FOLLOW US ON TWITTER @GSTICSERIES #GSTIC

Workshop on STI for the SDGs
Bangkok, Feb 27 – Mar 1

Session 6 – STI roadmaps incorporating SDGs and their implication for policy and capacity building

Dr Dietrich Van der Weken
General Manager G-STIC

SOME MAJOR ISSUES

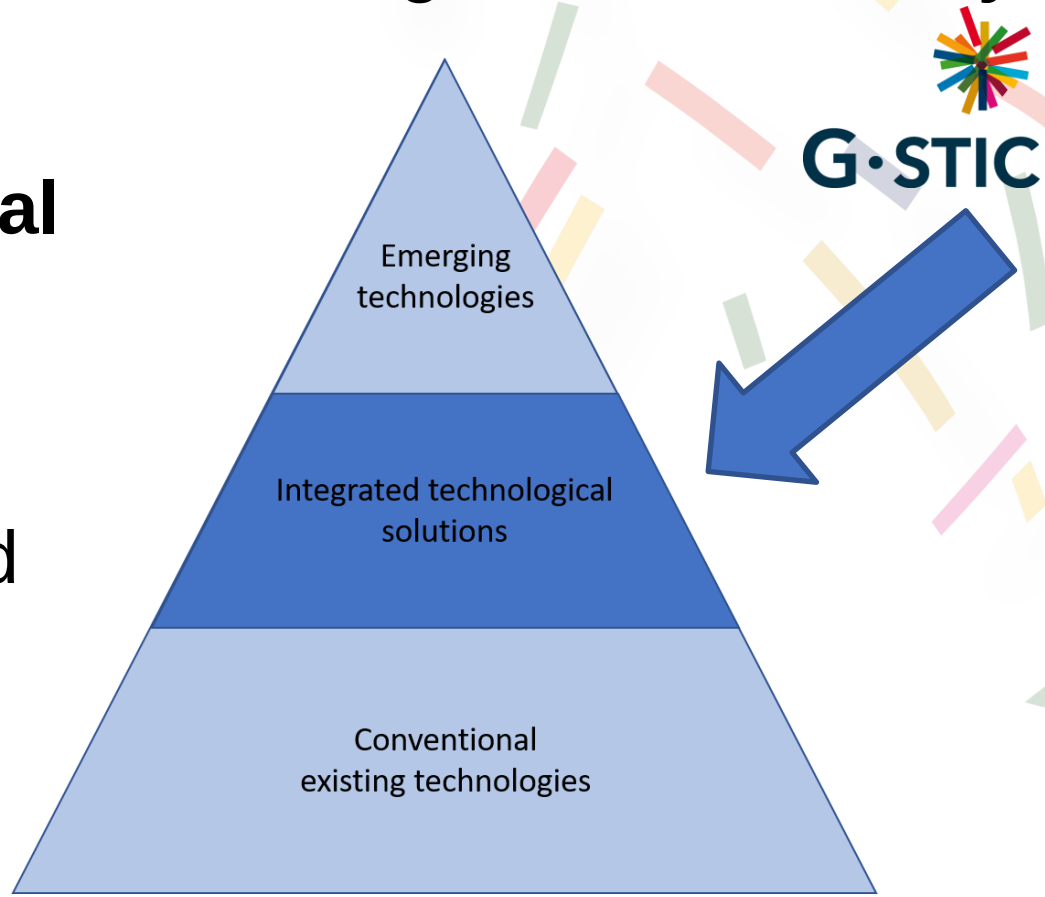
- **Key question:**
  What are the (new) technologies & solutions needed to achieve the SDGs and deliver on the Paris Agreement?
- Lack of awareness of what technologies already exist
- Major gap between the best available technology and implementation
- No real understanding of how to accelerate the upscaling

WHAT IS G-STIC?

