

Bangor University Submission to Enterprise and Business Committee 21st October 2015 Meeting

The importance of recurrent research funding in maintaining the competitive edge in the Horizon 2020 arena.

Despite considerable success in FP7 (see table 3) and retention of staff with the expertise and experience to perform at the highest level of international research, Bangor University feels the challenge of lower overall success rates under H2020 (down to 14%). This means applicants need to join the 'top-teams' in order to be successful, which can be difficult to achieve due to the cost and time commitments required to raise research profiles and network abroad. For the same reasons, it is difficult for us to attract Marie Skłodowska Curie Fellows of competitive calibre.

Consequently, we have been examining the barriers to performing well under H2020. We believe, in part at least, these are influenced by levels of recurrent funding which are inadequate to leverage competitive external research funding (H2020 or Research Councils). Investment funding is needed to:

- Create institution visibility for expertise (attending conferences, meeting collaborators, lobbying Brussels etc.)
- maintain staff resource to support proposal writing and project management/ research
- provide in-house or pan-Wales training for research in general and H2020 or for staff to attend externally/ commercially available courses

Persistent underfunding of Welsh HEIs compared to English, NI and Scottish HEIs is damaging the research capacity in Welsh institutions.

Table 1 – Comparison of levels of recurrent funding across UK HEI sector (Data from HESA 2013/14)

	Recurrent Research Grant £k/staff fte	RCUK Income £k/staff fte	Non-RCUK Income £k/staff fte	Total RI £k/staff fte	PGR income £k/staff fte	% Staff T&R and RO	Total Research Income (£k) per £k Recurrent Research Grant
Wales	12.6	8.8	25.6	34.4	0.9	73.8%	2.7
Wales*	13.5	8.8	25.6	34.4	0.9	73.8%	2.5
Scotland	19.7	17.9	29.6	47.5	2.4	86.5%	2.4
NI	23.7	9.9	32.2	42.1	?	65.7%	1.8
England	14.6	12.5	26.1	38.6	2.2	82.1%	2.6

*Incl PGR training grant for comparison – funding systems in other parts of the UK include PGR in recurrent funding

Table 1 shows that Welsh institutions receive considerably less recurrent research funding investment than their competitors:

- 45.6% less than Scottish institutions = £6200 per academic staff per year
- 8% less than English institutions = £1100 per academic staff per year

These are all-Wales figures, which are very much dominated by the largest institution, Cardiff. We suspect the difference for the smaller Welsh institutions is even more pronounced, since the best-performing and largest institution will draw down a higher proportion of these funds.

We recognise that WG is not as well funded as England and Scotland, however, the system by which a large proportion of HEI funding is directed at tuition fee grants aligned with the student, not the institution (and thus all students studying outside Wales take that funding away from the Welsh HEI sector) has been damaging the HEI sector in Wales.

Inadequate research funding can drive a focus on teaching in order to keep institutions financially viable (see table 1 – 10% lower proportion of research staff than in English and Scottish institutions). Anecdotal feedback from academic staff indicates that there is not enough time to (a) write proposals or attend networking or training events; (b) take on major roles in complex research projects, due to other time commitments.

Effect of Structural Funds in Wales

The types of projects favoured by the programme have previously focused attention away from international research excellence. This instilled a culture of providing regionally relevant research among parts of the academic community, which, whilst important for economic development, is not always considered excellent in the highly competitive international research arena. The draw of Structural Funds still provides distraction – these proposals often need input from our most experienced staff who would otherwise focus on preparing research proposals. Anecdotal evidence indicates that some staff could not put in Marie Curie Grants this year because they were too busy writing structural funds bids.

Horizon 2020

An update on Bangor University's participation in the first calls under the Horizon 2020 calls. (Note that Jane Hutt AM, Minister for Finance and Government Business in her written evidence to the Committee provided information on all Wales participation in these first calls (44 participants worth €17.7m in EU funding), without giving details on individual universities /organisations or types of projects.)

Bangor University's 2015 H2020 participation is very similar to 2014 – same number of applications, nearly same amount of funding applied for (however, we do not have all the results for 2015, yet). See table 2 and 3 below.

