

Tax Administration 3.0 – the 21st Century



- Vision of Tax Administration 3.0
- Building Blocks of Tax Administration 3.0
- Digital Transformation Maturity Model

[Publications - Forum on Tax Administration \(oecd.org\)](https://www.oecd.org/)

What the citizen sees and interacts with



Taxpayer Touchpoints

How the community engages with tax administration and government

Business management systems are the primary touchpoints for businesses

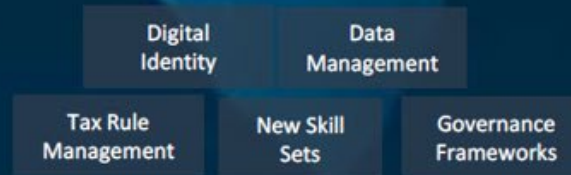
What happens below the line to achieve an integrated, frictionless experience



Natural systems

Operate in sync within whole of system governance frameworks

- Taxpayer obligations and requirements for eligibility of benefits are fulfilled as part of the normal course of activities
- Interoperable ecosystems enable validation & automation of data and data flows



Building Blocks

Required to enable Tax Administration 3.0

Highlights of the change



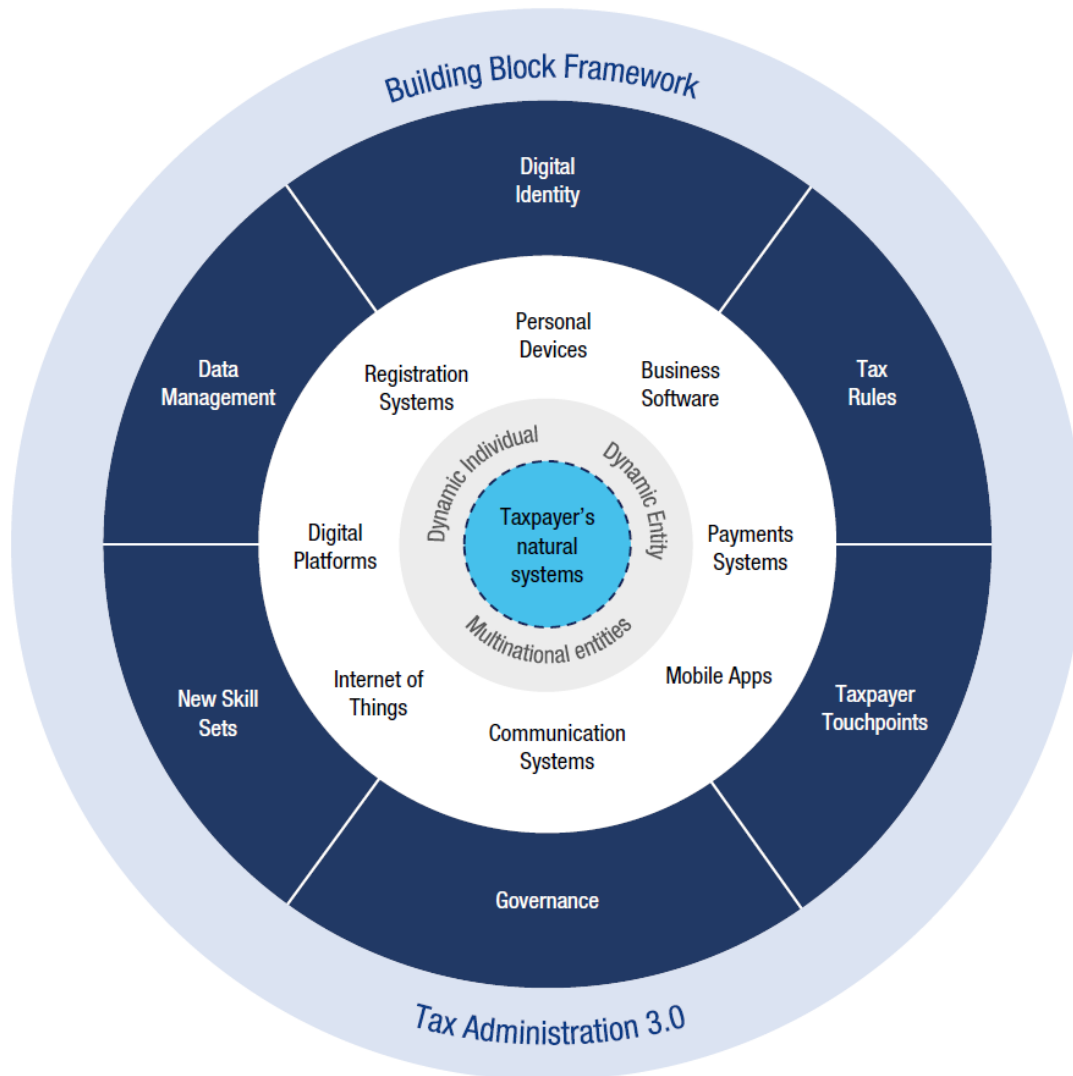
- Forms- and filing-driven (electronic and paper)
- Data is periodic, historic, collected manually
- Manual, slow and expensive
- Retrospective risk management
- No common ecosystems
- Co-operation is momentary

- Data-driven
- Data is event-based, detailed and real-time
- Enables validation and automation
- Enables verification of data and its source beforehand
- Interoperable ecosystems
- Enables international co-operation

