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End of Programme Evaluation of the SMARTCymru RD&I Financial Support for Business Programme

Executive Summary

1. Background

- 1.1 This report sets out findings from the end of programme evaluation of the SMARTCymru Research Development and Innovation (RD&I) financial support for business programme, and provides an analysis of final programme achievements, and recommendations for future project activity.
- 1.2 The evaluation has been carried out prior to the project's formal closure (in line with the required evaluation timetable) and does not consider any monitoring or spend data produced after June 2015. As a consequence the reported outputs, spend and impacts should be considered as provisional.
- 1.3 The evaluation research was undertaken in the period April and September 2015 by CM International (CMI) and The Innovation Partnership (TIP), and built on monitoring data collected by the Welsh Government Innovation team, alongside a number of surveys of participant businesses, counterfactual businesses¹, and wider business awareness of the programme in Wales. The evaluation also included a small number of interviews with stakeholders and a workshop with Welsh Government management and delivery staff.

2. Programme overview

- 2.1 The SMARTCymru programme offers all-Wales support for businesses at different stages of the RD&I process, including Development of Concept (DoC), Technical and Commercial Feasibility (TCF), Industrial Research (IR), Experimental Development (ED), and Exploitation. It represents the Welsh Government's core support for business RD&I, and operates alongside other Welsh Government programmes such as the Business Innovation programme and the Academic Expertise for Business (A4B) programme.

¹ Innovative business who approached the programme, but did not receive financial support (i.e. they chose not to proceed, or were rejected or withdrew applications).

- 2.2 The results of this evaluation suggest that the programme was established with a sound programme logic model, based on an identified need, clear objectives, grant activities focused on the different RD&I phases, and anticipated targets both informed by early programme experience, and aligned to the objectives. Clear links were also embedded in the logic model to partner projects such as the Business Innovation Programme, to maximise the potential for follow-on support, access to academic expertise and so on.
- 2.3 The programme intended to contribute towards the cross-cutting themes, through the referral to sources of expertise in the all Wales Regional Centre Services (now Business Wales Centres). The role of the Innovation Specialists (funded by the Business Innovation Programme), providing initial contact and support to potential applicants, meant it was difficult for SMARTCymru to respond to the cross-cutting themes targets directly.
- 2.4 Delivering the logic model was, in practice, made difficult by the economic, policy and organisational factors. The economic downturn and associated decline in business R&D expenditure contributed to lower than expected demand for the programme. This was compounded by the changes brought about by the implementation of the Economic Renewal Programme (ERP), notably the decision to move towards repayable finance in place of grants and the reorganisation of the then BETS (now EST) department into sector teams. Together these factors hindered the Innovation team from effectively promoting the programme, and resulted in confusion, both internally and externally, about the availability and offer of the programme.
- 2.5 While the confusion surrounding the programme's availability and offer subsided with the decision to revert back to grant funding, (re)adopting the SMART branding, and relocating the Innovation Specialists (back) to within the Innovation team, the challenge for the programme continued to be one of stimulating demand in the final stages of the programme, and redressing the low levels of demand experienced during the ERP.

3. Key findings

Profile of programme participation and achievements against targets

- 3.1 At the end of programme stage SMARTCymru had supported 146 enterprises with financial assistance, of which 62 per cent were in the Convergence area and 38 per cent in the Competitiveness area. These businesses were typically SMEs, although a small number of large companies were supported in both Convergence and Competitiveness areas. Swansea and Cardiff accounted for a large proportion of projects funded (34 per cent).
- 3.2 The programme supported the key priority sectors including, manufacturing, professional, scientific and technical activities, and information and communication. All projects were consistent with the SMARTCymru quality criteria - defined by a robust technical and financial due diligence processes.
- 3.3 The survey results reveal that a high proportion of companies had undertaken research, development or innovation activities prior to SMARTCymru (89 per cent).

Programme funding and expenditure

- 3.4 Overall, £26.2m (£16.2m in the Convergence area and £10m in the Competitiveness area) was spent compared to a forecast of £27.6m. This meant that just 95 per cent of the budget was used, with an underspend of £1.4m. This reflects the lower than anticipated demand for the programme, linked to the introduction of repayable finance by the ERP. The likelihood of an underspend was

identified by the programme team at the mid-term stage, however, reprofiling was only possible for the Convergence area programme².

Gross outputs achieved against targets

- 3.5 The outputs and results collected for the SMARTCymru programme show that 146 businesses were financially supported (90 Convergence and 56 Competitiveness), below the target of 245 (120 Convergence and 125 Competitiveness). Despite this, positive results were achieved by the programme, with targets exceeded for jobs created and investment induced in the Convergence area. Although the Competitiveness area programme underperformed in relation to jobs created and products/processes/services registered, it did exceed targets for new or improved products launched and investment induced.
- 3.6 The number of products launched also illustrates the programme's contribution towards RD&I activity. The fact that performance was below forecasted targets in relation to the number of businesses financially assisted in the Convergence and Competitiveness areas reflects, in part, the challenges faced by the programme in stimulating and maintaining demand. It does, however, illustrate that many of the key outputs have been achieved, despite these challenges.

