

Contract no. 101137248

LWNVIVAT

*Limiting West Nile Virus impact by novel vaccines and therapeutics approaches*

ACTION: HORIZON-RIA

CALL: HORIZON-HLTH-2023-DISEASE-03

TOPIC: Pandemic preparedness and response: Immunogenicity of viral proteins of viruses with epidemic and pandemic potential

*Deliverable D9.5: Project Website*

|                             |                                  |                                |                                                |
|-----------------------------|----------------------------------|--------------------------------|------------------------------------------------|
| Due Date of Deliverable     | 29/02/2024                       | Completion Date of Deliverable | 28/02/2024                                     |
| Deliverable leading partner | Jorge Carrillo Molina, IrsiCaixa | Author                         | IrsiCaixa                                      |
| WP Nº                       | WP9                              | WP Title                       | Communication, dissemination, and exploitation |

|                       |            |                  |           |
|-----------------------|------------|------------------|-----------|
| Project starting date | 01/12/2024 | Project Duration | 48 months |
|-----------------------|------------|------------------|-----------|

|                     |    |                                                                                   |   |
|---------------------|----|-----------------------------------------------------------------------------------|---|
| Dissemination Level | PU | Public                                                                            | ✓ |
|                     | PP | Restricted to other programme participants (including the Commission Services)    |   |
|                     | RE | Restricted to a group specified by the consortium (including Commission Services) |   |
|                     | CO | Confidential, only for members of the consortium (including Commission Services)  |   |



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## 1 EXECUTIVE SUMMARY

*This document is intended to describe the Deliverable D9.5 as a fundamental part of the WP9 within the project LWNVIVAT. The website's aim is to draw attention of the public, thus creating awareness and to serve as a platform to inform about the steps taken forward within the purpose of the project. The website allows the consortium to deliver information on the project progress to the public in an easy and agile manner.*

*The website has been created at the beginning of the project and it has been active and open to access from month 4 of the project's lifespan. However, it will be improved and adapted to project's needs over its duration.*

*The LWNVIVAT project website is:*

*<https://www.lwnvivat.eu>*

*This document provides information about the website status on February 2024.*

## 2 DESCRIPTION OF THE WORK

### 2.1 Task developed, results and main achievements

*On 29 February, the LWNVIVAT website is available and can be reached by introducing the following address in the browser: <https://www.lwnvivat.eu>*

*The project coordinator IRSICAIXA has been responsible for the design, implementation, hosting, functionalities, and the correct functioning of the site.*

*English language is being used for the website as it is the official language for the project and the communication language among the partners and the general public.*

*The website meets the following requirements:*

- *User friendly: to keep the user's interest.*
- *Simple: avoid people getting lost with a lot of menus and buttons and thus losing interest.*
- *Brand: by following the designs and colours of the brand book, a sense of brand representing the consortium is to be created.*
- *Dissemination: Keep stakeholders informed and updated.*
- *Communication: serve as dissemination channel for the widest audience possible.*
- *Information: provide general and specialized media with first-hand materials.*
- *Contact: Whoever wants to get in touch with the consortium for whatever reason, they can get in contact through the available means appearing on the website.*

*The LWNVIVAT project website has been designed as one-page, where all the information is accessible just by scrolling up and down through just one webpage. In addition, visitors can go directly to the part they are more interested in by clicking in one of the following 5 buttons.*

- *LWNVIVAT (HOME)*
- *PROJECT*
- *ABOUT US*
- *NEWS & EVENTS*
- *PUBLICATIONS & RESOURCES*
- *CONTACT*

*Besides the LWNVIVAT-related content, legal, funding, and data protection information has been considered and included on the website.*

Landing page:

LWNVIVAT (HOME): You can find the logo with the previously mentioned buttons and, just below them, an introduction to the project.

