

Innovate UK

Technology Strategy Board

Technology Strategy Board

Minutes of the 48th meeting

Held on 1st & 2nd October 2014 at the Royal Society, London

Attendance

Board:

Phil Smith
Mike Carr
Stewart Davies
Iain Gray
Hazel Moore
Sara Murray
Doug Richard
Ian Shott
Sir Christopher Snowden
Bob Sorrell

Executive:

Kevin Baughan
Anne Dixon
Graham Hutchins
Mark Glover
Simon Edmonds
Guy Rickett
Nigel Townley
Linda Wallace

BIS:

Amanda Brooks

For Independent living item:

Zahid Latif

For EU & International Item:

Simon Bennett

For HR/Talent Item:

Anne Shaw

For Dinner:

Sir Jeremy Heywood
Martin Donnelly

Apologies:

Sir Christopher Snowden (for 2nd October)

Welcomes

1. The Chair welcomed the Board to its 48th meeting. He welcomed Anne Dixon, the new Director Operations to her first meeting. He also reminded the Board that Aileen Thompson had finished her full-time engagement with Innovate UK and the Board expressed its thanks to her for her work on communications and the re-branding.
2. The Chair reminded the Board of the main items of business for the meeting and reminded members of the need to declare any personal or professional interests that they may have in the business of the meeting and to withdraw should any of those constitute conflicts.
3. He reported that he and Bob Sorrell had been asked to meet ministers the following morning and so intended to modify the agenda timings to allow a slightly earlier

finish. He also reminded the Board of the evening's dinner with Sir Jeremy Heywood and Martin Donnelly.

Minutes

4. The Board **approved** the minutes of
 - a. The 47th meeting: TSB2014-04-09
 - b. The extraordinary meeting held in July 2014: TSB2014-04-09a
 - c. The extraordinary meeting held in September 2014: TSB2014-04-09b

Chief Executive's report Paper: TSB2014-05-02

5. Iain Gray presented his report. He highlighted the following issues:
 - a. **Branding:** The new brand was now live and good feedback had been received from business and other stakeholders
 - b. **LCV event.** This years Low Carbon Vehicle event had been the biggest and best so far with a high Innovate UK presence delivering a strong profile amongst a key community.
 - c. **Ministerial appointments:** Innovate UK and the Technology Strategy Board had enjoyed good and close relationships with ministers in past but after the reshuffle the new innovation minister Greg Clarke is less familiar with our activities. While every effort is being made to get closer to the new ministers, the executive would welcome any intelligence on ministers. Chris Snowden reported that he had some relationship with Greg Clark and he seemed to understand the issues around financial year-end flexibility needs. The Chair reported on the letter he had received from BIS ministers on the issue of delayed grant start dates and that he and Bob Sorrell were due to meet Greg Clark and Vince Cable the following morning to clarify the situation.
 - d. The Board discussed the need to work to build better relationships with HM Treasury, John Kingman in particular, who was working closely with Greg Clark and Mark Walport on the Science and innovation Strategy. Earlier feedback from Kingman had been that the Board's aspirations were not ambitious enough.
 - e. The Board discussed the need to work more closely with the opposition and outside BIS. This was a topic to discuss over dinner with the Cabinet Secretary. The Board agreed that despite the support from the Adonis report innovation platforms and Catapults here was still more to do with the opposition including using Board member's networks.
 - f. The Board discussed commissioning or developing some better material to sell the economic value of the Board's programmes to Treasury. This might be written in actuarial language to make the case on delivering growth more strongly.
 - g. Amanda Brooks reminded the Board that it was easier for Innovate UK to speak to the opposition than for BIS and commented that this would be worthwhile. She felt that the Innovate UK was in a good position, with a high degree of

cross-party consensus. The econometric work by Walport's team was likely to give new and really good evidence of the impact of Innovate UK spend. BIS will publish this in time for Innovate2014.

