



The 5th BRITACOF
Deepening Tax Administration Cooperation for
High-Quality Belt and Road Development
Hong Kong, China 24-26 / 9 / 2024



Digital Transformation at Inland Revenue Authority of Singapore (IRAS)

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Digital Transformation Strategy



Why The Need to Transform ?



Technological Disruption

Technological disruptions that are significantly reshaping industries and societies (e.g. Generative AI).



Changing Demands from Stakeholders

Rising public expectations for more contemporary services. More complicated tax scenarios.



Slowing Labour Force Growth

Maintain lean, productive workforce while supporting larger tax population base and national schemes.

This means that...

We need to modernise our systems, processes, and capabilities to adapt to a rapidly changing landscape, leverage on technology to create value, and stay competitive.



IRAS' Digital Transformation Strategy

Key Strategies in LEA:D2.0 (LEveraging Analytics, Design and Digitalisation) Transformation Blueprint





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4 Pillars of Digital Transformation





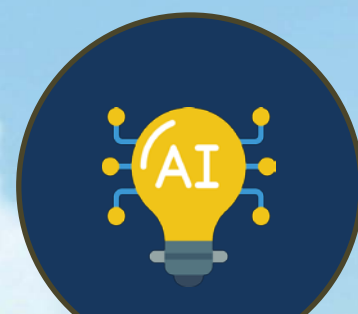
4 Pillars of Digital Transformation



Core

Modernising IT Enterprise Systems

Updating and migrating
legacy systems to the
cloud



Cognition

Leveraging Artificial Intelligence (AI) and Big Data

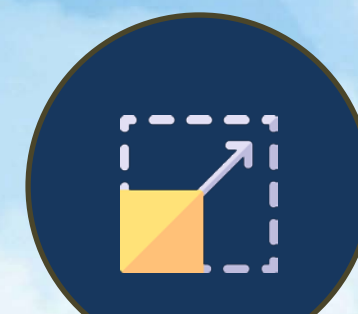
Using advanced analytics,
machine learning, and AI to
improve service,
operations, and compliance



Community

Partnership with the Digital Ecosystem

Partnering with digital
solution providers,
government agencies,
and industry players



Capability

Building a Digital Workforce

Upskilling workforce in
technical skills, digital
literacy, and data-driven
decision-making abilities



Modernising IT Enterprise Systems

IRAS embarked on a major upgrade to our IT enterprise systems:



**From On-Premise to
Government Commercial
Cloud**

- Aligned with Whole-of-Government cloud policy and industry trends
- Enjoy scalability and functions offered by commercial cloud



**From Monolithic to
Microservices Architecture**

- Architecting for more interactions with natural systems
- More easily support nationwide vision of citizen-centric services



**Enhancement and
Consolidation of Existing
Systems**

- Transform existing experience for taxpayers and staff
- Streamline common backend processes for greater efficiency



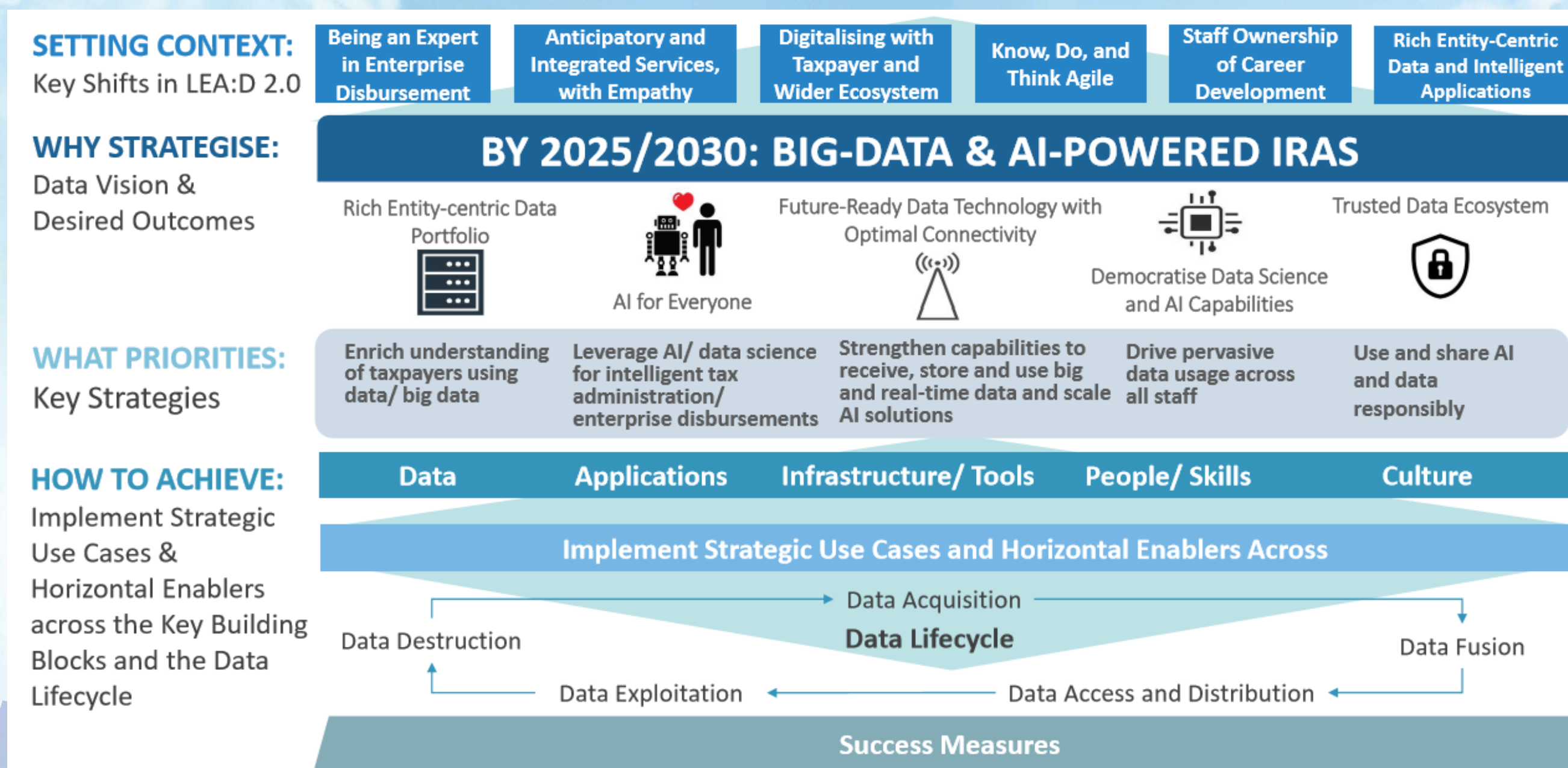
**Invest in Modern Tools and
Practices to Drive Agility**

