E3 Pandemic Response

The E3 project wants to harness modern science and technology to create effective countermeasures to prevent the spreading of novel infectious diseases.

www.pandemicresponse.fi

Consortium

EXCELLENCE IN PANDEMIC RESPONSE AND ENTERPRISE SOLUTIONS

22 Companies
7 Research organizations

The E3, Excellence in Pandemic Response and Enterprise Solutions Co-Innovation project

- The project will primarily study the different pathways of pathogens and viruses, virus control and detection methods that can be used to find solutions to keep indoor air clean and safe in offices, public spaces, and vehicles.

- The diversity of countermeasures is key to fighting pandemics. Finding effective protection strategies towards pandemics, and infectious diseases in general, requires a multidisciplinary approach and close co-operation between different specialists, like medical doctors and engineers.

- The aim is to have technical solutions already in place during the current pandemic and before the next pandemic emerges, there would be technological solutions available and installed in indoor environments mitigating the transmission of pathogens in spaces where people meet.

22 companies

7 research organizations

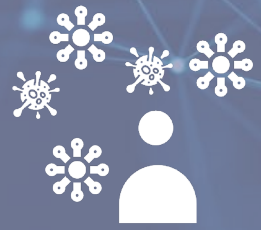
Duration 2,5 years

International cooperation

Research subjects

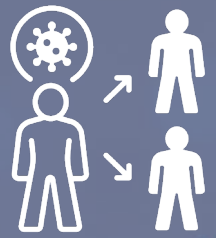
Risk Assessment, Prevention & Control Strategies

Emissions, Dispersion, Deposition & Exposure



Airborne Contamination Control

Pathogens & Human Being



Detection & Monitoring & Diagnostics

Integration of Indoor Concepts & Solutions

How E3 utilizes the research results to find solutions for preventing virus contamination

Smart Modular Healthcare

Smart Office

Dynamic Interaction of people and Indoor environment

E3 Ecosystem

EXCELLENCE IN PANDEMIC RESPONSE AND ENTERPRISE SOLUTIONS

Science-based world-class solutions to global markets with high business and societal impact.

Indoor Health Safety

WP1 Risk Assesment, Prevention & Control Strategies

WP2 Pathogens & Human Being

WP3 Emissions, Dispersion, Deposition & Exposure

WP4 Detection & Monitoring & Diagnostics

WP5 Airborne Contamination Control

WP6 Integration of Indoor Concepts & Solutions

WP7 Project Coordination & Coordination of Business Cooperation

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ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

HUS

HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

TAMLINK

Finnish Institute of Occupational Health

Tampere University
Tampere University of Applied Sciences

Use cases as a platform for joint development of need-based solutions focus on pandemics:

Use Case 1: Smart Modular Healthcare
Use Case 2: Smart Office
Use Case 3: Dynamic interaction of people and indoor environment

