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# ASEAN Open Innovation and Entrepreneurship Platform: Three Programs

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# Contents

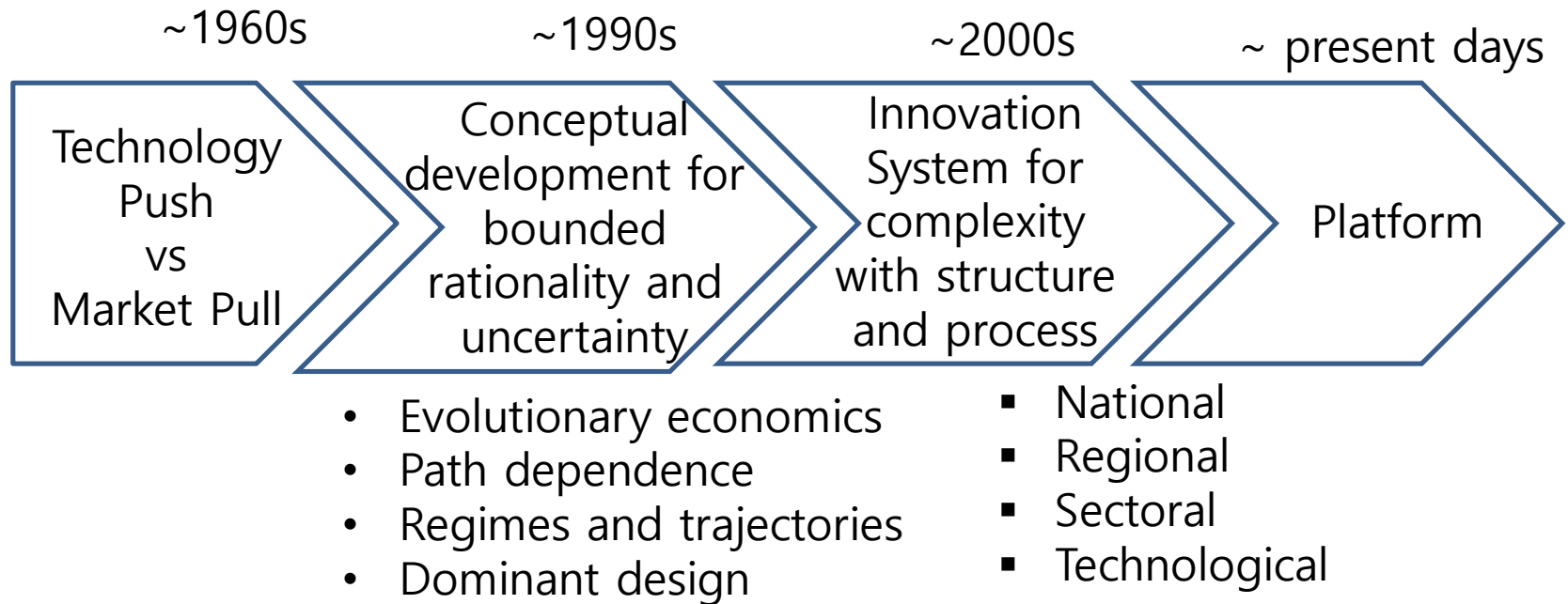
- Definition and Concept
- Platform Strategy
- Platform Business Model
- Platform Programs
- Platform Governance
- Proposed Milestone and Expectations

# 1. Definition and Concept

**Conceptual design to address three variables of low market affordability, weak capacity and regional coordination for greater regional challenges**

- ASEAN: Many challenges to be converted to new market opportunity through policy intervention
- Open Innovation: Global technology localization partnership
- Entrepreneurship: Local industrial diversification and deepening
- Platform: Architecture design to accommodate various stakeholders for coordinated implementation

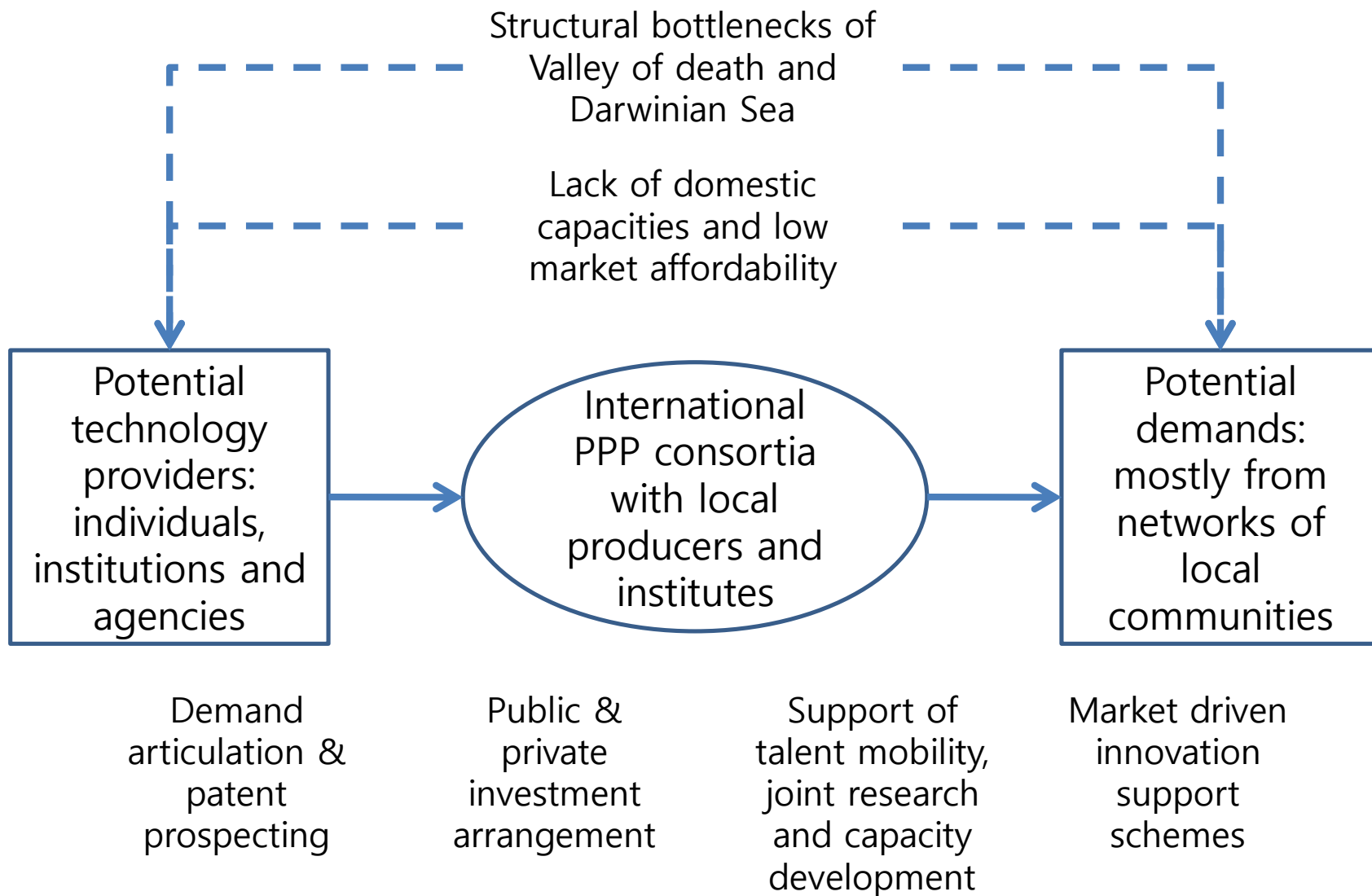
# Platform mechanism to overcome uncertainty and complexity in innovation for development



