**Award-winning Robotics function at HMRC is improving customer service and job satisfaction**

# HMRC advisers use "robots" to reduce call times by 40%, improve customer service and increase job satisfaction

## Robotic solutions based on ideas from staff

HM Revenue & Customs (HMRC), the UK tax authority, is automating processes to give a better service to customers as part of their wider digital transformation. They are using Robotic Process Automation (RPA) to automate time-consuming clerical tasks, and link digital services and back-office systems for end-to-end processing, without significant IT development effort.

To grow robotics capability from scratch, HMRC worked with Capgemini to design, build and run Automation Delivery Centres (ADCs). This involved setting up a

### Key metrics for HMRC robotics solutions

- Return 2x project investment within a year

- Reduce processing costs by 80%

- Improve services, such as reducing call handling times by 40% in some cases

- Enable staff to spend more time on the customer-facing aspects of their roles

Capgemini

"HMRC are leading the way for Government in using RPA to deliver real savings and service improvements. Their vision and pioneering approach, creating a centre of excellence to identify opportunities and coordinate development, puts them at least two to three years ahead of the rest of Government. Their model is being mirrored by Cabinet Office to accelerate the use of RPA across government. Their willingness to share their experiences, has been instrumental in raising cross-government awareness."

**James Merrick-Potter,**
Cabinet Office

platform for robotics software that had never been deployed at such scale before, establishing an operating model, and building a team of experts who cross-skill new team members to meet demand.

The ADCs opened in April 2016, and within just 18 months they delivered 56 solutions that have handled nearly 7.5 million robotic transactions and are used by over 11,500 staff. HMRC's approach returns 2x project investment in-year and empowers their people to work with robotics, and is recognised as a leading UK Government example of using RPA to improve customer experience and job satisfaction.

## Automating processes for better customer service and efficiency savings

**Results include:**

- **Dashboards cut call times by up to 2 minutes**
  Dashboards give information and guidance to advisers' computer screens by automatically opening files from a number of different systems. For one dashboard, advisers previously had 66 mouse clicks to navigate different systems and they now get the information in 10 clicks to quickly provide the correct guidance.

- **85% of employer registration applications are processed automatically**
  Robots validate data from online applications and provide a unique reference number to new employers so they can start employing staff. If the robots detect a problem, they add helpful notes to a case file for the exceptions handling team. Employers receive confirmations quickly, and processing costs are around 80% lower.

- **Processing for 255 intelligent forms, with no significant IT development effort**
  Robots link iForms to the Digital Mail Service (DMS) which was originally set up to manage workflow for scanned customer correspondence. This has extended DMS functionality without significant development effort, which has minimised costs at the same time as improving customer service. Around 50% of Self-Assessment and PAYE calls are from customers checking the status of their form, so the robots are reducing call centre demand.

- **Centralised governance in the ADC**
  HMRC's Automation Delivery Centre (ADC) manages Robotic Process Automation (RPA) solutions from two UK centres which are co-located with Digital Delivery Centres. The ADC is made up of multi-disciplined teams of experts from HMRC and Capgemini who manage best practice robotic automation delivery across multiple projects.

  Robotics process, technology and digital specialists work with business owners to understand user requirements for business solution design and service management. They work together using agile methods to build, test and iterate robotics solutions quickly, and to ensure the automation will boost productivity and reduce processing costs.

  The ADC evaluates project ideas which come from staff across the organisation. Viable suggestions get put forward to the Robotic Automation Board for review, and the ADC manages the pipeline of proposals and delivery. When projects are approved, ADC teams ensure solutions are built around user stories, and automation components are re-used to minimise IT development work. It can take as little as 5 weeks to take ideas through the Discovery, Alpha, Beta and Live phase.

# The Collaborative Approach:

Capgemini helped HMRC evaluate the potential of robotics through a proof of concept to automate work previously done by a 30-strong team, which achieved 100% processing accuracy, enabled 25 staff to undertake more satisfying, customer-facing work, and 5 staff became super-users to manage exception cases. The outcomes contributed to a powerful business case for an automation delivery centre capability. The first iteration of the ADCs focused on environments and DevOps governance. Capgemini experts worked with HMRC process and technical stakeholders to deliver the platform to integrate robotics with HMRC's estate and then incorporated network, security, hosting and service level arrangements.

**Innovations include:**

- **Transcending traditional vendor/system integrator roles**
  HMRC chose new-to-market robotics technology which had never deployed at such scale, so joint-engineering expertise was needed, to understand the art of the possible. The robotics software provider trained Capgemini's lead platform architect in engineering elements of their product, blurring traditional vendor/system integrator roles for "this is what we want, but this happens, how can we get it working?" discussions, which instigated software enhancements ahead of projected product development plans.

- **Live-like test environment**
  Unlike most digital services, robots are very sensitive to small differences in how the applications interact with each other and also their behavioural differences in test and live environments. Capgemini overcame test-to-live release delays, by introducing a live-like test environment.

- **Developing robotics skills on real projects**
  The ADC is made up of multi-disciplined teams of experts from HMRC and Capgemini who manage best practice robotic automation delivery across multiple projects. To grow the ADC, the core team of experts on-boarded junior staff through an academy approach. New team members - including apprentices, graduates and people who cross-skill from other areas – work alongside mentors and learn by doing rather than relying on formal training. It is extremely rewarding to work on new solutions straight away and become mentors themselves, as their experience grows.

- **Empowering end-users to develop automations**
  The ADC governance which HMRC and Capgemini established spans robotics-specific interaction with business process and system owners, and step-by-step project templates. The clear operating framework and configuration capability for non-technical users has enabled HMRC to start providing robotics licences to business teams. As a result, tax advisors and other business specialists are empowered to develop their own solutions, with academy-style mentoring from the ADC either remotely, or face-to-face.

## About Capgemini

A global leader in consulting and technology services, Capgemini is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of 200,000 team members in over 40 countries. The Group reported 2016 global revenues of EUR 12.5 billion.

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## About HMRC

HM Revenue & Customs (HMRC), the UK tax authority, is responsible for making sure that the money is available to fund the UK's public services and for helping families and individuals with targeted financial support.

For more information, please visit:
**www.hmrc.gov.uk**

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