Core Elements of Tax Administration 3.0

- *Embedded within taxpayer natural systems:* Paying taxes will become a more seamless experience; natural business behaviors and systems will increasingly be the starting point of taxation processes.
- *Part of a resilient “system of systems”:* Many digital platforms will become “agents” of tax administration carrying out tax administration processes within their systems. Some digital platforms are collecting tax and transferring payments, while others identify taxpayers and liabilities and share results and tax relevant information.
- *Real-time tax certainty provider:* Tax administration processes will be increasingly real-time or close to real-time. Swift and accurate provision of tax certainty is provided. Artificial intelligence tools and algorithms will support the characterization and assessment of liabilities and will increasingly support decision making.
- *Transparent and trustworthy:* Taxpayers will have the opportunity to check and question taxes assessed, paid and due in real-time; tax administration processes and results will be increasingly accessible and transparent.
- *An integrated part of whole of government:* Taxation is increasingly joined-up with other government services and functions, as well those of private actors, employing common engagement models with citizens and business.
- *A human touch and high-tech adaptive organization:* Tax administration processes are structured and governed around customer-centric perspective. The key to success is intertwining human staff and skills with advanced analytics and decision-supporting tools such as AI. The agility of people, processes and systems assures tax administration’s alignment with societal and economical change as well as adequate response to changes, including crises.

Tax Administration 3.0 Building Blocks



1. Digital Identity

- ▶ Helps and enables integration into customers' natural systems

2. Taxpayer Touchpoints

- ▶ Real time support and guidance, given as close as possible to customers natural systems and inside those systems if possible

3. Data Management

- ▶ Compliance is maximized with the least burden, data is processed where it is most efficient and meaningful (Tax administration's, customers' or in both systems), data quality and the availability of necessary data combined with relevant metadata is assured

4. Tax Rules

- ▶ The creation and sharing of tax rules in a trusted standardized format that is possible to integrate into customers' natural systems, the verification of data validity straight from the data source (customers' systems)

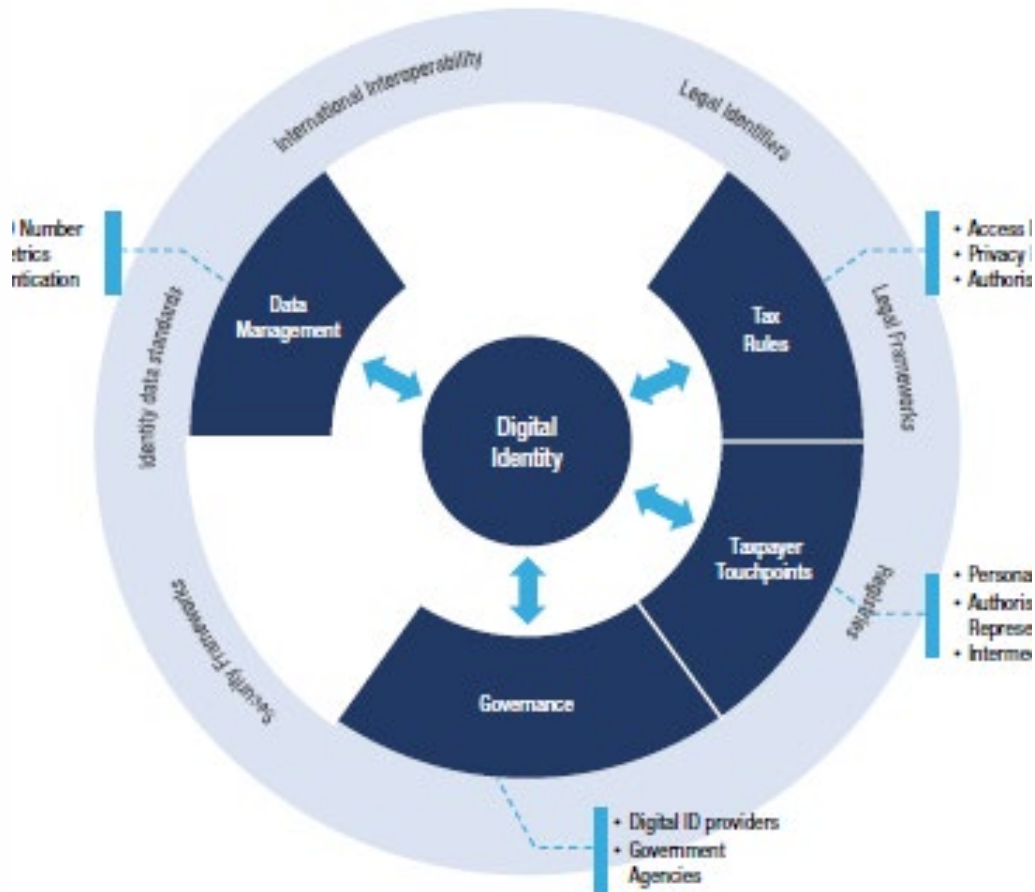
5. New Skill Sets

- ▶ In the midst of digital change, it is important to ensure the right skills through strategic planning, AI-capabilities

6. Governance

- ▶ Guides development, implementation and the relation of other building blocks in the national context and with international stakeholders

