

Printed and Organic Electronics Services at RISE Research Institutes of Sweden

– taking greener electronics from research
to industry



KEY AREAS OF RESEARCH AND EXPERTISE

We are experts in printed, flexible, stretchable, bio- and organic electronics.

Focus on sustainable electronic solutions using sustainable electronic production methods based on sustainable advanced functional materials.



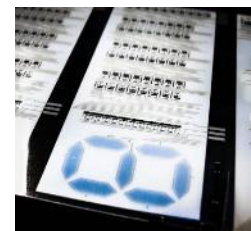
Printing, curing and drying processes



Functional materials
Ink formulation



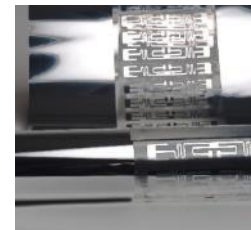
Greener electronics
LCA



OECTs
ECDs
Sensors
Devices



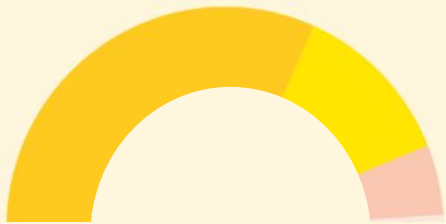
Energy storage and energy harvesting







Electronic design
Rapid prototyping
Hybrid integration

Printed ElectronicsAr ena

from molecules > inks > printing >
hybrid printed electronics prototyping



Distribution of customer needs

-  Pre-study | technology development
-  Prototype | product development
-  Pilot product | pre-production
-  Production

Located in

Norrköping

- Find out more at:
www.printedelectronicsarena.com

Approx.

30

researchers

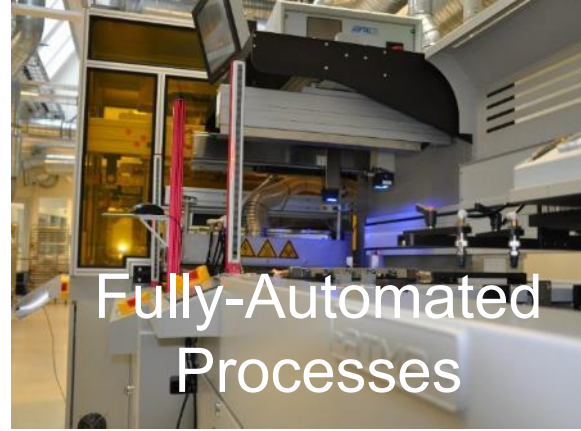


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Collaborating partners in
Innovation Cluster



KEY LAB SERVICES





A case story

Ynvisible

Display Technology

- Commercialisation of ECD technology
- DeepTech - fundamental to applied research
- Overprintable materials and stack inventions
 - Licensed by Ynvisible
- Technology transfer
- Scale-up project
- Full production started in July 2023 – first customers
- Find out more at:
www.ynvisible.com

A case story



Revolutionizing electronic circuitry manufacturing

CHALLENGE

DPP SOLUTION

SAVE

COST



Less material needed
Quicker manufacturing
Streamlined logistics
In-line quality control