ASEAN Plan of Action in S&T  
(APAST) 2007 - 2015

ASEAN Plan of Action in STI (APASTI)  
2016-2025

# Platform concept



# Platform value creation

- Local communities: expectations to solve their problems of energy, health, water, agricultural productivities and others.
- Technology providers (and local producers): access to potential demands
- Access to platform services by which interactions are facilitated
- Access to curation mechanisms that enhance the quality of interactions

# Platform architecture

## Platform services

P1: tech foresight

P2: IPR management

P3: joint research

P4: talent mobility

## Capacity building

Bilateral

Multilateral

## International PPP Consortia

Technology suppliers

Local producers/  
institutes

Technology suppliers

Local producers/  
institutes

Technology suppliers

Local producers/  
institutes

Technology suppliers

Local producers/  
institutes

## Investors

Public funding

Private investment

MDBs

Crowd funding

## Beneficiaries

Community 1

Community 2

Community 3

Community 4

Community 5

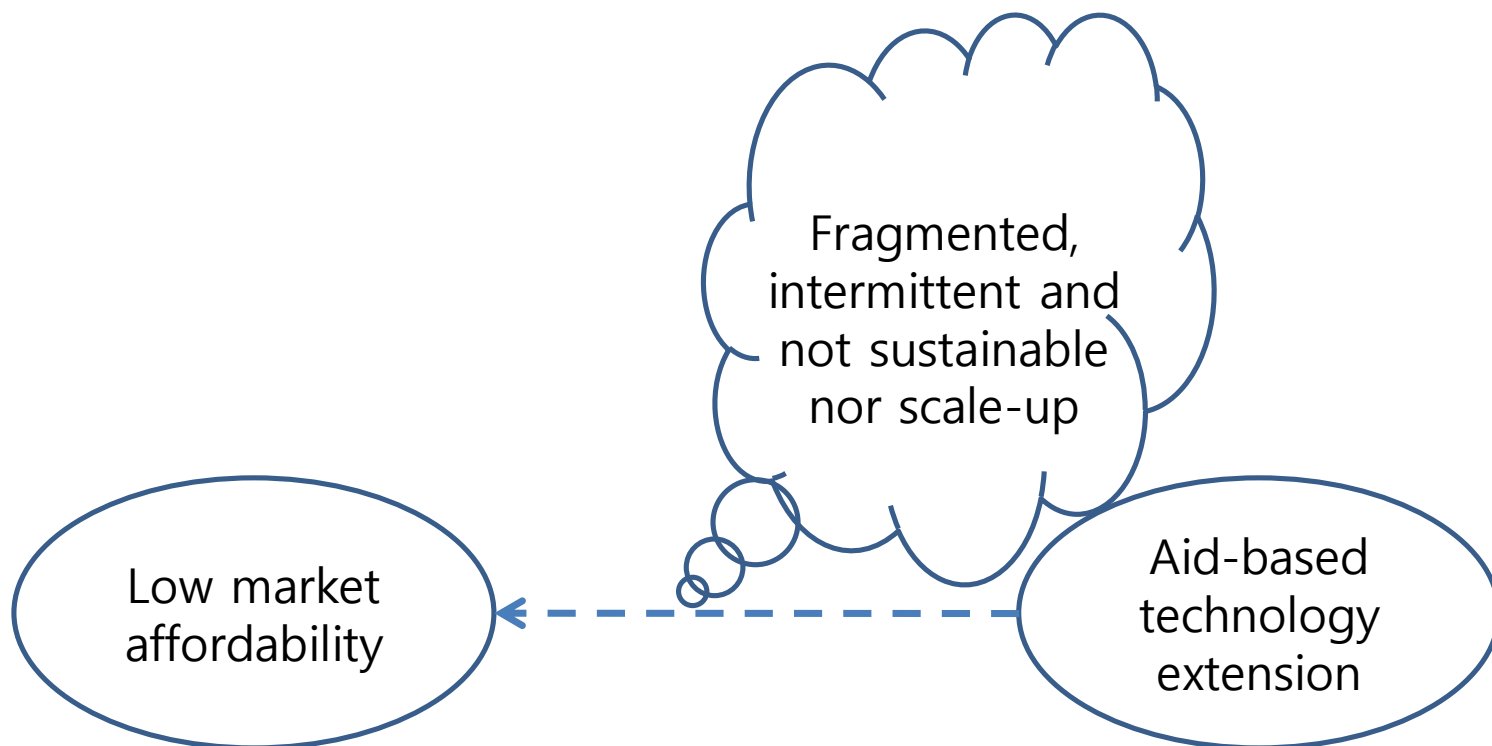
Community 6

Community 7

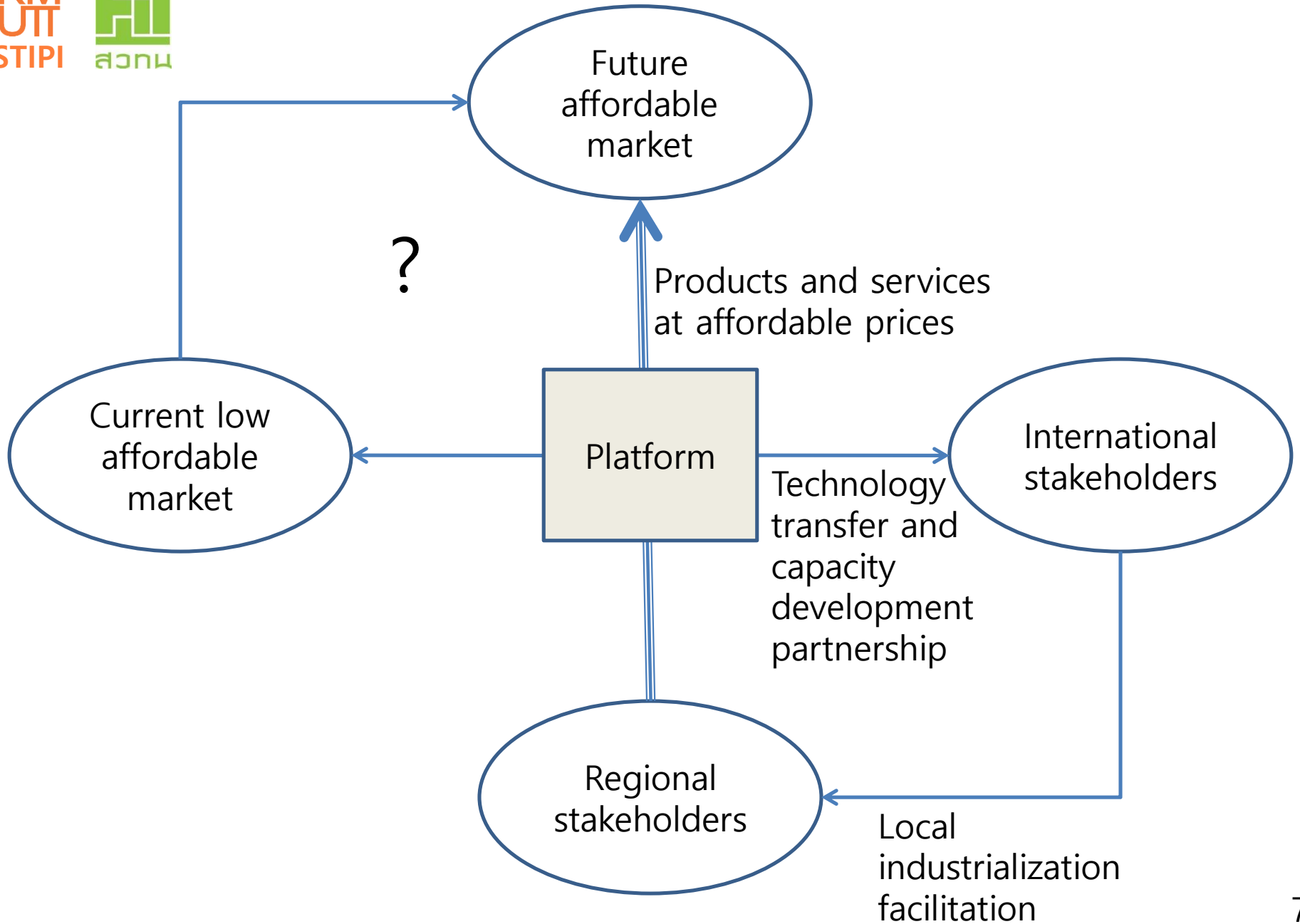
Community 8

Platform

## 2. Platform Strategy







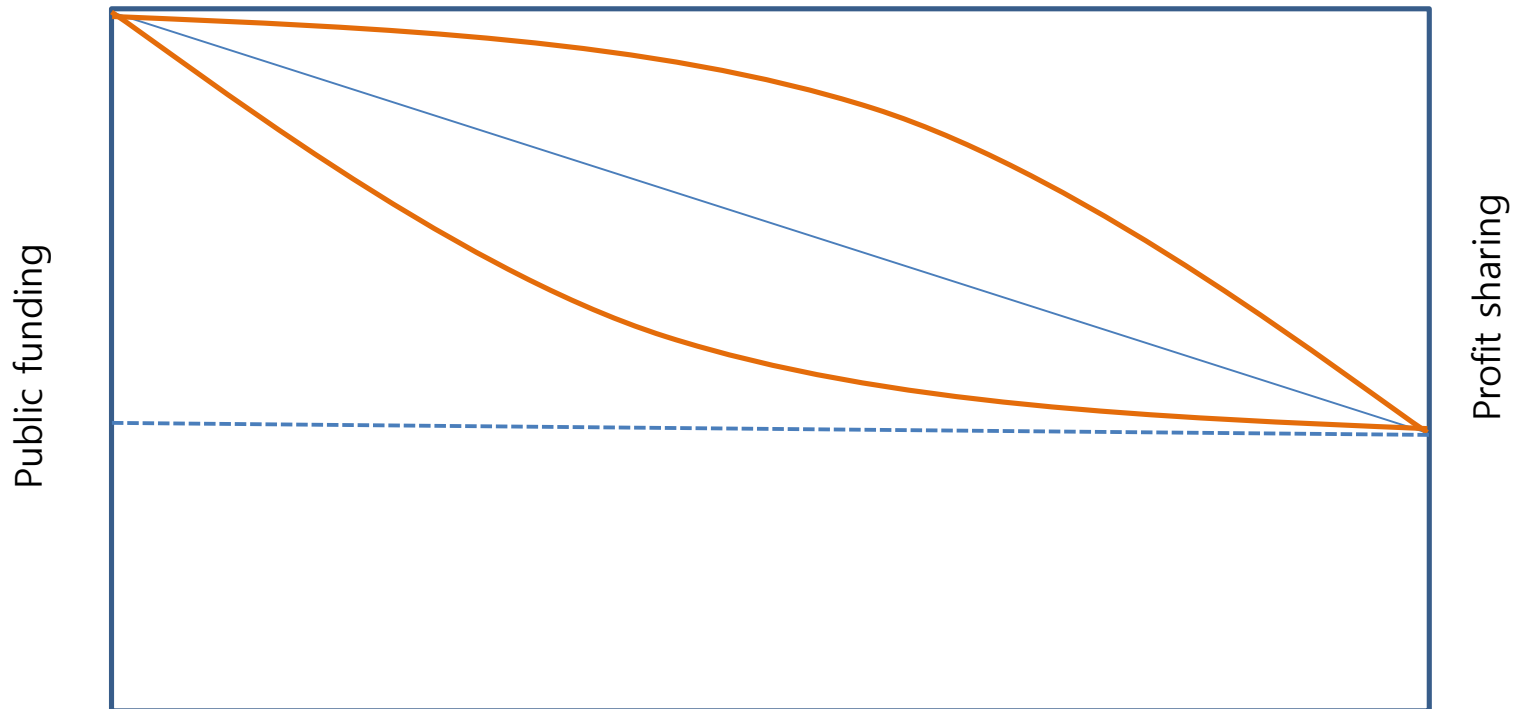
# 3. Platform Business Model

PPP quality management		Revenue structure	
Tech providers	Three phase Ex Ante evaluation	User participation	Demand articulation through networks of local communities
Local producers	Minimum Ex Ante evaluation then Ex Post evaluation with capacity building assistance	Revenue share	Yes or No, If yes, direct (service charge) or in-direct (equity participation)
Local universities		Money side	1 <sup>st</sup> : Public entities 2 <sup>nd</sup> : PPP consortia 3 <sup>rd</sup> : Communities

Platform Investment	Platform management	Platform marketing
