# *Chapter 1*

# Background and introduction to technology and tax administration

*Effective deployment of e-services and emerging technologies can assist revenue bodies in providing better services to taxpayers and lower their operational cost, while at the same time enhancing taxpayer compliance. The options available to revenue bodies are many and varied. While the cost of implementation may be high, the opportunity cost of not moving decisively into this space is higher.*

*It is therefore important that revenue bodies have sound and relevant information at their disposal to inform organisational decision-making and reduce the investment risk, whilst improving the end-to-end customer experience and overall levels of compliance.*

*This chapter provides the background and context for the E-services and Digital Delivery Project, describes the methodology and the work process used in the preparation of this report, and provides the rationale for selection of the issues which this report addresses.*

## Context and background

At the March 2015 Forum on Tax Administration (FTA) Bureau meeting, Commissioners endorsed a proposal by the Federal Tax Service of Russia (FTS) for it to lead a project to explore the latest developments in information technology that could enhance service delivery within revenue bodies, particularly focusing on developments in e-services and digital delivery.

This project continues the FTA series of studies focused on service delivery by revenue bodies from the FTA country members.

In 2011, the FTA conducted a study entitled *Working Smarter in Revenue Administration – Using demand management strategies to meet service delivery goals* (OECD, 2012a). That report noted that despite investment in multi-channel service models and objectives to move taxpayers to online channels and self-service, many revenue bodies continued to experience high demand for services in their more expensive channels, such as in person and inbound call channels. The report identified opportunities for revenue bodies to review the way they organised the demand management task, including governance, data capture and measures of success, in order to identify and address the drivers and root causes of demand rather than managing the demand itself.

In 2012 the FTA published *Managing Service Demand: a practical guide to help revenue bodies better meet taxpayers' service expectations* (OECD, 2013a). The guide, which was based on observed best practice from member countries, provided a governance model and offered guidance to help identify and address drivers and root causes of service demand.

Acknowledging the developments in technology, continuing pressures on reducing revenue administration costs, and growing demand from taxpayers for service improvements, the FTA in October 2014 published *Increasing the use of self-service channels* (OECD, 2014a). This report proposed a framework for the evolution of digital "self-service channels" in tax administration, and made recommendations as to how to increase the take-up and use of self-service offerings. The report identified four key elements that revenue bodies needed to systematically work on to achieve change in this area, namely: monitoring and understanding service demand; applying user-centred service design; purposeful implementation, using push and pull approaches to drive take-up; and effective channel management to direct taxpayers to self-service options.

This latest report strengthens the FTA's work in advocating the use of effective service design and contemporary services to enhance taxpayer compliance, as outlined in *Right from the Start: Influencing the Compliance Environment for Small and Medium Enterprises* (OECD, 2012b). The report

also draws on other OECD publications including *Together for Better Outcomes: Engaging and Involving SME Taxpayers and Stakeholders* (OECD, 2013b) and *Tax Compliance by Design: Achieving Improved SME Tax Compliance by Adopting a System Perspective* (OECD, 2014b).

### *Methodology*

The report is prepared by the FTS with support from the OECD Secretariat and an Advisory Group with representatives of revenue bodies from Australia, Denmark, New Zealand and Singapore. The Advisory Group was tasked with assisting the FTS in delivery of the project and in particular helping to confirm the project scope following the July 2015 workshop and approving the content and observations contained in this Report.

The Report is based on information gathered on the latest developments in information technology that are already being used, or in some cases, could be applied by revenue bodies to improve the efficiency of e-service delivery. This information was sourced from technology conferences, workshop presentations and country examples provided by revenue agencies, as well as examples provided by private sector representatives.

The FTS hosted two workshops in Moscow in July and in November, 2015. They brought together senior managers and subject matter experts from revenue bodies of 25 FTA member and non-member countries from: Armenia, Australia, Belarus, Brazil, China, Denmark, Estonia, Finland, Germany, Hungary, India, Italy, Japan, Kazakhstan, Malaysia, Mexico, Netherlands, New Zealand, Russia, Singapore, South Africa, South Korea, Spain, Switzerland and the United Kingdom. The workshops were also attended by a number of private sector consultants from Accenture, EY, Gartner, PwC, Teradata and Vertex. These industry leaders have shared their research and insights into the development of information technology as well as provided their views on how technology can be applied in service provision in revenue body.

The first workshop canvased the views of participants to explore and identify common taxpayer expectations of digital services. It also allowed revenue bodies to outline how they were responding to these. The delegates of the first workshop identified eight common technological features of particular interest to revenue bodies:

- Digital-by-default
- User-centric design with tailored engagement
- Single taxpayer file
- Leveraging partners in digital ecosystem

- Smart portal solutions and natural systems
- Use of mobile apps
- Big Data and data analytics
- IT infrastructure

Many of these technological features are part of revenue body's current work programmes to improve their service delivery capability.