- h. The Board noted that ministers were out of town a lot and recommended that they should be supplied with opportunities to meet Innovate UK success stories. It would also be useful to map success stories and grant awards onto MPs' constituencies.
- i. Board members commented that they would be meeting ministers and opposition spokespeople over the coming months and so it would be useful to have the impact data as soon as possible, along with the key political messages.
- j. **Scotland:** Iain Gray reported that while there would inevitably be some impact from the recent Scottish independence referendum "no" vote on the approach of Innovate UK, there had been no specific instruction in response, except to maintain a "business as usual" line. As a result of the no vote, the regional agenda may come to the fore and there was some expectation that innovation may be looked at in the devolution debate. There remained tight control on communications on Scotland from No 10.
- k. **Autumn Statement:** There had been some progress in making cases and obtaining BIS buy-in for support in the Autumn Statement which was now scheduled in early December). The bids were now at ministerial level.
- l. **Innovate Event:** Linda Wallace gave an update on the progress with the Innovate2014 event. While the revenue was significantly short of target, if ticket sales follow past patterns, the revenue should be satisfactory. The Board noted that sponsorship levels were disappointing and questioned the value of UKTI as a partner in this venture. Iain Gray reminded the Board that partnership with UKTI had been imposed externally as part of the exemption case for the event. The Board noted that UKTI had secured the attendance of 30 international delegations.
- m. The Board questioned whether the sponsorship shortfall would be UKTI's financial liability or shared. Linda Wallace agreed to investigate the liability (**action**).
- n. The Board noted that 41 investor registrations had been received and 6 investors had confirmed as speakers.
- o. **EEN outcome:** Mark Glover reported that he had received informal indication that Innovate UK had been awarded the UK EEN contract by the Commission (in a cooperative bid with Scotland). The Board agreed that this was a low-cost way to secure an important national asset and commended the work that had brought this about. [*SECRETARY'S NOTE: the Innovate UK Executive was formally notified shortly after the meeting that it had been awarded the contract*]
- p. **Localism:** The Board noted that the expectations were that the localism agenda would get active and agreed that it would be better to get proactive and put

some resource into developing ideas for an effective regional innovation approach (**action**).

6. The Board **noted** the report

Finance and Risk Paper: TSB2014-05-03

7. Bob Sorrell reported that he and the Audit and Risk Assurance Committee had kept a close watch on the finance situation over the summer and had seen the forecast overspend reduce from £44m to £20m and recognised the realistic but still uncertain projection to reduce this to zero over the coming weeks. He reminded the Board that these actions would have impacts in following years and that sustainability measures would be necessary, including better forecasting, better control, a collar contract for larger grants and a root and branch review of delegations by Andrew Fife.
8. Graham Hutchins presented the paper. He described the plans to resolve remaining £20m forecast overspend. His judgement was that if all actions were satisfactorily resolved, this would deliver a £6m underspend but that given the inherent risks in these actions, the more likely outcome was an on budget spend. He planned to report to BIS a worst-case £10m over and lowest case of £5m underspend, with on-budget outturn the most likely. He expected to know the outcome of most of these actions over the following few weeks.
9. Bob Sorrell commented that as the figures crystallise, a clearer picture would emerge and if the actions don't deliver the necessary spend reductions, more serious actions, such as a payment freeze were available and may become necessary. Conversely, if forecasts start to suggest an underspend, some of the held up projects and some Catapults projects can be allowed to spend at short notice.
10. It was commented that, as most SME support including Smart had not been significantly impacted by these measures, it was worth emphasising this in communications.
11. Graham Hutchins emphasised that there a level of risk inherent in using past behaviour as a basis for financial forecasting risk. It was commented that it would be wise to check with grant holders that their forecasting behaviour had not changed as a result of the messaging about managing payments.
12. Amanda Brooks commented that she hoped to see some clarity on the 2015-16 budget soon. Kevin Baughan and Simon Edmonds reminded the Board that as a result of some of these actions and past commitments, the thematic and Catapult programmes in the next financial year were already full allocated so there was a need to plan the thematic programme in that context.
13. Graham Hutchins explained how the "Collar" contracts would work in practice and reminded that Board that these would only apply to companies with grants over £2m. These companies' grants constituted about a third of the budget and were a major component in the poor forecasting and so constituted the main part of the problem. The Board discussed how this might impact delivery of projects and forecasting accuracy and agreed that there was a need to consult and test and ask the relevant companies how it will affect them.

