

FRAUNHOFER PORTUGAL AICOS

Fraunhofer Center for Assistive Information and Communication Solutions

A INTERNACIONALIZAÇÃO DA INOVAÇÃO TECNOLÓGICA:
DESAFIOS E OPORTUNIDADES

Fraunhofer Portugal

Fraunhofer – Gesellschaft

Fraunhofer Strategic Research Fields



Bioeconomy



Quantum Technologies



Digital Healthcare



Resource Efficiency and
Climate Technologies



Artificial Intelligence (AI)



Hydrogen Technologies



Next Generation Computing

76
Institutes

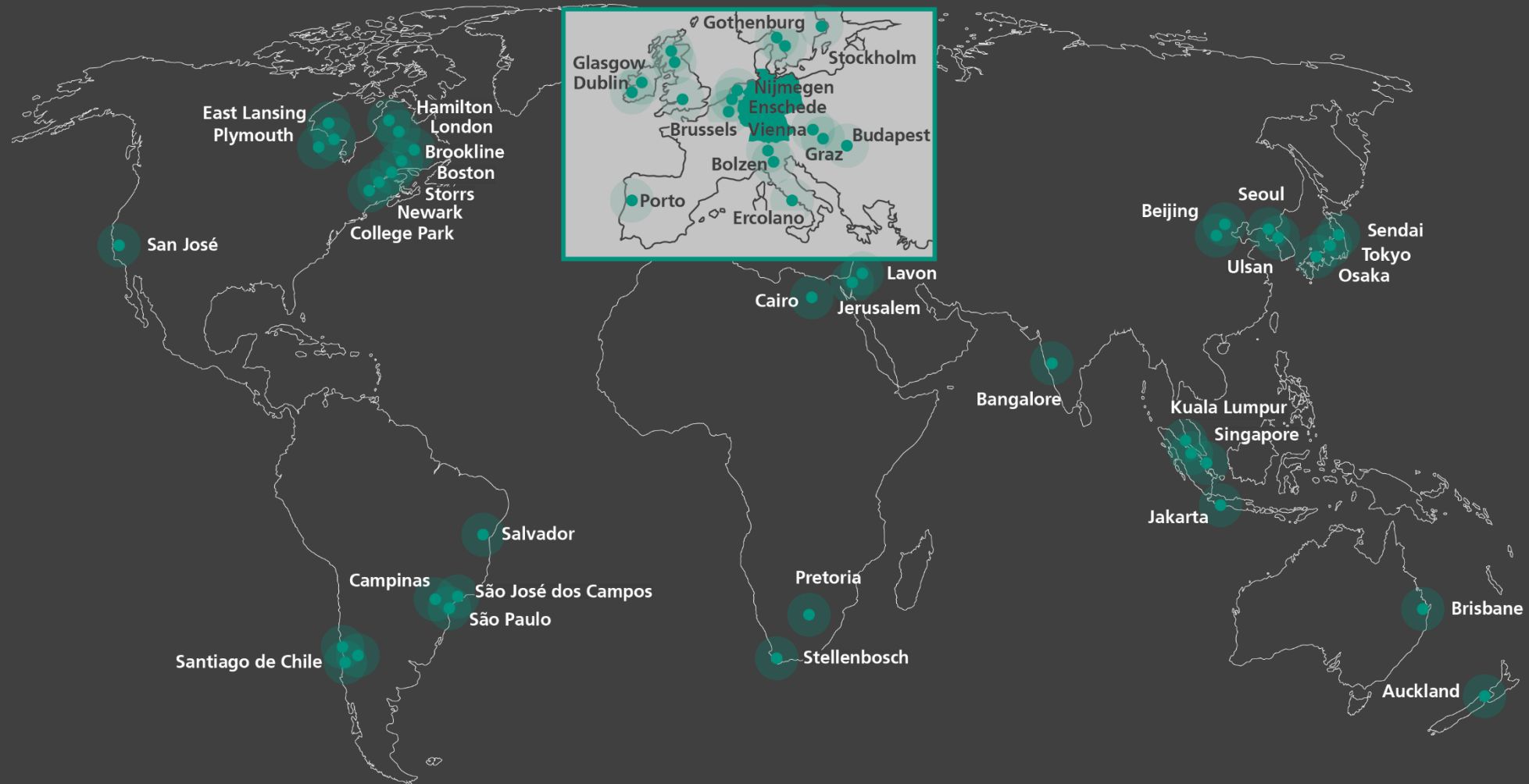
> 80
Research Units

> 30,000
Employees

> € 2.9 billion
R&D Budget
(€ 2.5 billion contract
research)

