

erinha

European Research Infrastructure
on Highly Pathogenic Agents

Fostering Africa-Europe Cooperation in high consequence pathogens' research

ERINHA

Dr Hervé RAOUL, ERINHA founder

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[ERINHA.EU](https://erinha.eu)



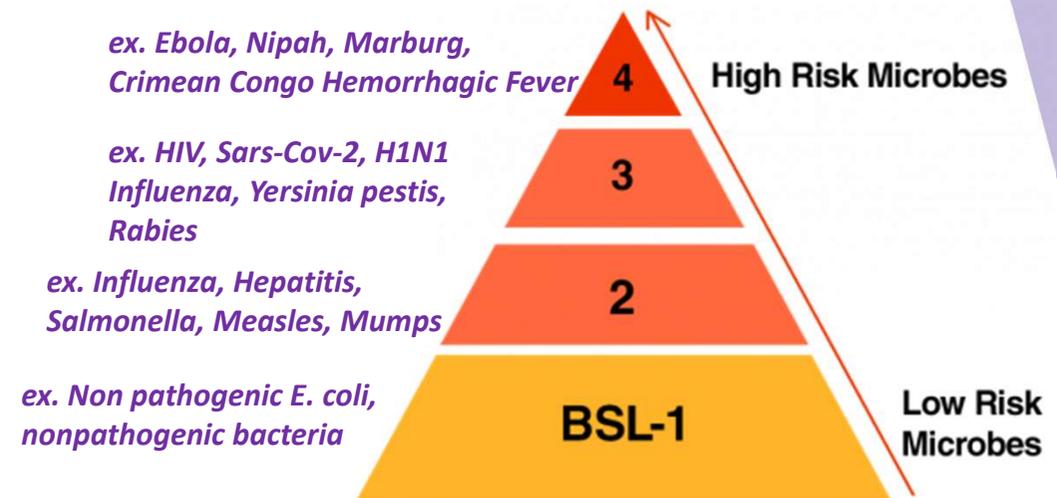
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▶ FOSTERING RESEARCH TO FIGHT EPIDEMICS

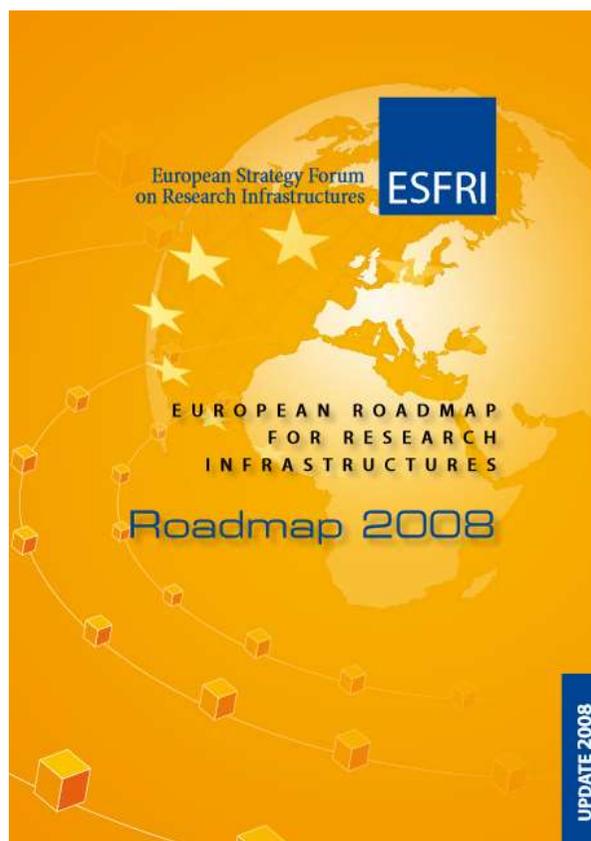
Research on highly pathogenic agents requires special high-containment facilities

- Pathogens that cause high mortality and have few or no treatments or vaccines must be handled under strict containment
- Pathogens classified as Risk Group 4 (RG4) pathogens are typically handled at Bio-Safety Level 4 facilities
- Increasing need for access to such high containment facilities



► WHY WAS ERINHA INITIATED?

A short history



In the context of emerging and re-emerging infectious diseases involving highly pathogenic micro-organisms it is vital that Europe is fully prepared. In the case of the H5N1 virus, no human cases have so far been detected in Europe and no inter-human contaminations have been demonstrated. However, in contrast, the pandemic outcome of SARS and avian flu epidemics has represented worldwide threats. Also viral haemorrhagic fevers such as Ebola and viral encephalitis like Nipah could represent a major burden on socio-economic development in the developing countries and through migrations and global travel increasingly threaten the population of Europe. These emergences have demonstrated the need to work on highly infectious pathogens, making it necessary to establish a research infrastructure of **High Security Laboratories**.

► WHY WAS ERINHA INITIATED?

