

erinha



European Research Infrastructure
on Highly Pathogenic Agents



CONTEXT

The 21st century has been marked by the frequent **globalization of infectious diseases** at an unprecedented speed.

The **current epidemic context** – outbreak of Ebola, and even more recently Lassa – demonstrates the reality of dangerous infectious threats and the worldwide vulnerability towards them.

In this **globalized environment** of interdependent trade, travel, migration and international economic markets, many factors now play an important role in the **rise, emergence and reemergence of infectious disease**, which demands a **coordinated, global response, involving all European capacities, to prevent and respond** to the spread of epidemics more effectively.

All infectious microorganisms are classified by risk group according to the pathogenicity, modes of transmission and host range of the organism. The most highly infectious pathogens are classified as **risk group 4** and are handled and stored in **Biosafety Level 4 (BSL-4) facilities**.

The European Research Infrastructure on Highly Pathogenic Agents (ERINHA) is conceived to develop an adequate and **coordinated effort of the European research capacities to address the challenges** posed by these **highly pathogenic microorganisms** infecting humans, with high risks for public health, society and the economy.

CONCEPT

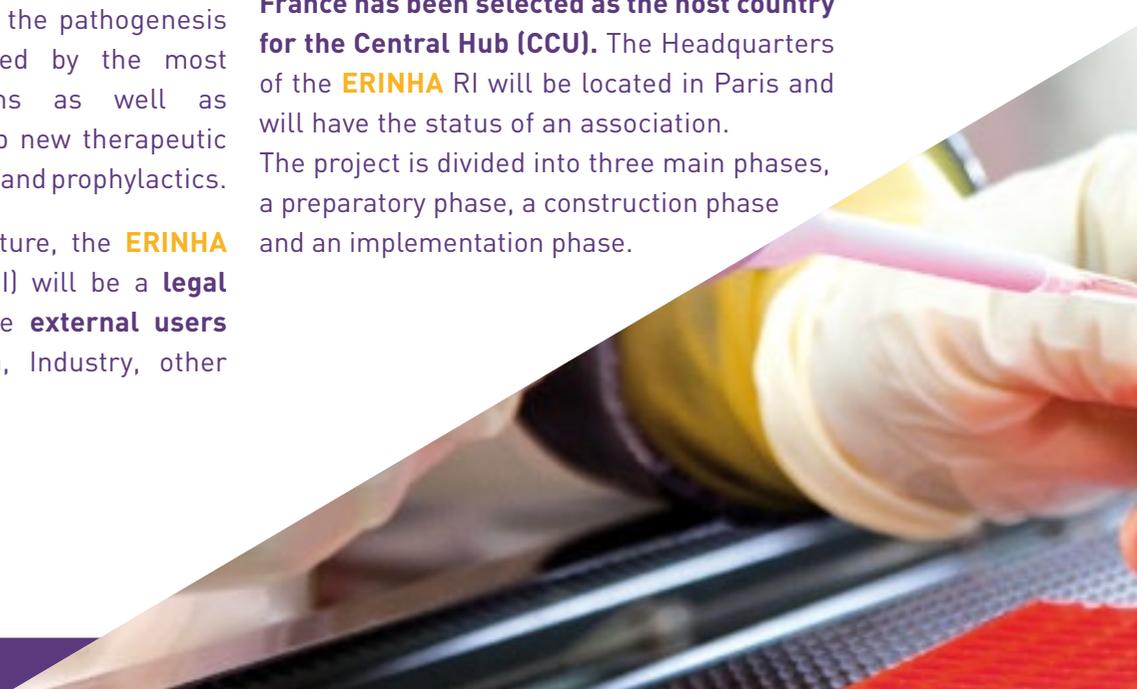
ERINHA aims to **reinforce the European capacities for the study of Risk Group 4 pathogens** and **enhance the coordination** of Biosafety Level 4 (BSL-4) and supporting infrastructures. It seeks to give access to BSL-4 facilities to all interested European scientists with a relevant research project by establishing a **pan-European distributed Research Infrastructure** and **supporting cutting-edge** research into the pathogenesis of human diseases caused by the most dangerous microorganisms as well as applied research to develop new therapeutic techniques, diagnostic tools and prophylactics.

As a distributed infrastructure, the **ERINHA** Research Infrastructure (RI) will be a **legal entity** that will provide the **external users** (scientists from Academia, Industry, other

RIs) with **access to the BSL-4 and connected facilities'** (BSL-3, BSL-2, etc.) capacities through the **Central Coordination Unit - ERINHA's executive body**. **ERINHA** will coordinate research programmes and provide services and activities that cannot be provided by a single national infrastructure or a network of BSL-4 laboratories.