Fraunhofer Portugal

Fraunhofer – Gesellschaft



Fraunhofer Portugal

Institutional Background

ASSOCIAÇÃO FRAUNHOFER PORTUGAL RESEARCH



Fraunhofer Portugal

Fraunhofer Operational Model and Technology Transfer

BASE FUNDING

~1/3 Revenues



**DIRECT INDUSTRY
CONTRACTS**

~1/3 Revenues

**NATIONAL /
INTERNATIONAL
R&D PROGRAMMES**

~1/3 Revenues

Fraunhofer Portugal

Associação Fraunhofer Portugal Research

AICOS

13 YEARS

U. PORTO

UNIVERSIDADE
DO PORTO

> **2** (Porto and Lisboa)
Research Units

> **122**
Employees



AWAM

3 YEARS



> **2** (Vila Real and Évora)
Research Units

> **12**
Employees

Fraunhofer Portugal

Key Figures

+90

Industry Partners

124

Researchers &
Students

36

Achievements
Awards
(e.g. CES / Microsoft / Vodafone)
Honourable Mentions

352

Publications

+1,600

Research Participants

+200

Theses

Fraunhofer Portugal AICOS

Vision and Mission



PROPOSING FUTURES. IMPACTING LIVES.

We create cutting-edge innovation based on end-user insights.

REMARKABLE TECHNOLOGY, EASY TO USE.

As a leading partner for industry, we create applied research solutions capable of contributing to the market success of our clients' products and services by focusing on the value for their customers.

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Purpose and Scientific Areas



