



Tools for the assessment and development of sustainable city-wide FSM services

Diagnostics to inform non-technical aspects

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Diagnostic Tools for the Urban Sanitation Chain



DIAGNOSTICS & DECISION SUPPORT

Advocacy,
pre-concept

1. Fecal Waste Flow Diagram (SFD)
Where does fecal waste go? What are the priorities?

Institutions,
financing

Sludge volumes &
characteristics

Spatial
data

Scoping
and project
concept

2. City Service Delivery Assessment

3. Prognosis for change:
Political economy analysis

Fecal Sludge technical tools:

- Quantification
- Characterization
- Treatment design

Urban Sanitation Status Index (USSI)

FSM Costing tools

Project
design

4. Service Delivery Action Framework

5. Intervention options assessment framework

Detailed
design

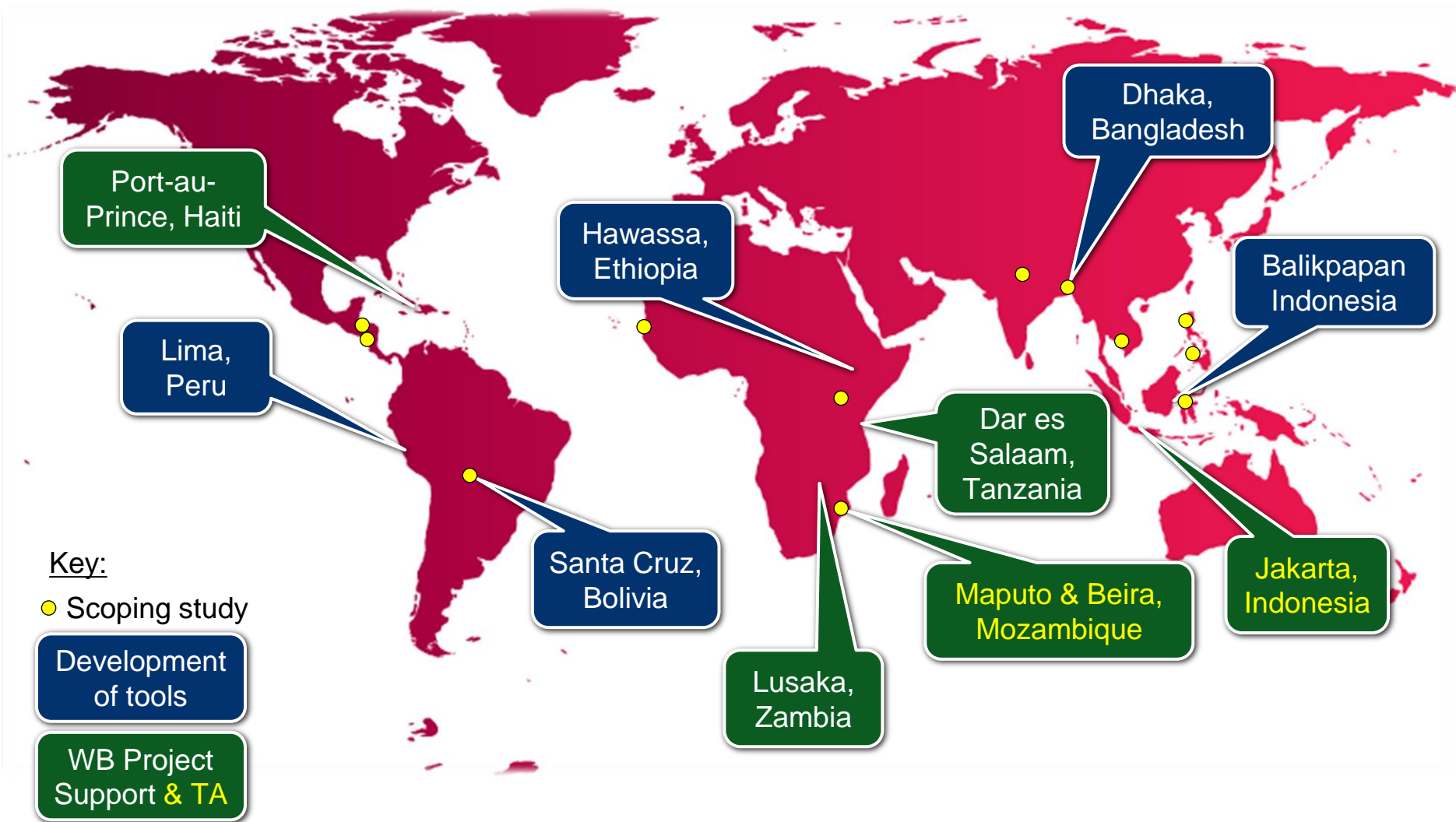
*Institutions, systems,
enabling environment*

