

Wales
Manumix
Innovation Policy Mix –
Recap.
July 2018



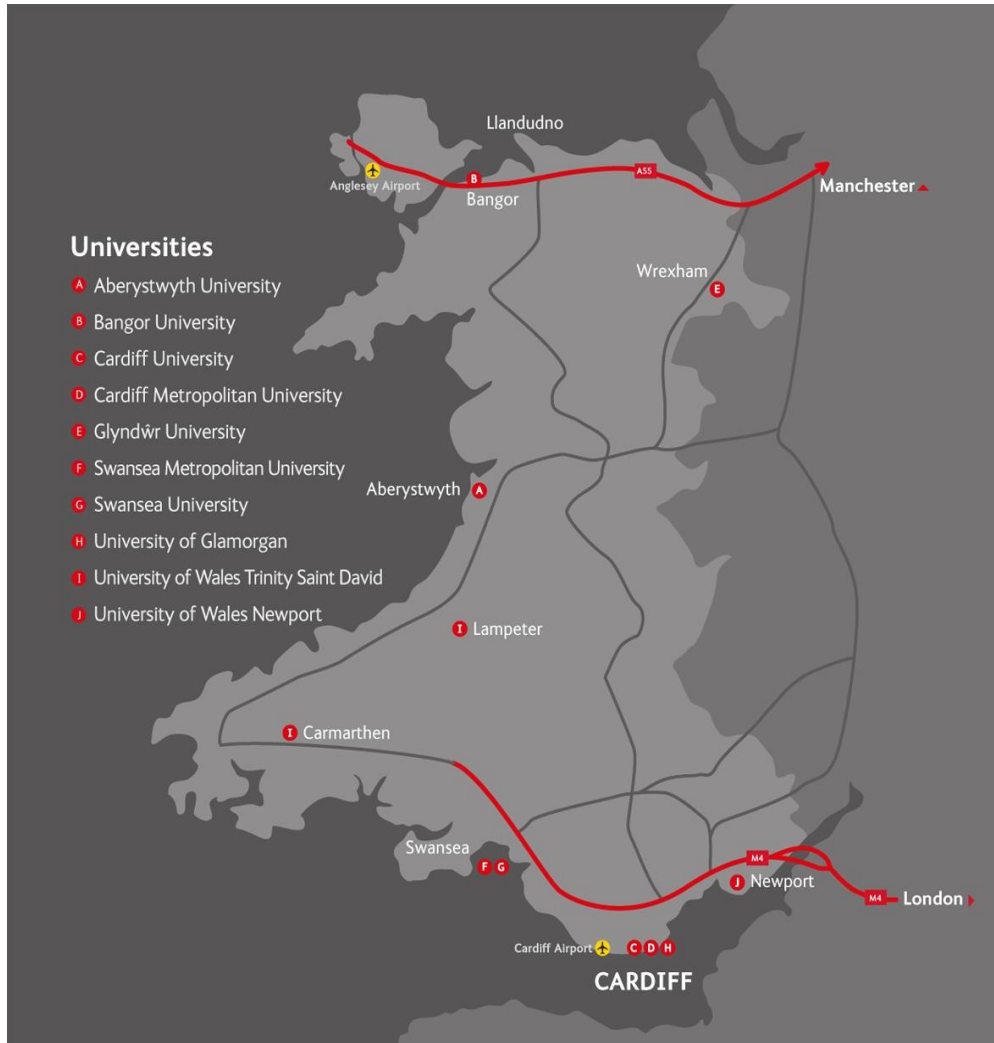
Greg Green
Innovation Team
Welsh Government

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/Transport/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.

