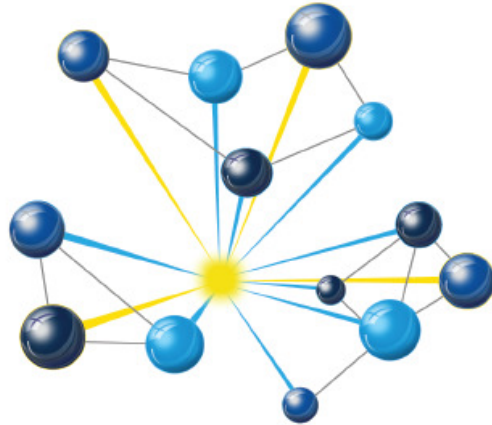


First Annual Report

2013 - 2014



VANGUARD INITIATIVE

New growth through smart specialisation

Vanguard Initiative Member Regions

Asturias (Spain)
Baden-Württemberg (Germany)
Catalunya (Spain)
Euskadi (Spain)
Lombardia (Italy)
Małopolska (Poland)
Navarra (Spain)
Nord-Pas de Calais (France)
Nordrhein-Westfalen (Germany)
Norte (Portugal)
Oberösterreich (Austria)
Region Dalarna (Sweden)
Region Skåne (Sweden)
Rhône-Alpes (France)
Scotland (United Kingdom)
Silesian Voivodeship (Poland)
South-Netherlands (Netherlands)
Tampere Region (Finland)
Vlaanderen (Belgium)
Wallonie (Belgium)
Zuid-Holland (Netherlands)



Vanguard Initiative

New growth through smart specialisation

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Introduction

It has now been a year since the Vanguard Initiative for New Growth through Smart Specialisation' was launched, at the initiative of Flanders, as part of the "Regions as motors of new growth by smart specialisation" conference in the European Parliament, in the presence of the President of the European Council, Mr Herman Van Rompuy.

Since then, this unique network of regions has gone from strength to strength. The political message of the Vanguard Initiative, that regions, smart specialisation and cluster-based interregional cooperation are key to new industrial growth, has been widely recognised and positively received by a wide range of partners and institutions.

An initial group of 10 partner regions had grown to include 15 member regions by the time of our first political meeting in January 2014. Since then, the Initiative has expanded to include 21 regions, and others are in the process of joining. This is a political Initiative, with a clear agenda for influencing European innovation and industrial policies. The Vanguard Initiative is driven by a commitment at the highest political level to collaboration, co-creation and co-investment in projects across, not only Vanguard partners, but with anyone who has the relevant expertise and specialism to develop European value chains in priority areas. We look forward to welcoming additional regions in the year ahead.

This first annual report is an opportunity to take stock of what has been accomplished to date and to restate the continued commitment of the Vanguard Regions to economic growth through enterprise-driven, smart specialisation strategies within our regions.

The efforts of Vanguard Initiative regions are aligned with the wider prize of driving, discovering and developing EU value chains and specialisms underpinned by the critical mass needed to compete in the global marketplace.

What is the Vanguard Initiative?

The Vanguard Initiative is a group of European regions, mandated by a political commitment to leading-by-example, in applying smart specialisation as a strategic coordination principle in innovation and industrial policy; and to discovering, collaborating on and delivering new growth opportunities, based on entrepreneurial discovery within and across European regions.



This political commitment goes beyond mere knowledge sharing and learning connections. The Vanguard Initiative Regions are committed to inter-regional collaboration that will deliver demonstrable projects and programmes that can be replicated at scale and that also provide evidence to support the continued refinement and development of innovation and industrial policy at European level. Regions are closest to their specialist research and enterprise base and are uniquely placed to identify and connect regional partners with European opportunities.

The Vanguard Initiative believes that regions have a significant contribution to make in this space, with a specific focus on increased entrepreneurship and greater cluster co-operation. Achieving this requires close collaboration with a range of Commission services to develop new or improved approaches to achieve this economic renewal. The Vanguard Initiative set this out in a 'Letter of Engagement for the Renaissance of Industry in Europe' sent to the President of the European Council in January 2013, advocating a more important place for smart specialisation, regions and clusters in European industrial policy.

This annual report outlines some of the ways in which the Vanguard Initiative has made progress towards accomplishing the objectives highlighted in that letter during the course of the year.

What does the Vanguard Initiative do?

Projects, Programmes and Platforms

In the past year, Vanguard Initiative partners have translated their political mandate into action which is focused on co-creating, co-funding and collaborating on projects and programmes across the regions (and with those outside of the Initiative who have relevant specialisms) where there is a close match in relative strengths to further develop EU value chains and clusters in EU priority growth areas. At this stage, that activity has been strongly focused in the EU Advanced Manufacturing (ADMA) arena, based on a request laid down by Commission services to work together in this priority area.

