

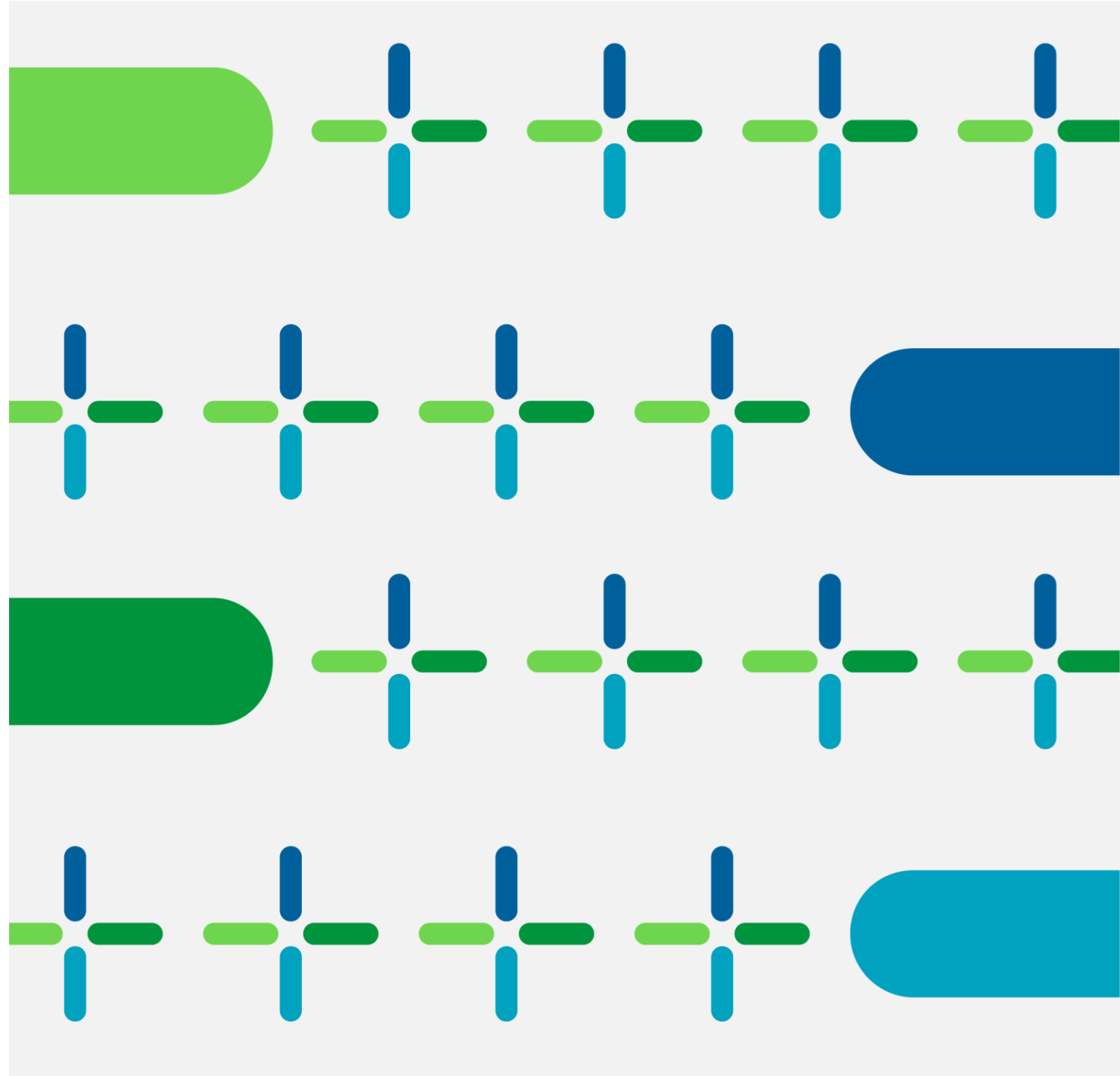


Integrated Systems as a Driver of Digital Transformation

Building sustainable compliance ecosystems through interoperability, embedded tax services, and trusted data exchange

IOTA Digital Workshop | Plenary Session 2

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Why This Matters Now



Pressure on tax administrations

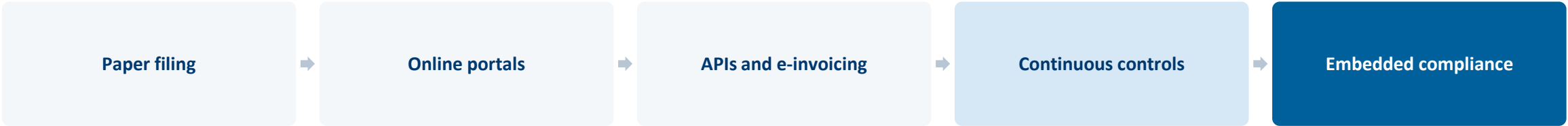
Rising transaction volumes, cross-border complexity, platform economy growth, and rising expectations for digital public services.