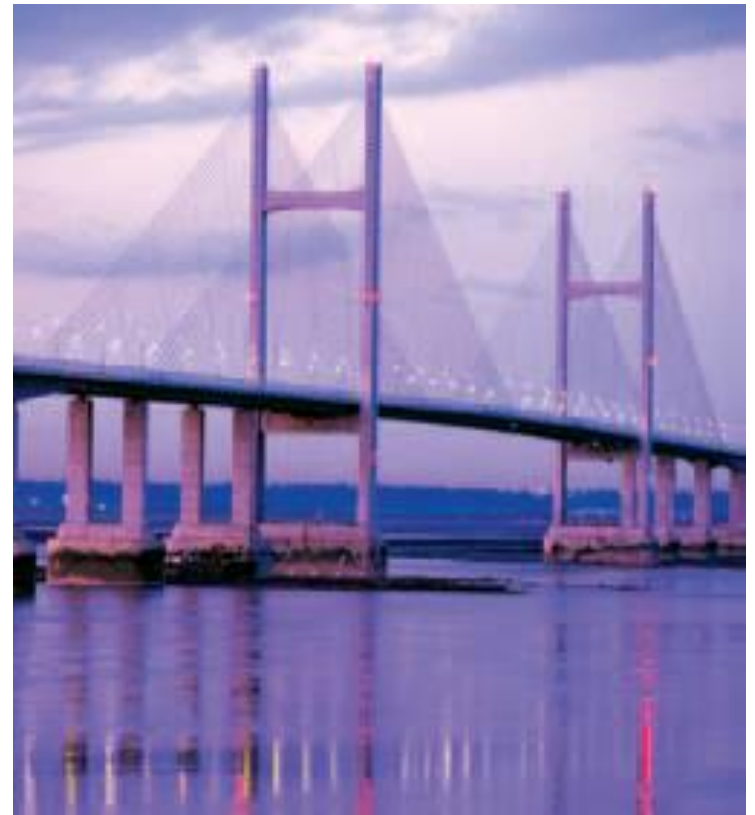
Wales: Key Facts

- 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)
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- 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

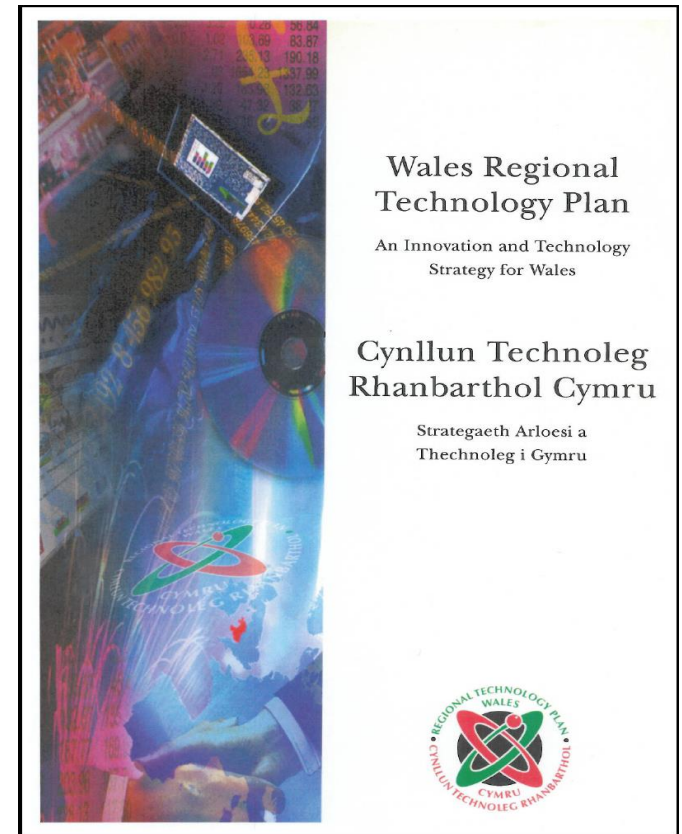
- Manufacturing comparatively more important in Wales than rest of UK
- Many large companies have a presence in Wales, e.g. Tata, General Dynamics, GE Healthcare/Aerospace, Ford, Airbus, Toyota, BA
- But business R&D low
- Small number of Head Quarters
- Lack of critical mass



