



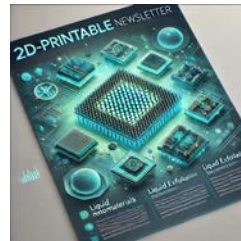
NEWSLETTER #5 - July 2026

Dear reader,

We are delighted to bring you the latest edition of the 2D-PRINTABLE newsletter, where we share the newest developments from our journey towards advancing next-generation printed electronics based on 2D materials.

In this issue, discover our latest project milestones, scientific publications, and research achievements. We also look back at some of the key moments from the past months, including the successful 2D-PRINTABLE & HYPERSONIC Symposium.

Follow us on [LinkedIn](#) and [subscribe](#) to our newsletter to keep up with our latest breakthroughs, publications and events.



2D-PRINTABLE events

2D-PRINTABLE & HYPERSONIC Symposium 2026

On 31 March 2026, researchers, industry leaders, and policymakers gathered in Dublin for the 2D-PRINTABLE & HYPERSONIC Symposium to explore the future of 2D materials for digital electronics. The symposium showcased cutting-edge advances in printable and flexible electronics, featuring contributions from leading European initiatives, including the [Graphene Flagship](#).

Project partners presented their latest scientific achievements, demonstrating how solution-processed 2D materials are paving the way for high-performance, scalable electronic technologies. Beyond the scientific programme, the event fostered valuable discussions, strengthened collaborations across academia and industry, and created new opportunities to accelerate innovation in next-generation electronics.

Discover more highlights from the symposium on our [website](#).



2D-PRINTABLE General Assembly in Dublin

On 30 March 2026, the 2D-PRINTABLE consortium gathered in Dublin for its General Assembly to review progress and coordinate the final phase of the project. Discussions focused on accelerating the scale-up and integration of solution-processed 2D materials for printed electronics while reinforcing collaboration across the consortium. A dedicated exploitation workshop enabled partners to identify key exploitable results and develop strategies to maximise the long-term impact of the project's outcomes beyond its lifetime.

The meeting provided an excellent opportunity to reconnect in person, exchange ideas and build momentum towards a successful project conclusion.

2D-PRINTABLE news

Celebrating Success: Sina Dörr Receives the Graphene Week 2025 Impact Leader Award

We are proud to celebrate the achievement of our project partner Sina Dörr from [UKa](#), who was awarded the Impact Leader Award at Graphene Week 2025 in Vicenza, Italy.

In the accompanying interview, Sina discusses the exciting opportunities that 2D materials offer for future technologies and shares insights into her research on using transition metal dichalcogenides to enhance raindrop triboelectric nanogenerators – an innovative approach to sustainable energy harvesting.

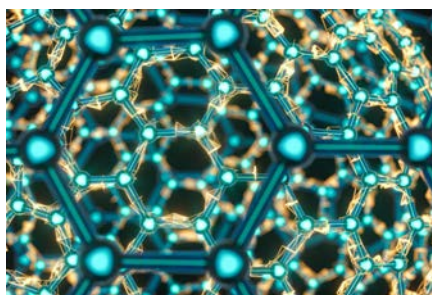
Read the full interview [here](#).

Picture source: Graphene Flagship



New Milestone: Enabling Next-Generation Printed Electronics with 2D Material Networks

A key milestone has been achieved in advancing solution-processed 2D materials for scalable printed electronics. Newly developed multicomponent nanosheet networks enabled high-performance transistor devices combining semiconducting layers (MoS_2 , WS_2 , MoWSe_2) with dielectric materials, showing reliable operation, high fabrication yield, and tunable electronic properties. The devices demonstrated effective charge control, with on/off ratios up to $\sim 10^5$ and promising transport performance for printed applications.



The same materials platform also enabled light-emitting devices, with LEDs based on synthetic and natural MoS_2 nanosheets demonstrating electroluminescence. These results highlight the versatility of 2D material networks for creating integrated, multifunctional electronic and optoelectronic systems using scalable processing technologies.

Read more on our website [here](#).

New 2D-PRINTABLE publications



The 2D-PRINTABLE project continues to deliver excellent scientific results, with 47 peer-reviewed publications published to date. Explore our [Publications](#) section and discover the latest research highlights from across the consortium.

- Our 2D-PRINTABLE partners from [UKa](#), [TCD](#), [VSCHT](#) and [EPFL](#) have published a new article titled [“Assessing quality and purity of \$\text{MoS}_2\$ nanosheets by diffuse reflectance IR spectroscopy”](#) in *2D Materials*. The study demonstrates the use of diffuse reflectance infrared (IR) Fourier transform spectroscopy to analyze freeze-dried 2D MoS_2 nanosheets produced through various exfoliation methods. This work provides a useful protocol to improve washing steps or monitor chemical modifications, and highlights that IR-active vibrational modes – accurately predicted from first principles – can serve as a reliable tool to determine the number of layers in 2D materials. Read more on our website [here](#).

- We are proud to announce that our partner [UNISTRA](#) has published a new 2D-PRINTABLE article titled [“Exotic Photothermal Response in Ti-Based MXene Optoelectronic Devices”](#) in *Advanced Electronic Materials*. The publication explores the optoelectronic properties of devices based on $\text{Ti}_3\text{C}_2\text{T}_x$ and Ti_2CT_x thin films, revealing a remarkable contrast in their photothermal responses under laser

irradiation. Learn more in our latest project [update](#).

- We are also pleased to highlight another publication from [UNISTRA](#), titled "[Toposelective Functionalization of Solution-Processed Transition Metal Dichalcogenides with Metal Nanoparticles via Defect Engineering](#)", featured in *Advanced Materials*. In this work, the authors introduce an innovative strategy that leverages the highly reactive, defect-rich edges of these materials to achieve toposelective functionalization with noble metal nanoparticles via galvanic displacement. This approach enables the selective decoration of nanosheets with gold, palladium, or platinum nanoparticles, with tunable particle size and loading. Read more on our website [here](#).

Get to know 2D-PRINTABLE Team



Meet Prof. Nicola Marzari from [EPFL](#), a leading computational materials scientist specialising in condensed matter physics.

Within 2D-PRINTABLE, Nicola uses advanced computer simulations to identify novel 2D monolayers and multilayers with the electronic and optical properties required for the project's ambitious goals. His work helps accelerate the discovery of new materials that could power the next generation of printed electronic

devices.

Read the full [interview](#) on our website and get to know the [2D-PRINTABLE Team](#).

Mark Your Calendars : Graphene Week 2026

21-25 September 2026 | Porto, Portugal



Graphene Week 2026 will take place in Porto, Portugal, from 21-25 September 2026, bringing together the international graphene and 2D materials community for a week of scientific exchange and networking.

Several 2D-PRINTABLE partners, including [TCD](#), [UKa](#), [UNISTRA](#), and [BeD](#), will present their latest research and project results.

Check the conference [agenda](#) for the latest programme updates.

Project Partners

2D-PRINTABLE joins a multi-disciplinary consortium with 7 Universities and 2 SMEs, located in 7 European countries including Ireland, France, Italy, Germany, Czechia, Switzerland and the Netherlands, to advance the field of 2D materials and unlock the full technology's potential to play a significant role in the future of European digital electronics manufacturing.



Facts & Figures

Acronym: 2D-PRINTABLE

Duration: 36 months

Start date: 1st October 2023

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EC Funding: 3,999,996.00€



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U kunt ook uw [gegevens inzien en wijzigen](#).

Voor een goede ontvangst voegt u projectsupport@uniresearch.com toe aan uw adresboek.