# Technology Strategy Board
Driving Innovation

## Governing Board Meeting

### Minutes of the 38th Meeting

The meeting was held on 18th January 2013 at the BIS Conference Centre 1 Victoria St, London

<u>Attendance</u>

**Board:**
Phil Smith (Chair)
Mike Carr
Stewart Davies
Iain Gray
David Grant (by telephone)
Jonathan Kestenbaum
Andrew Milligan
Hazel Moore
Colin Paynter (by telephone)
Doug Richard
Ian Shott
Bob Sorrell

**Apologies:**
Sara Murray
Chris Snowden

**Executive:**
David Bott
Simon Edmonds
Andrew Everett (for Transport Systems Catapult)
Mark Glover
Graham Hutchins
Allyson Reed
Guy Rickett
Daniel Ruiz (for Transport Systems Catapult)
David Way

**BIS:**
John  Dodds

### Welcomes

1.  The Chair welcomed the Board to the 38th meeting.  He welcomed Simon Edmonds to his first meeting as Director Catapult Programme and John Dodds as the BIS representative. He conveyed apologies from Chris Snowden and Sara Murray.

2.  John Dodds reported that he would be the designated BIS representative at Technology Strategy Board meetings and that Fergus Harradence would soon be replaced as Deputy Director by Keith Hodgkinson.

3.  The Chair reminded the Board of the main items of business for the meeting: the Transport Systems Catapult, tactics for the Energy Technologies Institute, the Delivery Plan and Risk.

### Minutes of the 37th meeting (paper: TSB2012-06-07)

4.      The Board **approved** the minutes of the 37<sup>th</sup> meeting.

**Chief Executive's report** (paper: TSB2013-01-02)

5.      Iain Gray presented his report.  He highlighted the following:

6.      **Organisational change**: Iain Gray reported on some changes to the senior team. He reported that a candidate for a future role of Director Innovation Networks had fallen through and that the recruitment would have to restart, including renewing the authority to recruit with BIS.

7.      The Board acknowledged the key role that David Way had held over the preceding two years in delivering the highly challenging Catapult programme.

8.      **Industrial Strategy and Budget**: Iain Gray reported that

a.      While the Autumn Statement had not provided much new for the Technology Strategy Board beyond some extra support for the High Value Manufacturing Catapult, there was still significant goodwill across government and sympathy with the aspiration for the Board to become a significantly bigger player – in the order of £1bn/y – and the Budget should be seen as an opportunity to make progress in that direction.  BIS was working on significant plans for the Industrial Strategy.  Technology Strategy Board ideas had been fed into BIS and discussed with the Secretary of State who appeared to accept the argument that new initiatives should use existing tools but at the same time was cautious about financial expectations.  The budget is supposed to be built about industrial strategy.  The Secretary of State also accepted that the Technology Strategy Board would be the appropriate route for any local deployment of innovation resources as a result of the recommendations of the Heseltine review.

b.      The Technology Strategy Board emerging technology priorities had been used to inform the 8 great British technologies discussion but this would not mean that much of the £600 million capital allocated to them would contribute to Technology Strategy Board programmes.  David Willetts planned to seek backing for this from the academic community, HM Treasury and the public.

c.      The proposed budget initiatives had emerged over the preceding year or so after the BIS Permanent Secretary Martin Donnelly suggested that such a list be drawn up and it had focussed on supporting SMEs and working with research councils along with recognising where there was a political appetite (e.g. the biomedical catalyst).  The list had not been debated or agreed by the Board.  In discussion the Board commented that there should be a standing list of programmes that the Board would do given additional resource and if these initiatives were where any new funding would be going the Board should examine proposals and consider how they fit with the existing programmes.

d.      It will be necessary to continue the work demonstrating the economic value of Technology Strategy Board programmes in order to make the case for expansion.

9.      The Board requested a summary sheet explaining the various proposed initiatives for the Budget and the key messages to go with them.  David Bott commented that this work was mostly done and that is should be straightforward to produce (**action**). The Board also expressed a wish to see a formal Board process for discussing and agreeing proposals for additional government support (**action**)

10. John Dodds provided some background on how the Budget development process worked.

11. The Board discussed the need for a map depicting the geographical deployment of Technology Strategy Board resources and people. If this demonstrated an imbalance then it may be necessary to have a debate about whether it was appropriate to make strategic decisions to fund projects to deliver a better geographical balance (**action**).

12. **Catapults**: Iain Gray reported that

    a. the final approvals for the High-Value Manufacturing Catapult 5-year business plans were still held up in HM Treasury, and for the Cell Therapy Catapult in BIS Finance. This was being pursued. [*Secretary's note 24 January 2013: the High-Value Manufacturing Catapult has since been approved by Treasury*]

    b. Good candidates had come forward for chairs of Connected Digital Economy and Future Cities Catapults and the recruitment process continued.

    c. The decision had been taken to locate the Future Cities Catapult in London. Discussions with members had reinforced this decision and endorsed the process. The Board agreed that while the location was to be London, the Catapult was expected to exercise global influence.