Digital Identity

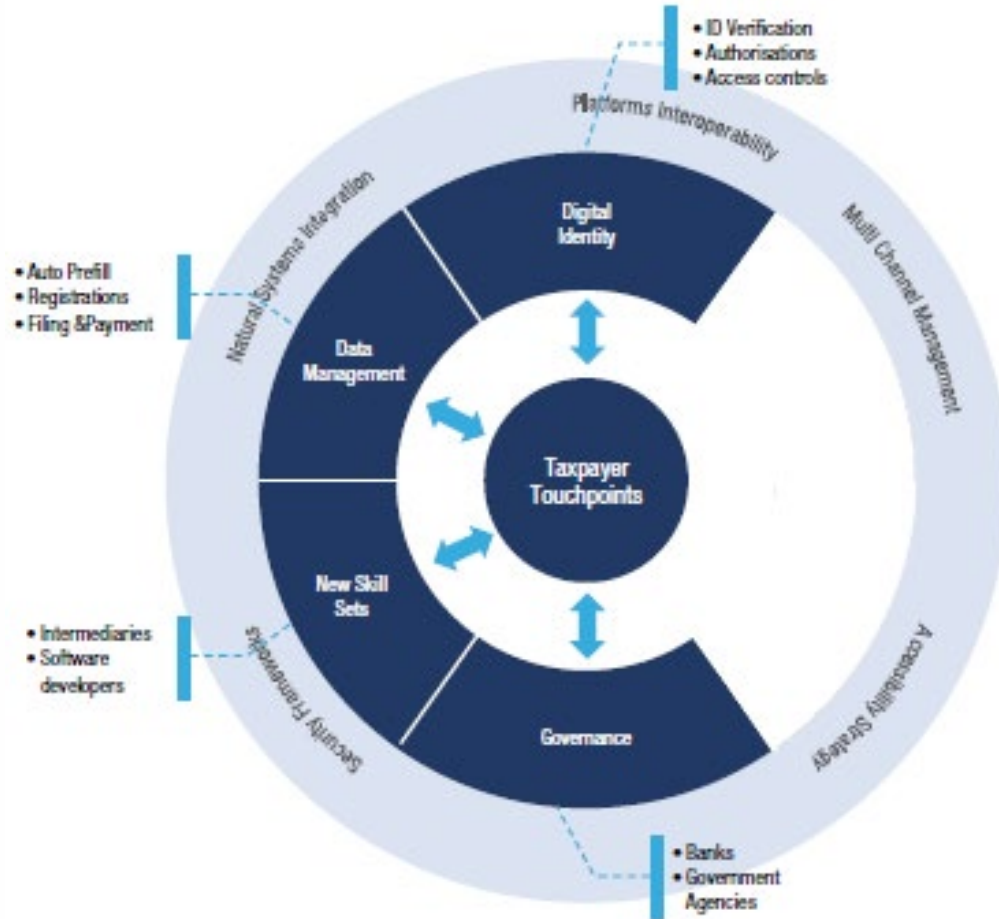


- Providing certainty regarding the identification of all actors in the system, including for the taxpayer in terms of security of their identity and ease of use
- Allowing systems to interact with each other based on this unique identity, enabling the sending and matching of personal data and instructions in real-time, giving access to secure services and facilitating seamless movements between portals.
- Allowing the delegation of representation subject to different levels of permission.
- Supporting the automatic application of tax rules as an integral part of daily and business life

Digital Identity

- The main characteristics of an established implementation are:
 - Every taxpayer has a form of tax identification number (TIN)
 - A range of digital taxpayer services and data can be unlocked at specific taxpayer touchpoints by using the taxpayer's digital identity.
 - A framework is in place around the use of digital identity to ensure privacy and security
- **The next steps in digital identification maturity** will increasingly allow the same digital identity to be used in multiple interactions with other parts of government, with third party data providers and in private sector applications domestically and across borders.
- To begin this journey, tax administrations may wish to consider:
 - Mapping of the benefits and potential challenges of digital identity solutions that arise from the integration of digital identity with other aspects of citizen's and businesses' daily lives.
 - Developing a high-level digital identity architecture in co-operation within government, with the private sector and with other tax administrations.
 - Understanding the flexibilities needed within the architecture to future-proof digital identity verification in order to keep the system secure
 - Identifying priorities for the integration of digital identity functionalities between the tax administration and other public or private sector organizations.

Taxpayer Touchpoints



- Providing real-time support where friction cannot yet be eliminated within the administration's processes or arises due to external events
- The touchpoints should be capable of providing analytical data to facilitate understanding of where friction arises and how it might be resolved
- Enabling integration through application programming interfaces with other systems within government, business management systems and other appropriate applications

Taxpayer Touchpoints

- The main characteristics of an established implementation are:
 - A tax administration website or mobile channels offering a joined-up suite of e-services
 - Support offered through call centres or via web chat
 - The use of digital PAYE-like or other systems which substantially remove or eliminate burdens on employees
 - The implementation of an accessibility strategy for those unable or less able to use digital channels.
- **The next steps in taxpayer touchpoint maturity** involve greater integration of touchpoints into taxpayers' natural systems. This will be one of the major contributions and prerequisites of moving to seamless experiences.
- In addition to businesses conducting tax administration tasks within their systems, all kinds of digital platforms will form part of a network of trusted third parties.
- Artificial intelligence tools and algorithms within taxpayers' natural systems will support the characterization and assessment of liabilities and inform taxpayer understanding and choices.
- To begin this journey, tax administrations may wish to consider:
 - Increasingly automating the pre-filling of tax returns for individuals and some business taxes.
 - Developing their understanding of the main friction points for different types of taxpayers and strategies for minimizing them
 - The introduction of taxpayer accounts in which payments and liabilities are set out with supporting explanations.
 - Integrating taxpayer services like registration, digital identity and debt management within a whole of government approach.
 - Identifying opportunities for joined-up tax service provision with digital platforms and other third parties.

Data Management and Standards



- Ensuring that there is robust and continually updated data security in place, protecting against misuse of data within the administration and by external actors
- Setting the high-level framework of data sources and the minimum requirements for the content, quality, transferability, availability and archiving of tax relevant data as well as metadata
- Avoiding the specification of rigid and inflexible formats for the provision of data
- Continuous mapping of the data sources that would enable tax administration functions to work seamlessly.
- Supporting data re-use to help other government bodies in delivering their functions, governed by an appropriate legal framework.