The purpose of this work is to facilitate strategic investments (from private, regional, national and European sources) in innovation through smart specialisation to increase the quality, efficiency and impact of research and innovation spending.

This has enabled the Vanguard Initiative to identify an emerging model for developing deep and meaningful collaborations in areas of smart specialisation across our regions. This work was undertaken as a pilot exercise for a 'Smart Specialisation Platform on Advanced Manufacturing', in cooperation with Commission Services. This stepped approach has resulted in the formulation of three pilot actions in the sphere of ADMA as well as highlighting some cross cutting areas like funding and operating methodologies, where further work would be beneficial to the future of the Vanguard Initiative. More detail on these projects will be outlined later in this report.

Policy

The political leadership of the Vanguard Initiative is committed to working with the full range of Commission services to promote the principles of smart specialisation and the role of regions as agents for delivering enhanced growth and competitiveness across Europe.

The Vanguard Initiative is supporting DG Enterprise in their development of a smart specialisation platform for Advanced Manufacturing (ADMA). Our early work in this area has resulted in the development of three pilot actions. We are contributing to the development of a new EU clusters policy, and are helping to shape the forthcoming EU Industrial Policy Roadmap. The Vanguard Initiative is also working with DG Regional Policy and DG Research and Innovation on opportunities to further refine the content and quality of Regional Smart Specialisation Strategies.

In addition, we are engaging with Members of the European Parliament to explain the ambition of the Vanguard Initiative and to seek their support to work together to influence the future direction of innovation and industrial policy. The conclusions of our most recent discussion are available on our website.

The EU policy agenda is increasingly focused on growth-enhancing measures which are grounded in Europe's ability to compete on a global stage. Correspondingly, the EU's Smart Specialisation agenda is developing closer links with a wide range of growth enhancing EU policies. Support for the position that the Smart Specialisation agenda must continue to be driven by EU regions through their industrial bases can be seen by a shift in focus across a range of EU activity in the last year including:

- The Commission Industrial Policy Communication, *"For A European Industrial Renaissance"* of January 2014, which recognised smart specialisation as an appropriate new mechanism to mobilise the potential in the regions in support of the six priority actions, including the development of Smart Specialisation Platforms.¹
- The discussion on a new industrial policy for Europe at the European Council of March 2014 which concluded that regions and smart specialisation are a strategic factor in the development of a new industrial policy roadmap.²
- The Communication of June 2014 on *'Research & Innovation as sources of new growth'*, which gave a strong message that investment by the public sector in

¹ "Building on the work of the task forces, the Commission proposes to Member States to combine regional and industrial policy tools to **create Smart Specialisation Platforms** to help regions roll out smart specialisation programmes by facilitating contacts between firms and clusters, enabling access to the innovative technologies and market opportunities."

² "Through its budget, the European Union contributes to industrial competitiveness. The best possible use should be made of EU instruments such as Horizon 2020, the Connecting Europe Facility, the European Structural and Investment Funds and COSME as well as market-based and other innovative financial instruments to support competitiveness and access of SMEs to finance. In this context, smart specialisation should be promoted at all levels, including through the efficient use of public investment in research. This will facilitate contacts between firms and clusters and improve access to innovative technologies...smart specialisation should be promoted at all levels, including through the efficient use of public investment in research. This will facilitate contacts between firms and clusters and improve access to innovative technologies"

European Council Conclusions, 20/21 March 2014, paragraph 8, page 5.



universities, technology institutes and other public research and technology organisations needs to be entrepreneurial and seek out new opportunities and partnerships, including outside Europe, to allow for an improved transfer of knowledge to the private sector and to reallocate resources to activities that have the greatest impact. The Communication cited the Vanguard Initiative as a strategic initiative for this approach (pg. 9).

Political commitment and engagement with the European Commission and European Parliament has been critical to the success of the Vanguard Initiative. Supported by the greater focus on Smart Specialisation as a means to deliver economic growth and development, our Initiative has established a high level of credibility in many European institutions and across a range of Commission services in a short space of time.

The Vanguard Initiative is recognised as having a valuable contribution to make to the development and delivery of European innovation and industrial policy including being cited as an example of taking ownership of leading the drive to enhanced competitiveness in DG Regional Policy's publication, *Smart Specialisation and Europe's Growth Agenda* (page 10).

The European Commission's forthcoming Industrial Policy Roadmap comes at a time when the Vanguard Initiative, entering its second year, is well placed to support this critical agenda. The new EU clusters policy will be a critical part of this Roadmap and the Vanguard Initiative is playing a key role in supporting the development of this renewed policy agenda through the input of our regional experts and political leaders. The outputs from our recent policy workshop on clusters are evidence of this.

