Response to NHS Chief Executive’s Open Call for Evidence and Ideas

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Organisation name: HealthTech and Medicines Knowledge Transfer Network (HTM KTN)

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The HealthTech and Medicines Knowledge Transfer Network (HTM KTN) is dedicated to the advancement of knowledge transfer and innovation within the key application areas of medicines, associated bioprocessing and health technologies (medical devices and diagnostics, including imaging) addressing needs across SME’s to large multinationals. Reporting to the UK’s Technology Strategy Board (an executive non-governmental public body), Knowledge Transfer Networks are designed to improve the UK’s innovation performance by increasing the breadth and depth of knowledge transfer of technology into UK-based businesses and by accelerating the rate at which this process occurs.

The HealthTech and Medicines KTN is focusing on the priority areas of:

- Health technologies - Focusing on medical devices and diagnostics, including imaging
- Bioprocessing for biological medicines - Dedicated to advancing the UK bioprocessing sector, which uses biological materials such as cells, bacteria or enzymes to develop medicines
- Regenerative medicine - Creating living, functional tissues to repair or replace tissue or organ function lost due to age, disease, damage, or congenital defects
- Assisted living innovation platform - Enabling the ageing population and those with long-term health conditions to live with greater independence
- Detection and identification of infectious agents innovation platform - Developing diagnostic tests that will help to reduce the number of deaths and cases of illness caused by infectious diseases.
- Stratified Medicines - Delivering new companion diagnostics with targeted medicines to support better and more cost effective treatments for patients.

The HTM KTN has consulted with its members and offers the following input to the Department of Health consultation on *Spreading innovation in the NHS*.
### 1 Learning from elsewhere about adoption and spread

**What can the NHS and NHS Commissioning Board learn from local, national and international best practice to accelerate the pace and scale of adoption of innovations in the NHS?**

- Many reviews on collaboration have emphasised the need for true partnerships which are formed early in the stage of developing new ideas with an eye to implementation. This enables a better appreciation of the needs of all stakeholders, and agreement of what is needed at the various stages of development to enable evaluation and progress to be maintained.
  - NB: A rigid IP licence agreement is almost diametrically opposed to a true relationship which is not for a fixed point or product; but is about continuing to work together for mutual benefit
  - All parties need to recognise the difficulties in trying to enforce an exclusive relationship (e.g. for start-up companies in particular, the relationship is highly dependent on the people as well as the organisation)

- Within the USA, the SBIR scheme has a stronger commitment to procurement of successful innovation

- Reimbursement systems need to be examined and established early; such that there is a route to procurement should a new development (often with a new care pathway) be successful.
  - Reimbursement can start at a higher level in introduction of a new technique, to provide first mover incentives, and then taper off to normative reimbursement later. (This may have happened in Germany?)
  - In order to avoid the inevitable time to market delays by simultaneously implementing a new reimbursement system alongside a new technology (which does not fit the existing system) there should be a strong new technology pass-through system, on a national basis with a fixed time duration (say two years) before a formal consideration of a final reimbursement code definition and value must start. This should be completed inside a fixed schedule (say one year).

- Regulatory bodies and HTA (including NICE) need strong engagement with the academic and business base in the development of emerging technologies (e.g. cell therapy) to enable the appropriate scientific evidence to be established for new regulations, and the ongoing development of such regulations as the science progresses.

- Consideration should be given to an expansion of the MTAC (NICE Medical Technologies Advisory Committee) capacity to ensure that most value creating technologies are considered and acted upon.

### 2 Actions at national level in the NHS

**What specific actions do you think national NHS bodies, such as the NHS National Commissioning Board, need to take to encourage and stimulate the successful and rapid adoption and spread of innovations throughout the NHS?**

- There are a number of national bodies which cover innovation in some context (NICE, NTAC, iTAPP, NIC) but very few (only NICE) have any real connection or influence with procurement, so it does create confusion for businesses.
• Relevant NHS bodies to clearly communicate the NHS priority needs such that businesses can respond to market demand, and enable better investment in new developments by public and private funders.
  o We need to understand who these relevant bodies are.
  o We could create an NHS version of the MOD Contracts Bulletin.
  o We can build on the Statement of Clinical Need and Wouldn’t It Be Great If initiatives of the HTM KTN and NIC, articulating challenges at a system level and focusing on outcomes not products.
  o A good step forward would be for the NHS to fund an officially endorsed Visioning programme looking 5 to 10 years forward and predicting disease/case/patient numbers demands and new challenges to give industry time and direction to satisfy these future needs in both type and capacity.

