SDG Digital Investment Framework and Product Evaluation

SDG focused approach to planning and coordinating digital investments
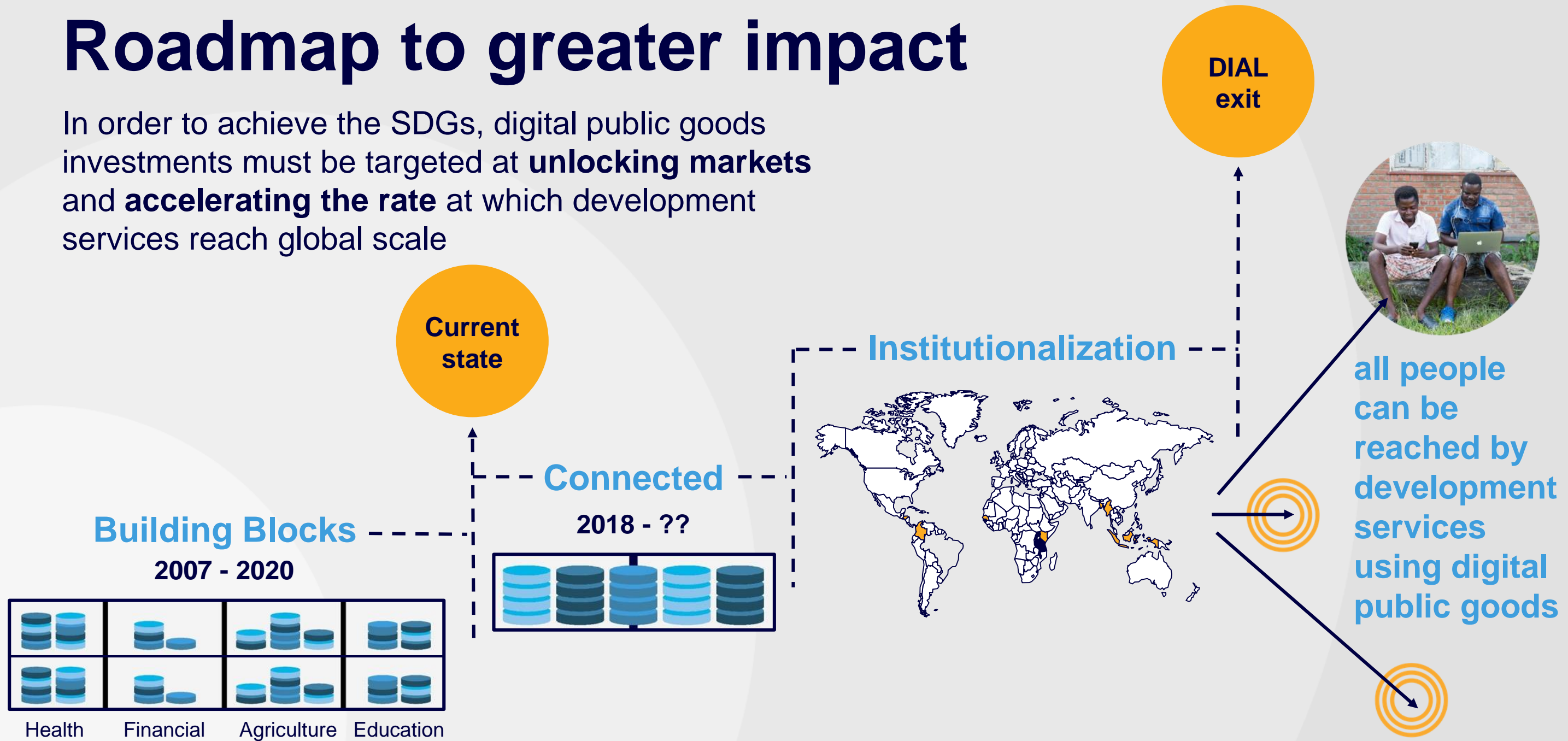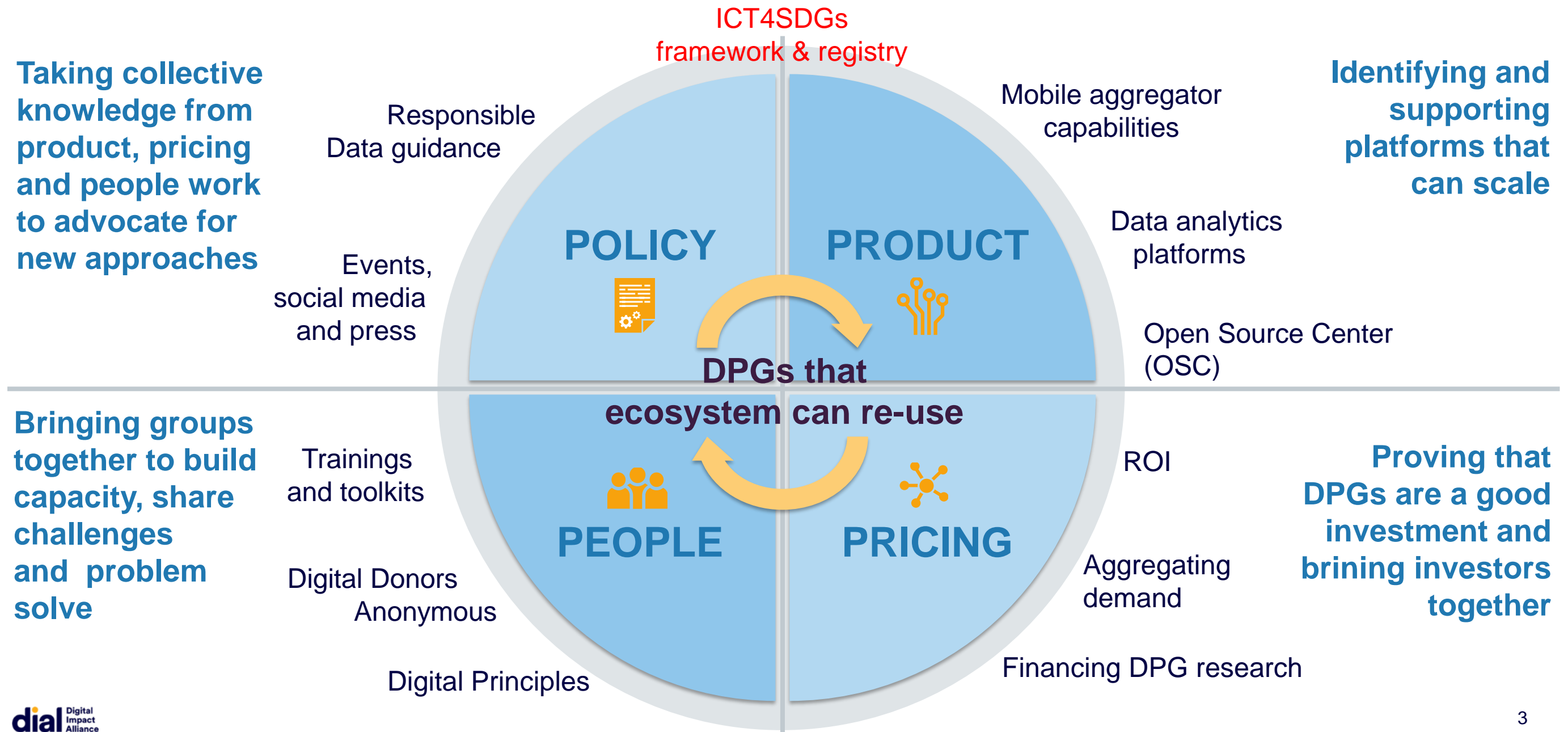
Roadmap to greater impact

