



MANUMIX
Interreg Europe



European Union
European Regional
Development Fund

Delivery of Action Plan:

Welsh Government

Greg Green

September, 2020 | online

Presentation agenda

Background situation & objectives of the action plan

Main activities developed and the involvement of the stakeholder

Changes in the policy instrument, results & impacts, unexpected achievements

Application of the learnings

Potential next steps

Background

Manumix provided the opportunity to work alongside European partners and WG stakeholders on policy for Advanced Manufacturing evaluation.

The Action Plan aims to impact:

- Investment for Growth and Jobs programme
- Other regional development policy instrument

The policy instrument addressed have been broadened from the original to reflect the uncertainty facing Welsh SMEs caused by the results of the EU referendum (BREXIT) and some actions relating to Covid response.

WG overarching **Economic Action Plan** including **The Research and Innovation priority of the EU Structural Funds Operational Programmes 2014 20, West Wales and the Valleys.**

The action plan reflects these changes and shows Welsh Government reacting in an agile manner, accelerating processes due to circumstances and addressing challenges by adapting and modifying policy mix and instruments that were not present or foreseen at the start of Manumix.

The plan's overall aim is supporting the capacity of SMEs to engage in growth in regional, national and international markets, and in innovation processes in a highly competitive and uncertain future

Key Stakeholders

- Welsh Government – Innovation
- Welsh Government – Business and Regions
- Innovation Advisory Council Wales
- Wales European Funding Office
- Innovate UK
- Industry Wales
- Catapult network
- Nesta

Action Plan progress

Action 1

| Action | Status: Executed | Developments |
|---|---|--|
| Deliver Industry 4.0 business diagnostic | Innovation department WG – Contracted diagnostic consultants | Target up to 700 smes - Covering areas of productivity, design and implementation Instrument -3 days plus 2 optional additional days To date over 442 diagnostics have been undertaken. |

Action 2

Action

Status: Executed

Developments

Monitor and evaluate pilot programme

Innovation department

Review of outputs, tracking of action plan implementation, progression onto other innovation instruments

Action 3

Action

Status: Executed

Developments

Deployment of imported learning and development of new Instruments to support the action plans developed from the diagnostic phase.

Innovation department,
Innovation Advisory
Council Wales

Ongoing assessment and development of new instruments following learning journey visits and additional follow up activity.

Increased WG innovation staff learning from Manumix partners and refining existing instruments and measures.

Additional visits and wider collaborations between Basques and WG have developed over last 24 months eg intergovernmental innovation collaborations, I4.0 joint activities eg BIND4.0 workshops and events, Collaborations on policy development.

Action 4

Action

Status: Executed

Developments

Industry 4.0 policy and instruments benchmarking, to maintain effective policy mix

Ongoing assessment continues. Ministerial report commissioned to benchmark Welsh position and map out SWOT analysis and offer future recommendations UK Gov developing R&D roadmap for the UK, WG to provide input on planned I4.0 policy development.

Following Manumix Learning, the development of a focused diagnostic looking at the barriers and awareness to I4.0 with the modified and enhanced Innovation Voucher + (IV+) to help implement actions and /or to adopt I4.0 methodologies.

Impact of Covid restrictions has led to rapid response instruments to respond to the crisis as well as prepare industry for return back to effective operations.

WG and UK Government Covid responses implemented parts of I4.0 for example ventilator challenge, Advanced Manufacturing RTO in Wales part of industry response

Outcomes

| Action 1: | Policy-instrument influenced | Has the project succeeded in influencing the policy instruments? | Changes and results | Type of change (implementation of a new project/improved management/modification) |
|--|---|--|--|--|
| Deliver Industry 4.0 business diagnostic | I4.0/productivity; Economic Action Plan | Yes | Changing perception and raising awareness Increasing activity | New and modified instruments influenced by Imported learning from Basque and Finpiemonte partners in their I4.0 approach and policies. |

Outcomes

| Action 2: | Policy-instrument influenced | Has the project succeeded in influencing the policy instruments? | Changes and results | Type of change (implementation of a new project/improved management/modification) |
|--------------------------------------|----------------------------------|--|--|---|
| Monitor and evaluate pilot programme | Diagnostic programme SMART suite | Yes | Changing perception and raising awareness Increasing activity | New and modified instruments influenced by learnings |

