



MANUMIX

Interreg Europe



European Union
European Regional
Development Fund

Welsh Government

Greg Green

Innovation Team – Economy, Skills and Natural Resources

greg.green@wales.gsi.gov.uk

17-19 MAY 2017 BILBAO

Wales – Manumix Innovation Policy Mix



WALES – KEY FACTS

Wales - Physical



Devolved administration. Part of the United Kingdom and the island of Great Britain

Borders- England to the east and the Atlantic Ocean and Irish Sea to the west.



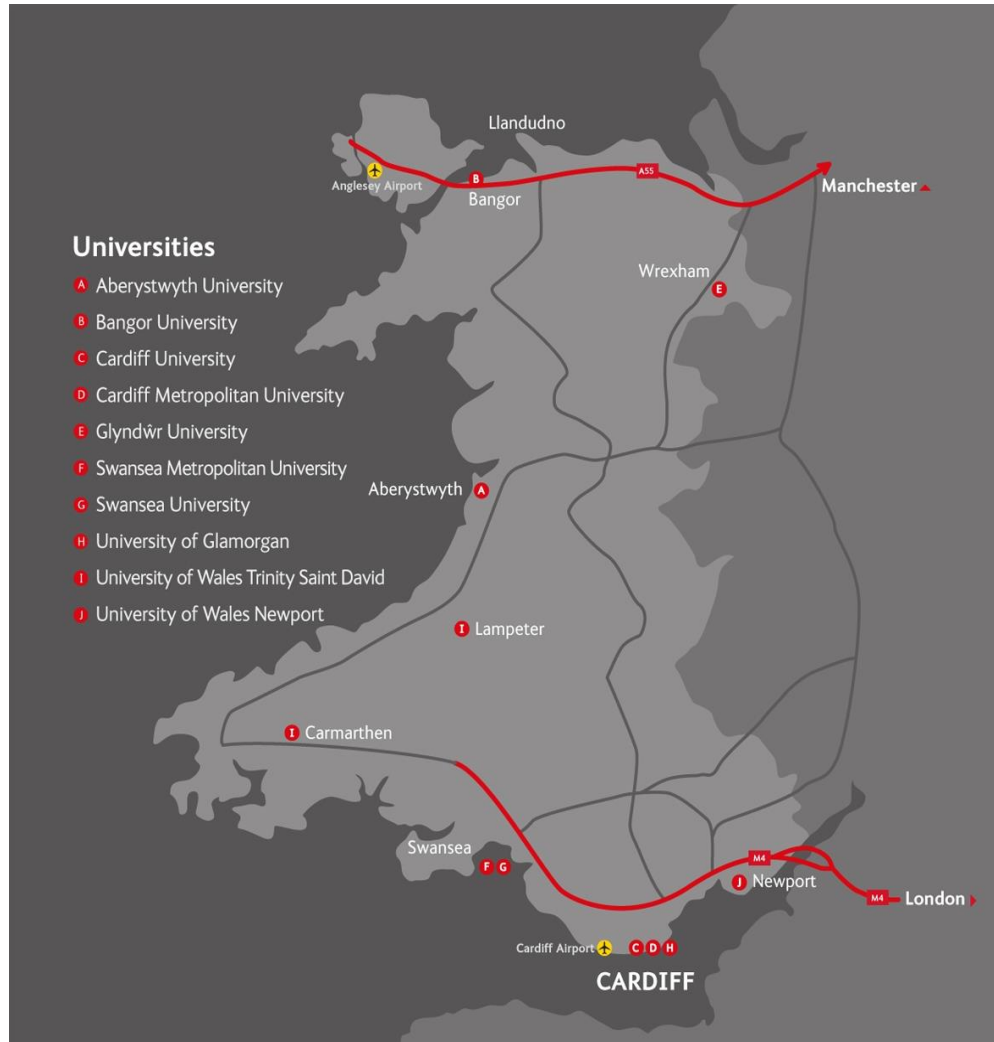
Population over 3 million, 5% of the UK total.



Land area of 21000 sq/km 1,200 km of coastline

Devolved Responsibilities e.g. in Economy/Health/Education/Housing

Wales - Physical



Two 'regions' East Wales and West Wales and the Valleys

Three major cities Cardiff, Swansea, Newport

8 Universities

Main economic centres in east

Mid Wales predominantly rural.