<ul style="list-style-type: none"> <li>Public funding: subsidies, grants, etc</li> <li>Indirect: Tax incentives etc</li> </ul>	<ul style="list-style-type: none"> <li>Planning, management and M&amp;E</li> <li>Policy alignment with AMSs, ASEAN and bi/multi-lateral agencies</li> <li>Activities: On-line and off-line (flagship programs and contest)</li> </ul>	<ul style="list-style-type: none"> <li>Voucher &amp; Procurement</li> <li>Long-term payback guarantee</li> <li>End product &amp; service marketing</li> </ul>
Private funding venture, PF, etc	Platform services: centralized (project based) vs. distributed (general)	

# Platform management business model

- Cost center → Cost and profit center (service charge and equity participation)
- Profit share with program service providers



# 4. Platform Programs

Chicken or egg?: eight successful platform launch strategies

Strategies	Definition	ASEAN Platform
The-follow-the-rabbit strategy	Non-platform demonstration projects to model success	Contest
The piggyback strategy	Connection with an existing user base	MI DB and others
The seeding strategy	Value unit creation relevant to at least one set of potential users	Rural development projects
The marquee strategy	Incentives to attract key users	Flagship programs
The single-side strategy	Business creation around products or services for a single set of users	Capacity development programs
The producer evangelism strategy	Platform design to attract producers	Platform services
The big-bang adoption strategy	One or more traditional push marketing to attract a high volume of interests	ASEAN Summit
The micromarket strategy	Targeting a tiny market of members already engaging in interactions	Khon Khaen

# Platform program 1: on-line platform

- First generation: Database Model (Eg. APCTT technology offer and request DB)
- Second generation: Interactive Model (Eg. European Technology Platform)
- Third generation: Serendipitous Discovery centered Ecosystem Development Model linked with a few local DBs (Eg. RecordFarm)