Outcomes

| Action 3: | Policy-instrument influenced | Has the project succeeded in influencing the policy instruments? | Changes and results | Type of change (implementation of a new project/improved management/modification) |
|---------------------------------|------------------------------|--|--|---|
| Deployment of imported learning | Diagnostic programme IV+ | Yes | Providing support and scope for additional integration and training to deploy I4.0 | New and modified instruments influenced by learnings Continued information and policy sharing and collaborations with partners |

Outcomes

| Action 4: | Policy-instrument influenced | Has the project succeeded in influencing the policy instruments? | Changes and results | Type of change (implementation of a new project/improved management/modification) |
|--|-------------------------------------|--|--|---|
| Industry 4.0 policy and instruments benchmarking, to maintain effective policy mix | Innovation Diagnostic programme IV+ | Yes | Increased collaborations Covid 19 Challenges and responses Post Covid recovery | New and modified instruments influenced by learnings |

Results - application of learnings

Wider context of Self-performance indicators with i4.0 adoption

Self-performance indicators

| Region | Self-performance indicators | Target | Achieved so far |
|----------------|--|--------|-----------------|
| Basque Country | Number of improved instruments cofounded by ERDF and related with AM | 2 | |
| Lithuania | Number of financed projects, related to advanced manufacturing | 5 | |
| Piedmont | Number of indicators (selected among those of the ERDF ROP 2014-2020) to be applied to the regional evaluation system to assess the policy implementation process, consistency and impact. | 3 | |
| Wales | Number of enterprises supported to introduce new to the market products | 245 | 97* |

| Year | SMART Cymru Project No |
|--|------------------------------|
| Jan 2017-20 New products to Market | 97* |
| Innovation Vouchers | 281 |
| Jan 2019- sept 20 (Action Plan) Innovation Voucher Plus | 21 approved (5 in appraisal) |
| Total | 399 |

97 in narrow definition, in wider innovation support, the total innovation projects supported is **399** against the **245** target (with a value of **£31.7m/€34.68**) exceeding the self defined indicator target.

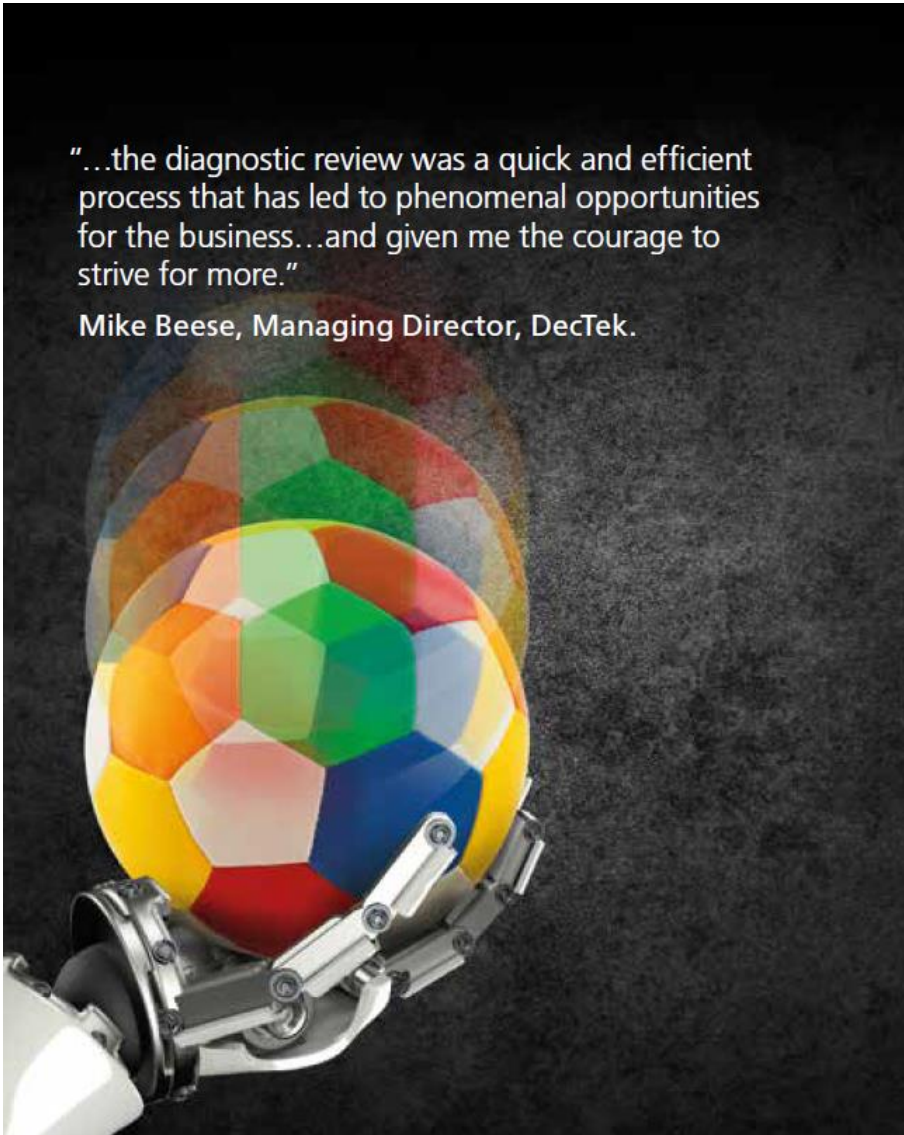
The **97*** projects within the narrowly defined indicator have a combined project value of over **£22.5m/€24.63**