*Technical design
& costing*

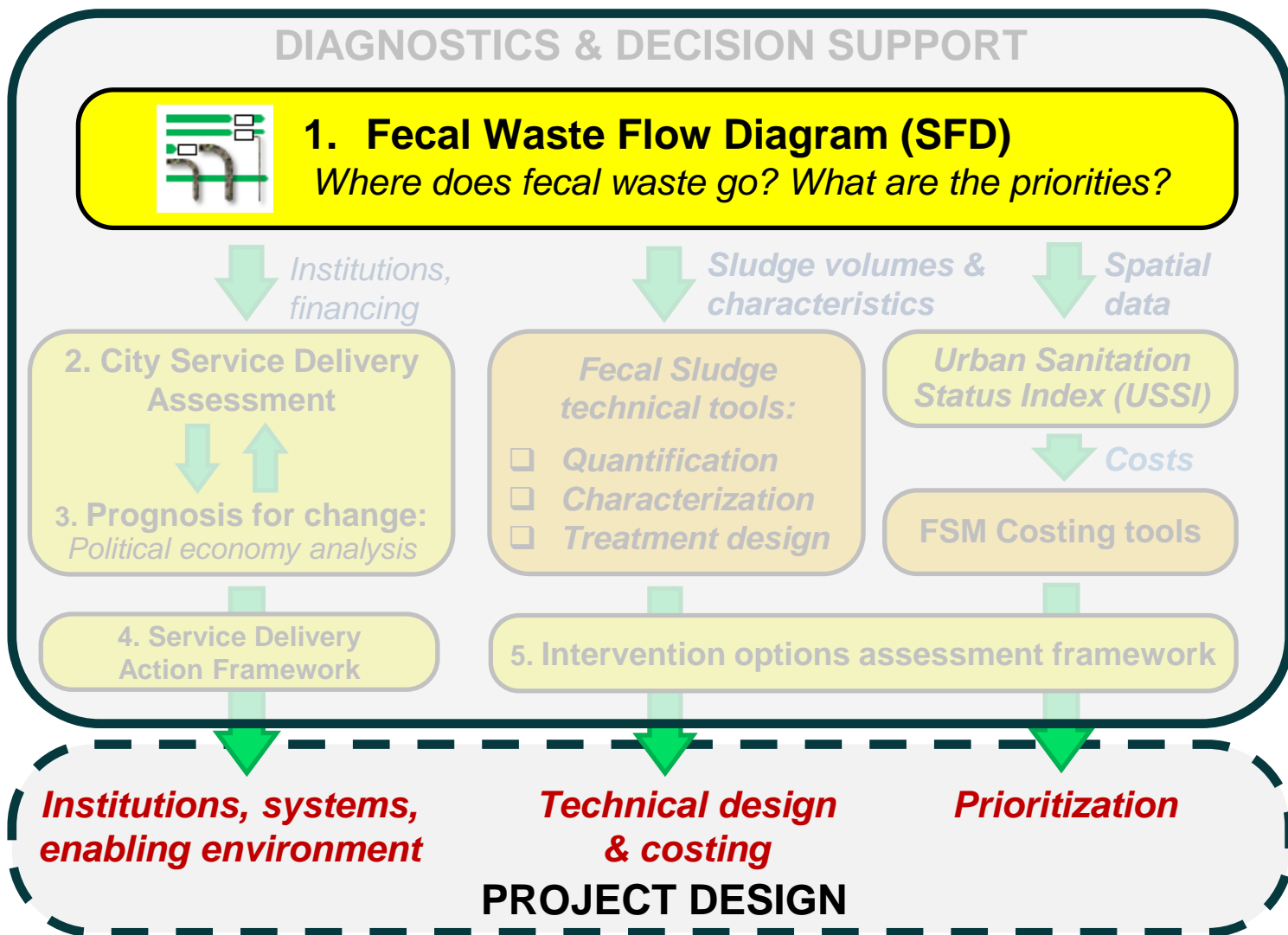
Prioritization

DETAILED DESIGN

