



The next generation of sensors and imagers enabled by 2D materials digital integration

Next-2Digits is an ambitious project aiming to revolutionize the next generation of devices by harnessing the potential of 2D materials.

The project focuses on overcoming the challenges related to **Photonic Integrated Circuits** (PICs) and **Optoelectronic Integrated Circuits** (OEICs), specifically in the integration of **photodetectors** (PDs) and **modulators** (MDs).

In Next-2Digits, Graphene becomes the driving force behind the development of 3 use cases.

- A LiDAR-equipped drone, compact, reliable, and cost-effective, that can map with high precision the surrounding environment.
- Greenhouse gas sensors that can provide real-time and accurate data on emissions in biogas plants, aiming towards sustainability and energy efficiency.
- An on-chip Polarization Diversity Receiver for optical coherence tomography, enhancing biomedical (and more specifically, cardiovascular) screening resolution and reliability.

Next-2Digits innovative work will contribute to the fields of sustainable and efficient environmental monitoring and medical diagnostics.

WWW.NEXT-2DIGITS.EU

Get in touch to find out more about
Next-2Digits technology and material
innovations!

CONTACT

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PROJECT DATA

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WEBSITE

WWW.NEXT-2DIGITS.EU



PARTNERS



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