



**Asia-Pacific
Economic Cooperation**

2014/PPSTI1/011
Agenda Item: 8-1-1

APEC Biogas Technology and Engineering Workshop

Purpose: Information
Submitted by: China



**3rd Policy Partnership on Science, Technology
and Innovation Meeting
Changzhou, China
9-11 April 2014**



**Asia-Pacific
Economic Cooperation**

APEC Biogas Technology and Engineering Workshop

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9 April 2014, Changzhou, China



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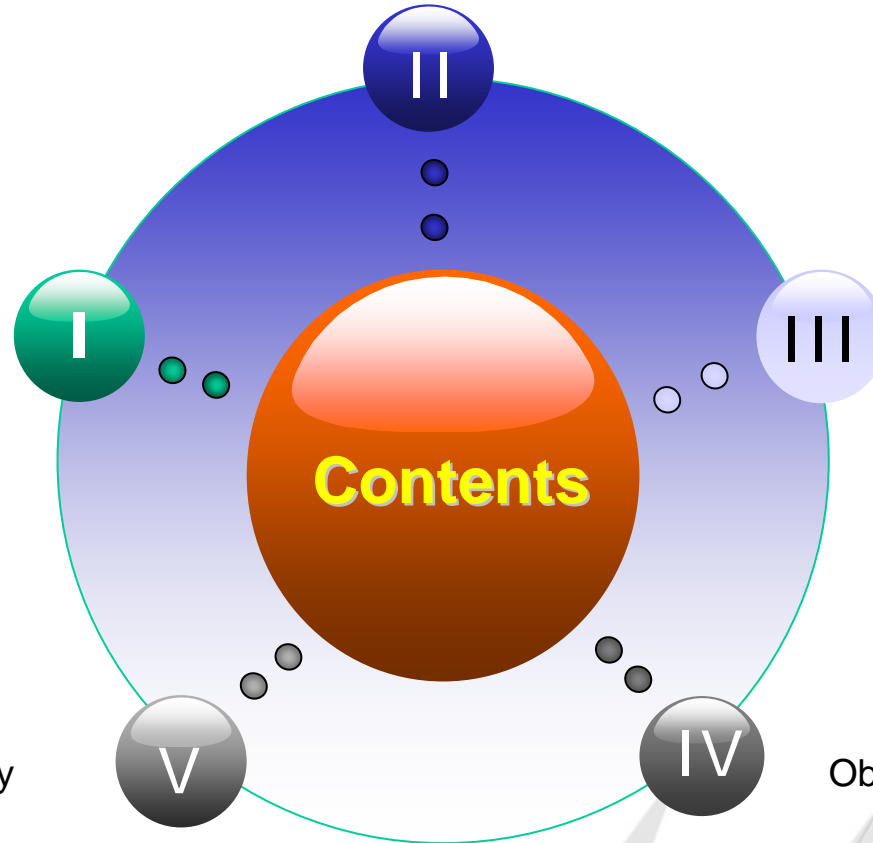