The deeper level of interregional collaboration that is facilitated through the Vanguard Initiative can provide a test-bed for industry-led European innovation and industrial policy approaches in discovery, delivery and finance.

The learning that can be captured and shared as a result of the work of the Vanguard Initiative will benefit regions across Europe as smart specialisation strategies continue to be developed and refined.

The Vanguard Initiative has contributed considerably to the mainstreaming of smart specialisation in the growth agenda for Europe and has positioned itself as a partner for further development of policy with the new European Commission. **The Vanguard Initiative will continue to work positively, openly and collaboratively with all Commission services in the year ahead as we continue to contribute to the development of effective European industrial and innovation policies.**



Approach of the Vanguard Initiative

The Vanguard Initiative's approach is to find the synergies between regional specialisms and national and European priorities.

By sharing the detail of our smart specialisation strategies, focussing on key niches and specialisms within these, and bringing together industry players, subject matter experts from our regions and European Commission services, the Vanguard Initiative seeks to move swiftly from the alignment of strategies to the alignment of strategic investment and the development of industry-led, scalable, bankable projects.

The development of these projects will help to demonstrate the value of smart specialisation as an approach for regional economic growth and development as well as further supporting the development and alignment of European policy approaches for innovation and industry.

The purpose of the Vanguard Initiative is not simply to generate new projects, but to demonstrate how its approach can be applied to develop new European or multi-level support mechanisms that can be used by all regions.



Smart Specialisation Platform for Advanced Manufacturing

Background

Advanced Manufacturing (ADMA) was one of the six key industries³ identified in the Commission's Industrial Policy Communication of January 2014 '*For a European Industrial Renaissance*' where the Vanguard Initiative approach could be applied to develop competitive value chains across Europe.

The Letter of Engagement, signed by the political leaders of the Vanguard Initiative welcomed the Commission's proposal to start thematic Smart Specialisation Platforms, to support clusters in the regions across Europe. This resulted in an initial challenge to demonstrate the potential of the approach advocated by the Vanguard Initiative by addressing Advanced Manufacturing (ADMA).

Action & Results

Vanguard Initiative partners embraced this challenge and immediately brought together industry, academic and policy partners from across the regions, as well as Brussels-based regional representatives and key contacts within the European Commission, to discuss how best to address the opportunity.

The initial workshop in March 2014 and the follow up in May were very well-attended by representatives with strong expertise in the ADMA domain and prompted discussions and actions in taking forward the EU ADMA agenda which could not have been otherwise achieved.

All Vanguard partners completed extensive questionnaires relating to areas of expertise in ADMA within each region – this exercise has proved to be highly valuable in generating a refreshed process of consultation within and across the regions regarding ADMA strengths. **As a consequence of this activity, the Vanguard Initiative is committed to reaping greater benefit from this exercise by updating and reviewing this detail and using it to open up new/different discussions about possible collaborations in areas of mutual interest and strength.**

In formulating this approach, it has been essential to consult widely with a range of Commission services (including DG Enterprise, DG Regional Policy, DG Joint Research Centre, DG Research and Innovation) to shape the proposed policy direction for the Smart Specialisation Platform for ADMA. These efforts are on-going and have provided a transparent mechanism to discuss the value of the Smart Specialisation Platform for ADMA work and how this can be further shaped and developed individually and collectively with Commission services.

³ Advanced Manufacturing, Key Enabling Technologies, Clean Vehicles and Transport, Bio Based Products, Construction and Raw Materials, Smart Grids



The Vanguard Initiative has also delivered a number of presentations to a wide range of EU audiences and has taken part in EU policy discussions and panels. This activity provides a channel to communicate more widely the efforts of the Vanguard Initiative and to encourage new regions to join the Initiative and/or share ideas about their own strengths and ambitions in the ADMA domain.

We have also contributed extensively to the drafting of a scoping study, which has provided significant detail on the relative strengths of the Vanguard Initiative regions in ADMA and proposed a range of policy recommendations for the development of the Smart Specialisation Platform for ADMA.

Developing Opportunities in Advanced Manufacturing

Part of what makes the Vanguard Initiative unique is the ability to draw on the high level political mandate and translate this into real, concrete action on the ground. As a result of the political commitment, all Vanguard Regions have been able to mobilise their technical specialists and, within a short space of time, identify opportunities which may have future commercial applications and contribute to the development of EU value chains which are globally competitive.

Advanced Manufacturing - Pilot Lines

The pilot lines summarised below have emerged as early opportunities for enterprise driven, collaborative projects with commercial potential that could compete in the global marketplace. These pilots will continue to be developed at pace this year.

