



WATCHING THE RISK FACTORS

**WARIFA**

ARTIFICIAL INTELLIGENCE AND THE PERSONALIZED  
PREVENTION AND MANAGEMENT OF CHRONIC CONDITIONS



**Enjoy reading  
the WARIFA newsletter!**

# UPDATES ON THE PROJECT ACTIVITIES

The activities of the WARIFA project are moving forward!

This initiative funded by the H2020 research and innovation programme, aimed at the development of a prototype of a combined early risk assessment tool that will provide individual citizens with personalized recommendations for the management of chronic conditions – such as cancer, cardiovascular diseases, diabetes and chronic respiratory diseases, is approaching its third year of implementation.

Read the issue to learn more about the results and progresses achieved by the consortium!

Remember to [subscribe to the WARIFA newsletter](#) and follow the main updates visiting the [project website](#) and on [LinkedIn](#), [Twitter](#) and [Facebook](#)!

## USER AND STAKEHOLDER NEEDS

Under the lead of [University of Medicine and Pharmacy "Carol Davila" Bucharest](#), the Consortium have succeeded to achieved the mapping of the risk factors for the four main chronic conditions taken into consideration within the project (cardiovascular diseases, diabetes, skin cancer and chronic respiratory diseases), in the study-pilot European countries (Norway, Spain, Romania); defined the starting set of input and output variables for the WARIFA AI tool development, as well as the principles and main requirements for creating a user-centred WARIFA app. Furthermore, the mapping of the roles and needs of end-users and stakeholders relevant for the project is in progress in the three countries studied, supported by patients' associations, medical professional associations, and different stakeholder categories.



## DATA ACQUISITION AND PREPARATION

Coordinated by [Arctic University of Norway](#), the partner involved in this work package have collaborated with the medical experts and agreed about a list of possible data parameter and data sources to be used in the project. This involves data manually collected through questionnaires, sensors and sensor/medical systems and public databases. The technical group in the WP3 has recently started to outline and design an app that will be the front-end to be used in WARIFA. The data acquisition functionalities and specifications for the WARIFA app will be demonstrated and delivered at the end of 2022.



**UiT** The Arctic  
University of Norway

# DATA PROCESSING AND MACHINE LEARNING ALGORITHMS

A preliminary development of the processing pipelines used to pre-process the data that will be collected within the WARIFA project has been proposed. Additionally, **Rey Juan Carlos University**, who is in charge of this work package, has applied several feature selection methods adapted to the heterogeneous and irregular pre-processed data. The goal is to identify the most relevant features to enhance existing risk prediction tools that can be found in this clinical setting, for example, combining individual risk factors and higher-level risk factors (such as social status).



## CONTEXT AWARENESS AND SIMULATION OF BIG DATA

The **Norwegian Centre for E-health Research**, the project coordinator, has started the work of identifying potential context data from the preliminary data we will receive from WP4. We have also started to sort out other sources to collect context data related to the person using the WARIFA app and the collected data. This data will then be stored in a relation database. The database structures will play an important role in the representation of data and the definition of the context rules. This will be a continuous process during the project and the work to define these structures has started.



## USABILITY, PERSONALIZATION AND VALIDATION

**University of Las Palmas de Gran Canaria** had performed a review of the literature on App use and usability, corresponding with deliverable 7.2 aimed at summarizing the evidence about the usability, use and engagement, and behavior change related to health apps, in order to set the foundations for the development of the WARIFA solution. The work is now focusing on the co-creation process, the methodology is based on qualitative research, mainly



through the establishment of Communities of Practice (CoPs) and focus groups meetings that will be held to support a co-creation approach for the development of WARIFA.

## EXPLOITATION AND DISSEMINATION OF THE PROJECT RESULTS

Under the **CiaoTech (PNO Gorup)** leadership, partners jointly defined and brainstormed about the relevant stakeholder groups for WARIFA: the engagement started with a 1st group of clinical stakeholders (Primary Care Providers, healthcare professionals), User Advocates (associations of patients and health professionals), other EU-funded projects in Norway, Spain, Italy, Romania and then moved towards a 2nd larger group that also included stakeholders from academia and industry across EU. The stakeholders identified were invited to participate in an online survey, published in English, Spanish, Italian, Norwegian and Romanian, designed to measure their characteristics, e.g., their interest, attitude, influence and knowledge relevant for the project. Based on the results of the survey analysis, more targeted dissemination and exploitation actions can be implemented towards them and the 2nd group of stakeholders. CTECH is also responsible of the Dissemination and Communication actions of the project, hence coordinates the actions from the whole consortium implemented to boost the visibility of WARIFA and its results.



# PARTNERS



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