- Invest in tools and further automation to enable DevOps
- Enable continuous testing, integration, and deployment



Leveraging AI and Big Data

We focus on laying the foundations of good quality data, training our staff in data skills, and implementing robust governance frameworks. This approach allows us to effectively develop and deploy AI solutions.

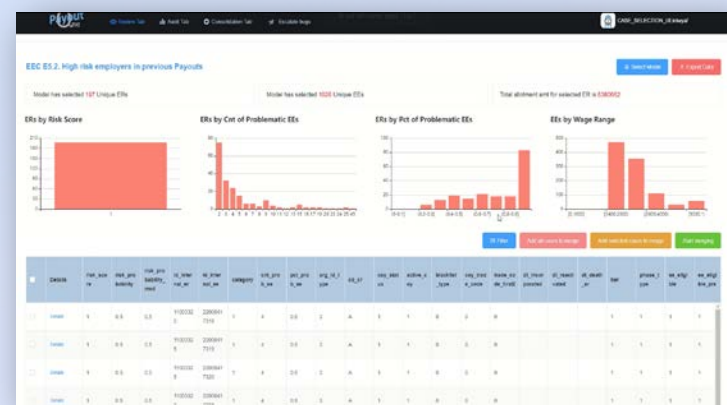




Using AI to Enhance Compliance & Service Delivery

Compliance & Fraud Detection

Analyse data and relationships to proactively detect anomalies and conduct more targeted investigations



ONE PAYOUT

Consolidated platform to detect and prevent payout to potentially fraudulent cases

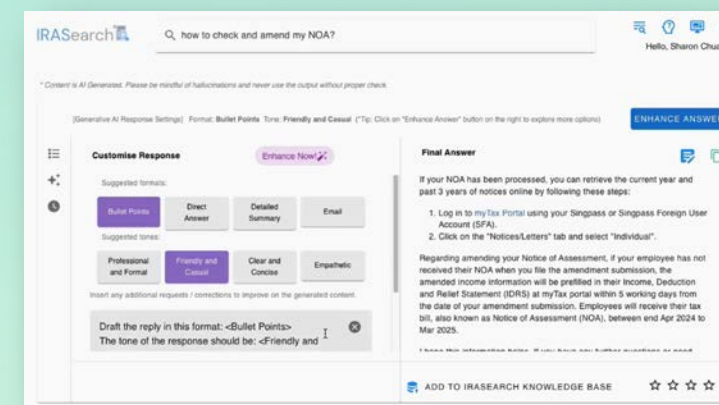


iNAT

Network visualisation and analysis tool to examine related entities for risk assessment and fraud detection