Data Management and Standards

- The main characteristics of an established implementation are:
 - Most taxpayer data which has come into the administration is available within databases that are accessible across the tax administration, supporting the fully digitalized data exchange with the tax administration and the use of data analytics
 - Data collected from third parties is gradually increasing in a move to greater pre-filing of tax returns. More systematic data collection is being undertaken, particularly e-invoicing and online cash registers
 - Formal models and arrangements implementing data privacy and security legal frameworks govern the public-private electronic exchange of taxpayer data
 - Some data is exchanged automatically on an international basis and is primarily used for risk assessment and compliance purposes rather than fully integrated into assessment processes
- **At the leading and aspirational maturity levels**, administrations will increasingly take more of a stewardship role regarding data. This will call for a balance to be struck between large amounts of data coming into the administration to be assessed and the use of trusted outputs from taxpayer's systems.
- To begin this journey, tax administrations may wish to consider:
 - Developing high-level standards for data collection, transfer and assurance. As far as possible, these should be flexible enough to allow taxpayers to use their own preferred systems or technologies.
 - Building business cases for areas where the administration would process bulk data or would rely on outputs processed within taxpayers' systems. These will need to take account of data privacy and protection issues.
 - Developing the requirements for adequate legal gateways for both models, including reviewing the restrictions on the purposes for which data is collected.

Tax Rule Management and Application



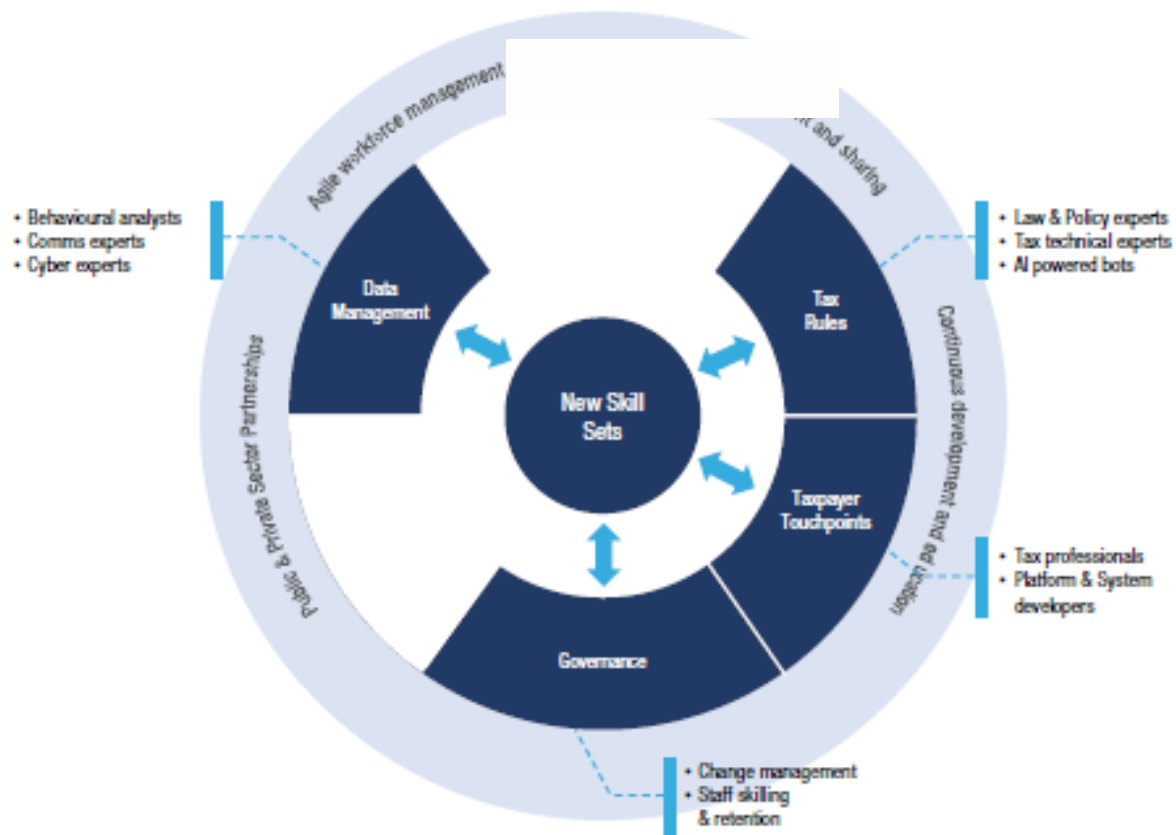
- Providing clear specifications of the tax rules, which can be incorporated into software systems and applications used by taxpayers.
- Developing an assurance framework for the approval of software incorporating tax rules for the outputs for those rules to be accepted by the administration
- Developing libraries of application programming interfaces (APIs) which can be used to receive information from the tax administration and transfer information from the taxpayer's natural systems into the tax administration systems.
- The development of mechanisms to address uncertainty within the application of tax rules, including AI

Tax Rule Management and Application

- The established maturity level of tax rule management and application is characterised by:
 - The publication and distribution of rules for a number of taxes or reporting systems which are processed in the internal systems of some taxpayers, e.g. pay roll taxes and VAT
 - Verification of such systems is varied, with some certified by tax administrations and others assured through audits. Assurance over the application of such systems is generally done through risk-based audits
- **At the leading and aspirational maturity levels**, tax administrations are devoting more resources to enable the integration of tax rules into taxpayers' natural systems, working closely with businesses and developers to maximize flexibility and agility to avoid being tied into outdated solutions.
- On the taxpayer side, machine learning is likely to be used to apply tax rules where there is a degree of uncertainty. Uncertainty may be minimized over time as such systems take on the results of dispute resolution cases and identify where legal clarifications may be needed.
- To begin this journey, tax administrations may wish to consider:
 - Implementing systems-independent tax rule specification for integration into taxpayers' own business management systems.
 - Piloting the development of tax rule specification, in co-operation with developers, alongside the development of new tax legislation.
 - Piloting the implementation of artificial intelligence in tax administration advisory and assessment processes.

