GovStack

Empowering societies to chart their digital futures

Republic of Estonia
Ministry of Foreign Affairs

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung

ITU

digital impact alliance

GovStack: Mission + Vision

Mission: We empower public and private organizations to make the most of the digital world by providing them with the tools and knowledge needed to successfully scale the digitalization of public services.

Vision: Everyone can access government services using trusted digital technologies that fit their lives and needs.

Value proposition: We provide governments with the tools, knowledge, and best practices needed to build digital public services at scale. This helps ensure that their digital infrastructure is cost-effective, efficient, and high-quality. So people everywhere can access the services they need - from health records to identity documents - easily and safely.

REPUBLIC OF ESTONIA
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giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

ITU

digital impact alliance

govstack.global/partnership

Countries struggle with the digitization of their public services for several reasons

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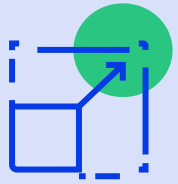
COORDINATION

Siloed investments and duplicative efforts by development partners promote fragmented digital governance and silos in partner countries.

Problems in coordination commonly occur in aligning ICT ministry work with that of other agencies.

RETURN ON INVESTMENT

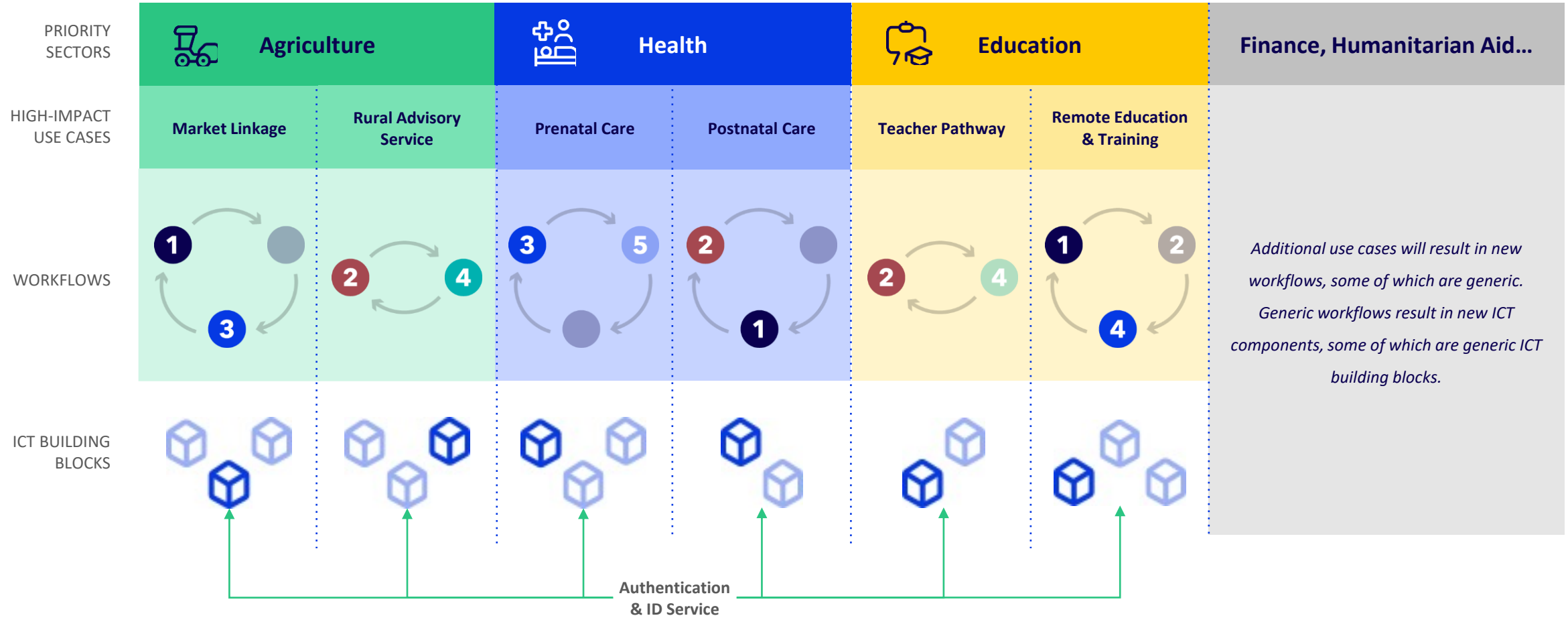
Challenges in procuring and implementing affordable IT solutions persist, as do challenges in creating the necessary capital to invest in ICT infrastructure projects.