Advanced Manufacturing for Energy Related Applications in Harsh Environments

Lead Regions – SCOTLAND and EUSKADI

As recognised in the European Commission's Energy Security Strategy, the EU's prosperity and security hinges on a stable and abundant supply of energy. Recent geopolitical and market developments have acted as a call to action for Europe to address its vulnerability to external energy shocks. Scotland offers an important contribution to Europe's energy security with deep sea oil and gas reserves and access to some of the most concentrated potential in the world, including an estimated 25% of Europe's offshore wind and tidal and 10% of wave energy potential.

Scotland – through the Advanced Forming Research Centre (AFRC) – and Euskadi are seeking to collaborate with interested EU regional partners to develop, demonstrate and test components designed, and manufactured with advanced manufacturing processes, to meet the challenges of offshore oil & gas extraction and renewable markets.



The creation of new and improved EU value chains in this niche area offers a unique opportunity in an international marketplace which requires solutions in the medium and longer term.

Proposal to develop a European demonstration and piloting network in “High Performance Production with 3D Printing”

Lead Regions - VLAANDEREN/SOUTH NETHERLANDS/NORTE

3Dprinting has a huge potential for new growth and employment in Europe and is considered an important component of Europe’s industrial renaissance. It can induce more local production in Europe thanks to the flexibility and customisation of manufacturing that it enables.

This pilot initiative seeks to contribute to the acceleration of the uptake of 3Dprinting solutions by a combined effort of industry-led clusters in a large number of European regions. These clusters/platforms are organising localised ecosystems for 3D applications in economic domains in which regions develop their comparative strengths. This proposal aims to set up a European project to exploit network synergies for the co-creation of growth markets for 3Dprinting applications.

The rationale of the project is to exploit network synergies and create sufficient critical mass as important conditions for the take-off of an emerging industry in Europe, based on smart specialisation and on the mutual learning from the experiences in demonstrators and pilots that will be a core instrument for combining private and public efforts.

Efficient and Sustainable Manufacturing (ESM)

Lead Regions - CATALUNYA and LOMBARDIA

This pilot initiative intends to retain the concepts of clean production and high-efficient manufacturing. These two concepts, which have high priority in several regional roadmaps, are closely interrelated. The pilot plans to reach significant impacts and synergies, and aims at:

- Reducing the consumption of energy, from the process to the entire factory level.
- Increasing of renewable energy at factory level and industrial districts.
- Efficiently using of materials in manufacturing processes.
- Reaching near-to-zero emissions in manufacturing industries.
- Minimizing defects in manufacturing processes by introducing new control technologies and intelligent automatic correction processes.
- Increasing throughput and quality of production.
- Reducing manufacturing costs.

In the light of global competition, the pilot initiative aims to support companies in increasing their performance to keep manufacturing in Europe and, at the same time, to develop new environmentally-friendly models that can preserve European resources and that can act as a reference for manufacturers all over the world.

Cross Cutting Work Stream

Research and Innovation Smart Funding - Building synergies between funding sources and instruments at European and National/Regional levels

Lead Region - NORTE

The current European Research and Innovation policy calls for a significantly higher level of alignment, complementarity and integration of European and national/regional funding programmes and instruments. There are already some examples that demonstrate the advantages of such an approach and some best practices illustrating possible ways of doing it. On the other hand, that same experience shows that there are still many difficulties and barriers that need to be overcome and also that innovative approaches have to be developed.

The European Commission and Member States are developing new approaches, methodologies and funding and financing instruments to cope with the challenges of a better coverage of the innovation cycle, and producing information and guidelines to better support the stakeholders in this process. An example is the "Enabling synergies between European Structural and Investment Funds, Horizon 2020 and other research, innovation and competitiveness-related Union programmes - Guidance for policy-makers and implementing bodies"

The three pilots outlined above are likely to need such a combination of funding and financial instruments and provide an opportunity for the Vanguard Initiative to develop, test and demonstrate innovative scenarios to support research and innovation, using all the available resources in a smart way (integrated, efficient and effective).

The learning generated as a result of the work of this group will shape and inform the approach of future Vanguard Initiative projects in other domains. It will also be shared more widely for the benefit of other regions, Member States and the Commission.

Vanguard Initiative Activities 2013 - 2014



**20 Strategic
Meetings
with
Commission
Services**



**Vanguard
Initiative on
the platform
at 9 European
Events**



**9 Vanguard
Initiative
Workshops
with key
Stakeholders**

Advanced Manufacturing Smart Specialisation Platform



**Over 100 Experts
Mobilised**



**3 Pilot Actions in
Advanced
Manufacturing**

**Scoping Study
Produced**