ZPB

Further, Faster

Accelerating the pace of digitising the NHS

GUY'S & ST THOMAS' CHARITY

A CATALYST FOR INNOVATION IN HEALTH

Further, Faster
Accelerating the pace of digitising the NHS

Contents

Scaling up: how digital health SMEs and the NHS can work better together

The digitising of the NHS is happening, slowly, across England.

However, health tech entrepreneurs report real difficulty getting their solutions into the NHS, so much so that we risk losing the brightest and best companies to the US where they are finding they can do business.

In the NHS, clinicians and managers who need innovative solutions to their problems are frustrated by red tape: the overly arduous information governance and procurement rules. All too often, because they already have contracts in place, NHS organisations find it easier to work solely with the huge multinational IT providers who may not have the best solutions to their needs.

There is no shortage of interesting and potentially game-changing innovations out there, particularly from small and medium-sized enterprises (SMEs), home grown or otherwise. There are good intentions on all sides, yet both SMEs and the NHS find it challenging to work together in productive and sustainable ways.

ZPB Associates and Guy's and St Thomas' Charity convened an expert group that explored the issues from all perspectives and the result, Further, Faster, offers practical insights and recommendations. It shares:

- Tip from both NHS customers and successful SMEs, including how to avoid what we've dubbed the quick sand.
- Good and bad experiences from both sides, so that we can learn from the successes and failures of others.
- Thoughts and ideas from NHS leaders and key players from the centre, including NHS England, the Health and Social Care Information Centre and the Office for Life Sciences.

Taking the brakes off digitising the NHS

Taking the brakes off digitising the NHS

The NHS has been allocated £1 billion over the next five years to spend on technology and NHS England's rhetoric is overwhelmingly positive about digitisation, but what is the NHS health technology landscape really like for those who work in it?

The real issue we, as businesses, healthcare professionals and/or NHS managers, face, is not so much innovation but the slow pace and arduous process of adoption and diffusion of digital technology and its applications across the NHS.

On the face of it, an NHS that maximises the effective use of data and technology to improve health outcomes and the efficiency of care is both necessary and inevitable. And small and medium-sized enterprises (SMEs) are an important source of innovative solutions in this space. The key issue – particularly in terms of the growth prospects for SMEs – is the pace at which this digitally enabled NHS emerges.

DIGITAL HEALTH: A DEFINITION

The digital health market can be broken down into four interrelated segments:

- Telehealthcare (telecare and telehealth): support and assistance provided at a distance using ICT and the remote exchange of clinical data between a patient and their clinician.
- mHealth: mobile applications relating to health and/or wellbeing, and connected wearable devices.
- Health analytics: the software solutions and analytical capabilities needed to assimilate big data.
- Digitised health systems: digital health information storage and exchange of digitised patient medical records.

Source: Digital Health in the UK: An industry study for the Office of Life Sciences, Monitor Deloitte, September 2015

> *With digital technologies there are major opportunities to re-invent, adjust or tailor to suit the local context, without diminishing the potential benefits. Therefore there are major opportunities to collaborate.*
>
> **Rob Berry, head of innovation and research, Kent Surrey and Sussex AHSN**

WHY DO WE NEED TO DIGITISE THE NHS?

The prize – and the fundamental case for a digitally enabled NHS – is that it will:

- Make a real difference to people's health by giving them greater control and better access to information; and
- Create a sustainable patient-focused system, built on effective use of digital technology and use of healthcare data to drive quality and efficiency; and
- Help build great British companies and encourage the growth of a thriving digital tech sector.

Taking the brakes off digitising the NHS

NHS England's influential Five Year Forward View and the National Information Board's Personalised Health and Care 2020 set out a clear roadmap for the NHS. The key messages for digital health are these:

- The application of digital technology has much to offer in addressing the health and wellbeing gap, the care and quality gap, and the funding and efficiency gap.
- The technology challenge is inextricable from the financial, staffing, safety and other challenges facing the NHS.

In reality, this is not happening across the NHS – yet. One of the reasons for this is the prevalent belief that 'bad IT decisions cost people their jobs', which makes NHS IT managers highly risk-adverse. However, tech projects in the NHS have typically failed because:

- They are not interoperable.
- They are not scalable at the back end.
- They simply reflect bad decisions or bad advice.

Leadership is key. Jonty Heaversedge, GP and chair of Southwark Clinical Commissioning Group, says: "The centre can empower the local NHS to do this, but the centre can't do it for us." While successful digital transformation will probably continue to depend on inspiring individual leadership, it is only when digital becomes a standard element of board-level deliberations and decision-making that the adoption of digital health will accelerate and be sustained.