-90%

SOURCING



In-house production
Quality control
High process speed
Rapid tool manufacturing

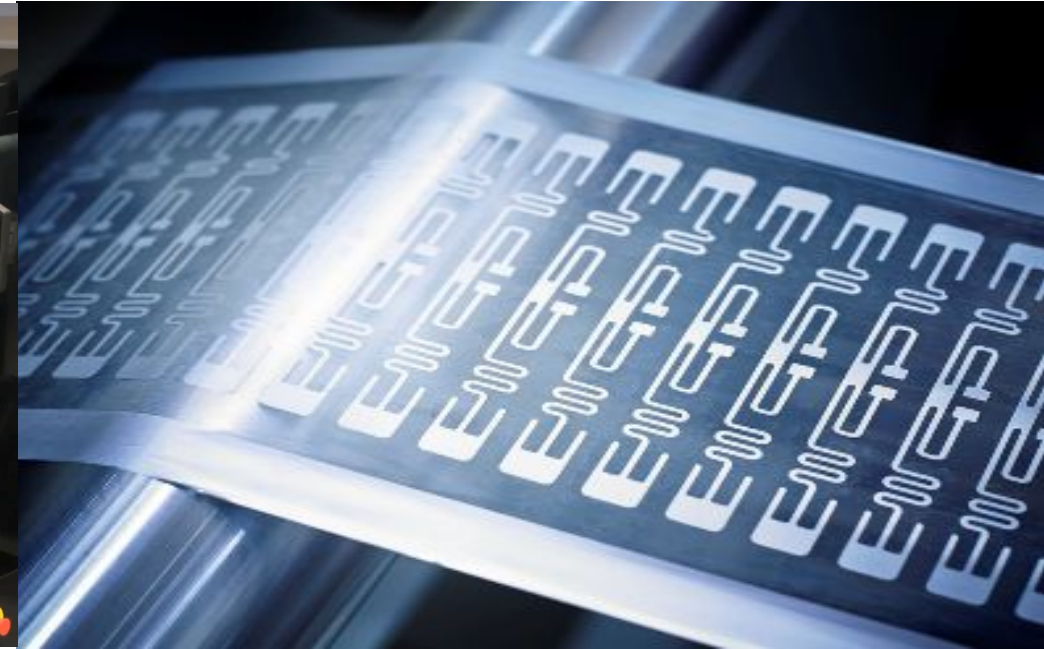
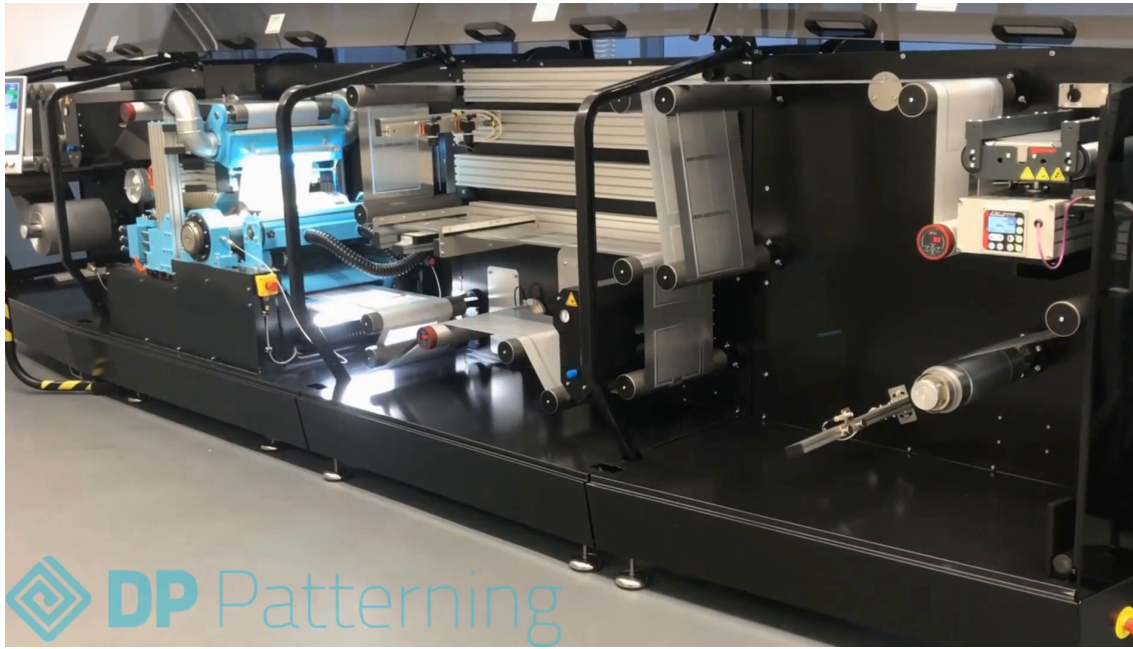
-99%

ENVIRONMENTAL



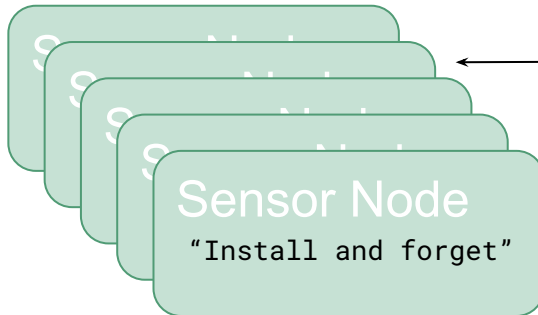
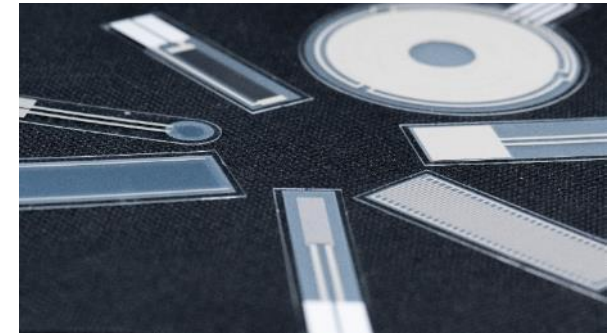
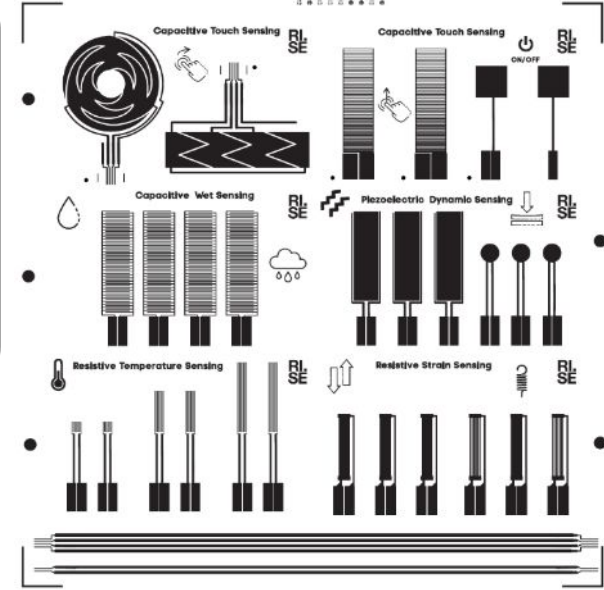
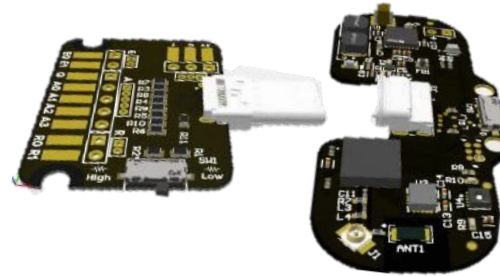
Chemical-free process
Recyclable residuals
Low energy consumption
No logistic