In order to achieve the SDGs, digital public goods investments must be targeted at **unlocking markets** and **accelerating the rate** at which development services reach global scale

DIAL exit

Current state

Institutionalization

Connected

2018 - ??

Building Blocks

2007 - 2020

Health   Financial   Agriculture   Education

all people can be reached by development services using digital public goods

DIAL 1.0: Investing in digital public goods

In order to move from a building block world to one in which efforts are connected across sectors, we invest **in products, policy, people and pricing** mechanisms to ensure software platforms, mobile channels and d4d solutions are turnkey

ICT4SDGs
framework & registry

Taking collective knowledge from product, pricing and people work to advocate for new approaches

Responsible Data guidance

Events, social media and press

Identifying and supporting platforms that can scale

Mobile aggregator capabilities

Data analytics platforms

Open Source Center (OSC)

POLICY

PRODUCT

DPGs that ecosystem can re-use

Bringing groups together to build capacity, share challenges and problem solve

Trainings and toolkits

Digital Donors Anonymous

Digital Principles

PEOPLE

PRICING

ROI

Aggregating demand

Financing DPG research

Proving that DPGs are a good investment and brining investors together

dial Digital Impact Alliance

What is the framework: https://bit.ly/ITUDIAL

Theory of Change

Fragmented, sector-specific ICT4D funding and application development **prohibits the development and institutionalization** of sustainable, scalable ICT platforms.
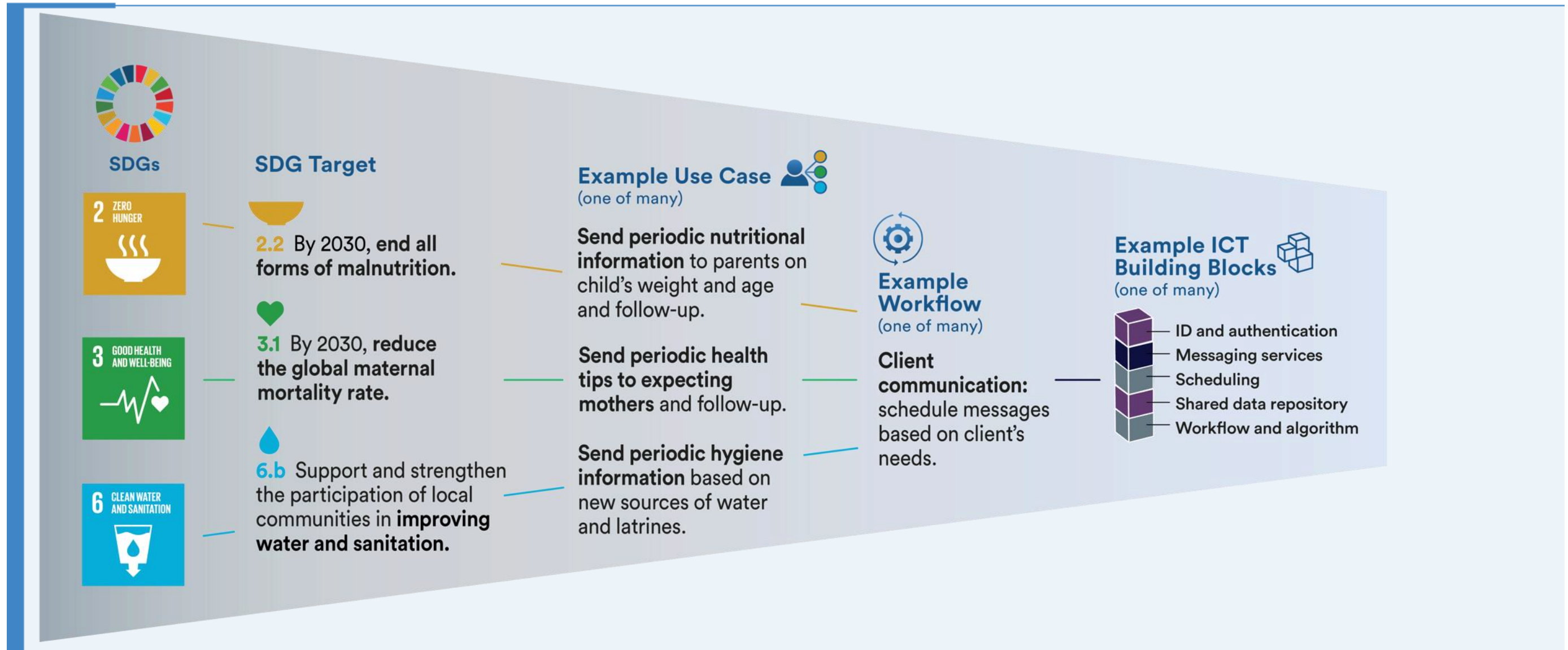
ICT platforms must be capable of supporting initiatives across **multiple sectors** in order to be cost effective and affordable to governments as they work toward the SDGs.