New Skill Sets

Figure 4.12. New skill sets

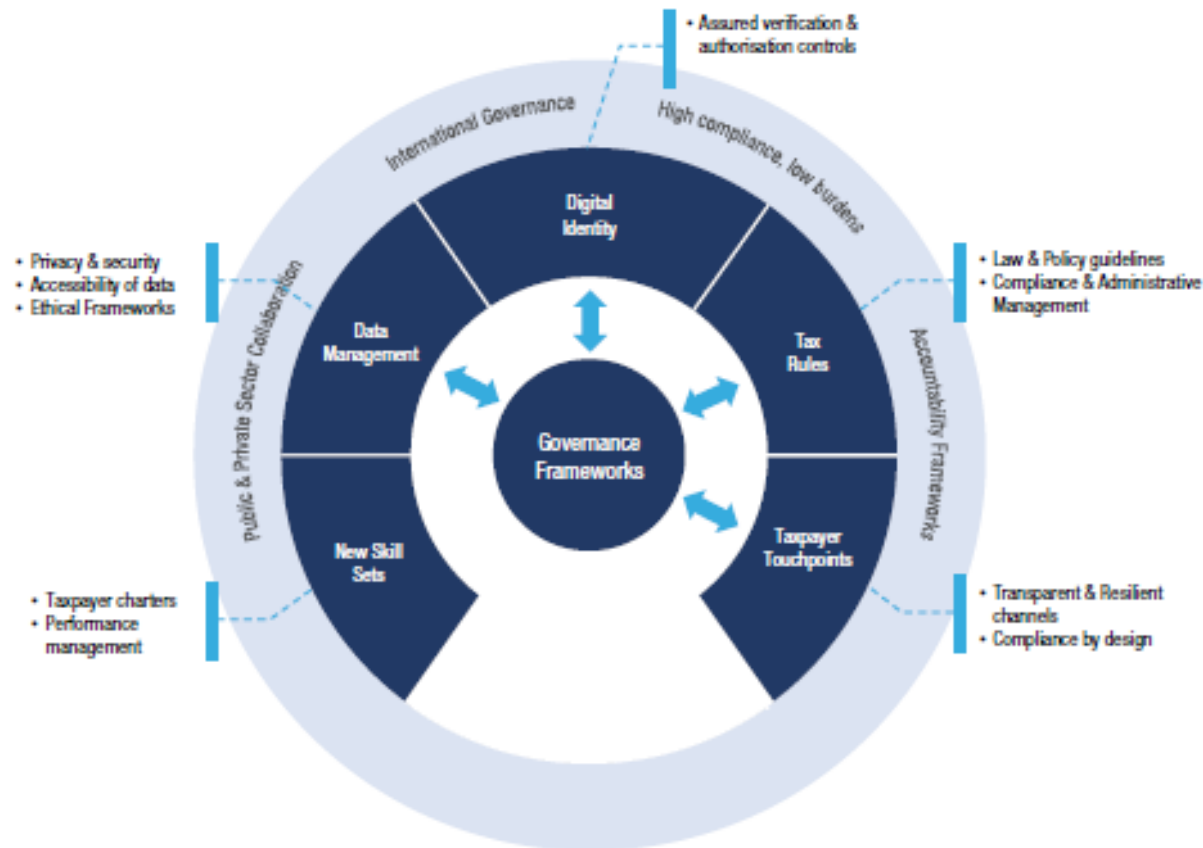


- Management and professional technical skills appropriate for operating within a highly integrated ecosystem. This will involve co-managing and co-creating external networks with different objectives, responsibilities and risks.
- Being highly agile to respond to changes in tax rules, business models and taxpayers' behaviors, including changes in their natural systems, and crises.
- Understanding of new phenomena and the consequences of the measures required, skills appropriate for system modelling and understanding of new business models.
- A shift in the mix of skills:
 - an understanding of complex tax rules and compliance risks
 - the ability to translate tax rules into instructions which can be incorporated into the systems
 - technical audit expertise to assure and verify systems
 - relationship managers to support the implementation and ongoing operation of tax processes
 - designers, including behavioral scientists and communication experts, to help develop appropriate taxpayer touchpoints
 - cybersecurity and data protection professionals.

New Skill Sets

- The established maturity level of the new skills building block has the following main characteristics:
 - The mix of skills within administrations is focused on the performance of current functions, with a focus on compliance management, customer services and internal process. This is supported by increased use of digital tools and training programs.
 - The use of data analytics skills has become an important part of the overall compliance risk management system. More administrations are also starting to use behavioral scientists.
 - The recruitment and training of staff for the development of new e-services. In many administrations most IT staff will be mainly focused on the maintenance of existing legacy systems and bridging between them.
- New skills building block, together with the governance building block, will be critically important for ensuring progress in the more technical parts of the new infrastructure.
- This is likely to require additional staff for a period since they will be doing different things than the staff focused on managing the current tax system.
- To begin this journey, tax administrations may wish to consider:
 - Defining the future skill sets which may be required during the transition period. This will likely include a combination of in-house and outsourced personnel.
 - Developing an understanding of where administrations may be able to cooperate in the development and maintenance of the new infrastructure
 - Building a framework setting out the expected involvement of tax administration staff in decision making in automated systems
 - Creating and enabling a culture of change, including retraining and reskilling