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Relevance of the Project



About YASTI



Implementation

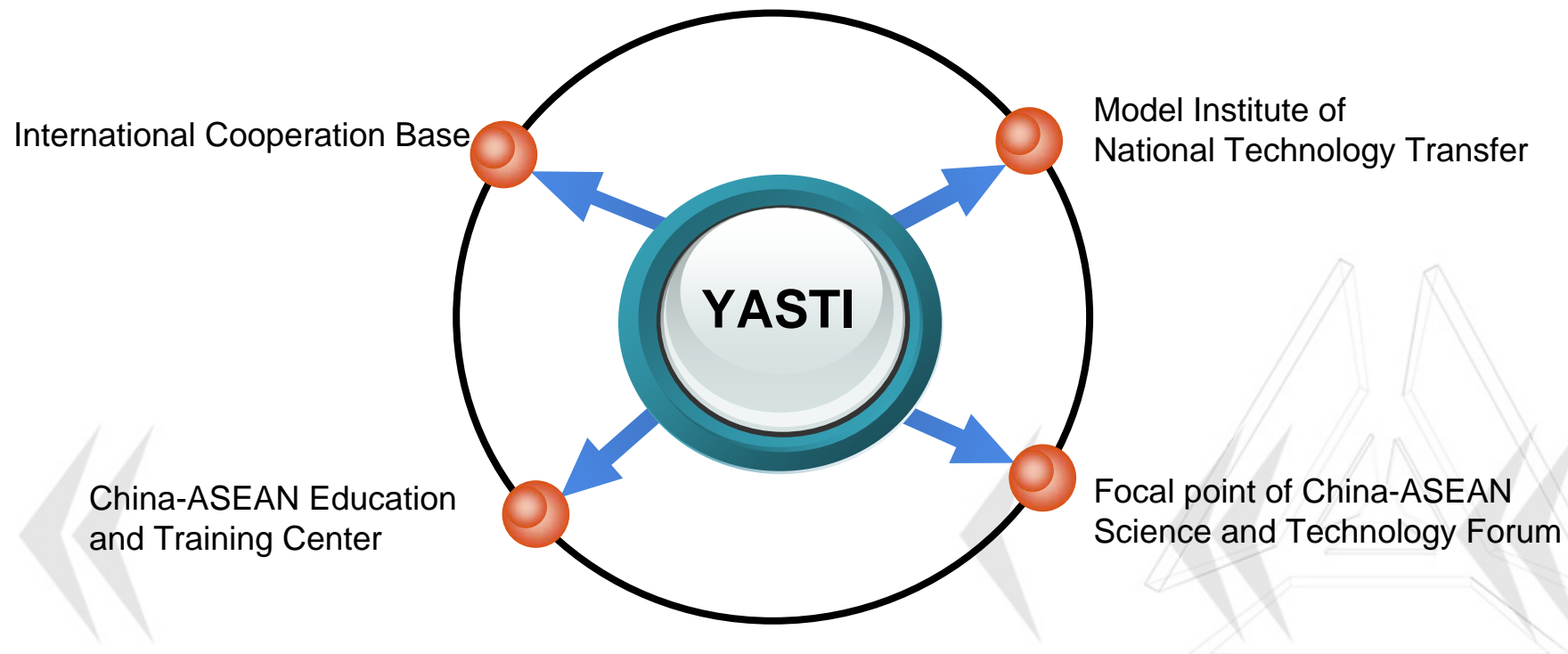
Sustainability

Objectives and
Impact

I. About YASTI



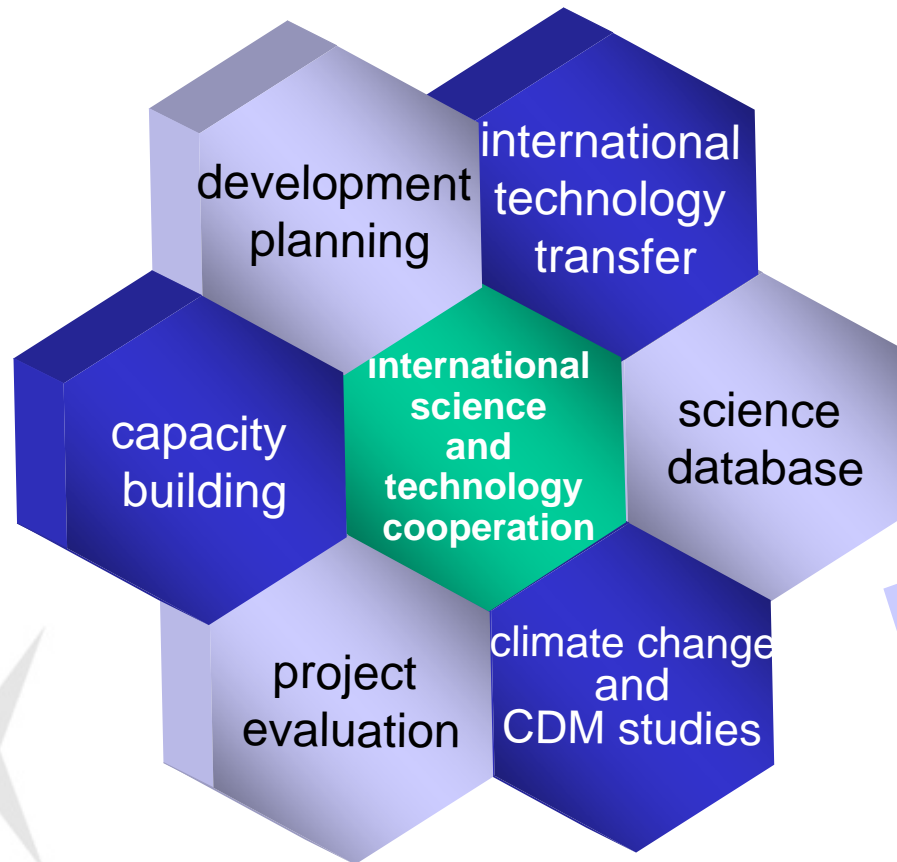
- Yunnan Academy of Scientific and Technical Information (YASTI) is a public research institute.





