



Generalitat de Catalunya
Government
of Catalonia

European Green Week

Catalan Government: Program in Advanced Digital Technologies

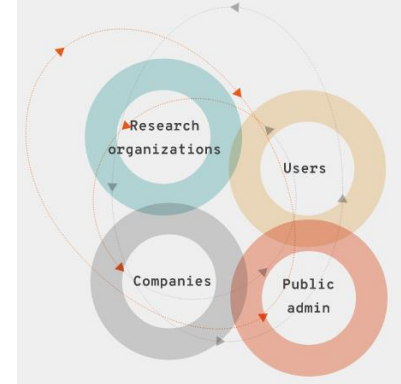
Waste of Electric and Electronic Equipment (WEEE)

Research and Innovation approach

i2CAT Foundation

More than 17 years as a Research Center

- The i2CAT Foundation is a **non-profit research and innovation center** that promotes **mission-driven knowledge** to solve business challenges, co-create solutions with a transformative impact, empower citizens through open and participative digital social innovation with territorial capillarity, and promote pioneering and strategic initiatives.
- i2CAT's activities span the areas of **Research**, playing a key role in the EU Framework Program for Research and Innovation; **Strategic Projects**, leading local initiatives that strengthen the digital policies of public administration, and **Technology Transfer**, fostering **R&D** collaboration with companies to develop innovative market-oriented solutions.



<https://i2cat.net>

Program in Advanced Digital Technologies: WEEE PoC

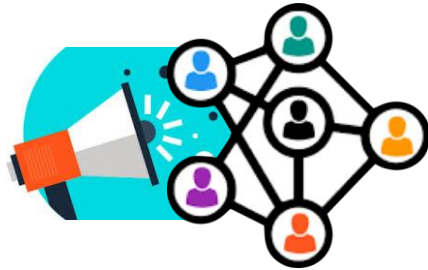
Roles in Proof of Concept

- 1) Project Coordinator
 - i2CAT Foundation
- 2) Collaborators for PoC implementation:
 - Others Research Centers
 - Universities Research Groups
 - Privates Companies
 - Manufacturers
 - WEEE Ecosystem agents
 - i2CAT Foundation

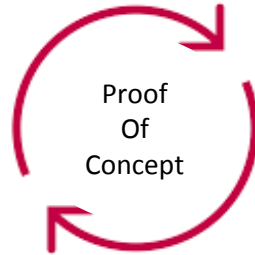


Program in Advanced Digital Technologies: WEEE PoC

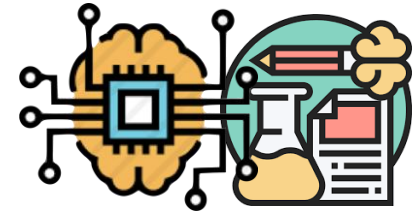
Beyond the paper: Applied Research and Innovation



Digital Social Innovation



MVPP
Minimum Viable Pre-Product



Technological Innovation

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Challenge 1: How to involve manufacturers and citizens

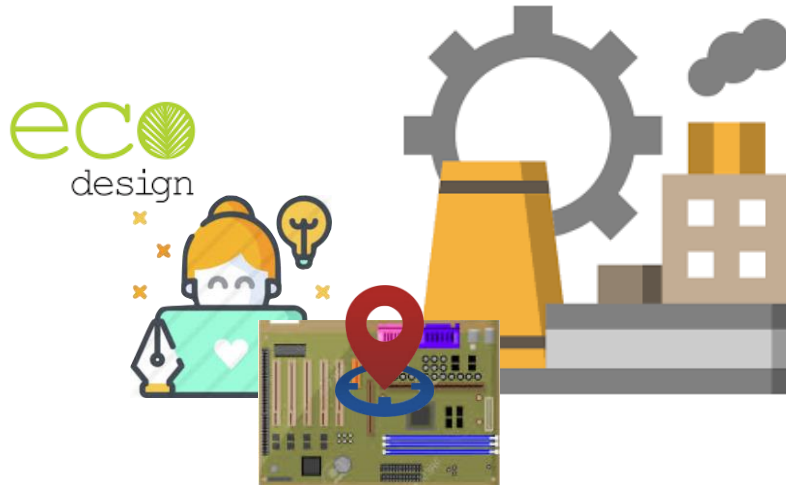
GAMIFICATION



- Government points for other services
- Special discounts
- Minor taxes
- Reputation
- Minimum level for public tender participation

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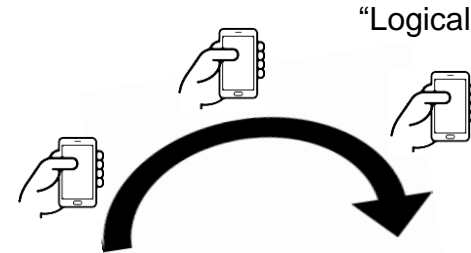
Challenge 2: How to trace devices and components from the beginning



Key: Manufacturers collaboration



“Physical” trace



“Logical” trace

Distributor

Shop Center

End User

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Challenge 3: How to create a safe, reliable and easy-to-use platform for all stakeholders

ARCAT Platform

- Offers portal access, reports, users / Companies registration, etc.
- Features: Traceability, security, transparency, data immutability, auditable System, etc.
- Works in Web and Mobile apps

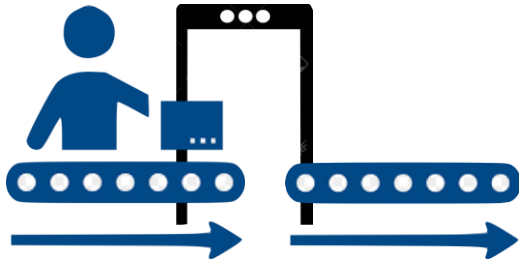


Powered by **Blockchain** Technology

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Challenge 4: How to increase the safety and the second useful life or recycling

ARC Detection



Research in
Computer Vision (Artificial Intelligence)

Research in
Chemical component detection

Visual and chemical detection of components



Safety



Recycling



Second life

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Summary

Challenge 1

Digital Social Innovation: gamification

Challenge 2

Tracing from the beginning: physical or logical

Challenge 3

ARCAT: Robust and simple platform

Challenge 4

Research in AI and chemical components





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