FOLLOW US ON TWITTER @GSTICSERIES #GSTIC

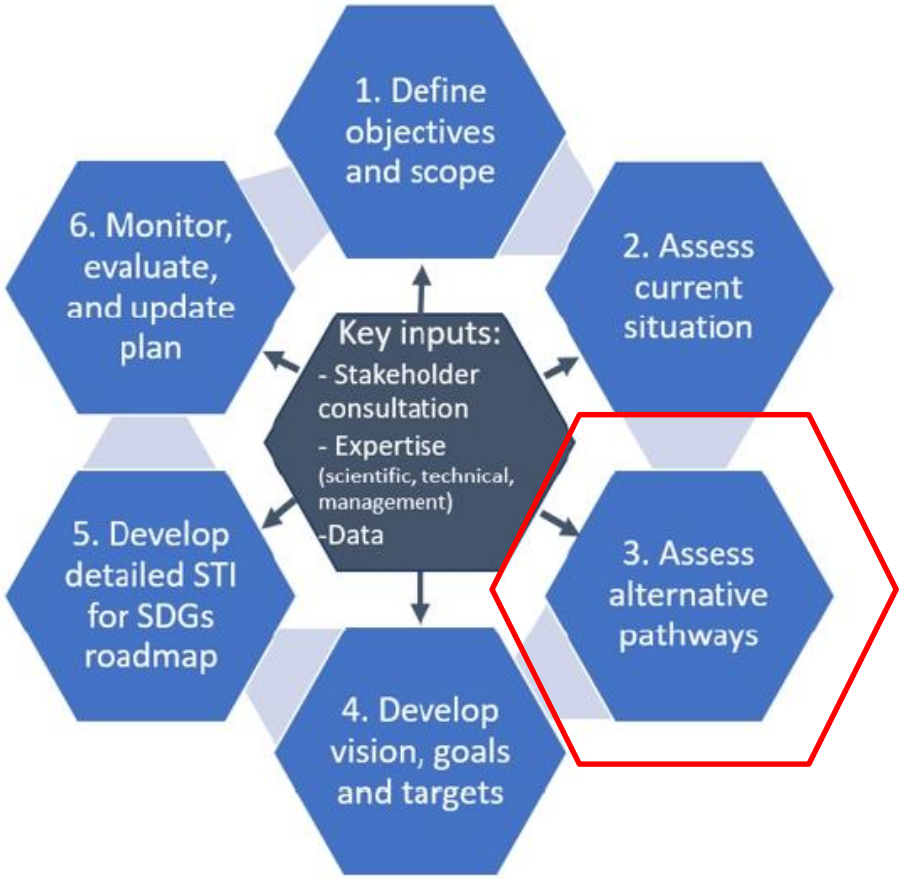
Connecting technological innovation to decision making for sustainability

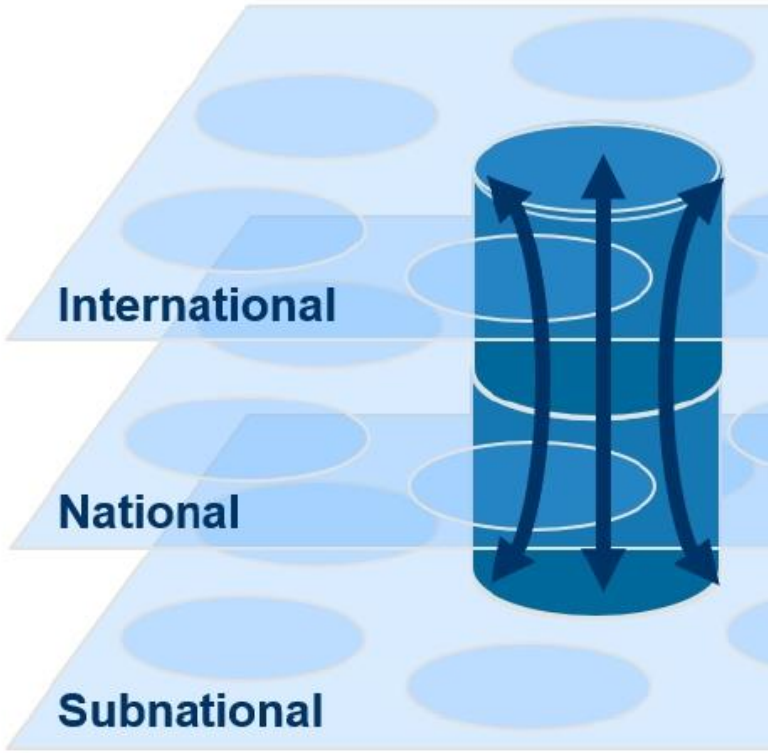
- Identify and promote context-specific, market-ready **integrated technological solutions**
- **Raise awareness** of these solutions within government, civil society, research, private sector, non-profit and multilateral organizations
- Key elements of the **enabling environment** for upscaling



