David Hall, principal associate, and **Charlotte Lewis,** senior associate, from national law firm Mills & Reeve discuss the value of data in healthcare

When data becomes
the new currency

Brexit and the new wave of health data deals can undermine 'business as usual' operations and the kind of homegrown, incremental technological innovation that health and care providers will need in order to survive 2019.

Data has been described as the new oil, and there's no doubt that it has commercial value that can produce explosive business growth, and billionaires. Data is a raw material for some of the world's largest companies, many of which – Google, Amazon, eBay – did not exist 30 years ago.

There are opportunities in the health and care sector to generate significant capital and revenue from data. But, it's an opportunity for some, not all. The focus for busy health and social care providers, however, is likely to be on using technology to drive added value for patients and service users: improvements in management effectiveness, service standards, efficiency and savings.

As with any 'currency', data also carries commercial cost – the cost of developing, buying and operating data-driven technology, and the associated risks of regulatory action, reputational damage and consumer claims if you get it wrong. The economic outlook for 2019 is looking chilly in both the public and private sectors. Against that backdrop, how can health and social care providers leverage technology effectively?

Brexit's impact on tech

The UK's withdrawal from the EU would result in shrinking Research & Development funding, much of which comes from the EU. It would also be likely to make it harder to access specialist labour markets. It would be harder to run large pathfinder projects, and to develop innovations at the forefront of data technology. The smart money will be spent on smaller projects using widely available technology.

So what do they look like?

Incremental innovation

Matt Hancock recently made a sharp comment about NHS pathfinders: essentially, they cost too much, they fail too much, and when they're copied it's done too rigidly. Result: substantial write-offs. In his comment he referred to 'Agile', the project management methodology that is based on taking small, focused steps towards a broad vision. Agile is widely used by developers of apps and other technologies, and the vision typically focuses on giving technology users a better experience, but Agile has much wider relevance.

Grand ideas carry grand risk, grand cost, or both. Incremental innovation means using data-driven technology in small, targeted ways to achieve small-step improvements for your organisation. It's currently at your fingertips:

- The smartphones in our pockets, and tablets in our bags are powerful, flexible, cost-effective and everywhere. There are lots that you can achieve by clever use of assets you already have within your organisation.
- App development can be low cost if you aim for 'pragmatic' rather than 'perfect' outcomes, and if you tender and project manage parsimoniously.

We think there is a growing pattern of incremental innovation in the health and care sector: see the box for some brief examples.

It's a really timely trend that gives hope at a time of economic gloom and distrust of large projects. There are still risks to navigate. Let's turn to focus on some legal and commercial risks that need to be on your agenda when you think about using commonplace technology and data to make incremental innovations for your organisation.

Routine risk management

Incremental innovations should have a relatively low risk 'out of the box', due to their small scale and focus, but there are still risks that need to be managed. Top of the list if your innovations make use of data are data protection and confidentiality risks. Data about people is regulated, and before you use it you will need to inform the people whose data will be used – patients, staff and others, as applicable.

Particular hotspots to think about are: data that can cause people distress or other harm, all data about belief, health, gender, sexuality, criminal activities, and trade union membership, some biodata, security breaches (it's quite challenging to keep electronic devices, systems and data secure) and direct marketing. There are some additional risks that arise due to Brexit.

You also need to think about who owns the innovation in a legal sense: the intellectual property rights. You can set the rights using a contract, and you don't want to let it drift as this is a potential source of costly, draining disputes. It's a factor whether you use your own staff or someone else to develop parts of the innovations for you.