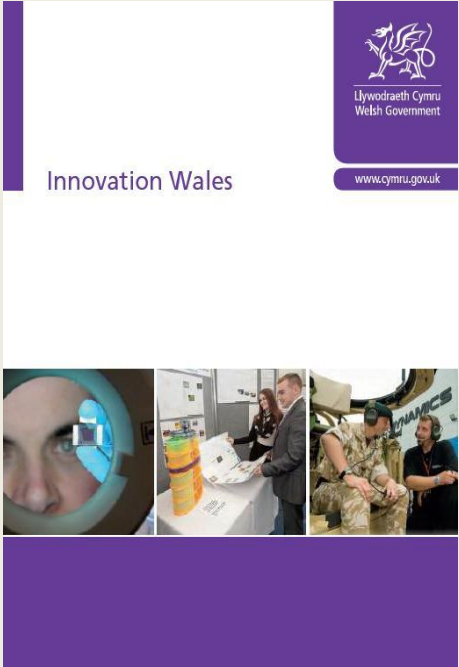
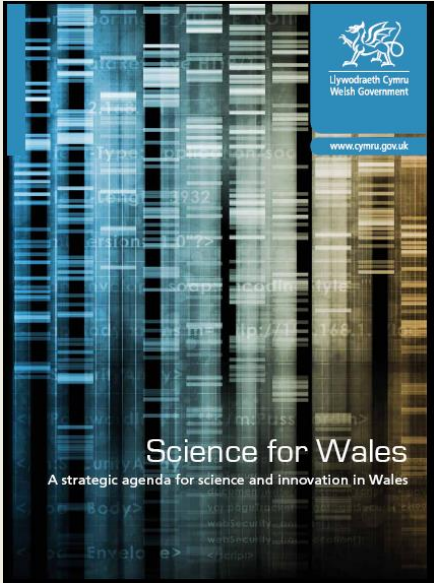
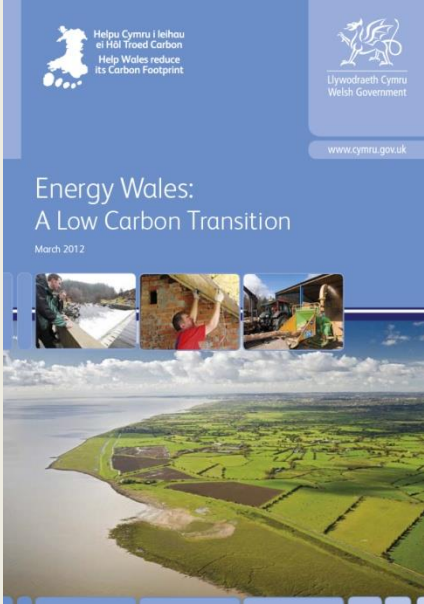
Wales and Smart Specialisation

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 Assembly Government

www.cymru.gov.uk

Delivering a Digital Wales

The Welsh Assembly Government's
Outline Framework for Action

December 2010

The cover is white with a blue header and footer. The Welsh Assembly Government logo and website are in the top right. The title 'Delivering a Digital Wales' is in a blue, sans-serif font, followed by the subtitle in a smaller black font. The date 'December 2010' is at the bottom.

Innovation Wales



Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

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 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 on Wales' RD&I capabilities



Energy & Environment



Financial & Professional Services



ICT



Advanced Materials & Manufacturing



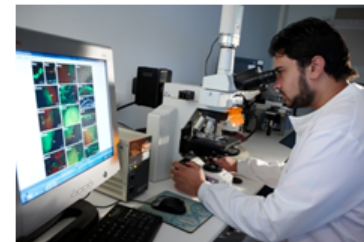
Construction



Creative Industries



Life Sciences



Tourism



Food & Farming



Wales' Strengths

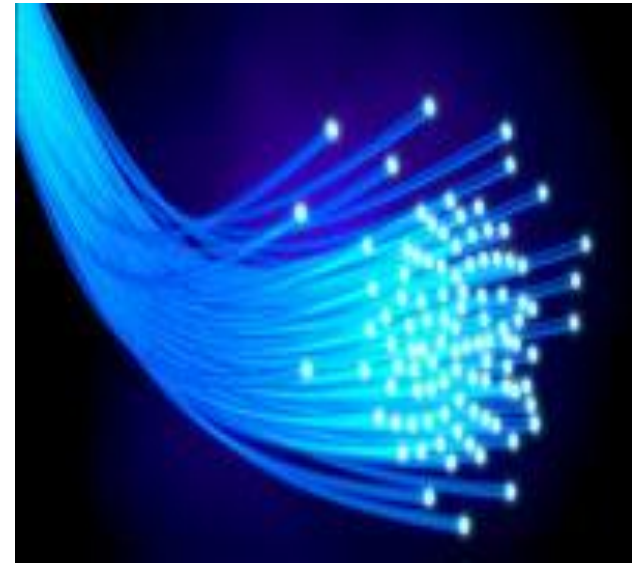
- **Life sciences and health**
 - Patient data records
 - Wound healing
 - e-health



- **Low carbon energy and environment**
 - Smart living
 - Eco innovation
 - Marine energy

Wales' Strengths

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



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

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)*



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



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.'



Innovative measures that will improve the energy

Invasive Non Native Spe

[SBRI](#) / [Competitions](#) / [Invasive Non Native Species Challenge](#)



Metal Mines Remediation Challenge

[SBRI](#) / [Competitions](#) / [Metal Mines Remediation Challenge](#)



Fenceless fencing solutions

[SBRI](#) / [Competitions](#) / [Fenceless fencing solutions](#)



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

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[Previous SBRI competitions](#)

Next Generation Predictive Policing

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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@roadafetywales.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.

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WHERE NEXT?

Thank you for listening

Diolch am wrando

Greg Green

Head of R&D Projects

Innovation Team

Economy, Skills and Natural Resources

Welsh Government