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I. About YASTI



Main activities



I. About YASTI



- Linkages



UN's Asian and Pacific
Centre for Transfer of
Technology (APCTT)

ASEAN Secretariat

Asian Development Bank

Council of Renewable
Energy in Mekong Region

related institutes in
APEC economies



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I. About YASTI



Supported by APEC Fund and the APEC Secretariat
YASTI organized

August, 2011
Biogas Utilization
and Development
Forum

July, 2013
APEC New and
Renewable Energy
Technology
Development and
Application Forum



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APEC International Biogas Resources Development and Utilization Science and Technology Cooperation Forum

Kunming • China 2011

Sponsors: Department of International Cooperation, Ministry of Science and Technology, P.R.China
Yunnan Provincial Science and Technology Department, P.R.China
Co-Sponsors: Hong Kong, Malaysia, Philippines
Organizer: Yunnan Academy of Sciences

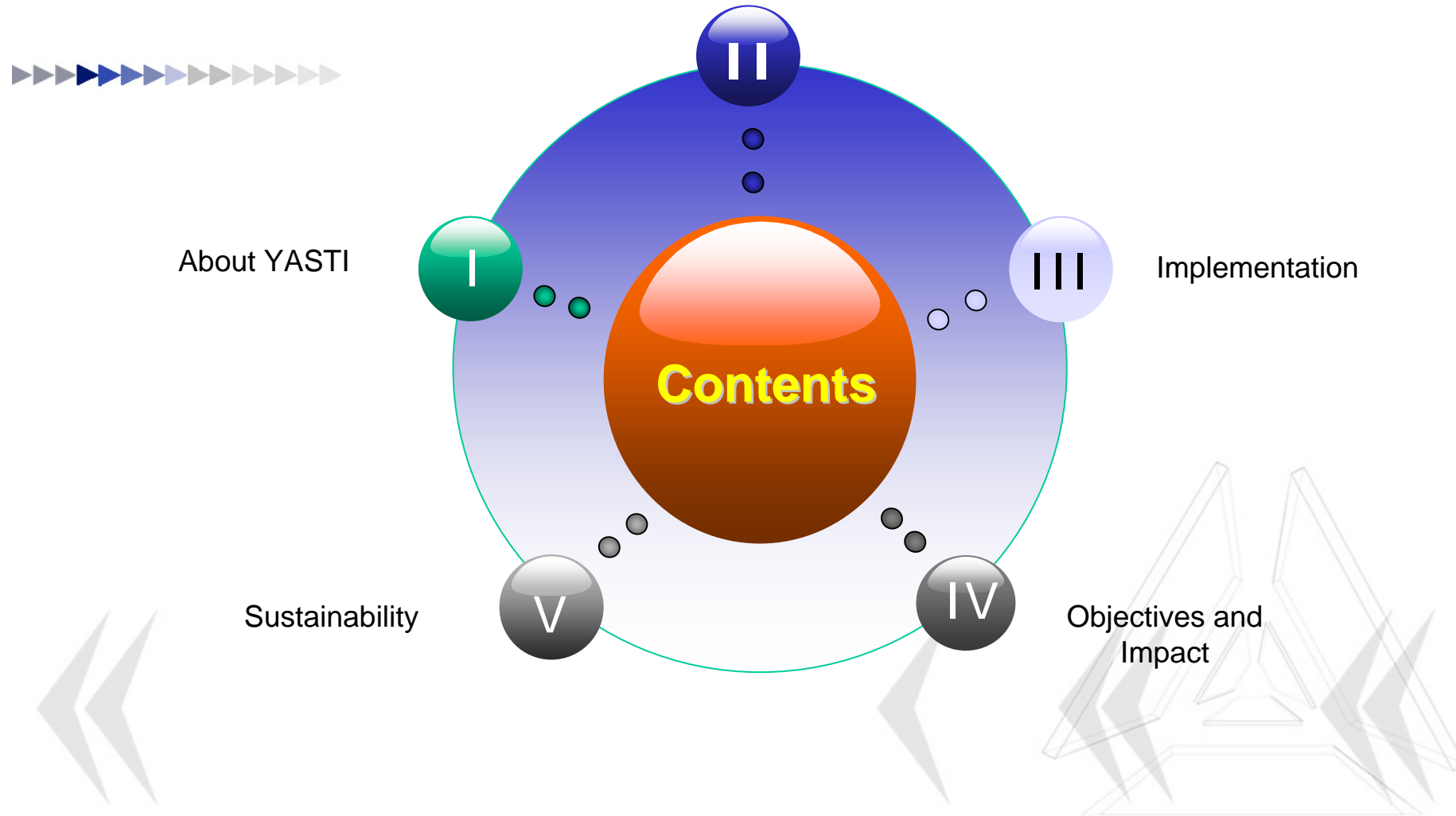






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Relevance of the Project



II. Relevance of the Project



Opportunities and problems

- A well functioning biogas industry contributes to energy independence and environmental sustainability.
- Its waste treatment, energy, environmental and economic benefits make it an important clean and renewable energy source, and last decades has witnessed its utilization in rural and urban areas.



