



Mango Solutions chosen to support Office for National Statistics in development of Data Science Campus

- Campus created to use data for optimised policy & operational decision making in UK



Mango's early strategic advice, defining processes and frameworks has had a considerable impact at a global level. Mango helped to ensure the Campus was up and running within 6 months and have helped to shape the foundation to where they are today. Bringing meaningful results within a short timeframe they have established a process for operational data science.

The Data Science Campus (the Campus) is part of the Office for National Statistics (ONS), which is the government's National Statistical Institute and the UK's largest independent producer of official statistics. The Campus was created in response to the review of economic statistics published in 2016 by Professor Sir Charles Bean. The review recommended that ONS set up a national hub for data science to harness the power of big data to help Britain make better decisions and improve lives.

The Campus opened in March 2017 in Newport, Wales and plays a key role in developing one of the most digitally skilled populations of civil servants in the world through a range of learning and development programmes, delivered both directly and in collaboration with key partners in ONS, the Government Digital Service, industry and academia.

With its roots firmly planted in dealing with traditional, linear data, such as ten yearly census information, trend data or early economic indications data; the ONS' remit for the Campus was to provide a fresh, 'Silicon Valley' feel technology environment for the Government.



Challenge:

The challenge for the Campus team was two-fold: how to get this initiative off the ground as soon as possible with minimal internal expertise available, and how to discover, define and estimate business aligned analytics projects and deliver them in a cost-effective manner to its key stakeholders.

Dave Johnson, Deputy Director for Knowledge Exchange, was tasked with setting up the Data Science Campus and Mango Solutions stepped in to help out.

Mango had recently been engaged by the ONS to modernise its analytic systems, so was already known among the ONS community and had earned a strong reputation for demonstrating real value. Following a tough procurement process, there was internal confidence that Mango were able to provide the necessary expertise to support the setup of the Campus.

Solution:

Mango approached this project from a long term perspective. Account Director Tim Oldfield said, "Rather than come in, do the work and then leave the team stranded, we came in for 9 months to spend time with the team, training them and advising them on best practise and approach so that, at the end of the 9 month period, a completely self-sufficient, extremely competent internal team were in place to continue the good work."

Mango began by providing an experienced team of 3-5 data scientists to reside at the Campus in Newport. During the 9 months that Mango Solutions was in situ at the Campus, it tackled the challenge with a phased plan:

(i) Best practice analytic infrastructure

As part of Mango's remit, the team were involved with developing a best practice analytic infrastructure for the team which included a Sandbox Data Lab environment, injecting commercial modelling techniques and algorithms into working applications. The team wrote reusable ONS packages including visualisations, report writing and libraries and trained and supported the team on their application.

(ii) Data science delivery

Mango built and mentored several production projects across the ONS including the United Nations funded Sustainability Development Goals, a system to monitor and measure world poverty based on 19 sustainable goals.

Two years on, the project has been scaled up and is now being used by other countries including the United States, Armenia and Rwanda, and is being further developed in to a fully-fledged website by the Sustainable Development team at ONS.

(iii) Build the analytic community

Mango supported the set-up of an analytic community within the Campus and helped to showcase the team's capabilities across the organisation; on the use of analytics tools as well as methods of best practice for data science frameworks. Mango then helped the team to develop this community by sharing examples of best practice and engaging with the business by presenting internally on agreed data science topics to stakeholders. The team at ONS now facilitates collaboration, ideas sharing and best practice frameworks with a common language for data science delivery.

Results

Mango's early strategic advice, defining processes and frameworks with established outputs has had a considerable impact at a global level. Explained Oldfield: "Mango helped to ensure the Campus was up and running within 6 months and have helped to shape the foundation to where they are today. We have brought meaningful results within a short timeframe, establishing a process for operational data science from scratch - the catalyst that jump started and framed the achievements to where the Campus are 2 years on."

The Campus' capabilities are now supporting other Government departments, academia and industry as well as international institutions.

'As part of their network, the Data Science Campus is working to push the boundaries of data science research within ONS, their partner networks across the UK and beyond', said Oldfield.