



Finding the refiners of the 'new corporate oil'

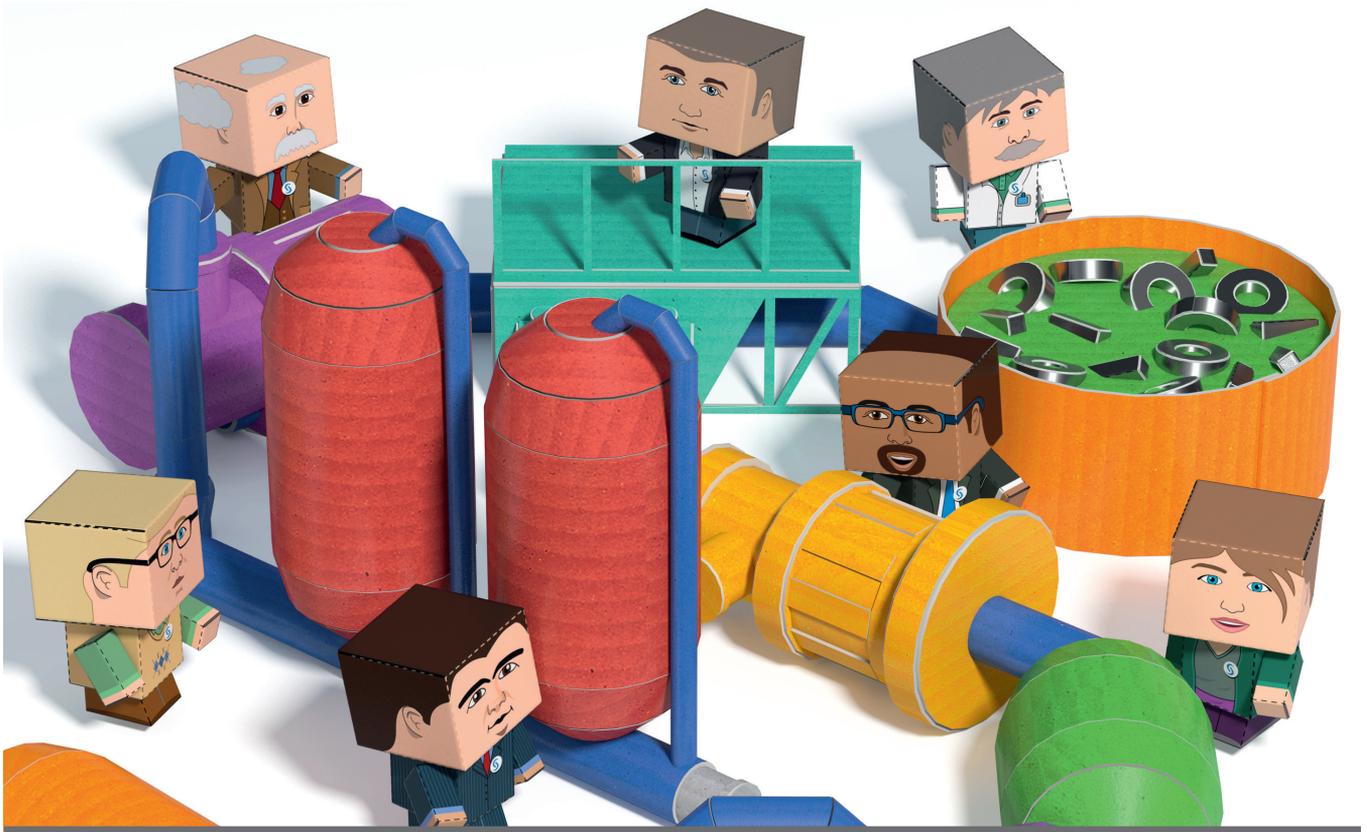
A SAS perspective on Tech Partnerships' Big Data Analytics:
Assessment of demand for labour and skills 2013-2020

October 2014



Big Data is the 'new oil'

Analytics talent will refine that oil to power UK information economy



SAS perspective

Big data is often called the 'new oil' that will fuel our economy in the coming decades, and data analytics the tools needed to refine that oil and release the powerful insight held within. But, to deliver on big data's potential, you also need refiners: people with the skills to use those tools to turn insight into decisive action. With the right tools and the right people, the value of big data will flow.

But demand for big data refiners is already outstripping supply, and the people needed to mine big data are becoming as precious and scarce as oil itself. If companies do not take action to remedy this, they will have to work hard and spend high to find and keep people to help them compete in the information economy.

