

Printed paper-based electronics

Description

Innovative and smart printed electronics based on multifunctional paper, from smart labelling to point of care bio platforms.

Objectives

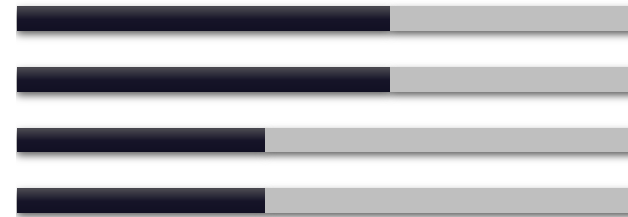
- To evaluate the environmental impact and check reliability of temperature, hygrometry and pressure printed sensors and paper-based PoC immunoassays and to assess their cost benefit, to decide if the production lines are economically feasible to bring them to the market compared to commercial counterparts,
- To design tailor-made multifunctional paper and devices incorporating sustainability criteria and define the most suitable options to reduce environmental impacts.

Activities

- Sustainability assessment:
 - Life-Cycle Assessment LCA,
 - Life-Cycle Costing LCC,
 - Eco-design.

Challenges

- Input data complex to collect
- Technical knowledge required
- Legal & legislation barriers
- Technology readiness level



Expected outcomes

- Advantage for European industries in competition with non-European low-cost countries,
- Use of cellulose as an electronic material for insulators, electrolytes, conductors and semiconductors,
- Reduction of the environmental impact of electronics.