Don't forget about more practical risks. Will your innovation need to be kept up to date, e.g. with changes in the devices and software that they rely on? Who will do that, when, and at what cost? What happens if your innovation develops a fault – who fixes it, how quickly? Are you covered financially, both in terms of contractual
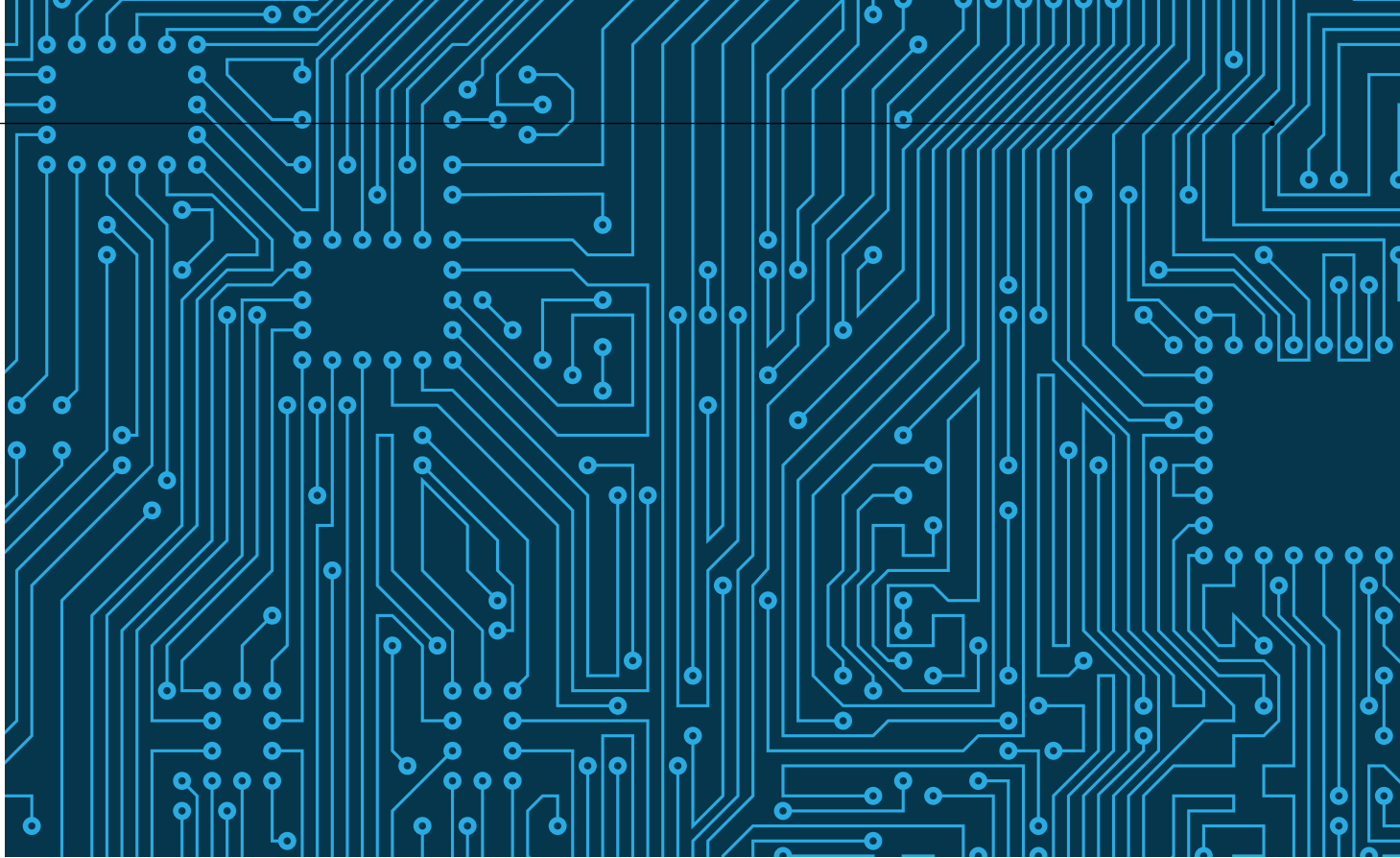
liability and business insurances, if things go wrong?

Brexit and data

Brexit would interrupt the ability of UK health and social care organisations to transfer data to computer systems (or organisations) in mainland Europe.

Data transfer is common. If you use Software as a Service, cloud facilities or your suppliers operate outside the UK, some of your organisation's data geographical location may well be outside the UK. Yes, you do need to know the actual geographical locations where your electronic data goes to, and those shifts of geography carry some risk. Quite aside from Brexit, if you send data outside the EU, you're likely to need to take extra formal steps to ensure the transfer is lawful.

There is considerable uncertainty, but it seems likely that, after a Brexit, you will need to put in place special contractual measures before you transfer data to the EU. If you don't, the risk is that you can send data to the EU, but you can't get it back, because EU law will say 'no'.

Big data deals

There are big ticket deals that are available to the lucky few. There is a growing trend of larger health and care organisations being invited, by private sector researchers, to provide patient-based data. Typically the data will be used for sophisticated research that pharmaceutical companies will use.

One feature of these deals is that the patient data normally needs to be de-identified before it's released to the research firm. Bear in mind that de-identification is really, really difficult to do, and (as is always the case when you're using data about people) you need to tell them what you're doing to ensure it's lawful.

Another common feature of these deals is that the research company seeks to own and fully control the data. You need to tread very carefully here. There are ways of doing it, but if you mess it up, ultimately you can lose the legal right to use your own operational data about your patients and service users. More likely, you lose the ability to work with other competing research firms, or to do your own home-grown innovation projects.

Part of the NHS's recently published *Long Term Plan* is to make the NHS a test-bed for new health tech – any digital product that companies want to introduce in the UK health and care system will come through HealthTechConnect. So, there are exciting times ahead.

Case studies

A healthcare provider in the West Midlands used a tablet app and a thermal imaging camera to help keep dementia patients safe, by checking their whereabouts and vital signs without disturbing the patient.

A national care home provider uses electronic customer feedback technology to improve residents' experiences, both to spot and resolve individual issues quickly, and also to identify trends to improve the experience for all.

A community healthcare provider in London uses location settings on iPads (with staff consent) to allocate staff to patients based on their location. The fact that the staff members have the devices with them also means that reporting can be done in real time.