Digital Public Infrastructure

Building Blocks for Resilient Economies

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We are used to (physical) public infra

But, societies are fast going digital

Can technology be used to drive access at massive scale? How do we balance the need for economic inclusion and market innovation without sacrificing sovereignty?

3

DPI approach as a way to drive equitable access
via an innovative and competitive ecosystem

We all use global DPIs every day!

Telcom

Powered by common protocols and standards – **GSM, SMS**, …

Ensuring **global voice communication** interoperability

Allows **innovation** – handsets, applications, …

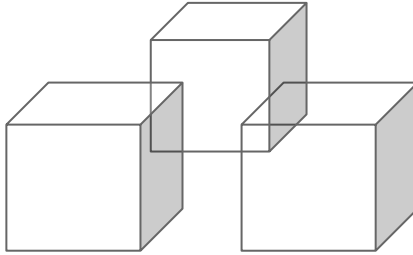Adoption is **driven by ecosystem** by unlocking value to users

Internet

Powered by common protocols and standards – **HTTP, HTML, SMTP**, …

Ensuring **global information exchange** interoperability

Allows **innovation** – devices, applications, …

Adoption is **driven by ecosystem** by unlocking value to users

Getting it right

Defining DPI

A set of **technology building blocks**

powered by **interoperable open standards/specifications**

operated under **a set of enabling rules**

having **open, transparent, and participatory governance**

to **drive innovation, inclusion, and competition** *at scale*

Then, what's DPG?

A set of well designed **assets/resources**

in the form of **specifications/software/data/content**

made **freely available**

having its **own lifecycle and governance**

allowing others to **build and operate their own DPIs**

DPIs are NOT about digitization in silos ...

Attempting to build monolithic, centralized systems goes against the principles of good DPI design
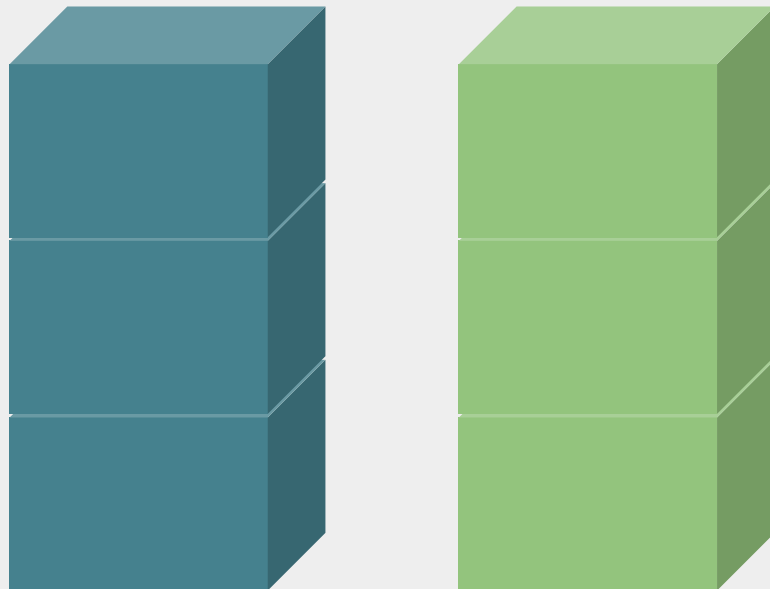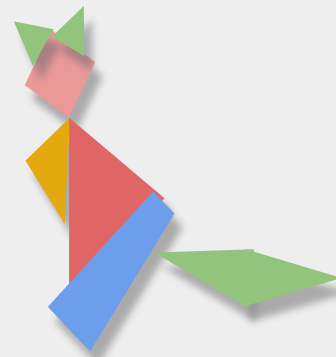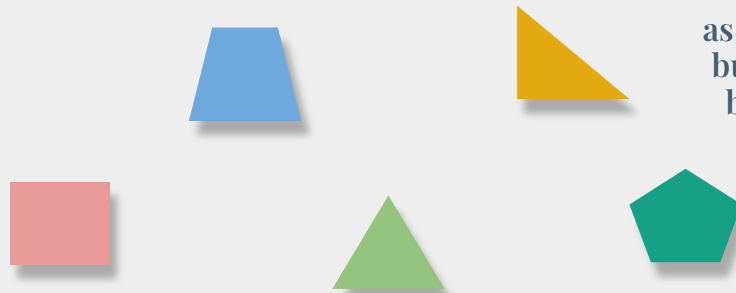
... and not about centralization