Pressure on businesses

Overlapping mandates for e-invoicing, digital reporting, SAF-T, real-time controls, and jurisdiction-specific tax determination.

THE SHIFT ALREADY UNDER WAY



The opportunity: move from periodic, manual, document-based compliance toward event-based, data-driven compliance.

From Digitalization to Transformation



Digitalization

Converting existing processes into electronic channels.

- The same return, submitted online
- Documents re-keyed or uploaded
- Compliance still happens after the fact
- Business systems and tax systems stay separate



Digital transformation

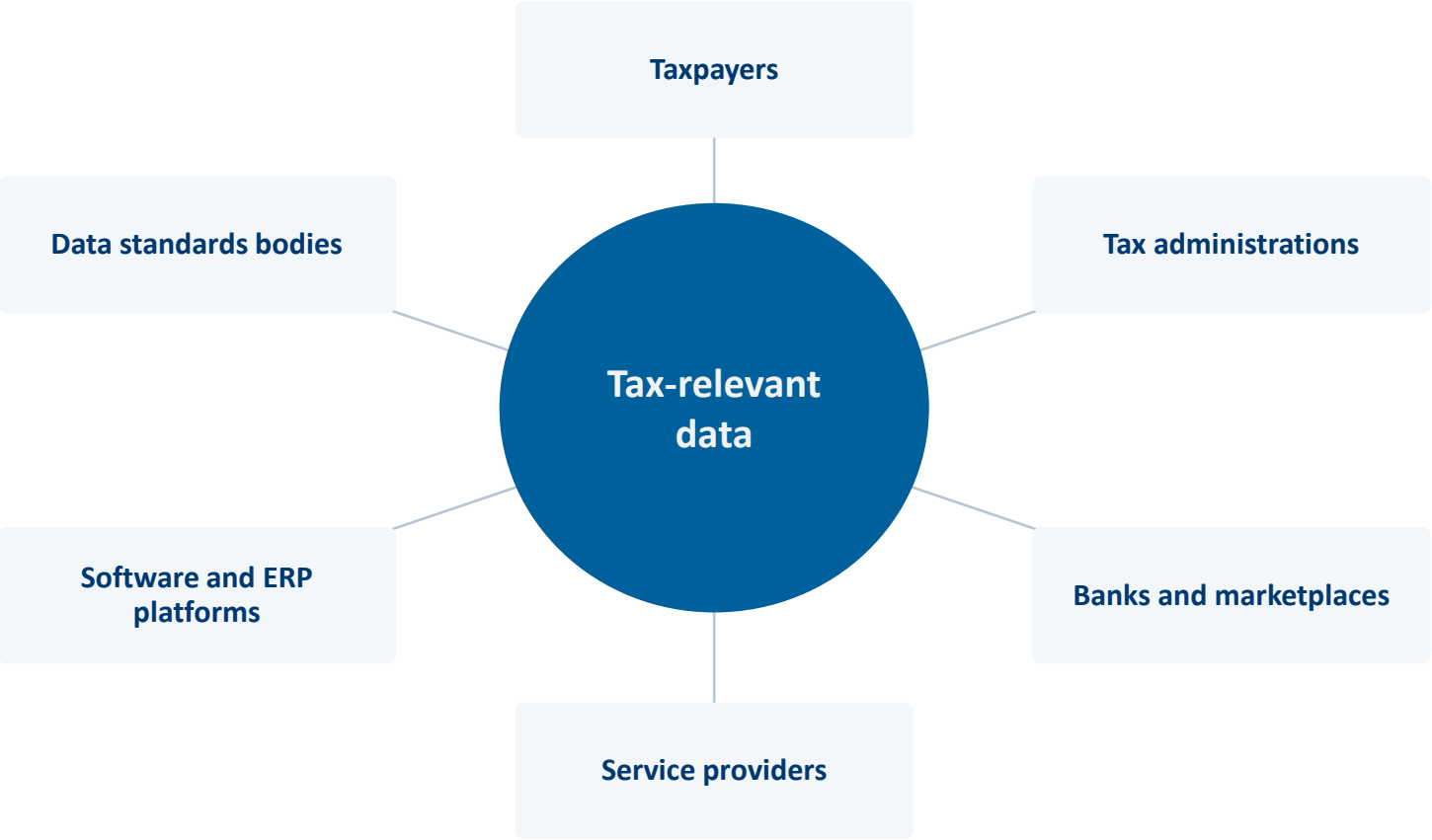
Redesigning processes so tax is calculated, validated, reported, and paid as part of the natural business workflow.