Promoting a **whole-of-government** enterprise approach will produce a larger market opportunity, yield cost savings and lead to increased investment in the development of sustainable platforms.

Acceleration of **progress towards the SDGs** combined with the **ROI** will incentivize governments, donors and the private sector to pool financing to make the large-scale financial investments needed to implement sustainable ICT platforms at scale.
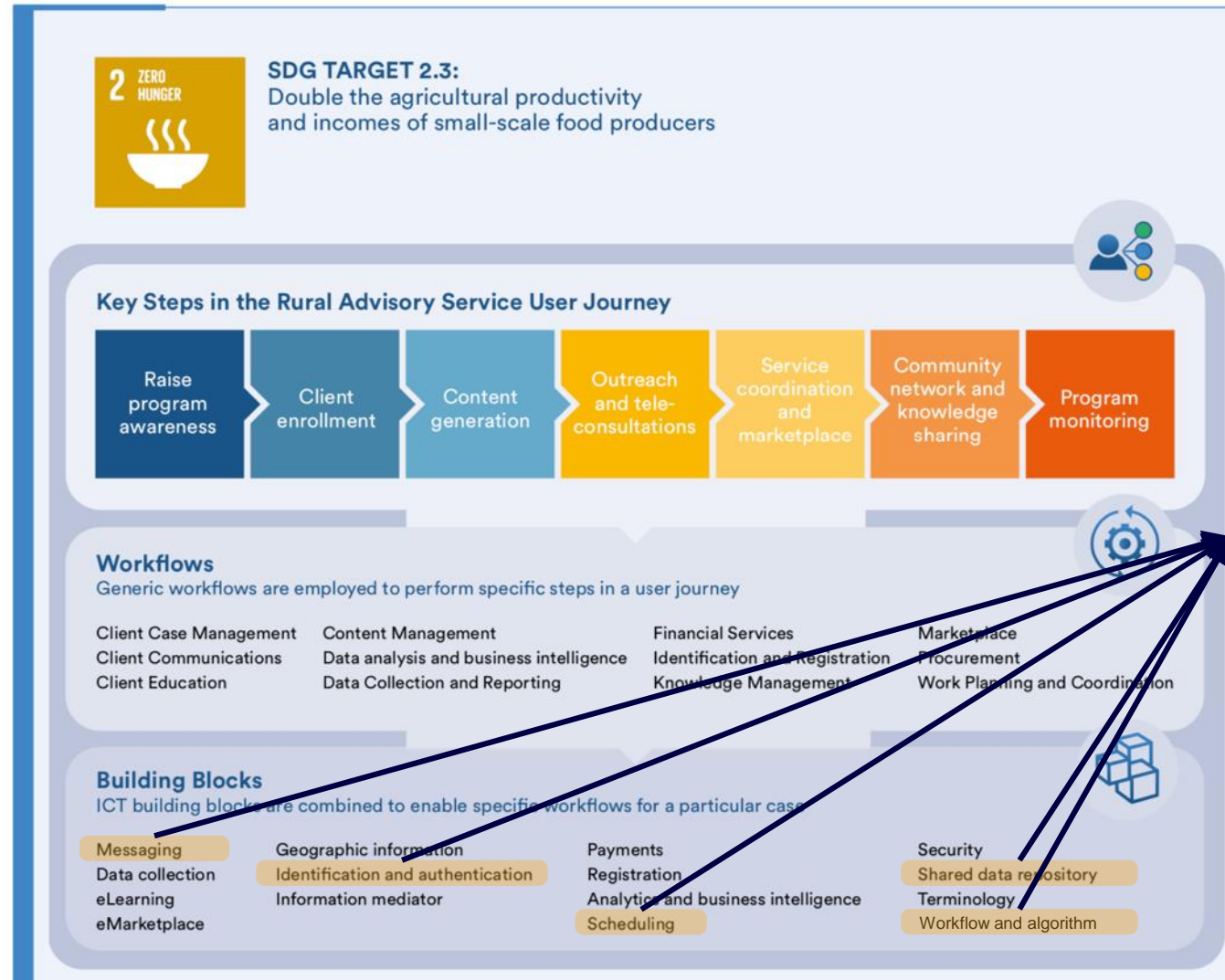
Coordinate digital systems to support multiple physical systems

Each SDG target may have different supporting actors and business processes, but can share digital systems
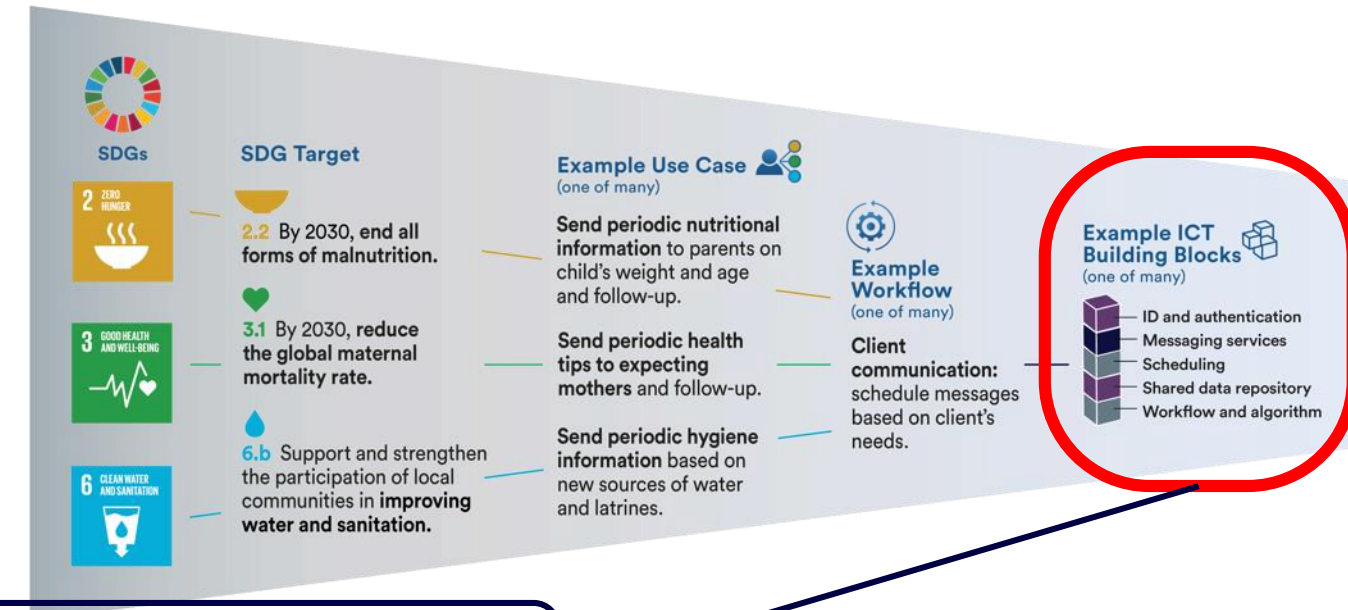
Coordinate your digital investment around reusable building blocks to deliver many use cases.