Digital record-keeping and using technology to engage with people can then become the new normal; it is, after all, how most people – including doctors and patients, old and young – run significant parts of their lives.

It is the boards of both commissioners and providers in the NHS – ideally across localities – that need to truly embrace the technology challenge and make it a core part of their visions for delivering better health and care for their communities.

WHAT ARE THE BARRIERS FOR SMEs?

It has become standard to discuss and describe the barriers to innovation and its adoption. A neat and comprehensive summary is set out in the Accelerated Access Review, which is being conducted by the Office for Life Sciences with the aim of speeding up access to innovative drugs, devices and diagnostics for NHS patients. Another useful analysis that explores the barriers and enablers around the diffusion of innovation is set out in Cracking the innovation nut from the AHSNs and NHS Confederation.

Talk of 'barriers' tends to imply that someone somewhere else simply needs to get on and remove them, or enable them to be removed. This may be true in some instances; a good example is the National Information Board's focus on setting interoperability and data standards and the 'electronic glue' that enables different parts of the system to work together. This is an essential underpinning for digital health to flourish. It's also true that the incentives for innovation adoption need to be transformed as emphasised in the Accelerated Access Review.

However, it is important to recognise that it's often not barriers but the inevitable tensions that need to be managed – whether you are an NHS manager worried about procurement rules, an entrepreneur concerned about how to keep your start-up afloat or a clinician who needs to be convinced of the evidence. The truth is that there will remain resource constraints in the system; silo thinking is never going to be completely absent and risks will need to be taken with any decision to invest in digital.

Taking the brakes off digitising the NHS

THIS IS A SHARED CHALLENGE, FOR SMEs AND THE NHS

It is not surprising that aligning NHS challenges and SME solutions is tricky. The typical NHS organisation is grappling with a set of strategic challenges at population and system level, whereas SMEs often offer a specific product to address a specific need. This is one of the main challenges faced by those wanting to spread technology (the purchaser), and those trying to access this market (the vendor).

Managing this tension requires individuals and boards in the NHS to have a vision for transforming the way the system works and the way they engage with people – so that they can see how a range of digital products can slot in and enable the transformation. It also requires SMEs to help articulate a strategic case as well as a business case for their particular offering.

The technology challenge is inextricable from the financial, staffing, safety and other challenges facing the NHS. Collaboration and partnership is key, as is a shared goal and mutual interest. As Oliver Smith, director of strategy, Guy's and St Thomas' Charity, says: "If you want to be commissioned by the NHS, you have to be interested in what the NHS is interested in."

> " *Good deals between the NHS and SMEs will always depend on both parties working together to recognise and manage some inevitable tensions.*
>
> **Rob Berry, head of innovation and research, Kent Surrey and Sussex AHSN** "

NO COUNSEL OF DESPAIR

Despite the challenges, there are SMEs who are active in the NHS market and NHS organisations leading the way in adopting digital technologies. The focus of learning and support should be on this leading edge, exploring why and how they are doing it.

10 tips for SMEs who want to work with the NHS

10 tips for SMEs who want to work with the NHS

If you are a start-up or a small or medium-sized enterprise looking to do business with the NHS, there are several things you need to get right – apart from having a great product.

The following ten tips have been compiled by health tech innovators who have learned the hard way.

1. GET THE BASICS RIGHT: MAKE THE STRATEGIC CASE

"Don't sell your product in isolation," says Peter Greengross, medical director at The Learning Clinic. "Make the case for how it fits into the wider patient safety, cost reduction or IT strategy. Preferably all three."

Your product is an enabler not a solution; for the NHS, it is one possible piece in a much bigger jigsaw. It is not enough to focus just on the business case for your product (though you must do that). You also need to help any potential champion or customer place it within a wider strategic case for change.

Your pitch has to address that strategic case, and articulate the benefits to patients, to clinicians and to the system, also acknowledging the implementation challenges. To state the obvious, you need to understand not just the NHS and the challenges it faces, but the specific challenges facing each of your target customers.

Making the assertion that your offer will help to meet the Five Year Forward View is not going to be good enough. Your pitch needs to be specific and tangible. Immerse yourself in the organisation you want to sell to and make sure you are speaking to their particular 'pain points'. (See tip 3.)

Andy Williams, chief executive of the Health and Social Care Information Centre, says: "Automating the way things work now is one thing. The real value is to be found in designing solutions for a transformed health and care system."

Do not underestimate the number of customer groups within a single organisation. Just as the NHS isn't a homogenous entity, neither is a large NHS trust. Each specialty, department and ward will have its own set of challenges.

