The World Bank work on digital public infrastructure to promote access to finance

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DIGITAL REPORTING IN EUROPE
3-5 JUNE 2025, FRANKFURT
Hosted by the European Central Bank
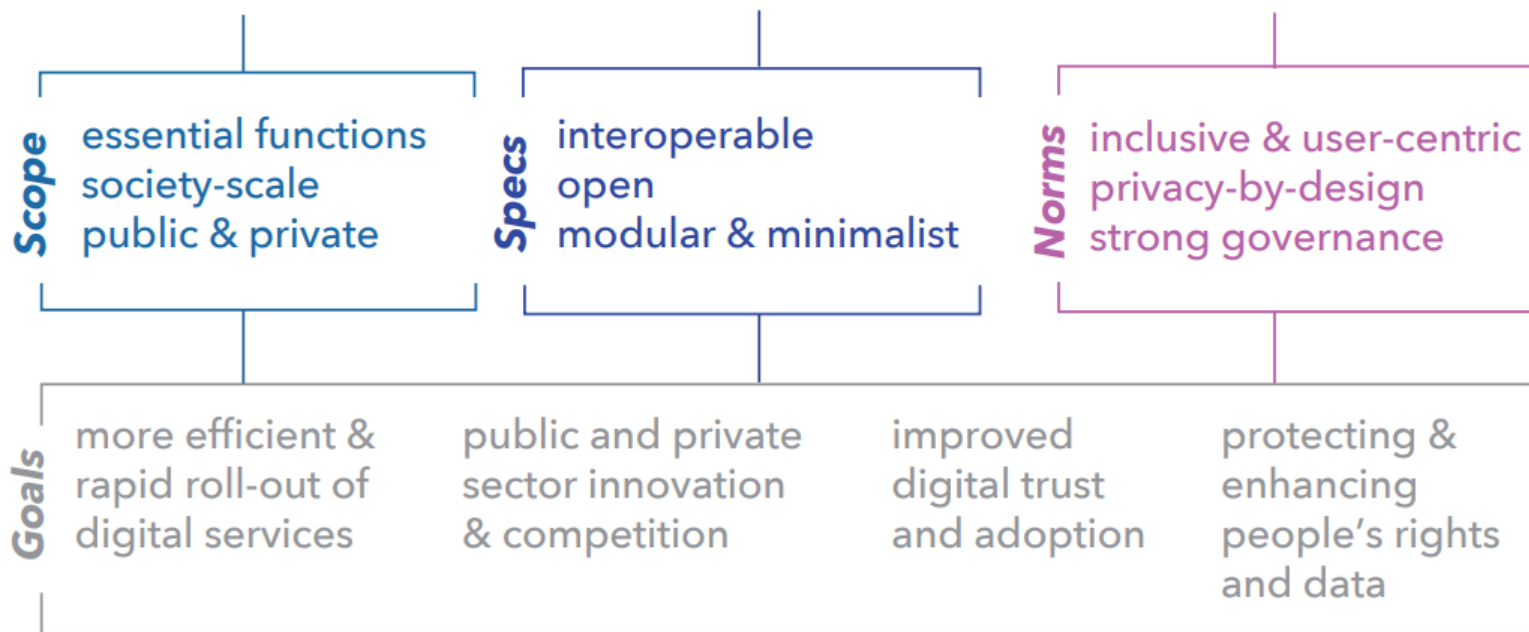
Objectives of the presentation

- Introduce the World Bank work supporting the development of Digital Public Infrastructures

- Addressing selected aspects of SMEs' ecosystem financing gap through implementing digital system