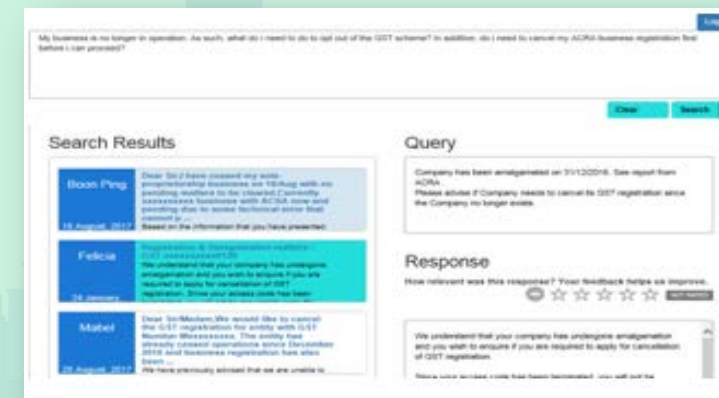
Service Delivery

Provide intelligent assistance to serve taxpayers better and improve staff productivity



IRASearch

Enhanced search engine that generates answers to tax-related queries



EMAIL RECOMMENDER

Searches similar, past emails that can assist officers in drafting complex email replies

Partnership with Digital Ecosystem

01.

PLATFORMS

- Offer our own **IRAS API Marketplace** as the key platform to engage **software developers**
- **Dedicated teams** to onboard partners and assist them in meeting milestones

02. NETWORK EFFECT

- **IRAS Accounting Software Register Plus (ASR+)** to recognise software developers that have integrated with IRAS APIs
- Offer **financial grants** as incentive to accelerate integration

OBJECTIVE

Increase adoption and use of digital solutions that enable system-to-system transmission of data to IRAS via APIs.

03. INTEROPERABILITY OF SYSTEMS

- Integrate services with **other government agencies** to **streamline cross-agency transactions**
- Partnership with **industry** (e.g. trade associations) as **key touchpoints with small businesses**



Digital Ecosystem Initiatives

Seamless Filing from Software



BUSINESSES

File Corporate Tax and/or Goods & Services Tax returns to IRAS via **accounting software**



TAX AGENTS

File returns on behalf of their clients to IRAS via **tax software**



EMPLOYERS

Submit salary data to IRAS via **payroll software***

* IRAS teamed up with other government agencies to launch the **One-Stop Payroll** initiative for employers.

Transmit data seamlessly from payroll software:

- ✓ Annual submission of **salary data to IRAS**
- ✓ Monthly submission of **mandatory savings contribution to the Central Provident Fund Board**
- ✓ Update employees' details under **monthly labour market survey to the Ministry of Manpower**

InvoiceNow for GST-registered businesses

INVOICENOW is a nationwide e-invoicing network that operates on the open standard Peppol framework.

From 2020 – 2023, IRAS piloted the use of InvoiceNow with GST-registered businesses for tax administration.

Positive outcomes from pilot:

- ✓ **Productivity savings** from digitalising invoicing
- ✓ Businesses benefit from **easier GST compliance**, potentially **fewer audits** and **faster GST refunds**.

From Nov 2025, IRAS will implement a phased adoption of InvoiceNow for GST-registered businesses.



Building a Digital Workforce

We have developed training roadmaps around the data and digital skills we envision the workforce of the future to have:

BASIC

(For all staff)

Technology-Essentials (Tech-E) roadmap to advance the technology skills of staff who are not in the ICT/Data areas of work.

- ✓ **3 funded certifications** in Data and Digital tools* by FY2027
- ✓ **At least 1 certification in a “Level 2” skill**, indicating higher level of proficiency in the tool

* Tools supported: Robotic Process Automation (RPA), Google Analytics, Power Query, Metaverse, Generative AI Prompt Engineering

INTERMEDIATE

(For power users)

- **Communities of Practice** in areas such as Analytics, Robotic Process Automation, Generative AI and Large Language Models
- **Work Attachments** to the central data science & AI team

ADVANCED

(For technical staff)

- **Curated courses & certifications** in skills such as data science and cloud technologies
- **Secondment** to external tech or research organisations



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Tax Administration in the Digital Age





Cloud Technology

- **Scalability and Flexibility:** Handle peak loads during filing seasons
- **Agility:** Lay the groundwork for administering new tax types or initiatives

Artificial Intelligence

- **Compliance & Fraud Detection:** Flag anomalies and potential cases of fraud
- **Service Delivery:** Provide intelligent assistance to serve taxpayers better and improve staff productivity

Digital Ecosystem

- **API Integration:** Seamlessly connect with other government agencies and external stakeholders/partners
- **Developer Collaboration:** Partner with software developers to create user-friendly tax filing applications and tools

Digital Workforce

- **Digital Proficiency:** Ensure employees can navigate and leverage new digital tools and platforms
- **Adaptive Mindset:** Foster a culture of continuous learning to keep pace with evolving technologies

Efficient &
Responsive Tax
Administration in the
Digital Age



The 5th Belt and Road Initiative Tax Administration Cooperation Forum



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Thank you