SCALING

Huge challenges exist in adapting and investing in projects at scale, particularly around the rollout of physical ICT infrastructure, the deployment and use of common data platforms.

The building block approach can be applied across many sectors to support high-impact use cases



Source: SDG Digital Investment FW, 2019

Designing e-government services with generic Building Blocks

GovStack

What are *Building Blocks?*

Generically-defined **software components** that in combination provide key functionalities to facilitate generic workflows common across multiple sectors.

What are their characteristics?

- Reusable software components
- Open-source, commercial off-the-shelf (COTS), or freely available with open access to data
- Facilitate one or more generic op. workflows
- Applicable to use cases across multiple sectors
- Interoperable with other Building Blocks
- Secure by design, standards-based and interoperable

Source: SDG Digital Investment FW, 2019

[refer to: Building Blocks section of Govstack.global]

From silo ICT investments to reusable software components to digitize governments services at scale

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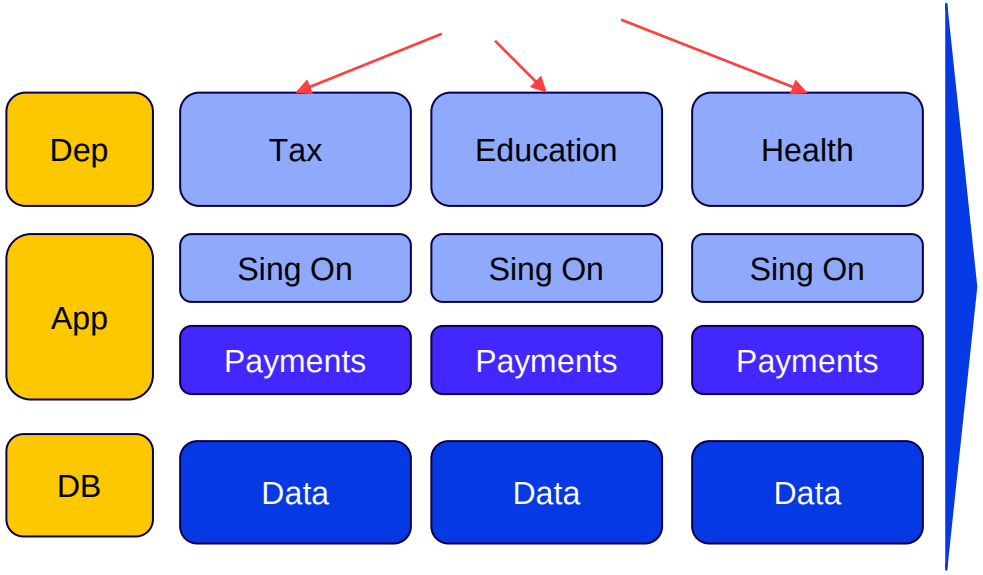
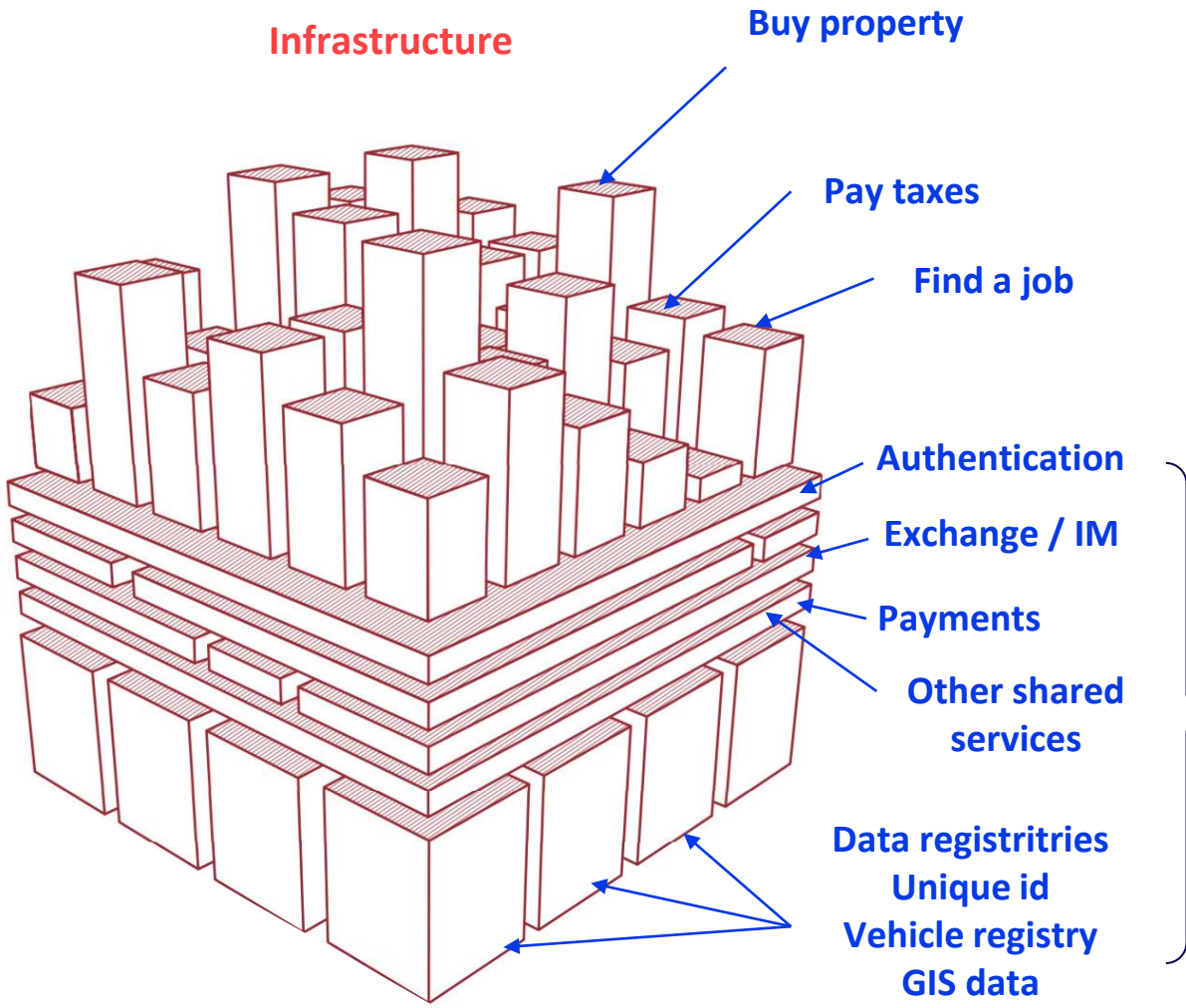
Silo investments, duplication of functionalities





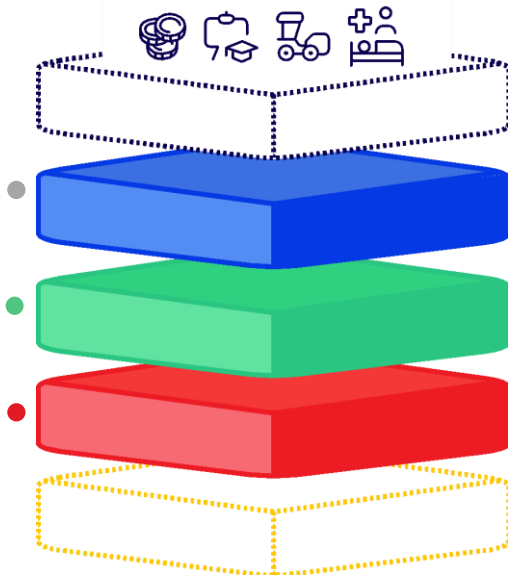
Source: David Eves, UCL 2023

GovStack's Whole-of-Government approach

There is growing evidence that a whole-of-government approach to digital infrastructure investment can deliver reusable digital services at scale with a greater return on investment.