This is where the strategic sale comes in. The trick lies in identifying what the common problems are across the organisation and the common benefits you can yield. If you sell your product or service into a department without identifying and selling in the strategic system benefits from day one, you will struggle to scale beyond your initial point of entry (e.g. the ward or department).

2. GET THE BASICS RIGHT: YOUR VALUE PROPOSITION

You need to be able to articulate the value of your offer in clinical, financial and technological terms. Your innovation stands a decent chance of being adopted if you can show:

- Benefits to patients
- Positive financial impact
- Demonstrable impact and the speed with which this impact can be made
- Credible evidence of where your product has worked elsewhere (but see note above about local 'pain points')
- Alignment with policy and organisational strategy
- That you understand and have sought to mitigate risks
- That you have a commercial model that makes you viable (see tip 6)

Dr Michael Brooks, chief medical officer of PatientSource, developed its product in part with the people they wanted to use it. He says: "Doctors and nurses know more about what they want from an EPR than developers or UX experts."

This proposition needs to be credible – backed up by evidence. The AHSNs may be useful sources for this kind of support, or you can commission it directly.

10 tips for SMEs who want to work with the NHS

> *We commissioned independent health economics input and it has been hugely helpful in supporting conversations with potential customers.*
>
> **Barnaby Perks, chief executive, Ieso Digital Health**

3. FIND THE RIGHT ORGANISATIONS

This advice may seem obvious but some SMEs try to sell generically to every eligible organisation. Geography, digital maturity and other circumstances (e.g. special measures) will have an effect on whether they are ready for the product. It is strongly advised that the market is segmented:

- Do your research into organisations, their people and their particular challenges and priorities. Read their board papers.
- Don't ask how you can help; explain how you can help.
- Be clear and concise in describing your offer.

If you're starting at square one and looking to enter the market, consider these questions:
- Should we be targeting providers or commissioners? Providers (this includes GPs) are at the coalface with patients and at the sharp end of redesigning services to meet their needs; Commissioners (should) have a more strategic overview of system needs and the potential to engineer transformation through contracts.
- Which parts of the country face the biggest challenges that you can help address? There is a great deal of publicly available data on prevalence, demographics, healthcare quality and financial status.
- What kind of help is available to navigate the NHS? AHSNs, Innovation Hubs and NHS England's Innovation Connect are good places to start.

Narrow the eligible organisations down to a manageable target and do your research on them.

> *A simple test: do they have an electronic health record? If not, are they really likely to be in the market for clever digital solutions?*
>
> **Andy Williams, chief executive, Health and Social Care Information Centre**

We recommend avoiding the following:

- Generic emails that say little more than, 'We have a great product which will meet your Five Year Forward View demands.'
- Direct mailers that don't recognise the specific 'pain points' of each organisation.
- Conversations with national organisations including NHS England and AHSNs suggesting they purchase your product for a cohort e.g. every clinical commissioning group. These organisations do not have this kind of purchasing power.

10 tips for SMEs who want to work with the NHS

AN APPROACH TO FINDING THE RIGHT ORGANISATIONS

One way to identify your customers is to use freely available open data to profile organisations and segment the market into tiers. This will help to prioritise sales efforts and focus marketing resource on organisations that are most likely to benefit from your value proposition.

There has been genuine success from lead-generation campaigns using this approach. At ZPB, our approach is:

- Identify the indicators and characteristics that define the 'ideal' customer (using a mix of hard and soft intelligence). This might be organisations that have long lengths of stay or high readmissions. It might be CCGs that have high numbers of certain populations or long-term conditions. It might be something transient such as a health economy that has no foundation trusts in special measures.
- Identify sources of open and available data that can be used to identify performance. These include:
    - HSCIC Indicator portal: includes the compendium of public health indicators and metrics connected to the NHS Outcomes Framework.
    - My NHS: includes data on GP practices, trusts and care homes as well as consultant-level outcomes.
    - NHS Choices scorecards: includes data on outcomes for a number of surgical procedures.
    - PHE public health profiles: includes data on children and young people, mental health and sexual health.
    - NHS Atlas of Variation: maps on variation in quality, cost and outcomes.
    - NHS England Data Catalogue: includes QOF data, friends and family test and A&E wait times.
    - PHE data and tools directory: includes data on obesity, prevalence and health inequalities.