Support initiatives

Recognising the importance of H2020, Bangor University has undertaken the following supportive actions during 2015 :

- Information services and events
Internal mailbase for H2020 and other EU funding programmes – alerts several times per week, targeted by colleges (= faculties); New info web-site underdevelopment; Regular major talks and targeted seminars to specific Colleges and Schools; Joint collaborative sessions run in parallel with Aberystwyth University.
- Training
Marie Curie (MSCA IF) workshop (Jointly with Aberystwyth University, sponsored by SCoRE Cymru); ERC interview training – Mock panels for 1 StG and 1 CoG applicant
- Continuous Proposal support
Advice for individual projects, participant portal; application rules; proposal focus, policy background (mainly for Bangor coordinators); support/ control; participant portal content and contacts; budgeting, including control of financial viability.
- Management Infrastructure
European strategy group, coordinating H2020 activities with strategic initiatives within Bangor University and external (Welsh) political developments; input to Wales-wide (such as COFUND) and European consultations and initiatives.

Table 2 – Bangor University details of all H2020 applications

Bangor University H2020 applications 2014 + 2015	total submitted		contracts		stage 2	pending	failed
	number of grants	EC contribution (£)	number of grants	EC contribution (£)	number of grants	number of grants	number of grants
total	61	29,285,489	4	932,112	6	12	39
ERC	8	10,647,503	0	-	2	1	5
MSCA	13	3,116,690	0	-	n/a	5	8
RIA/IA	39	15,500,221	3*	911,037	4	6	26
CSA	1	21,075	1	21,075	0	0	0
A&H	3	1,714,346	0	-	0	1	2
Business, Law, Edu., Soc Sci	1	152,132	0	-	0	0	1
Health and Behaviour	13	8,609,664	0	-	2	3	8
Natural Sciences	27	10,266,735	2*	892,519	5	4	16
Physical and Applied Sci	18	8,542,612	2	39,594	1	4	11

*Bangor University is coordinating Innovation Action (IA) **InMAre** - Industrial Applications of Marine Enzymes: Innovative screening and expression platforms to discover and use the functional protein diversity from the sea

http://cordis.europa.eu/project/rcn/193292_en.html

Table 3 - Comparison H2020 versus FP7

	Grants won				Proposals submitted			
	FP7		H2020		FP7		H2020	
	number	£	number	£	number	£	number	£
Year 1 (2007 / 2014)	9	3,393,365	3	681,947	30	10,289,032	30	13,838,603
Year 2 (2008 / 2015)	6	1,160,814	1*	21,075*	31	11,624,446	31	15,446,886
Year 3 (2009 / 2016)	9	1,702,002	0	0	14	9,263,527	0	0
Year 4 (2010 / 2017)	3	421,888	0	0	12	5,710,895	0	0
Year 5 (2011 / 2018)	7	1,330,475	0	0	22	10,189,833	0	0
Year 6 (2012 / 2019)	5	954,813	0	0	8	1,977,405	0	0
Year 7 (2013 / 2020)	7	1,805,532	0	0	18	5,230,977	0	0
total	46	10,768,889	4	703,022	135	54,286,116	61	29,285,489

*not final numbers – outcome of many 2015 proposals pending

Success rates	FP7		H2020	
	number	£	number	£
Year 1 (2007 / 2014)	30%	33%	10%	5%
Year 2 (2008 / 2015)	19%	10%	3%*	0%*
Year 3 (2009 / 2016)	64%	18%		
Year 4 (2010 / 2017)	25%	7%		
Year 5 (2011 / 2018)	32%	13%		
Year 6 (2012 / 2019)	63%	48%		
Year 7 (2013 / 2020)	39%	35%		
total	34%	20%	7%	2%

*not final numbers – outcome of many 2015 proposals pending

Effort:

So far same number of proposals for FP7 and H2020 - currently barriers to upscale involvement

Views on the role of WEFO Horizon 2020 unit in supporting Welsh engagement in the new programme, and views on the other support mechanisms available in Wales including Score Cymru

WEFO provides useful information, but as HE has better suited information sources for research it appears that WEFO is rightly concentrating more on business support.