IV+ projects value c£4m / €4.38m

Diagnostic - activities developed in Action Plan

"...the diagnostic review was a quick and efficient process that has led to phenomenal opportunities for the business...and given me the courage to strive for more."

Mike Beese, Managing Director, DecTek.



SMART – Design & Productivity

At a glance

- 3-day health-check by industry specialist
- Fully-funded
- Manufacturing or design focussed
- Delivered via external expertise
- 5-day fully-funded follow-up work
- Tailored to the business
- Improves productivity, quality or efficiency...
- ...or develops new products or services

Policy-instrument change – new wider focus

Innovation Voucher Focus

Product Innovation

- Innovation best practice/readiness
- Development of a new product
- Improvement of an existing product

Innovation Voucher+ Focus

Business Integration

- Factory floor and production systems
- Additive manufacturing
- Industrial Internet of Things
- Sensors
- Systems integration
- Digitally assisted assembly
- Robotics & automation
- Simulation
- Cyber security
- Flexible manufacturing
- 3D visualisation
- Digital processes
- Predictive maintenance
- Energy & water efficiency

I4.0 adoption

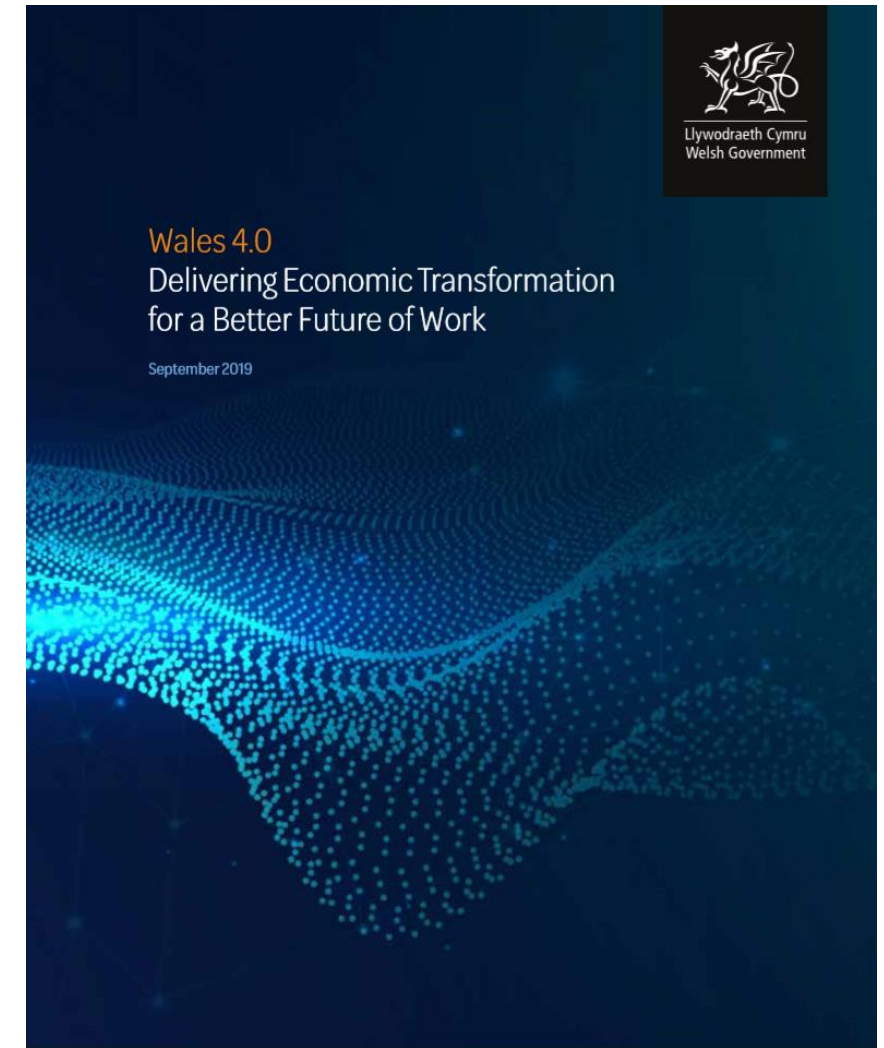
Supply chain Integration

- Supply chain integration & mapping
- Circular economy & remanufacturing

Customer Integration

- Servitisation
- Web-based customer order tracking
- Mass customisation

Key partner learnings – focused policy



Impresa 4.0 policy

Importance of role of RTOs – senior WG support –UK support for key centres

RTO Investments Advanced Manufacturing



RTO Investments Compound Semi Conductors



Key learnings

Imported:

- Industry 4.0 policies, strategies, vision and ambition.
- The role of the regions RTO and how they operate with the sector.
- The undertaking of Industry 4.0 assets in the region
- Methods of outreach and evaluation.
- Opportunities for closer partner region collaborations (official and stakeholder)

Exported:

- Insight to the Innovation Policy, measures and instruments operate and evaluation.
- The role of the Innovation specialist – role profile, job description, recruitment profile, experience and daily activities. Evaluation methods of programme and outputs
- Innovation policy development, delivery models, programmes and sources of funding
- Public sector challenge led innovation (recognised as a project good practice)