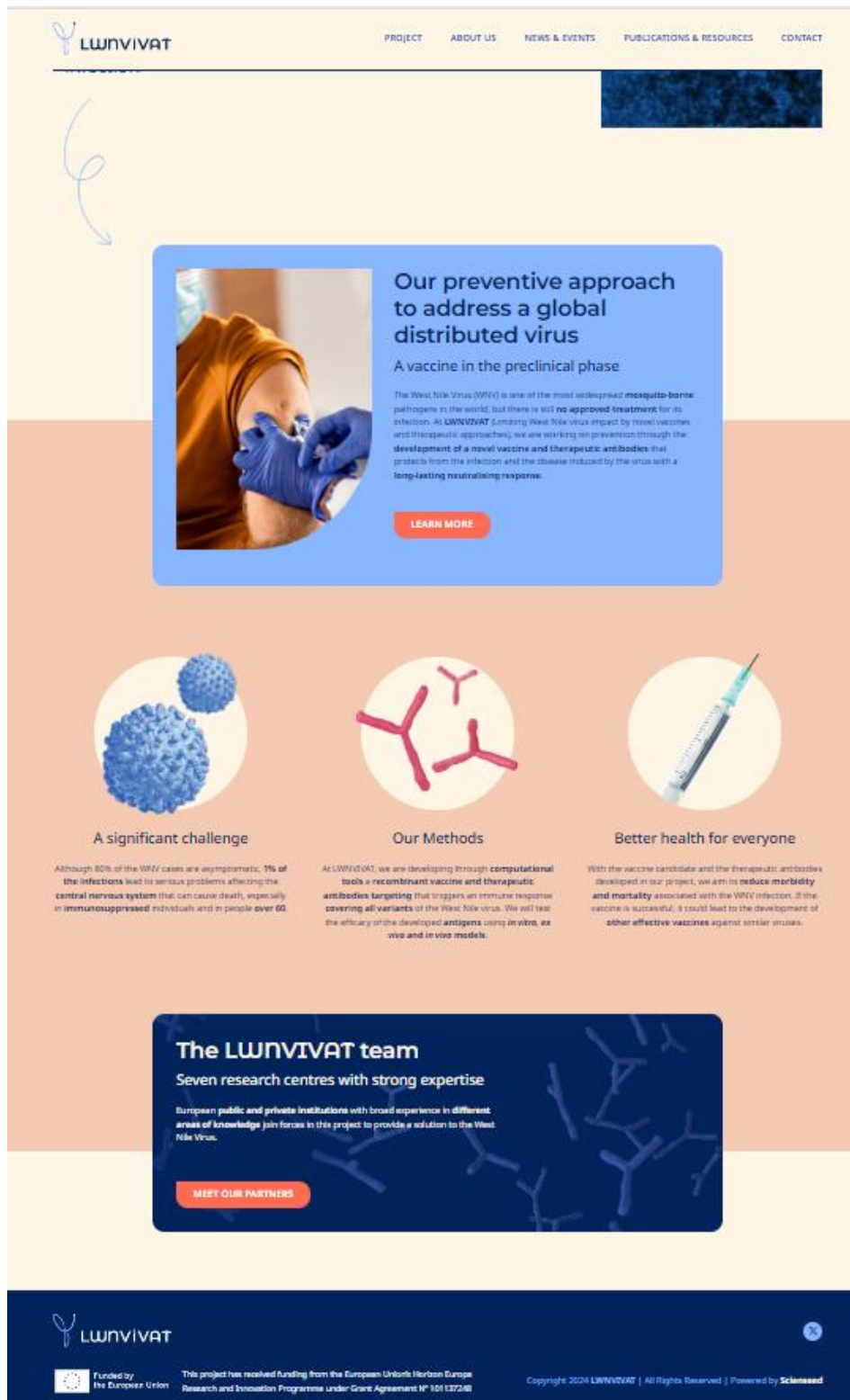