-98%



Printed Sensor development kit

- Including printed sensors for sensing: touch, force, vibration, strain, pressure, temperature and humidity/wet.
- Available on different materials, such as PET, TPU and paper.
- On board energy harvesting for zero-energy.
- A full stack generic IoT system, adaptable for a great variant of applications.



Web application

Stack-on co-existence RF PCB, connected to cell phone, compatible with high-data streaming of Sensor Nodes

Also compatible to operate as standalone nodes with e.g. BLE

Digital Cellulose Center

Greentech power paper shows promise of storing solar energy

Jun 21, 2021 | Blog



A case story

- Find out more at:
www.digitalcellulosecenter.se

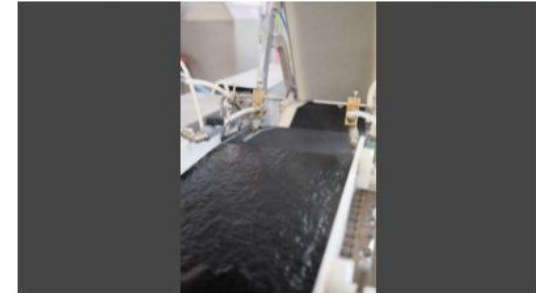
NyTeknik

Premium / Automation / Digitalisering / Energi / Fordon / Startup / Ingenjörskarriär / Lediga job

PREMIUM

Deras elektroniska papper kan lagra framtidens förnybara energi

2021-06-21 06:00 Av: Ania Öbminska 4 kommentarer



● ○ ○ ○ ○ ○

Aktivera Talande Webb

Det elektroniska biobaserade pappret ska kunna tillverkas i en vanlig pappersmaskin och lagra energi från både sol- och vindkraft. I de senaste försöken producerar forskarna cirka 10 meter långa rullar.

**RI
SE**

World class research infrastructure at your doorstep- for FREE



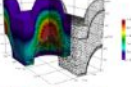



Emerging Printed Electronics Research Infrastructure


Connecting Science...

- Initiate and Foster international scientific collaborations
- *Pre-funded* International state of the art research infrastructure available *for FREE*
- Travel, Accommodation, Equipment, Services and Materials* *all sponsored*
- Call opens every 3 months for projects upto 2 weeks activities

EMERGE: Transnational Access Activities (TA)

Users can apply to projects in any (or multiple) of the 4 TA:

 <p>TA1 - Theory: Modelling, simulation and design of materials, devices and systems</p>	 <p>TA2 - Material synthesis and ink formulation</p>	 <p>TA3 - Prototype fabrication</p>	 <p>TA4 - Characterization of prototypes and demonstrators</p>
Device design and architecture	Chemical & physical techniques	Device preparation	Device metrology and characterization
Modelling and simulation	Materials characterization	Functional 2D&3D printing	Validation and standardization
		Nanoimprint and laser patterning	
		Vacuum assisted deposition	

 | The EMERGE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 101008701.

www.emerge-infrastructure.eu

info@emerge-infrastructure.eu



Research Infrastructure Platform Worldwide

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* Materials costs upto a certain upper limit



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SUSTAINATRONICS
ONE STOP SHOP FOR SUSTAINABLE PRINTED ELECTRONICS

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Sign up and a project manager will be in contact with you within five working days. You will then be guided through our service and pilot line facilities options, in order to find the right match for your needs.

TELL US ABOUT YOUR IDEA

JOIN THE COMMUNITY

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