

NMP-REG

Interreg Europe

NMP-REG aims at improving regional policies for the delivery of innovation in nanotechnologies, new materials and new production technologies (NMP), to the manufacturing sector.

www.interregeurope.eu/nmp-reg

An interregional cooperation project for improving innovation delivery policies

NMP-REG ACTION PLAN RESULTS



Research & innovation



1.38 M
ERDF



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European Union
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Project description

In NMP-REG, 7 partners from 5 European regions have worked together to improving their policies for technology transfer in the field of Nanotechnologies, advanced Materials and Production (NMP).

NMP are among the cornerstones of EU policy for innovation and advanced manufacturing. They are regarded as key enabling technologies (KET) that have the potential to reverse negative growth trends in manufacturing, foster growth and create jobs. Although Europe invests in research and development in this field, only part of these research outputs has led to innovations in industry.

Therefore, the common challenge is to ensure that actors from the entire value chain cooperate to deliver advanced knowledge and technologies to the manufacturing sector, with subsequent benefits for regional growth.

Launched in 2016 and finishing in 2021, NMP-REG has focused on policy actions facilitating technology valorisation in the manufacturing sector using coordinated action from key players

- to promote Interregional learning and subsequent capacity building on regional challenges and good practices related to policy instruments in the field of NMP;
- to foster networking at European level, including sharing of NMP-REG action plan guidelines and building a highly active network for sustainable exchange of knowledge within administrative authorities, institutions and companies in the European Union;
- in the medium to long term, to create regional systems that can support the manufacturing sector in applying NMP research, create jobs, and promote a market for new products.

Interreg Exchange

Our partners have exchange experiences and good practices in a context of interregional activities, communication and stakeholder engagement. As a result, they developed action plans designed to: improve policy instruments, to encourage more and better targeted funding, with leverage effect in mobilising private funding and to support new or improved models for technology valorisation based on cooperation across the regional innovation chain.

Phase 1 – Sharing Solutions and Development of Action Plans (04.2016 to 03.2019)

- Exchange of experience on challenges, needs, current strategies and good practices.
- In-depth analysis of good practices and their potential for transfer.
- Development of action plans.

Phase 2 – Implementation and Monitoring (04.2019 to 03.2021)

- Implementation and monitoring of regional action plans.

Results



The Tuscan Action Plan focuses on the ERDF Regional Operational Programme for Tuscany (2014-2020) and includes 2 Actions.

ACTION 1 Increase NMP relevance in investment priorities in regional policies for research and innovation	NMP-REG contributed directly to updating the Smart Specialisation Strategy (RIS3) for Tuscany. The RIS3 2014-2020 represents the main technical annex of the ERDF programme and identifies the strategic and technological domains for R&D investment. NMP-REG was part of a wide participation process to revise and update this strategy, building on interregional learning from the project.
	7 new priority roadmaps, strengthening the potential to invest in NMP through regional funding for applied research and innovation.
ACTION 2 Improve NMP innovation delivery by supporting cross-cluster, multidisciplinary initiatives and strengthening cluster policies	NMP-REG has fostered creation of a new public-private governance tool for cross-cluster and multidisciplinary technology transfer activities. In October 2019, the Managing Authority of the ERDF programme formally approved the signature of a Memorandum of Understanding with the managing entities of 6 regional Technology Districts (cluster).
	Official launch of an Interdisciplinary Platform for Innovation delivery in Tuscany named CLOCK (CLuster Of Clusters for Knowledge).



The Norte Action Plan focuses on ERDF Regional Operational Programme NORTE 2020 - Priority axis 1 "Research, Development Technology and Innovation".

<p>ACTION 1</p> <p>Create an integrated information system on funding opportunities for NMP adoption</p>	<p>CCDR-N and INL have developed a mapping of open calls for EU funding targeting organisations based in Norte, including those that deal with NMP. It covers EU, National and Regional calls (launched under the programmes Horizon 2020, Compete 2020 and Norte 2020 calls).</p> <p>This mapping was published online and updated once. It will be assessed by the end of the project. The mapping is expected to become a key tool for regional players looking to invest in NMP. Although the implementation of this action may contribute to the capacity building of regional stakeholders, the dissemination of knowledge in the NMP field and better decision-making, its implementation should not be considered as a policy improvement.</p>
<p>ACTION 2</p> <p>Develop decision-support tools on the dynamics of the NMP sector</p>	<p>The decision-support tools developed within the context of the project include:</p> <ul style="list-style-type: none"> (i) the gathering of economic and innovation indicators and regional diagnosis (reports for Norte). (ii) the mapping of NMP service providers. (iii) the conduction of a survey by INL among regional stakeholders on regional potential and limitations in nanotechnology; and (iv) the conduction of a survey by CCDR-N on the review of the regional RIS3 with a focus on the Advanced Production Systems.