- Identify outliers across a number of variables, i.e. trusts that have high readmissions and long A&E waits. This can be done simply in Excel using quintiles or quartiles or more robustly using statistical outliers.
- Run the analysis, producing a tiered list of trusts, and then overlay this with 'soft' intelligence such as procurement history, behaviour patterns, incumbent suppliers, leadership style and culture.
- Identify the resource requirement against each level. Use this to target conversations and messaging.

Source: ZPB Associates

> "
> *Talk to me about how you can help solve my problems – don't give me your usual generic sales pitch.*
>
> **Dr Ian Abbs, medical director, Guy's and St Thomas' NHS Foundation Trust**
> "

10 tips for SMEs who want to work with the NHS

There are a number of warning signs that might mean an organisation is not ready for a serious conversation. These might include:

- Signs they do not have budget, such as asking for a free pilot (see tip 7).
- They don't return your emails or move the conversation forward by including other necessary decision makers.
- They see products as an IT 'thing' rather than in the context of patient benefits.

Finally, don't get star struck and target vanguards or big brands e.g. London teaching trusts. Small successful hospitals are equally valid and in many cases are better equipped to work with SMEs

4. FIND THE RIGHT PEOPLE

When it comes to the NHS, finding the right people to talk to can feel like finding a needle in a haystack. However, this is a market in which establishing personal relationships is fundamental. It is all about finding (and supporting) determined individuals, those willing to challenge the norms and make the right connections.

One of the most common gripes from SMEs is the need to get so many different individuals on board with your proposition. However, NHS hospitals have complex governance and this is necessary for a successful relationship.

What successful SMEs say is that you want to seek out – at the very least – a board-level champion, someone who can make things happen and cut through bureaucracy, and support from clinicians. The finance director (FD) is a key stakeholder too. They also say:

- One champion is never enough. NHS managers and clinicians move on, often at an alarming rate.
- Don't waste time bemoaning the fact that they don't 'get it'. If your target customer doesn't feel a burning need and see the change you are trying to enable, move on.
- Recognise that you have a role in helping your 'champions' make the case for you internally – and be helpful!

Once you have found champions within an organisation, work with them to produce case studies and help spread the word to other similar organisations. Make these people your advocates internally and externally.

5. DON'T EXPECT TO FIND SHORTCUTS

Selling to the NHS takes hard graft and persistence. Passion and clever tech is rarely enough, and there are no easy routes to market – you have to be prepared to wear out your shoe leather.

> "
>
> *I frequently find myself explaining to people: No, NHS England is not going to buy your product or make every NHS organisation buy your product.*
>
> **Zoe Bedford, chief executive, ZPB**
>
> "

It is worth being imaginative though. Larger private providers may offer routes to market. For example, Virgin Care actively seeks out innovations from elsewhere and has a clear market-scanning process through which it sets out its clinical priorities and financial envelope.

Commissioners can also come into their own here. If they mandate use of your products, or similar products, as a condition of contract it can be a fast track to adoption across a locality.

10 tips for SMEs who want to work with the NHS

6. TAKE RESPONSIBILITY FOR YOUR COMMERCIAL MODEL

Your commercial model is your business, and the best advice is to be flexible and creative. You need to understand the financial constraints that your customer is facing and help them look for options, at the same time as being clear on what is possible for you:

- Can they exploit a capital budget?
- Is there a contracting for outcomes option?
- Is there a risk- and gain-sharing option?
- Is there national funding ('tech funds') available at this time?
- Can you leverage other funding e.g. Innovate UK or SBRI?

7. AVOID PILOTS!

Pilots are often a default option, but the strong consensus among our expert group is to avoid, avoid, avoid. The only thing worse than a pilot is an unfunded pilot.

Too often, pilots go nowhere after the pilot phase completes, because:
- Pilots are often the easy 'fobbing off' option, a way to defer any real decision.
- Pilots are by definition small-scale. They may prove something about effectiveness but cannot demonstrate system-wide value.

The panel found very little evidence that pilots were an effective foot in the door that consistently led to more sustainable longer-term contracts. You should push for a real contract, and an agile approach to realising value. Test and learn arrangements are good options, with an element of risk- and gain-sharing.

8. UNDERSTAND PROCUREMENT

The glacial pace of NHS procurement is a common gripe. It's a bit of a quagmire but you need to do your homework on procurement thresholds, rules and the frameworks that might enable procurement of your product.

It is not unusual for people in the NHS to believe there are rules where none exist and for SMEs to find themselves in a position to advise on what is possible. For example, there is a myth that the NHS cannot talk to companies at all before they get into a procurement exercise. This is simply not true: the NHS can have any number of pre-procurement conversations. It is only once a procurement is under way that restrictions apply.