The approach takes advantage of economies of scale that are not available when taking a piece-meal approach.

Instead of creating unique and disparate solutions, use a common reusable stack of Building Blocks to form the core platform engine and contextualize various e-government services on top.



Adaptive Citizen-centric e-Government Services
facilitated by a service-oriented architecture

Mediation Middleware
secure data exchange

Common Applications/solutions Blocks
e-Learning, e-Marketplace, BI/analytics, workflow, procurement, messaging, etc.

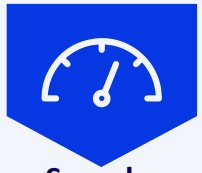
Foundational Blocks**
Identity/authentication, security, consent, payment, registration, registries, e-signature, etc.

**Digital Public Infrastructure (DPI)
considered part of this foundational layer

Hosting ICT Infrastructure

A “platform of platforms” that can be used by any government agency, department across different sectors to build new government digital services without having to design, test and operate the underlying systems and infrastructure themselves

The GovStack approach has wide-ranging benefits



Speed

Increases speed of delivery by facilitating reuse of core service elements anredirectingd resources towards improving citizen outcomes.

Cost-efficiency

Improves procurement efficiency and provides common capabilities cross-departments / -agencies which avoids duplication of efforts, reduces cost to develop new e-gov. services,.

Real economic return

Provides socioeconomic ROI by enabling faster and closer connections from government to addressing needs of citizens and businesses.

ONE government

Enables service delivery that links and invokes different parts of government, providing a connected, consistent and seamless user experience.

Agility + Responsiveness

Enable governments to design and deliver new services quickly to respond to needs and unexpected circumstances (e.g. global pandemic and disasters).

Integration + exchange

Enables integrated transactions and exchange of information across other equivalent stacks and systems through standards and open APIs.

Harmonized policies

Opens possibilities for aggregation of big data for richer insights that would help develop better nonconflicting policies and monitor operations.

Minimized vendor lock-in

Minimizes product ‘lock-in’ and allows independent services to run where modular Building Blocks could be replaced without impacting overall experience.

[Ref. on other documented rationalization w. AsiaPac. countries examples: GSMA Report "Advancing digital societies in Asia Pacific: a whole-of-government approach"]

GovStack offerings

GovSpecs

Building Blocks build the basis for scalable, interoperable digital services
Functional specifications for foundational building blocks

GovTest

A digital testing environment to learn, experiment, and prototype services Sandbox for building blocks and create prototy pes for eGovernment services

GovLearn

Supporting countries in **using building blocks** through the GovStack **Implementation Playbook**, workshops and **Communities of Practices**.

GovExchange

A platform to explore and compare products, view use cases, post or find RFPs.