France has been selected as the host country for the Central Hub (CCU). The Headquarters of the **ERINHA** RI will be located in Paris and will have the status of an association.

The project is divided into three main phases, a preparatory phase, a construction phase and an implementation phase.





WHAT IS ERINHA'S ADDED VALUE? BENEFITS FOR ALL STAKEHOLDERS

➤ Access for all stakeholders to BSL-4 laboratories' complementary capacities, expertise and services

- Access to high containment capacities to develop own research programmes
- Developing collaborations with BSL-4 labs experts
- Public health support tool for stakeholders without a BSL-4 facility: improving response to global public health threats

➤ Mobilizing research funding

- Raising the profile of European high-containment research at the European and international levels

➤ Fostering ambitious research programmes

- Complementary facilities & critical mass of scientific expertise dedicated to the detection & study of highly pathogenic microorganisms
- Ambitious research projects that cannot be performed in the framework of one laboratory
- Hosting cost-effective large-scale research programmes which respond to Public health, Academia and Industry needs

➤ Spreading best practices for biosafety & training

- Operating with common basic training and biosafety standards
- Broadening the knowledge base and staff exchanges

IN ADDITION...

➤ For Member States with a national BSL-4 capacity:

- Infrastructure improvement through shared investment
- Additional scientific expertise and specific knowledge from other involved stakeholders
- Continuous improvement through audit, review and capacity building

➤ For Member States without a national BSL-4 capacity

- Access to high-containment facilities for development of own or collaborative research programmes
- Visibility and acknowledgment of national research on the European and international levels
- Support to face national public health challenges
- Access to knowledge and expertise relevant for the operation of BSL-3 laboratories

➤ For Europe

- Providing a world-leading high containment capacity to improve response to global public health threats
- Boosting the European Research & Innovation competitiveness and scientific advancement
- Optimization of the use of the High containment capacities in Europe
- Encouraging collaboration, reducing duplication and developing synergies
- Representing European interests in international expert groups and influencing strategic thinking



ERINHA PREPARATORY PHASE: TOWARDS IMPLEMENTATION

The main purpose of the preparatory phase funded by the European Union is to bring the infrastructure to the level of legal, financial and organisational maturity required for implementation.

A Preparatory Phase Steering Committee composed of representatives of Member States' decision-making bodies has been set up to make key decisions on the future of the infrastructure.



CATALOGUE OF SERVICES: WHAT CAN ERINHA OFFER?

- Implementing an **Open Access policy to the ERINHA infrastructure** for interested researchers
- **Supporting participating national BSL-4 facilities** in the event of a **surge of requirements for BSL-4 capacities**
- Assisting and advising Member States with the **design, construction, operation and maintenance** of new or additional BSL-3 or BSL-4 capacities
- Advising on **biosecurity** issues
- **Matching experimental studies to users' needs:** i.e. basic virology, studies of viral pathogenesis using animal models and evaluation of potential therapeutics and vaccines
- **Training of users in member BSL-4 facilities** in compliance with national regulations
- Provision of transport advice and guidance for **the safe transfer** of infectious and non-infectious biological materials

PARTNERS

ERINHA brings together the complementary **expertise and research capacities of 12 European partners** to prevent and respond to the spread of epidemics caused by highly pathogenic micro-organisms.

-  Partner with BSL-4 laboratory
-  Other partners
-  **CCU**: ERINHA headquarters

FRANCE (Host country)
Institut National de la Santé et de la Recherche Médicale
INSERM
Inserm Transfert
IT

AUSTRIA
Medizinische Universität Graz
MUG

BELGIUM
Prins Leopold Instituut voor Tropische Geneeskunde
ITM

GREECE
Hellenic Pasteur Institute
HPI

HUNGARY
Hungarian National Center for Epidemiology
NCE

ITALY
Istituto Nazionale Malattie Infettive L. Spallanzani
INMI

PORTUGAL
Instituto Nacional de Saúde Dr. Ricardo Jorge
INSA

ROMANIA
Dr Victor Babes Clinical Hospital of Infectious and Tropical Diseases
SVB

SPAIN
Instituto de Salud Carlos III
ISCIII

SWEDEN
Folkhalsomyndigheten
FoHM

UNITED KINGDOM
Department of Health
DH





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