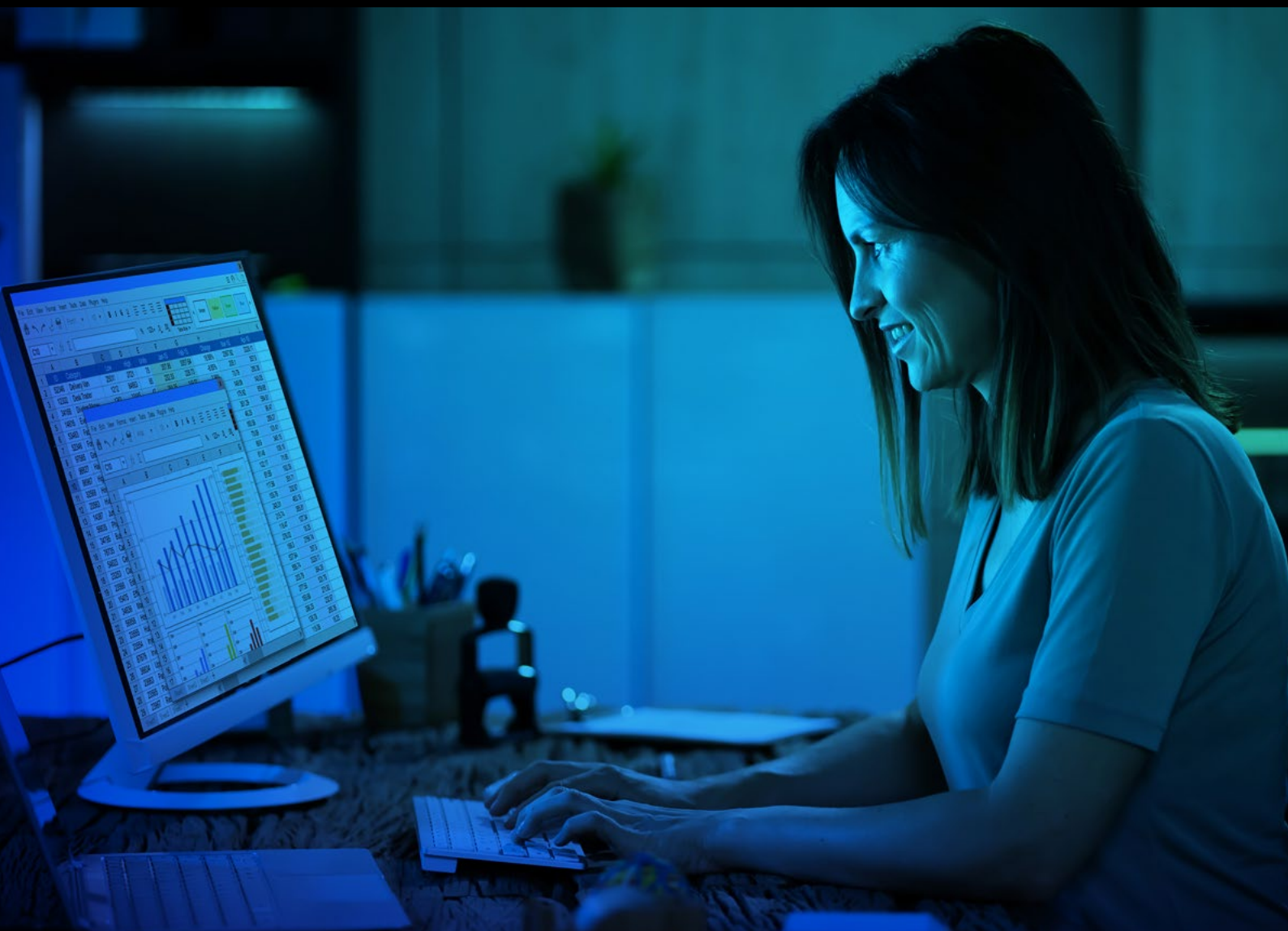
TATA CONSULTANCY SERVICES

Building on belief

# Reinventing regulatory reporting with intelligent innovations



# Abstract

Compliance with diverse cross-border regulatory requirements within narrow timelines has pushed global banks to adopt ad hoc and tactical regulatory reporting solutions. Burdened with multi-jurisdictional regulatory compliance mandates, banks have limited options to control compliance costs, streamline disjointed regulatory data, and address technology infrastructure complexities.

