BVCA response to the Hauser Review of Catapult Centres call for feedback

About the BVCA

This response is submitted on behalf of the British Private Equity and Venture Capital Association ("BVCA").

The BVCA is the industry body and public body advocate for the private equity and venture capital industry in the UK. More than 500 firms make up the BVCA members, including over 250 private equity, mid market and venture capital firms, together with over 250 professional advisory firms, including legal, accounting, regulatory and tax advisers, corporate financiers, due diligence professionals, environmental advisers, transaction services providers, and placement agents. Additional members include international investors and funds-of-funds, secondary purchasers, university teams and academics and fellow national private equity and venture capital associations globally.

Our members have invested £33 billion in over 4,500 UK companies over the last five years. Companies backed by UK-based private equity and venture capital firms employ over half a million people and 90% of UK investments in 2012 were directed at small and medium-sized businesses. As major investors in various industrial sectors across the whole United Kingdom, our members have a strong interest in the development of the Catapult Centres.

Confidentiality & Data Protection

Please read this question carefully before you start responding to this consultation. The information you provide in response to this consultation, including personal information, may be subject to publication or release to other parties. If you do not want your response published or released then make sure you tick the appropriate box?

☒ Yes, I would like you to publish or release my response

Your details

Organisation (if applicable): British Private Equity and Venture Capital Association

Address: 1st Floor North, Brettenham House, Lancaster Place, London, WC2E 7EN

Telephone: 020 7420 1800

Please tick the boxes below that best describe you as a respondent to this consultation

☒ Business representative organisation/trade body

Question 1

The first seven Catapult centres are all up and running, what is your view on progress to date, and your experience of working with the centres, please specify if this relates to the network as a whole or any one particular centre?

The BVCA welcomed the introduction of the Technology Strategy Board's Catapult centres and supports their aim of building on the UK's world-class research expertise and creating business-focused institutions which can support SMEs and large enterprises as part of a coordinated investment in innovation. Whilst the Catapults have demonstrated their ability to improve networking, increase industry-university collaboration and attract investment, specific outcomes are as of yet limited. Whilst this is to be expected given that the first Catapult only opened in October 2011, until we witness the success or failure of products developed in the various centres around the country, it may be difficult to rigorously review and adapt the existing system to function better in the future. It is also important to remember that the centres will have different timescales to commercialisation, as such a uniform review is particularly difficult.

Nevertheless, we have some concerns relating to the network as a whole. Centrally, it appears that too many Catapult centres have been set up with too little funds, thus stretching resources. The issue of funding becomes clear when we compare Catapults to the German Fraunhofer institutes on which they are based. The offshore renewable energy Catapult for example has overall funding of £50m over five years which will be divided between three organisations and three sectors, namely wind, wave and tidal energy. The Fraunhofer Institute for Wind Energy and Energy System Technology on the other hand had a budget of over €30m in 2012 alone.[1] Similarly, the new Cell Therapy Catapult, with £55m of funding over the same period, appears modest if the Government intends for the centres to be truly world-leading and internationally competitive. We are also concerned that the centres are too thinly spread across geographies to help create critical mass in pioneering industries. The model followed by the High Value Manufacturing Catapult in particular, which is spread across seven facilities nationwide, risks dissipating effort and inhibiting the collaboration and networking goals of the centres. Whilst we will expand on this point in later questions, the UK contains a number of promising clusters which lack a relevant Catapult to assist in the development and commercialisation of innovations in sectors such as life sciences.

Discussions with stakeholders also suggest that the Catapult centres do not yet operate with the correct balance between industry and academia. The centres appear to be particularly keen to emphasise that they are business led and not funders of university of research, this leads them to build relationships with individual academics rather than universities as a whole. We believe that this may hinder the development of potential spin-outs from within universities which could be encouraged if a more substantial relationship were developed. Furthermore Catapults must ensure that they are partnered with appropriate centres of excellence. Concerns have been voiced that some centres are failing to link up with universities specialising in their target industry. This could have substantial ramifications for the efficacy of the Catapults which, if they are to fulfil their aim of developing their respective sector, must be aware

[1] Fraunhofer Institute for Wind Energy and Energy System Technology IWEST – Annual Report 2012/2013 - http://www.iwes.fraunhofer.de/content/dam/iwes/en/documents/2012_2013_IWES_Annual%20Report_web.pdf

of pioneering developments in leading universities and be properly connected to these organisations to ensure that such work is identified for potential commercialisation.