If you have developed a strong relationship with your potential customer, and there is a genuine desire to work in partnership with shared goals and values, then you can work together to co-design a specification. Assuming it exceeds relevant thresholds, they will then need to put it out to tender, but you should be in pole position. But beware! It is a nasty surprise if you find that it is going to be procured via a framework that you are not on. This can and unfortunately does happen frequently. Forewarned is forearmed – and recognise that you might have to do a deal with a partner who is on a framework in order to get procured.

> *If procurement is the issue, then the battle is already lost.*
>
> **Jon Cutler, head of UK advisory services, Health 2.0 Europe**

10 tips for SMEs who want to work with the NHS

9. COLLABORATE

You are in a competitive marketplace but it pays for SMEs to be collaborative. From an NHS point of view, the digital challenge is large and multifaceted, and the offering of any one SME is likely to be a small cog in the wheel. Building relationships with other SMEs with complementary offers may well make you stronger together.

Partnering is a useful strategy too. For example, Big White Wall grew out of a partnership with the Tavistock and Portman NHS Foundation trust, which provided legitimacy and important clinical governance support at the outset. Another example is WebGP, which partnered with EMIS, enabling testing and development at scale.

On a broader level, anyone operating in this digital health space is effectively part of movement that is pushing and supporting the NHS to move towards a digital future. It follows that there is a risk that negative competition between digital health SMEs diminishes everyone and undermines a common goal.

10. KEEP BUILDING YOUR EVIDENCE BASE

In the swing of developing a business and delivering for customers, it is easy to neglect some important things. Never forget to:

- Identify the data that is meaningful and useful to your customer (not just you).
- Invest in collecting outcomes data from the start, even if your contracts only require process-oriented KPI reporting.
- Keep gathering data on value and outcomes.
- Ask for endorsements and referrals to other potential customers.
- Produce strong case studies, preferably co-authored by your customers.
- Enter your customers into awards and make them heroes. They have, after all, moved mountains and resolved seemingly intractable obstacles to get you and your product working well in their organisation.

WHAT MAKES A GOOD CASE STUDY?

Good case studies are not just puff pieces. There are a number of key characteristics. Many case studies don't cover these basic elements adequately and so their potential is not maximised. They need:
- Clearly sourced data on value and outcomes.
- Patient stories.
- Testimonials from clinicians and customers – both about the value of the product and the experience of working with you.
- To be concise, well-designed and engagingly presented.

Case studies should ideally address these kinds of questions:
- What was the problem, issue or opportunity?
- What were the benefits/business case?
- What were the outcomes, including ROI? How does this compare to before (i.e. can you benchmark)?
- How did the implementation work? How were challenges overcome and which people were key to this?
- What were the critical success factors?

Source: ZPB Associates

10 tips for SMEs who want to work with the NHS

Data, endorsements and case studies are key elements for your website, marketing materials and pitches. Also think about where and how to distribute your case studies more widely. For example, policy leads in NHS England and DH are always looking for strong case studies that match policy priorities. The CCIO Network is a potential route for pushing out case studies, as is NHS England's Innovation Showcase.

A WELL-LIT RUNWAY: WHAT AHSNS CAN OFFER SMES

The North East and North Cumbria Academic Health Science Network (NENC AHSN) has created The Innovation Pathway to deliver a range of services to support the SME community, as well as NHS organisations, with the aim of contributing to regional wealth and improving patient care. It is a unique opportunity for SMEs to access and benefit from the vast expertise within the healthcare sector, and will help with the development and commercialisation of innovative ideas.

Learn from the risk-takers: 7 lessons for a digital NHS board

Learn from the risk-takers:
7 lessons for a digital NHS board

Getting new health tech solutions adopted and then scaled across an organisation is just as hard for the NHS 'buyers' seeking to import innovation as it is for the SMEs looking to access the NHS. If you are a clinician, healthcare professional, manager or board member wanting to adopt digital solutions, here's our checklist for becoming what we call a digitally engaged board.

1. COMMITTING TO DIGITAL IS RATIONAL NOT RISKY

Despite the challenges, there are parts of the NHS doing successful business with SMEs. The single most important theme that emerged in our expert group's discussions was around board leadership in this space – boards that make digital and technology core to their strategies and that embrace the positive potential of commercial partnerships, including SMEs.

Digitally engaged boards see technology, data and digital applications as fundamental to their strategic change agenda. Their strategies to improve health and wellbeing, ensure care quality, deliver efficiency and savings, and have strong digital and technology components. These:

- Exploit opportunities that equip people to take control of their health and care.
- Generate the data and analysis (i.e. business intelligence) that will guide service transformation through a better understanding of service quality and productivity, operational efficiency and patient experience.
- Implement new ways of delivering services that will be more efficient over time.