SCORE Cymru provides useful matched funding for our limited funds for networking. The SCORE team in Llandudno is very responsive and flexible and their support is much appreciated. They have co-funded a successful pilot training scheme for Marie Skłodowska Curie IF. In contrast our experience with the admin/finance team in the south has been less positive with disproportionate administrative demands for such small grants.

Views on the impact that the Science for Wales Strategy has had on Welsh participation in Horizon 2020

Implementation of many strategic initiatives took a while and they are too new to have had any obvious impact, yet. There are certainly many good ideas but at this early stage their implementation is less clear.

Views on the impact of the Welsh HE Brussels Office support to the participation of the sector in the programme, including the four thematic co-ordination groups it established in 2012.

The Office provide useful links and information and excellent support for events and meetings in Brussels – this is of real value when we are able to make it to Brussels but we do not have enough staff resource to really engage with WHEB and make use of the opportunities and services they offer. Thematic Groups are a good idea but information and actions often do not filter through to the wider research community.

Bangor University and Welsh HE more generally - work with Welsh businesses (and other businesses) to engage them in collaborative projects under Horizon 2020. The EU Funding Ambassadors in their session with the Committee on 23 September underlined the importance of specialist one-to-one support to businesses on engagement with Horizon 2020, arguing that this is currently not available in Wales. Do you agree with this view?

Structural Funds projects provide opportunities for HEI to:

- engage with businesses for the first time
- deepen relationships with businesses that have previously engaged with us but who want to collaborate in focused R&D projects and to commercialise the results of the research
- develop longer-term relationships with businesses that have the potential and the capacity to engage in Horizon 2020 projects.

Projects are currently being developed that involve engagement with businesses in the West Wales and the Valleys, Ireland-Wales, North West Europe and Atlantic Area Programmes which could potentially lead to H2020 projects in the future. There are good examples within the ERDF BEACON project of relationship building with organisations in Europe developing into FP7/H2020 submissions.

Most links in research work on a case-by-case or personal basis. We are encouraging secondment for MSC fellows in the non-academic sector and commercial partners in RIA/IA

Recent developments in the [Enterprise Europe Network in Wales](#) are relevant here:

- Whilst specialist support is essential, bid writers alone are not enough. Businesses would benefit from coaching support to maximise engagement opportunities. This is the approach of the new EEN Wales model to be delivered by Swansea University and BIC Innovation. There is also potential for coaching through the excellent SME links of the new ION Leadership programme.

- Innovate UK involvement and overall leadership of the EEN in the UK working with regional delivery partners together with its alignment with the Knowledge Transfer Networks is welcome.
- Work undertaken by Swansea University and BIC Innovation in the previous EEN Wales project provides a good basis to roll out activity across Wales. The challenge for the next round is to ensure greater engagement with Universities and businesses across Wales. This has been slowed due to the contract signature delays with the Commission.
- We understand that Welsh Government are investing in additional staff to their innovation specialists to support H2020 engagement. This would be a positive development and the new staff should be encouraged to coordinate with EEN Wales.

Views on whether Wales – the Welsh Government and the Welsh HE sector including Bangor – is sufficiently ambitious with regard to how it is approaching Horizon 2020, particularly given Ireland has set a target of drawing down €1.25bn from Horizon 2020 and has secured around €127m from the first calls under the new programme.

We take a cautious approach to target setting as the independent nature of university research means that it is not target focussed. Further, merely setting high targets is no guarantee of success - most institutions across Europe aim to double their winnings from FP7 to H2020 which is clearly not achievable for all. Welsh HEIs are aware of the importance of H2020 for Wales and for themselves and their research profiles, consequently H2020 is one of the highest priority funders for us. Staff are working as hard as they can and we are seeing lots of new applicants among our staff under H2020 – i.e. staff who have not been involved in earlier Framework programmes. The key problems remain lower overall success rates/higher oversubscription and raising our profile to be attractive to winning teams.

[Synergies between EU Structural Funds and Horizon 2020: views on the measures being taken under the Structural Funds in Wales 2014-2020 to support research and innovation and impact of this on Welsh competitiveness in Horizon 2020](#)

Applications for funding from the West Wales and the Valleys Programme are required to “Detail any planned or potential integration with Financial Instruments or other EU funding streams” All operations are therefore required to consider synergies with these programmes and will be expected to take forward applications to these programmes in the future.