DPIs are
inherently decentralized,
managed by many,
evolved in different ways, and
need to work together to achieve
the transformation

They get connected and combined via
interoperability specifications/protocols

Solutions
built by
ecosystem

DPIs
as a set of
building
blocks

DPI design principles
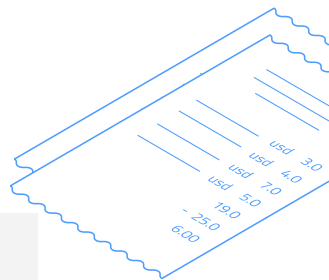
01.

Keep the design absolutely minimal

02.

Design for interoperability

03.

Design for evolvability via generalization

04.

Design to allow layered innovation by others

05.

Leverage ecosystem on both supply and demand side

06.

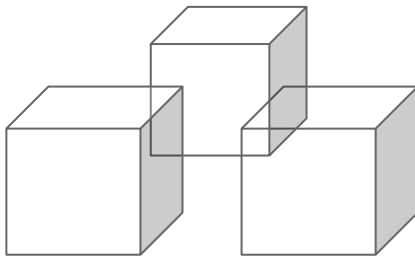**Build privacy & security into the design**

07.

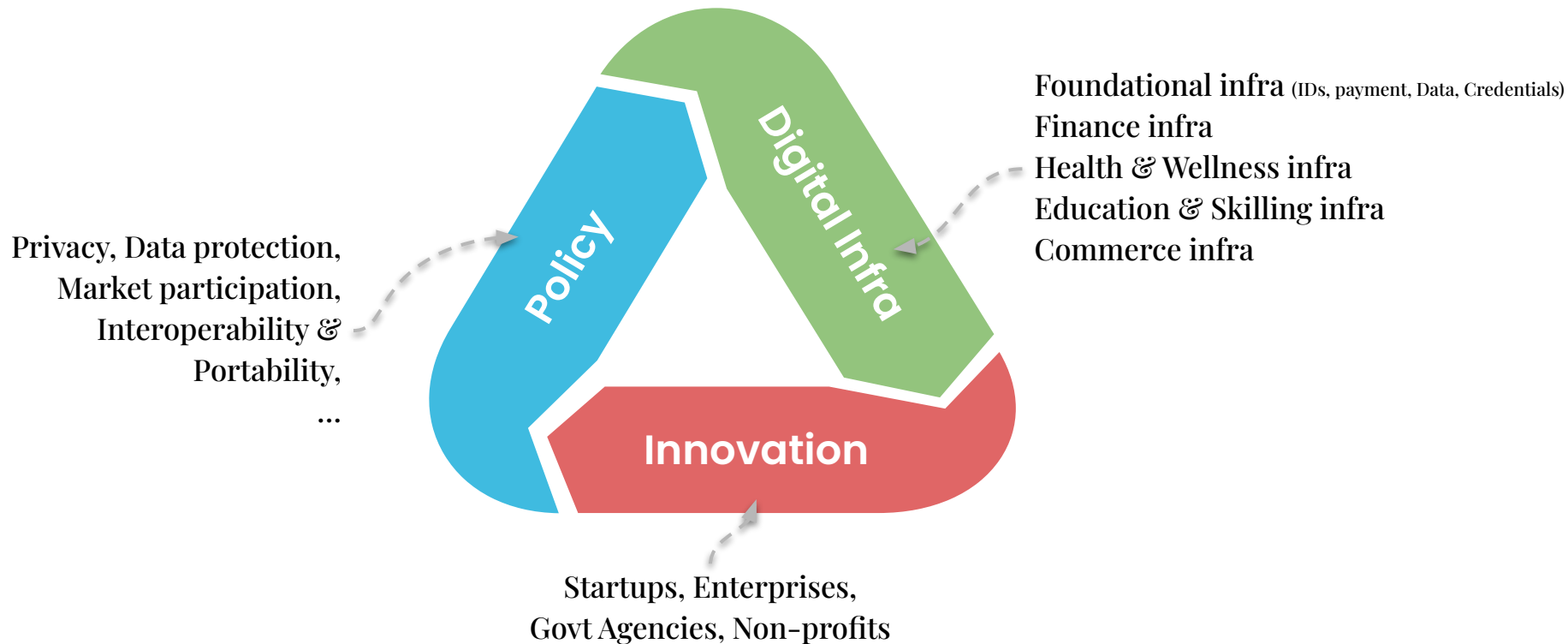**Design with user at the center**

08.

Apply +1 thinking to ensure adoption

It's all about ecosystem and user adoption!

DPIs must harness and align 3 key pillars