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II. Relevance of the Project



- In developing economies, however, biogas utilization encounters setbacks like

1

low system efficiency caused by short longevity, low energy output, high operation and maintenance cost

2

safety hazards during operation

3

low economic benefits

II. Relevance of the Project



Relevance

The Project falls under **rank 2 of the APEC 2014 funding criteria** as it promotes renewable energy, energy efficiency, low carbon technology, human resources development and capacity building.

II. Relevance of the Project



- Developing economies in APEC need capacity building programs to accompany the development of biogas industry, and APEC plays a crucial role to efficiently facilitate them to get the technical assistance and experience from developed economies.
- The proposed workshop is to address the technical and economical problems through capacity building of the stakeholders in biogas industry like practitioners, regulation makers and academics.

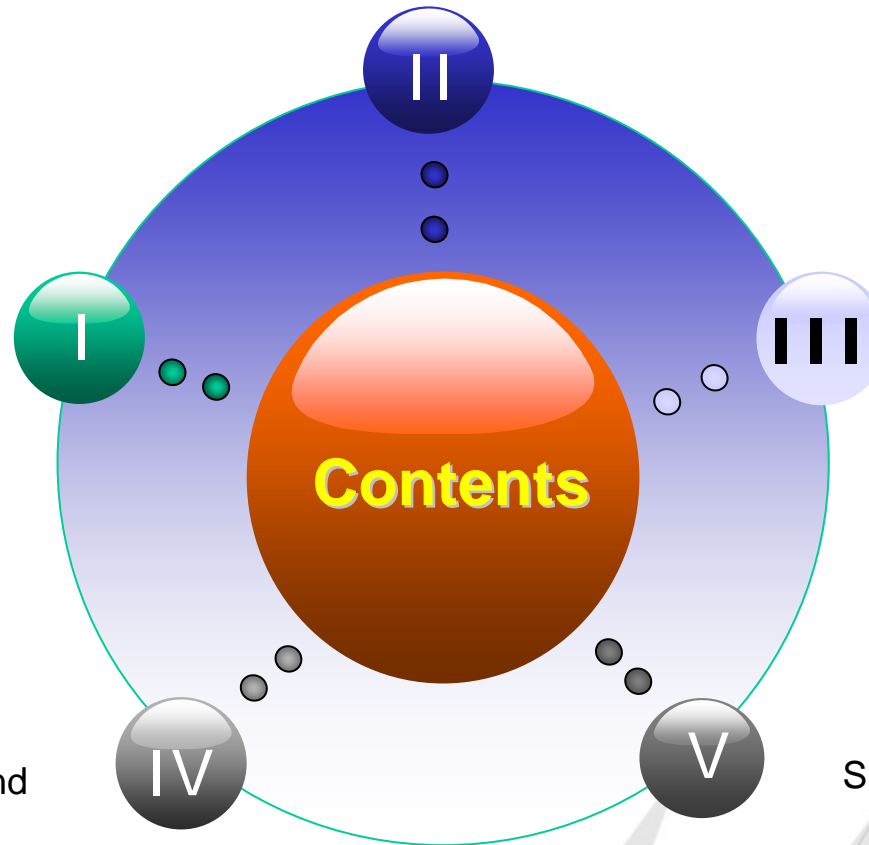


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Relevance of the Project



About YASTI



Implementation

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III. Implementation



On technical level

1. biological process
2. safe operation
3. trouble shooting
4. system optimization

