



Research on standardized cooperation strategy of natural gas pipeline in “the Belt and Road” countries

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Background

“the Belt and Road” aims at making full use of every country's advantages, achieving mutual benefit, meeting the development needs of various countries and regions better and promoting common development and prosperity. It provides a good platform to promote regional economic cooperation and promote every country's economic growth..



Background



The countries along “the Belt and Road” have abundant natural gas reserves and huge market demand, but the distribution of their natural gas reserves is uneven.

A number of transnational natural gas pipelines have been constructed to solve the imbalance, including the **Central Asia-China Natural Gas Pipeline** and the **Siberia- Western Europe Natural Gas Pipeline**.

Background

Inconsistent
pipeline
standards

1

Longer natural gas pipeline construction cycle

2

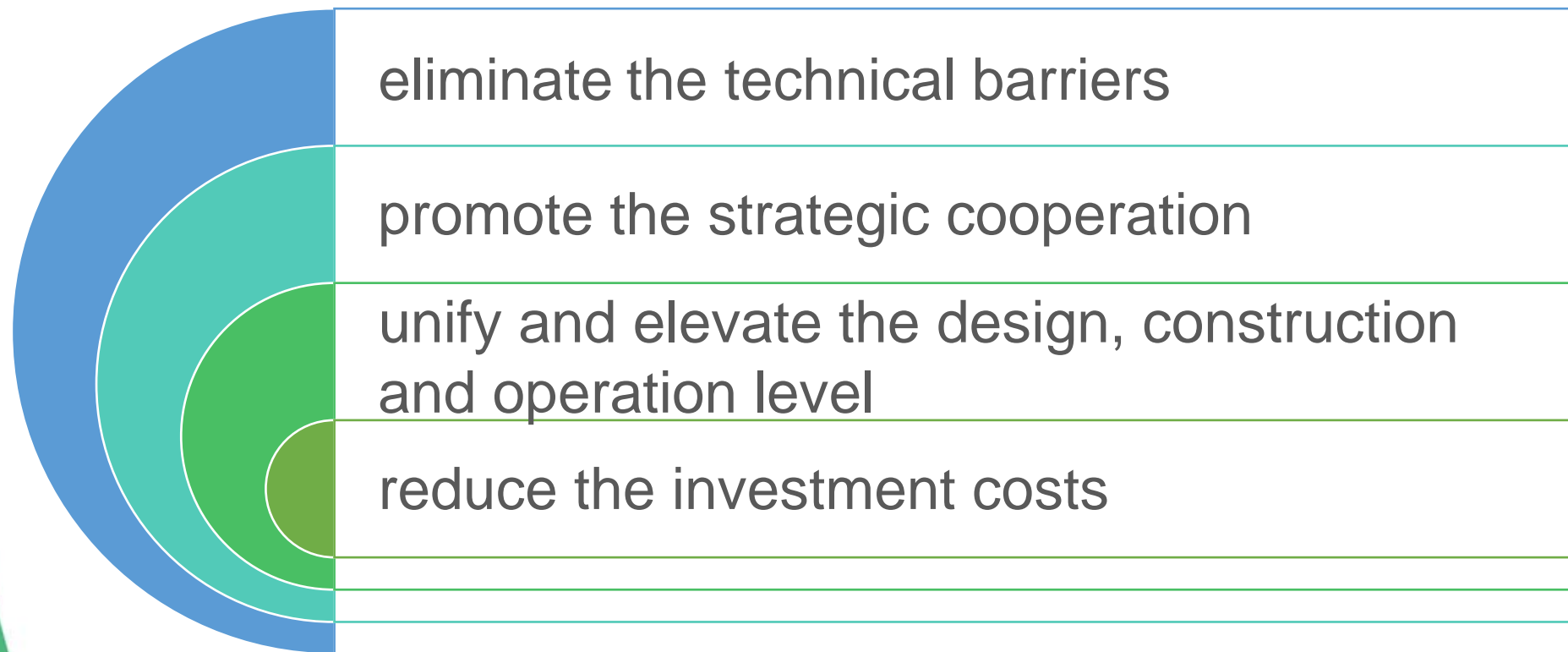
Increased natural gas pipeline construction cost