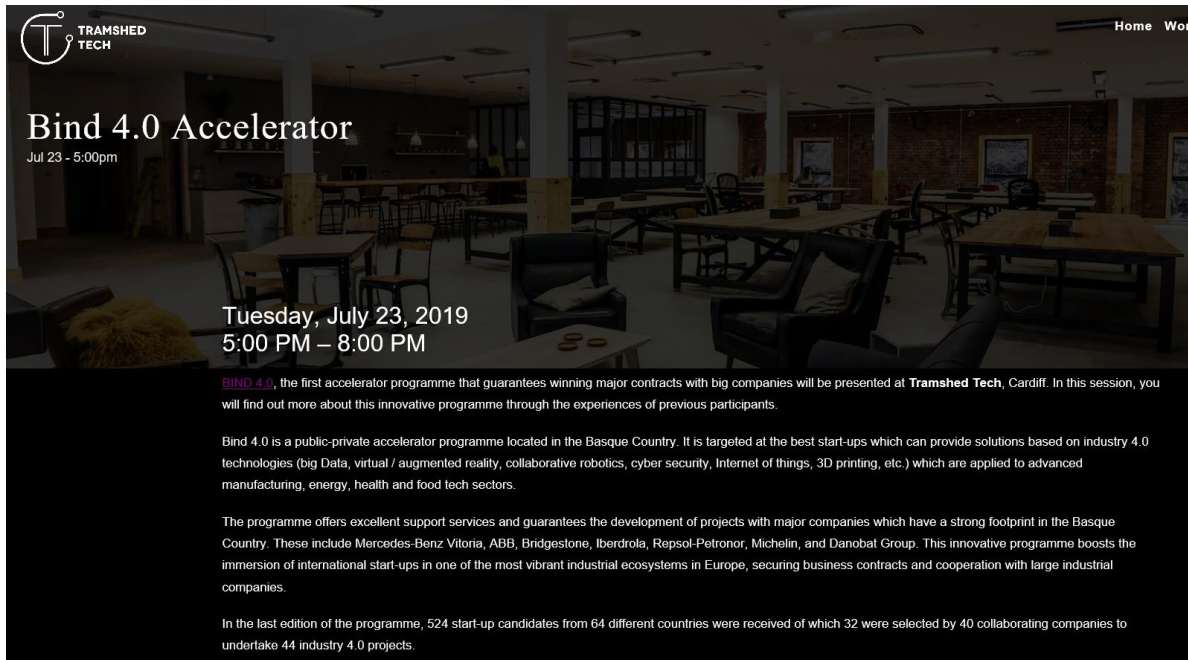
Other Interesting policy developments

Associated Outputs and impacts

BIND 4.0 visit to Cardiff July 2019

BIND demo day July 2020

BIND Workshop August 2020



TRAMSHED TECH

Bind 4.0 Accelerator

Jul 23 - 5:00pm

Tuesday, July 23, 2019
5:00 PM – 8:00 PM

BIND 4.0, the first accelerator programme that guarantees winning major contracts with big companies will be presented at **Tramshed Tech**, Cardiff. In this session, you will find out more about this innovative programme through the experiences of previous participants.

Bind 4.0 is a public-private accelerator programme located in the Basque Country. It is targeted at the best start-ups which can provide solutions based on industry 4.0 technologies (big Data, virtual / augmented reality, collaborative robotics, cyber security, Internet of things, 3D printing, etc.) which are applied to advanced manufacturing, energy, health and food tech sectors.

The programme offers excellent support services and guarantees the development of projects with major companies which have a strong footprint in the Basque Country. These include Mercedes-Benz Vitoria, ABB, Bridgestone, Iberdrola, Repsol-Petronor, Michelin, and Danobat Group. This innovative programme boosts the immersion of international start-ups in one of the most vibrant industrial ecosystems in Europe, securing business contracts and cooperation with large industrial companies.

In the last edition of the programme, 524 start-up candidates from 64 different countries were received of which 32 were selected by 40 collaborating companies to undertake 44 industry 4.0 projects.



BIND4.0

STARTUP!
BASQUE INDUSTRY 4.0
ACCELERATOR PROGRAM

BIND 4.0: accelerating your SME with high-level Industry 4.0 customers
Wednesday, 26th August 2020 – 11:00 AM
WEBINAR – WALES

Llywodraeth Cymru
Welsh Government

BasqueTrade
& Investment

GRUPO
spri
TALDEA

ELUKO INPLAMANTZA
GOBERNIO BASKO

Application, unexpected learning and next steps

- Commitment to on going collaborations with Basques – London/Wales/Basque region
- Regional impact and the importance of place.
- Learnings from Aero hub considered in the AMRI RTO
- Key component suppliers into Basque key industries eg Orona
- Automotive support and RTO comparison and SWOT analysis
- Models of regional R&D funding/Tax/Grants/Access to finance
- Adv Manufacturing I.40 programmes compare and appraise
- Regional and political importance of Science and Innovation
- Employee owned business models
- Commitment and approaches to Women in science and innovation

WG partner on related Interreg project –
Cohes3ion
Launched in Bilbao (Oct 2019)