New report

This report *Big Data Analytics: Assessment of Demand for Labour and Skills 2013-2020*, highlights this urgent need. The results of our survey reveal a tenfold increase in demand for big data staff in the past five years, with vacancies rising from 1,800 in 2008 to 21,400 in 2013 - an average annual

increase of 212 per cent. Over the past year, there's been a 41 per cent increase in the number of big data jobs posted - in contrast to demand for IT and data warehouse/business intelligence staff, which have fallen by 9 per cent and 6 per cent respectively.

The variety of positions advertised and skills required showed the diverse nature of the emerging big data discipline. Positions for developers accounted for 41 per cent of advertised vacancies, followed by architects (10 per cent), consultants (10 per cent), analysts (7 per cent), administrators (5 per cent) and data scientists (2 per cent). Unsurprisingly, demand for technical skills was high. Applicants were likely to need experience in big data (28 per cent), business intelligence (24 per cent), data



warehousing (16 per cent), ETL (13 per cent) and analytics (13 per cent). However, companies were also looking for candidates with the business acumen, interpersonal and managerial skills, and domain knowledge to apply big data insight and transform it into business strategy and action.



Scarce supply

The scarce supply of candidates meant that more than three quarters (77 per cent) of these big data roles were considered to have been 'hard to fill' - harder than other types of professional or managerial role, e.g. finance, marketing, sales etc. data scientists were thinnest on the ground - with 47 per cent of roles being 'very hard to fill' - followed by big data managerial positions and architects. Big data

recruiters also had difficulty in finding candidates with the right business, leadership and interpersonal skills to maximise the big data opportunity.

The increase in and diversity of vacancies could be seen as good news for the 'refiners' themselves. Big data professionals already command a median salary of £55,000 a year; 24 per cent higher than other IT staff and double the UK average full time wage. Advertised salaries for experienced big data specialists were highest in London and the South East, while project managers and architects attracted the most attractive rates. On the flip side, SAS' recent survey 'What Makes A Good Data Scientist?' revealed that big data employees are experiencing high levels of stress as they struggle to cope with the demands placed on them - which can often be outside their skill set or comfort zone.

With demand for big data specialists forecast to increase by 160 per cent between 2013 and 2020, adding 346,000 big data jobs, hiring and keeping skilled big data refiners could become a costly exercise. Not having the right tools and people could be a barrier to competitive advantage - not to mention economic growth - put upward pressure on big data salaries, and lead to burn-out among the precious big data specialists.

Working together

Businesses, the government and academia must therefore prioritise finding and developing these precious refiners, to ensure we have the right people, with the right skills and the right tools to mine the value in big data. SAS has committed £100m to doing just that through its academic programme alone.

SAS projects include grassroots learning aids in schools, the provision of free software to university research departments, and its SAS certification programmes. Through these initiatives, SAS is helping develop the next generation of big data refiners, and ensure big data becomes the fuel of economic growth to deliver a true information economy in the UK.



If you would like to become one of the 'refiners' delivering insight to power the UK information economy, start by downloading SAS University Edition today.

Get the SAS/Tech Partnership report:

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www.sas.com/en_us/software/university-edition.html