Initial Development and Application of Tools



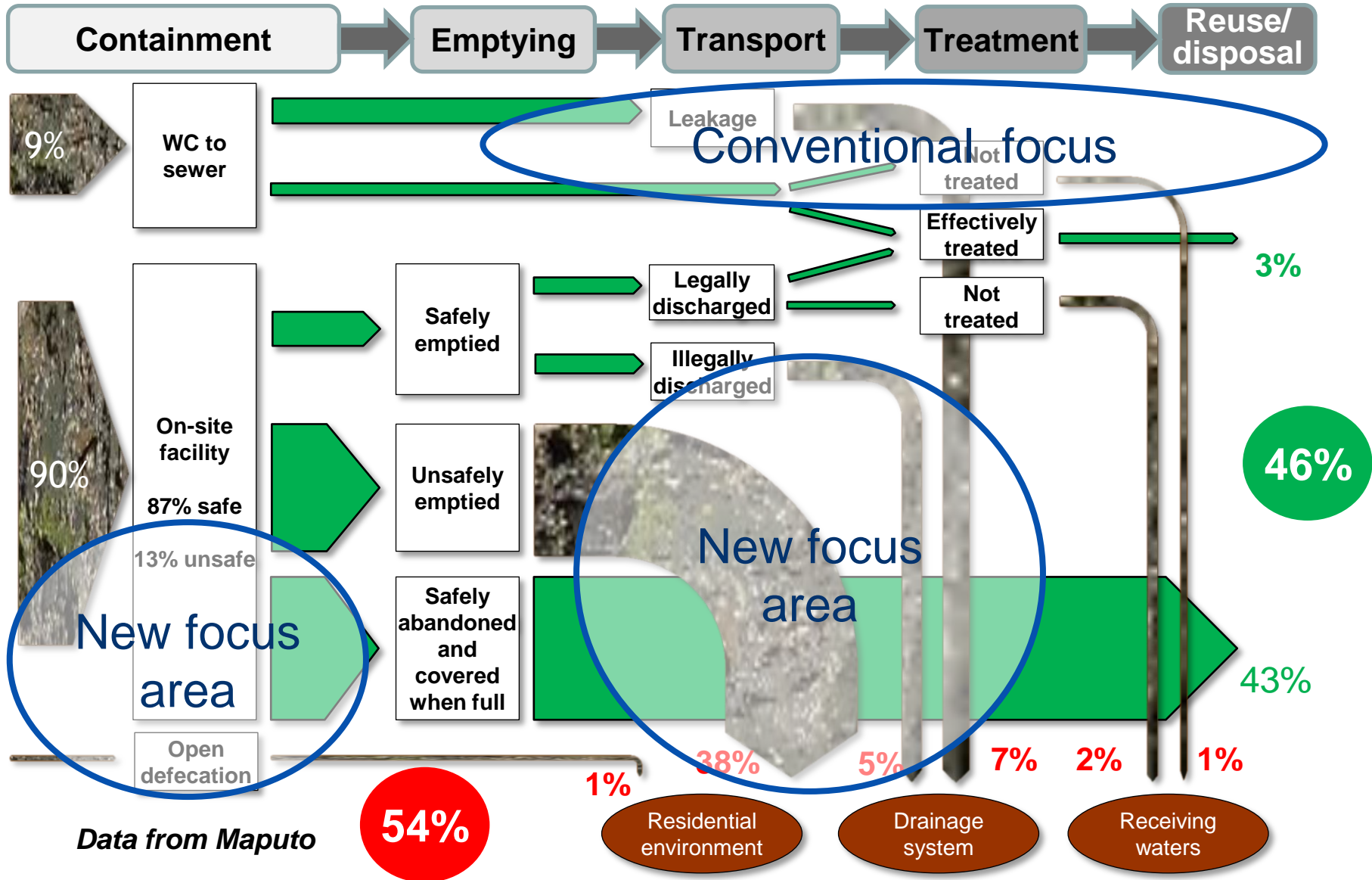
Fecal Waste Flow Diagram (SFD)