	Using some of the information gathered within the context of the action, CCDR-N has developed and published a monitoring report on RTD projects supported in Norte by EU funds between 2007 and 2019. These projects involved the cooperation between companies and entities from the Scientific and Technological System. Although the implementation of action 2 may contribute to the capacity building of regional stakeholders, the dissemination of knowledge in the NMP field and better decision-making, its implementation should not be considered as a policy improvement.
ACTION 3 Establish regional Smart Specialisation Platform (SSP) on Advanced Production Systems	The regional SSP is a formal stakeholder group, operating as an advisory board for Norte 2020. They ensure a multi-institutional and multi-sectoral regional response for the monitoring, evaluation and adapting of the regional strategy. While SSP were foreseen in the RIS3 governance model, the SSP for Advanced Production Systems had not been set up by the end of 2018.
	Thanks to NMP-REG, the SSP on Advanced Production Systems was formally created and their work began. This represents an important development in the regional RIS3 governance model.
ACTION 4 Facilitate regional support to excellent NMP proposals from Norte SMEs unfunded by Horizon 2020	This action promotes synergies between H2020 and Cohesion Policy instruments. It facilitates a mechanism that values NMP proposals that have fulfilled excellence criteria from H2020, but were not funded. This mechanism is integrated into the application and evaluation procedures of the regional policy instrument.
	Three calls for EU funding were launched with this mechanism, one at regional level under Norte 2020 and two at national level under Compete 2020. Up to date, two NMP projects from Norte involving a total EU support of M€ 1.95 were approved.
ACTION 5 Promote the launch of thematic calls supporting business innovation in regional priorities, including NMP	This action looks to provide recommendations for the 2021-27 programming period. In 2014-2020, no thematic structural funds calls focused on single smart specialisation priorities. This brings particular challenges to NMP projects in Norte, given their high uncertainty and risk. This launch of specific thematic calls supporting business innovation in Norte and focusing on a single smart specialisation priority (Advanced Production Systems) would ensure that NMP projects are not placed in direct competition with very different types of projects.



The Bucharest Ilfov Action Plan focused on the National Strategy for Research, Development and Innovation (2014-2020). It is divided into two, interconnected Actions.