An additional limiting factor is the current focus of Catapult centres on late-stage development. We believe that this needs to be adapted with more recognition and support provided for early research phases. This would allow Catapults to ensure that promising blue skies research moves closer to commercialisation in order to bridge the so-called 'valley of death'. Given the networking, expertise and resources already provided by Catapult centres, provision for assisting early-stage firms with less experience may be partly in place. This process would be greatly enhanced however if entrepreneurs and venture capital firms were more fully involved in the centres. There is currently little evidence of this and Catapult centres risk becoming 'big R&D' institutions, rather than hubs focussed on stimulating the start-up activities they are intended to assist further along the business development process.

A final overarching concern relates to the more general context within which the Catapult centres sit. Whilst, as noted above, the BVCA supports the aims of the centres and considers there to be some notable successes, unless the UK economic environment is well-disposed to investing in R&D and intellectual property, promising companies and their products may 'wither on the vine'. According to recent data, Britain currently spends 1.7 per cent of GDP on R&D compared to 2.3 per cent in Germany and Taiwan, 2.7 per cent in the United States and 3.7 per cent in Japan. This disadvantage is emphasised by the most recent EU Industrial R&D Investment Scoreboard which demonstrates that of the world's top 1000 companies listed by R&D spend, only 50 are British.[2] The German Fraunhofer centres and Taiwan's Industrial Technology Research Institute find themselves strongly connected to a broader industrial strategy and a supportive industrial banking system which contributes to their success. Britain's Catapults however, operating in a more mixed economy relying on market solutions, currently lack this connection. This potentially renders the centres a well-intended initiative which may ultimately struggle to be financially self-sustaining or credible, particularly when facing up to competition from the US or East Asian nations. As such, Catapults must contribute to the full development cycle of pioneering businesses in well-targeted sectors that take full advantage of existing clusters and our world-leading universities if they are to be useful to the British economy overall. The network would highly benefit from a culture of long-term lending focused on key industrial and regional strengths.

Questions 2, 3 & 4

The review led by Hermann Hauser is specifically asked to look at the shape, scale and ambition of the Catapult network. How would you see the future scale of the network?

The Catapult Centres that have been established thus far following extensive consultation have either sought to leverage existing capabilities (e.g. High Value Manufacturing) or set up from scratch (e.g. Cell Therapies and Future Cities). What do you see as the best way to create a pipeline and incubate new ideas for potential Catapults?

Are there specific technology areas for example cell therapy or challenges areas for example as in the case of future cities that would warrant a Catapult centre in the future?

[2] 2013 EU Industrial R&D Investment Scoreboard, European Commission, http://iri.jrc.ec.europa.eu/scoreboard13.html

In order to ensure the success of the Catapult centres and their target industries, any further expansion of the network needs to take better advantage of existing clusters rather than attempting to develop them from scratch. Whilst we recognise that there will be a need to avoid an overlap of provision, Catapults should attempt to catalyse potential where it has already begun to present itself. The significant technological clusters and centres of excellence which exist across the country need to be expanded to make the best use of our existing industrial base and ensure that the innovative technologies which will be vital to Britain's future economic growth are receiving the support they require. In particular, the Government should avoid using Catapult centres as part of any mission to 'find' the UK's Silicon Valley or any other industrial cluster where it does not organically exist. The clusters that will survive and thrive are those that have come into being without state assistance.

Indeed, to be successful the centres must be responsive to commercial demand for the technologies on offer. Discussions with stakeholders have highlighted some confusion as to how the current Catapults have been chosen. Whilst we recognise that sectors such as cell therapy are important, it is unclear as to whether sufficient regard was given to potential alternatives such as biotech. The creation of an independent board to assess options for new Catapults may help make this process more transparent. In addition, heightened awareness of developing sectors is key for the success of the Catapult centre scheme. Gaps have already been filled by overseas players, with Strathclyde University in Glasgow now hosting the German Fraunhofer Centre for Applied Photonics.