Innovations such as machine-readable rules and reporting instructions, machine-executable automated reporting, and data-sharing or regulatory pull models are under active evaluation in the regulatory compliance space. This translates into a unique opportunity for banks to recalibrate their global regulatory reporting platforms and build newer capabilities aligned with these reporting models. This paper explores how banks can build agile and resilient multi-jurisdictional regulatory reporting capabilities by improving standardization, implementing a robust data strategy, and integrating artificial intelligence (AI), machine learning (ML), and automation with regulatory inventory management practices.

# Shifting contours of regulatory reporting

Financial institutions have struggled to fulfill fragmented, cross-border regulatory reporting requirements with increasing financial regulations since the 2008 global financial crisis. The complexities of existing disjointed regulatory data and technology infrastructure prevent timely and accurate fulfillment of compliance obligations. To tackle the inherent challenges (see Figure 1) of regulation-focused, template-based, aggregated reporting, global regulators are evaluating flexible regulatory reporting approaches instead of periodic point-in-time reporting. Regulators and financial institutions have realized the need for holistic re-evaluation of regulatory data processes and architectural constructs. In our view, banks must implement initiatives to address critical aspects such as the absence of data standardization, harmonization, and automation within existing regulatory data collection processes, by leveraging technology-led innovation.

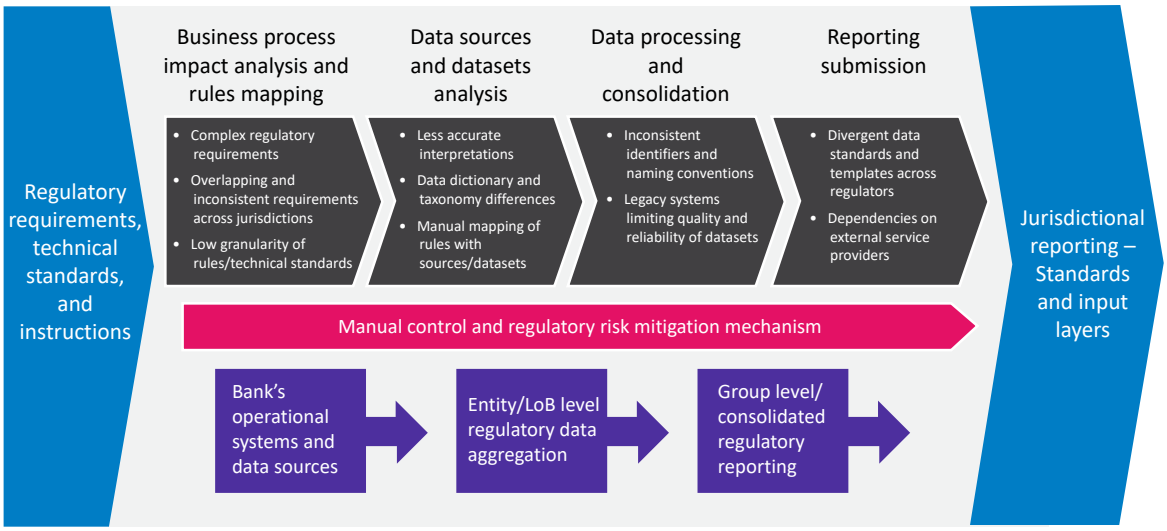



*Figure 1: Challenges in multi-jurisdictional regulatory reporting*

# Regulatory initiatives for reporting transformation

Global regulators are evaluating options for an on-demand and comprehensive reporting paradigm in place of traditional regulatory reporting models. Unprecedented market volatility and liquidity disruptions call for granular and integrated reporting, enabling regulators to easily access banks' data in near real-time.

Innovation centered around the pull model of data sharing, supported by machine-readable instructions and machine-executable reporting, introduces a significant change in regulatory reporting. Improved data standardization, common data model, and interoperability across regulatory domains are the basic requirements for regulatory transformation. Some of the global regulators have already initiated measures to streamline the reporting paradigm (see Figure 2).

These regulatory initiatives are at different stages of exploration, experimentation, and evaluation for a widely acceptable solution approach. Specific transformational outlines are expected to gradually evolve across aspects like implementation scope, form, and timelines under different regulatory regimes.

