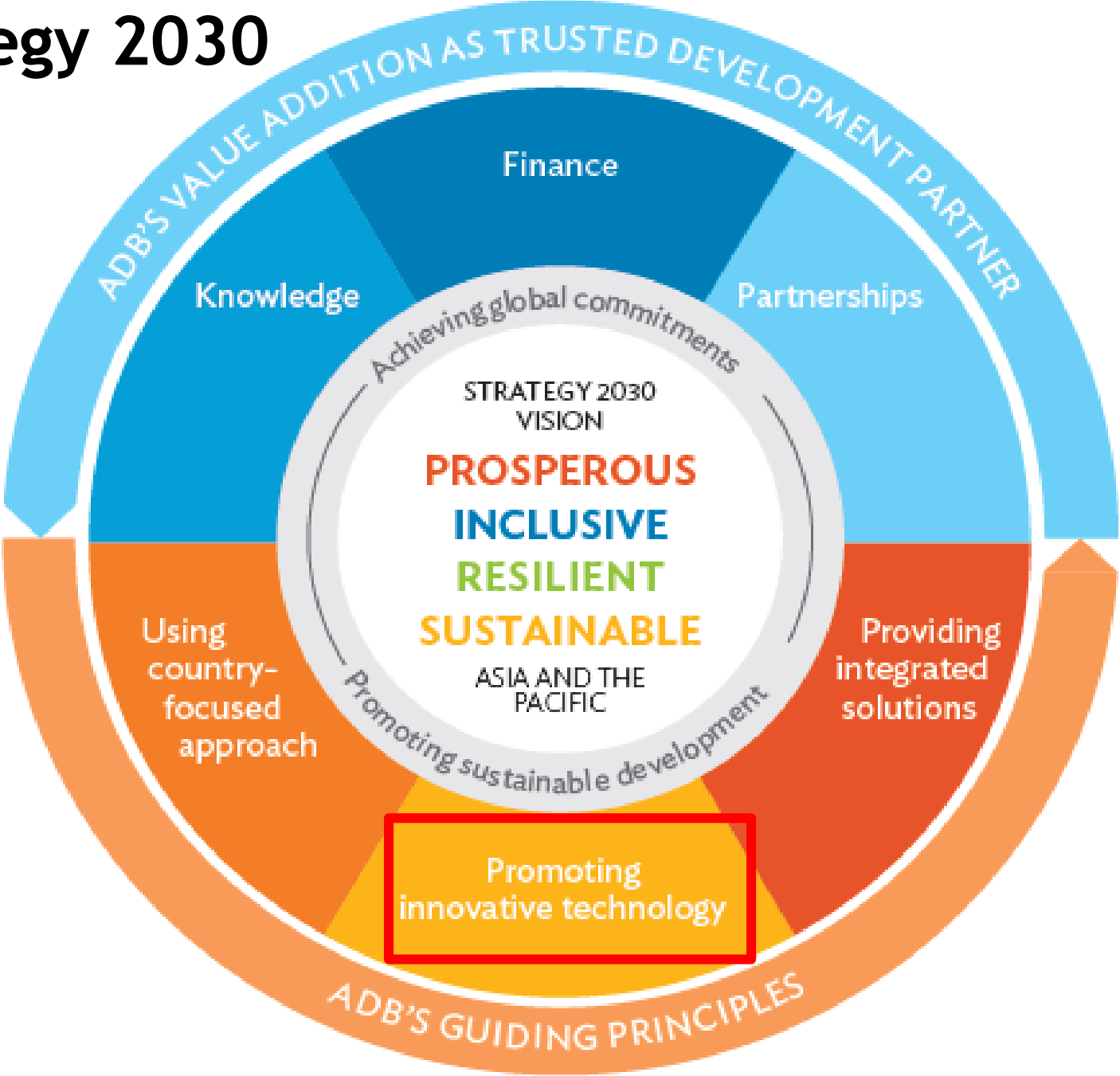


Digital Technologies for Advancing Food Security, Climate Action and Environmental Sustainability

Southeast Asia Department, ADB

ADB Strategy 2030



STRATEGY 2030'S SEVEN OPERATIONAL PRIORITIES



Addressing remaining poverty and reducing inequalities



Accelerating progress in gender equality



Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability



Making cities more livable



Promoting rural development and food security



Strengthening governance and institutional capacity



Fostering regional cooperation and integration

Technology Context in OP3: Tackling Climate Change, Building Climate and Disaster Resilience and Enhancing Environmental Sustainability