- Tax determined where the transaction happens
- Data structured once, reused many times
- Validation and feedback close to the event
- Taxation embedded in taxpayer systems

OECD Tax Administration 3.0: a more seamless and less burdensome model in which taxation is increasingly built into taxpayer systems.

Compliance Ecosystem Overview

A sustainable compliance ecosystem has many participants. Each one generates, validates, transmits, receives, or governs tax-relevant data.



Clear roles make it work

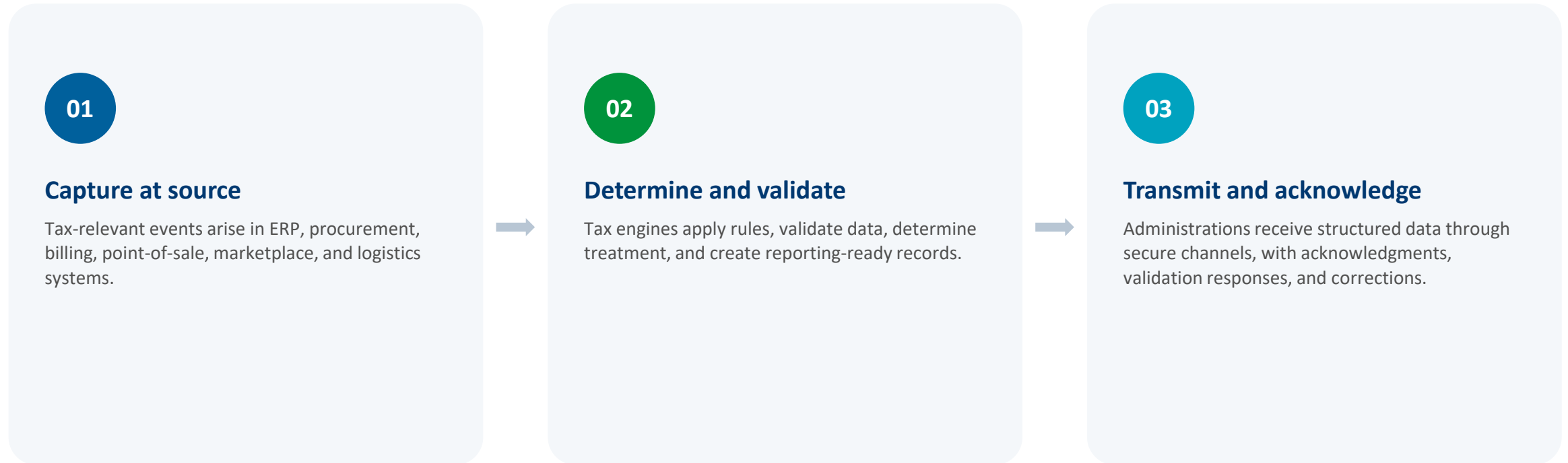
Data definitions, authentication, liability, and feedback mechanisms have to be agreed before volume scales.



No single platform wins alone

Interoperability, not consolidation, is the operating principle of the ecosystem.

Machine-to-machine Compliance

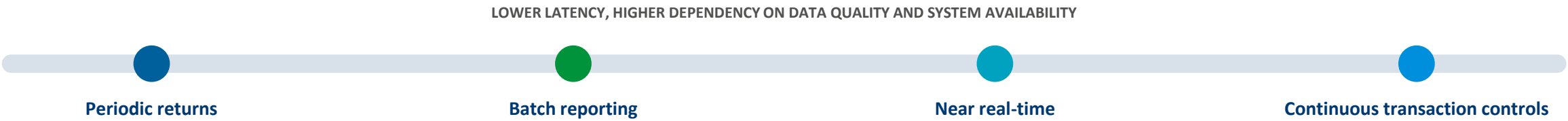


Automation raises the value of governance

Machine-to-machine does not remove governance. It makes governance more important, because exceptions and errors propagate at machine speed.