Beneficiary experiences and achievements

- 3.7 A total of 61 companies were either interviewed or completed an online survey, representing 42 per cent of all SMARTCymru beneficiaries. The majority of these companies were active in conducting RD&I activity (89 per cent of respondents) prior to participation in SMARTCymru. Ten case study companies were also interviewed.
- 3.8 The findings indicate that a large proportion of SMARTCymru businesses reported the development or launch of new products, processes or services (72 per cent of respondents), with a similarly high proportion (94 per cent) indicating that they would be introducing new products, processes or services in the next three years. This was supported by evidence of new intellectual property being created (54 per cent of respondents).
- 3.9 Strong evidence of behavioural additionality was noted with respect to the adoption of a more strategic approach to R&D (69 per cent of respondents), greater confidence in conducting RD&I in the future (65 per cent of respondents), new research-based collaborations and networking (45 per cent of respondents), and more knowledgeable about RD&I and its role in their businesses (56 per cent).
- 3.10 The innovation activity undertaken by businesses helped to produce economic benefits, including positive sales benefits, with an average of £420K of additional sales reported, alongside the creation of new jobs (reported in section 3). A small number of equality, diversity and environmental practices were evident, and this reflected difficulties in fully implementing the logic model.
- 3.11 In many instances, however, full commercialisation will require further development of projects by the companies. This was evident from the case studies, supported by companies raising additional finance from schemes such as Finance Wales and Innovate UK, and highlights the potential for future RD&I benefits.
- 3.12 Without SMARTCymru, half of respondents indicated that they would generally not have been able to achieve these impacts without funding. This points to a high degree of additionality.

² Reprofiting of the Competitiveness programme was not deemed necessary as several large projects were expected to make significant claims in the final stages of the programme. There was also time for a number of new projects to be secured.

- 3.13 Overall beneficiary and case study satisfaction levels reported were strong, although SMARTCymru businesses would value streamlining of the administration processes of the programme.
- 3.14 Results from the counterfactual survey indicate that counterfactual businesses were more likely than SMARTCymru businesses to be microenterprises, with some 39 per cent not undertaking RD&I activity since their initial contact with SMARTCymru. In comparison to SMARTCymru businesses, counterfactual businesses spend on average, less on RD&I (£34.5K lower), achieve fewer sales (11 per cent lower), create fewer new collaborative research links (19 per cent lower), establish new environmental management or equality / diversity practices (4 per cent lower), create intellectual property (22 per cent lower) or development new products, processes and services (6 per cent lower).
- 3.15 Results of the awareness survey of a wider population of businesses in Wales suggest that awareness of SMARTCymru and the support available is generally low (16 per cent). Some 76 per cent, however, would like to receive further information and potentially applying for support.

Impact and effectiveness analysis, including cross-cutting themes

- 3.16 Programme impacts at the end of programme stage are primarily economic and innovation-related.
- 3.17 The economic impacts have been calculated for all public sector investment, using employment impacts (jobs created and safeguarded). The Innovation impacts draw on results from the survey. The impacts draw out the net impact - the difference between what would have happened anyway and the benefits generated by the support, adjusted for displacement, leakage, substitution and multiplier effects.
- 3.18 The Programme (Competitiveness and Convergence) has created or safeguarded 768 net jobs (476 net jobs in the Convergence area, and 293 in the Competitiveness area³) and £27.9m net additional GVA (£17.3 million (Convergence) and £10.6m (Competitiveness)).
- 3.19 The Return on Investment produced by the programme - 1:0.06 - compares favourably with the other similar schemes across the UK. This suggests the programme has been comparatively successful in targeting business projects with strong economic impact potential.
- 3.20 Innovation impacts, at the end of programme stage, the business survey and case studies indicate that companies have been able to launch new products, processes or services (35 per cent) and generate new IP (54 per cent). They also suggest potential for innovation impacts to occur beyond the lifetime of the programme, with some 94 per cent of respondents indicating they intend to launch one or more products, processes or services in the next three years, with 69 per cent of respondents indicating that their business had adopted a more strategic approach towards RD&I, and 56 per cent indicating that they were more knowledgeable about RD&I and the role it can play in their business. This points towards the programme delivering positive 'R&D behavioural additionality' (OECD, 2006).
- 3.21 This innovation impacts data gives some confirmation to the research, development and innovation process being a medium-to-long-term activity. In this respect the evidence of attitudinal change, experience developed and investment all point towards the potential for such impacts to emerge in future.
- 3.22 In relation to the cross-cutting theme impacts the limited referral support available through the programme and its partner programmes (the Business Innovation Programme) hindered the

³ These figures are rounded, hence the small discrepancy.

development of results. The evidence from the case studies does, however, indicate several instances of the programme supporting some projects, products, processes and services that have the potential to produce potential health, social and environmental benefits.