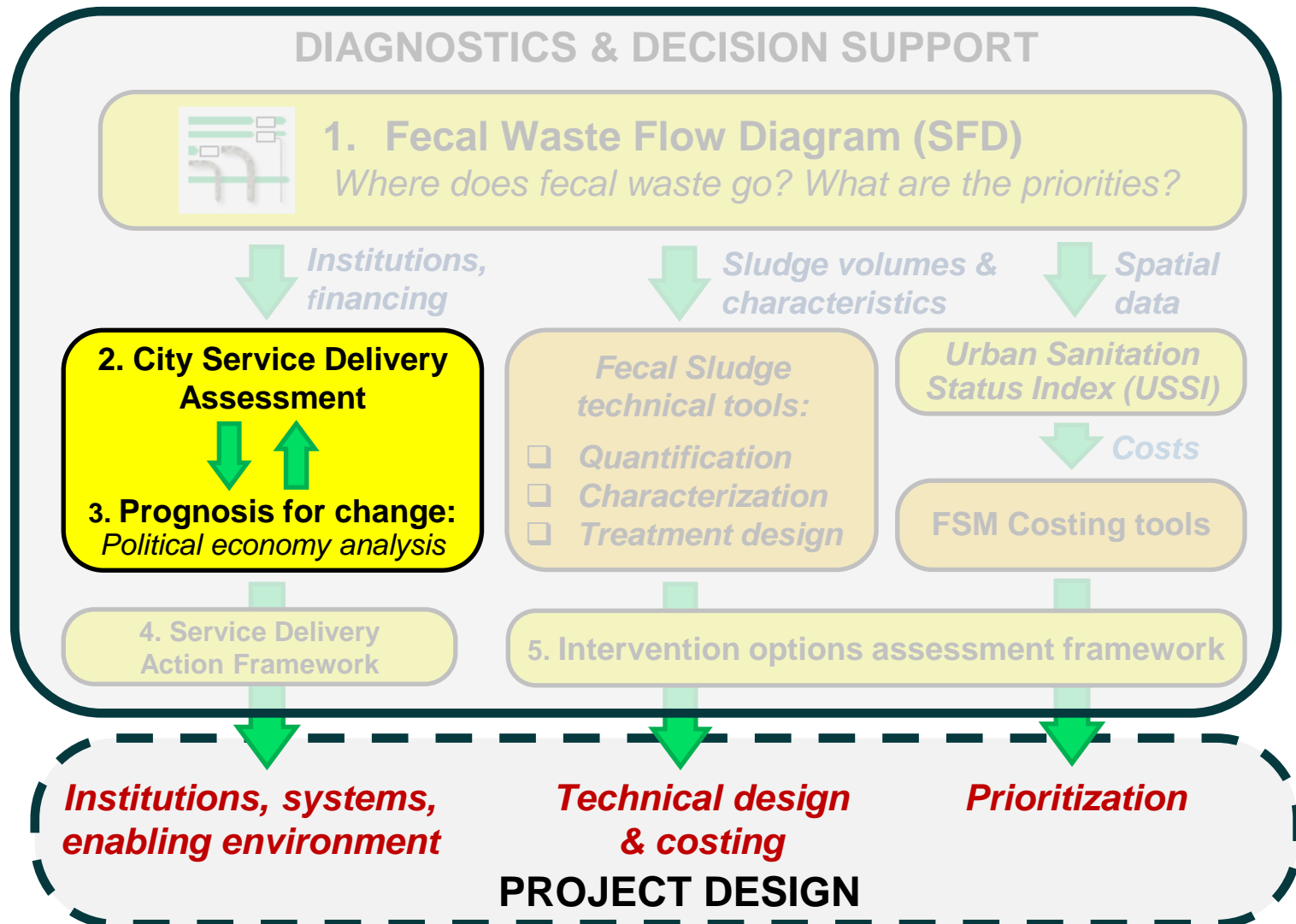
Where Does the Fecal Waste Go?

Getting priorities straight

New auto SFD generator
www.sfd.susana.org



City Service Delivery Assessment (CSDA)



Institutional Assessment & Action Framework

- Stakeholder mapping
- City service delivery assessment
 - Data / evidence gathering
 - Stakeholder discussions
 - Scorecard
- Prioritization
- Prognosis for change assessment
 - With stakeholder analysis
- Service Delivery Action Framework

