

Interregional partnership for Smart Specialisation on **NEW NANO-ENABLED PRODUCTS**

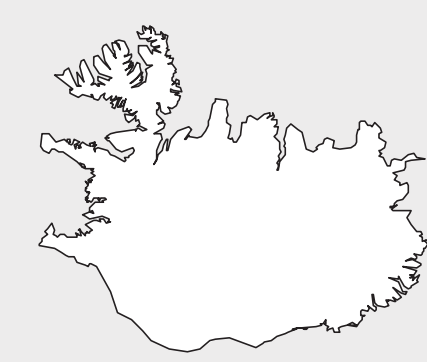
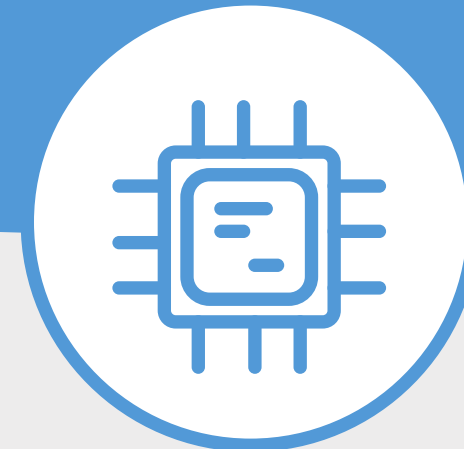


Leaders

Led by **Emilia Romagna** (IT) and **Skåne** (SE), the partnership engages the participation of

14 REGIONS

The main objective of the partnership is to connect regions in order to build an industrial ecosystem in nanotechnology and to create pilot production facilities for products based on nanomaterials.



**Skåne
(SE)**

**Emilia
Romagna
(IT)**



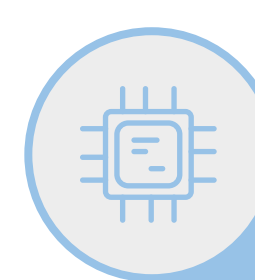
Reference topics



NANO WIRES FOR ICT AND ENERGY APPLICATIONS, LED BY SKÅNE

Identifying opportunities to commercialise the nanowire technology

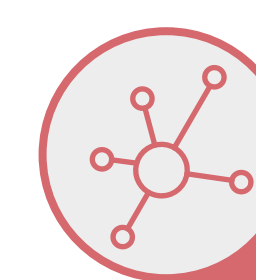
Areas of interest are photovoltaics, lighting, power and RF electronics



NANO ENABLED MICRO SYSTEMS FOR BIO ANALYSIS (NEMS4BIO), LED BY FLANDERS

Addressing the heterogeneous integration challenge encountered when bringing a Si-based lab-on-chip into lab-on-chip module formats (e.g. chip carrier, cartridge).

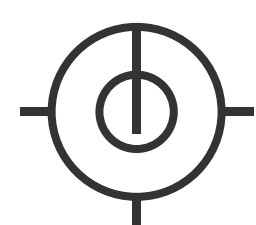
Covering aspects like biofunctionalisation, Nano-functionalisation, and heterogeneous multi-physics, cross-KET integration (Si-on-X, Si-in-X)



NANO-ENABLED PRINTED ELECTRONICS, LED BY BADEN-WÜRTTEMBERG

Pushing functional printed electronics into industrial applications and complete value chains

Examples of functional devices include: printed smart tags, smart sensors & textiles, printed inorganic FETs, printed electronics on curved surfaces.



Key factors

1

The **global market for nanomaterials** is estimated at 11 million tonnes at a market value of **€20 billion**.

3

New value chains of innovative nanomaterials can be created by pooling resources and by **connecting regional strengths**, thus contributing to a strong European industrial fabric, leading to **new jobs and growth**.

2

Nanomaterials can be **integrated** in corresponding technical applications in several industries such as textile, paints & coatings, adhesives & sealants, energy, automotive, aerospace & defence, electronics & consumer goods, healthcare, personal care, and many others.

4

Factors like the revolutionary physio-chemical properties of nanomaterials drive the demand for nanomaterials. **Interregional infrastructures and ecosystems** are essential to realise this demand by bringing prototypes to production, while securing the **reproducibility of applications**.



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3
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