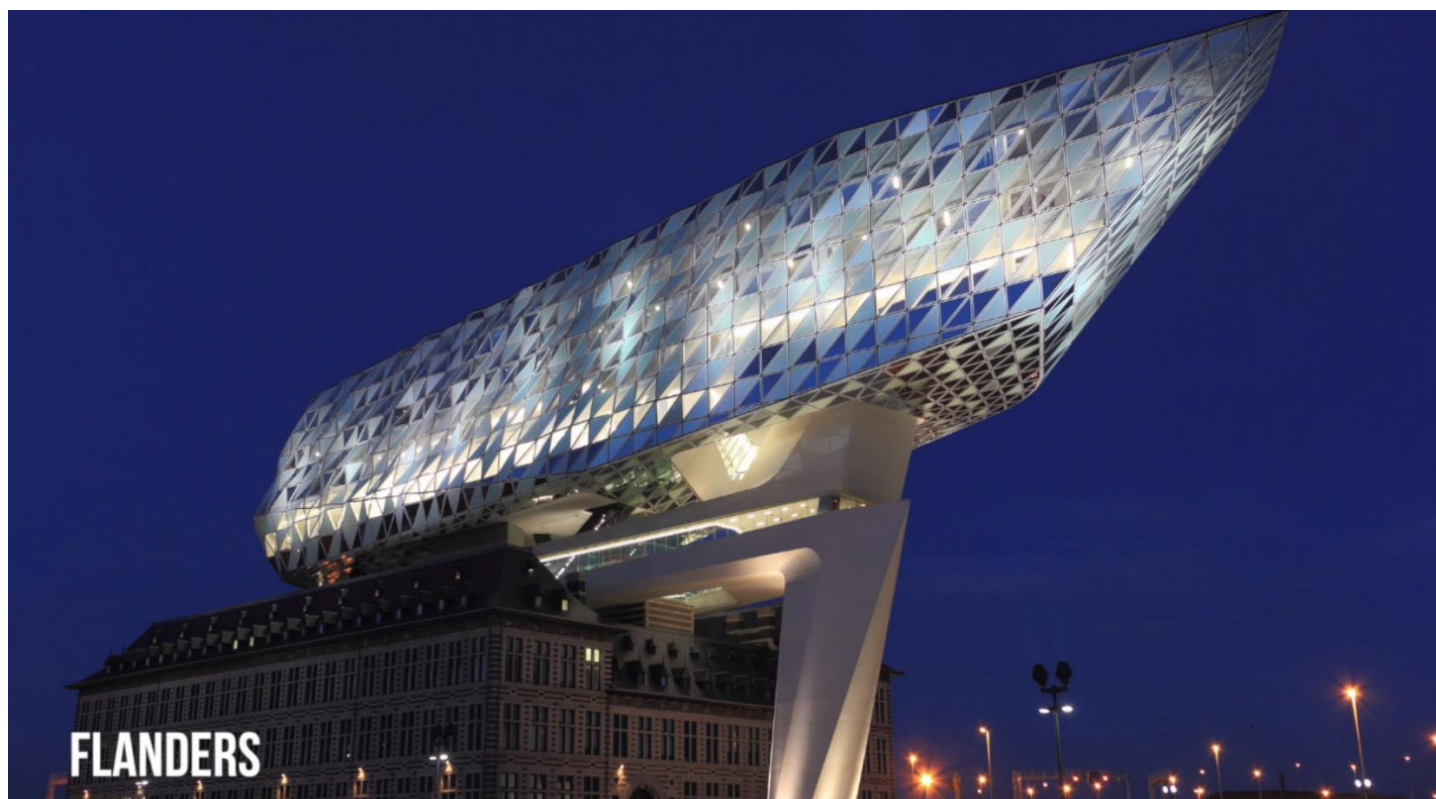
<p>ACTION 1</p> <p>Building a nanomaterials, advanced materials and nanotechnology community – NANO4MANU</p>	<p>By capitalising on the stakeholders' engagement and on the interregional learning process brought by the NMP-REG project, this action brings together the main players in the NMP innovation chain. The community of experts is designed to provide input into policy development and to encourage the development of new initiatives in the NMP-REG field.</p>
<p>ACTION 2</p> <p>New Projects and Strategic Recommendations to engage NMP in funding instruments and strategies for innovation</p>	<p>A Memorandum of Understanding for creation of the NANO4MANU community, designed as a pilot on how to develop state capability in NMP. As the RDI 2014- 2020 is in the last year, this represents a policy improvement that will roll out in the next strategic period.</p> <p>In this action, learnings from NMP-REG are used in the consultations for designing the funding instruments and strategies for innovation and for developing new project proposals and capitalising on their results.</p> <p>9 funding applications were submitted in 2019-2020 period by Community members.</p>



The North Rhine Westphalian Action Plan focuses on the ERDF Operational Programme NRW (2014 – 2020). It addresses 3 actions, which all stimulate entrepreneurship and supporting young entrepreneurs in the field of NMP.

<p>ACTION 1</p> <p>Set entrepreneurial support as a strategic cluster goal and introduce new basic cluster services to foster entrepreneurship with focus on NMP</p>	<p>The action covers basic support activities for NMP founders, concentrating on communication and dissemination among the NMP community as well as networking between young entrepreneurs and relevant stakeholders from industry, science, and finance. The action has become integral part of the cluster strategy and fully implemented in the day-to-day work of the Cluster.</p> <p>Before NMP-REG, cluster activities did not explicitly focus on entrepreneurial support. As an outcome of the project, basic start-up support activities have been introduced and implemented, which are integrated with the existing set of cluster activities as specified in the contract between the Cluster and the NRW State Ministry of Economy, Innovation, Digitisation and Energy (MWIDE). Activities in the contract are part-funded by the policy instrument (39% of activities).</p>
<p>ACTION 2</p> <p>Adapt and implement a regional business accelerator programme with focus on NMP Technologies</p>	<p>In this action, with Interreg Europe pilot action funding, a regional business accelerator programme with particular emphasis on hardware-based business solutions in NMP has been developed and carried out. The programme named HIGH-TECH.NRW represented a joint, state-wide initiative of the cluster NMWP.NRW and the 6 leading universities of the region: Ruhr University Bochum, Technical University Dortmund, University Duisburg-Essen, Westphalian Wilhelms University Münster, University Cologne and RWTH Aachen University. The 10-weeks programme was carried out from 01 September to 13 November 2020 and</p>