STI ROADMAPS

FOLLOW US ON TWITTER @GSTICSERIES #GSTIC





- Data, evidence
- Intl. expertise
- Good practices
- Needs and gap assessments

- Monitoring progress
- Planning & matching resources

- Private initiatives
- Local and indigenous knowledge

FRAMEWORK G-STIC INPUT

FOLLOW US ON TWITTER @GSTICSERIES #GSTIC

Societal challenge	Innovative market-ready technological solution(s)
	Barriers to deployment
	Levers and policy changes for upscaling
	Verifiable targets and actions by the industry
	Critical economic dimension of deployment
	Critical social dimension of deployment

ENERGY POSITIVE COMMUNITIES

Societal challenge	Innovative market-ready tech solutions	Pertaining to SDG	Contribution to achievement of SDG	Barriers to deployment	Levers/policy changes required for upscaling	Verifiable targets & actions by industry	Critical economic dimension of deployment	Critical social dimension of deployment
Providing access to sustainable energy services for all	**Micro- and mini-grids based on local optimal mix of renewable energy supply**	3 4 5 7 9 11	+++	Interaction with the central grid Stable investment climate Tailor-made design Smart metering devices High initial investment	Integration of local energy planning in national energy scenario's Promote "open" decision/design platform for tailor-made local grids consisting of a combination of TSF combinations: technology, (multi) service and financing	Modular, interoperable and quality micro/mini-grid components	Need for new financing schemes: pay-as-you-go, micro-financing, third party	Create community services with the micro-mini-grids, in some cases co-operative initiatives are possible

(WASTE)WATER AS A RESOURCE

Societal challenge	Innovative market-ready tech solutions	Pertaining to SDG	Contribution to achievement of SDG	Barriers to deployment	Levers/policy changes required for upscaling	Verifiable targets & actions by industry	Critical economic dimension of deployment	Critical social dimension of deployment
Improve water quality by reducing pollution and halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	**Wastewater treatment with bio-energy recovery**	SDG 6.3 SDG 7.2 SDG 7.3	**+++**	Wastewater quality insufficient for energy production (too diluted) Lack of awareness about investment opportunities	Policy and regulation to allow biogas and CHP to produce energy; Attractive feed-in tariffs; allow organic solid waste to be mixed with wastewater	Amount of biogas and energy produced from wastewater treatment facilities	Renewable energy market development, energy prize	Demand for renewable energy and willingness to pay
	Wastewater treatment and water re-use	SDG 6.3 SDG 6.4	**+++**	Perception, cultural barrier (clean water can't be derived from wastewater)	Improved waste management regulation, national policy and strategies for water and sanitation sector	Amount / percentage wastewater collected and safely treated to grey water (and possible drinking water)	Sales of energy, bulk water, nutrients, … produced from wastewater	Social acceptance of new products from wastewater (e.g. protein) Demand for clean water, safe and clean environment Demand for more water under water scarcity and population growth

G-STIC INPUT - FACTSHEETS

FOLLOW US ON TWITTER @GSTICSERIES #GSTIC

- Problem statement
  - What social/economic problem do we address? Which SDG?
- How to make the change? Highlight the **key changes** needed in the following clusters of action:
  - Awareness rising of the potential of integrated technological solution
  - New legislation and regulation
  - New business models and financial instruments
  - Concrete actions to enable the required societal changes (perception, consumption patterns, behaviour, …)?
  - How to govern the different transition processes?
- How and where to incorporate in STI roadmaps for the SDGs
- Additional specific thematic remarks or concrete actions

G·STIC 2019

BRUSSELS 20 - 22 NOVEMBER

CONNECTING TECHNOLOGICAL INNOVATION
TO DECISION MAKING FOR SUSTAINABILITY

vito

African Centre for Technology Studies
ACTS
Knowledge for Better Livelihoods

FIOCRUZ

भारतीय प्रौद्योगिकी संस्थान दिल्ली
INDIAN INSTITUTE OF TECHNOLOGY DELHI

teri

WWW.GSTIC.ORG