The life sciences cluster in Greater Manchester presents a potential opportunity for a Catapult centre to make a real difference in catalysing the industry and encouraging the development and commercialisation of innovations in the sector. Whilst the recently launched MedCity and the Stevenage BioCatalyst offer assistance to growing firms in the life sciences space, both are located in the South East. A Catapult to support Greater Manchester's life sciences cluster would fortify developments in a sector vital to the future UK economy and would drive economic growth in a region of the country which has not yet matched the levels experienced by the South East and London in particular.

Aberdeen, known for its role as the centre of the UK oil and gas industry, is another area which could benefit from a Catapult centre. Despite being an obvious hydrocarbon cluster, the city appears to receive little attention, potentially due to its distance from London, the perception that its industry is low-tech, or the fact that fossil fuels are ideologically unfashionable. As oil and gas extraction from more dispersed resources has become necessary, the sector has spearheaded a range of innovations in engineering and robotics. Aberdeen has the potential to become a world-leading centre for technological advancements in the hydrocarbon industry and this could be cemented with a Catapult centre providing expertise and equipment to drive progress and raise awareness.

Question 5

What do you think are the most important aspects a Catapult centre should include?

As previously stated, we believe that it is vital for Catapult centres to take advantage of existing industrial clusters across the UK. The centres must then leverage the potential of leading universities near hubs by

encouraging collaboration in research and development. Key to taking advantage of pioneering new technologies and products, including those originating in universities, is support for early-stage research, which we believe Catapults should attempt to provide by extending resources, networking opportunities and expertise to start-up firms. Furthermore it is vital that the centres provide opportunities for businesses to meet with potential investors, including venture capital firms, to enable them to continue to grow and innovate further.

Question 6

Should Catapult centres also have a role in delivering skills, training and apprenticeships? If so what should this role be?

☒ **Yes** ☐ **No**

As part of a long term economic goal of improving the quality of apprenticeships, firms engaged in the Catapult network, with their focus on high-tech innovative industries, could be encouraged to take on apprentices. We are wary, however, of the centres taking a central role in delivering any substantial scheme. It is important that Catapults remain focused on their core goals and do not become bloated, impacting on the effective deployment of already limited resources. The BVCA believes that apprenticeships are far better developed and managed by businesses, given their innate understanding of the skills they require. Even if such a programme were to be introduced, consent would be required from paying members. Notably, the current support for late-stage development provided by Catapults means that companies which are far more developed, and thus more likely to take on an apprentice, are already part of the system. It is therefore more suitable for Catapult centres to make businesses aware of apprentices and schemes to support them, rather than imposing any wider programme. Should early-stage assistance be introduced to the centres at a later date such an awareness drive may not be as appropriate for start-up firms, given the increased costs and burdens apprentices can encompass.

Question 7

As they become established are there any other roles Catapult centres should play for business other than technology development. The review would be interested in any views around international engagement, business incubation, supply chain development, access to finance?

As mentioned above, we believe that Catapults could play a role in supporting early-stage development through the extension of expertise and resources to start-up firms. Nonetheless with regard to incubators, finance providers and the like, it would be better for the centres to collaborate with outside providers of these services rather than attempting to compete or substitute them. It is important that the Catapults do not become bloated, focussing on a small number of core services which it can perform effectively rather than attempting to provide myriad products poorly.

Question 8

There is also an opportunity for Catapults to play a role in addressing policy challenges, for example the development of standards and addressing regulatory challenges in their areas. What do you see as the role for Catapults in response to policy challenges?

The BVCA does not believe that Catapult centres should become engaged in attempting to manage or impact Government policy and regulations. Again such a task involves distracting the institutions away from their central goal of channelling innovation through to commercial outcomes. Firms involved in Catapult centres are likely to be involved in organisations which will perform this role for their respective industries in a more detached manner than would be possible otherwise.

Question 9

The 1/3 revenue Catapults generate from business is at the heart of ensuring they remain business led. Are there alternative financial models that should be considered that would enable either more dynamic growth or improved exploitation of technologies?

The existing Catapult centres are still in their infancy and need time to demonstrate their benefit before substantial business income is forthcoming. Notably each Catapult will take a different amount of time to reach this stage. In the meantime, therefore, the Government needs to provide financial stability for the centres and be patient to allow the model to prove itself. Attempting to speed up a transition to private funding could place the entire Catapult scheme in jeopardy if a solid foundation in the form of business interest and investment is not secured beforehand.