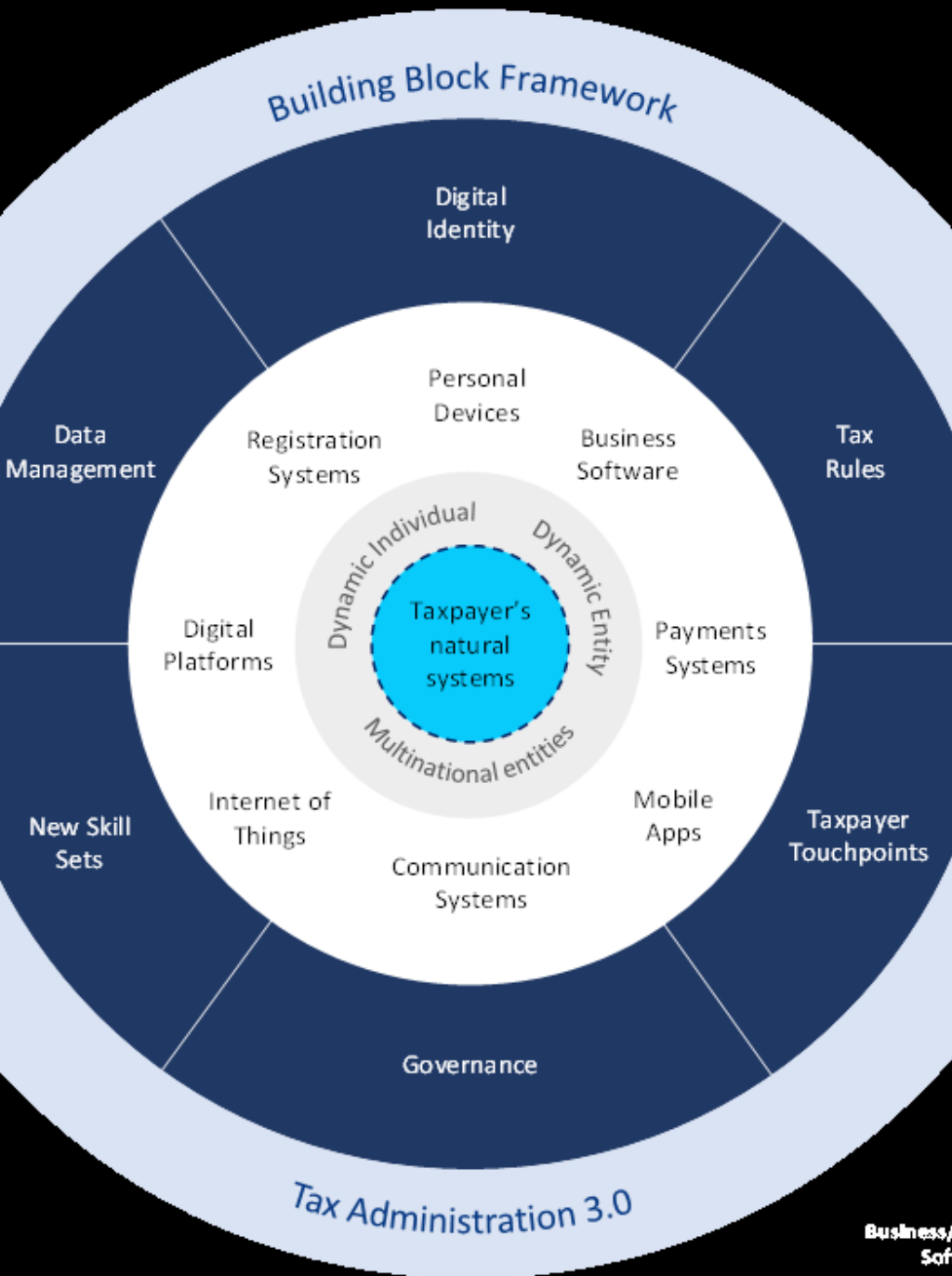
Governance Frameworks



- Providing governance structures that bring together public and private sector representatives
- Agreeing on the key priorities for collective work and delivering the high-quality resources needed to support that work
- Providing reassurance on the effectiveness and efficiency of the overall tax administration system as well as its resilience and agility for handling change and for responding to undesirable outcomes and behaviors
- Providing mutual reassurance as to the security and protection of data by all actors in the system

Governance Frameworks

- The established maturity level of the implemented governance framework is characterized by:
 - A clear distinction between the setting of tax policy and the role of the administration in administering tax policy in a fair and independent way.
 - Legal frameworks governing data privacy, accountability, taxpayer rights and formal dispute resolution and appeals.
 - Internal and external accountability frameworks, including complaints mechanisms, consultative arrangements, standing stakeholder groups, taxpayer charters and performance management measurement and reporting.
 - Cooperative arrangements with other tax administrations governed by tax treaties for the exchange of information, prevention of double taxation and dispute resolution.
- Digital transformation will offer new possibilities for allocating activities, responsibilities and accountability among public and private sectors stakeholders. In the end, tax administration is a transparent part of a wider system which includes taxpayers' natural systems. This will require new governance arrangements to ensure the smooth development, implementation and oversight
- To begin this journey, tax administrations may wish to consider:
 - Taking a leading role in explaining the need for Tax Administration 3.0 and bringing together stakeholders to flesh out the vision for their jurisdiction
 - Developing strategic toolkits to support the prioritization of activities, enhanced co-operation between stakeholders and to help reach agreement on forms of co-operation and next steps
 - Articulating strategies and accountability frameworks regarding public/private co-operation on the digital transformation of tax administration, including sustainable engagement models and consultation arrangements with societal stakeholders
 - Piloting projects on digital identity and e-invoicing to help develop effective models of co-operation in practice.