GovStack offerings accelerate the digitization of governments services

GovStack

GovSpecs

GovTest

GovLearn

GovExchange

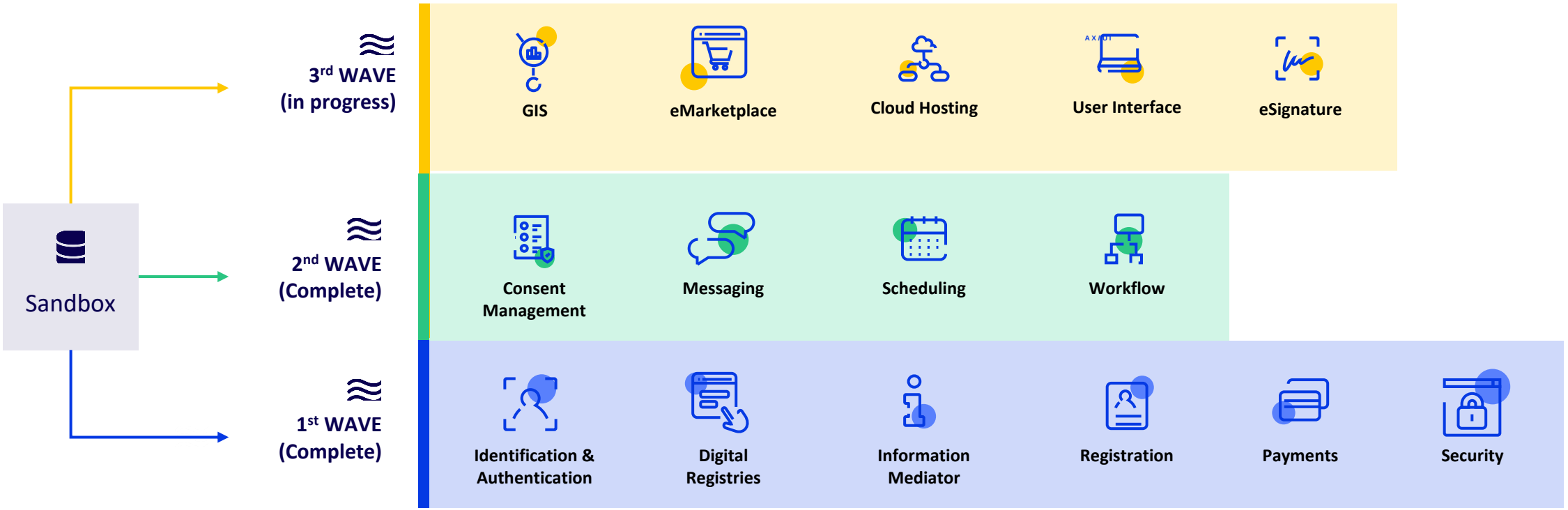
Country Engagement

Countries build their services based on Building Block specifications
Countries may contribute to their development in working groups.