Changes to BIS sponsorship arrangements Paper: TSB2014-05-10

14. Iain Gray introduced the paper and gave the context for the issue. He asked Amanda Brooks to comment on how the changes would practically impact the BIS-Innovate UK relationship. She said that most changes would impact her team in BIS and may add a little complexity in the relationship. She did not see this as a significant change. She expressed a hope that there would be an improvement in the process for recruiting Board members.
15. The Board **noted** the changes

Business Improvement and Change Paper: TSB2014-05-05

16. Iain Gray introduced the paper and reminded the Board of its request for a “root and branch review” of all processes and how they might be improved. This had resulted in the Business Improvement and Change (BIC) programme.
17. Nigel Townley presented the main points of the BIC programme. He explained how the BIC was indirectly included in the delivery plan. It was the mechanism used to drive change across the organisation. This was strongly customer focussed with dedicated resources and programme management office with business improvement professionals in place. Much of the work was aimed at tackling and replacing non- scalable processes. He described the 8 main programmes and the history that had led to the current position. He described where the system and process interfaces caused problems. He agreed that the impact assessment stage on these tools needed to be added to the schema.
18. Anne Dixon explained how the programme was facing a whole new operational challenge of scaling and complexity, with next year a 22% increase in funds which amounted to a further c.1000 applications and c. 200 awards in thematic areas alone. She illustrated the past and predicted growth in activity and headcount. The Board noted the need to increase headcount significantly if new processes and infrastructure is not introduced. She explained that the executive was seeking general endorsement from the Board about the direction of travel and then planned to come back in January for approval of a detailed programme.
19. Nigel Townley reported that the root and branch review of the whole operational function was complete and all activities mapped. Low-hanging fruit had been identified and were being addressed currently. He took the Board through the projects for quality data, current processes and on-line processes
20. He explained that the January proposal would need to address a significant gap in affordability. A creative approach may be necessary to find ways of paying for the programme.
21. In discussion, the Board considered the possibility of using more “no-human-interaction” processes, as currently use for vouchers. Simpler processes were seen as generally preferable where they could be made to work. Clean simple APIs that talk to each other were suggested.
22. Stewart Davies commented that developments must be focussed on the customer experience.

23. The Board discussed the costing of the BIC programmes. It noted that while there were no firm costings available yet, there would inevitably be a payback in terms of increased efficiency.
24. The Board **endorsed** the general direction of the BIC programme and looked forward to a more detailed proposal at the January meeting.

EU International Strategy Update Paper: TSB2014-05-04

25. Simon Bennett introduced the paper. He reminded the Board that 95% of world innovation and R&D happens outside the UK and that accessing that is a priority. He reminded the Board of the local footprint delivered by the EENs and the non-geographic NCP specialists. He suggested that Innovate UK as a national agency, supported by the KTN, EEN and NCPs together constituted a major opportunity and unique connected capability to support local, national and international innovation. He saw this as a good combination for connecting to LEPs but recognised a general requirement to provide tight management to deliver the strategic joined up benefits. As with the KTN and Catapults, there would dual branding. There remained a need to understand better the contractual relationship with the EEN sub-contractors, in case they fail to deliver.
26. He explained that the H2020 tactic to deliver greater EU funding to UK business, was a means to the end of helping UK business get better relations across the EU through collaboration, markets, supply chains etc.
27. Simon Bennett set out the latest position in the development of the Newton Fund, with most support going into China, India and Brazil. There was a long tail of the other countries. It was harder to see how to engage with them as they don't have much money from the Newton Fund so the focus had been capacity building. It was planned to go out to tender to do a "train the trainer package", working with British Council and RAEng.
28. The Board **noted** the progress on the programme.