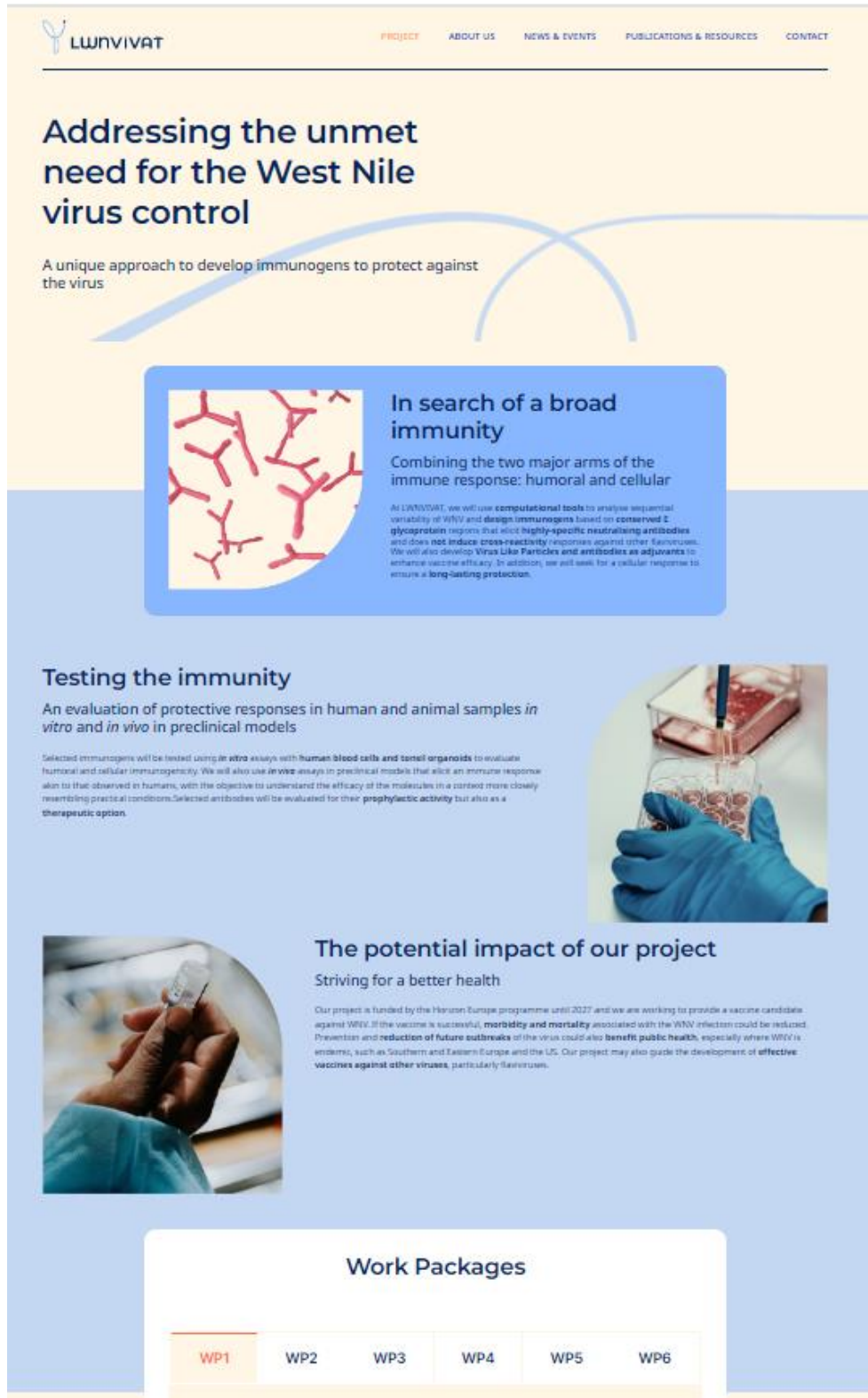