Countries identify and prioritize use cases which can then be demonstrated, tested and explored in sandboxes.

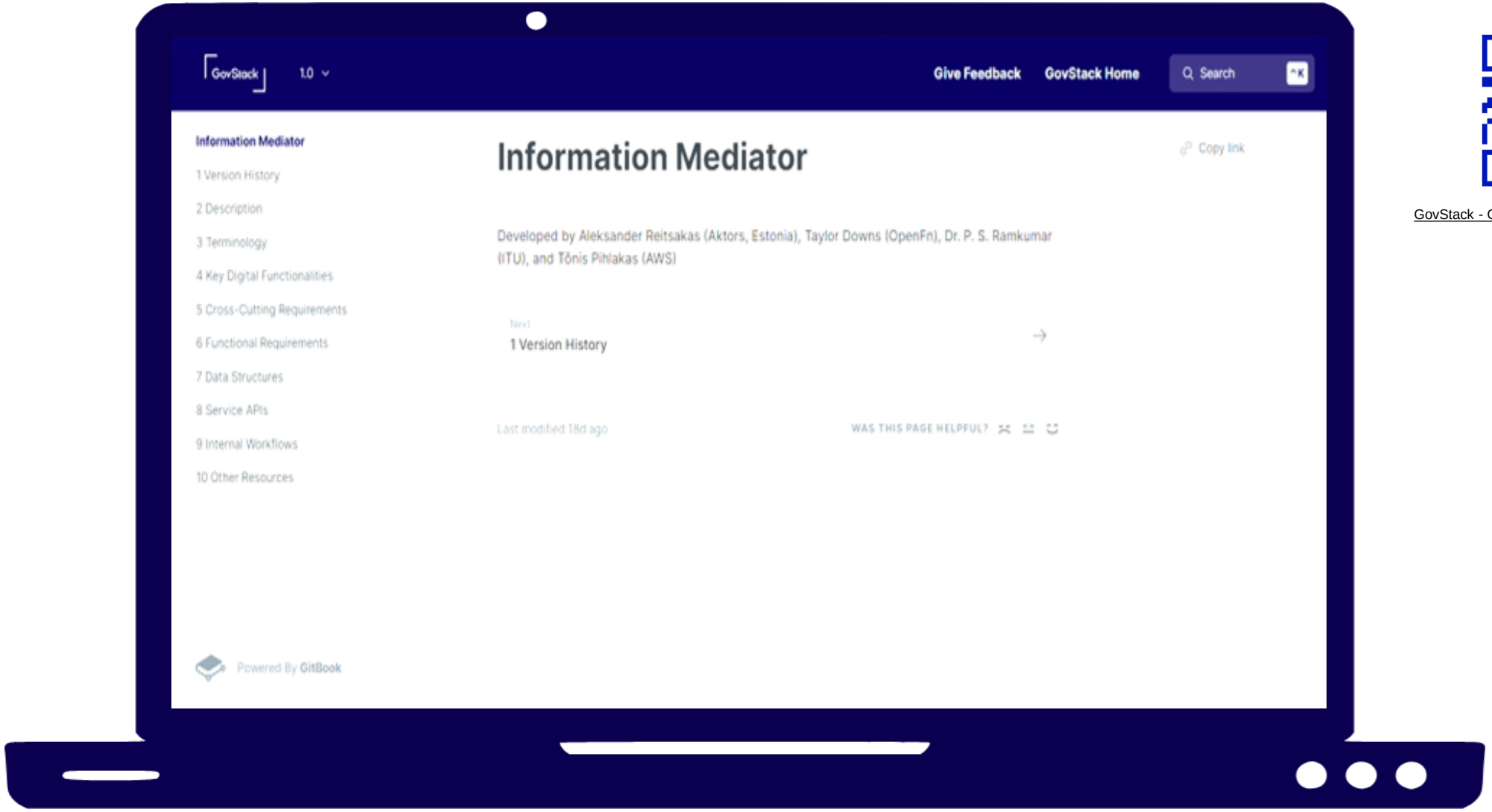
Countries benefit from capacity building (e-learning, implementation playbook, workshops) and exchange knowledge through Communities of Practice.