Multidisciplinary joint research

Monitoring & diagnostics

OLFACTOMICS
Biomensio
HUS
Roche
smartwatcher

System integration

Granlund
AW²
AFRY
Halton
RAPAL

Clean air

alme
ISEC
Lumikko
AirO
LIFAair®
FILTERPAK

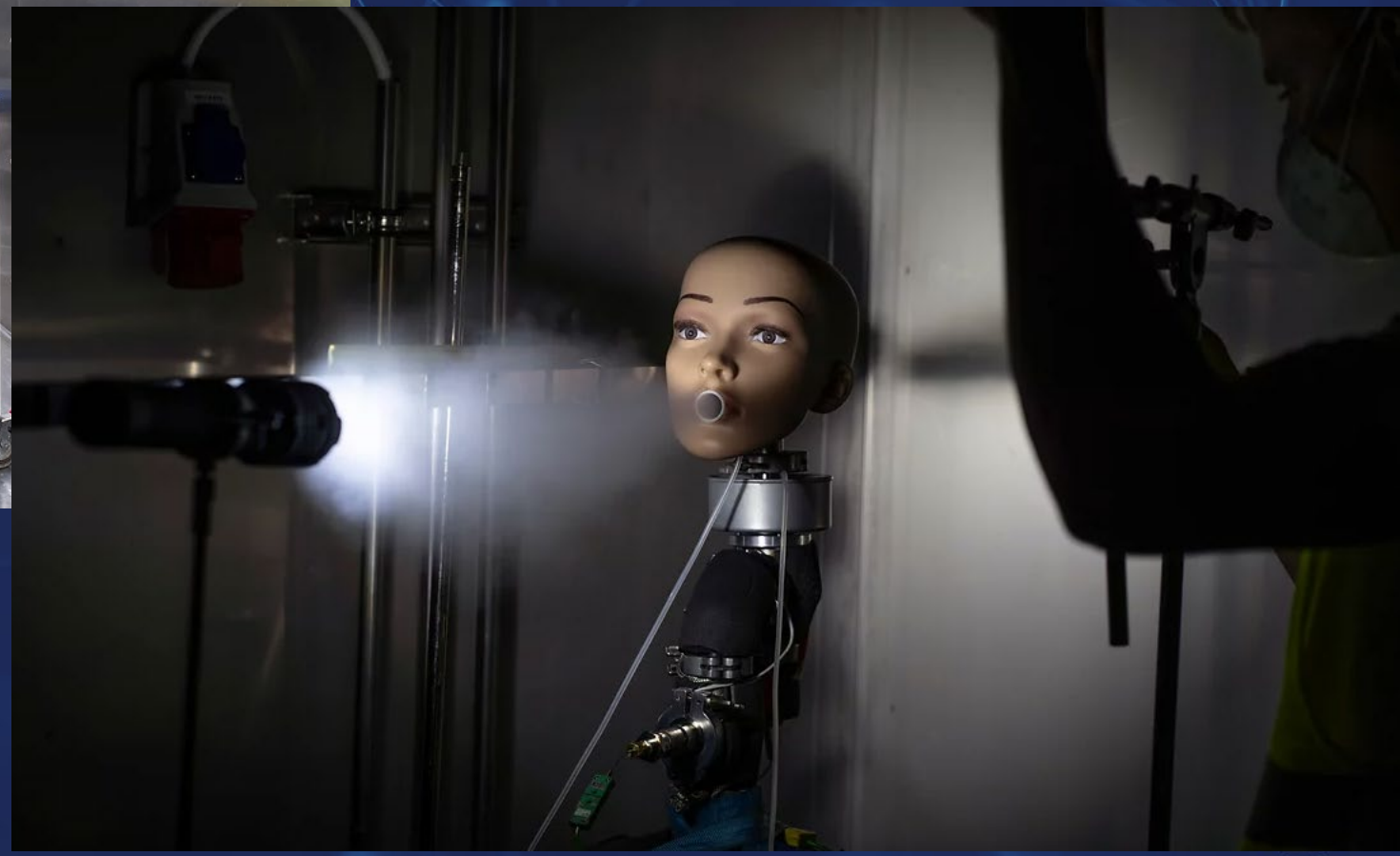
People & infection control

Royal Caribbean Group
KONE
CLEAMIX
RUNE BERG
HUS

Few examples of recent E3 research:

Finnish frontline opera singers helping E3 to define the difference between human beings as emitters. In the picture, opera star bass Mr. Jaakko Ryhänen.

The coughing robot head simulating the aerosols with a burst of smoke.



Contact information

Jari Erkkilä
Coordinator
Tamlink Ltd.
p. +358 40 513 6917
jari.erkkila@tamlink.fi

Aku Karvinen
Senior Scientist
VTT
p. +358 40 510 2142
aku.karvinen@vtt.fi

Tarja Sironen
Associate professor
Helsinki University
p. +358 504 471588
tarja.sironen@helsinki.fi

Topi Rönkkö
Professor, aerosol physics
Tampere University
p. +358 40 198 1019
topi.ronkko@tuni.fi

Piia Sormunen
Industry Professor
Tampere University
p. +358 50 476 6731
piia.sormunen@tuni.fi

Website: www.pandemicresponse.fi