Figure 1. <https://www.lwnvivat.eu> section LWNVIVAT (HOME)

PROJECT: In this section you can find our aim and a description of each Work Package.



The screenshot shows the 'PROJECT' section of the LWNVIVAT website. At the top, there is a navigation bar with links: PROJECT, ABOUT US, NEWS & EVENTS, PUBLICATIONS & RESOURCES, and CONTACT. The main heading is 'Addressing the unmet need for the West Nile virus control', followed by the subtitle 'A unique approach to develop immunogens to protect against the virus'. Below this, there is a section titled 'In search of a broad immunity' which describes combining humoral and cellular immune responses. It mentions the use of computational tools to analyze WNV variability and design immunogens based on conserved E glycoprotein regions. A subsequent section, 'Testing the immunity', details the evaluation of protective responses in human and animal samples, both in vitro and in vivo. It describes the use of human blood cells and tonsil organoids for in vitro testing and preclinical models for in vivo testing. A third section, 'The potential impact of our project', states the goal of providing a vaccine candidate against WNV by 2027, which could reduce morbidity and mortality and benefit public health. At the bottom, there is a 'Work Packages' section with a horizontal bar containing six boxes labeled WP1 through WP6, with WP1 highlighted in red.

## Addressing the unmet need for the West Nile virus control

A unique approach to develop immunogens to protect against the virus

### In search of a broad immunity

Combining the two major arms of the immune response: humoral and cellular

At LWNVIVAT, we will use **computational tools** to analyse sequential variability of WNV and design immunogens based on conserved **E glycoprotein** regions that elicit **highly-specific neutralising antibodies** and does **not induce cross-reactivity** responses against other flaviviruses. We will also develop **Virus Like Particles** and **antibodies as adjuvants** to enhance vaccine efficacy. In addition, we will seek for a cellular response to ensure a **long-lasting protection**.

### Testing the immunity

An evaluation of protective responses in human and animal samples *in vitro* and *in vivo* in preclinical models

Selected immunogens will be tested using **in vitro** assays with **human blood cells** and **tonsil organoids** to evaluate humoral and cellular immunogenicity. We will also use **in vivo** assays in preclinical models that elicit an immune response akin to that observed in humans, with the objective to understand the efficacy of the molecules in a context more closely resembling practical conditions. Selected antibodies will be evaluated for their **prophylactic activity** but also as a **therapeutic option**.

### The potential impact of our project

Striving for a better health

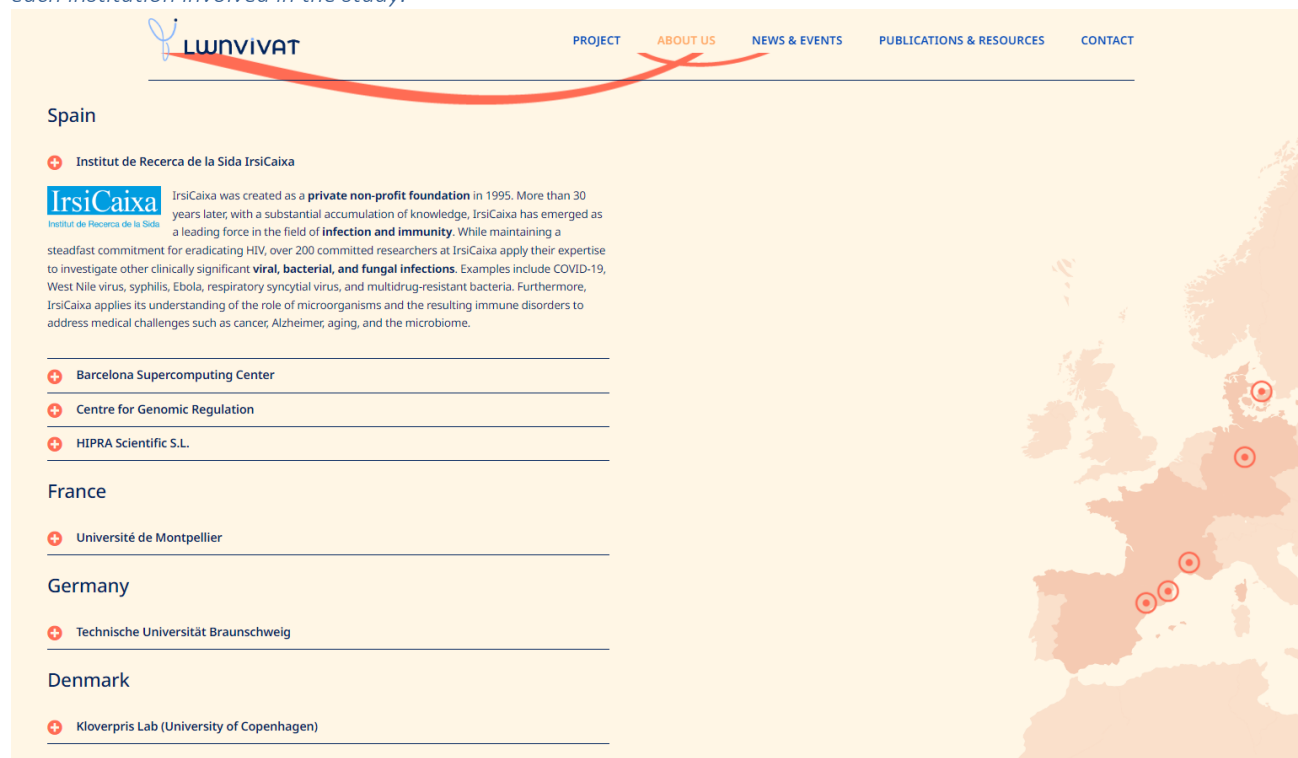
Our project is funded by the Horizon Europe programme until 2027 and we are working to provide a vaccine candidate against WNV. If the vaccine is successful, **morbidity and mortality** associated with the WNV infection could be reduced. Prevention and **reduction of future outbreaks** of the virus could also **benefit public health**, especially where WNV is endemic, such as Southern and Eastern Europe and the US. Our project may also guide the development of **effective vaccines against other viruses**, particularly flaviviruses.