GovStack Building Blocks are released in waves



Current specifications available at https://govstack.gitbook.io/specification/

Technical specifications accelerate software development and API integration among BBs



GovStack - GovStack Specification (gitbook.io)

GovTest: The GovStack Sandbox to experiment, learn and prototype

The Challenge

- ❑ Lack of comprehensive pre-procurement testing
- ❑ Limited transparency of existing best practice systems
- ❑ Reinventing the development, deployment and operating life cycle

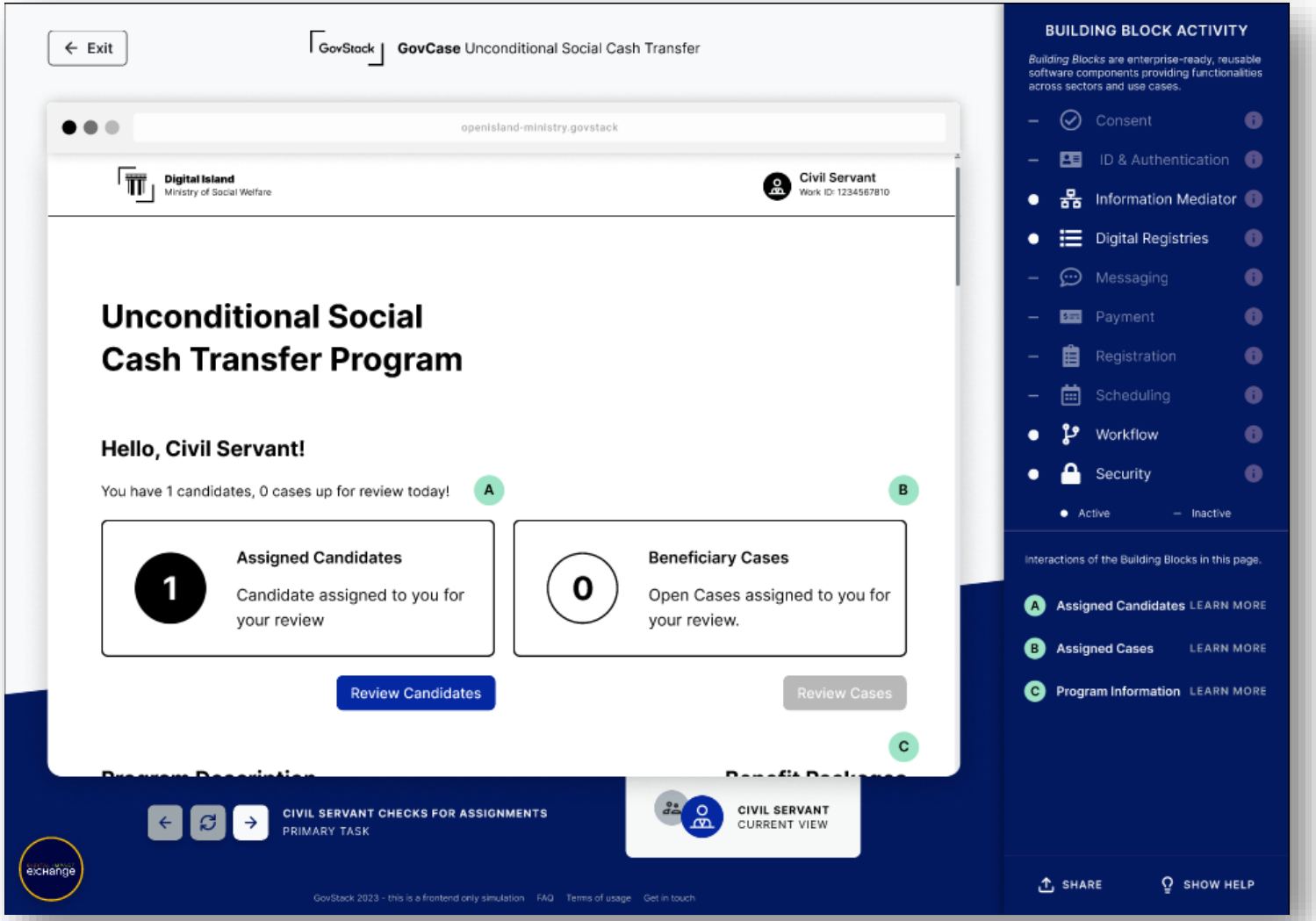
GovStack‘s Solution

- ✓ First GovStack reference implementation acts as best practice
- ✓ Experience the citizen’s user journey of reference use cases
- ✓ Test the interchangeability of Building Blocks with a variety of use cases
- ✓ Assess the deployment, configuration and interoperability of Building Blocks

GovTest: The GovStack sandbox is being developed

Sandbox Features

- ✓ makes the GovStack approach **tangible**
- ✓ is an isolated, safe environment **simulating** a small governmental e-service system (reference implementation)
- ✓ encapsulates the **business logic and data** necessary to represent multiple GovStack (APIs, BB, use cases and workflows)
- ✓ follows the GovStack **architectural approach** centered around APIs and microservices to help unlock monolithic legacy systems to increase the speed of IT project delivery, leading to more effective and cost-efficient digital governments



GovLearn: capacity building through eLearning, workshops, implantation playbook & communities of practice

GovStack Playbook
Resources, guidelines and step-by-step instructions

/ailable for everyone, may be used for independent guidance as well as a step-by-step guide understanding and implementing GovStack