On a practical level, however, the very detailed Business Planning process focusses beneficiaries primarily on the development of the operation in the context of its benefit to the West Wales and the Valleys area and developments that will impact on the economy of this area.

Finding a call within Horizon 2020 that aligns with Structural Funds activity is a challenge, although some of the broad lines of activities funded under the Societal Challenges strand of H2020 fit the Science for Wales Grand Challenge and Thematic areas that are the focus of the Structural Funds operations.

It is unfortunate that Wales as part of the UK cannot participate in the H2020 measures (Teaming, ERA Chairs and Twinning actions) that have been designed to help low performing research & innovation regions scale up investment in research & innovation.

The focus of Welsh structural funds is largely local and linked either directly or indirectly to regional economic development. This can draw staff away from targeting international level research. The regional requirements of the programme and the associated steer from WEFO can also result in Universities not being able to focus adequately on developing their research excellence.

The timescales of the two funds do not work well together, with capacity building taking several years and therefore not aligning with early bids into H2020. Previous structural fund programmes did not focus on developing research excellence and therefore the apparent synergies are not readily achievable and certainly could have no impact on H2020 bids so far. The new programme may have an effect on ‘FP9’.

Erasmus+

Response to the UK Outward Mobility Strategy for Students, and Plans to follow Bangor University's lead and introduce a specific target for outward mobility of their students (Cardiff target is 17% of all graduating students in 2017 to have undertaken outward mobility action)

Bangor University's Internationalisation Strategy 2011-2015 set an institutional target for mobility of 150 outgoing students by 2015, which was exceeded by 15%. The Internationalisation Strategy for 2015-2020 (as yet unpublished) continues to emphasise the importance of internationalisation with expressed support for outward mobility as a priority.

Follow up to the following recommendations that the Committee made to the Welsh Government in the report from its EU Funding Opportunities inquiry, published in July 2014:

Recommendation to the Welsh Government

Recommendation 7. Set clear objectives for all higher education institutions in Wales to engage more with the UK-wide strategy for outward student mobility including: a campaign to promote the benefits of studying and working abroad, providing language learning courses, assisting with short-term accommodation provision, internationalising curricula and providing commensurate capacity and funding.

Bangor University is aware that the International Unit at UUK is campaigning nationwide for mobility. There is no regional work in that field. As far as we are aware, WG was not included in many of the high-level discussions in setting-up of the new national agency for Erasmus+. In our experience British Council provide inadequate regional consideration, particularly for the additional language concerns we have as a Welsh HEI. Little of the documentation is provided bilingually, for example. Universities Wales has been very proactive in facilitating Welsh engagement with EAIE (a European-based international education conference) this year as part of their commitment to help globalise the awareness of Wales.

Recommendation 8. Explore with higher education institutions the creation of a Wales-wide alumni network for international students, including Erasmus students, who have studied in Wales and Welsh students who have studied abroad, to maximise the impact of their international contacts.

Bangor University has not been informed of plans for this development, but would be very interested in participating.

Recommendation 9. Bring together the further and higher education sectors and national agencies such as British Council, Ecorys and organisations such as ECTARC to develop synergies, share best practice, and build links to access separate strands of funding and engage with the centrally run programmes within the European Commission.

Bangor University has not been informed of plans for this development. There is a concern that this might duplicate the efforts of the UUK International Unit.

Recommendation 10. Monitor trends in student mobility, including British Council data on its Erasmus+ and youth programmes, and ensure the outcomes and impact of engagement and participation by the youth sector are systematically captured.

Bangor University has been reporting enhanced outward mobility data via HESA since 13/14. Any 'Welsh' statistical analysis will be based on data provided through our regular Erasmus and HESA reports. Bangor University has not been contacted separately (and as far as we are aware this is the case for other Welsh HEIs as well).

Bangor University contacts with the new EU Funding Ambassadors and the view of the University on the value this initiative provides to Welsh engagement with centrally-managed EU programme such as Erasmus+

We are not aware of the new EU Funding Ambassadors or any contact between them and the University. We are therefore not able to comment on the value of this initiative at the moment.