Empowering societies to chart their digital futures
GovStack is a multistakeholder, community-driven initiative, focused on accelerating national digital transformation worldwide, and drawing on expertise from contributors across the private sector, civil society, and governments all over the world.

The initiative was founded by the International Telecommunication Union (ITU), Estonia, Germany, and the Digital Impact Alliance at the United Nations Foundation in 2020.
WHY?
Country governments struggle with the digitization of their public services for several reasons

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

**FUNDING FOR PROCUREMENT**
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.

**COORDINATION**
Problems in coordination commonly occur in aligning ICT ministry work with that of other agencies.
In 2015, world leaders agreed to 17 Global Goals for Sustainable Development to achieve a better world by 2030.

Many of these goals rely on our ability to deliver services to people, and we know that digital technology can facilitate broader access.

**GovStack** aims to break down the barriers to building sustainable digital public infrastructure and help governments create human-centered digital services that empower individuals and improve well-being.
From silo ICT investments to reusable software components to digitize governments services at scale

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.

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.

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

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.
WHAT?
GovStack offerings

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

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

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

GovExchange

Country Engagement
Designing e-government services with generic Building Blocks

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
GovStack Building Blocks are released in waves

1st WAVE (Complete)
- Sandbox
- Identification & Authentication
- Digital Registries
- Information Mediator
- Registration
- Payments
- Security

2nd WAVE (Complete)
- Consent Management
- Messaging
- Scheduling
- Workflow

3rd WAVE (in progress)
- GIS
- eMarketplace
- Cloud Hosting
- User Interface
- eSignature

Current specifications available at https://govstack.gitbook.io/specification/
GovLearn: capacity building through eLearning, workshops, implantation playbook & communities of practice

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

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

**Communities of Practice** &
other exchange formats

**In-person trainings**

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

Available on atingi, complementing the Playbook; asynchronous short courses

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

Specific trainings based on needs assessment in focus-countries
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
Library of high-impact Use Cases

Repository of Digital Tools

Implementations, case studies, playbooks

Directory of service providers*

Listings of opportunities*

A Community of Changemakers

* Coming soon

Visit GovStack at: https://www.govstack.global/

https://exchange.dial.global
Green GovStack ICT procurement guidelines

Circular and sustainable public procurement - ICT equipment guide

In this issue

This is a guide for governments and other public sector organizations that procure information and communications technology (ICT) equipment, systems and services. It sets out the systems and process requirements for ICT procurement in a way that supports the transition to circular and sustainable system solutions. It considers the need for policy and strategy, setting the conditions for and building circular and sustainable design into procurement processes.

https://www.itu.int/hub/publication/d-hdb-guidelines-04-2023/

GovStack adapts to existing, to means, to objectives and to context

<table>
<thead>
<tr>
<th>GovStack on the shelves UC</th>
<th>Existing siloed system</th>
<th>DPG/DPI</th>
<th>Private sector system</th>
<th>NGOs</th>
<th>Start-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pay</td>
<td>OpenCRVS</td>
<td>ID</td>
<td>WF mGov</td>
<td>Start-up</td>
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<td>Registry</td>
<td>OpenG2P</td>
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<td>OpenEDU</td>
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<td>Registry</td>
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GovStack on the shelves UC

- Pay
- WF
- Registry

Existing siloed system

- Pay
- WF
- Registry

DPG/DPI

- OpenCRVS
- OpenSPP
- OpenG2P
- OpenEDU
- OpenAGRI

Private sector system

- ID
- Pay
- WF
- Registry
- Portal

NGOs

- WF
- Portal
- mGov

Start-up

- mGov
The GovStack Building Block approach has wide-ranging benefits

<table>
<thead>
<tr>
<th>Speed</th>
<th>Cost-efficiency</th>
<th>Real economic return</th>
<th>ONE government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases speed of delivery by facilitating reuse of core service elements and redirecting resources towards improving citizen outcomes.</td>
<td>Improves procurement efficiency and provides common capabilities cross-departments / -agencies which avoids duplication of efforts, reduces cost to develop new e-gov. services.</td>
<td>Provides socioeconomic ROI by enabling faster and closer connections from government to addressing needs of citizens and businesses.</td>
<td>Enables service delivery that links and invokes different parts of government, providing a connected, consistent and seamless user experience.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agility + Responsiveness</th>
<th>Integration + exchange</th>
<th>Harmonized policies</th>
<th>Minimized vendor lock-in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable governments to design and deliver new services quickly to respond to needs and unexpected circumstances (e.g. global pandemic and disasters).</td>
<td>Enables integrated transactions and exchange of information across other equivalent stacks and systems through standards and open APIs.</td>
<td>Opens possibilities for aggregation of big data for richer insights that would help develop better nonconflicting policies and monitor operations.</td>
<td>Minimizes product ‘lock-in’ and allows independent services to run where modular Building Blocks could be replaced without impacting overall experience.</td>
</tr>
</tbody>
</table>

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

GovStack Country Engagement

Current GovStack Partner Countries from…

Egypt  Rwanda  Kenya  Togo

Somalia  Djibouti  Ukraine  Senegal

Algeria  Argentina  Maldives  Mauritania

Papua New Guinea  Peru  Sierra Leone

GovStack Services: We collaborate with governments in the following areas:

- Assessing e-government readiness and roadmap development
- Piloting of e-government use case
- Strengthening local capacity
- Contribution of local actors to the Building Block specifications
- Participation of local actors in Communities of Practice
Way Forward
GovStack implementation framework strengthens institutional mandate, service design and delivery using a BB approach.
High-level GovStack digital service design and delivery journey