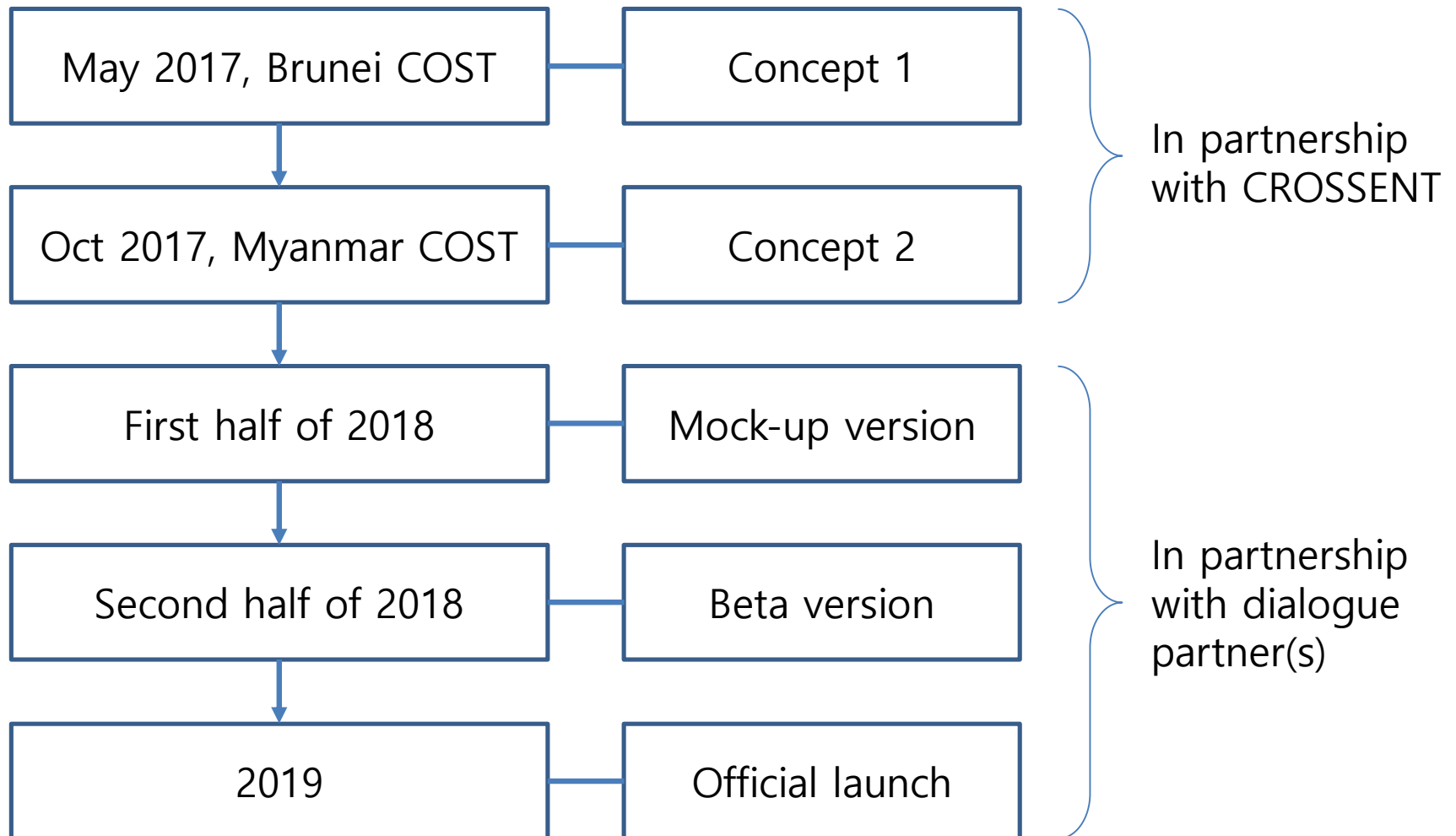
# On-line platform: ecosystem development

- Serendipitous discovery proponents are provided online platform tools and services of business development in deep learning based interactive process.
- After qualification and business development process, they are introduced automatically to other platform stakeholders including investors, researchers and producers which are linked to a few DBs.
- If they are seeking crowd funding, the requests can be linked to relevant platforms such as Kickstarter, Indiegogo and others.
- Then platform stakeholders are to be requested to interact with the proponents when they like the proposals.

## On-line platform: demand articulation

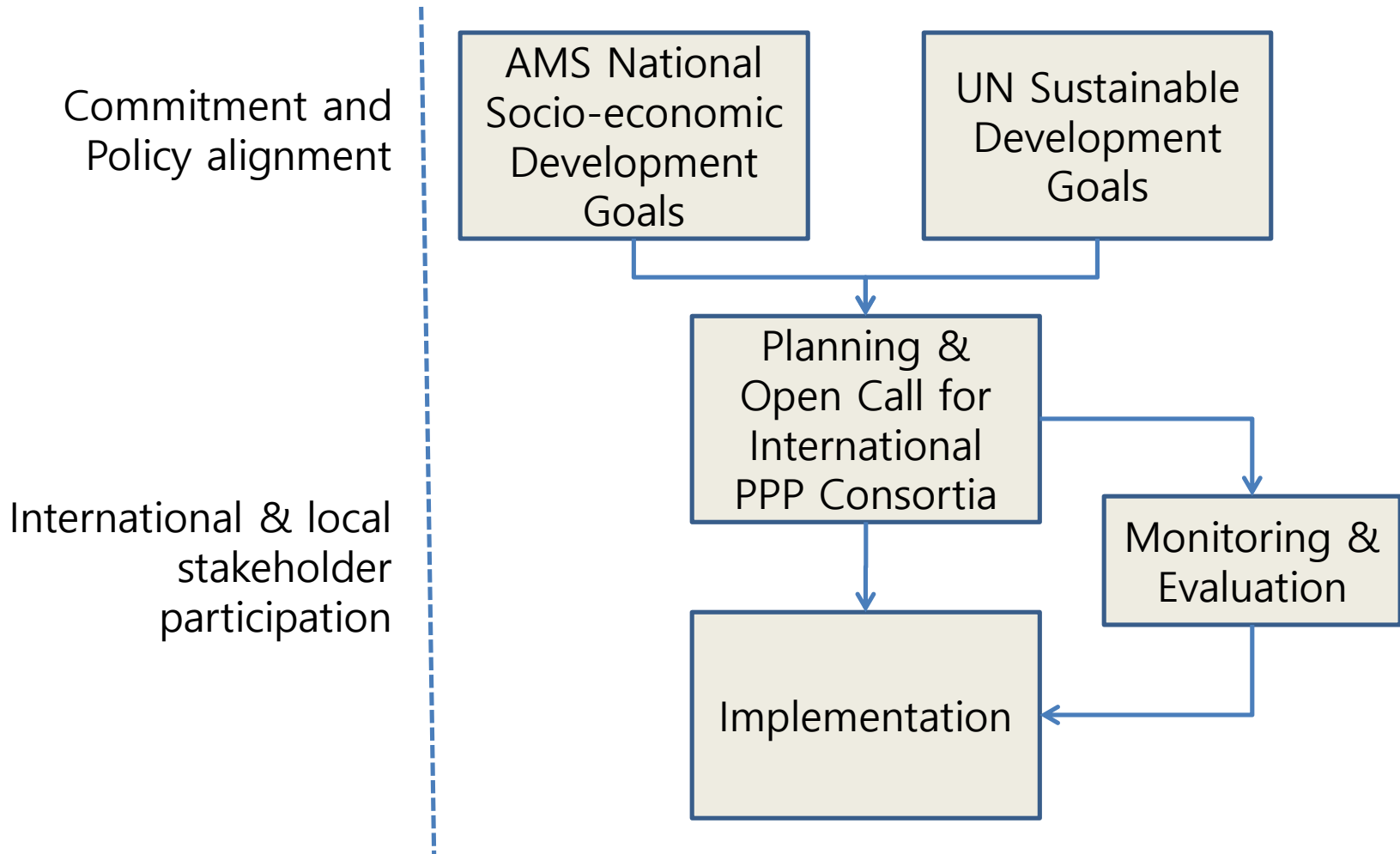
- For demand articulation, user-friendly interface is designed to effectively and efficiently collect demands from local communities.
- Simultaneous translation and voice recognition in partnership with google are a few of them.