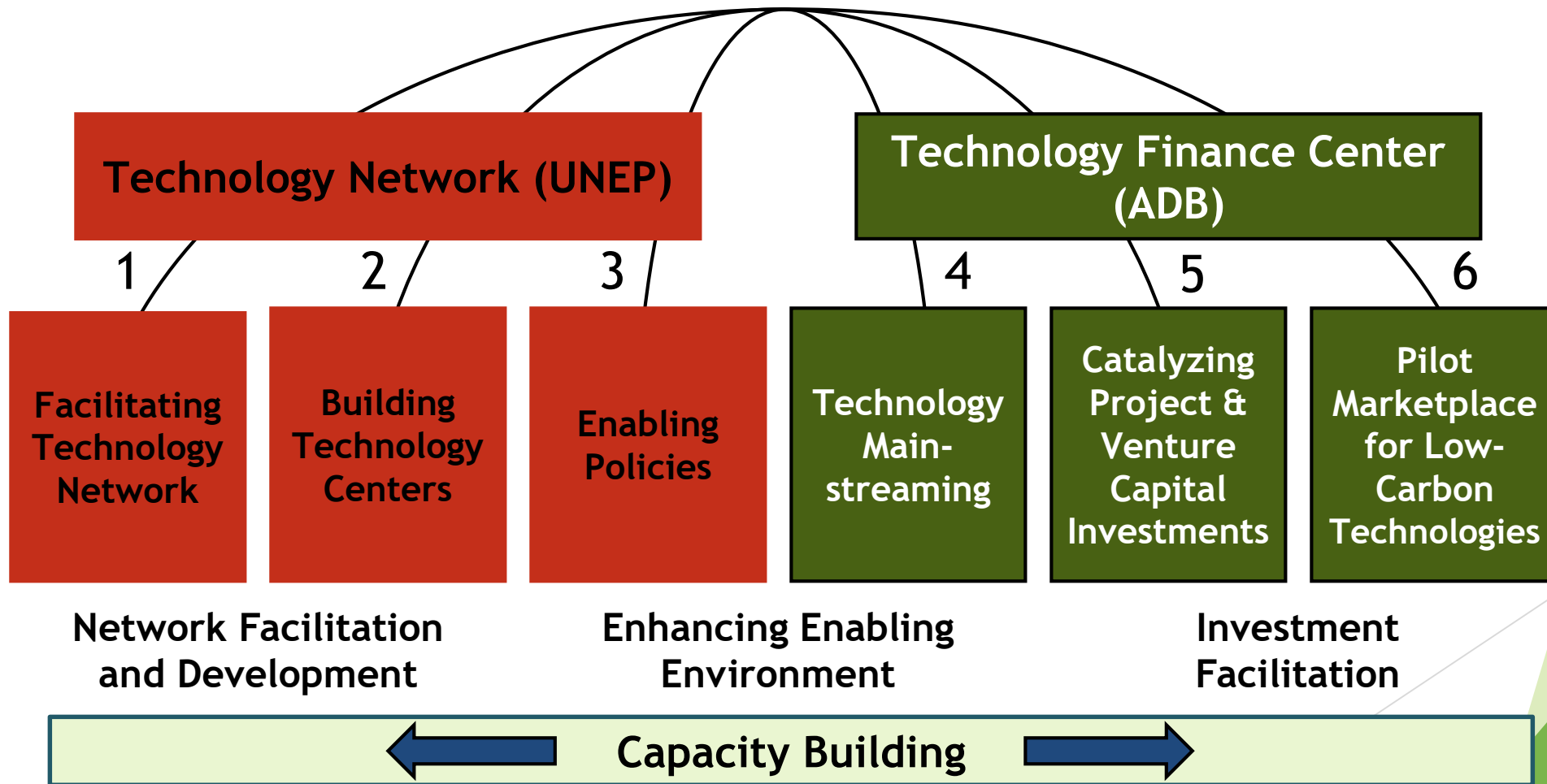
- ▶ Facilitate DMCs' access to **cleaner and smarter technologies**; greater engagement with the private sector, and support for **innovative PPPs**
- ▶ Improve **environmental management**, including efforts to improve air and water quality
- ▶ Strengthen **eco-sensitive project planning and design** to prevent ecosystem degradation and mitigate pollution impacts

Targets:

- ▶ **75%** of the number of ADB's committed operations (on a 3-year rolling average, including both sovereign and non-sovereign operations) will support climate change mitigation and adaptation by **2030**.
- ▶ Climate finance from ADB's own resources will reach **\$80 billion** cumulatively **from 2019 to 2030**

Pilot Asia-Pacific Climate Technology Network and Finance Center: ADB-UNEP Collaboration

Center's objective - To accelerate access to climate mitigation and adaptation technologies



Technology Context in OP5: Rural Development and Food Security

- ▶ Promote the adoption of advanced technologies such as **satellite- and drone-assisted applications** to increase **irrigation efficiency** and to ensure the sustainable use of land and water resources
- ▶ Use **Information and Communication Technologies** to improve **food traceability and tracking**
- ▶ Promote the use of **climate-smart agriculture technologies** and improve natural resource management standards
- ▶ Enhance connectivity and mobility between rural and urban areas
- ▶ Reduce postharvest losses and promote agricultural value addition

