

An international contest looking for innovators that use paper-based electronics

- The European project INNPAPER launches an Open Call for ideas that use paper-based electronics.
- The contest is open until June 1st 2020

San Sebastián, April 1st, 2020 — Printed batteries, displays, temperature, humidity and genetic sensors... Over the last two years, the European project INNPAPER has been developing these electronic items, using only paper and conductive inks. Now the technology is almost ready to be used, and the project [has launched an Open Call](#), looking for initiatives in the electronics field that have innovative ideas on how to use the project's devices. The call will be open from today until June 1st.

INNPAPER is developing three use-cases following this technology: a cold-chain monitoring smart-label, bedside diagnostic tests for influenza and streptococcus bacteria, as well as caffeine and THC detectors. The aim of the Open Call is to expand beyond these use-cases. From labels to detect food spoilage, to novel diagnostic tests or interactive printing, the possibilities are endless. Researchers, companies and innovators from around the world are encouraged to participate. The only requisite is they are based on a country that is part of [the Eureka Network](#).

The winning proposal will get to kick-start the idea, getting a technical viability assessment, a manufacturing process flow, a roadmap to TRL 7 and an estimation of the cost of the technology. It will also gain privileged access to the project's pilot printing line that includes, among other technologies, cutting edge roll to roll pilot coating technology, surface characterisation including AFM and SEM and inks formulation and sheet to sheet printing techniques. A list of all the technologies can be consulted at the [project's website](#).

INNPAPER is a project funded by the European Commission H2020 programme. The project is led by the research Centre CIDETEC in San Sebastian (Spain) and involves another 2 Research Centres, 2 Universities, 3 Enterprises and 7 SMEs.

CIDETEC
Ana Viñuales
avinuales@cidetec.es

Scienseed (Project's Press Office)
Guzmán Sánchez
650 30 51 36 /
guzman.sanchez@scienseed.com

Juan José Sáenz
663 111 279 /
juanjo.saenz@scienseed.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 760876

Additional Information

What is INNAPER?

INNAPER is a European Research and innovation project, funded by the European Union, that is developing a new electronic technology based on paper: a recyclable, reusable and renewable material. To do it, the project modifies the cellulose nanofibers that compose paper, producing tailored papers and inks that are then used to manufacture electronic items such as batteries, displays, antennas and circuits.

Altogether, the technology conforms a configurable electronic board including three printed items (battery, display and NFC system), ready to be used in a broad range of industries. To demonstrate its potential, INNAPER is developing three use cases for different industries: a smart label for the packaging industry, drug and caffeine detectors for the security and food industries respectively, and bed-side diagnostic tests for the medical industry.

More information available through the [project's media kit](#).

Why use paper and inks as an alternative to traditional electronics?

Discarded electric and electronical devices receive the name of e-waste. It is a growing concern that affects environment as well as human health. Recycling and collecting this e-waste endangers the people in charge of these tasks, who usually live in developing countries. According to a United Nations [report](#), in 2016 we produced more than 40 million tonnes of e-waste around the world. This means that each one of us generates around 6 kg of e-waste every year.

To face the e-waste problem, developing alternative systems to traditional electronics is one of the possible solutions. These systems require less plastic and metal in their manufacture process. Due to its high recyclability, paper arises as an ecological alternative. Its internal composition, based on cellulose fibres, allows to modify its properties to deliver multiple applications: paper that conducts electricity, that absorbs or repels water or that withstands high temperatures without burning.

To evaluate the environmental impact of the materials and devices developed by INNAPER, the partners [Vertech Group](#) and [GuarroCasas](#) will study their life cycle along the whole project, assessing the environmental footprint and the reusability and recycling possibilities.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 760876