Real-time Data Transfer

Real-time is not one model. It is a spectrum of reporting frequencies and control points.



What real-time buys

Visibility, lower latency, and stronger risk analysis at the point the transaction occurs.



What it costs

Greater dependency on data quality, system availability, and rapid exception handling.



How to choose

Weigh transaction criticality, taxpayer maturity, jurisdictional readiness, and administrative capacity.

Near real-time models capture many of the benefits while preserving operational buffers for validation, correction, and reconciliation.

Global Digital Reporting Trends

2035

Phased implementation of the EU VAT in the Digital Age package extends through 2035, reflecting a broader global shift to e-invoicing and digital reporting.



Granular data is the direction of travel

Jurisdictions increasingly seek transaction-level data to improve fraud detection, close compliance gaps, and simplify downstream processes.



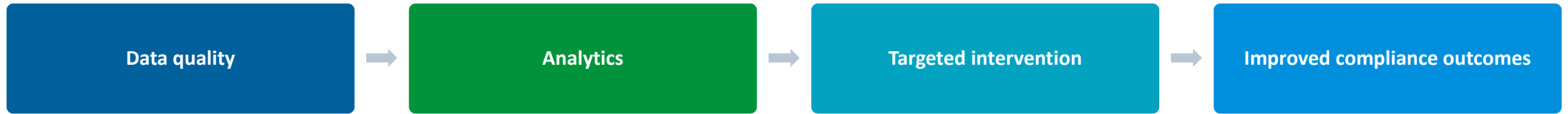
Fragmentation is the taxpayer pain point

Different formats, deadlines, validations, platforms, and correction mechanisms multiply cost for multinational taxpayers.

The broader lesson for IOTA members

- Regional coordination reduces cost for taxpayers and improves comparability for administrations.
- Common technical infrastructure can carry different policy choices if local rules are isolated from the core.
- Early, published specifications matter more to adoption than the choice of reporting frequency.

Benefits for Tax Administrations



Earlier, better data

Higher-quality information for risk assessment and compliance assurance, closer to the transaction event.



More targeted intervention

Better taxpayer service, sharper case selection, and improved capacity to detect fraud patterns.



Less retrospective audit

Issues can be detected near the event rather than years later, reducing costly look-back work.



A platform for services

Foundation for pre-filled returns, automated reconciliation, and proactive taxpayer guidance.

Efficiency gains matter most when they free scarce administrative capacity for higher-value work.

Benefits for Businesses

Compliance as a by-product of the business process, not a separate exercise bolted on afterwards.



Lower manual burden

Obligations are met inside operational systems rather than through parallel compliance work.



Fewer downstream corrections

Determination, validation, and reporting happen earlier, so errors surface before they multiply.



Greater certainty

Acknowledgments, validation feedback, and clearer rules reduce ambiguity and dispute risk.



A finance transformation lever

Compliance modernization improves master data, invoice quality, and process controls.

Businesses support digital reporting when it reduces friction rather than duplicating obligations they already meet.

Compliance runs on one data chain inside the ERP

ONE CHAIN — WHERE INTEROPERABILITY ACTUALLY HAPPENS



The chain is only as good as its first step

Interoperability begins in the ERP, not at the transmission layer.

Source: Vertex VAT determination and compliance architecture.

TWO FLOWS, TWO VERY DIFFERENT CONTROL PROBLEMS

OUTBOUND (AR)

Vertex determines the tax and formats the e-invoice. The taxpayer's own system is the source of truth, and errors surface before the invoice leaves.

INBOUND (AP)

The buyer receives an invoice built to someone else's rules. Validation, self-assessment and recovery depend on data the buyer did not create.

This is where administrations have the least visibility

Inbound flows depend on counterparty data quality, so validation has to happen on receipt.