## Tentative online platform milestone





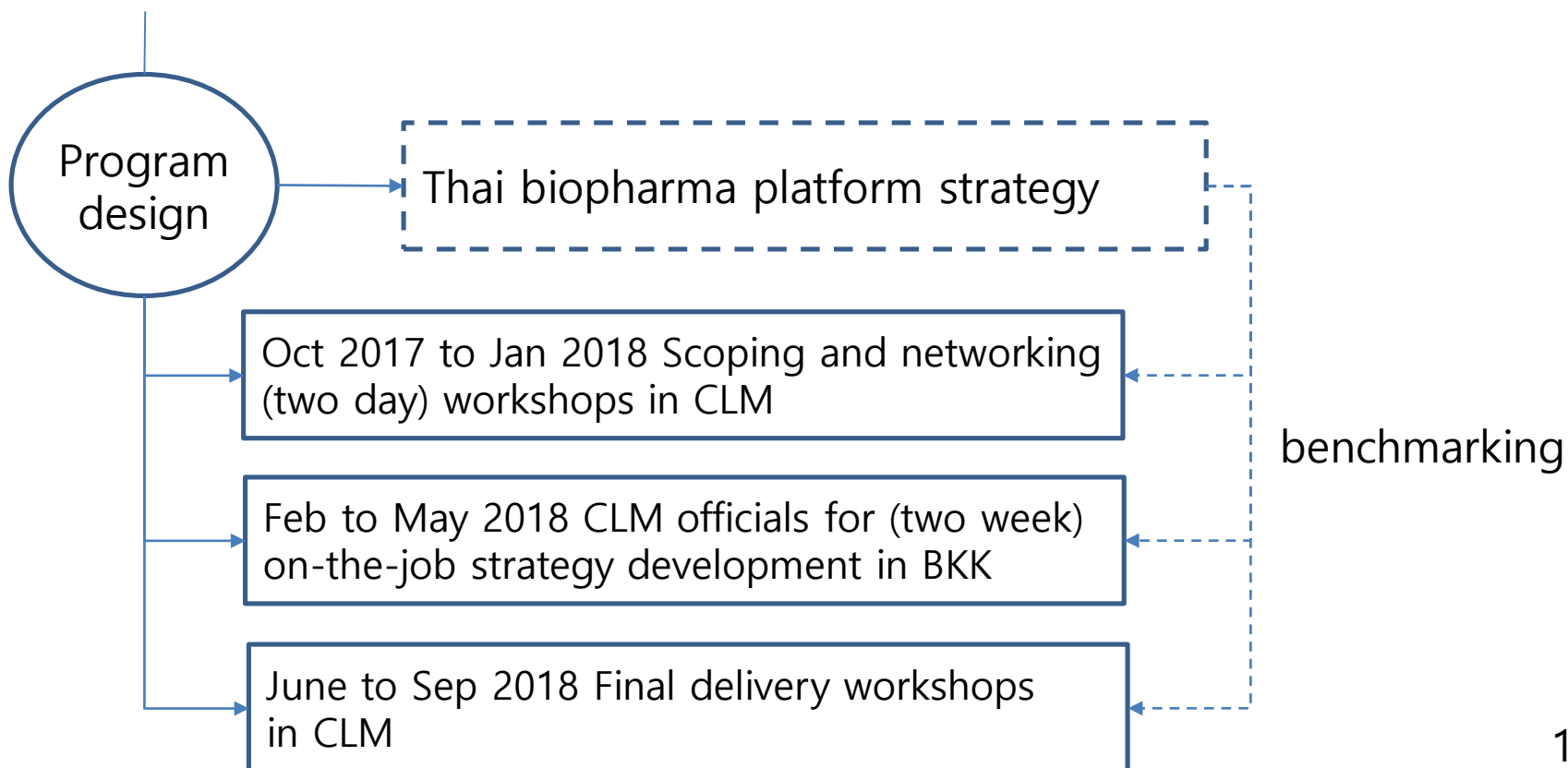
# Platform programs 2: flagship (and rural development) programs



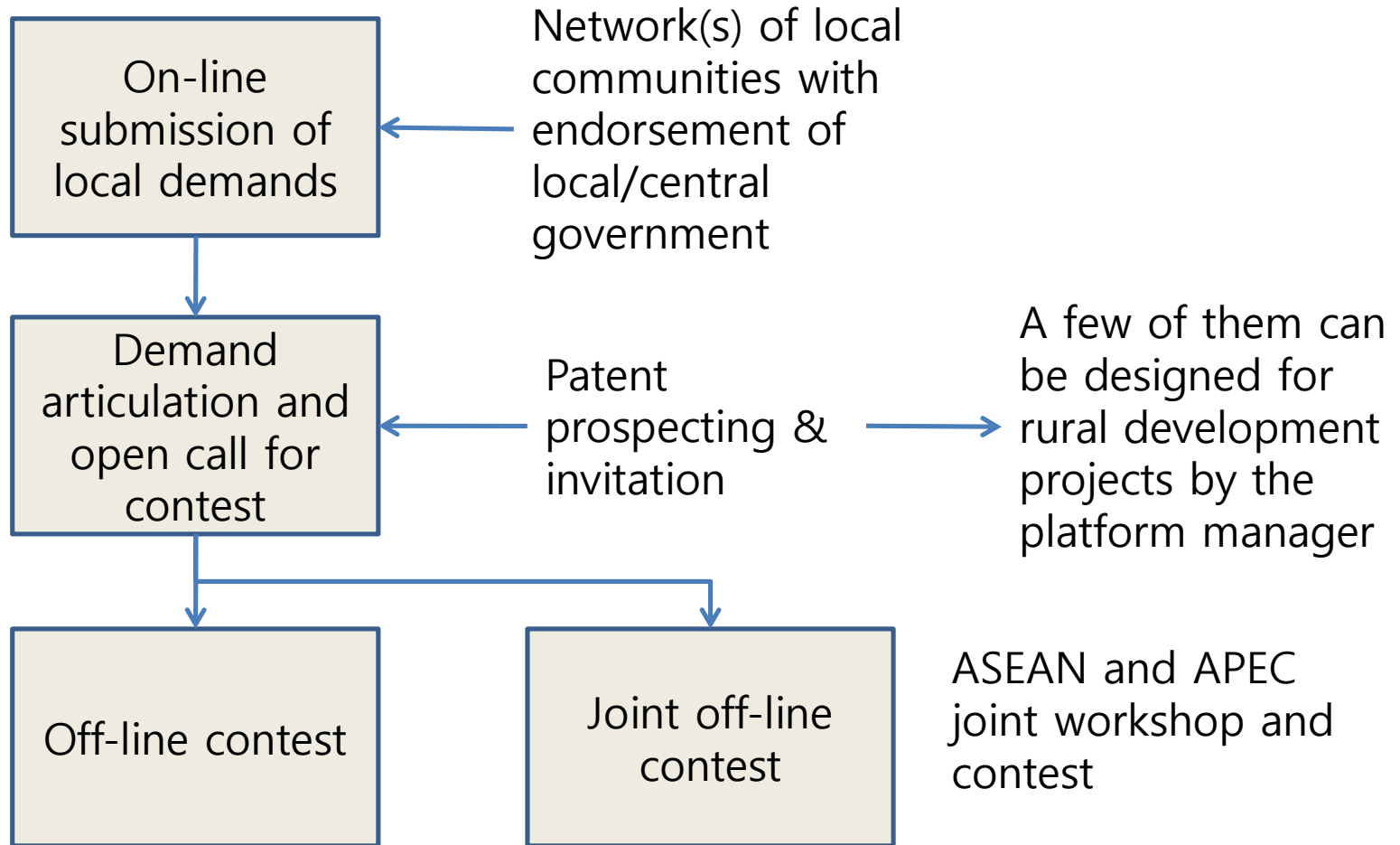
## Tentative flagship program milestone

Thailand multi-year project for ASEAN capacity development

1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Strategy development	Business development	Pilot implementation	Scale-up implementation

