# Synbio Ecosystem Development Roadmap

#### Kanchana Wanichkorn and Titima Songkroh

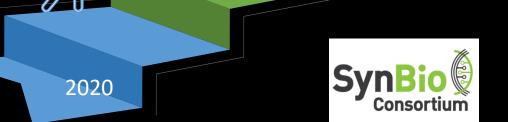
Office of the National Higher Education, Science, Research and Innovation Policy Council (NXPO)

Ministry of Higher Education, Science, Research and Innovation

### (Draft) SynBio Ecosystem Development Roadmap by SynBio Consortium

- RDI Infrastructure
  - Establish National Biofoundry
  - Promote CDMO capability
  - NQI development

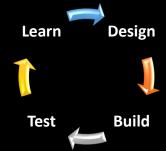
- Legal & Regulation
  - Biosafety/biosecurity
  - Intellectual properties / Ease of doing innovation
- Investment & Strategic Funding
  - Seed funding for startup to solve BCG problems using SynBio
  - Incentive for corporate/VC investment
- SynBio Academy
  - Create curriculum/ training course
  - Support global connection & participation
  - Promote public awareness, participation & acceptance



2030

Goals			
SHORT (1-3 Y)	MEDIUM (3-5 Y)	LONG (>5 Y)	
<ul><li>Capacity building</li><li>Collaboration platform</li><li>Demonstrating commercial feasibility</li></ul>	<ul><li>Scale-up facilities</li><li>Manufacturing processes</li><li>Standardization</li></ul>	<ul><li>Deep-tech enterprises</li><li>New S-curve industry</li></ul>	

## **ROADMAP Journey**





#### SynBio Roadmap Workshops

















#### **SynBio meetings**

- Consortium ecosystem
- Tech & Innovation
- Business



15<sup>th</sup> March 2021 hosted by NXPO 30th March 2021 hosted by NIA 20th April 2021 hosted by FTI & BBGI

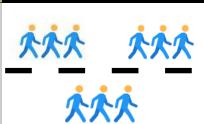












11<sup>th</sup> October 2021





407 participants from 181 organizations

**Synthetic Biology** 

- Personalized food
- Alternative protein
- Functional crops
- Favors & Fragrances

Vision "A New Sustainable Economic Development Based on BCG"

- Drug-discovery
- Antibody production
- mRNA vaccines
- Microbiome



Medical & Wellness



**BCG** 

Biomass conversion

- Biofuels, Biorefinery
- Biofibers, Bioplastics
- Cosmetic ingredients

Bioenergy,
Biomaterial
&
Biochemical

Tourism & Creative Economy

#### Goals

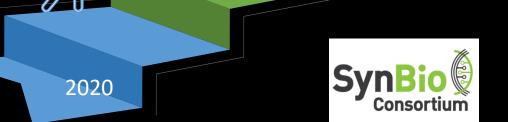
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- Collaboration platform
- Scale-up facilities
- Manufacturing processes
- Standardization
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