Five attributes decide whether determination works

WHAT THE TAX ENGINE MUST BE TOLD, AT THE MOMENT OF THE TRANSACTION

WHO

The supplier, its establishments and registrations

WHAT

The goods or services, and their classification

WHOM

The customer, its status and its VAT identity

WHERE

Ship-from, ship-to and the place of supply rule

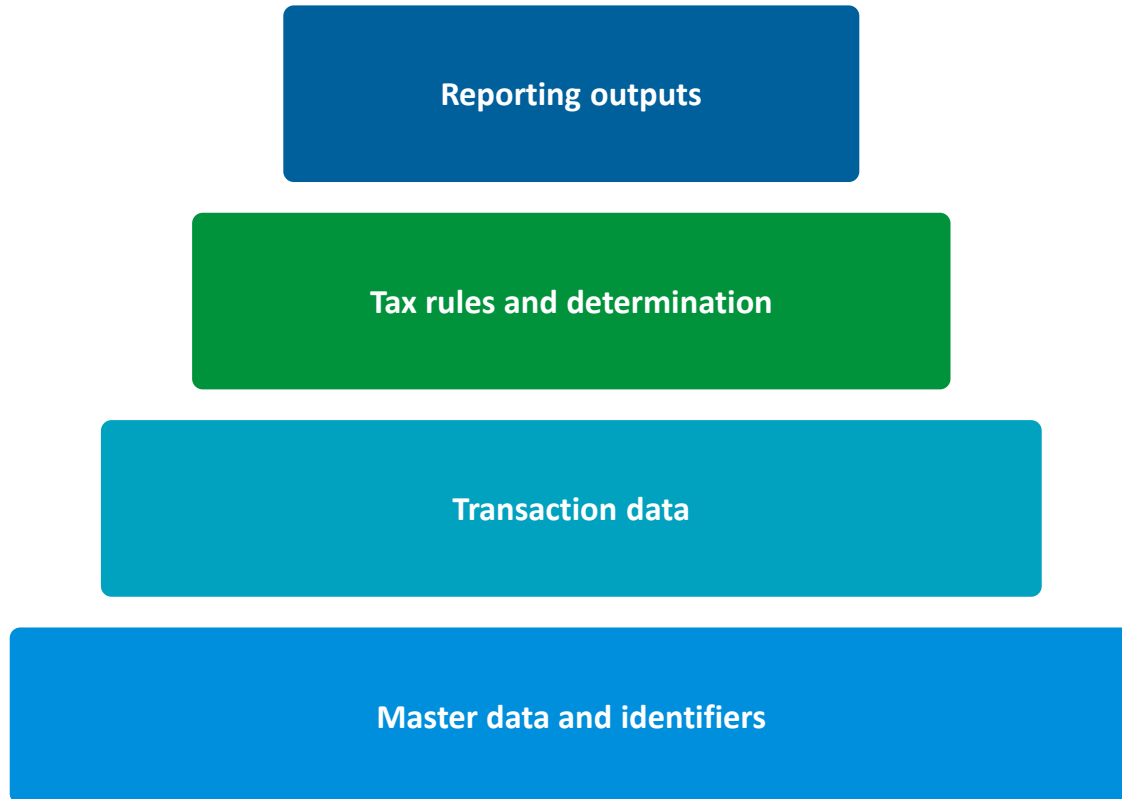
WHEN

The tax point date, not the posting date

Request and response: the engine can only answer what it is asked

Missing attributes at source produce a clean-looking return built on the wrong answer.

Data Quality and Tax Logic



WHY THE FOUNDATION MATTERS



Reporting inherits its quality

Digital reporting is only as strong as the transaction data, classifications, and counterparty identifiers beneath it.



Determination is a data problem

Tax logic connects to master data governance, ERP configuration, exemption management, and invoicing.



Rules need engineering discipline

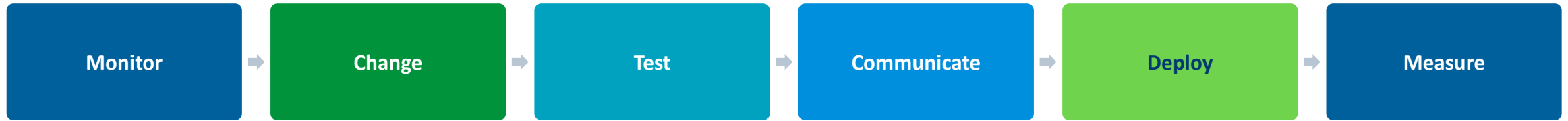
Transparent, version-controlled, testable, and supported by clear change management.

Phasing and Pilots



Deployment is a trust-building exercise, not only a technology rollout.

Operating Model



A CONTINUOUS LOOP THAT RESTARTS AFTER EVERY RELEASE



What administrations need to provide

Structured release management, advance notice periods, backward compatibility policies, and escalation channels.