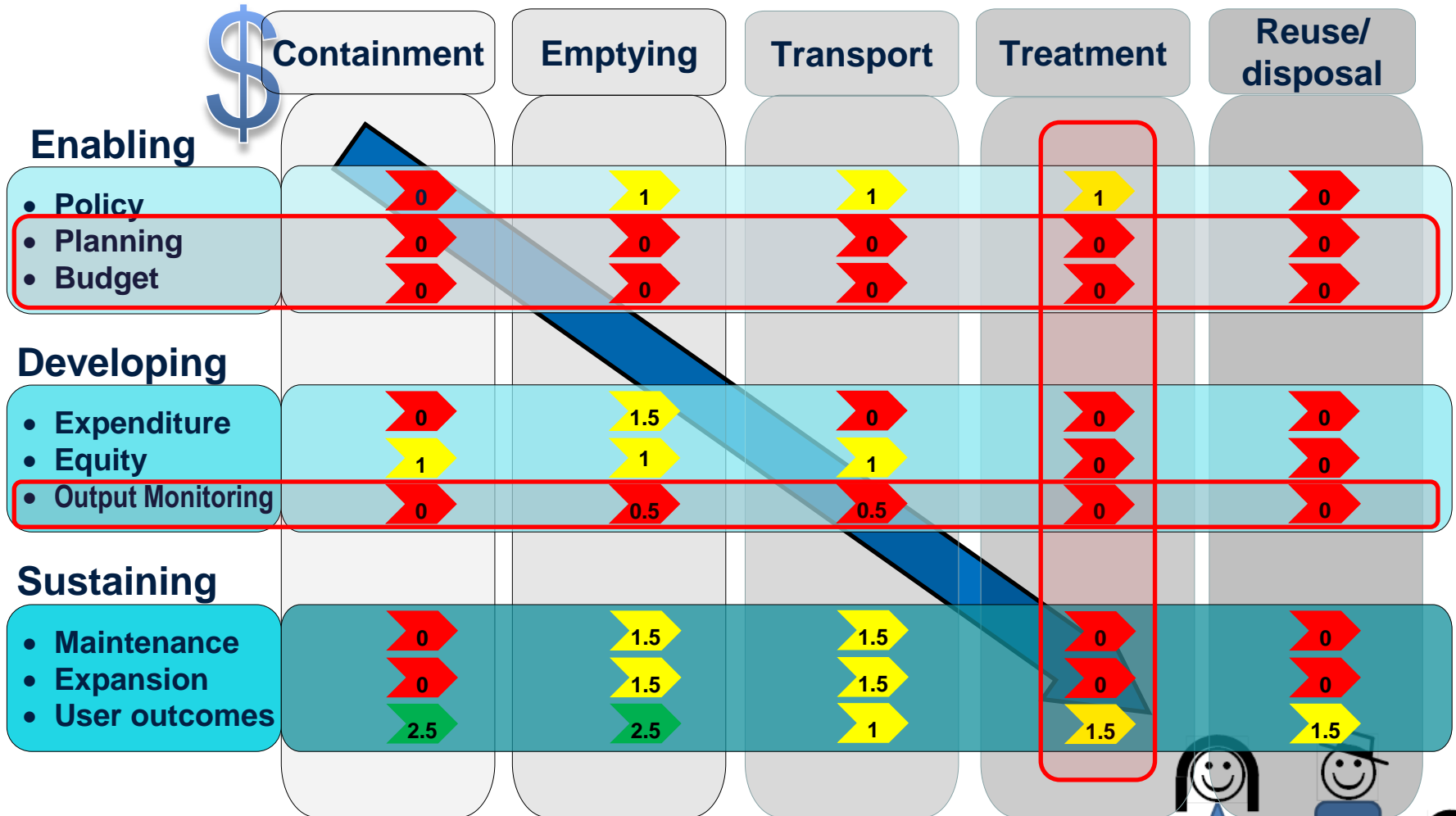
Working with stakeholders to improve the situation



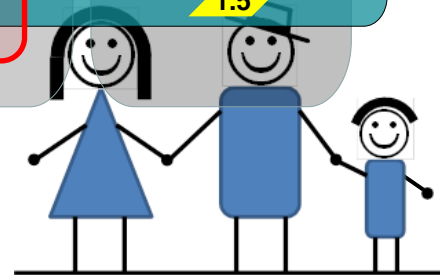
Sanitation working group planning a response to the SFD in Balikpapan, Indonesia, Aug 2014

How do Resources Translate into Services?