Upcoming events

3rd June 2017

Cardiff - Destination

UEFA Champions
league Finals



Wales: Key Facts

Economy changing from heavy industrial to service led

Total workplace GVA in Wales in 2015 was £55.8 Billion, up 3.0% on 2014.(Total Manufacturing sector c£9.5 Billion)

**Workplace GVA per head in Wales in 2015 was 71% of the UK average, the lowest amongst the devolved countries and English regions.
East Wales 84%/West 63%**



Wales: Key Facts

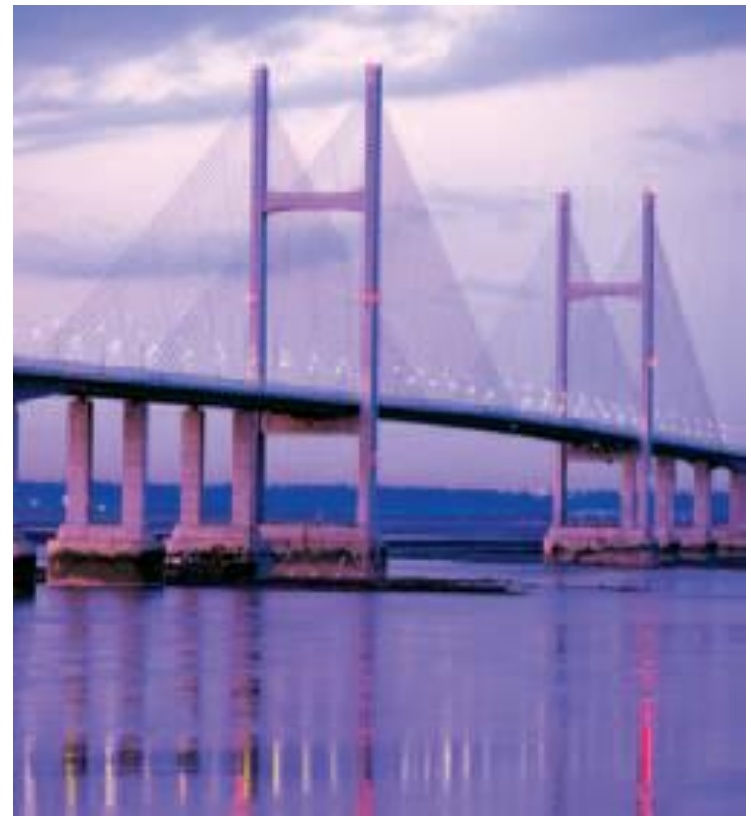
Manufacturing comparatively more important in Wales than rest of UK

Many large companies have a presence in Wales, e.g. Tata, General Dynamics, GE Healthcare/Aerospace, Ford, Airbus, Toyota, BA