Agenda

1. Digital public infrastructures

2. SMEs financing gap and companies' registries

World Bank definition of Digital public infrastructures

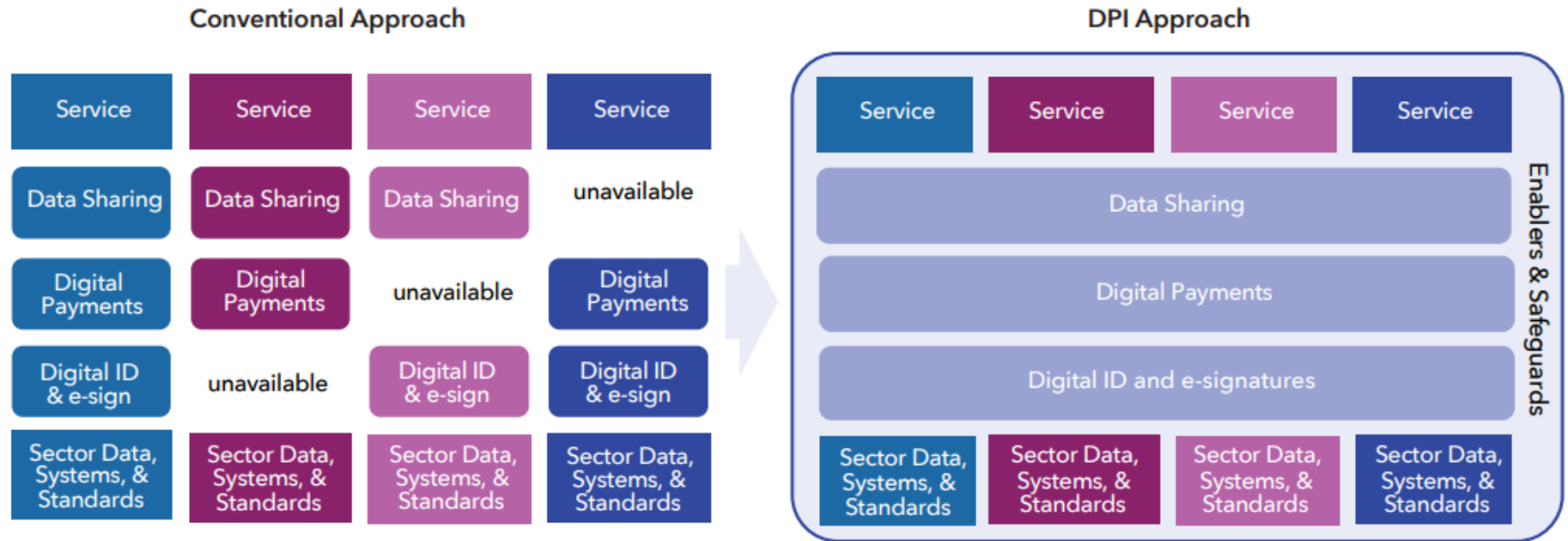**Foundational, digital building blocks** for the **public benefit.**

Scope
essential functions
society-scale
public & private

Specs
interoperable
open
modular & minimalist

Norms
inclusive & user-centric
privacy-by-design
strong governance

Goals
more efficient & rapid roll-out of digital services

public and private sector innovation & competition

improved digital trust and adoption

protecting & enhancing people's rights and data

Source: Digital Public Infrastructure and Development, a World Bank Approach, World Bank, 2025

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DPI vs. a conventional approach to digitalization

Conventional Approach

Service	Service	Service	Service
Data Sharing	Data Sharing	Data Sharing	unavailable
Digital Payments	Digital Payments	unavailable	Digital Payments
Digital ID & e-sign	unavailable	Digital ID & e-sign	Digital ID & e-sign
Sector Data, Systems, & Standards	Sector Data, Systems, & Standards	Sector Data, Systems, & Standards	Sector Data, Systems, & Standards

DPI Approach

Service	Service	Service	Service
Data Sharing			
Digital Payments			
Digital ID and e-signatures			
Sector Data, Systems, & Standards	Sector Data, Systems, & Standards	Sector Data, Systems, & Standards	Sector Data, Systems, & Standards

Enablers & Safeguards

DPI broader ecosystem

What DPI is not: five common myths Myth

Myth1. All digital ID, digital payments, and data sharing platforms are DPI. Identity, payments, and data sharing systems all provide critical functions for digitalization. However, many existing systems today do not meet DPI's full scope (for example, they may be limited to a specific sector), functional characteristics (for example, they may not be interoperable and reusable by third parties, and not use open standards or specifications) or norms (for example, they may not incorporate privacy-by-design, user centricity, or other features).