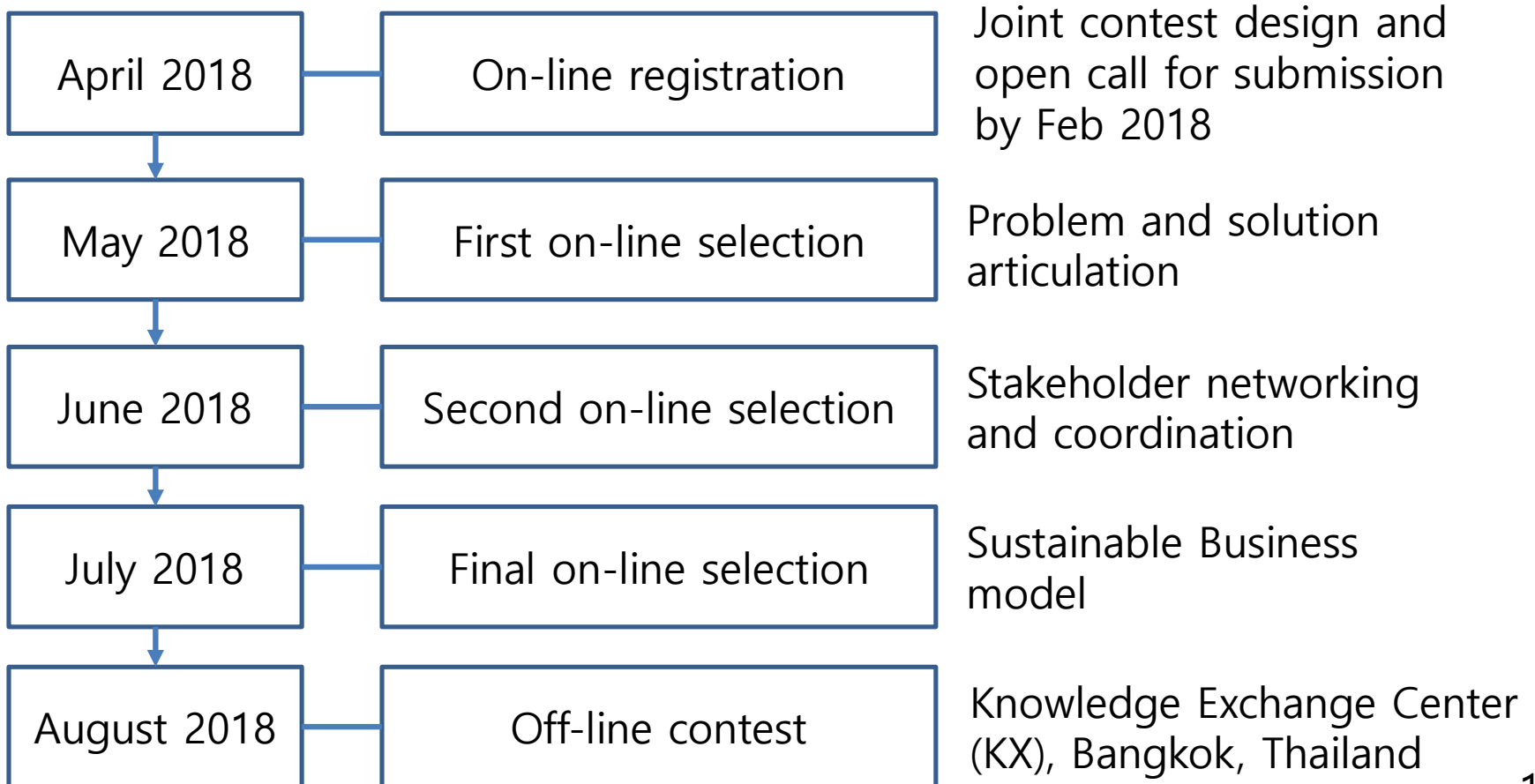


# Platform program 3: off-line contest



## Tentative ASEAN and APEC joint off-line contest milestone

First year the contest will be focused on college students for their capacity development.



## 5. Platform Governance

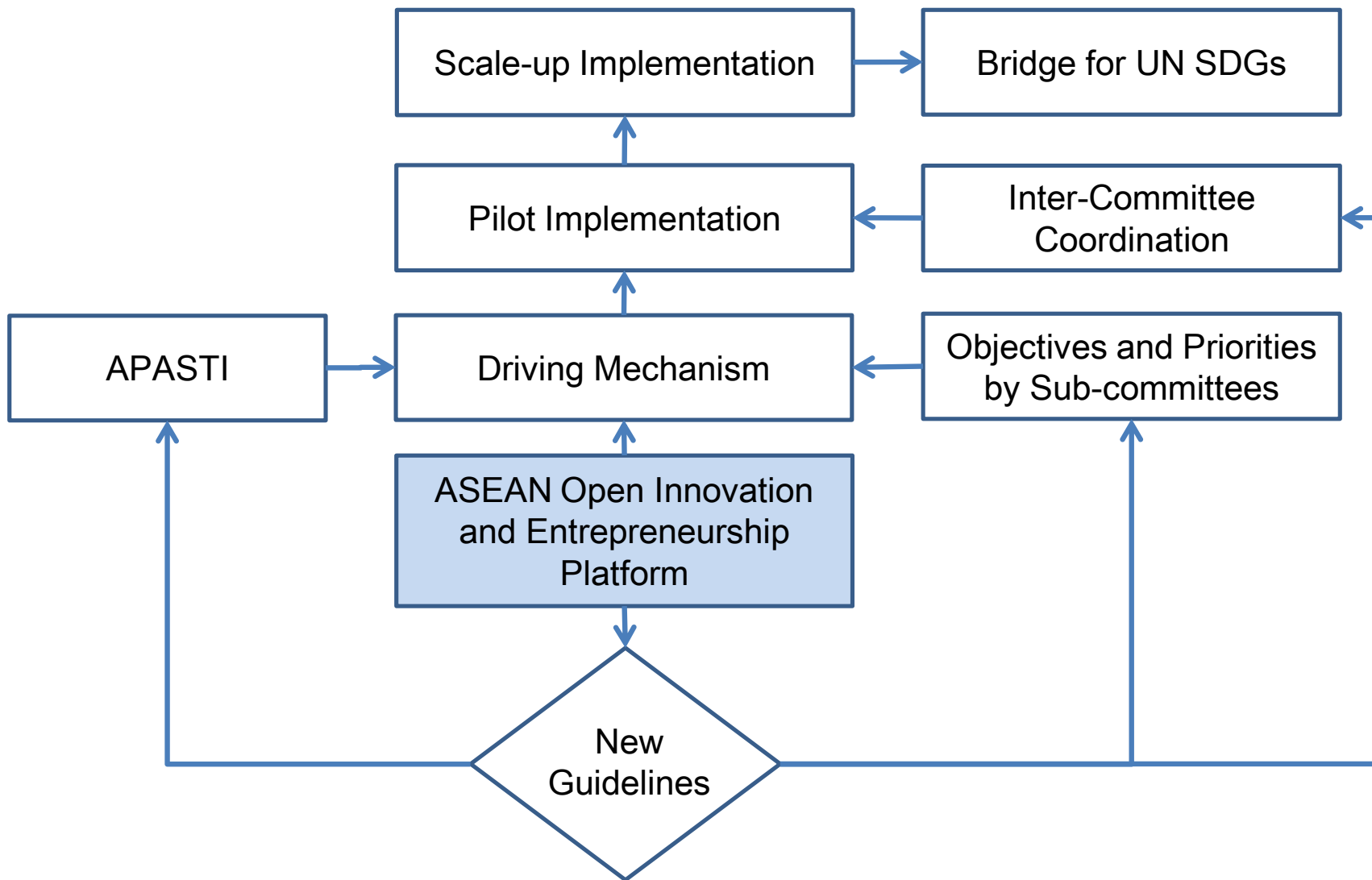
Platform governance considerations (Parker et al, 2016)

