

CArdiovascular Risk Assessment via multimodal data analysis enabling personalised prevention strategies targeting MEnopausaL women

Kick-off of the European project CARAMEL: an innovative approach to cardiovascular disease prevention in menopausal women

San Sebastián, Spain – December 3, 2024 – The European Horizon Europe project, **CARAMEL** (CArdiovascular Risk Assessment in MEnopausaL women via multimodal data analysis enabling personalized prevention strategies), launches today with a kick-off meeting at the headquarters of the project coordinator, VICOMTECH, in San Sebastián. With 25 partners from 11 countries, CARAMEL aims to revolutionize the prevention of cardiovascular disease (CVD) in women aged 40-60 by delivering an innovative, AI-supported model for personalized risk assessment and preventive healthcare.

Addressing an urgent public health need for women: an innovative approach

Cardiovascular disease (CVD) is the leading cause of death among women in Europe, with an especially sharp increase in risk during and after menopause. Despite these realities, CVD remains underdiagnosed and undertreated in women, as current risk models often lack consideration for sex- and gender-specific factors. CARAMEL aims to close this gap by creating tailored risk assessment models that are uniquely suited to the needs of middle-aged women.

At the core of CARAMEL's approach is the integration of multiple data sources – clinical records, medical imaging, wearable devices, and lifestyle information – to develop AI-based models capable of assessing risk levels and tailoring prevention plans. By leveraging emerging technologies, CARAMEL will enable women to take proactive steps toward their heart health through self-assessment tools and a digital ecosystem designed for empowerment and self-management. In addition, the project will incorporate advanced diagnostic tools and new biomarkers, including non-invasive skin nanosensors and NMR spectroscopy-based lipoprotein and inflammation markers, to enable earlier and more accurate risk assessment.

CARAMEL Digital platform for self-monitoring and self-care

CARAMEL's journey will involve several key milestones, including the development of a digital prevention platform and an App for self-monitoring and self-care. The project stands out by actively involving women in the co-creation of the CARAMEL digital tools, ensuring their experiences and preferences are at the core of its solutions. Moreover, CARAMEL addresses the specific needs of women with intellectual disabilities, providing an inclusive approach to cardiovascular prevention. The platform will undergo validation in clinical studies at multiple sites across Europe and Latin America, and it aims to provide new, evidence-based guidelines for healthcare providers and policymakers. The project will also develop clinical guidelines to help healthcare providers integrate these new personalized risk assessment models into clinical practice, thus supporting more effective CVD prevention strategies tailored to women.





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Key facts

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Start date: December 2024



Project Website: www.caramel-project.eu 😿 soon available



Duration: 5 years (60 months)



Linkedin : @Caramel-EUproject



Funding: € 11.998.512,63



Partners: 25



Project Coordinator: Iván Macía, Vicomtech



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Join us

Stay connected with CARAMEL's progress through our official website and social media channels. Join us as we work to transform cardiovascular prevention for women and contribute to healthier, empowered communities worldwide.

List of participants

No.	Name	Country
1	Fundacion Centro de Tecnologias de Interaccion Visual y Comunicaciones Vicomtech	Spain
2	A3Z advanced	Spain
3	Keralty SAS	Colombia
4	AE. Biokeralty Research Institute AIE	Spain
5	Particle Summary	Portugal
6	iBreve Limited	Ireland
7	Magdalena Clinic	Croatia
8	AE. Megi Health	Croatia
9	Ethniko Kai Kapodistriako Panepistimio Athino	Greece
10	Servicio Andaluz de Salud	Spain
11	AE. Fundacion Publica Andaluza para la gestion de la investigacion en salud de Sevilla	Spain
12	SocialIT Software e Consulting SRL	Italy
13	Trinity College Dublin	Ireland
14	Tree Technology SA	Spain





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Viesoji Istaiga Vilniaus Universiteto Ligonine Santaros Klinikos	Lithuania
Asociacion Centro de Investigacion Cooperativa en Biociencias	Spain
Exploraciones Radiológicas Especiales S.L ASCIRES	Spain
G Pace Ltd – Heart Rhythm Ireland	Ireland
Dublin City University	Ireland
Tampereen Korkeakoulusaatio SR – Tampere University	Finland
Ulma Medical Technologies S Coop	Spain
Ben-Gurion University of The Negev	Israel
Smartnanosense Innovation	Israel
Asociación Instituto de Investigación Sanitaria Biogipuzkoa	Spain
Timelex	Belgium
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