

# Printed paper-based electronics

**BIOLAN**  
accurate · easy · smart

## 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 device's specifications and of paper-based electrochemical immunosensors, to assess their cost benefit and decide if their production is economically feasible to bring them to the market,
- To design the devices for the paper-based PoC immunoassays production, incorporating sustainability criteria and 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.