But business R&D low

Small number of Head Quarters

Lack of critical mass



SMART SPECIALISATION

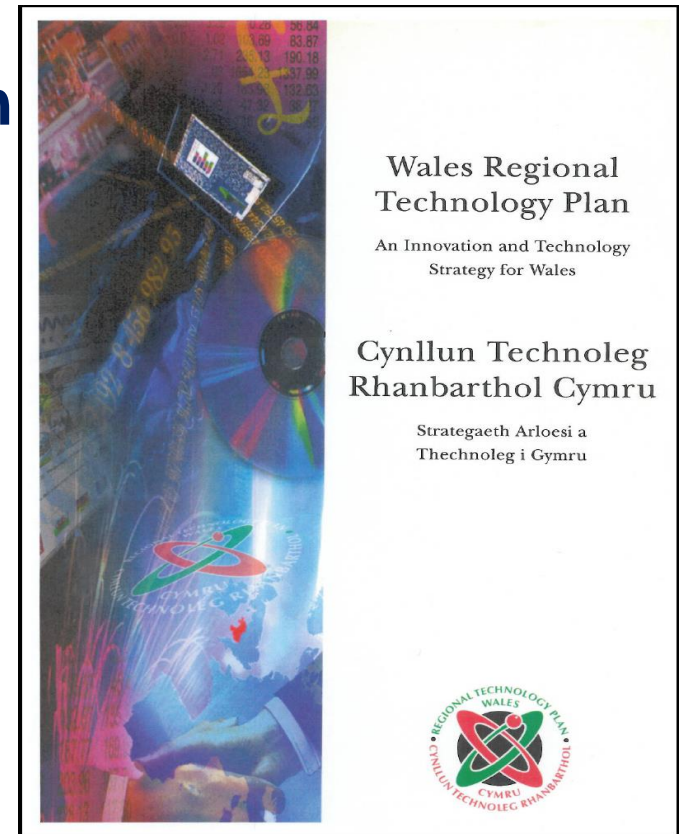
Wales and Smart Specialisation

We have some history:

Wales was one of the 1st regions in Europe to produce a *Regional Technology Plan* in 1996

This was superseded by *Wales for Innovation* in 2003

These strategies prioritised Structural Funds spending up until 2013



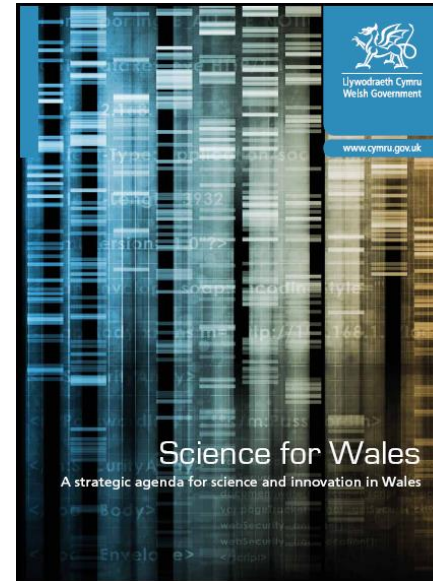
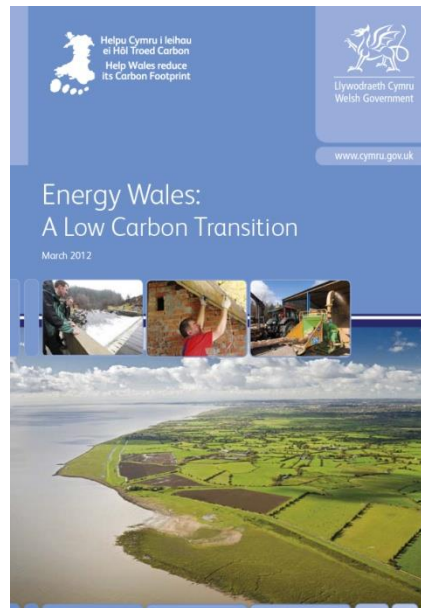
Wales and Smart Specialisation: Welsh Government Policy Framework



Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

Innovation Wales



Delivering a Digital Wales

The Welsh Assembly Government's
Outline Framework for Action

December 2010



Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

Innovation Wales

Overriding principle;

- Innovation is vital across all parts of economy **but** major investments must be based on evidence of existing strengths and market opportunity

Five key themes

- Collaborate inside and outside Wales
- Promote a culture of innovation
- Innovation in government
- Flexible support
- Prioritisation and critical mass



Action areas

Wales needs to collaborate and engage more productively with EU and UK bodies

Knowledge exchange and commercialisation of R&D will be given a high priority, favouring a demand led approach

The value of all types of innovation will be recognised, not only those which are technology led

Action areas

Innovation, entrepreneurship and enterprise should feature strongly in the education of young people

Wales will present itself to the world as an attractive place to locate and grow innovative businesses

Public sector in Wales an opportunity to support 'testbed' of new solutions

Wales will develop financing products to bridge the gap between research and the deployment of new products and ideas

Action areas

Wales will support a culture of open innovation

The public sector in Wales will to support innovative methods of procurement, such as Small Business research Initiative (SBRI)

Wales will identify opportunities for a small number of major investments designed to have a transformational effect of Wales' RD&I capabilities



Energy & Environment



Financial & Professional Services



ICT



Advanced Materials & Manufacturing



Construction



Creative Industries



Life Sciences



Tourism



Food & Farming



ADVANCED MANUFACTURING

Wales' Strengths

- **Advanced engineering and materials**
 - Photonics
 - Compound semi conductors
 - MRO (aerospace)
 - Functional coatings