Example of Rural Advisory Use Case

SDG TARGET 2.3:
Double the agricultural productivity and incomes of small-scale food producers

Key Steps in the Rural Advisory Service User Journey

Raise program awareness → Client enrollment → Content generation → Outreach and tele-consultations → Service coordination and marketplace → Community network and knowledge sharing → Program monitoring

Workflows
Generic workflows are employed to perform specific steps in a user journey

- Client Case Management
- Client Communications
- Client Education
- Content Management
- Data analysis and business intelligence
- Data Collection and Reporting
- Financial Services
- Identification and Registration
- Knowledge Management
- Marketplace
- Procurement
- Work Planning and Coordination

Building Blocks
ICT building blocks are combined to enable specific workflows for a particular case

- Messaging
- Data collection
- eLearning
- eMarketplace
- Geographic information
- Identification and authentication
- Information mediator
- Payments
- Registration
- Analytics and business intelligence
- Scheduling
- Security
- Shared data repository
- Terminology
- Workflow and algorithm

SDGs / SDG Target / Example Use Case / Example Workflow / Example ICT Building Blocks

- 2.2 By 2030, end all forms of malnutrition.
- 3.1 By 2030, reduce the global maternal mortality rate.
- 6.b Support and strengthen the participation of local communities in improving water and sanitation.

Example Use Case (one of many)
- Send periodic nutritional information to parents on child's weight and age and follow-up.
- Send periodic health tips to expecting mothers and follow-up.
- Send periodic hygiene information based on new sources of water and latrines.

Example Workflow (one of many)
Client communication: schedule messages based on client's needs.

Example ICT Building Blocks (one of many)
- ID and authentication
- Messaging services
- Scheduling
- Shared data repository
- Workflow and algorithm

> All 4 example use cases utilize the same 5 ICT building blocks

- ICT building blocks put in place for one use case, such as a rural advisory service, can be reused to deliver many additional use cases across multiple sectors
- Leveraging digital investments in this way enables more cost-effective scale-up of digitally supported programs thru elimination of duplicative systems and consolidation of human resources across the public sector

ICT Building Blocks

Building blocks will continue to be refined and defined over time.

📋 Registration	💬 Messaging	📅 Scheduling	🔒 Security
$ Payments	Information mediator	🛒 eMarketplace	GIS
Identification & Authentication	Client case management	Collaboration management	Analytics & Business Intelligence
eLearning	Reporting & dashboards	Content management	Data collection
Shared data repositories	Digital registries	Terminology	Artificial intelligence
Consent management	Mobility management	Workflow and algorithm	

Candidate Product Discovery Tool

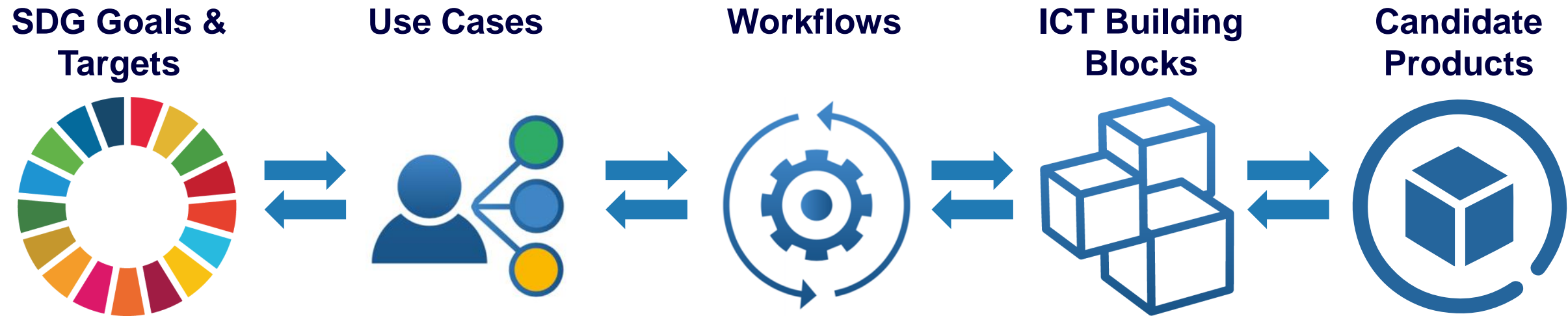| OpenFarm	Open Food Facts	Open Food Network
openfarm	Open Ag Data Alliance	OPEN FOOD NETWORK
0 interops, 0 includes, 0 references, 0 building block(s), 0 sector(s)	0 interops, 0 includes, 0 references, 0 building block(s), 0 sector(s)	0 interops, 0 includes, 0 references, 0 building block(s), 0 sector(s)
OpenIMIS	OpenLMIS	OpenMRS
openIMIS	OpenLMIS	OpenMRS
0 interops, 0 includes, 0 references, 0 building block(s), 0 sector(s)	3 interops, 0 includes, 1 references, 1 building block(s), 0 sector(s)	1 interops, 0 includes, 4 references, 0 building block(s), 0 sector(s)