Thematic Programme: Paper: TSB2014-05-06

29. Kevin Baughan reminded the board that the thematic programme embodies a large part of the organisation's discretionary power and so constituted a major point of economic influence. In considering his approach he had spoken to most Board members. He had reached the view that the approach to setting priorities had to evolve. He set out a range of issues he planned to investigate going forward in order to build a portfolio containing a range of thematic areas but reflecting a cohesive strategy supported by, as yet unobtainable, data. He asked a number of questions:
 - a. How can support be delivered to the small proportion of very high growth companies that will be driving growth?
 - b. How can sharper cleaner business cases be built, focusing on economic outcomes more than technology?
 - c. How can the process weed out applicants "trained" to get grants despite previous support leading to mediocre outcomes.

- d. Is there an unplanned drift towards responsive mode, despite the returns on investment?
 - e. How can the thematic programme demonstrate thought leadership?
 - f. Are the teams too focussed or entrenched, developing blind spots, not getting refreshed?
 - g. What was the right internal structure at deputy director level to deliver the thinking and representation to the Thematic Programme?
30. Board members agreed that the paper had raised the right questions and welcomed the openness of the new approach. In discussion the following points were made:
- a. It was difficult to appreciate how the various ways of splitting the programme can be mapped to delivery of economic objectives.
 - b. Collecting better data will help make intelligent decisions.
 - c. The Board is still being asked to make decisions without understanding the opportunity cost or the impact on portfolio.
 - d. The need to feed Catapults dominates a lot of decisions.
 - e. Better ways of thinking about and describing the portfolio were needed, focussing less on separating by sectors and challenges and more on a wider matrix of factors.
 - f. There was also a need to do more to involve outside communities in decision-making.
 - g. The decision criteria need to say more about how Innovate UK can add value.
 - h. The Challenge-led approach sends out a rallying cry followed by a long-term investment commitment.
 - i. As we develop our thinking in this area we need our customers in the matrix.
 - j. Create opportunity must be enhanced by following through to market.
31. Kevin Baughan remarked that he would like to hold a session with the Board to extract its ideas and wisdom rather than simply to present ideas for endorsement.
32. The Board agreed that this had been a useful and thought provoking paper and looked forward to further developments.

Independent Living Innovation Platform (ILIP): Paper: TSB2014-05-07

33. Kevin Baughan introduced the paper. He reminded the Board that innovation platforms were amongst its most influential programmes where coordination between government, research and industry was key. The Chair reminded the Board that a platform was not a single tool but a programme that took in a wide range of tools and approaches and that these would be built into the delivery plan each year.
34. Sara Murray declared an interest in that she was a member of the Advisory Board and that she had business interests in this area.

35. Zahid Latif presented the details of the proposal. This had been rebranded since the Board sought a revised approach when considering the Assisted Living proposal in January 2014. This version was now more focussed on the consumer market. He reminded the Board how demographic change was leading to more long-term conditions, with customers demanding products and services rather than technologies. In discussion the following issues were raised:
- a. While the revised [proposal had been reoriented well the scale of the proposed new, growing, target markets was not clear.
 - b. Many service providers were looking at this area and if the UK does not prepare, they will do it elsewhere or source the solutions overseas. Also, this was not a pure consumer technology play. The mix of the science base and companies in this programme will deliver the quality, trust and scalability. The UK has particular (but not unique) strengths in the tele-health/care. Innovate UK has the strength to bring them together on a national level to develop the services. A key UK lead was in sensors. The consumer market, regulation and research community strengths would put us in a position to address a premium service opportunity.
 - c. This was a big important market, which should be addressed in this way, but what would the competitions be? Zahid Latif suggested a number of specific areas.
 - d. Getting these products and services to market would be a challenge. A lot of the platform is aimed at engaging insurers and retailers to ensure market access.
 - e. Leave tele-health and tele-care to only SBRI was risky as these are a big opportunity.
 - f. How can Independent Living become a market segment for the Catapults to focus on?
 - g. Big global companies are choosing UK companies to partner with in this area.
 - h. Well qualified and influential individuals had volunteered to support this programme by joining the Advisory Board.
 - i. There was an issue over whether this was a big enough programme to deliver the ambitious economic return intentions.
36. The Chair proposed that this was the right moment to approve the programme, recognising that there was still some work to do before detailed programmes and competitions could be written into future Delivery Plans.
37. Zahid Latif withdrew from the meeting and the Board discussed the programme approval. The following points were made:
- a. Just one competition on COPD would throw up lots of great ideas.
 - b. There was insufficient clarity on the spend profile.