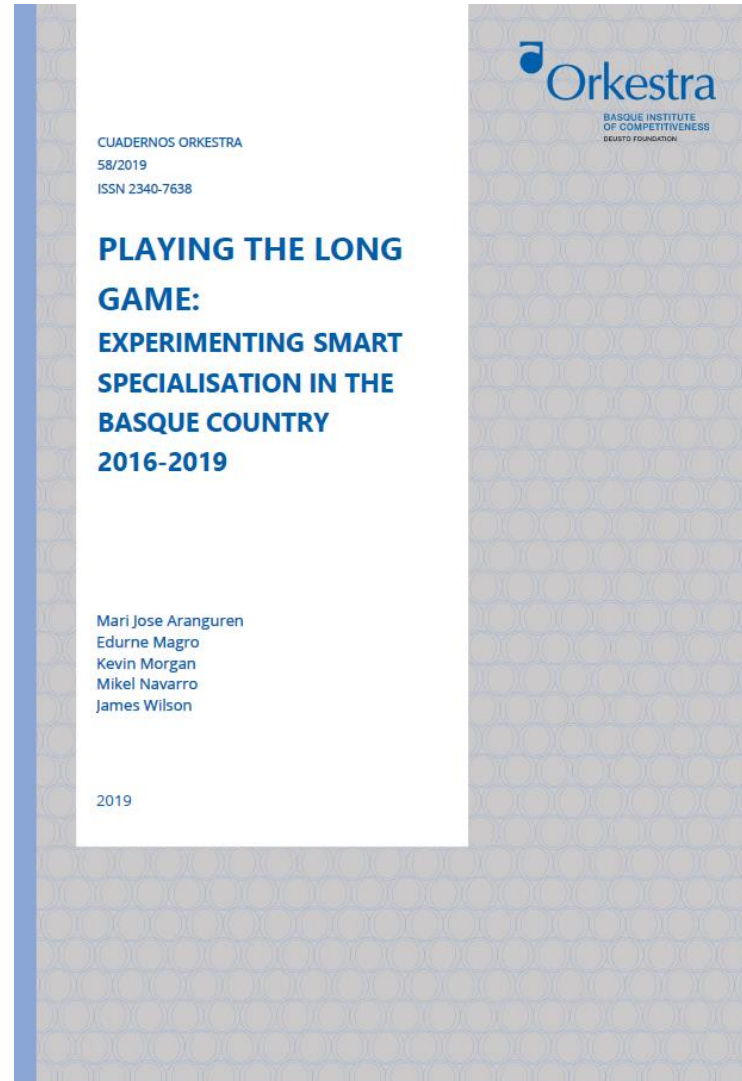
An interregional cooperation project for improving innovation infrastructure policies.

Project Partners

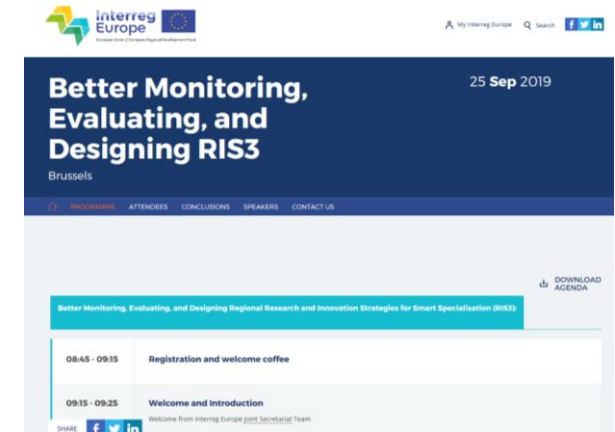
- BEAZ S.A.U. (ES)
- Business Metropole Ruhr GmbH (DE)
- Azaro Foundation (ES)
- Deusto Foundation (ES)
- Southern Regional Assembly (IE)
- Calabria Region (IT)
- Mazowieckie Voivodeship / Office of the Marshal of the Mazowieckie Voivodeship in Warsaw (PL)
- North-West Regional Development Agency (RO)
- Region Stockholm (SE)
- Welsh Government (UK)



Wales assistance in Basque RIS3 report
Prof Kevin Morgan IACW and Cardiff
University
(Aug 2019)



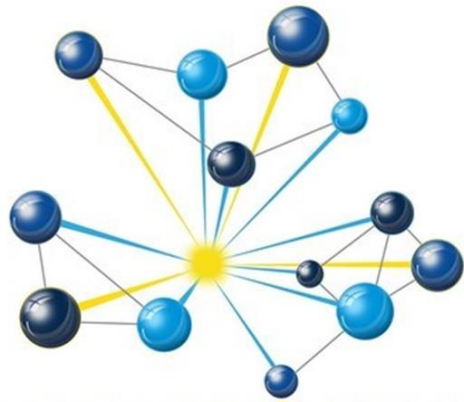
WG attended RIS3 workshop in
Brussels
(Sept 2019)