Answering unmet needs

- Lack of countermeasures for Risk Group 4 pathogens
- Limited Biosafety Level-4 capacities in Europe & worldwide
- Long delay to get access to BSL-4 facilities for Industry and Academia
- No coordinated transnational access to BSL-4 research facilities
- Duplication of activities and funding
- No sustainable knowledge/data/expertise management

▶ CURRENT CONTEXT

COVID19 Pandemic

- Globalized world – globalization of infectious diseases threats
- Disease X is real
- No country is prepared for high-consequence infectious diseases outbreak (Global health Security index 2019)

A WORLD AT RISK

Annual report on global preparedness for health emergencies

Global Preparedness Monitoring Board



▶ FOSTERING RESEARCH TO FIGHT EPIDEMICS

ERINHA's capacities

8 Member countries and organizations:

INSA – Portugal

INSERM – France

FoHM – Sweden

NNK/Ministry – Hungary

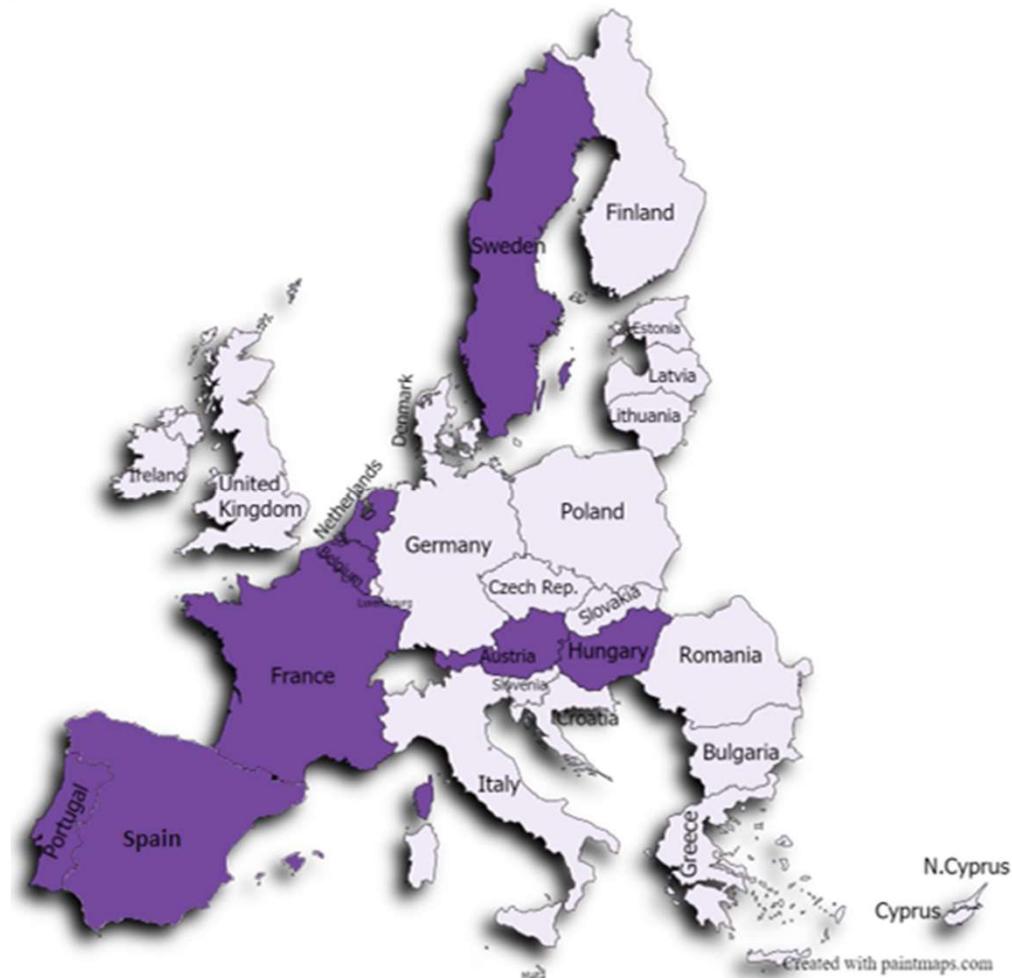
ERMASMUS MC- Netherlands

KU-Leuven – Belgium

MUG – Austria

ISCI – Spain

Enhancing regularly capacities with new member facilities



▶ FOSTERING RESEARCH TO FIGHT EPIDEMICS

ERINHA's concept & mission

Pan-European **distributed RI** of leading **BSL4 (& BSL3)** laboratories

CONCEPT

Provide a **coordinated access** to the members' cutting-edge facilities & expertise

AIM

Sized for large-scale projects that no single institution or country can perform

FOCUS

▶ **WHAT DOES ERINHA BRING?**

Providing a world-leading high containment capacity to improve research and response to global public health threats