13. The Board noted the political need to be able to say by Spring 2013 that all Catapults are operational. Whilst there was some flexibility on the definitions of "spring" and "operational", it should be a priority to showcase them all at Innovate in March (**action**). The Board also requested a paper setting out the stage each Catapult had reached in its development, to clarify progress and manage expectations (**action**).

14. **Future Cities Demonstrator**: Iain Gray reported that Glasgow had been selected as the winner of the Future Cities Demonstrator competition and this was scheduled to be announced by David Willetts on 25th January. He reminded the Board that the grant would need to be formally signed off by the Board as it exceeded the Executive's delegated authority. The demonstrator would be monitored in the usual way against the plan and the data will be made public.

15. **Finance**: Iain Gray gave an update on the handling of the projected under-spend. The priority was to get money to business innovation activity and any under spend was a loss to this. Most of the under spend was due to slow project spend. Although the budget had been re-baselined by BIS there were some ongoing actions to manage the remaining £31M. In discussing this the board made the following comments:

    a. It was necessary to re-evaluate how performance in this area can be improved.

    b. Use of "use-or-lose" clauses should be looked at but only deployed in a way that did not harm the programme.

    c. Use of external financial advisors should be considered.

    d. Historical data should be examined and used to model spend and rebudget or overcommit.

    e. Conditional spending funds – activities that can be run quickly when an under spend is predicted – should be prepared.

**Risk**   (Paper: TSB2013-01-02)

16. Graham Hutchins presented the paper. He explained that this was an update from the earlier discussion and reminded the Board that most of the key risks are discussed at Audit Committee. In discussion the following points were made:

   a. There was still too much on the high-level register for the Board to consider in any useful way.

   b. The top four risks needed to be written in language that can be used elsewhere including in BIS.

   c. The description of risks needed to be better managed to show events followed by a range of potential consequences to be managed separately.

   d. The register did not show commitments to action, ownership or deadlines.

   e. The Board should only consider the top four risks and others should be considered by Audit Committee.

   f. All risks should be listed with control and mitigation actions. The current register shows Financial control risk with no mitigating action. It should have.

17. Iain Gray reported on the top four risks:

   a. **Government programme requests**: the main concern was "confetti" – being showered with lots of ineffective, sub-optimal, poorly planned tasks to deliver. The Advanced Manufacturing Supply Chain Initiative was likely to run to a second round. This should be avoided if full control is not offered

   b. **Recruitment and retention**: appointing enough of the right people remained a challenge. This issue had been discussed at the Remuneration Committee. The Board agreed that development of the whole organisation was an issue that put a lot of emphasis on development and retention.

   c. **Finance and under spend**: this had been discussed earlier in the meeting

   d. **Major projects**: the disproportionately symbolic programmes were all closely managed.

18. Iain Gray agreed that the next version of the risk Register would be tested with the Audit Committee before bringing it back to the Board.

**Transport Systems Catapult** (Paper TSB2013-01-04)

19. The Chair introduced the topic, reminded the Board of the status of the Transport Systems Catapult in the time line. He invited Andrew Milligan to present the case. Andrew Milligan reported that the proposal was the result of a lot of hard work by the team and the Interim Advisory Group which he chairs. He reminded the Board of the IAG membership, all of whom had supported and recommended this proposal. He emphasised that the Catapult was not about individual modes of transport but about systems integration. It was aimed at an industry that currently operates too much in silos. Many companies had expressed interest in this and several had already offered money and time. The Catapult was expected to work closely with Catapults for Future Cities, Connected Digital Economy and Satellite Applications. He reminded the Board that in this area, the economic value was less easy to define than in the earlier Catapults because the market for the Catapult's output was further out and harder to predict

20. Andrew Everett talked the Board through the main points of the proposal. He emphasised that transport was a global challenge and major opportunity. Integration, for which there was a big demand, had not been tackled elsewhere and with the Catapult, the UK would be in a good position to lead the world. Investment

in this area was risky for a single firm so there was a strong need for Technology Strategy Board investment and the Catapult. He emphasised that SMEs were a critical part of the programme and reported that the DfT had offered to contribute up to £18M.  In response to questions Andrew Everett and Andrew Milligan added:

a.  The work looking at the multimodal travel applications was expected to enable the new business models that the Sustainable Development Commission had concluded would be important in this area to emerge.