Myth 2. DPI replaces the need for sector-specific digital data or infrastructure. DPI is a complement to sector digitalization, not a replacement. Core sector digital systems and standards—such as digital registries for social protection, business, credit, agriculture; health-sector interoperability and data exchange protocols; a digital tax or human resource management information systems (HRMIS); a government e-service app—are essential investments to be managed in the respective sector. DPIs can help enable and scale sector-owned digital services that rely on these systems more quickly, cheaply, and reliably.

Myth 3. All DPIs require centralization. In some cases, a specific DPI system is operated by a single provider (such as a digital agency that issues an official digital ID credential). However, each DPI often involves different entities, such as a national ID agency, a digital agency, a certificate authority, the central bank, and payment service providers, among others. While data sharing platforms enable data exchange between entities, this does not necessarily involve data aggregation

Myth 4. Building DPI means you must use it for everything. The advantage of DPI is its ability to reuse the same building blocks, this does not mean that because a DPI exists, it should be integrated into all services, or that all features of a particular DPI are appropriate in all use cases. The goal of a DPI approach is to provide building blocks for innovation and consumer choice, with multiple solutions that can address a variety of service provider and user needs and preferences.

Myth 5. DPI is the end goal or cure-all. DPI is not a silver bullet. It is one piece of a comprehensive strategy for digital transformation, a means to the ends of scaling up impactful digital services and creating new markets that generate benefits for people, governments, and firms.

Observed challenges and benefits

Challenges

- **Legacy systems**: Overcoming institutional inertia and integrating DPI with existing systems.

- **Inclusion and the digital divide**: Addressing gaps in connectivity, device access, and digital literacy, and ensuring accessibility of DPI for marginalized and vulnerable groups.

- **Data privacy and protection**: Ensuring robust safeguards to protect personal data and user rights.

- **Cybersecurity**: Mitigating operational risks and cyber threats.

- **Deployment and procurement**: Avoiding lock-in and ensuring effective contract management and sustainability over time.
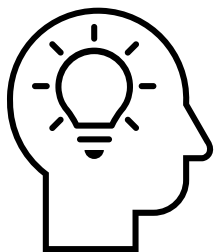
Benefits:

- **Reduced costs and improved access for citizens and businesses.**

- **More efficient service delivery.**

- **Private sector innovation and competition.**

- **Enhanced digital trust and rights protection.**

Source: Digital Public Infrastructure and Development, a World Bank Approach, World Bank, 2025

Successful DPI implementation requires a multi-faceted approach

- **Prioritizing safety and inclusion**: Embedding data protection, security, and accessibility into the design of DPI systems. This includes robust legal and regulatory frameworks, privacy-enhancing technologies, and proactive engagement with civil society organizations (CSOs).

- **Focusing on outcomes, not technology**: Adopting a use-case or service-design approach, starting with a thorough assessment of needs and prioritizing impactful applications. This requires stakeholder consultations, data-driven decision-making, and regular feedback loops.

- **Putting users at the center**: Employing human-centered design principles throughout the DPI lifecycle, including user research, co-creation, prototyping, piloting, and iterative design. This ensures that DPIs are user-friendly, accessible, and meet the needs of diverse populations.

- **Investing in people**: Building capacity within government, the private sector, and among citizens through training and digital literacy programs. This is crucial for the longterm sustainability and effectiveness of DPI initiatives.