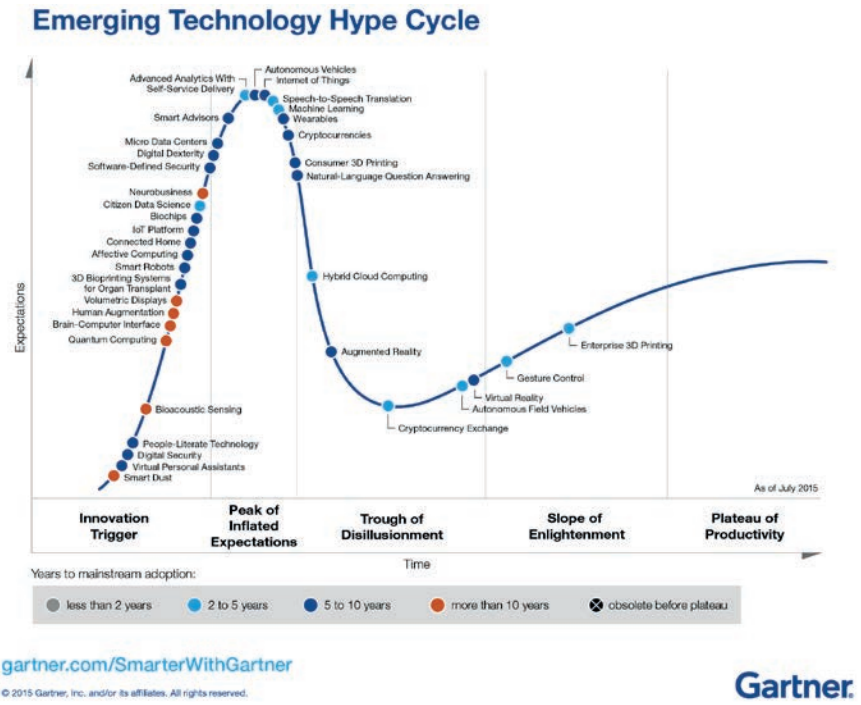
The feedback from the initial workshop was summarised for FTA members, and, after consultation with the OECD Secretariat and the Advisory Group, the FTA agreed that the project should focus on two areas that were considered to offer the most value to participating revenue agencies at this stage: *Big Data and Analytics* and *Smart portal solutions and natural systems*, with the exploration of Big Data to focus more on the technology aspects rather than data analytics, which was the subject of other work by the FTA's Advanced Analytics programme.

*Big Data Management* and *Portal solutions and natural systems* were explored in detail at a second workshop in November 2015. During the course of which participants agreed that the term portal solutions should be read as *digital presence* out of concern that portal tended to suggest websites accessed from laptops or personal computers (PCs), when the work was intended to explore administrations' wider thinking on the subject which included portals, apps, application programming interfaces (APIs), chat, social media, video and other digital approaches to providing access and service to taxpayers.

For a more practical approach, it was agreed with the Advisory Group that the project would develop a Tax Administration Digital Maturity Model for tax administrations to use as a tool to assist in self-assessment of their organisations' digital maturity level. In this Report the Digital Maturity Model addresses the issues of Big Data and Smart Portal Solutions and use of Natural Systems.

Besides workshop presentations and discussions, this Report was supplemented by information obtained as a result of participation in technology conferences and additional research, especially in the areas of Big Data and development of the Digital Maturity Model for revenue bodies. The project also made use of the Emerging Technology Hype Cycle. This is a branded graphical presentation developed and used by US Information Technology (IT) research and advisory firm Gartner that illustrates the maturity, adoption, and social application of specific technologies (see Figure 1.1). Tax administrations are encouraged to utilise models such as this to help them monitor and identify which emerging technologies have a potential to impact their operations and how they may leverage these in the delivery of the tax system.

Figure 1.1. **Hype cycle of emerging technologies**




*Source:* Gartner, 2015.

### *Project objectives*

The effective deployment of e-services and emerging technologies can assist revenue bodies in providing better services to taxpayers and lower their operational cost, while at the same time enhancing taxpayer compliance. The options available to revenue bodies are many and varied. While the cost of implementation may be high, the opportunity cost of not moving decisively into this space is even higher. It is therefore important that Tax Commissioners have sound and relevant information at their disposal to inform organisational decision-making and reduce the investment risk, whilst improving the end to end customer experience and overall levels of compliance.

Following the July workshop, the Advisory Group endorsed the following objectives for the E-services and Digital Delivery Project:

- Identifying emergent information technologies, especially in the area of digital delivery and e-services that can enhance service delivery

in revenue bodies, and describing how these can help address service expectations of taxpayers; and

- Exploring in detail two of the key issues identified: digital presence and natural systems, and Big Data management.

## Report structure

The introductory chapter provides the background and context for the study, outlines the project scope and objectives, and explains the methodology used in preparation of this report. The remainder of this report is organised as follows:

*Chapter 2* provides a strategic context for the challenges that revenue bodies face in delivery of modern services to taxpayers. Particular attention is paid to taxpayer expectations that drive development of e-services and digital delivery by revenue bodies. It also provides an overview of common technological features of a mature tax administration and includes illustrative examples that describe current best practice and countries' activity to address taxpayer's expectations of digital tax services.

*Chapter 3* provides an overview of Big Data technology and elaborates on the impact it is making on business models in the commercial sector and in some revenue bodies. The chapter describes potential benefits and opportunities that revenue bodies can achieve through the application of Big Data technology. It also provides a description of Big Data architecture and practical guidance to the process of transforming a tax administration into a data-driven intelligence-led organisation, specifically addressing organisational and cultural change. These elements are brought together in a Tax Administration Digital Maturity Model for Big Data Management that allows administrations to assess their current Big Data capability and practices, and to set objectives and develop strategies for reaching higher maturity levels.

*Chapter 4* explores the use of portal solutions and natural systems by revenue bodies, providing examples of revenue bodies' digital presence experience and smart customer centric portal design. It describes the approach to delivery of digital services and the main features of a tax administration smart portal with particular focus on security of access, certainty of use and proactive customised customer experience. It also provides the Tax Administration Digital Maturity Model for Portal Solutions, which will allow revenue bodies to self-assess their current services offering.

*Chapter 5* summarises the key findings from previous chapters and sets out recommendations that revenue bodies may consider to make progress in this area.

# *Bibliography*

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