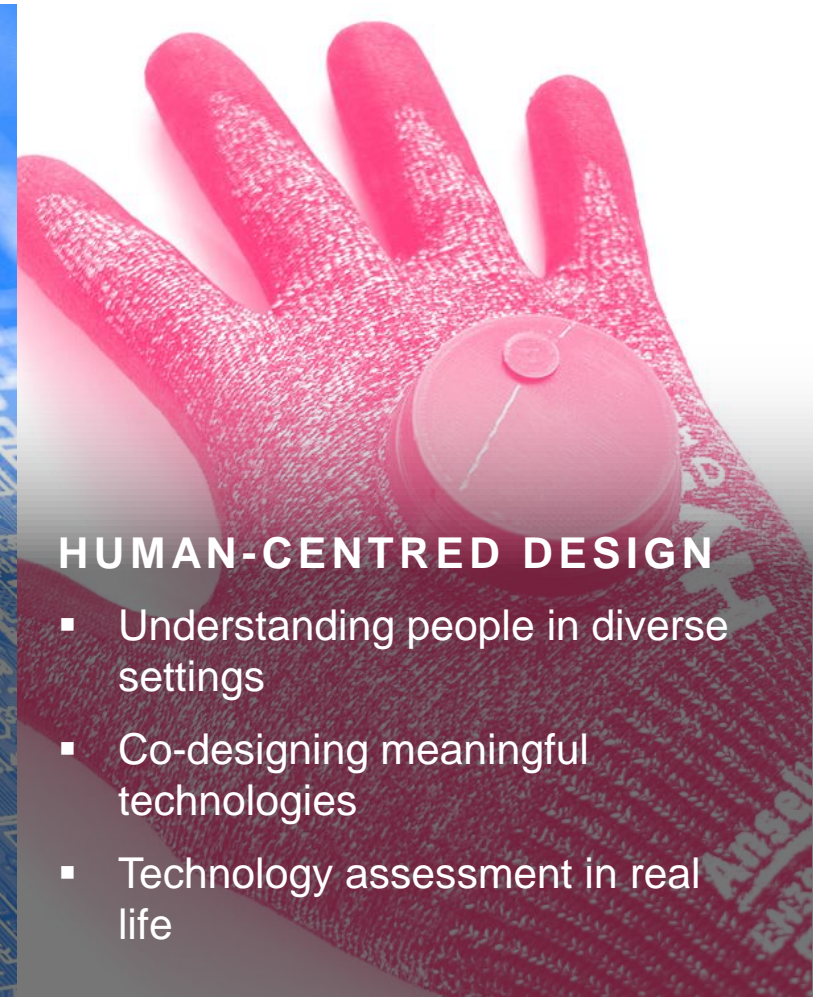
INTELLIGENT SYSTEMS

- Edge and Cloud Computer Vision
- Sensor Fusion & Embedded Intelligence
- Cognitive Systems & Deep Learning
- Predictive Modelling & Recommendation



CONNECTED THINGS

- Embedded Electronics
- Communication and Networks
- Edge and Cloud Computing
- Quality Assurance & Regulatory Pre-Compliance

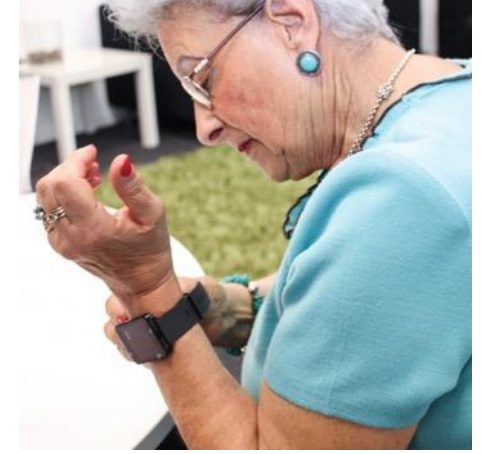


HUMAN-CENTRED DESIGN

- Understanding people in diverse settings
- Co-designing meaningful technologies
- Technology assessment in real life

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Innovation Themes



COGNITIVE CONNECTED SOLUTIONS

- Letting everything sense
- Prediction and recommendation
- Natural user experience

DIGITAL FARMING

- Decision support
- Mobile crowdsensing
- Efficient and self-managed networks

ACCOUNTABLE ARTIFICIAL INTELLIGENCE

- Explicability, transparency, and bias
- Accountability and ethics
- Fairness and inclusion through technology

DECENTRALISED HEALTH TECHNOLOGY

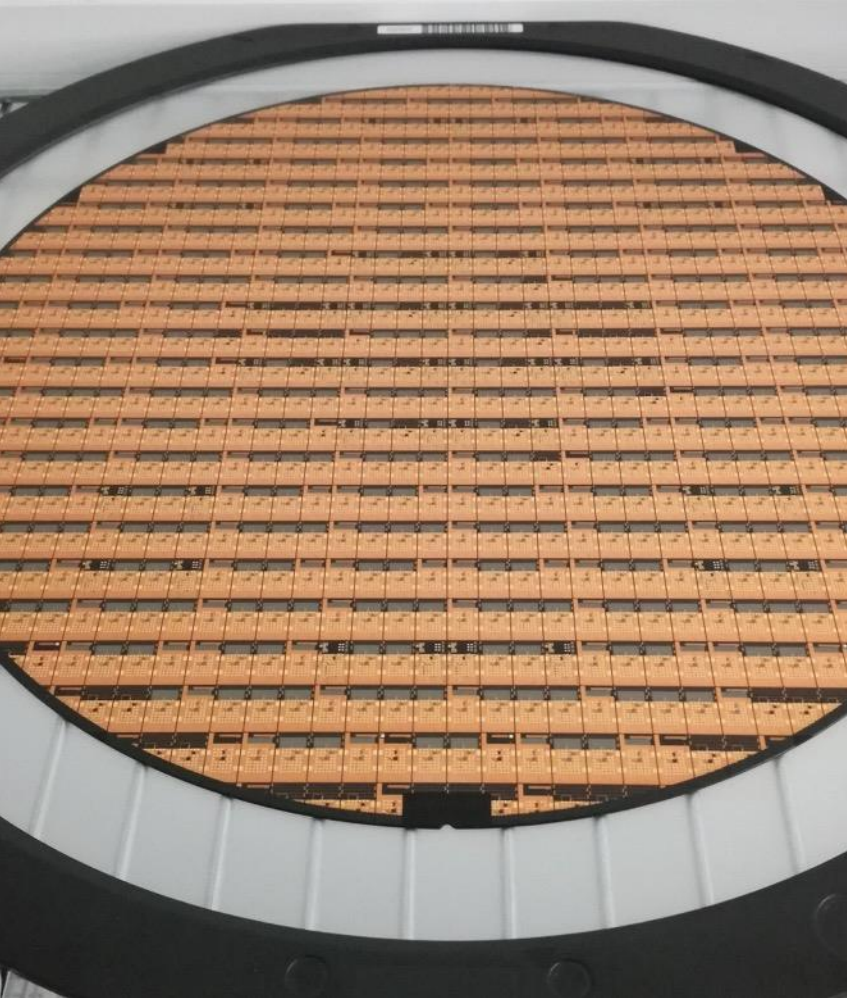
- Prevention
- Support to early diagnosis and intervention
- Affordable cutting-edge technology