- **Adopting a whole-of-society approach:** Fostering collaboration among government agencies, the private sector, CSOs, and other stakeholders. This includes establishing clear roles, responsibilities, and coordination mechanisms.

Source: Digital Public Infrastructure and Development, a World Bank Approach, World Bank, 2025

Key World Bank initiatives

- **ID4D**: Supports 70+ countries with digital ID systems.

- **G2Px**: Improves government-to-person (G2P) payments for inclusion and efficiency.

- **Project FASTT**: Accelerates the deployment of inclusive fast payment systems.

- **Global DPI Program**: Guides future research and technical assistance on DPI.
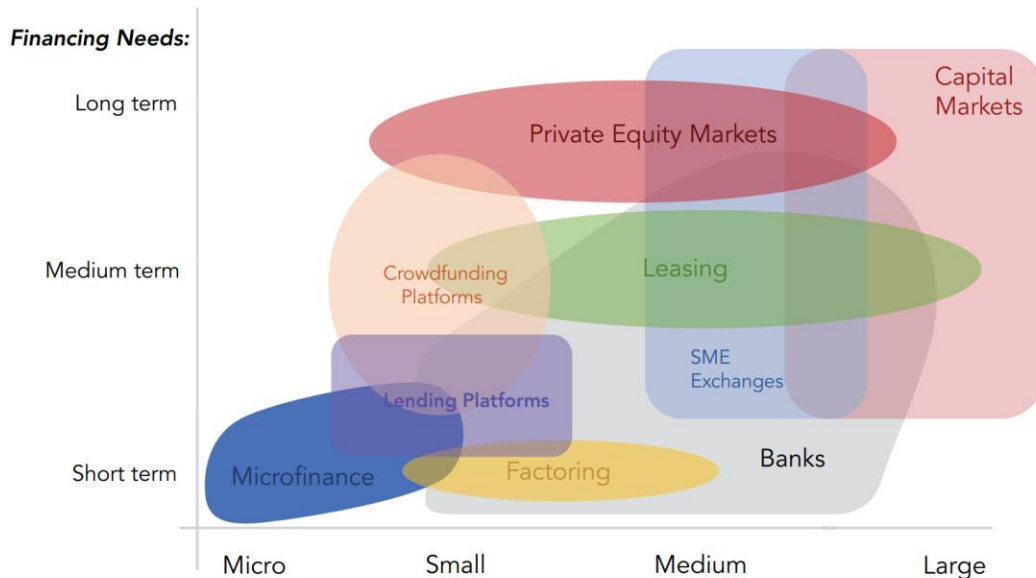
Agenda

1. Digital public infrastructures

2. SMEs financing gap and companies' registries

# SME finance gap affects growth and productivity

The most recent estimates for the formal micro, small, and medium enterprises (MSMEs) sector as a whole place this gap at 19 percent of GDP as of 2020 (about US$5.7 trillion)

New research demonstrates that removing debt and equity financing constraints for small and medium enterprises (SMEs) can lead to significant gains in productivity, growth, and resilience

Sources of Financing for SMEs

Financing Needs:

Long term

Private Equity Markets

Capital Markets

Medium term

Crowdfunding Platforms

Leasing

SME Exchanges

Lending Platforms

Short term

Microfinance

Factoring

Banks

Micro   Small   Medium   Large

Source: BOOSTING SME FINANCE FOR GROWTH The Case for more Effective Support Policies, World Bank, 2024