- Laws: Transparent rules to govern stakeholder behaviors
- Norms: Boundary definition/member influence on the decision making process for resource appropriation/monitor on behavior and graduated sanctions/low-cost dispute resolution system/structure in nested tiers of simple problems by small users and complex problems by large users
- Architecture: Open architecture and governance with no central authority
- Market: Social currency, risk pooling and insurance
- Self-governance principles: internal transparency, participation, just and fair governance

# APASTI and coordinated implementation

- New initiative of APASTI: Active participation of private sectors and coordinated implementation by AMS scientists and engineers to address ASEAN challenges
- The ASEAN Platform positioned as an experimentation program to align existing sub-committees led by BAC
- Inter-Committee program steered by COST with talent mobility, joint research and capacity development programs
- Bridge for scale-up implementation of UN SDGs

# Alignment of APASTI, sub-committees and other committees for scale-up implementation with UN SDGs



# Proposed planning partnership and management

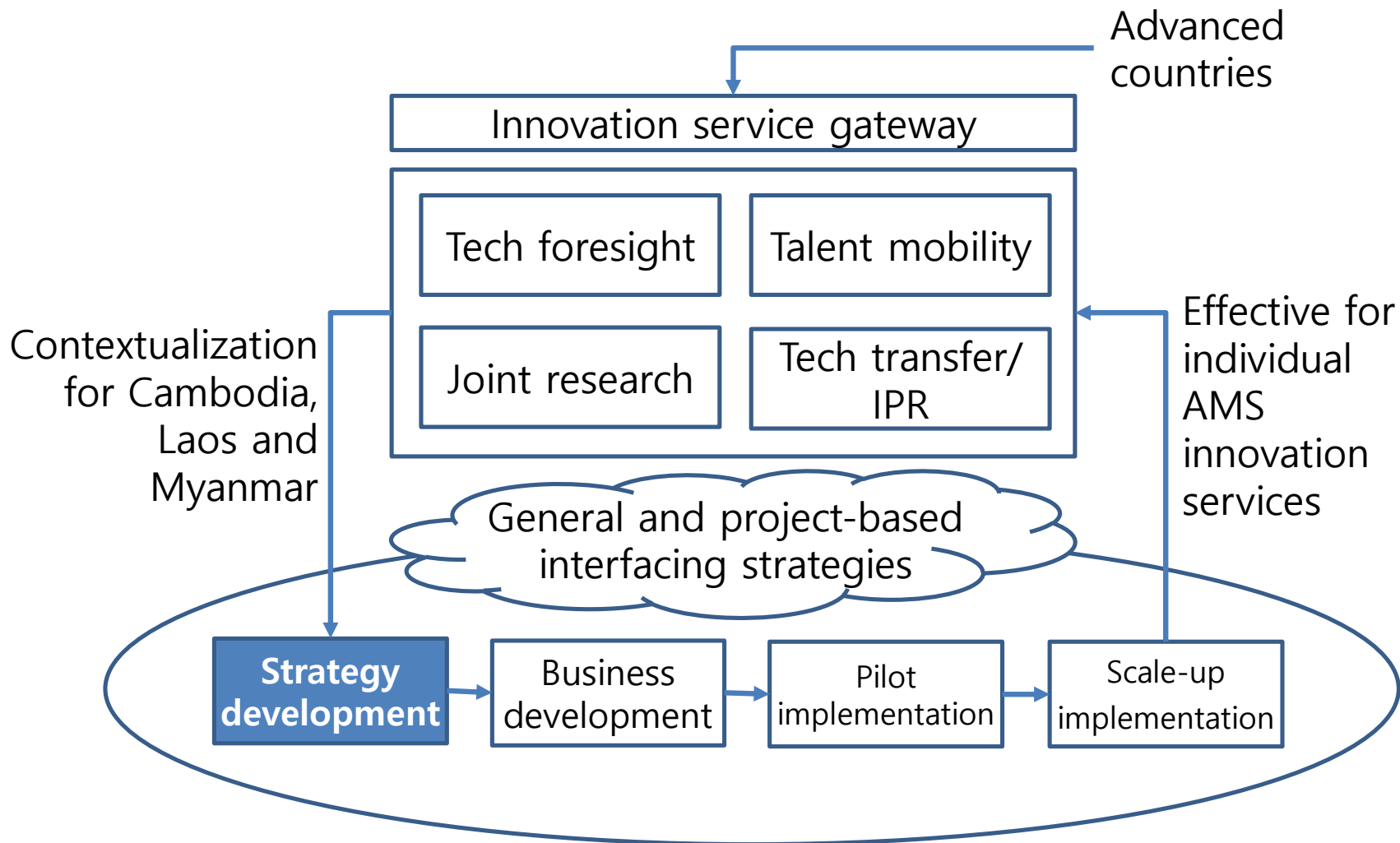
- Target countries and sectors: Cambodia, Laos, Myanmar for their Water-food-energy nexus, Health and medical (Malaria and Dengue Vaccine), Smart farm, etc.
- AMS planning partners: Malaysia (foresight), Singapore (tech transfer), the Philippines (leadership agenda setting & joint research), Thailand (talent mobility)
- Thai stakeholders: NSTDA, TCELS, NIA, Mekong Institute and others
- Bi/multi-lateral capacity development partners: USAID, JASTIP, KAIST and others
- Biz consortia partners: Thai and international private companies
- Platform management: STIPI and KX (KMUTT, Thailand)