2. BE CLEAR ON WHAT PROBLEMS YOU ARE TRYING TO FIX

> **"**
>
> *Our focus on technology and commercial partnerships is a direct result of the financial challenges in our locality. They are an essential route to sustainability.*
>
> **Simon Lilley, commercial director, Yeovil District Hospital NHS Foundation Trust**
>
> **"**

Clarity on the problems you need to solve will help SMEs – and other suppliers – to focus their offerings, wasting less of your time and theirs. It will also help you to place what might be numerous individual digital health offers into a coherent and transformative whole, rather than a series of low-value add-ons.

There will be times when you should challenge colleagues:

- If there is no technology or digital strategy that sits across the whole organisation.
- If digital opportunities only pop up under a discrete IT item somewhere down the board agenda.

- If the board only ever engages with major IT procurements, while 'missing' small but potentially game-changing digital health projects.
- If there is no plan to scale or roll out a new solution beyond its initial point of entry into your organisation.
- If there is no clear mechanism or channel through which individuals and frontline staff can propose or escalate ideas, innovations or digital solutions within the organisation – including up to the board.
- If SMEs are dismissed per se on the basis of being somehow 'too risky', rather than a source of innovative and agile solutions.
- If key decision makers such as the finance director can't 'find time' to attend these meetings.

Learn from the risk-takers:
7 lessons for a digital NHS board

> " *Interesting technologies should be fed up to the board not down into the IT department.*
>
> **Jake Arnold-Forster, NHS and SME commercial adviser** "

3. HAVE THE COURAGE OF YOUR CONVICTIONS

Digitally engaged boards are driven by the question 'What is the right thing to do?', not 'What do we think we are allowed to do?' No one pretends that this is easy in a cash-strapped environment but it is the only approach likely to deliver the results that patients and the NHS need.

> " *It's important to think long term and look for new ways of doing new things – not new ways of doing old things.*
>
> **Dr Ian Abbs, medical director, Guy's and St Thomas' NHS Foundation Trust** "

A digitally enabled board is characterised by its ability to take a long-term perspective. You guard against situations in which business cases founder immediately on the basis of cost. Rather than asking 'yes, but how many nurses will we have to sack?' or requesting more (and more) evidence, you tackle the challenges head-on:

- Explore commercial models that help to balance short-term investment with long-term gain (for example, low capital cost at the outset and shared benefits at specified points).
- Balance the available evidence on efficacy and value with intuition. Innovative solutions rarely come with cast iron guarantees.

- Take the opportunities offered to you centrally e.g. tech and transformation funds.
- When skill, knowledge or ambition is lacking, encourage your teams to get out, create networks and explore the market for inspiration. That failing, bring in external support to inspire or advise.

This is not to say that SMEs – or innovative solutions from any quarter – should be given an easy ride. You must be demanding of SMEs to make a credible strategic case in clinical, financial and technological terms. You expect them to deliver quality on time and to budget – but you also regard them as partners in this endeavour.

> " *There are three things that need to be articulated well for a successful product: clinical value, technology value and financial value.*
>
> **Dr Felix Jackson, founder and medical director, medDigital** "

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4. INNOVATION CAN HAPPEN AT SERVICE LINE LEVEL

While the board is often tasked with making the final decision on purchasing, it doesn't have to take all the meetings or do all the product evaluations. Often this can be tasked to clinicians or divisional managers, who can roll out a product or innovation in their area, report back to the board and then act as a champion and make the case to other departments.

> *As a general manager, you are rewarded for getting the basics right. Sharing examples of successful collaborations with digital health SMEs is therefore very important not only for diffusion but also for incentivising fellow general managers to seek out opportunities and take some risk.*
>
> **Jenny Blundell, divisional manager, women's and children's services, Guy's and St Thomas' NHSFT**

5. PRIZE AGILITY

Organisations with digitally engaged boards avoid massive programmes in favour of agile and collaborative problem-solving approaches. And agility is often where SMEs can excel.

Fear of getting it wrong and being punished is common in the NHS, particularly when it comes to technology and commercial partnerships. This is one of the reasons why pilots are the traditional 'go to' option in the NHS – and they are a tempting foot in the door for SMEs.

However, rather than helping to build a strong evidence base, instead they too often represent a way of kicking a decision down the line. In practice, pilots rarely operate at sufficient scale to generate convincing data either way, and for this reason, even if efficacy is proved, value won't be.

