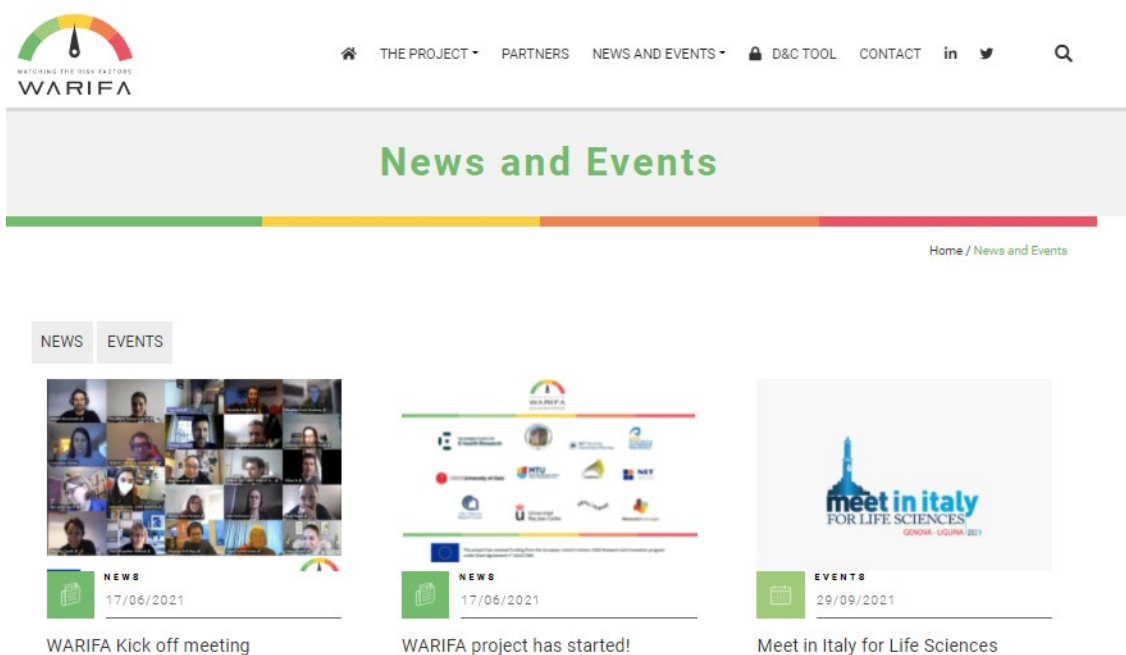A preview of the more recent news is shown also in the Home Page.

Figure 11 News and Events

2.5 DISSEMINATION & COMMUNICATION TOOL

The WARIFA Dissemination Questionnaire is a tool aimed at supporting the Dissemination and Communication (D&C) teams and their activities within the project. The D&C tool facilitates the collection of data related to D&C activities from each project partner, enabling better tracking and reporting of such activities to the EC. The D&C section is private and only accessible to project partners.

CIAOTECH, the WP8 leader, will provide access to the person in each partner organization responsible for including the information needed in the website. The partners will be asked to complete a simple questionnaire for each D&C action performed. The questionnaire collects the main data related to an activity, such as date, place, aim, location, target audience etc.

The collection and the storage of data will be done in line with the General Data Protection Regulation (UE 2016/679). Each semester, CIAOTECH will perform a check of the D&C actions implemented by the consortium in order to continuously monitor the impact of the communication and dissemination strategy implementation.

Figure 12 D&C Tool

2.6 CONTACT

The "CONTACT" section (Figure 13) includes a standard web-based form where interested parties can get in touch with the WARIFA project. The "Contact" section also includes the name and contact details of the Project Coordinator, represented by the Project Leader, Conceição Granja Bartnæs.

Figure 13 Contact

3 CONCLUSIONS

The WARIFA website is one of the main dissemination and communication tools for the WARIFA project and its results. It will be continuously updated with news related to project activities, project progress and project results.