b.  Industrial commitment was strong. The Automotive Council was represented on the IAG and well connected and the consultation had engaged and got input from 400 companies and several had promised financial support. There was some reluctance due to the intangible nature of the markets.   IBM willingness to get involved was very strong and demonstrated the importance of system integration

c.  Rail was also expressing close interest.  But despite efforts to reach out to the airlines and airports, more work was needed to engage aviation.  The Board agreed that engagement of airlines and airports was essential for the success of the Catapult.  Iain Gray was convinced that airlines would engage once the Catapult capabilities start to grow.

d.  The IAG had agreed that research into consumer behaviour must be part of the programme.

e.  The physical test facilities customers will start to demand the Catapult  Virtual Test Environment (VTE) capabilities and the partners see this as an opportunity to expand their exposure without needing to expand their individual capability.

f.  The biggest sceptics had been the car industry but discussions with JLR, Ford and BMW had helped them see opportunities in intelligent systems for more sales of premium products and services using car sales as a platform.

g.  The Catapult would be doing work that would be more focussed on informing investment decisions than on building businesses.  The market  for systems to integrate transport modes was expected to grow massively.

21.  David Bott explained the different types of Catapults in the programme and that while the earlier ones addressed the need for central physical assets, later centres addressed more virtual challenges where no one really owns the problem.  So while the traditional view was of a Catapult addressing a problem that is well understood, support for the Transport Systems Catapult required more acceptance of risk.  This had the benefit of offering first mover advantage.

22.  The Board noted the following comments:

a.  open data in this area would create opportunities and it was not necessary to pre-imagine those services so long as there was an API and competitions to take advantage of those data sets and create services.  The UK has a nascent lead in this kind of data services.

b.  An aggressive application of Technology Strategy Board engagement tools must be used to ensure this delivers value to SMEs and forces growth.

c.  Catapults approved to date were about the effective application of applied research to well-understood problems to help resolve them.  The challenge was not yet as well articulated for the Transport Systems Catapult, it was unclear what would be delivered for business and there was a serious risk that business would not engage.

    d.    Confirmation now would enable the Catapult to attract the right leaders to take it forward.

    e.    DfT is becoming less siloed and the Catapult will get strong support from them.

    f.    The Catapult will be a good place to represent UK industry in getting EU investment in this area.

23.    The Board **approved** the launch of the Transport Systems Catapult with the conditionality that it would need to see a very robust business commitment when the full five year plan was brought to the Board for approval.

### Energy Technologies Institute: (Paper TSB2013-01-05)

24.    Bob Sorrell declared an interest in this item and withdrew.

25.    Iain Gray presented the paper.  He reminded the Board that Energy was a priority theme for the Technology Strategy Board and would remain so.  The ETI was set up with a big ambition to establish a £100M/y 50:50 public private partnership with climate change goals more prevalent than economic goals.  Although public sector funding came through EPSRC and the Technology Strategy Board, both were mandated to fund it and neither had significant flexibility to vary the programme or any authority to withdraw.   He expressed a view that the ETI had not realised its scale ambition which had been limited by timing and recruitment of sufficient industrial partners; the IP model had put off potential project partners.  While the Technology Strategy Board did not have full authority to mandate change, the mid-term review provided an opportunity to consider and influence the next stage because there was a need now to take some decisions on the post-2017 programme.  He expressed the view that this was not the best way to invest in energy innovation but there was some excellent work being done on modelling that should be protected. He recommended the "soft stop" option.  In discussion the following points were made:

    a.    The case did not seem to be made for anything other than a hard stop with some protection for the modelling programme and other transitional arrangements for the quality projects?

    b.    It was important not to damage the Board's reputation so harvesting the good projects was necessary.

    c.    The IP model caused many problems at the start.

26.    The Board agree to **recommend** a hard stop and advised that solutions be sought to protect the quality programmes.

27.    John Dodds commented that it would be helpful if the Technology Strategy Board produce a reasoned articulation of the weaknesses of membership models (drawing on both ETI and some of the constituent parts of the High Value Manufacturing Catapult) (**action**).

### Engagement Strategy (Paper TSB2013-01-06)

28.    The Board decided not to discuss this item but members agreed to speak to David Way individually outside the meeting to advise him on the strategy paper planned for the March meeting.