Modules

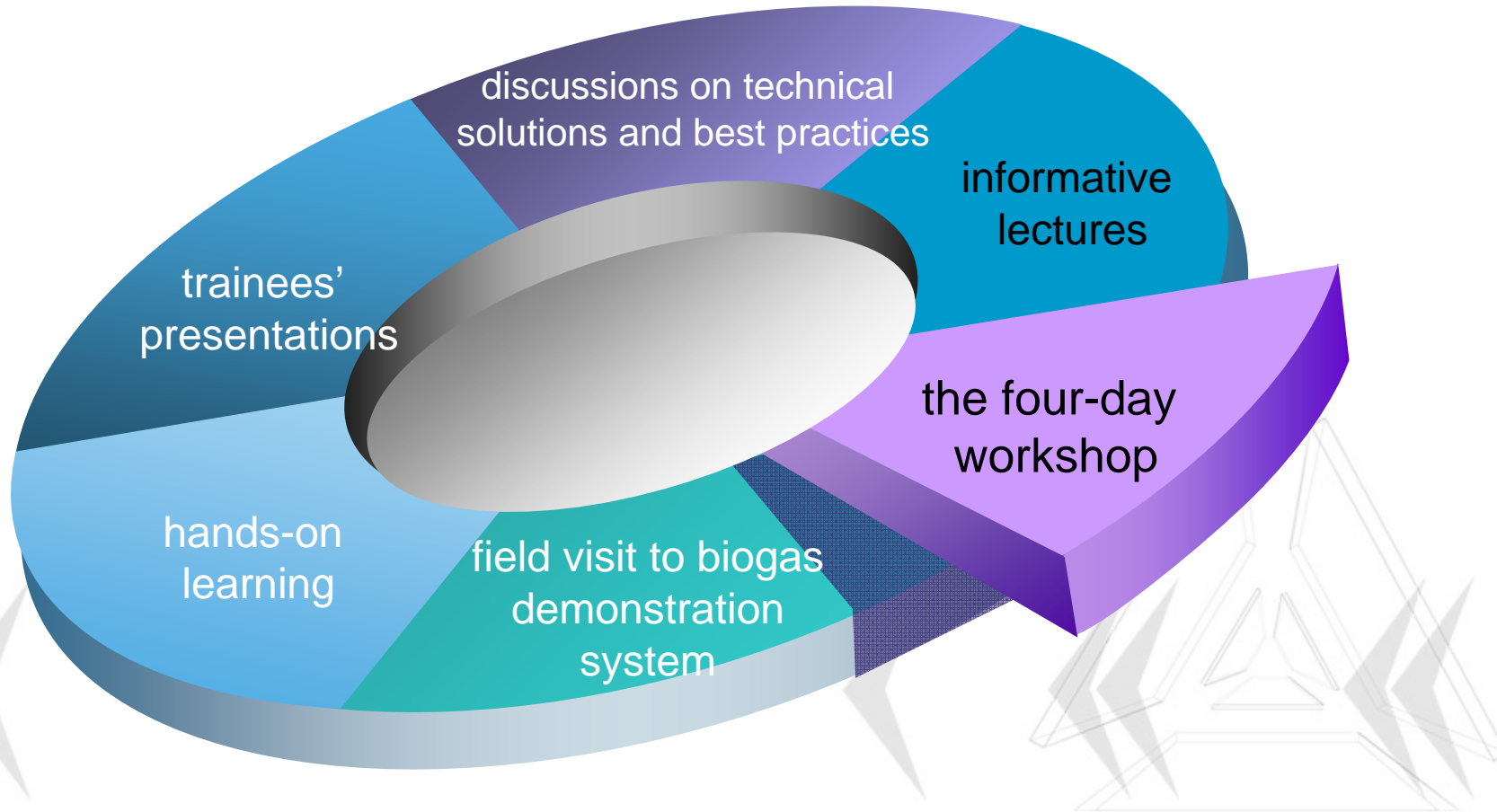
On economic level

1. capital requirement
2. operation and maintenance cost
3. product and byproduct markets
4. computer decision tool for digester economic assessment
5. cooperative development of digesters like community digesters, business and ownership models