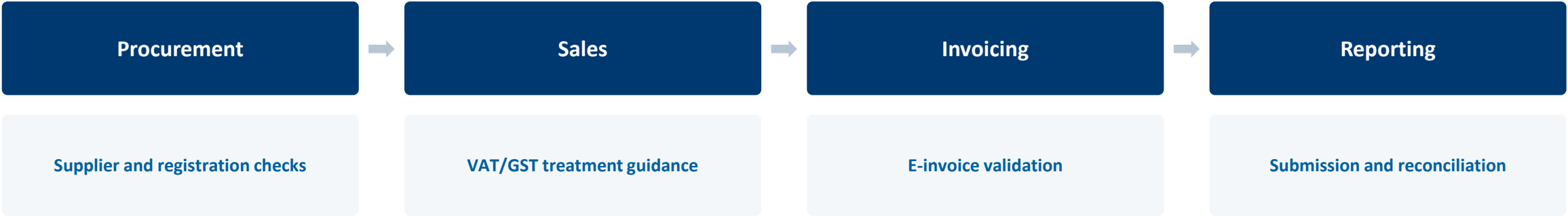
What the market needs to absorb it

Predictable change cycles so businesses and software providers can update systems, test integrations, and train users.

Stability is a policy instrument

Unstable schemas and late changes create compliance risk and erode the trust that voluntary adoption depends on.

Embedding Tax Services



TAX SERVICES OVERLAID ON THE WORKFLOWS TAXPAYERS ALREADY RUN



What can be embedded

Registration checks, treatment guidance, e-invoice validation, digital reporting submission, exemption validation, payment reconciliation.



Where it belongs

At the moment of need, inside the taxpayer workflow, rather than in a separate portal visited after the fact.



Who does what

Administrations provide trusted services; private systems provide integration, usability, scale, and domain implementation.

Compliance is co-produced: public infrastructure and private operational systems each carry part of the load.

Trust, Security, and Privacy by Design

The data exchange layer

Every safeguard below is a design requirement of the exchange itself, not a policy applied to it later.



Identity

Strong authentication and authorization for every participant.



Security

Encryption in transit and at rest, with complete logging.



Minimization

Collect only what the stated administrative purpose requires.



Purpose limits

Use data for the purpose it was collected for, and say so.



Auditability

Transparent retention, correction, and access records.

Transparency about how data is used, retained, corrected, and shared is what sustains legitimacy and adoption.

Analytics and Assurance



What structured data enables

Validation, anomaly detection, network analysis, and targeted risk scoring at transaction level.



Proportionate responses

Nudges, clarifications, pre-filing alerts, service prompts, and better-targeted audit selection.



Human oversight

Wherever decisions affect taxpayer rights or obligations, a person stays accountable for the outcome.

Analytics is a service capability as much as an enforcement capability.

Avoiding the Fragmentation Trap



Fragmented mandates

- Different formats and schemas per jurisdiction
- Divergent deadlines and validation rules
- Separate platforms and correction mechanisms
- Cost rises for business; comparability falls for administrations
- Small taxpayers and providers are squeezed hardest



Harmonized core, local extensions

- Common standards and reusable components
- Shared data dictionaries and identifiers
- Regional collaboration on specifications and testing
- Local rules isolated from common infrastructure
- Policy differences preserved without technical divergence

Where policy differences are unavoidable, keep them in the local layer and leave the technical core common.

Practical Recommendations for Tax Administrations

01

Co-design from the beginning

Involve taxpayers, software providers, and intermediaries before the model is fixed.

02

Define outcomes before mechanisms

Be explicit about the business outcome sought before selecting a technical channel.

03

Adopt common standards

Publish stable, testable specifications and reuse them rather than inventing local variants.

04

Build trust deliberately

Transparency, privacy safeguards, and predictable governance are adoption levers.

05

Phase the implementation

Pilots, transition periods, and real support channels for the taxpayers who struggle.

06

Use the data for service too

Improve assurance and taxpayer service together, not assurance alone.

A checklist to take back: six decisions that can each be made independently of the others.

The future is Connected Compliance

Interoperable

Embedded

Trusted

- Integrated systems turn compliance from a periodic burden into a trusted, data-driven, embedded process.
- Interoperability is the bridge between policy intent, business reality, and administrative assurance.
- The strongest models balance automation with transparency, standardization with flexibility, and efficiency with taxpayer trust.

The goal is not simply faster reporting. It is a sustainable compliance ecosystem where the right tax data moves securely to the right place at the right time.