LIVING AND AGEING WITH DATA

- Personalised technology
- Socio-technical systems
- Technology design by non-technologists

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Small, flexible, and modular cyber-physical systems



SENSE

Letting everything sense:
a small, easy deployable and
modular technology enabling
virtually any object to sense,
act and process data



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Small, flexible, and modular cyber-physical systems

■ HARDWARE

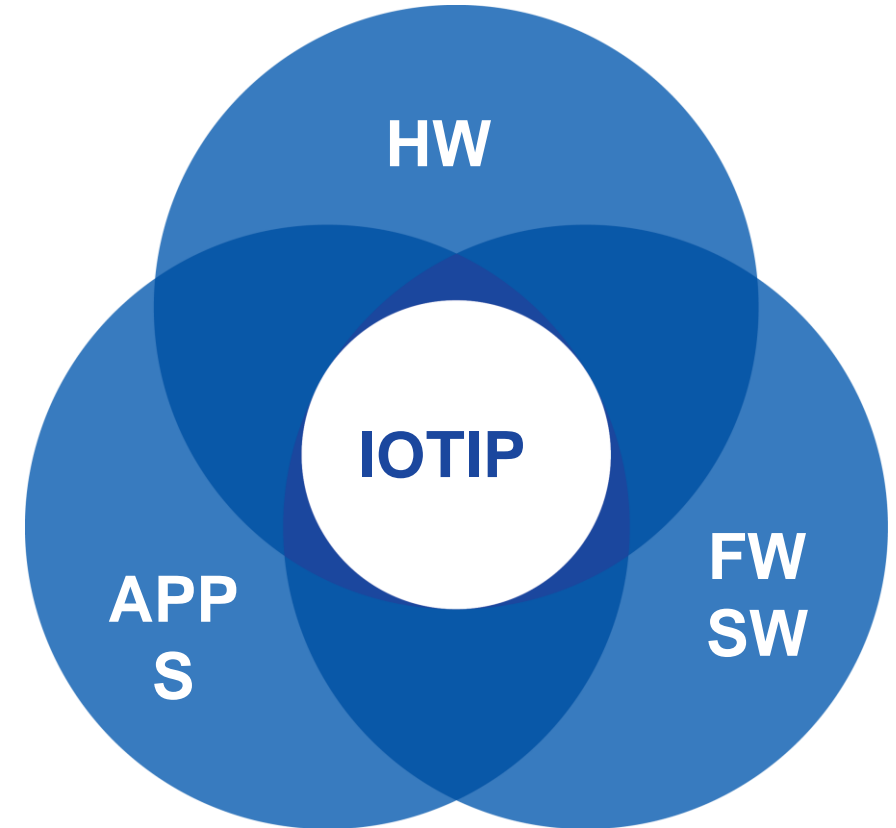
- PCB
- SiP CORE
- Substrate based version (env. + air sensing add-on SiPs)

■ FIRMWARE + SOFTWARE

- Software Development Kit
- Application Programming Interface (Android, iOS, Linux)

■ APPLICATIONS

- Examples
- Documentation
- Website + Forum



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Small, flexible, and modular cyber-physical systems





ENCONTRO
COM A CIÊNCIA
E TECNOLOGIA
EM PORTUGAL

16-18 maio

Thank you

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