	<p>focused on mentoring, networking, and capacity building measures. As a key to success, the cluster has set up a strong and unique expert network of more than 50 mentors, coaches, and strategic industry partners, all of them engaging on a voluntary basis. 12 start-up teams participated in the programme and presented their business cases and achievements at the final HIGH-TECH.NRW Demo Day to an audience of key players from industry, finance, politics and science.</p>
	<p>The Ministry (MWIDE) presently examines the potential continuation of HIGH-TECH.NRW. Since the acceleration programme performed very successfully and clearly demonstrated its positive effects on the regional ecosystem for high-tech entrepreneurs, there is a good chance that HIGH-TECH.NRW will go into the second round and thus will lead to a policy improvement with a view to the forthcoming programming period. A policy decision can be expected for April 2021.</p>
<p>ACTION 3</p> <p>Establish a central hub for entrepreneurial support in the field of NMP with primary service offers in coaching and partner matching of NMP start-ups</p>	<p>This action intends to establish a central hub for NMP entrepreneurs in NRW with a focus on customised coaching and match-making activities. The cluster NMWP.NRW is investigating funding options based on innovation support instruments for SMEs and start-ups. Those instruments are either co-financed by ERDF or financed from regional sources outside the operational programme such as innovation vouchers.</p>



The Flanders Action Plan has three actions, all related to their policy instrument Support to Strategic Research Centres (SRCs).

<p>ACTION 1</p> <p>Reshape current Support to SRC instrument to prioritise knowledge transfer from research to industry</p>	<p>This Action has been completed. It was focused on reviewed funding conditions for SRCs, through a pilot action in one SRC (Flanders Make). Within this action, funding conditions for Flanders Make have now been integrated with a new performance based KPI regarding generated private research funding (contractual research) connected to higher TRL research (> TLR 4 type of projects in direct collaboration with industry).</p> <p>This is the first time that such an indicator and performance-based approach has been included in the SRC funding mechanisms. This approach has now been replicated for the 2020-22 period of the management agreement, with additional funding being allocated. The type of KPI and approach also serve as a model for the funding conditions of other SRC's to be periodically renegotiated in the near future. But also, for Spearhead Cluster organisations (SPC) which have a complementary role to SRCs in bridging and translating industry needs towards the research community or - vice versa - support the valorisation and uptake of research by industry, companies...</p>
<p>ACTION 2</p> <p>Support SRCs to become single point of contact (SPOC) for innovation</p>	<p>This action, influenced by a review of the innovation landscape, has seen a policy shift to include not only SRCs, but also a broader network of innovation actors in the region. The actions resulted into a networked access to SRC knowledge, rather than a exclusive SPOC role for SRCs. In this “no wrong door no single door-model”, different parties from the VLAIO network, including SRCs, will in the years to come coordinate activities towards companies and forward them to SRC services.</p>

	<p>At the end of NMP-REG, the Flemish innovation landscape model has been stabilized into a networked model with a central role for FIE in orchestrating the landscape and acting through established partnerships with third parties (VLAIO network) acting as a conduit towards SRC's type knowledge and services. A larger than originally foreseen role in this network has been attributed to Spearhead Clusters. Originally launched in 22/1/18 the VLAIO network thus comes to full maturity after a first 4 years phase of experimentation. The change can be expressed as moving away from a divided model (research/science world vs business/entrepreneurship) to a more connected and organic model. It forms an ecosystem that stimulates and secures continuous flows between different players in the landscape (researchers, business support service providers, regional government, companies with strong R&D, innovation followers, traditional companies...). This combined model encompassing the VLAIO network is fairly unique in Europe.</p>
<p>ACTION 3</p> <p>Extend the range of companies serviced by SRC, with emphasis on traditional or innovation-adverse companies in NMP relevant sectors</p>	<p>Emphasis in this action lies on low-threshold actions and services to promote innovation, make use of innovation instruments and access services offered by SRCs to such companies. Quite some attention has been given to review and adapt instruments and services to engage in innovation and interaction with SRCs offered until today by FIE to traditional/innovation-adverse companies</p> <p>The Innovation Boost pilot action within FMAKE was successfully executed within FMAKE as a low threshold instrument with encouraging effects for the target group. However, the pilot action itself was not yet deemed mature enough to extend it to other SRCs. It was however extended with 2 further years within FMAKE. A partial success for the time being.</p> <p>Next to this FIE reviewed and improved several FIE internal processes, tools, and instruments to better connect traditional/less innovative companies to SRC types of services, make funding (instruments) to engage with SRCs more accessible for them and stimulate innovation behaviour. Results include:</p> <ul style="list-style-type: none"> a) improved scouting and awareness raising actions and tools by FIE (collective mentoring and networking / storytelling support) b) improved FIE business processes better adapted to the target group (internal skills, assessment processes/timing); c) improved/repositioned FIE grants instruments (changes to SME growth grant and Development project grants). These changes have been structurally integrated in the FIE business plan and tool kit for the years to come are expected to have significant impact on increased innovation behaviour and interaction by the target group with SRCs.