### Work Packages

|     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|
| WP1 | WP2 | WP3 | WP4 | WP5 | WP6 |
|-----|-----|-----|-----|-----|-----|

Figure 2. <https://www.lwnvivat.eu> section PROJECT

ABOUT US: this section offers a brief overview of each project beneficiary, their logos, and the principal researchers from each institution involved in the study.



**Spain**

- + Institut de Recerca de la Sida IrsiCaixa

**IrsiCaixa**  
Institut de Recerca de la Sida

IrsiCaixa was created as a **private non-profit foundation** in 1995. More than 30 years later, with a substantial accumulation of knowledge, IrsiCaixa has emerged as a leading force in the field of **infection and immunity**. While maintaining a steadfast commitment for eradicating HIV, over 200 committed researchers at IrsiCaixa apply their expertise to investigate other clinically significant **viral, bacterial, and fungal infections**. Examples include COVID-19, West Nile virus, syphilis, Ebola, respiratory syncytial virus, and multidrug-resistant bacteria. Furthermore, IrsiCaixa applies its understanding of the role of microorganisms and the resulting immune disorders to address medical challenges such as cancer, Alzheimer, aging, and the microbiome.

- + Barcelona Supercomputing Center
- + Centre for Genomic Regulation
- + HIPRA Scientific S.L.

**France**

- + Université de Montpellier

**Germany**

- + Technische Universität Braunschweig

**Denmark**

- + Kloverpris Lab (University of Copenhagen)

Figure 3. <https://www.lwnvivat.eu> section ABOUT US

The section on Researchers information is under construction.



**Researchers**

Name Surname  
Position  
More info +

Name Surname  
Position  
More info +

Name Surname  
Position  
More info +

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LWNVIVAT

Funded by the European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement N° 101137248

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Figure 4. <https://www.lwnvivat.eu> section ABOUT US

*NEWS & EVENTS: Every event that is relevant for the project (Brokerage, Congresses, Workshops, Symposiums...) will be posted in this section, where pictures and other materials will be uploaded and made available. Likewise, news about West Nile Virus or any information which could be interesting for LWNVIVAT will be included in this section.*



**Keep updated on LWNVIVAT**

Don't miss anything about our project

## News

February 28, 2024

### LWNVIVAT launches its mission: kick-off meeting marks the start of the project aimed at combating West Nile virus

The partners of the European project LWNVIVAT gather in Barcelona to kick off the project and present the roadmap ahead.