Creating level playing ground, drive innovation, competition, and inclusion

Digital Infra

Policy

Innovation

Foundational infra (IDs, payment, Data, Credentials)
Finance infra
Health & Wellness infra
Education & Skilling infra
Commerce infra

Privacy, Data protection,
Market participation,
Interoperability &
Portability,
...

Startups, Enterprises,
Govt Agencies, Non-profits

12

All Govt Approach

Single Provider
Slow Innovation

- Government Applications
- Departments/ Ministries
- Government
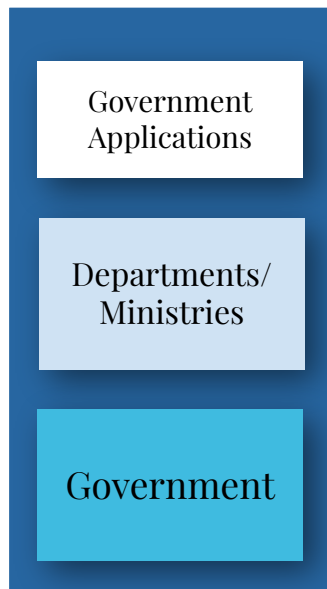
DPI Approach

Addresses diversity & choice
Encourages Innovation & competition,
Ensures openness and sovereignty

- Diverse applications and market Innovation
- Interoperable DPI (open APIs/protocols, shared platforms and enabling policies)
- DPGs & Communities
- Government / Regulators
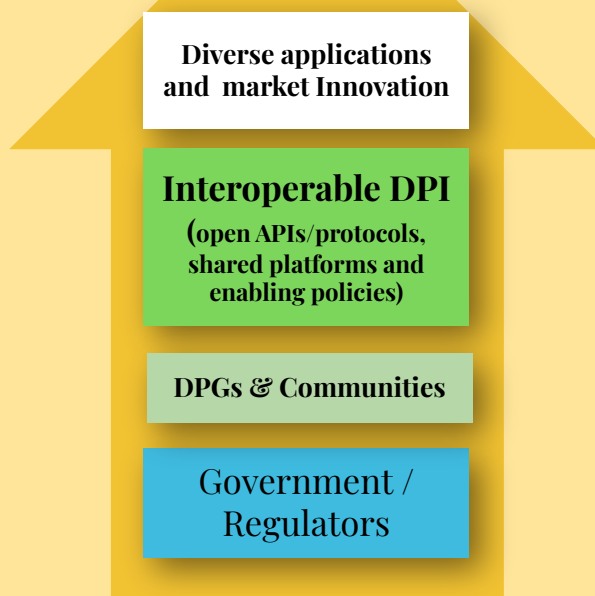
All Private Approach