### Delivery Plan (Paper TSB2013-01-07)

29. Mark Glover presented the paper. He invited members' comments in the meeting or individually outside the meeting. He explained that the financial table was still in the early stage of development and not yet balanced with the budget. In discussion the following comments were made:

   a. There was no visible movement in this plan on tools for explicit support for SMEs.

   b. This was generally a good paper but complex to read and would benefit from some FAQs on how to use the plan.

   c. There was a need to consider the audience as it had some good content but was hard to engage with. Mark Glover commented that it was intended for a business audience which was expected to mostly read the parts relevant to their direct interests in order to learn how to benefit from the Technology Strategy Board's coming programme

   d. The paper needs a better overall architecture. It feels siloed when the programmes are all interrelated. It could, for example be constructed around the Catapult programme and other programmes presented in that context.

   e. Part of the plan needs to be a set of themes, one of which is what the Technology Strategy Board is doing for innovative SMEs.

   f. The culture is one that sees projects rather than companies as the main unit of activity. So it needs a layer about companies.

   g. This was not written as a user guide but a plan. A separate user manual was necessary.

   h. It was not clear how the tools to be deployed in the plan had been evaluated as economically effective. It would also be useful to look at the extent to which a company benefits as a result of working with the Technology Strategy Board. UCL has an expert (Stockdale) at this kind of evaluation. The Technology Strategy Board should consider requiring all grant recipients to provide the necessary data for such an evaluation (action). Mark Glover described the Metrics Working Group Programme.

   i. The international section was too non-specific about what will be done. What are we doing bilaterally with other innovation agencies and what came from being chair of TAFTIE?

   j. The financial table in the plan needs to be simple: source and use of funds.

   k. A reader feedback analysis should be carried out after publication, capturing stakeholder opinion on who reads it and what value they get from it.

30. John Dodds commented that BIS was the prime customer for the Delivery Plan and that the draft did the job that BIS needs. It should not be seen as the tool for engaging external communities. If a single tool can do both jobs then that would be good but this type of document is needed for BIS.

31. Mark Glover thanked the Board for its comments and agreed to reflect them in the plan to be presented at the March meeting for approval.

**Innovate UK** (Paper TSB2013-01-08)

32. David Bott presented the paper and handed around the latest schedule for Innovate UK. He would be approaching members and asking them to volunteer for a range of duties. He asked members to suggest further speakers.

33. The Board noted the report

**Remuneration Committee (**Paper TSB2013-01-09)

34. Phil Smith introduced the paper explaining that BIS had asked for formal representation on the Remuneration Committee. John Dodds made the case for BIS to have a formal non-voting role on the committee. He highlighted some recent issues where BIS felt that the Technology Strategy Board had been missing some of the public sector requirements around pay and rations. His presence at the committee for the whole discussion would enable him to smooth the relationship with BIS SROC. John Dodds withdrew for the remainder of the meeting.

35. Mike Carr commented that in his role as chair of the Ordnance Survey remuneration committee, a BIS representative had been an advantage because the representative had been able to make any difficult cases directly to SROC and had significantly improved understanding and smoothed some otherwise difficult issues.

36. The Board agreed that the BIS representative would diminish its own autonomy but recognised that it was probably the right approach for pragmatic reasons and **approved** the change to the membership

**Closed Session**

37. Iain Gray reported that he was still in the process of developing the organisation and its senior team for its future needs as a significant player in the innovation and economic landscape. What had started at the talent review in the October 2012 meeting would continue and he asked for Board support in designing, developing and recruiting a new senior team; a process that had begun with the appointment of Simon Edmonds and would continue over the coming year.

38. The Board agreed to revisit the talent review and the actions necessary to develop the organisation at the March meeting (**action**)

**AOB**

39. None

**Summary of decisions and actions:**

| No | Action | Responsibility | Target date |
|---|---|---|---|
| 1 | Provide explanation and messages to use for the new initiatives proposed for the 2013 Budget [*paragraph 9*] | David Bott | March 2013 |
| 2 | Develop a formal Board process for discussing and agreeing proposals for additional government support [*paragraph 9*] | Iain Gray | March 2013 |
| 3 | Develop a map  depicting the geographical deployment of Technology Strategy Board resources and people [*paragraph 11*] | Mark Glover | |
| 4 | Showcase the full set of Catapults at Innovate UK [*paragraph 13*] | David Bott Simon Edmonds | March 2013 |
| 5 | Provide a paper setting out the stage each Catapult has reached in its development, to clarify progress and manage expectations [*paragraph 13*] | Simon Edmonds | March 2013 |
| 6 | The Board **approved** the launch of the Transport Systems Catapult [*paragraph 23*] | | |
| 7 | The Board agreed to **recommend** a hard stop to the ETI programme and advised that solutions be sought to protect the quality programmes [*paragraph 26*] | | |
| 8 | Produce a reasoned articulation of the weaknesses of membership models [*paragraph 27*] | Iain Gray | ? |
| 9 | Investigate UCL expertise in innovation programme evaluation techniques [*paragraph 29h*] | Mark Glover | March 2013 |
| 10 | The Board **approved** the appointment of John Dodds as a non-voting BIS representative on the remuneration committee [*paragraph 36*] | | |
| 11 | Lead a discussion on talent and the shape of the future senior team at the March Board meeting [*paragraph 38*] | Iain Gray | May 2013 |