Identifying the effects of the institutional environment

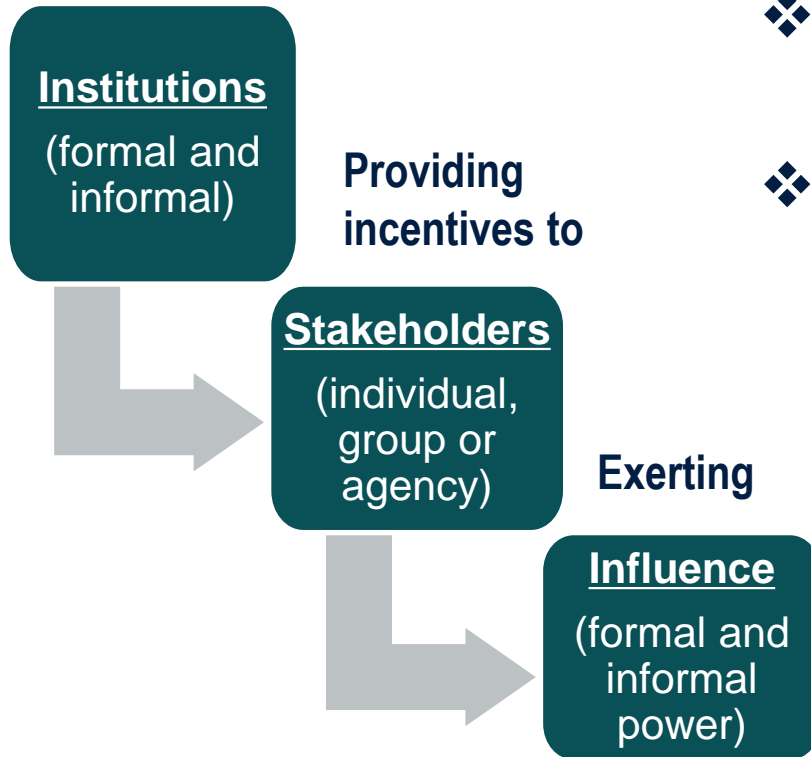


Example: Balikpapan, Indonesia



Why is it like this?

What facilitates or impedes change?



❖ Who decides? Who benefits? Can things change?

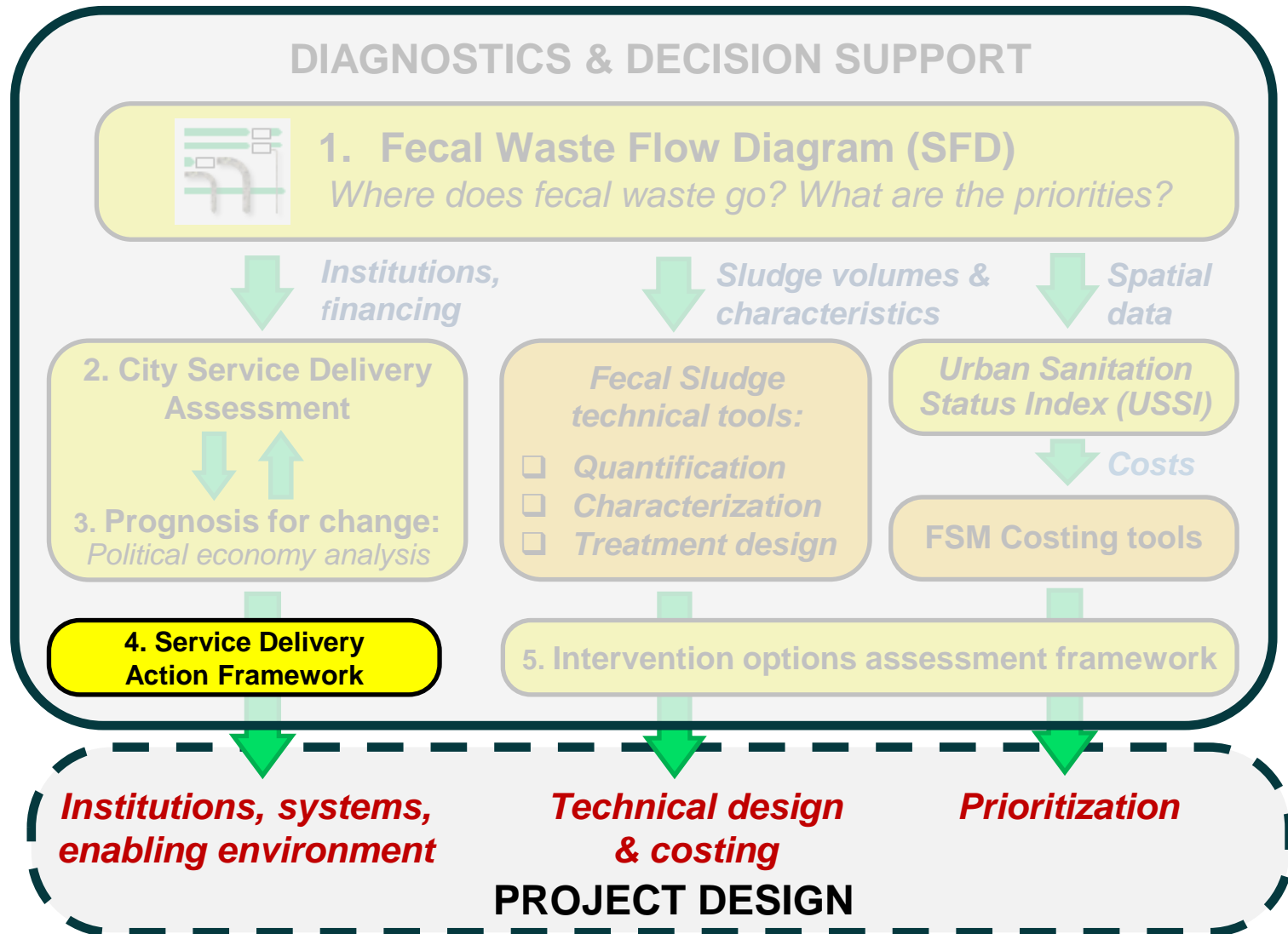
❖ Are there commonalities between interests? Can groups be mobilized around them?