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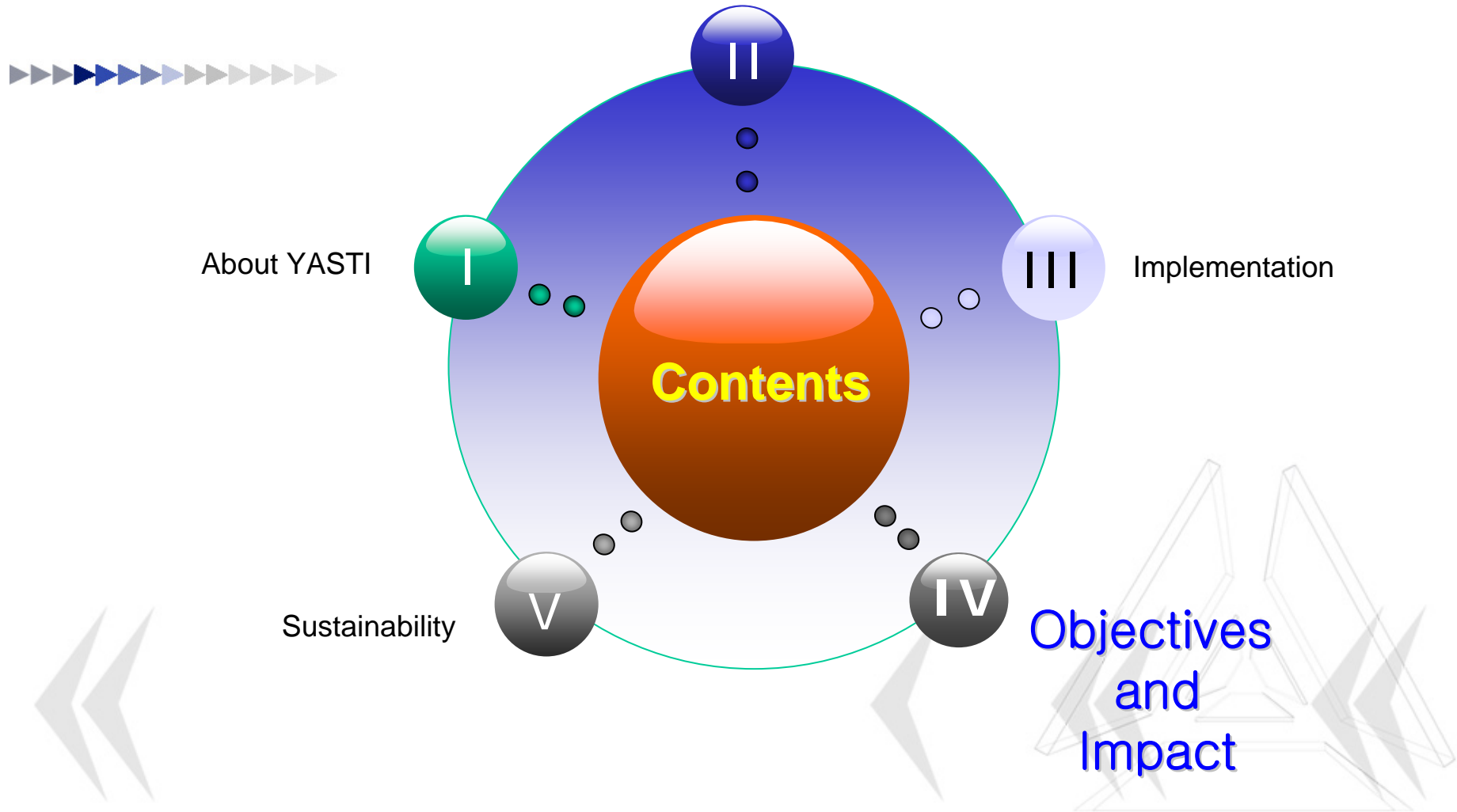
III. Implementation





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Relevance of the Project



IV. Objectives and Impact



To ensure participants will be able to effectively optimize biogas system like increasing longevity of existing or new systems, increasing waste treatment and energy output, and implementing safety procedures.

To empower participants to make biogas system sustainable and profitable through input like comprehensive utilization and cooperative development models.

To help trainees make follow-up plans according to the actual needs and situation in their economies.

Objectives





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IV. Objectives and Impact



Impact

Trainees will acquire technical skills and will be able to promote the effective use of biogas in their economies.



Economic and environmental benefits of biogas will be achieved, which will bring welfare to local people and the region.