WG innovation officials visit to
Bilbao (Jan 2019)

Ongoing collaborations with partners

MOU Between Wales and Basque region



VANGUARD INITIATIVE
New growth through smart specialisation



Llywodraeth Cymru
Welsh Government

SCoRE Cymru

Supporting Collaborative Research and innovation in Europe

Bilateral co-operation projects between Wales and the Basque Country
Call July 2020

Background

The Basque Country¹ is a priority region in the Welsh Government's International Strategy. Since 12 July 2018, Wales has had a Memorandum of Understanding with the Basque Government.



Orizaba Valley, Basque Country (Image: Ayuntamiento de Andoain)



South Wales

There is a long history of links between Wales and the Basque Country, from prehistory to the iron and coal trade, and now with companies such as CAF and Midatech operating in both countries. The Basque Country offers 1,660 internationalised companies in one of the largest industrial concentrations in Spain. It has a high quality of life and some of the highest productivity levels in Europe. There is a strong manufacturing base with a relentless focus on science and innovation. The strong Basque technology organisations and universities make it one of the

Welsh projects
examples -covering
Neuroscience
Fisheries
Languages
Healthy Ageing

Evolving Industrial, research and international relationships

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Archive

- 12 July 18
Manumix delegation visits Newport Wafer Fab
- 02 July 18
CS Connected Seminar at Newport Wafer Fab
- 27 April 18
City deal investment is revealed to Cabinet Members
- 05 April 18
Best new talent the @ESTNET #Wales Technology Awards

Manumix is a EU Interreg project, which is concerned with the evaluation of regional Innovation Policy instruments in Advanced Manufacturing within 4 EU regions.

INNOVATION SUCCESS STORIES



Our European Partners Hit for Six
Twenty partners from across Europe arrived at the Glamorgan Cricket Ground to share best practice in regional innovation policy.
Find out what the delegation got up to in Wales

Advances Wales Issue 85

The latest Advances highlights recent food innovations being developed to improve children's health, new technologies that benefit the environment and also features how humans and robots are working together in Wales.



View the latest edition of Advances Wales here

TAKE A LOOK AT OUR INNOVATION ZONE



IQE presents at EU Manumix event in South Wales

12 July 2018

Earlier this week, IQE presented an overview of compound semiconductor technologies, the role of government intervention in encouraging innovation and the power of clusters at an event hosted at chip foundry, Newport Wafer Fab, a founding member of CSConnected, the world's first compound semiconductor cluster.

The event was attended by a group of representatives from four European regions participating in the EU Interreg project Manumix.



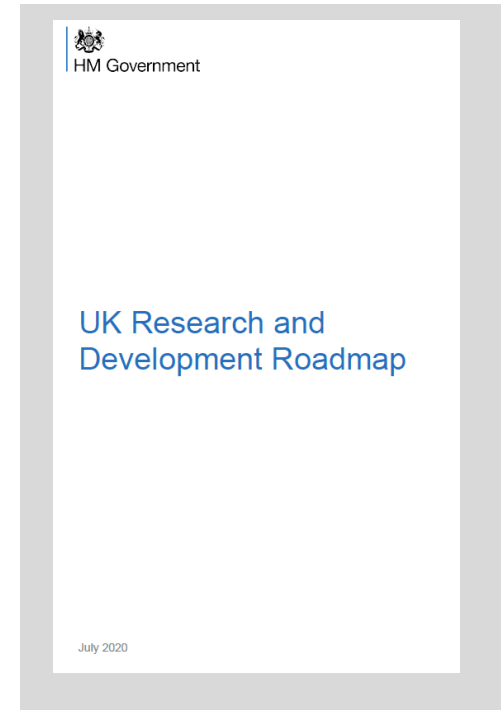
Manumix is a EU Interreg project which focusses on the evaluation of regional Innovation Policy instruments in Advanced Manufacturing within 4 EU regions. Led by the Basque region, with Finpiemonte Region of Italy, Lithuania and Wales.

Well being of Future Generations Act



3

UK Gov – ‘Levelling up’ agenda



Wales – New Regional Policies



Strategy

7



Thank You...

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