- Essential with many stakeholders
- Considers formal/official and informal processes and institutions
- Links to Service Delivery Action Framework

- Structured stakeholder analysis
- Systematic application of tacit (*often unspoken*) local knowledge
- Identify win-win scenarios
- Advocacy with key stakeholders

Service Delivery Action Framework

Ensuring hardware delivers sustainable services



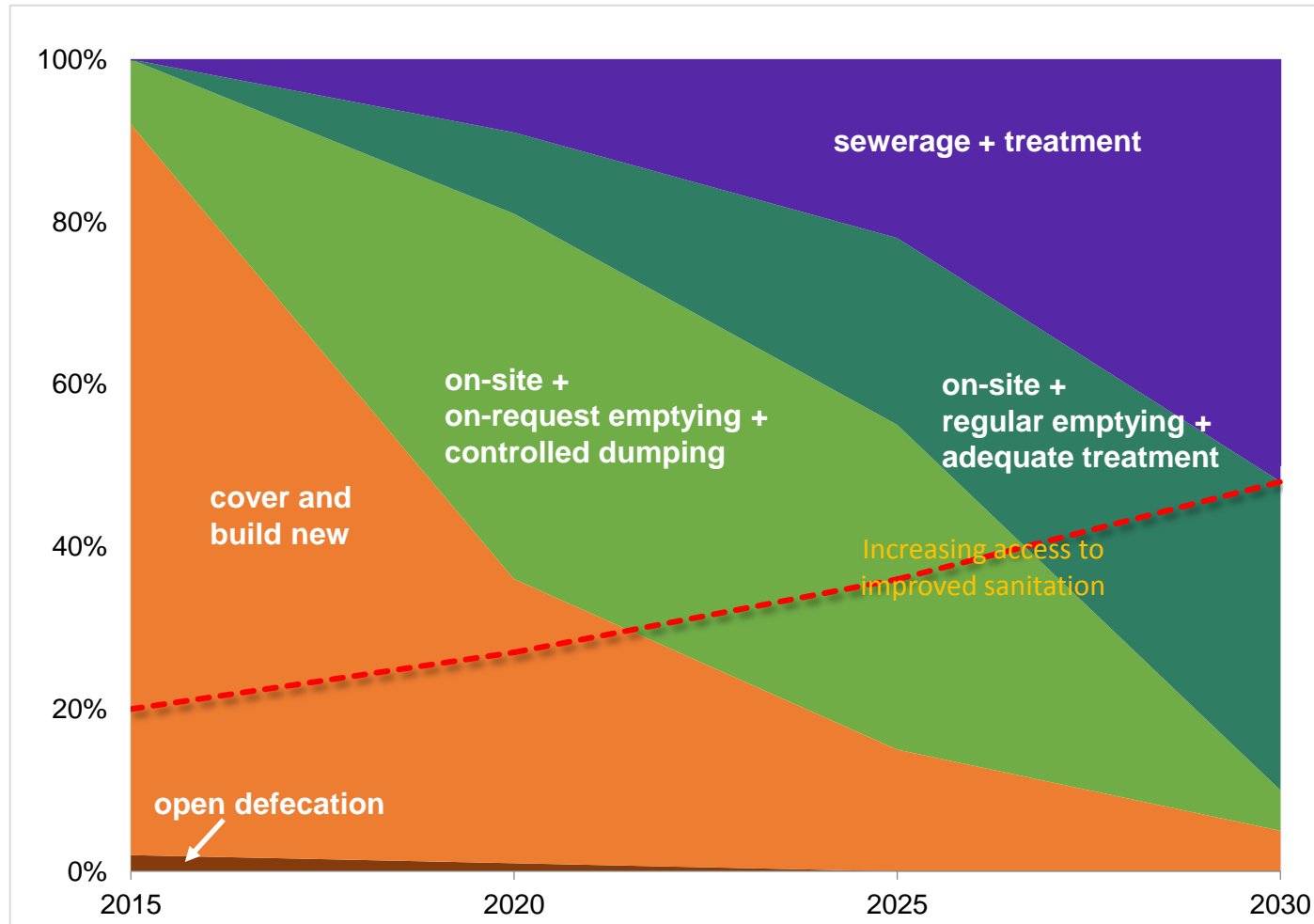
Service Delivery Action Framework

Planning non-technical components – e.g. Dhaka

		Basic <i>Critical interventions for public health</i>	Intermediate <i>Strengthen what exists</i>	Consolidating <i>Full chain sustainable services</i>
National	Policy, legislation and regulation	<ul style="list-style-type: none"> Review national sanitation policy and ensure FSM is included Review regulatory framework around the protection of public health & environment 	<ul style="list-style-type: none"> Set norms / standards for public health and environmental protection Establish legal basis for regulation of FSM services 	<ul style="list-style-type: none"> Require local regulation and its enforcement Develop a policy/regulatory framework to incentivize treatment and re-use options
	Institutional arrangements	<ul style="list-style-type: none"> Review institutional arrangements for sanitation – ensure FSM is included Identify an institutional framework for FSM with clear roles and coordination 	<ul style="list-style-type: none"> Establish institutional framework for FSM with defined roles and coordination mechanisms Establish institutional roles for fecal sludge treatment and re-use options 	<ul style="list-style-type: none"> Strengthen institutional framework to enhance service outcomes, with fully implemented roles and coordination Consider (dis)incentives for improved FSM
	Planning, M & E	<ul style="list-style-type: none"> Build awareness of FSM in national 	<ul style="list-style-type: none"> Establish monitoring framework for service standards 	<ul style="list-style-type: none"> Strengthen monitoring of all services
Local	Legislation and enforcement	<ul style="list-style-type: none"> Review/establish byelaws, ensuring they address on-site systems and FSM services 	<ul style="list-style-type: none"> Strengthen byelaws and their enforcement Introduce regulation of service providers Incentivize disposal at recognized sites 	<ul style="list-style-type: none"> Regulate pollution of receiving waters Penalties for indiscriminate FS dumping Enforce use of emptiable facilities