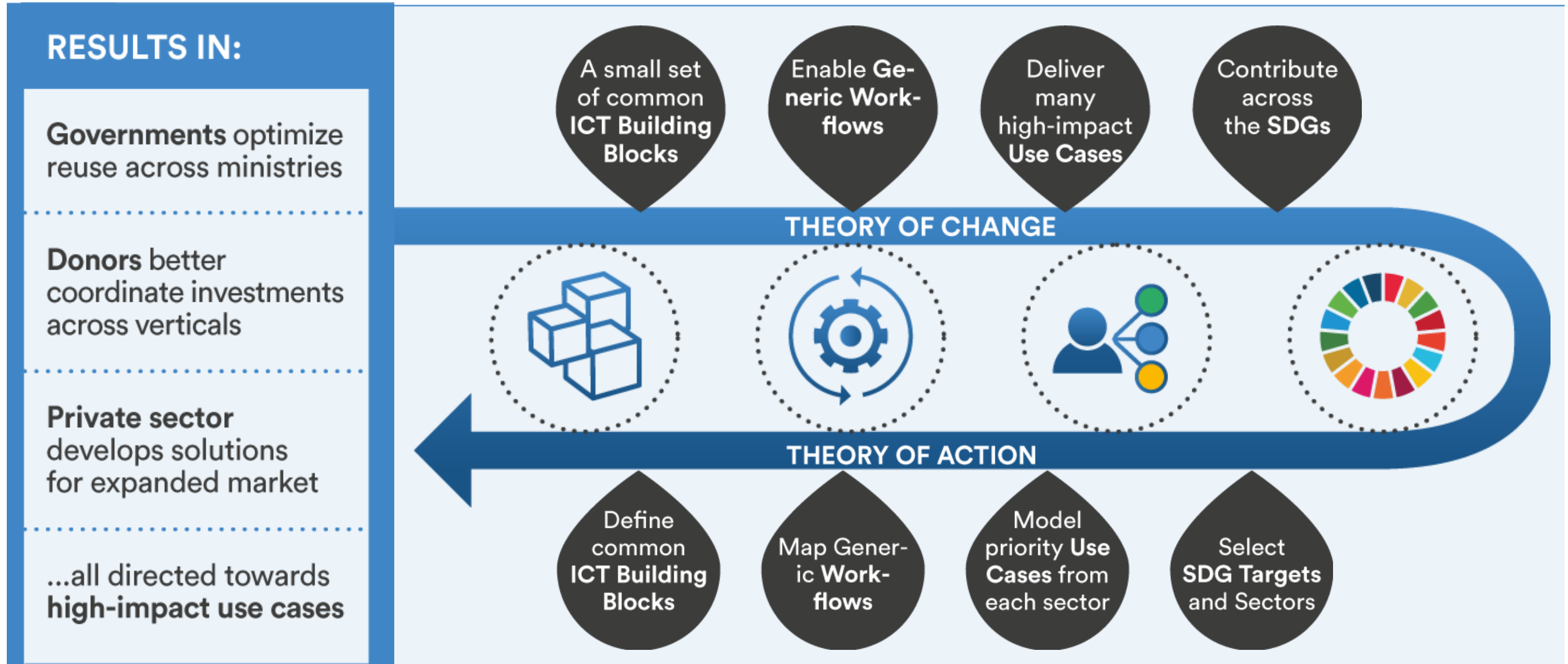# View Building Blocks, View Products, Interactively navigate between them
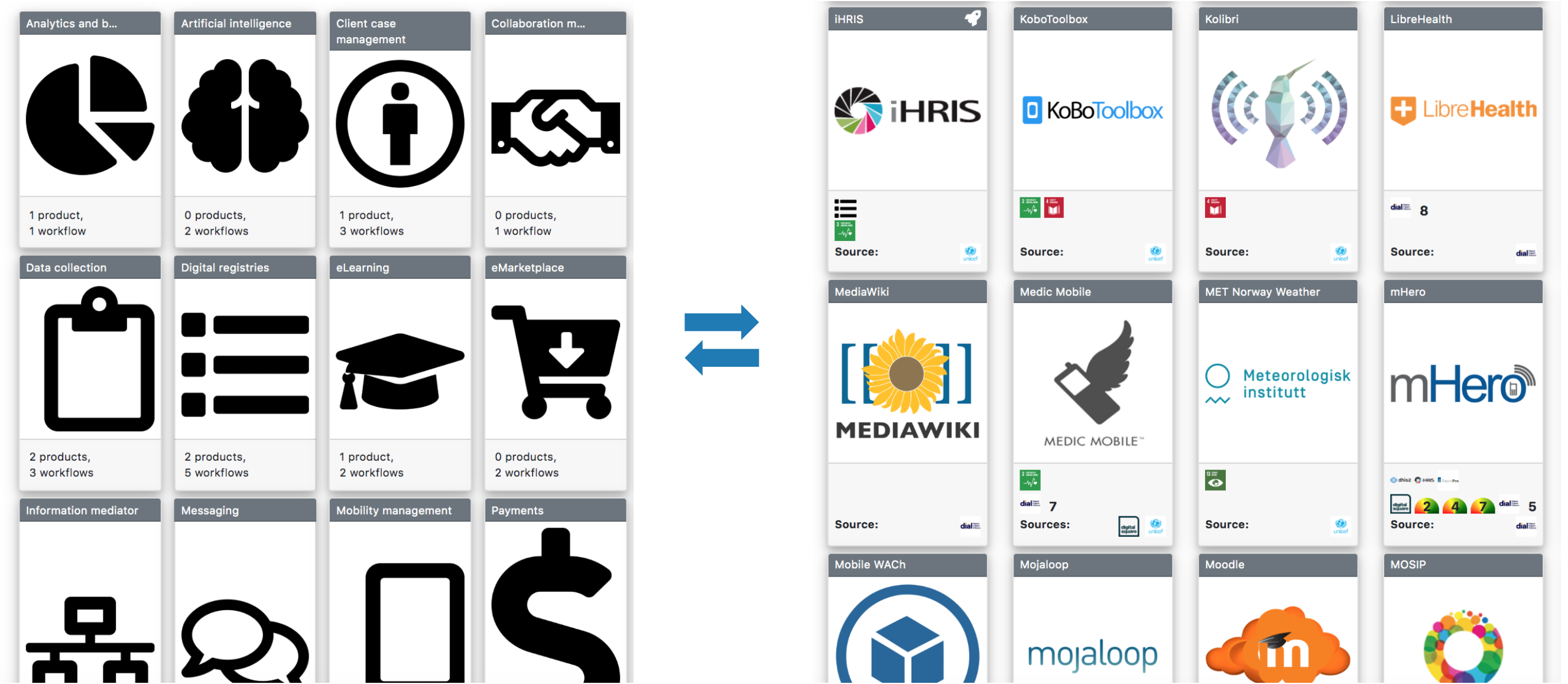
Beta: Online tool to navigate the Framework and Content

Navigate the different associations between layers. Find available products. Online.