1. Understand country context, & current Tech-Stack
2. Prioritize & rank Services
3. Assess user needs & detail ‘As-Is’ user journey
4. Co-design ‘To-Be’ user journeys
5. Design service blueprint & BB architecture
6. Develop wireframes
7. Prototype the service on sandbox
8. Launch the service
9. Develop scaling strategy
Together, Digital Public Goods and Building Blocks enable Digital Public Infrastructure (DPI)

Digital Public Infrastructure
Solutions and systems that enable essential, society-wide functions and services

DPGS AND BUILDING BLOCKS CAN BE IMPLEMENTED AS PART OF A COUNTRY’S DPI

Digital Public Goods
Open license, SDG relevant

Building Blocks
Interoperable, generic component

Interoperable open source solutions that are relevant to the SDGs and have generic components may be both Building Blocks and Digital Public Goods

Thank You!
GovStack

Case Studies
GovStack Engagement in Horn of Africa (HoA) co-financed by the EU Commission

- **Developing digital government strategies and roadmaps**: Development of Digital Readiness Studies and Implementation Roadmaps
- **Strengthening government capacity**: GovStack and Change Management capacity development including Training-of-Trainers and on the job coaching
- **Participation in Communities of Practice**: Regional and Global GovStack Communities of Practice

- **GIZ local project/office**: GIZ Digital Transformation Center (DTC) Kenya
- **Duration**: 01/2022 - 03/2025

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... an EU D4D cooperation together w. France, Spain – the International Telecommunication Union (ITU), Digital Impact Alliance (at the UN Foundation) and Estonian Centre for International Development (EstDev)
GovStack Engagement in Ukraine

**Partner Ministry**
Ministry of Digital Transformation (MDT)

**GIZ local project/ office**
GIZ Ukraine

**Duration:** 06/22 – 08/25

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**Making Ukrainian e-government platform GovStack compliant**
The Ukrainian UAPlatform will be converted into a GovStack compliant and added to the GovStack sandbox.

**Further development of Ukrainian System with GovStack**
GIZ and MinDigital are assessing further needs of the Ukrainian eGovernment system and adapting the GovStack approach.

**Participation in International Platforms**
Ukrainian stakeholders participate in Communities of Practice, Digital Leaders forums etc. for knowledge and best practice exchange.
## GovStack Engagement in Egypt

### Partner Ministry
Ministry of Information and Technology (MCIT)

### GIZ Local Project/Office
GIZ Project “Supporting e-Government and Innovation in the Public Administration (InnoPA)”

### Duration
02/22 – 08/25

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
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<tbody>
<tr>
<td>Adaption of GovStack Building Blocks</td>
<td>Usage of GovStack Building Blocks as addition to existing systems</td>
</tr>
<tr>
<td>Strengthening Ecosystem Capacity</td>
<td>Deep Dive Workshops on the usage of GovStack in the country are held</td>
</tr>
<tr>
<td>Participation in International Platforms</td>
<td>Egyptian stakeholders participate in Communities of Practice, Digital Leaders Forums to exchange on best practices</td>
</tr>
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</table>
GovStack Engagement in Rwanda

**Partner Ministry**
Ministry of ICT and Innovation (MINICT) - Rwanda Information Society Authority (RISA)

**GIZ local project/ office**
GIZ Digital Transformation Center (DTC) Rwanda

**Duration**: 07/22 – 08/25

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**Prototyping of e-government services**
E-government use cases are piloted based on the GovStack approach using the building blocks

**Strengthening government capacity**
GovStack related capacity development are developed and carried out

**Contribution to building block specifications**
Rwandan actors are participating in Building Block Working Groups and Technical Review Cycles
GovStack Engagement in Papua New Guinea

**Partner Ministry**
Ministry of ICT, PNG

**Duration:** OnGoing

**MTDP Projected Allocations:**
- K0.7 billion for Digitalization
- K0.1 billion for Cybersecurity
- K1.7 billion for Digital Infrastructure
- 3 - 4% Earmarked Annually for Digital Government

**Digital Services**
- EGovernment Portals
  - Student Portal (E2C)
  - Investment Portal (E2C)
  - Government Portal (E2C)
  - Citizen Portal (E2C)

**Secure Data Exchange**
- sGovernment Portals

**Cybersecurity and Governance**
- Hosting and Comms Infrastructure
  - GovCloud & GovNetwork
GovStack Engagement in Papua New Guinea

**Partner Ministry**
Ministry of ICT, PNG

**Duration:** OnGoing

### 2019
- Marape Government Formed
- National ICT Roadmap 2018 launched

### 2020
- Defined the vision & strategy
  - Digital Transformation Policy 2020
  - DICT Corporate Plan 2020-2024

### 2021
- Department of ICT established
- PS ICT Steering Committee Operationalized
- National Cyber Security Policy 2021

### 2022
- Obtained the legal mandate
  - Digital Government Act 2022
  - Department of ICT Recruitment Drive
  - National Cyber Security Centre established

### 2023
- Government Cloud Policy 2023
- Data Governance and Protection Policy
- MTDP IV Launched with key priority on Digital Government
- Design, Build, Procure Services for
  - G2C eGov Portal
  - Interoperability Platform
  - GovCloud Accounts
  - Digital ID Authentication
  - Unified Payment Platform

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Digital Transformation Journey | The Independent State of Papua New Guinea