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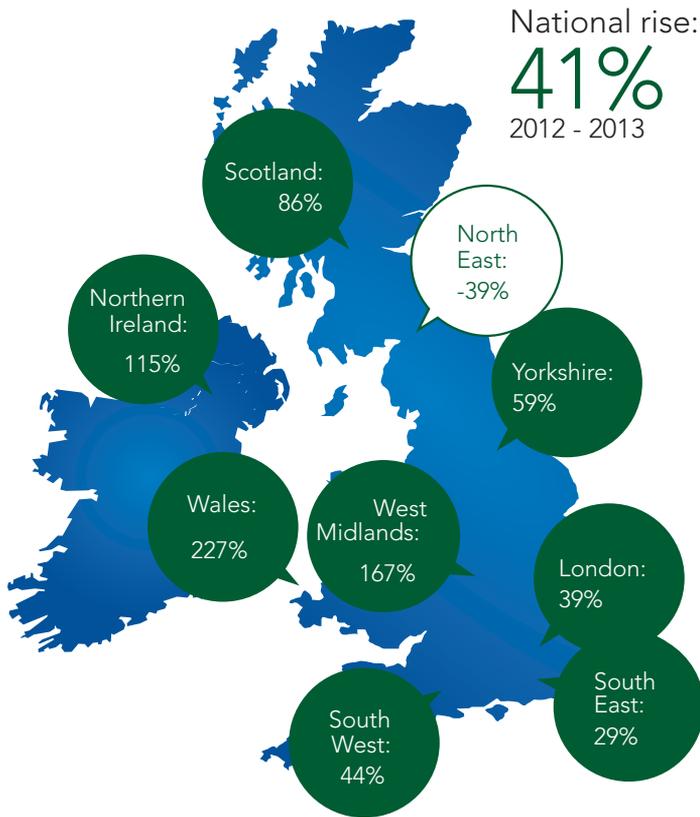
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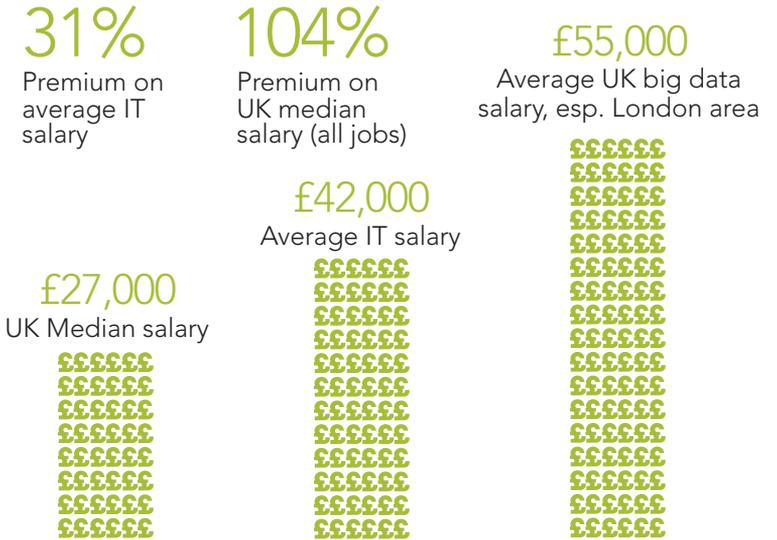
Big Data: the new oil

Analytics refines this new oil to power the Digital Economy

BIG DATA JOBS: DEMAND INCREASE ACROSS THE UK

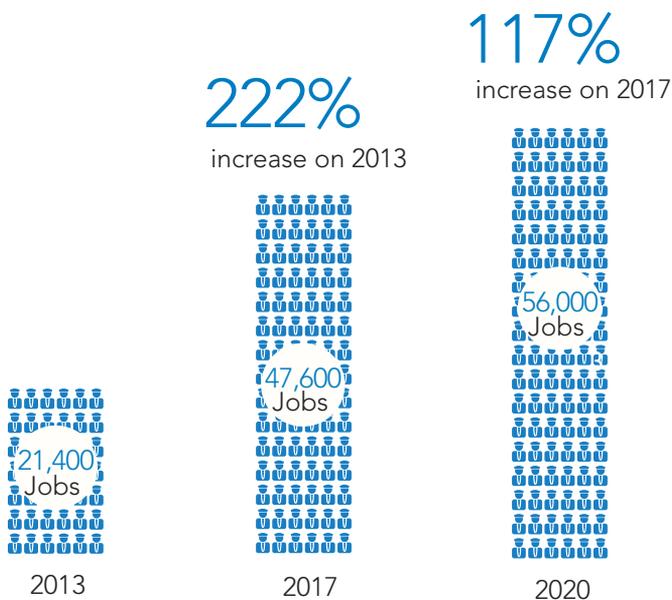


THE SALARY PREMIUM FOR EXPERIENCED BIG DATA PROFESSIONALS IN 2014



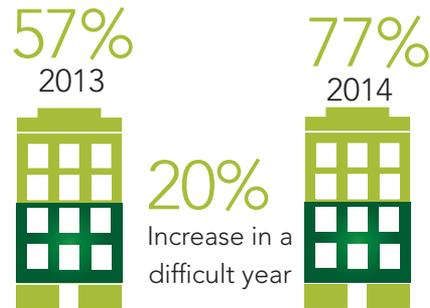
BIG DATA JOB OPPORTUNITIES TO 2020

6,400 UK organisations with 100 staff or more will have implemented Big Data Analytics by 2020



BIG DATA SKILLS RECRUITMENT

Big data recruiters say it is difficult to find people with the required skills and experience i.e. it is not all firms, just those recruiting Big Data staff



BIG DATA ANALYST SKILLS

A unique skill set is required to make the most of the opportunity offered by Big Data Analytics