Digital Transformation Maturity Model

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Aim of the Maturity Model

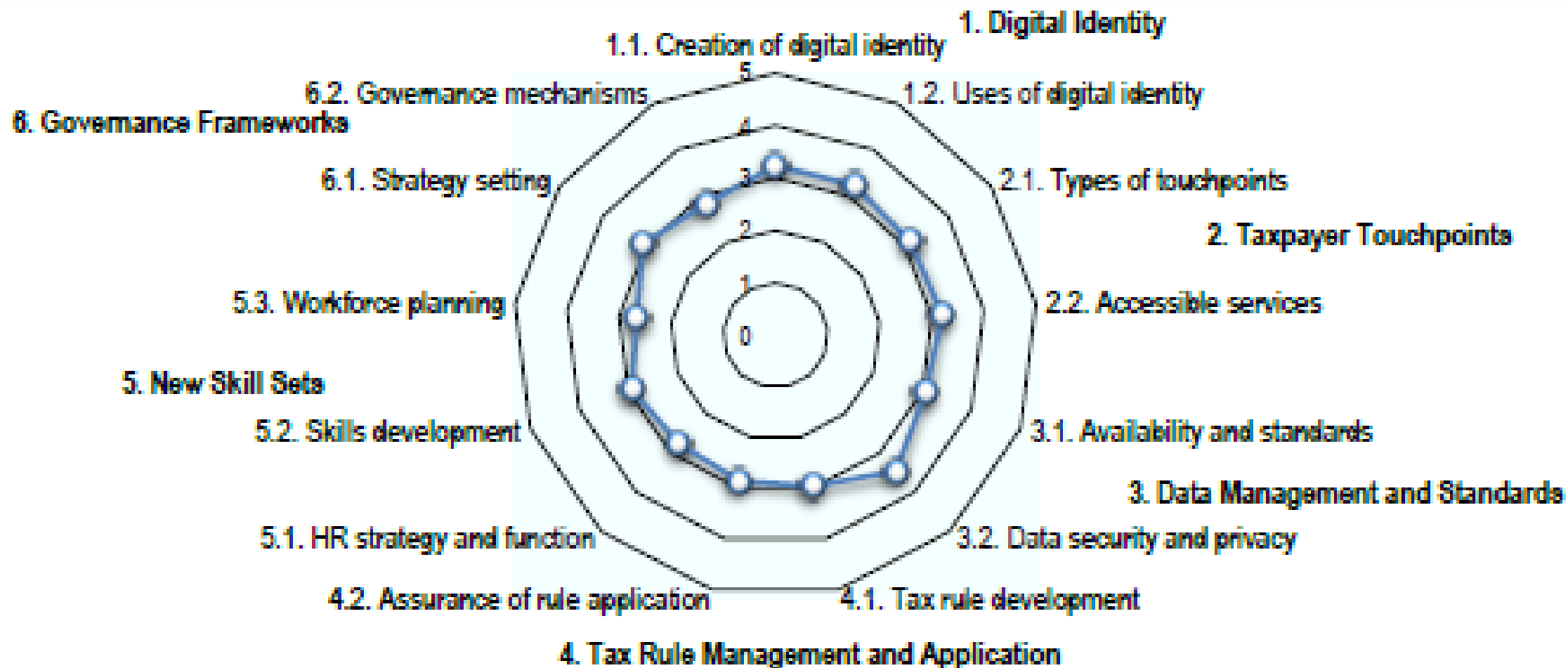
- Help an administration assess, where they see themselves as to their current level of maturity and the possible considerations for improvement. The level of optimal maturity will depend on each organization's circumstances, broader objectives, and priorities.
- Provide staff and senior leadership of the tax administration with a good overview of the level of maturity based on input from stakeholders across the organisation. This can help in deciding strategy and identifying areas for further improvement. Cross-organisational conversations when self-assessing can be useful in joining-up different business areas, helping people see the scope for synergies and identify areas for mutual support.
- Allow tax administrations to compare their level of digital maturity with the other tax administrations. It is also possible for tax administrations to reach out to other tax administrations at different levels of maturity for peer-to-peer discussion and learning purposes

Maturity Levels

- The Model sets out five levels of maturity. The middle level, “Established”, provides a description of where, on average, Forum on Tax Administration (FTA) members are expected to cluster. The other levels of maturity try to describe the pathway from an “Emerging” level to “Established”, and from an “Established” level to what might be possible in the future
 - Emerging: this level is intended to represent tax administrations that have already developed to a certain extent, but have significant further progress they could make
 - Progressing: this level is intended to represent tax administrations which have made or are undertaking reforms in digitalization as part of progressing towards the average level of advanced tax administrations
 - Established: this level is intended to represent where many advanced tax administrations are expected to cluster
 - Leading: this level is intended to represent the cutting edge of what is generally possible at the present time through actions by the tax administration itself, with some collaboration with stakeholders
 - Aspirational: this level is intended to look at what might be possible in the long-term moving towards Tax Administration 3.0 vision. No tax administrations are expected to be consistently at this level currently