- c. There is definitely a market opportunity here but the implantation remains unclear. There remains a need to do the work to shape an implementation plan.
 - d. There won't be any hard data on the scale of the market until some innovative products emerge.
38. Hazel Moore suggested looking at this in the same way the Emerging Technology programme is analysed, including the consultation process. Kevin Baughan agreed that he was happy to take that approach with ILIP. He reminded the Board that this platform was a sea change from the past. It focuses on a different mind-set about how to create a different approach to service development.
39. The Board agreed that this was an appropriate area for investment and that it now bought into the main elements of the case. It asked that more detail be provided about how the programme would meet the four key funding criteria, in particular the scale of the market opportunity, and asked for a further discussion. Kevin Baughan agreed to return with the additional information to a later meeting to revalidate the proposal.

Strategy update Paper: TSB2014-05-09

40. Mark Glover presented the paper. He highlighted the following:
- a. SME support was moving from picking projects in competitions towards a more holistic view of the process of delivering economic growth, embedding coaching mentoring and training support.
 - b. Innovation networks were now ore holistic with the KTN and EENs. LEPs' feedback on EEN/LEP growth hub relationship had been very good.
 - c. Innovate UK was often compared with DARPA. However, US agencies were less boundary-driven. New pilots running with EPSRC to address the issue of boundaries limiting flexibility.
 - d. **PARAGRAPH REDACTED.**
41. The following comments were made:
- a. It was unclear what "architecting the innovation system" meant. The paper looked at low-level issues and how we organise our own activities, sorting out the current things rather than looking forward at a high level at the whole system and what it could become.
 - b. It was not yet clear that this was a tactical or strategic paper. It needed to be asking questions such as: what are we going to ask for? Do we want a billion pounds? What is our ambition? We need to be more proactive and masters of our destiny.
 - c. While there are some ambitions in the paper, they are not explicit. Innovate UK needs to be articulating the headlines. E.g. we need to reach earlier in the food chain like DARPA. And then we would be legitimate in taking in other parts of the infrastructure. We need to state what we want to be. We will be more persuasive by being more assertive.

- d. We are already stepping over the research council applied research line and we could go further. We should have a proper discussion with EPSRC at some point about this. This is the subject of a current pilot project and could be presented as a collaborative opportunity rather than antagonistic and acquisitive.
 - e. **PARAGRAPH REDACTED.**
 - f. We should be really thinking about these issues more in the context for the future Strategic Plan than the next Spending Review.
 - g. Mark Walport will be seeking a more integrated approach to innovation and we should be ahead of the curve.
 - h. We have good capability in the early stage but we now appear to want to play in the commercialisation space. We need to question whether we have the capability to support high growth SMEs with mentoring and entrepreneurial training. However, we need a clear High Growth Company strategy as there has to be some alignment and Innovate UK is the only standing organisation that might ever be able to make this a rational process. This is a space that we should be playing in as no one else can do this. We should be signposting high value support services that we cannot deliver such as mentoring, the Business Bank etc.
42. Amanda Brooks commented that BIS recognised the need for alignment. There are often opportunities for us to take on areas where Innovate UK might play a wider role if we can articulate those ideas early. Pilots of new approaches are important and well received and are helping to shape the innovation landscape.
43. The Board endorsed the approach of extending the reach into the research base and the business commercialisation support space. The Board **noted** the paper

Dinner

44. The Board had a dinner with guests Martin Donnelly and Sir Jeremy Heywood.

2nd October 2014

HR & Talent Paper: TSB2014-05-08 (closed session)

45. Iain Gray reminded the board that it had been 2 years since it last looked at Human Resource issues. This meeting had been the first time that the whole new senior team had come together at a Board meeting. He felt that the new team was already making a big difference. There were many other new faces in the organisation as recruitment had continued apace. He also noted that field working meant that the organisation had to look at new processes to bring people together. Anne Shaw presented the paper. She emphasised the following:
- a. The main issue had been the scale up and recruitment. There remained a question of restructuring as the scale-up takes place. This work had already started.
 - b. In order to get expertise quickly, it had been necessary to bring in specialists on short-term appointments.