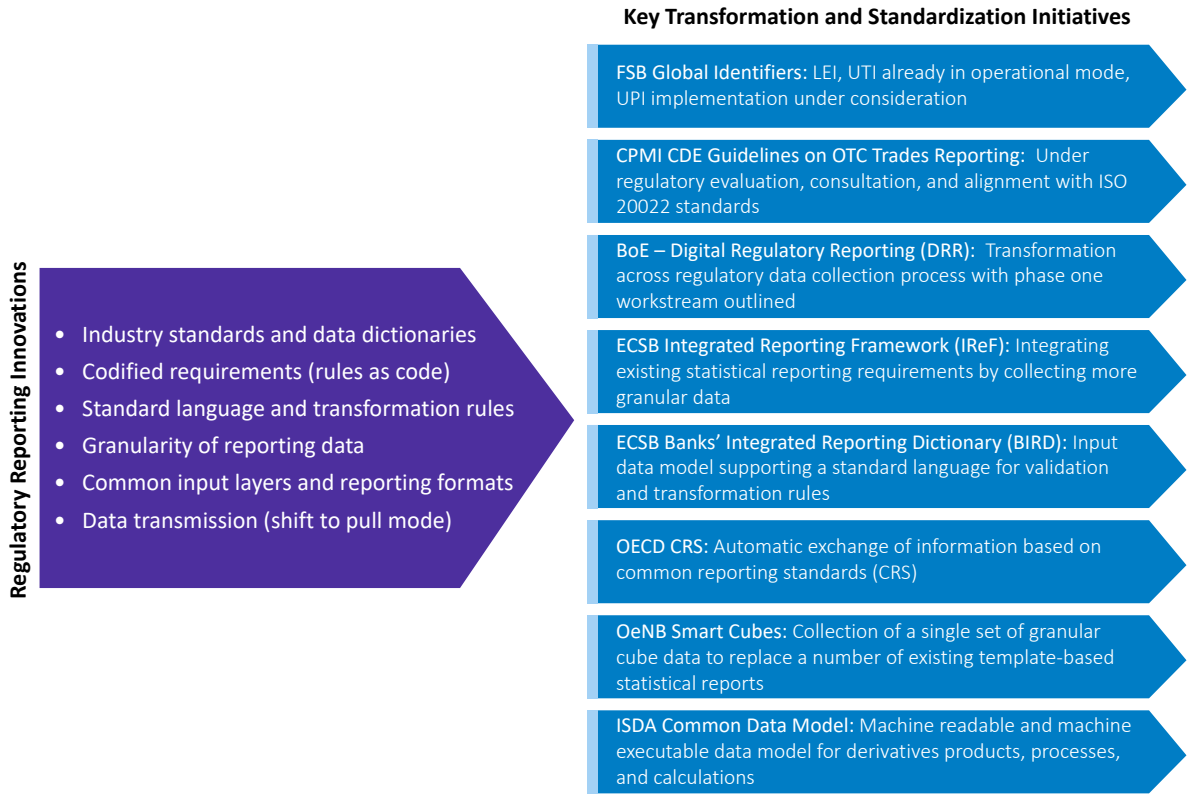



*Figure 2: Regulatory initiatives for reporting innovations*

# Evolving regulatory reporting approaches: Key imperatives for banks

Achieving the regulatory vision of a granular and integrated reporting and data-sharing model necessitates a holistic redesign of banks' internal data processes and architectural constructs. By eliminating legacy operational system constraints, banks can recalibrate enterprise data and technology infrastructure to add newer capabilities aligning with emerging reporting models. To make this a reality, banks must:

- Embrace AI-led regulatory inventory and data processes for automated rules interpretation and reports generation to help drive agility in the data-sharing model.
- Ensure standardized, granular, and consistent data pertaining to customer, account, product, or transactions for multi-dimensional aggregation and focused analysis.
- Adopt straight-through processing (STP) of data with no manual intervention and breakpoints to remove redundant remediation efforts.
- Implement timely report-fulfillment capabilities with a potential shift to on-demand reporting.
- Adopt flexible architecture to support different regulatory reporting approaches.

# Transformation opportunities in regulatory reporting

The evolving regulatory reporting landscape provides banks a unique opportunity to redesign their global regulatory platforms by exploring and adopting various transformation options. By focusing on addressing legacy constraints, banks can also achieve the long-neglected objective of having better synchronized and augmented data and technology infrastructure as the foundation of futuristic regulatory reporting capabilities.