• The NHS as intelligent customers to both articulate the needs (as above) but also to help define and work with businesses in priority development areas (disease or technology specific).
  o A dramatic expansion of the Health Technology Cooperative programme along priority disease and technology lines would go a long way to satisfying this objective. Plus the implementation of a new technology horizon scanning approach, agreed with industry, which could be utilised by the technology adoption and procurement process at regional and local level.

• Better appreciation that businesses are an essential part of the delivery of better and more cost effective care, by developing new technologies and making them available on the market.
  o This does require appropriate and mature businesses (the trade associations are addressing codes of practice)
  o Joint working with Industry to agree a more standardised approach across the NHS for the definition of “lifetime delivered value”, “comparative cost effectiveness” and the make up of internal NHS technology procurement business cases would enable industry to raise its effectiveness in this respect.

• Make ALL evidence more readily available on something like NHS Evidence, but with the ability of real users to comment on it. Ensure NHS Evidence embraces modern systems for free flows of information, openly critiqued.

• Do more to recognise the causes of adverse behaviours (culture) around innovation in the NHS, and systematically work to remove them.
## 3 Actions at local level in the NHS

**What specific actions do you think local NHS bodies, such as providers and Clinical Commissioning Groups, need to take to encourage and stimulate the successful and rapid adoption and spread of innovations throughout the NHS?**

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| • Communication of specific local needs that local or national SMEs (and other businesses) can respond to.  
  o Were there positive lessons from the previous procurement hubs that new systems could learn from.  
  o Examine the relationships between suppliers and clinicians/providers. What can we see that we could do systematically to make this work better?  
  o Ensure the local needs are still representative of national needs and incorporate national best practice.  
  o Exploit the advantage of a local approach to define needs for all aspects of the problem to be solved (clinical, clinical pathway, patient journey, staff, built infrastructure). |
| • NHS Trusts to act as champions and Showcases for new innovations, helping to specify needs, ensure practical implementation, develop changes in care pathways, and communicate widely once evidence of benefits is achieved (incentives to enable the latter are needed) – to evaluate new techniques not trial them (latter managed separately).  
  o Especially sharing best practice, and shortening learning curves for new technologies  
  o Learn from the HealthCare Acquired Infection Innovation Village approach  
  o The benefits evaluation and communication should cover all aspects including, clinical, patient, staff, economic etc. |
| • NHS Trusts to have systems in place for early adoption such that other Trusts can rely on the evidence generated, and duplication is not needed at every Trust.  
  o Establish mechanisms to share best practice  
  o The evidence generation system ideally agreed with industry so it can be used for promotion onto other overseas Health and Social Care Systems. |
| • Recognise that use of a technique will result in insights into how it could be improved:  
  o How to use it more effectively  
  o How to make the products and systems better suited to the novel application  
  • Mechanisms to ensure this kind of continuing improvement relationship is enshrined and supported by local NHS teams, and they do not think that the development phase ends before adoption begins? |

## 4 Actions by NHS partners

**What specific actions do you believe others, such as industry, academia, patient groups or local authorities, could take to accelerate adoption and spread, and what might encourage them to do so?**

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| • Businesses to take time to understand the environment the NHS must operate within, and ensure they develop the right evidence (from evaluations and trials), taking into account changes in care pathways, training, etc, to enable serious consideration of adoption by a Trust or group of Trusts.  
  o Clarity for business of any new system(s) – a single message.  
  o Ability to hold effective dialogue with new commissioning groups  
  • Patient Groups to be advocates for technologies which are seen to provide real benefit to their communities. |

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The accepted use (by all) of (approved?) health economics and relevant Health Technology Assessments to generate the relevant data on the benefits/value of new technologies.

- The key element being agreement with Industry on tools and techniques to be used by all.

5 Any other comments

Do you have any further comments about accelerating the adoption and spread of innovation in healthcare?

- The culture is a major challenge. NHS staff feel under tremendous pressure and in that environment, anything new tends to feel like a distraction, and often to be frivolous. There has to be a continuing focus on changing this bias.
- Can we find examples of how the professions (Royal Societies) work well to stimulate adoption of good practice?
- Enabling the demonstration & evaluation of innovation having its proposed methodology pre-approved by (eg) NICE so that when the results come out they are accepted and endorsed by NICE. This should stop the repeated evaluation and “inadequate data” charges often levied at suppliers.
- Consider more use of simulation in the NHS and healthcare globally. Simulation can help healthcare decision-makers to experiment with the adoption of innovation whether service change, introduction of new drugs or technology. Setting up a virtual model of the system in question is risk free and allows users to ask better questions and to test impacts of any change in terms of expected volume of activity, costs, resource utilisation, waiting times and patient outcomes. This can enable users to be more willing to ask “worst and best case scenarios” and explore a range of “what if?” questions using this methodology and more inclined to adopt innovation if the results indicate improvement.