- c. The results of the staff survey had placed a lot of management emphasis on improving internal communications. Learning and development had also received a poor score.
 - d. Management and development improvements were in hand but there was still some way to go.
 - e. The proportion of new staff coming from a business background was falling in all areas of the organisation. The reasons for this were understood and included the requirement to offer vacancies in the Civil service before going to the wider market. It also reflected pay rates that were uncompetitive with some of the sectors we need to recruit from for some specialists. Anne Shaw agreed to circulate the more detailed figures (**action**).
 - f. There was some dialogue with BIS about the reward structure but this was not moving quickly.
46. In discussion the following points were made:
- a. It would be useful to see the questions and results from the staff survey (**action**)
 - b. **PARAGRAPH REDACTED.**
 - c. Having a non-Swindon presence, especially in London but also elsewhere, may help attracting more talent. Iain Gray commented that this was being discussed and that now, with the extended family including Catapults, KTN and EENs, use of a wider UK footprint was possible. He also reminded the Board that most technologists and specialists were field-based and typically only came to Swindon once each week.
 - d. A London base in a central commercial shared office space would be a real asset for staff coming through London and would have other benefits.
 - e. The organisation should be aiming to get to a higher level of controlled churn in the specialists, while operational staff were more Swindon-based and benefitted from more long-term stability.
 - f. The Graduate programme could use an outsourced apprenticeship model but would be better if supernumerary with extra pastoral care. This would not be a heavy burden. It should not be allowed to burden the current overloaded manager. This was a really exciting opportunity for high quality graduates and the organisation should get proud and assertive about it, aiming to be a programme that people talk about and want to get in. The Board favoured such an approach.
 - g. Styles are developed through behaviours and living the values. It is important to define the behaviours that exemplify living the values and then to reward the whole collective journey rather than the individual contributions. The 360-degree feedback process will help with this. Reward structures should encourage team culture.
 - h. A diversity statement should be added to the strategy. This should extend beyond gender diversity. While it is right to be a fair recruiter and developer,

maintaining comprehensive diversity statistics is a good defence against accusations of discrimination

47. The Board agreed that it would like to see a proposal for a higher specialist turnover approach. This might look at approaches such as tenure track and the McKinsey model. **(action)**

AOB (closed session issues)

48. In closed session the Board discussed:
 - a. Board member recruitment.
 - b. Progress with recruiting a new CEO
 - c. Committee membership. **Sara Murray was appointed to the Remuneration Committee**
 - d. Finance committee. **The Board agreed to appoint an external finance expert to the Audit and Risk Assurance Committee and to revisit its finance role.**

Summary of decisions and actions:

No	Action	Responsibility	Target date
1	Investigate the financial liability for sponsorship shortfall at Innovate2014 event [paragraph 5m]	Linda Wallace	December 2014
2	Develop ideas for a regional innovation approach [paragraph 5p]	Mark Glover/Kevin Baughan	December 2014
3	Distribute detailed data on business background of recruits [paragraph 45e]	Anne Shaw	November 2014
4	Distribute questions and results from the staff survey [paragraph 46a]	Anne Shaw	November 2014
5	Bring forward a proposal for a higher specialist turnover approach [paragraph 47]	Anne Shaw	January 2014
6	Sara Murray was appointed to the Remuneration Committee [paragraph 48c]		
7	Appoint an external finance expert to the Audit and Risk Assurance Committee and to revisit its finance role [paragraph 48d]	Graham Hutchins	December 2014