# Big Data & Analytics
## in the Public Sector

northdoor

Store IT · Protect IT · Use IT

# Big Data & Analytics in the Public Sector:
a whitepaper from Northdoor

## Introduction

There is a big opportunity for the public sector to utilise **Big Data & Analytics**.  Public organisations are sitting on a wealth of data that - if properly exploited - could be genuinely transformative, increasing efficiency and creating new opportunities.

In the current economic climate, public bodies need to become more efficient, to continue delivering the core services that the public require.

On average most organisations only analyse 12% of their data[1] however a recent survey of civil servants in key roles showed that **Big Data & Analytics** is the most important factor for improving the efficiency of their work[4].

Healthcare is a prime example where **Big Data & Analytics** technologies can turn data into value, a recent study showed a potential £16 - 66 billion of efficiency savings, if the NHS employed data analytics better[2].

> " Knowledge and data are fundamental to the patient revolution that is so urgently required by our national health service
>
> **– Tim Kelsey – Director of Patients and Information at NHS England**[7] "

Get in touch

Email:  solutions@northdoor.co.uk

Telephone: +44 207 448 8500

Location: 1-3 Dufferin Street,
London, EC1Y 8NA

# Evidence-Based Decision Making

Analytics enables organisations to make evidence-based business decisions. When applied correctly these can increase the quality and efficiency of the services delivered.

Analytics can also provide an enterprise wide view of data rather than the siloed approach that is all too common in public sector organisations.

> " Nobody had access to all the data," says **Marlo Valente, Head of Enterprise Services at Leicester City Council.** "So when a new case was established by one of the teams, people would spend half a day ringing up colleagues for information[3]. "

**Areas where analytics can help public sector organisations include:**

▶ **Financial Management & Reporting**
Public Sector organisations have seen an increased demand for transparency and evidence of providing **value-for-money (VfM).** In addition to these challenges, the public sector has also seen further regulatory and compliance requirements and a reduced budget. Innovative financial management and reporting solutions, built on advanced analytics can help address this need.

**Workforce Analytics**

Continued budgetry constraints, combined with increased demand for services, has created an unparalleled set of challenges for workforce planning and management. Above all, public sector organisations are required to ensure that the public continue to receive core services whilst reducing the cost of delivery.

Conventional responses do not address these issues, and as a result public sector organisations require new approaches driven by insight to solve these challenges.

**Customer Analytics**

The demands of users - primarily driven by the advance of technology and expectations of digitally enabled services - has meant a fundamental change in the way public sector organisations have to target and deliver services to the public.
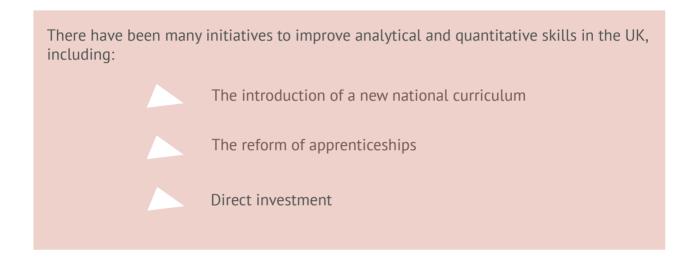
This move to **Digital-by-Default** in the method for delivery has been essential for public services to remain relevant to today's digitally savvy citizens, as well as being cost-effective when budgets are decreasing.

Utilising analytics on this data means that services can be delivered to the right people at the right time, whilst significantly reducing costs and increasing customer satisfaction.

# Challenges Facing Public Sector in Utilising Big Data & Analytics

## Overall Digital Skills Shortage

There is a major and critical gap in the availability of skilled people needed to better exploit data. Data analytics skills - a mixture of technical skills combined with analytical industry knowledge - is highly sought after.

There have been many initiatives to improve analytical and quantitative skills in the UK, including:

- The introduction of a new national curriculum

- The reform of apprenticeships

- Direct investment

Despite these efforts, demand is still outstripping supply[6]. This demand creates affordability and retention challenges for data scientists in the public sector.

**Cultural Shift**

In some public sector areas, adoption of **Big Data & Analytics** technologies has been slower, due to reluctance to change.  In a recent techUK meeting, the **Chief Data Officer for NHS England, Dr Lewis**, was asked why the NHS was not already using the data analytics tools that are available.  He responded that a 'cultural shift' is needed for healthcare professionals to trust data modelling and decision technologies[5].

**Data Platform Readiness**

Public sector organisations have some of the largest and most diverse data estates, and these represent challenges to delivering effective big data and analytic solutions.  Many data platforms are not geared up to deal with the increases in data or have the necessary frameworks in place to securely collaborate both within the organisation and with external parties.

# How we can help

Northdoor is an IT consultancy specialising in Data.  Data is the greatest asset to your organisation, an asset which we help our public sector clients exploit to transform their businesses and increase efficiency.

Northdoor has over 25 years' track record of delivering innovative solutions that deliver real business value; this is reflected in 8 out of 10 clients working with us for over 10 years.

In order to help organisations take advantage of **Big Data & Analytics**, Northdoor have the following offers for public sector & charitable organisations:

▶ Are you ready for **Big Data & Analytics**? - Free Data Platform Modernisation Assessment

▶ How can I transform my business with **Big Data & Analytics** – Free workshop & Report

For more thought-leadership and guidance for the public sector from the experts at Northdoor access the recent *Platform Modernisation in the Public Sector* whitepaper - **Click here**.

1 Data drawn from techUK Civil Servants Survey conducted by Dods Research, May 2015 -
Click here.

2 House of Commons Science and Technology Committee – *The big data dilemma* –
Fourth Report of Session 2015 – 16 -  Click here.

3 British City Council Improves Services and Gains Valuable Insight with Microsoft BI Solution:
Leicester City Council case study - Click here.

4 Research Council UK - Written evidence submitted by techUK (BIG0039) – Click here.

5 *Realising the Potential of Big Data in the Health and Social Care Sector* - Click here.

6 Research Council UK - Written evidence submitted by Research Councils UK (RCUK)
(BIG0057) - Click here.

7 *Sustaining Universal Healthcare in the UK: Making Better Use of Information* –
A Report by Volterra Partners for EMC - Click here.