- 3.23 Against the original objectives of the SMARTCymru programme the results of the end of programme evaluation suggest that it has, in spite of the economic, policy and organisational challenges faced, been able to address its core objectives, including creation of R&D related jobs (768 net jobs), increased business expenditure on R&D (induced investment of £1.3m), support for industry collaborations (45 per cent of surveyed participants), produced return on investment (GVA of 1:0.06), ensured business links to other business support (via the Business Innovation programme and other Welsh Government Innovation supports such as A4B, and Finance Wales, highlighting its strong Strategic Added Value), and launched new products, processes and services (148).

4. Recommendations

- 4.1 There are a number of areas where the management and delivery of the programme could be strengthened in the forthcoming 2014-2020 SMARTCymru programme:

- 4.2 *Recommendation 1: Welsh Government should prioritise awareness raising in the new SMARTCymru programme.*

In light of the difficulties of promoting SMARTCymru linked to uncertainties regarding grant availability and the evidence from the awareness survey research conducted in the evaluation research, action is needed to boost brand awareness and maximise SME participation in any new programme. This will require the programme team to continue to work with strategic partners to raise awareness (see recommendation 2). Demand for the programme is likely to come from the main science and technologically R&D intensive sectors such as Advanced Materials and Manufacturing, and while demand is also likely to exist in other sectors, to stimulate this will require more concerted actions.

- 4.3 *Recommendation 2: Welsh Government should seek to maximise synergies and knowledge exchange with key stakeholders such as universities and Finance Wales*

The SMARTCymru programme forms part of a wider policy ecosystem for innovation support in Wales. While SMARTCymru operates in a clear niche - providing financial support for business RD&I - there are clear synergies with other projects. While, during the course of the programme, efforts were made to strengthen synergies and referrals, the development of a new suite of programmes offers the opportunity to establish clearer referral paths by working with partners to raise awareness and ensure that businesses are presented with clear pathways through the innovation ecosystem.

- 4.4 *Recommendation 3. Welsh Government should prioritise greater delivery efficiency by 'smoothing' the progress of businesses through the R&D phases*

The evaluation suggests that companies can be frustrated by the time taken to progress through the stages of the programme. In this respect it is important that any blockages in the SMARTCymru process do not develop to the detriment of achieving impacts or managing the profile of private sector funding. SMARTCymru should continue to refine the 'triage' system developed to fast track

projects, and where appropriate draw on lessons from existing experience as well as any relevant findings from the recent PDR⁴ review.

4.5 *Recommendation 4. Welsh Government should closely review the DoC phase in the new programme*

The DoC phase was introduced at a late stage in the SMARTCymru programme. The concept of the DoC was sound - to minimise the risk to companies of exploring early stage ideas. Such risks (real or perceived) are particular barriers to companies new to the innovation process. The implementation of the DoC, however, has been hampered by the need to carry out the same level of appraisal and monitoring as required by other (larger) phases. Despite these weaknesses there is potential for the DoC to complement the offer of SMARTCymru positively, and help to attract more companies to undertake RD&I projects for the first time. To achieve this potential, it will be important for the new programme to ensure that it balances the support for companies to explore new ideas with funding, against the need to monitor them through 'lighter' monitoring.

4.6 *Recommendation 5. The SMARTCymru team should, alongside other core RD&I programmes supported by the Welsh Government, develop a far stronger and proactive response to the cross-cutting themes*

Given that the Business Innovation Programme (via its Innovation Specialists) have acted as the front line for business applicants, SMARTCymru has found it difficult to address the cross-cutting themes of equality and diversity and environmental sustainability. The results of the evaluation, however, suggest that there is substantial potential for SMARTCymru and the other Welsh Government Innovation programmes to more directly target RD&I projects that have the potential to contribute towards the cross cutting themes. The potential to introduce thematic calls should be explored and specific promotional material developed.

4.7 *Recommendation 6. Welsh Government should continue to review longer term innovation impacts through its Innovation Impacts programme, complementing regular programme evaluation*

Programme spend to date is consistent with the lower than expected demand for the programme. The high proportion of projects in the early RD&I phases is also contributing towards higher than anticipated match funding demands for Welsh Government contributions.

⁴ PDR is the Cardiff-based international centre for design and research formerly The National Centre for Product Design and Development Research.

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Full Research Report: Henderson, D, Thomas, M and Teifi, I; CM International (2016). *Final Evaluation of the SMARTCymru RD&I Finance for Business Programme*. Cardiff: Welsh Government, GSR report number 43/2016.>

Available at: <http://gov.wales/statistics-and-research/evaluation-smartcymru-rd-innovation-financial-support-business-programme/?lang=en>

Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government

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Mae'r ddogfen yma hefyd ar gael yn Gymraeg.

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