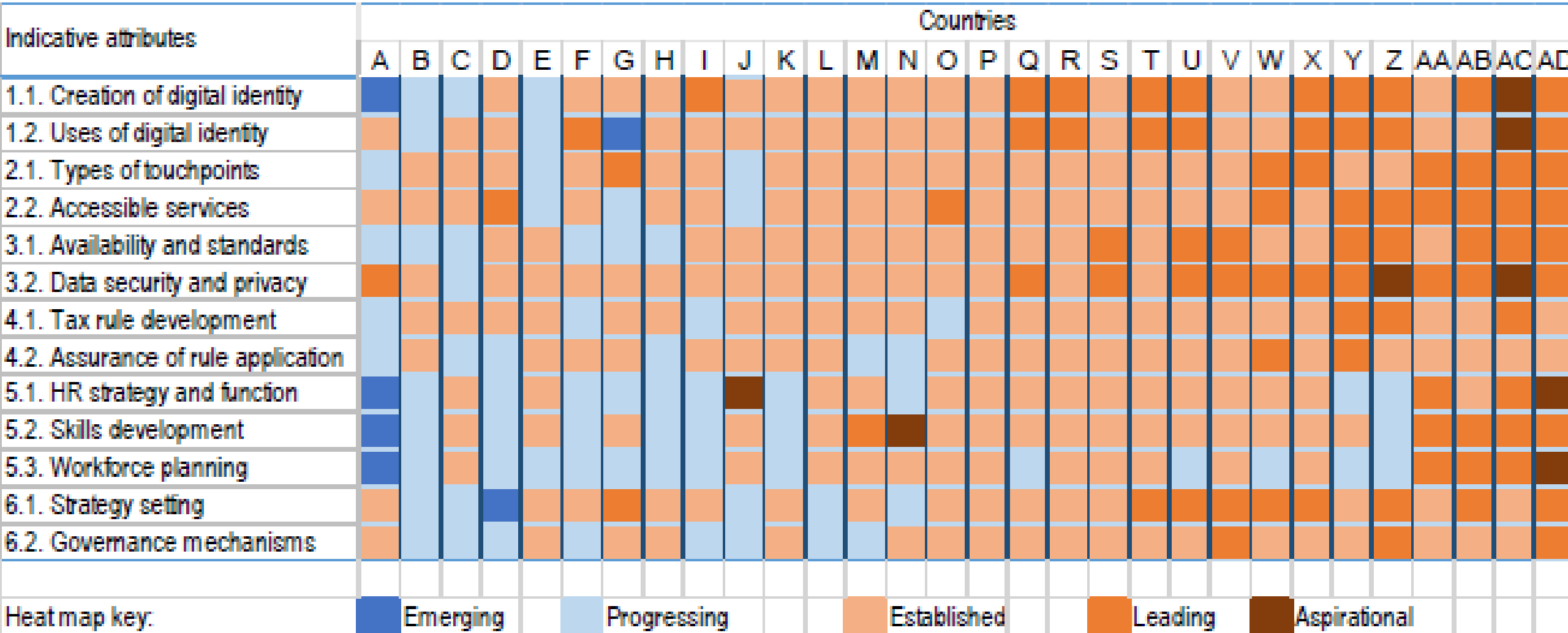
Using the Maturity Model

- The Digital Transformation Maturity Model consists of six main themes. These themes mirror the set of Tax Administration 3.0 Building Blocks
- For each of the building blocks, a high-level descriptor of maturity and a set of indicative attributes is set out. They are intended to reflect what might be expected to be in place at a particular maturity level
- The Digital Transformation Maturity Model is designed to be used as a self-assessment tool. To be effective, this self-assessment should be completed as objectively as possible.
 - Sufficient time should be allowed for the self-assessment discussion
 - Staff from various tax administration functions should be involved



Source: OECD Secretariat analysis based on pilot participants' self-assessments.

Results of Self-assessments by 30 Tax Administrations



Source: OECD Secretariat analysis based on pilot participants' self-assessments.

Results for the Thirteen Indicative Attributes

Digital Identity

- Increasingly adopting a “tell us once” approach by moving from tax administration specific and less secure identification methods to highly personalized and information-rich digital identities, which can be used for secure processes across government, and eventually, the whole of society
- Expanding support of orchestration of taxpayer-centered processes like filing and reporting processes and an ecosystem approach towards payments, benefits and refunds from a citizen and business perspective
- Enhanced interoperability between solutions and solution providers supporting secure and unique identification of taxpayers and citizens in a joined-up way, helping to reduce burdens and helping to move processing into the background, connecting taxpayers’ natural systems.
- Indicative attributes:
 - Creation of digital identity and the unlocking of service options
 - Uses of digital identity within the administration and by taxpayers

Taxpayer Touchpoints

- Moving from paper-based via websites and portals towards seamless integration into taxpayer natural systems
- Shifting from re-active to responsive and pro-active taxpayer engagement support
- Continuous enhancement of awareness and abilities to support inclusiveness and accessibility
- Indicative attributes:
 - Types and uses of taxpayer touchpoints
 - Accessible services

Data Management and Standards

- Moving away from centralized bulk data processing to more taxpayer-centered, granular and real time data processing
- Shifting from managing and storing the data towards increasingly managing the availability, quality and accuracy of data to be drawn remotely from taxpayers' wider natural systems, subject to taxpayers' consent
- Increasing awareness, monitoring and prevention of data security and data privacy breaches
- Adopting open and global standards in facilitating interoperability and data re-use
- Indicative attributes:
 - Data availability and standards
 - Data security and privacy

Tax Rule Management and Application

- Tax rule design and drafting increasingly becomes a co-creative effort between policy and administrative experts and governmental and private stakeholders
- Shift from mere translation of tax rules from paper into system designs, to incorporation of “rules as code” with transparency and testing framework in place
- Migrating from centralized execution of tax rules within tax administration to a more decentralized network of ‘tax agents’ in that the tax administration provides the technical rules and information needed for elements of tax processing to take place within taxpayers’ natural systems
- Indicative attributes:
 - Tax rule development
 - Assurance of application of tax rules

New Skill Sets

- Shifting from ad hoc and decentralized to holistic and continuous processes for workforce planning and recruitment, informed by detailed analysis and horizon scanning, as well as placing greater emphasis on organizational and individual agility
- Move from reactive execution of tax administration processes to proactive, AI-augmented, co-creation and co-governance of overall tax system performance and resilience
- Moving from reliance on self-learning and learning on the job to more structures and continuous organizational learning
- Indicative attributes:
 - HR strategy and function
 - Skills development
 - Workforce planning

Governance Frameworks

- Broadening the digitalization focus from IT-Strategy, addressed in a digitalization strategy, to tax administration business transformation, addressed in a digital transformation strategy
- Shifting from a solitaire hierarchical bureaucracy to a partner within a 'system of systems'
- Moving from reactive to proactive and towards an embedded assurance of the tax system
- Indicative attributes:
 - Strategy setting: context and process
 - Governance models and mechanisms