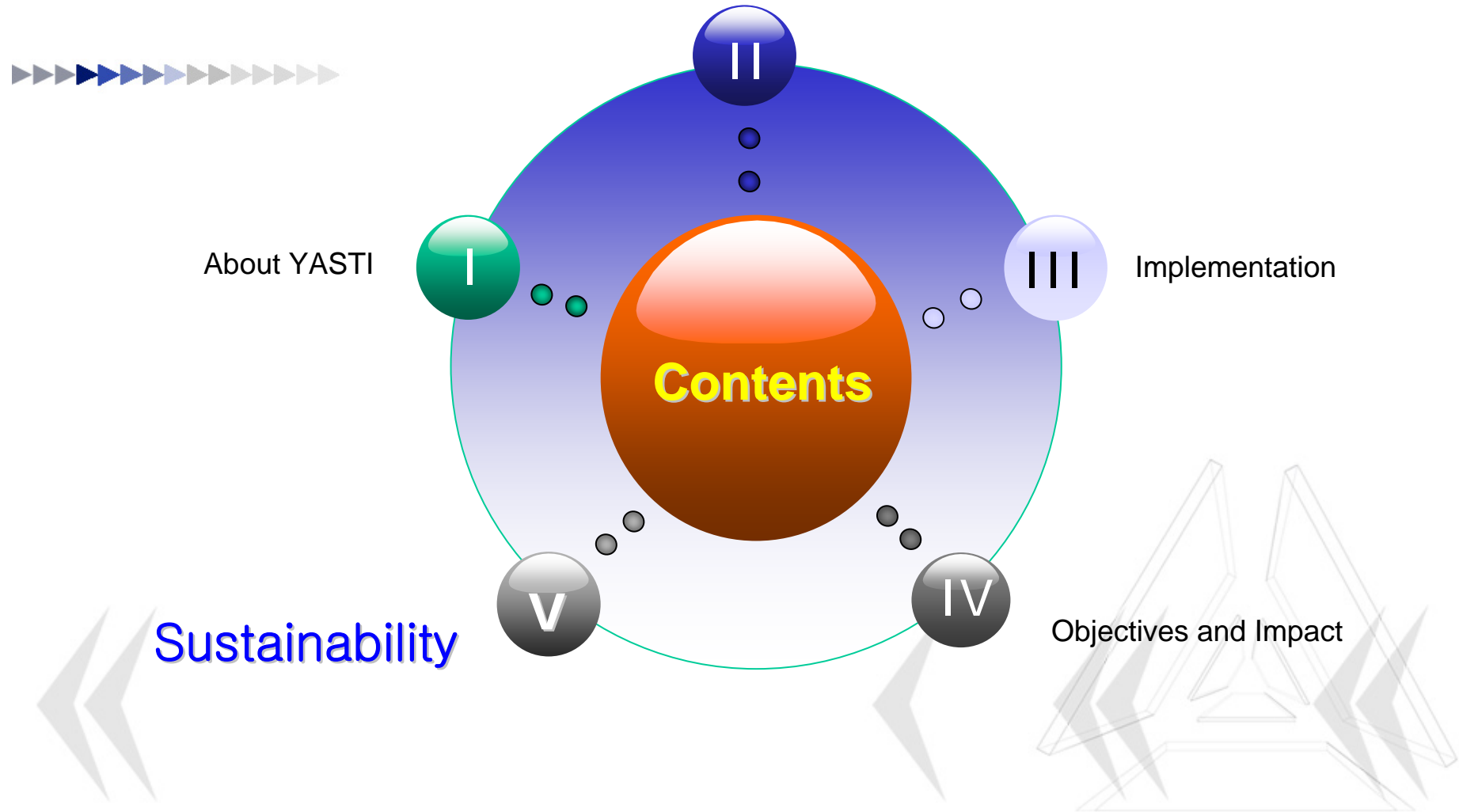


The gathering of stakeholders will promote networking and contribute to future cooperation among organizations and economies the trainees represent.



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Relevance of the Project



V. Sustainability



Training materials will be submitted and made available on APEC website for wider use.

Other funding sources like China APEC Cooperation Fund, Asia Regional Cooperation Fund, China-ASEAN Cooperation Fund, and Foreign Assistance Fund will be sought to carry out follow-up activities.

Kiwi Innovation Network of New Zealand, Michigan State University of the US, and ASEAN Institute of Energy and Economic Development of Thailand, which are partners in the project, will provide technology, expertise and information to carry forward the project objectives.



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Thank you!