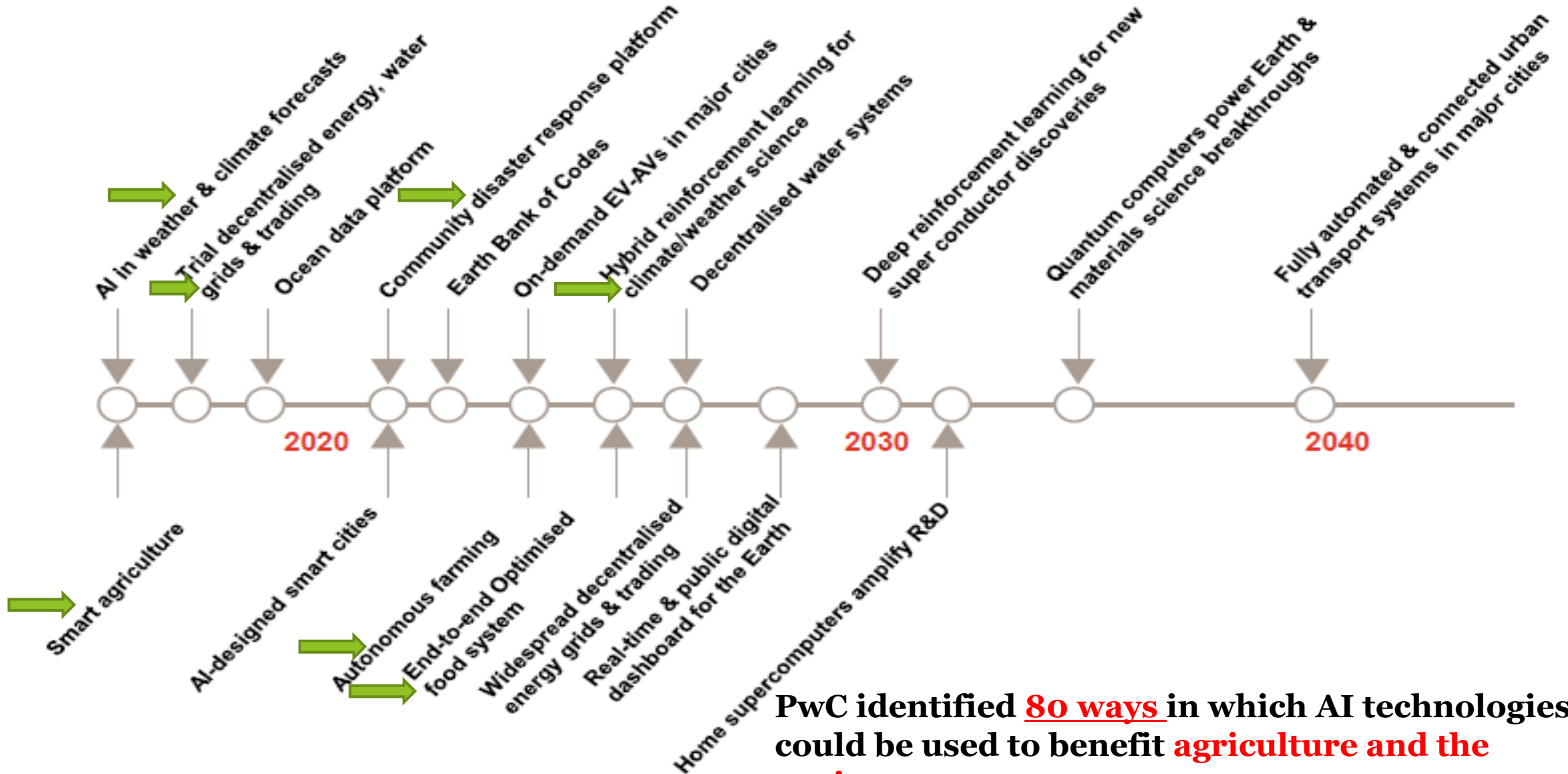
Technology Context in OP7: Regional Cooperation and Integration

- ▶ Increase **technology support for regional public goods** and collective actions to mitigate cross-border risks pertaining to **climate change, environmental pollution, energy and water security**
- ▶ Facilitate knowledge sharing and collaboration between subregions - GMS, CAREC, SASEC etc.

Range of Technologies

- ▶ Artificial Intelligence
- ▶ Internet of Things
- ▶ Blockchain technologies
- ▶ Drone technology and photogrammetry visualization
- ▶ Satellite technologies
- ▶ Data analytics (to measure a project's performance from resource consumption to carbon, from structural design to environmental impact)
- ▶ Augmented reality (to improve regulatory, consenting and stakeholder engagement processes)

Figure 4: AI for the Earth game changers: Indicative timeline



PwC identified **80 ways** in which AI technologies could be used to benefit **agriculture and the environment**.

Objectives of the Workshop

Overall objective:

- ▶ To determine critical areas for support to the GMS countries in harnessing the digital technologies for sustainable development

Specific Objectives:

- ▶ To assess current **status of application** of digital technologies in four areas:
 1. Sustainable agriculture
 2. Food traceability
 3. Climate action (mitigation and adaptation)
 4. Environmental sustainability
- ▶ To solicit views from the representatives of the **government, private sector, development partners and academia** on most appropriate technologies, needs and gaps, and future priorities for action in the GMS
- ▶ To identify opportunities for **public-private partnerships** in deployment of digital technologies in the GMS