Composition of debt financing

Total Outstanding Debt Volume, 2020

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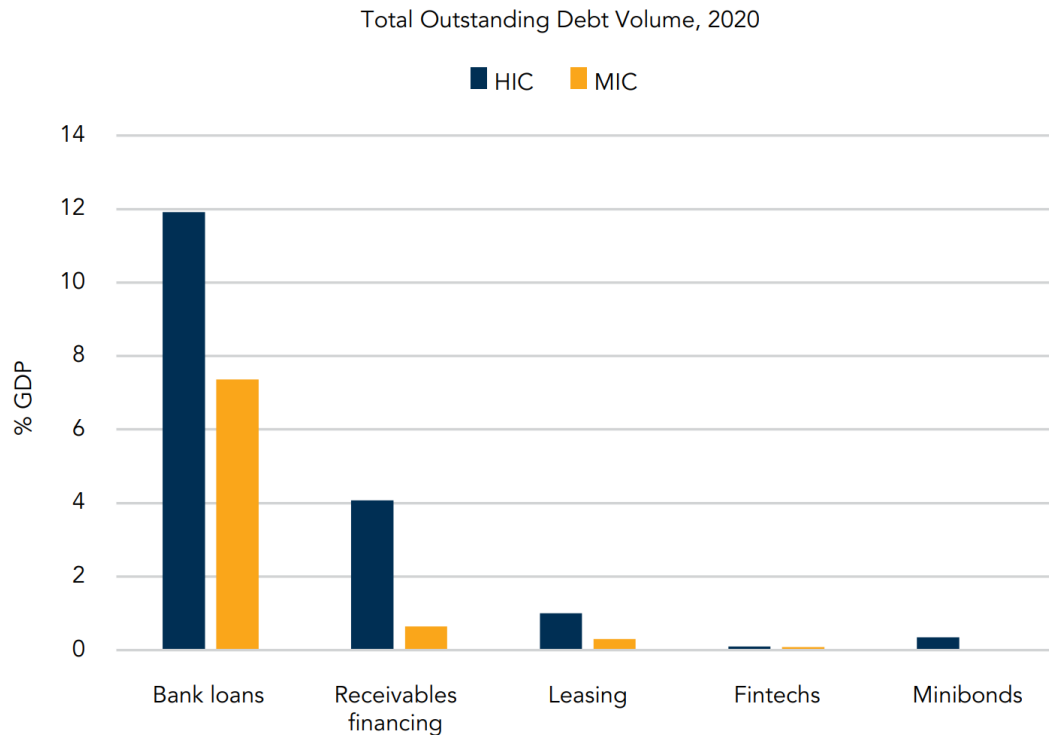
Globally, banks remain the main source of external debt financing for SMEs in both developed and developing countries

Despite being the main source of debt financing, bank lending to SMEs is still relatively underdeveloped in EMDEs.

Source: BOOSTING SME FINANCE FOR GROWTH The Case for more Effective Support Policies, World Bank, 2024

SME financing gap affects growth and productivity

Governments have implemented different types of interventions to address the constraints hampering SME access to finance, but huge financing gaps remain. These constraints stem from the characteristics of SMEs (**high credit risk, opacity, and lack of suitable collateral**). Meanwhile a set of policies can be enacted to:

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supporting the enabling environment (for example, development of credit-reporting systems, secured transactions and collateral registries, and insolvency regimes)

directly affect the supply of financing with fiscal costs (for example, lines of credit, partial credit guarantee schemes, and, increasingly, investment programs in venture capital funds)

Source: BOOSTING SME FINANCE FOR GROWTH The Case for more Effective Support Policies, World Bank, 2024

Supporting the enabling environment

The core policy agenda has focused on three main components:

(a) **the development of credit-reporting systems**;

(b) **the implementation of frameworks for secured transactions along with collateral registries**

(c) **the implementation of effective insolvency frameworks.**

These core components aim to mitigate key market failures and challenges that affect SME financing, in particular their opacity (that is, lack of reliable financial information), their lack of "suitable" collateral, and their higher credit risk (perceived and real).