- **ICT/Digital**
 - High performance computing
 - Broadband infrastructure
 - Cyber Security

Wales' Strengths

- **Life sciences and health**

Patient data records

Wound healing

e-health



- **Low carbon energy and environment**

Smart living

Eco innovation

Marine energy

Advanced Manufacturing strategy

5 key priorities:

Globalisation – increasing trade, export and inward investment opportunities from existing and emerging markets

Innovation and Technology – encouraging and supporting Research and Development in innovative products and processes to increase and embed 'intellectual capital' in Wales

Employment – ‘future proofing’ education, skills, training and leadership to meet the demands of the 21st century manufacturing workplace

Finance for growth – syndicating risk-sharing financial packages through a combination of public and private sector funding mechanisms

Building Capacity - targeting investment in strategic infrastructure and broad-access initiatives that together create a sustainable business environment

“Car maker Aston Martin has bought the land for its new factory in South Wales.

*The firm will build its new DBX model at a plant in St Athan, Vale of Glamorgan, from 2020 and will employ 750 highly-skilled workers”
(December 16)*



INSTRUMENTS

WG mix and Instruments

Categories	Research		Applied Research and Development			Prototype Demonstration		Pre Commercial Deployment		Commercial
TRL	1	2	3	4	5	6	7	8	9	
	Idea = Feasibility Studies		Scale up = Industrial research			Valley of Death = Experimental Development		Market = Innovation Vouchers		
Business Research		SMART Cymru (Feasibility to Exploitation)								
Working with universities			Smart Expertise & partnerships/ Knowledge Transfer Centres (KTC), Industrial Research (Collaborative R&D/ Knowledge Transfer Partnerships KTP (with Innovate UK)							
Business Innovation		Innovation Vouchers – Third Party Experts, Capital Investments Innovation Specialists – Advice, Signposting, Design etc.								
Supply chain Innovation										Open Innovation
Public Sector innovation					Small Business Research Initiative SBRI (with Innovate UK)					
Outside Wales	Horizon 2020 (TRL 1-6) Innovate UK SMART (TRL 3-7), competitions, Launchpads etc., Nesta programmes.									

SMART (2015 – 2021)

SMART Innovation

- Pan Wales team of Innovation and IP Specialists plus framework of private sector partners providing expertise on product design and manufacturing improvement for eligible businesses.
- Dedicated Research Development Managers working with Welsh Research Institutions

SMART Cymru

- Innovation grant funding for eligible businesses accessed via Innovation Specialists.

SMART Expertise

- Support for Welsh Research Institutions to facilitate specialist technology transfer via industry led collaborative projects, accessed via the Research Development Managers



Eligibility:

- Support is mainly focused on:
- established SMEs with 10 or more employees.
- Smaller businesses accepted on Accelerated Growth Programme.
- Businesses with a desire and capability to grow.
- Larger businesses with a significant positive impact to Wales.



SMART Innovation:

- Technical & professional support at all stages of the innovation process starting with an **Innovation Diagnostic**
- Technical Advice and Mentoring through in New Product Development / New Product Introduction process
- IP advice & Exploitation of IP – IP Audits and awareness training



SMART Innovation :

- Facilitate collaboration with other businesses, networks and research organisations across Wales and UK
- Access to Welsh Government funding for the acquisition and implementation of transformational technologies that will launch new products and/ or processes.
- Signposting to other Welsh Government, UK and EU innovation funding and support



Design/Manufacturing

- Manufacturing & Design health check (max 3 day, 100% funding) classified as de minimis for both SME and large companies
- Framework of private sector providers that can be tailored to the requirements of the business
- Accessed through team of Innovation Specialists



Intellectual Property

Make the most of business ideas by protecting them:

- Intellectual Property awareness:
 - Patents
 - Trademarks
 - Copyright
 - Know how / Trade secrets
 - Registered Designs
- **Access to UK Intellectual Property Office IP Audits**



SMART Cymru

Innovation Vouchers

- Procure technical consultancy / expertise (third party services; design, prototyping, **IP searches and registration**).
- Capital element if it represents a significant technology step for applicant (not minor incremental changes or improvements). Output from these projects should have a **transformational** change on the applicant business.