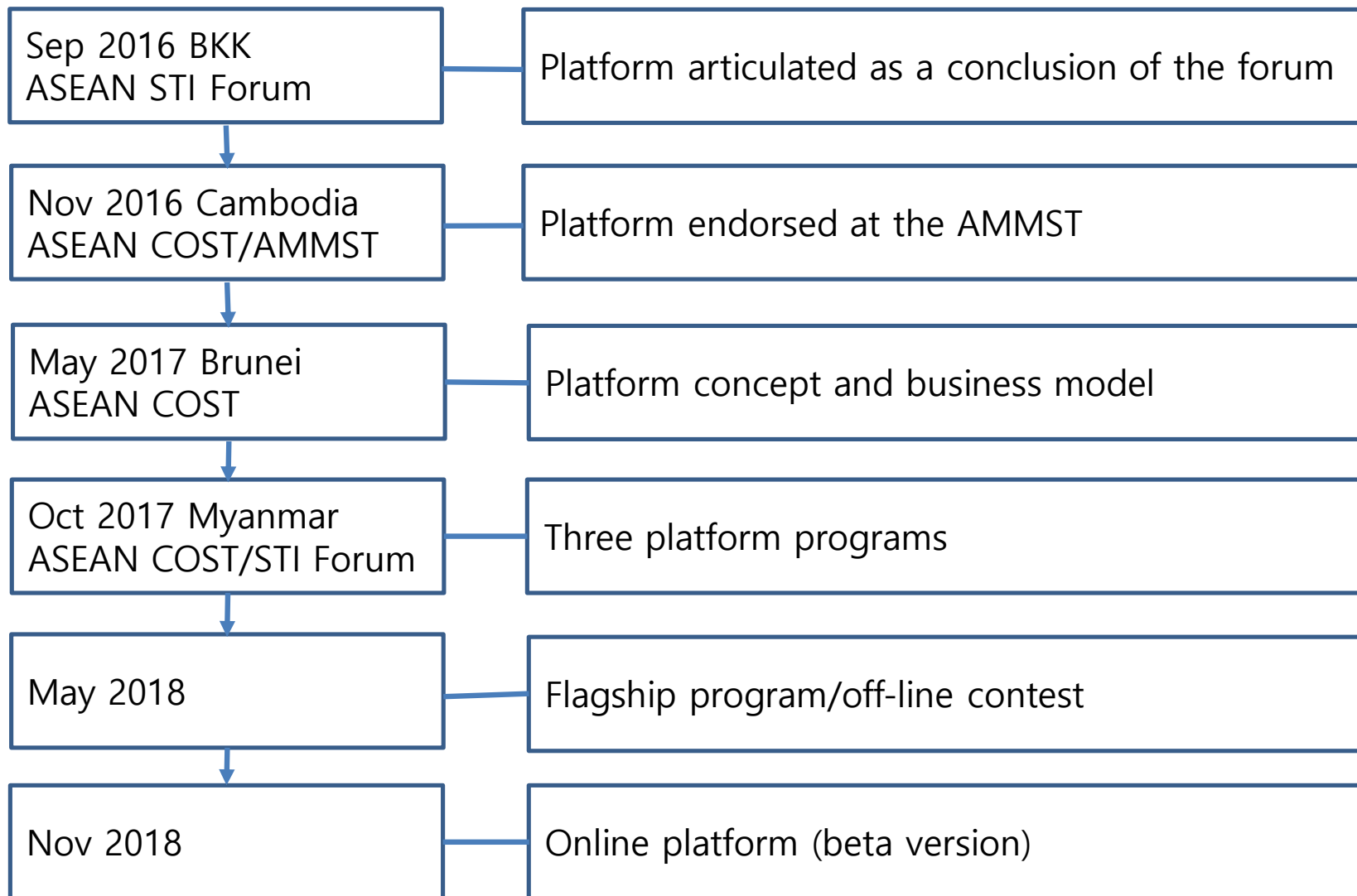
## Partial success of innovation service capacity development among AMSs

Tech foresight	Initial phase of policy learning in Malaysia
Talent mobility	Policy-driven mobility from university to industry in Thailand
Joint research	Inter-regional joint research dominates while intra regional joint research carried out among CLMVT
Tech transfer/ IPR	Startup ecosystem incubation with the FDI-based industrialization legacies of Singapore, expanding to ASEAN

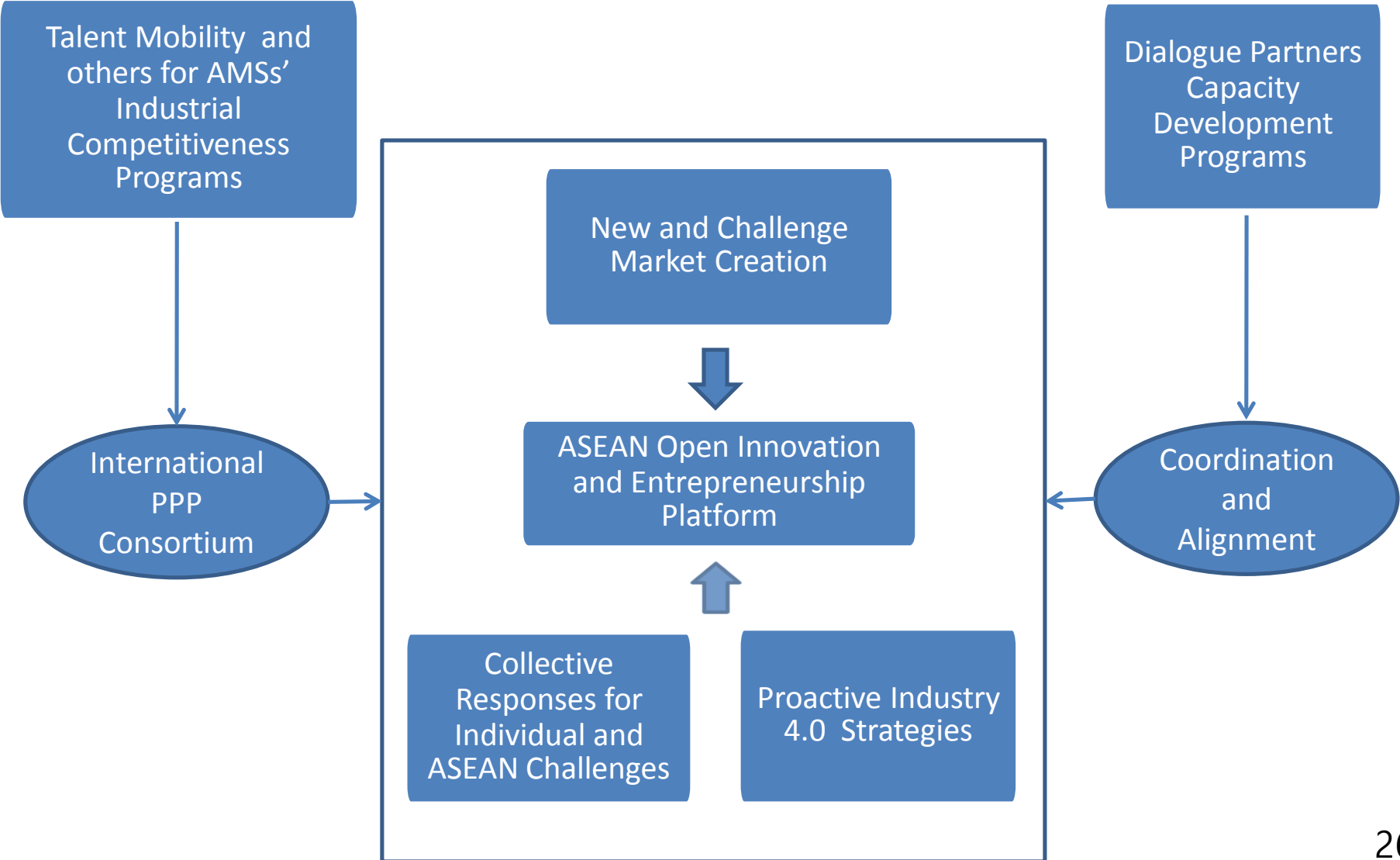
# Gateway capacity development for innovation service functions through ASEAN work with ASEAN and ASEAN work for ASEAN



# 6. Proposed Milestone and Expectations



# Platform expectation



# Platform metrics

		Definition		ASEAN Platform
		Status/definition	measurement	
Startup phase	Liquidity	A minimum number of producers and consumers and high percentage of successful interactions	The percentage of listings that lead to interaction within a given time period	# of linked DBs with quality and quality
	Matching quality	The search algorithm accuracy and the navigation tools intuitiveness	Sales conversion rate as the percentage of searches that lead to interactions	# of local demands articulated
	Trust	User comfortability with the level of risk associated with engaging in platform interactions		# of tech proponents
Growth phase		Change in size of the user base over time	Producer-to-consumer ratio, lifetime value of producers and consumers	# of PPP
Mature phase		Continuous platform innovation		Ratio of profit share

Actionable, accessible and auditable metrics by Parker et al (2016)