Governments should also explore **expanding access to government data to lenders and creating infrastructures that supports SMEs in operating efficiently**   *NEXT EXAMPLE*

Source: BOOSTING SME FINANCE FOR GROWTH The Case for more Effective Support Policies, World Bank, 2024
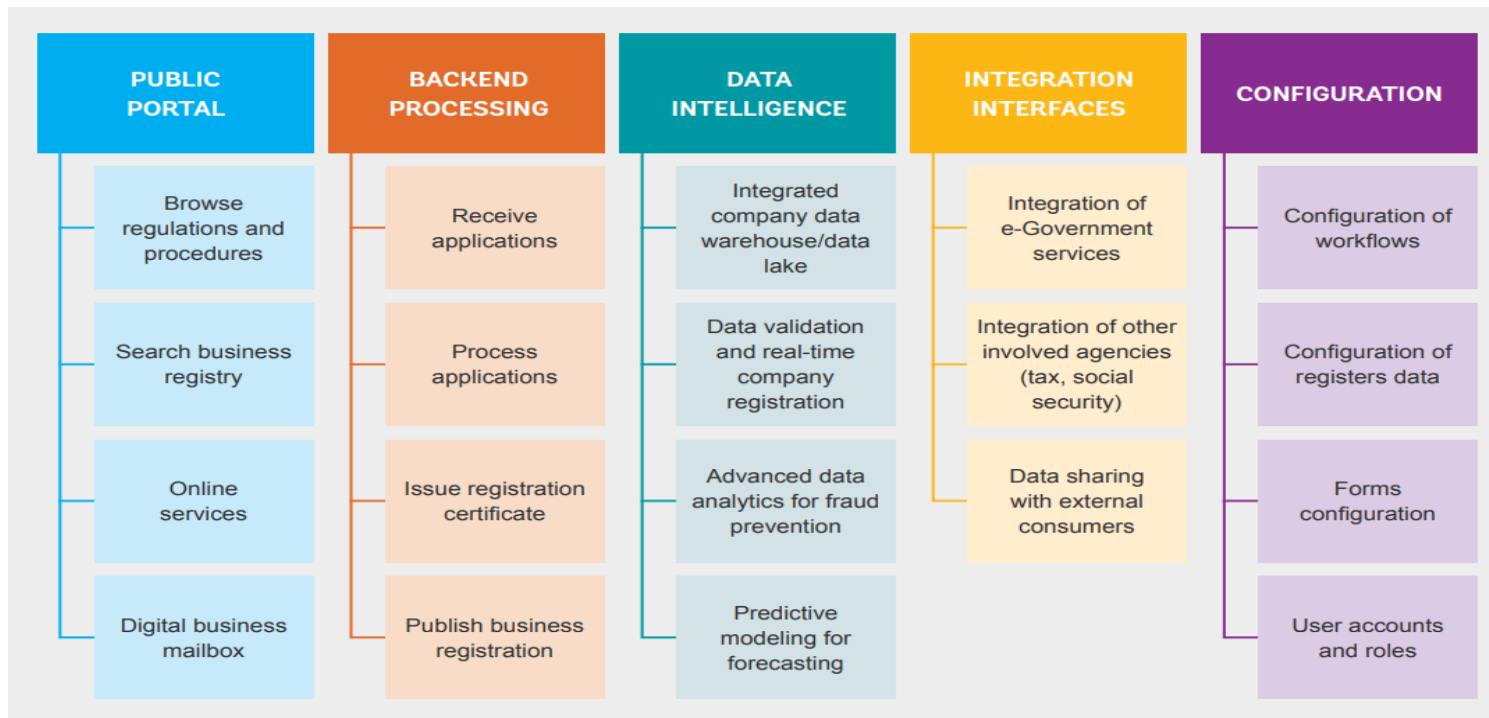
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The digitalization of companies' registries

- The accelerated expansion of digital economy ecosystems mandates company registries to digitalize and connect to these ecosystems responding to new business dynamics.

- Achieving data-driven company registries requires considerable effort to improve data management.

- Some jurisdictions achieved significant automation of company registration procedures through digitalization.

- Real-time company registration requires fraud prevention mechanisms.