Providing a pool of trained scientists and experts on high-consequence pathogens

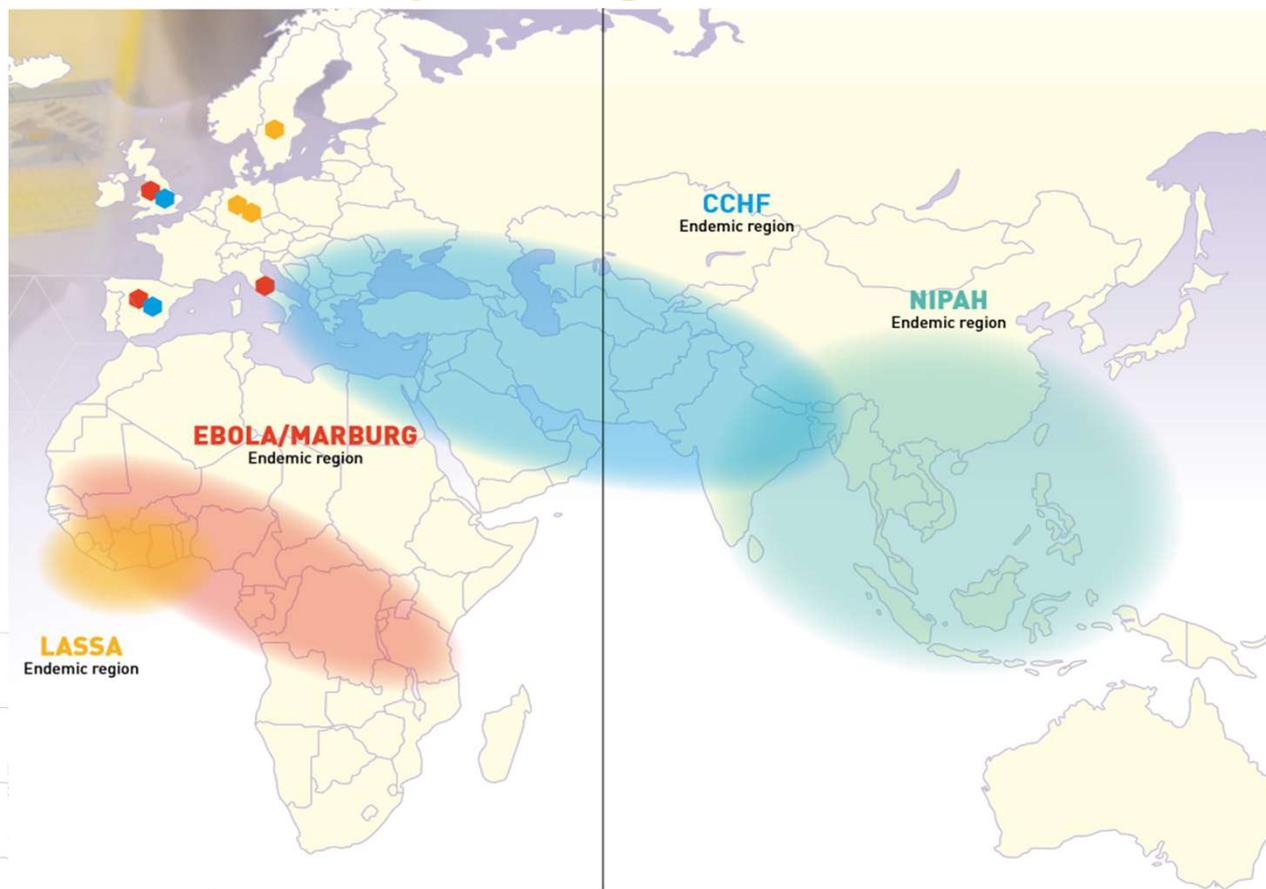
Boosting R&I competitiveness and scientific advancement on RG4 pathogens

Optimization of the use of the high containment capacities, reducing duplication and developing synergies



ERINHA'S RESEARCH PORTFOLIO

Prioritized pathogens



- EBOLA / MARBURG
- LASSA FEVER
- CRIMEAN-CONGO HAEMORRHAGIC FEVER
- NIPAH / HENDRA
- EMERGING DISEASES (e.g. SARS-CoV-2) /DISEASE X
- BACTERIA

▶ FOSTERING RESEARCH TO FIGHT EPIDEMICS

How does ERINHA Reach its Scientific Goals?

- ▶ As a Service Provider
 - ▶ Through Contracts
 - ▶ Or Free-of-charge Transnational Access
- ▶ Through a Collaborative Approach
 - ▶ By conducting research as a coordinator
 - ▶ Or beneficiary of research programmes

▶ ERINHA's RESEARCH ACTIVITIES

Two upcoming presentations today

- ERINHA's Ongoing research activities (Dr. C. Filippone)
- Upcoming cooperation opportunities – (Dr A. Richard)

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THANK YOU

LEARN MORE: erinha.eu

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