This is wasteful for the NHS, and for an SME one of the worst but common experiences is a long-drawn-out process with an indecisive NHS customer.

> *Pilots? No. Even if it is ward by ward or service by service, we insist on a full contract for a proper length of time.*
>
> **Bruce Hellman, chief executive, uMotif**

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6. FAIL FAST

'Failing fast' is an important mindset and not one that comes naturally in the NHS. But adopting innovation has to mean allowing some things to fail; the key thing is to act fast. Your board will empower people to say no, as well as to say yes – and to do it fast.

Putting a 'fail fast' mindset into operation means:
- Looking for rapid prototypes before major business cases (but make sure you're clear on why a prototype is different to a pilot).
- Copying and adapting what has worked elsewhere rather than starting from scratch.
- Using 'test and learn' contracts or contracts that allow for risk- and gain-sharing.

- Establishing progressive and phased programmes.
- Involving suppliers as partners in developing specifications before going out to tender on a 'real' contract.
- Involving your teams right from the outset, whether they are analysts, clinicians, administrators or patients, so that everyone is aligned from the get-go. This means issues and failures are flagged and isolated rapidly and success and best practice is identified and scaled faster.
- A strong cultural fit between the supplier and the customer.

7. DON'T MAKE PROCUREMENT THE ISSUE

Procurement is another area that can seem like an enemy to agility. But you will need to back your teams to use procurement confidently as a means to an end. This means:

- Not starting procurement too early i.e. before there is clarity about the problems you need to solve and the outcomes you are seeking.
- Encouraging pre-procurement exploratory discussions – the more conversations the better.

- Understanding the frameworks that you can use, including G-Cloud. This will stop you from accidentally excluding your preferred supplier of partner from the final procurement. This unfortunately happens frequently. Thinking creatively about partnerships – whether that means encouraging suppliers to partner with each other or directly with you.
- Encouraging creativity in navigating procurement rules.

> " *Traditional procurement doesn't work for digital. You need to co-create the specification in the first place then go out to tender.*
>
> **Jonty Heaversedge, chair, Southwark CCG** "

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7 lessons for a digital NHS board

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NHS organisations need to spend more time bringing the buyers (them) and the sellers (SMEs) together to test and share ideas. Consumers should preferably be involved so demands can be prioritised.

Alex Kafetz, chief operating officer, ZPB Associates

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A FEW DOS AND DON'TS, FROM SMEs TO THE NHS

- Do go to market. Internal DIY solutions may cost you more in the end.
- We'd rather you said no reluctantly than keep us talking when there is little prospect of you signing a deal.
- Do take up references on us – and tell colleagues in other NHS organisations if we deliver results for you.
- Don't make unreasonable demands around handing over our IP to you. Work out how the NHS organisation and the SME can jointly share the rewards of success.

Creating the right environment: messages to the centre

Creating the right environment: messages to the centre

> *Central NHS arm's-length bodies and government departments have a number of levers and strategies to stimulate the market and de-risk technology decisions for the NHS, but this often leads to confusion. These are our panel's suggestions on how to best support the growth of health tech small and medium-sized enterprises (SMEs).*
>
> *Implement technology to improve outcomes, not just for the sake of it or to claim you are tech savvy.*
>
> **Tim Kelsey, former National Informatics Director (final advice when stepping down as the chair of the NIB)**

One of the interesting themes in our expert group discussions has been the relative absence of long to-do lists for government and NHS England. Our focus was on the very practical things that SMEs and the NHS can and should be doing, rather than waiting for action from the centre. Our discussions reflected a mature recognition of the limitations on what the centre can achieve, though there are of course some important things that can be done centrally to facilitate a more vibrant digital health market.

Who are the organisations that we refer to as 'the centre'? Those that set policy in the NHS are particularly relevant and include NHS England, the National Information Board and the Department of Health. The Cabinet Office sets procurement policy across the public sector, and a number of arm's-length bodies are also influential in this sphere, including the Academic Health Science Networks, the Office for Life Sciences and Innovate UK.

STAY ALIVE TO THE IMPORTANCE OF THE DIGITAL HEALTH MARKET

It is bad news both for the NHS and the economy that the NHS is often not seen as an attractive market among investors. This is not because of lack of opportunity but because of the slow pace of adoption.

It is also bad news that SMEs are increasingly shifting their focus to the US, where investors are keen and the market is actively seeking out innovations. Tom Whicher, chief executive of DrDoctor, says: "I get more enquiries from the US than the NHS and that is without actively marketing over there."