	Institutional arrangements	<ul style="list-style-type: none"> Review institutional arrangements for sanitation – ensure FSM is included Identify local institutional framework for FSM 	<ul style="list-style-type: none"> Establish local institutional framework for services – with roles defined and agreed Establish roles for FS treatment Consider (dis)incentives for improved FSM 	<ul style="list-style-type: none"> Strengthen institutional roles for managing improved FS management, including treatment facilities and re-use options Implement (dis)incentives for improved FSM
	Planning, monitoring and evaluation	<ul style="list-style-type: none"> Conduct area-based, gender and pro-poor focused diagnostic studies Develop plans, finance & institutional needs Plan and design FS treatment options 	<ul style="list-style-type: none"> Establish revenue streams Refine and implement local service plans Establish monitoring and evaluation (M&E) of service standards 	<ul style="list-style-type: none"> Introduce plans to enhance treatment capacity and re-use arrangements Strengthen M&E of treatment and re-use arrangements against service standards
	Promotion	<ul style="list-style-type: none"> Stimulate customer demand/ WTP for FSM 	<ul style="list-style-type: none"> Disseminate public FSM services information 	<ul style="list-style-type: none"> Stimulate market demand for re-use of FS
	Capacity and TA	<ul style="list-style-type: none"> Identify capacity gaps and required TA Promote appropriate private sector services Implement measures for safer disposal of FS currently dumped in the environment 	<ul style="list-style-type: none"> Promote/support development of improved, emptiable containment facilities Strengthen role of service providers Pilot scheduled desludging/ transfer stations 	<ul style="list-style-type: none"> Consolidate/expand services based on outcome of pilot studies Build/rehabilitate FS processing plants and develop business models for re-use of FS

Sanitation mix: over time

Recognizing FSM as part of integrated services





Tools available from:
<http://www.worldbank.org/en/topic/sanitation/brief/fecal-sludge-management-tools>



Oxford Policy Management

wsp.org | worldbank.org/water | wedc.lboro.ac.uk | opml.co.uk