SDG Goals & Targets → **Use Cases** → **Workflows** → **ICT Building Blocks** → **Candidate Products**

URL: Product Registry: Site

SDG digital investment framework supports the eco-system

RESULTS IN:

Governments optimize reuse across ministries

Donors better coordinate investments across verticals

Private sector develops solutions for expanded market

...all directed towards **high-impact use cases**

THEORY OF CHANGE
- A small set of common **ICT Building Blocks**
- Enable **Generic Workflows**
- Deliver many high-impact **Use Cases**
- Contribute across the **SDGs**

THEORY OF ACTION
- Define common **ICT Building Blocks**
- Map Generic **Workflows**
- Model priority **Use Cases** from each sector
- Select **SDG Targets** and Sectors

What is the evaluation?

Purpose and Objectives

Why is DIAL undertaking this and relevance to ecosystem

DIAL is coordinating relevant community and supporting organizations, including PATH/Digital Square, on development of a harmonized digital product evaluation rubric (evaluation schemes, guidance, SME bodies, etc.) that can provide:

- A base to support ICT4D community stakeholders' evaluation strategies of a product in the context of its application towards developing country needs and SDGs
- A common lens to view and discuss the maturity and readiness of a product by key stakeholders (donors, incubators, implementation partners, vendors, etc.) that share a role in supporting the growth and use of such products
- An understanding of fit / suitability of a product to the *Building Blocks* candidate as conceptualized by Framework (above)

Why It is Needed

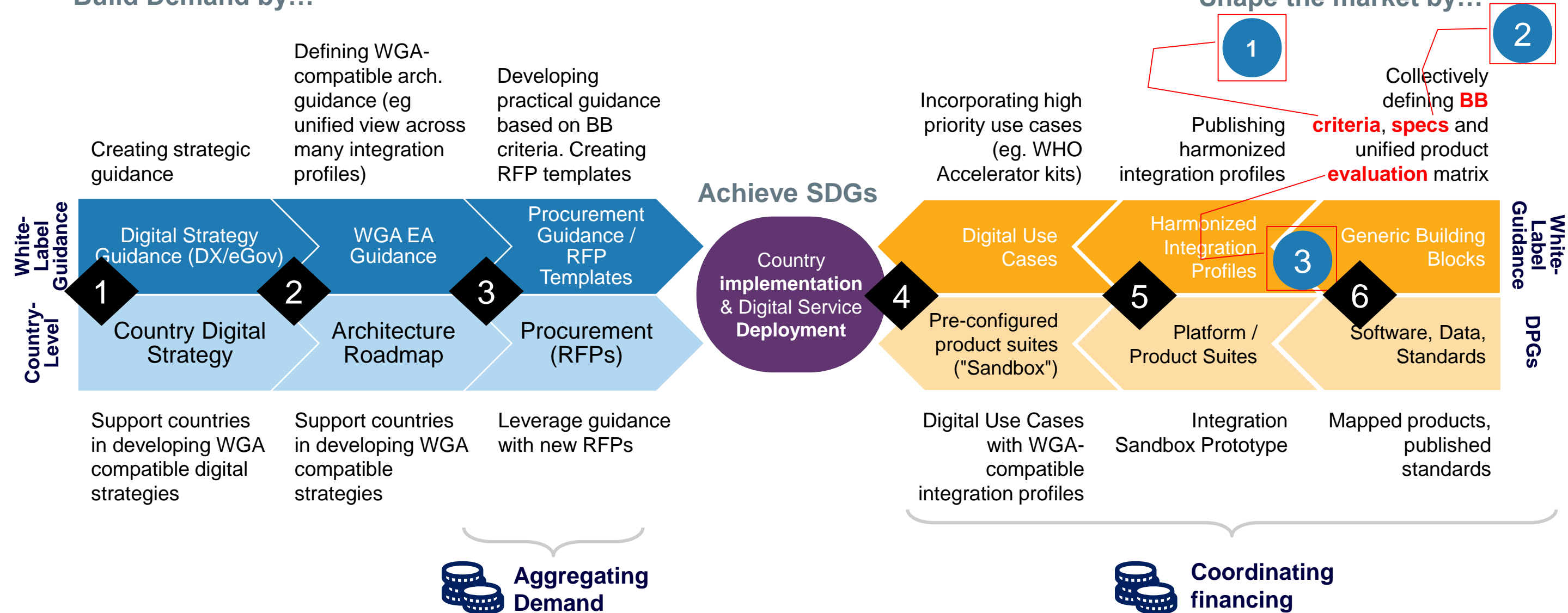|	
For **DIAL**	Currently the Building Blocks detail high-level "functionalities" but no specifications or quality criteria. The rubric serves to provide stakeholders better understanding what system quality is then needed.
For **ICT4D partners**	Currently there is varying interest and differentiating approaches to assess quality and maturity of a product. The rubric ensures that partners continue to provide needed support / resource in a more comprehensive lens.
For **donors** and **countries**	To have a single, systematic way of viewing and comparing products when considering implementation

Partners

Others (*in discussion*)