However, Chris Jessop, chief executive of Expert 24, has not found the trans-Atlantic market entirely unhelpful: "What has worked for us is demonstrating our product in the NHS and using that evidence to secure business and funding in the US."

In order to build on the success of strategies and initiatives such as Personalised Health and Care 2020 and the Accelerated Access Review, the SME panel hopes that NHS England and OLS will look at monitoring and publishing:

- Rates of UK investment in digital health SMEs.
- Number and size of NHS digital health contracts let to SMEs.

Information on NHS contracts let to SMEs is hard to come by, although there was a commitment that at least 25 per cent of central government spend should be with SMEs by May 2015. To our knowledge, the only place that has collected this data is Greater Manchester, instigated by the Academic Health Science Network.

Creating the right environment: messages to the centre

> *It is clear that although the UK is good at generating ideas we are less successful at commercialising them and building companies to scale.*
>
> **Digital Health in the UK: An industry study for the Office of Life Sciences, Monitor Deloitte, September 2015**

KEEP UP THE MOMENTUM

The SME panel welcomes the National Information Board's focus on setting standards, making digital record-keeping a condition of contract and requiring use of the NHS number. The system needs consistency and interoperability, and they are equally necessary for the digital health market to thrive.

"There are some areas where action needs to match the rhetoric," says ZPB's chief operating officer, Alex Kafetz. "In recent years, there have been programmes and announcements specifically around embracing and enabling SME involvement in key areas (GPSoC and NHS Choices being key examples) but they have had little impact in reality. The centre needs to take action on major system suppliers who put barriers up to interoperability and who fail to offer truly open APIs. It also needs to reinforce the data-sharing messages of Caldicott 2."

The SME panel welcomes the Accelerated Access Review's recommendations around ensuring a clear pathway of support and advice for SMEs, taking action to stimulate consumer demand and creating real incentives and rewards. Hard cash incentives are important, and NHS England has made available £260 million over the last three years years to NHS organisations to pump the market and digitise the NHS. But there are lessons to be learnt from previous funds and prizes:

- Avoid timing pitfalls, such as requiring funding awards to be spent in-year or be lost.
- Focus more on incentivising the adoption and spread of existing innovations rather than on discovery and early product development.
- Include support for implementation.
- Require match funding from the organisation at the end of the process to ensure sustainability – and contracts – are the result.
- Don't fund pilots, fund sustainable projects.
- Make sure cost is not prohibitive e.g. access to data, server space, infrastructure etc.

> *Too often, funds that are meant to prime the pump end up being the pump.*
>
> **Bruce Hellman, chief executive, uMotif**

Soft incentives matter too. Creating 'pull' from within the NHS is essential and this means creating space and permission for people within the NHS to seek out and adopt innovative solutions.

We would like to see the centre provide active support and recognition for early adopters and fast followers in this space, inspiring others by publicising and celebrating successful NHS/SME relationships.

Resources

FURTHER, FASTER: A DIGITAL RESOURCE

Visit our website, Further, Faster. This site is a continually evolving resource for people wanting to scale the use of technology in the NHS. This could be a hospital CEO, an A&E consultant, a general manager, a commissioner, or a business with a game-changing product.

We want to provoke action. We want:

- SMEs to review their strategies and sales pitches against the practical tips and insight we can offer.
- NHS Boards in both commissioners and providers to embrace digital as a core part of the strategic change agenda.
- Strong leadership that will permit and enable productive relationships between SMEs and the NHS.

We encourage all parties to use this as a guide when preparing for a meeting with a potential customer or partner.

KEY BODIES AND INITIATIVES THAT MAY BE OF USE TO SMEs

- The National Information Board. Sets the strategic direct ion for technology data and transparency across the health and care sector
- Academic Health Science Networks (AHSNs). Tasked with spreading innovation, improving health, promoting economic growth
- Small Business Research Initiative (SBRI Healthcare). A £20m initiative, hosted by Eastern AHSN and led by all the AHSNs, targeted at SMEs and early-stage businesses. It runs competitions that offer a fast track to funding for product development matched to needs specified by the NHS
- National Innovation Accelerator Programme
- NHS Innovation Challenge prizes
- Test Beds programme
- Accelerated Access Review
- Review of operational productivity in NHS providers (Carter review)

USEFUL INFORMATION

- NHS Confed and AHSN Network briefing: Cracking the innovation nut: Diffusing healthcare innovation at pace and scale
- IPPR report: Improved circulation: Unleashing innovation across the NHS
- Videos on the UK NHS market for tech innovation: UK-US Startup Bootcamp: Expert Advice to Health Entrepreneurs on International Innovation

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