Lack of interoperability
Lack of competition

- Apps
- Platforms, Appstores, OS
- Private Tech
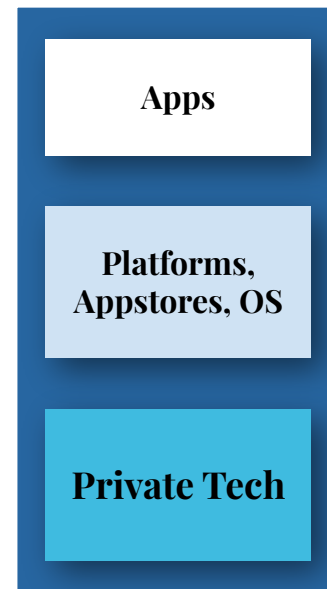
The DPI approach works by using open tech standards & enabling policy to bring the best out of markets
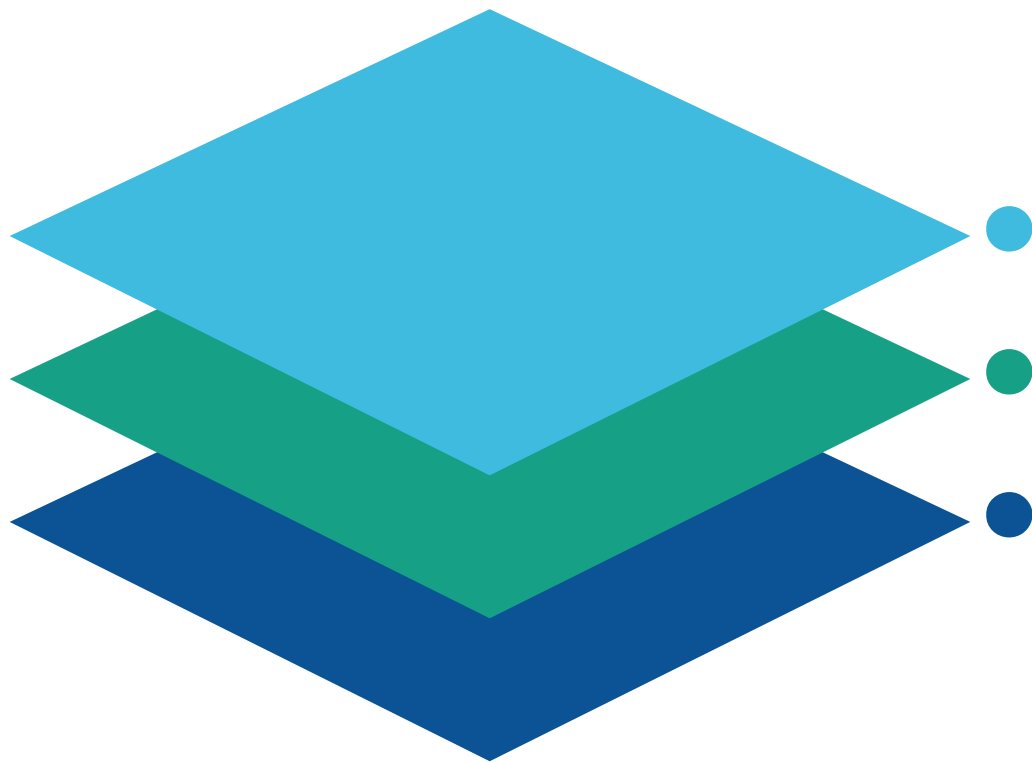
Market: Innovative & competitive <u>market players</u> designing inclusive products

Governance: <u>Legal & institutional framework</u>; <u>programs</u> to drive adoption

Technology: Shared platforms and/or <u>interoperable protocols & specifications</u>

DPIs distributes the ability to solve by the ecosystem
triggering a sustainable & inclusive economic development

Friction Reduction

Reduces cost of doing business, and expands markets

Increased Trust

Digital & portable attestations, credentials, verifiable claims

Easy discoverability & Transactions

Make it easier to discover and fulfil via open networks

Access to learning

Access to healthcare

Access to products & services

Thank you!

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