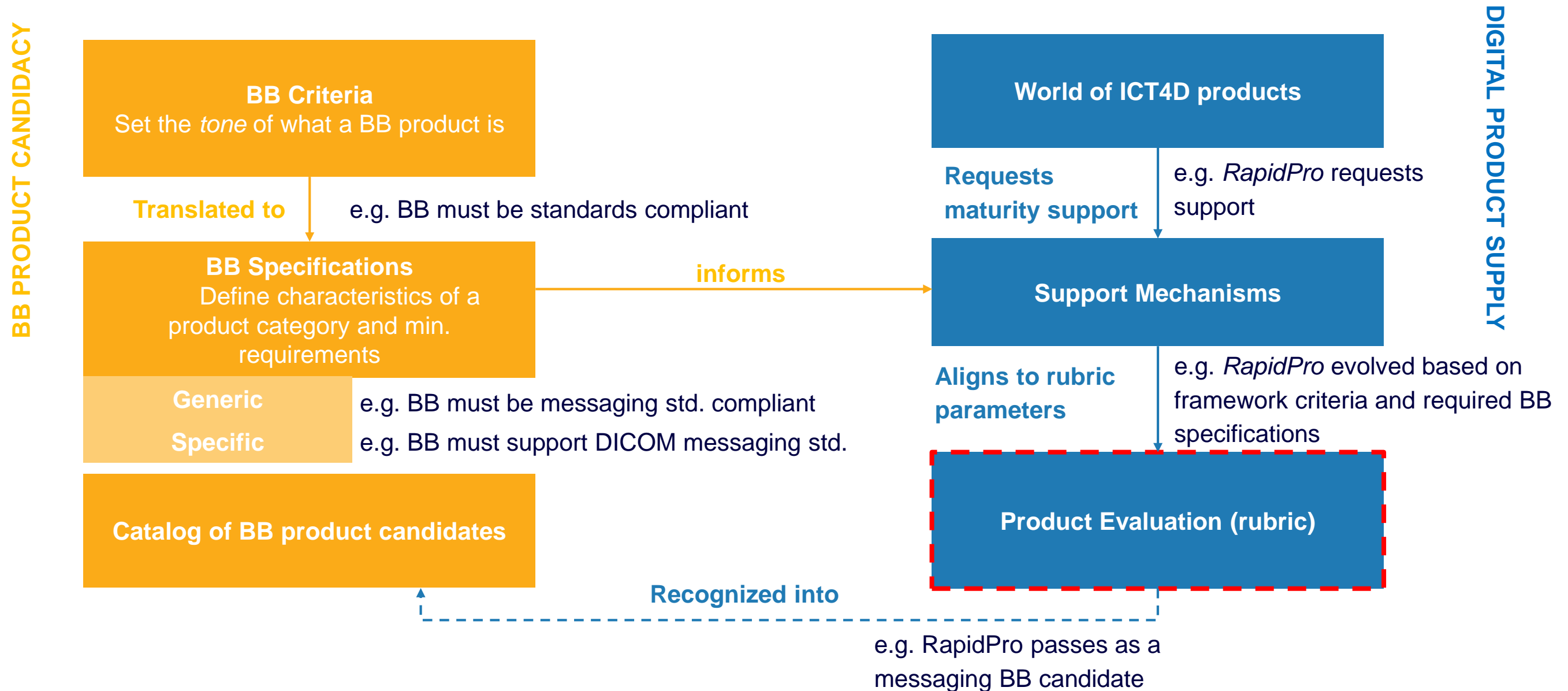# Part of a larger market-shaping effort

Build Demand by…

Shape the market by…

Creating strategic guidance

Defining WGA-compatible arch. guidance (eg unified view across many integration profiles)

Developing practical guidance based on BB criteria. Creating RFP templates

Incorporating high priority use cases (eg. WHO Accelerator kits)

Publishing harmonized integration profiles

Collectively defining **BB criteria**, **specs** and unified product **evaluation** matrix

Achieve SDGs

White-Label Guidance

| Digital Strategy Guidance (DX/eGov) | WGA EA Guidance | Procurement Guidance / RFP Templates | | Digital Use Cases | Harmonized Integration Profiles | Generic Building Blocks |

1 **2** **3** **4** **5** **6**

Country **implementation & Digital Service Deployment**

Country-Level

| Country Digital Strategy | Architecture Roadmap | Procurement (RFPs) | | Pre-configured product suites ("Sandbox") | Platform / Product Suites | Software, Data, Standards |

White-Label Guidance

DPGs

Support countries in developing WGA compatible digital strategies

Support countries in developing WGA compatible strategies

Leverage guidance with new RFPs

Digital Use Cases with WGA-compatible integration profiles

Integration Sandbox Prototype

Mapped products, published standards

Aggregating Demand

Coordinating financing

Product Perspective

An example of product experiencing evaluation rubric as Building Block (BB) candidate

BB PRODUCT CANDIDACY

DIGITAL PRODUCT SUPPLY

BB Criteria
Set the *tone* of what a BB product is

Translated to — e.g. BB must be standards compliant

BB Specifications
Define characteristics of a product category and min. requirements

Generic — e.g. BB must be messaging std. compliant

Specific — e.g. BB must support DICOM messaging std.

informs →

Catalog of BB product candidates

World of ICT4D products

Requests maturity support — e.g. *RapidPro* requests support

Support Mechanisms

Aligns to rubric parameters — e.g. *RapidPro* evolved based on framework criteria and required BB specifications

Product Evaluation (rubric)

Recognized into — e.g. RapidPro passes as a messaging BB candidate

Model Harmonization

- **Models being harmonized**

- **OSC maturity model**: https://shorturl.at/oEJLU
  (and product candidate internal onboarding / assessment)

- **Global Goods Maturity Model**:
  https://shorturl.at/drTW6

- Community Health Analytics Open Source Software **(CHAOSS)**
  Metrics: https://chaoss.community/metrics

- **ClearlyLicensed metrics**: https://shorturl.at/gjopA

- **Others being reviewed and incorporated**

Maturity Matrix (TBA)   HIS Interop. Maturity Toolkit
                         https://shorturl.at/bqvDJ

Impact Tracker framework
http://impacttrackertech.kopernik.info   *OTHERS (to come)*

Mapped sets of indicators for review

Suggested Groupings	Short Description
Utility and Impact	Product utility and impact with possible alignment to SDG agendas
Compliance	Software standard and other domain-specific compliances (*might be merged with another*)
Licensing	Licensing and IP accessibility
Financials	*Revenue generation and cost management*
Community Health	Engagement, management and vitality of contributor community
Decisions and Governance	*Governance, leadership and decision-making*
Product Design Planning	Product development planning and quality of execution
Knowledge Management	Documentation robustness and knowledge distribution for usage and code contribution
Product Quality	General quality of a product (note: to encapsulate BB criteria)
Dependency	*Risk and dependency on community composition and organizational affiliations*