Banks must adopt a forward stance focused on on-demand compliance by harnessing innovations across the regulatory data ecosystem. By leveraging AI, ML, and automation-enriched inventory management practices, streamlined data flow, and harmonized governance methods, banks must redesign the multi-jurisdictional reporting framework to make it agile and resilient.

### Regulatory inventory management

Historically, complex cross-border regulatory requirements have led to varied interpretations of rules, creating significant gaps in regulatory data inputs. Adopting a more granular approach with fully traceable mapping of regulatory rules or technical standards with business processes, datasets, and related systems can effectively address this. Embracing enriched capabilities across regulatory inventory management equip banks with more reliable on-demand or pull-driven reporting models. Further, risk-based prioritization of emerging requirements, process-level impact analysis factoring data revision interplay, and proactive analysis and mitigation approach for regulatory reporting risk scenarios build resilience within regulatory inventory management.

### Harmonization and standardization of data

Addressing perennial data discrepancy challenges across internal and third-party data sources assures better synchronized regulatory inputs with fewer errors. Achieving this will require banks to leverage harmonized data dictionaries across domains like financial, capital, liquidity, risks, valuation, intra-group exposures, transactions, and client assets that specifically stipulate consistency in definition, format, and usage of key data elements. At the same time, banks must take focused initiatives to remediate data taxonomy inconsistencies in their business domains. By aligning with industry data models and standards, harmonized data taxonomy within operational sources sets the foundation for a flexible and reliable reporting framework.

### Robust data strategy and governance mechanism

Rapid augmentation of multi-source data profiling, quality, ownership, and governance norms are required to realize an agile and scalable regulatory data ecosystem. Establishing clear ownership for the system of records as an irrefutable single version of the truth across data revision stages brings enhanced data federation with reduced dependencies for the bank. An adaptable data strategy covering data sourcing, integration, classification, cataloging, retention, and disposal framework holds the key to resilient reporting models.

### Intelligent automation

Adoption of AI and ML-driven automation for regulatory reporting use cases promises unique advantages across the lifecycle. Apart from reducing manual effort, it minimizes costly data errors and breaches. Examples of high-value use cases with the potential to enhance efficiency and agility in the regulatory reporting process are:

- NLP or ML-driven regulatory rules interpretation, process, and data-level impact analysis
- Data taxonomy reconciliation across data sources
- Data quality and standards harmonization across lines of business
- Multi-jurisdictional reporting maps and templates, including identifiers
- Event-driven and ad hoc reporting fulfillment
- Regulatory risk predictive analytics, process insights, and mitigation controls

# Conclusion

Recent regulatory transformation initiatives in reporting approaches bring a new sign of optimism for banks. Executing transformation projects centered on technology-led innovations will improve the core of forward-looking regulatory reporting capabilities across global jurisdictions. Banks must seize this opportunity to eliminate redundancy and bottlenecks in their siloed regulatory data and technology infrastructure and minimize compliance costs. Besides fulfilling regulatory obligations accurately and on time, a strategically augmented regulatory reporting data ecosystem improves flexibility and scalability to deliver a competitive advantage. Additionally, identifying data as an asset with clearly established lineage across operational systems helps establish a strong foundation for data marketplaces and monetization for banks.

# About the authors


### Indra Chourasia

Indra Chourasia is an industry advisor in the Chief Data Officer (CDO) Strategic Initiative group of the Banking, Financial Services, and Insurance (BFSI) business unit at TCS. With over 25 years of global experience in business and IT advisory and implementation projects, he designs solution offerings and drives thought leadership and client engagements in capital markets. Indra has a Bachelor's degree in Civil Engineering from Nagpur University, India, and a Master's degree in Financial Management from Magadh University, India.

### Prabhakaran Pitchandi

Prab Pitchandi is global head, Chief Data Officer Strategic Initiative group in the Banking, Financial Services, and Insurance (BFSI) business unit at TCS. He has been working with banks and insurers to derive value out of their data assets and investments. With over 25 years of experience in the BFSI space, Prab has developed many innovative solutions in areas like cyber insurance, commercial insurance underwriting, among others. In his previous roles, he specialized in capital markets and risk management. He has led many front-to-back transformations and regulatory programs for leading Wall Street firms and has been involved in setting up new business functions in global banks.

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