SMART Cymru (structured R&D)

		<i>Technical & Commercial Feasibility</i>	<i>Industrial Research</i>	<i>Experimental Development</i>	<i>Exploitation</i>
Small Limits (10–49)		70% £15,000	70% £100,000	45% £200,000	50% £25,000
Duration (mths)		1 -6	3 -12	6 -24	Up to 6

Medium (50 – 249)		60% £15,000	60% £100,000	35% £200,000	50% £25,000
Duration (mths)		1 -6	3 -12	6 -24	Up to 6

Large (250+)		N/A	50% £100,000	25% £200,000	N/A
Duration (mths)		N/A	3 -12	6 -24	N/A

SBRI

.....‘*The public sector in Wales should be encouraged to support innovative methods of procurement.*

..... *The Welsh Government will work to identify opportunities within Wales and collaborate with Innovate UK to facilitate SBRI competitions in Wales.*

..... *Value Wales will raise Welsh public sector awareness of the scope to use innovative procurement to improve outcomes.’*



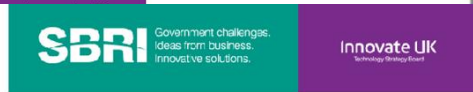
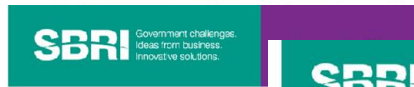


Home Competitions Success stories About SBRI Contacts

Home Competitions Success stories About SBRI Contacts % more time with

Innovative measures that will improve the energy

Fenceless fencing solutions



SBRI / Competitions / Fenceless fencing solutions



<p>SPONSORED BY</p>	<p>SPONSORED BY</p>
<p>WHERE NEXT?</p> <p>About SBRI</p> <p>SBRI competitions</p> <p>SBRI success stories</p>	<p>WHERE NEXT?</p> <p>About SBRI</p> <p>SBRI competitions</p> <p>SBRI success stories</p>

Invasive Non Native Spe

SBRI / Competitions / Invasive Non Native Species Challenge



Metal Mines Remediation Challenge

SBRI / Competitions / Metal Mines Remediation Challenge



SPONSORED BY

Award: TBC
 Opens: 02 sep 2013
 Registration closes: No deadline
 Closes: 06 Jan 2014
 Support phone number: 0300 321 4357



Home Competitions Success stories

Home Competitions Success stories About SBRI Contacts

Next Generation Predictive Policing

SBRI / Competitions / Next Generation Predictive Policing

Reducing Motorcyclists' Casualties In Wales

SBRI / Competitions / Reducing Motorcyclists' Casualties In Wales



Status: Open
Key features: A new competition launched by the Welsh Government to reduce the number of motorcyclists killed or seriously injured on Welsh roads.
Programme: SBRI
Award: Up to £510,000
Opens: 13 Jan 2015
Registration closes: 02 Mar 2015
Closes: 09 Mar 2015
Support phone number: communication@roadsafetywales.org.uk
 Registration is required to enter this competition. Please note that registration will close 1 week before the competition application deadline.



Status: Open
Key features: A new national competition to identify and develop innovative solutions that maximise the effectiveness of resources and enhance the service provided to the communities of Southern Wales.
Programme: SBRI
Award: £250,000
Opens: 19 Jan 2015
Registration closes: 06 Mar 2015
Closes: 16 Mar 2015
Support phone number: sbrichallenge@south-wales.pnn.police.uk
 Registration is required to enter this competition. Please note that registration will close 10 days before the competition application deadline.

SPONSORED BY

WHERE NEXT?

15 SBRI Public Sector challenges to date

Lessening financial support. Move from a 'Catalyst' to an 'Accelerator'

100% > 80% > 60% > 30%

£5.2m

contracts awarded

57

contracts awarded at stage 1

22

contracts awarded at stage 2 to date

42%

Welsh businesses receiving funding

5

Welsh businesses successful in other SBRI

competitions

4

Public bodies running more than 1 challenge

2

Non Welsh businesses now potential inward

investors

20%-30%

from

Gap funding secured for 3 projects project
Central Government departments



MANUMIX

Interreg Europe



European Union
European Regional
Development Fund

Thank you for listening

Diolch am wrando

Questions welcome



Project smedia