- The digitalization of a company registry requires a seamless cross-border digital identity.

A company register belongs to a country base register and serves as trusted source of information about companies.

Source: Data-Driven Company Guidance Note, *World Bank, 2022*

Composition of functionalities of a company register – High level

PUBLIC PORTAL	BACKEND PROCESSING	DATA INTELLIGENCE	INTEGRATION INTERFACES	CONFIGURATION
Browse regulations and procedures	Receive applications	Integrated company data warehouse/data lake	Integration of e-Government services	Configuration of workflows
Search business registry	Process applications	Data validation and real-time company registration	Integration of other involved agencies (tax, social security)	Configuration of registers data
Online services	Issue registration certificate	Advanced data analytics for fraud prevention	Data sharing with external consumers	Forms configuration
Digital business mailbox	Publish business registration	Predictive modeling for forecasting		User accounts and roles

Source: Data-Driven Company Guidance Note*, World Bank, 2022*

The evolution of company registries organization

Capability maturity model (CMM) towards data-driven company registries

The digital economy necessitates modernized company registries.

Traditional systems are often inefficient and prone to errors.

Data-driven registries offer real-time processing and improved data integrity.

	INITIAL	REPEATABLE	DEFINED	MANAGED	OPTIMIZING
DATA COLLECTION	Unstructured documents submitted for company registration	Simple application form and unstructured documents	Single application form for company registration	Single application form and standard articles of incorporation	Single application form and standard articles of incorporation
DATA TRANSMISSION	No data exchange	Exchange of documents (paper or scanned)	Data exchange for integrated company registration	Integrated company data warehouse through data exchange	Integrated company data warehouse/data lake allowing predictive modeling
DATA ANALYSIS	Simple reports (e.g., number of new registrations)	Ad hoc statistical report	Drill-down reports and alerts	Statistical analysis of company information and basic forecasting	Advanced data analytics for real-time registration and fraud prevention

Regulatory policies for a data-driven company registry

	Policy	Description
1	**Mandate interoperability and data sharing between involved stakeholders**	Data quality relies on data sharing between involved stakeholders in the company registration procedure.
2	**Authorize a single authority for initiating, processing, and completing the company registration**	A single authority must be designated as the single point of contact and the authority responsible for deciding on the company registration and managing the integrated company register.
3	**Unify payments of administrative fees into one centralized payment**	A single authority should be designated to receive a single digital and integrated payment of fees related to the company registration.
4	**Define minimum data requirements for the company register**	All input and shared data in a company register must be clearly defined, including mandatory and optional input data, and data should be shared between the stakeholders.
5	**Allow free public access to company register data**	The company register data should be published online and allow free searching and browsing of individual company data
6	**Simplify requirements for articles of incorporation**	Articles of incorporation can be standardized by defining a minimum content that will allow automated validation of data entries and avoid any attachments to applications for initial company registration or registration of changes.
7	**Establish an easy but secure framework for a digital ID**	Lowering the requirements for digital signature and defining a single sign-on digital ID facilitates public access to the online services of a company registry.
8	**Implement a unique business identifier**	A unique business identifier assigned at the initial company registration and shared across the government to facilitate interoperability and business data sharing. It allows the government and businesses to uniquely identify legal entities in transactions and interactions.
9	**Reduce constraints for company naming at registration**	Clear rules regarding company names should be defined that allow in most cases automated name validation without human intervention. Alternatively, removing complex rules for naming and prevention of trademark infringement at registration facilitates and simplifies the company registration process, i.e., only a unique identifier is assigned to newly registered companies
10	**Initiate a mandatory process of public private dialogue and collaboration**	When drafting the Law's revisions and developing digital systems, involve the different actors through public consultations or encourage public groups to contribute or comment to prevent future opposition to the changes.

Source: Data-Driven Company Guidance Note*, World Bank,*
2022

Thanks for your attention

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