E-learning modules
around GovStack implementation and & the building blocks

Hosted on atingi, complementing the Playbook; a-synchronous short courses

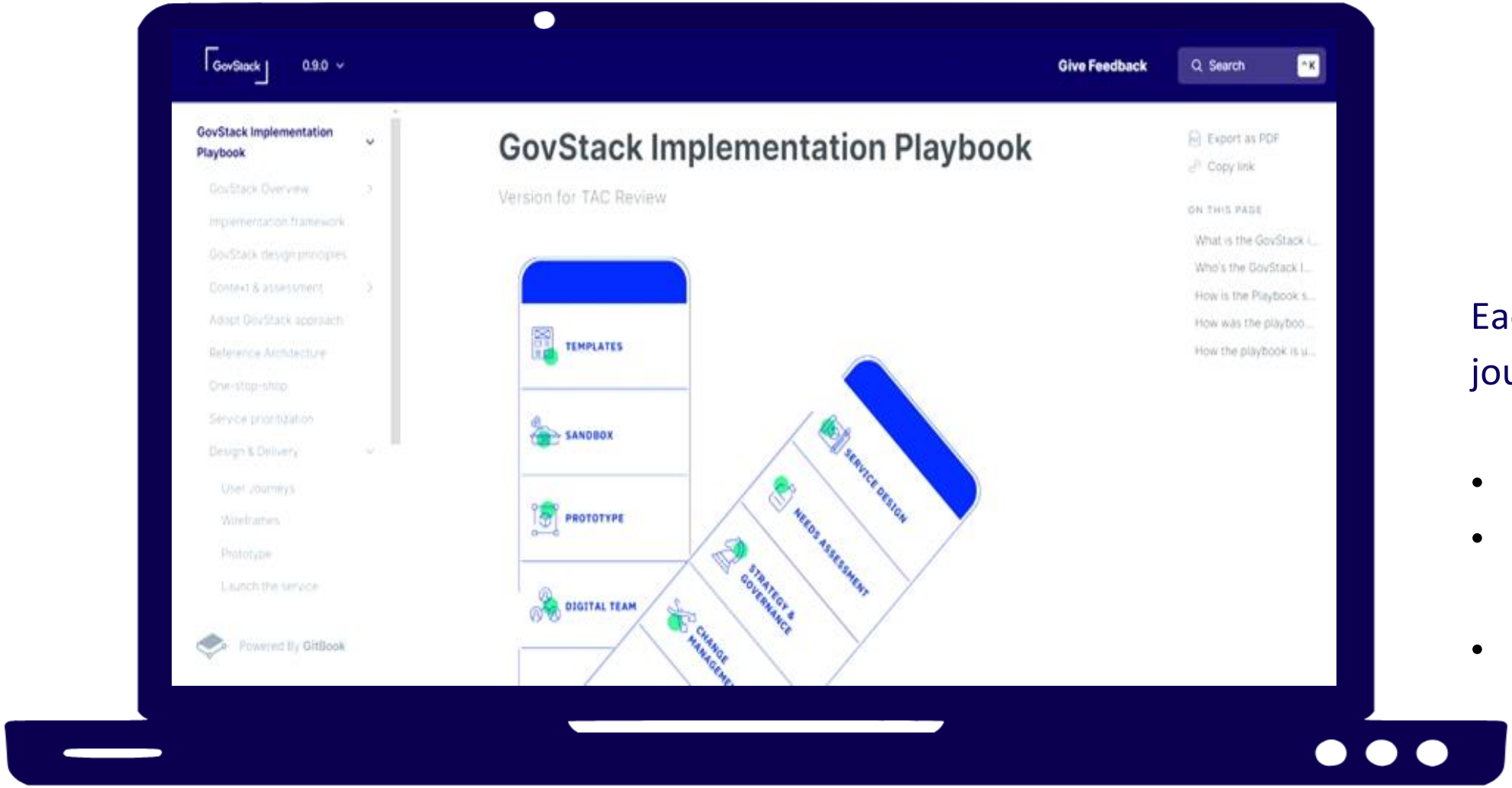
Communities of Practice & other exchange formats

Initiated by founding partners on technical aspects, gender & inclusion or regional exchange

In-person trainings

Specific trainings based on needs assessment in focus-countries

GovStack Implementation Playbook: a step-by-step guide to digital service design using the Building Block approach



Each step within the journey describes of:

- Activities/Resources
- Digital teams roles & responsibilities
- Deliverables

https://govstack.gitbook.io/implementation-playbook/

WSIS Special Prize in Digital Service Design 2023 Edition

50 applicants from all over the world and 10 finalist selected:

- **Front-Office Digitization (FOD), Moldova (Winner)**
- Portal Mais Transparência, Portugal
- TradeTrust, Singapore
- Gob.pe, Peru
- Sapawarga, West Java Indonesia
- Digital Livestock Services, Bangledesh
- BanglarShiksha, West Bengal
- MODUL-F, Hamburg Germany
- TAMM: Abu Dhabi, UAE
- Tina, Argentina

GovStack

Thank You!

https://www.itu.int/en/ITU-D/ICT-Applications/Pages/Digital-Government.aspx
https://www.govstack.global/