Status: Completion of added peer review step in 2nd phase

Moving into indicator design and documentation
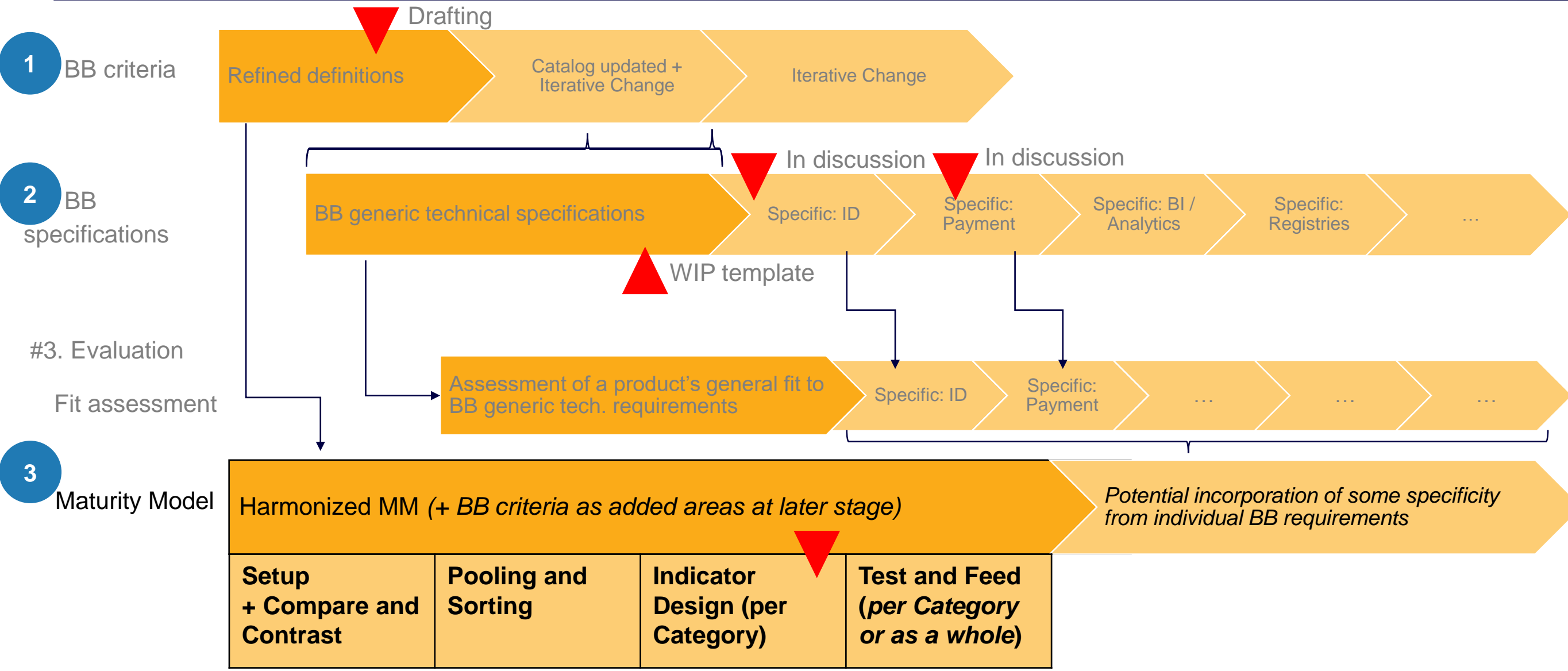
Overall timeline and stages

How to arrive to a harmonized product evaluation model	RESP.	REVIEW / APPROVE.	OUTPUT

• **Setup + Compare and Contrast**: Kick off on vision, scope and intent for the process
  o Convene and ID partners required for input and process: Who from each org. / additional
  o sOutline overall process and agree on approach
  o Agree on sourced models (list out initial set, discuss relevance / what each covers / lacks / how to account for others)
  o Align on categories: list out from various models and discuss similarities, prioritize and define scope of each category and relevance to product evaluation and framework
  • **Completion date: Nov. 2019** (+ongoing)
	DIAL (to prep.)	Di.Sq., dial-OSC, others	List of model sources, agreement on categories to pursue and priority (approved description and meaning / relevance of each), scope and timeline, partners and FCs to be involved

• **Pooling and Sorting**: For each agreed and prioritize category, pool together metrics under each model, review parameters / definitions across, and provide input / comment • **Target date**: ~~Dec. 2019~~ **end of Jan. 2020** (wrapping up)	DIAL, Di.Sq., dial-OSC, others	Di.Sq., dial-OSC, others	Pooled indicator sets per category, feedback collected
• **Indicator Design (per Category)**: Resp. partners to weight in on relevance, scope, est. LOE of indicators pooled within one category, reconvene to discuss and agree on how standardize (template), publish list and sign-off after final review / acceptance from each party • **Target duration** (per Category): shifted	Di.Sq., dial-OSC, others	Di.Sq., dial-OSC, others to approve, DIAL to finalize	Standardized / agreed design on indicators within each category, plan for measuring / gauging utility
• *Interim review*			

• **Test and Feed** (*per Category or as a whole*):
  • **Target duration** (per Category): ?
  • **Target date** (per Category)**:** ?
	Di.Sq., dial-OSC, others	(DIAL to facilitate feedback process)	Sample result set, feedback on use and pts of improvement / changed (to be fed back to design)

dial Digital Impact Alliance

Working environment

Documents and folder

Folder location for the below and resources: here

- Worksheet for mapping and indicator review: here

- Indicator template: here

- Source models (some, not all): here

- Original kick-off deck (bit dated but illustrate the stages): here

We need your support

Ideas for how interested partners can support in expanding the framework.

How can you support?

Ideas for ways the partners can be involved

- Support the development of a harmonized product evaluation model by helping us assess the alignment with existing models and potentially be part of the technical effort

- Identify opportunities to use ICT building blocks (that may have emerged from other sectors) within implementation projects by your organization

- Define high priority use cases so that we can map to the other layers in the framework. This would support other actors in seeing how different building blocks can support various digital services and realize potential of reuse / applicability in another sector or context.

- Provide feedback on using the ICT4SDG framework and the online catalog, including refining definitions or highlighting what guidance or tools would make the framework more valuable for you

Thank you

Contact us:
Ict4sdg@digitialimpactalliance.org