## Events

### UPCOMING

### PAST EVENTS

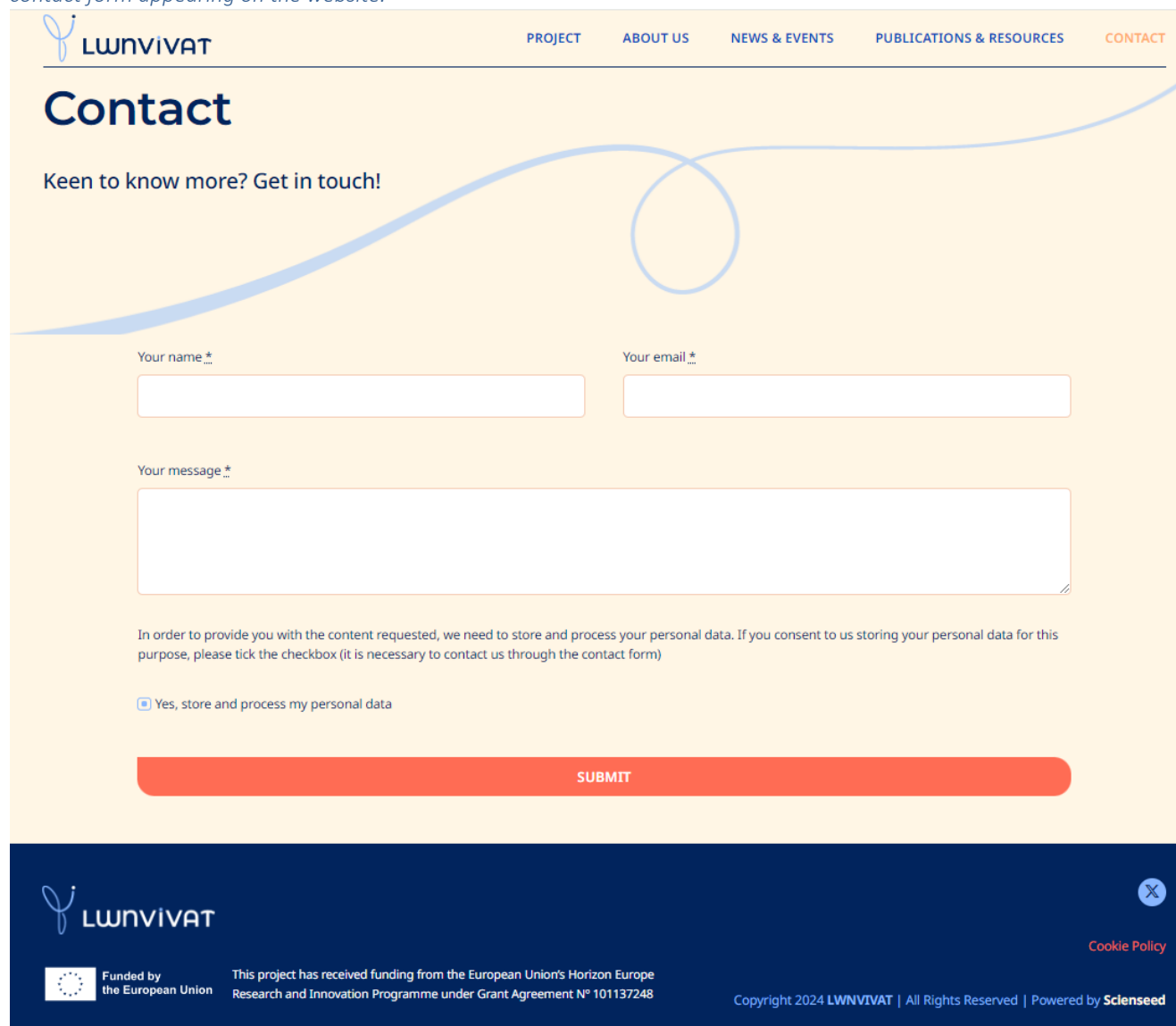
**Funded by the European Union**

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Figure 5. <https://www.lwnvivat.eu> section NEWS & EVENTS

CONTACT: Whoever wants to get in touch with the consortium for whatever reason, they can get in contact through the contact form appearing on the website.



**CONTACT**

## Contact

Keen to know more? Get in touch!

Your name \*

Your email \*

Your message \*

In order to provide you with the content requested, we need to store and process your personal data. If you consent to us storing your personal data for this purpose, please tick the checkbox (it is necessary to contact us through the contact form)

☒ Yes, store and process my personal data

**SUBMIT**

**LWNVIVAT**

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Figure 6. <https://www.lwnvivat.eu> section CONTACT

## 2.2 Main deviations and mitigation measures

Not deviations occurred.

### 3 ANNEXES

#### Brand book