3

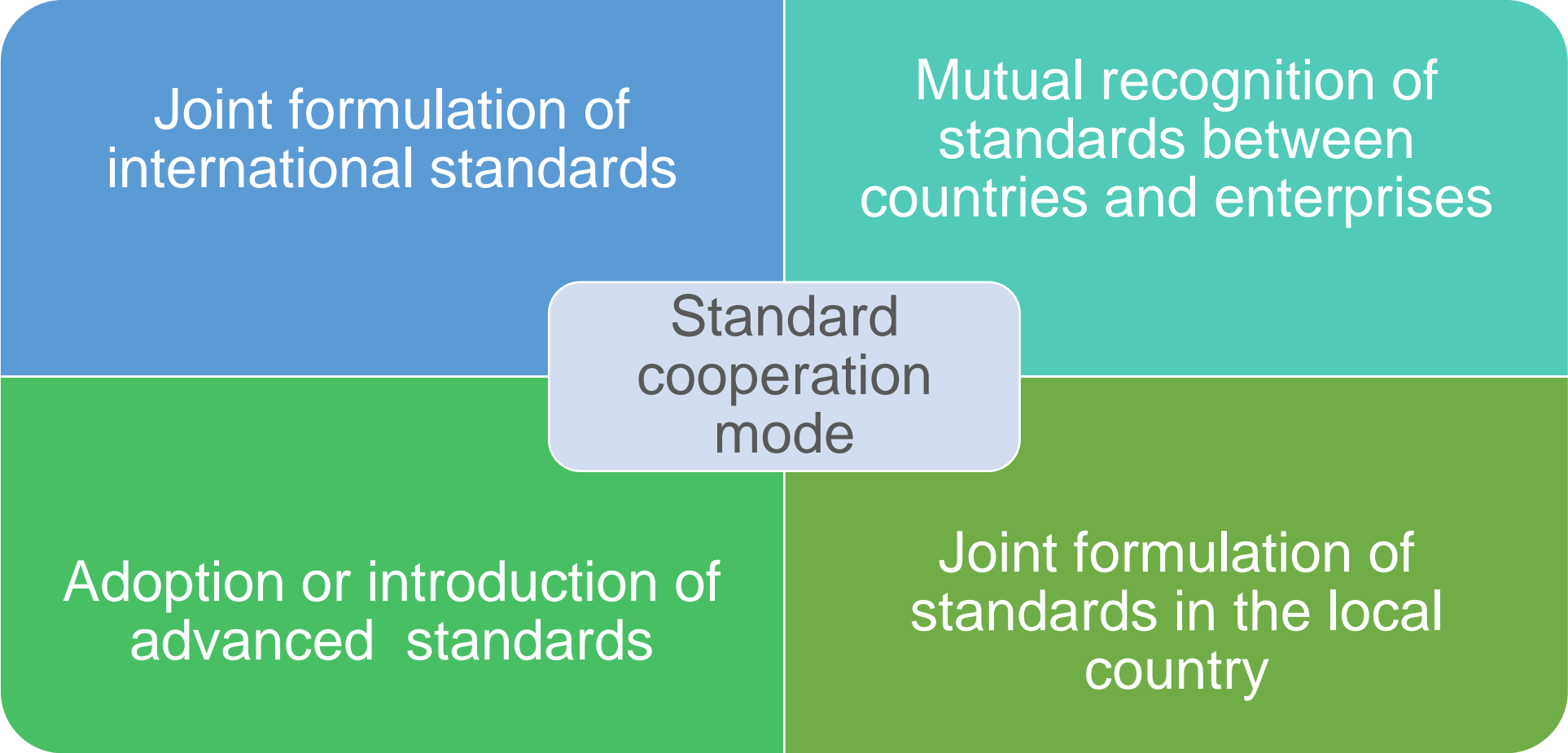
Hidden dangers existing in natural gas pipelines

Aims

Standards are the important basis for the design, construction and operation of natural gas pipelines and the realization of standardized cooperation can help :



Standard cooperation mode



Standard cooperation mode



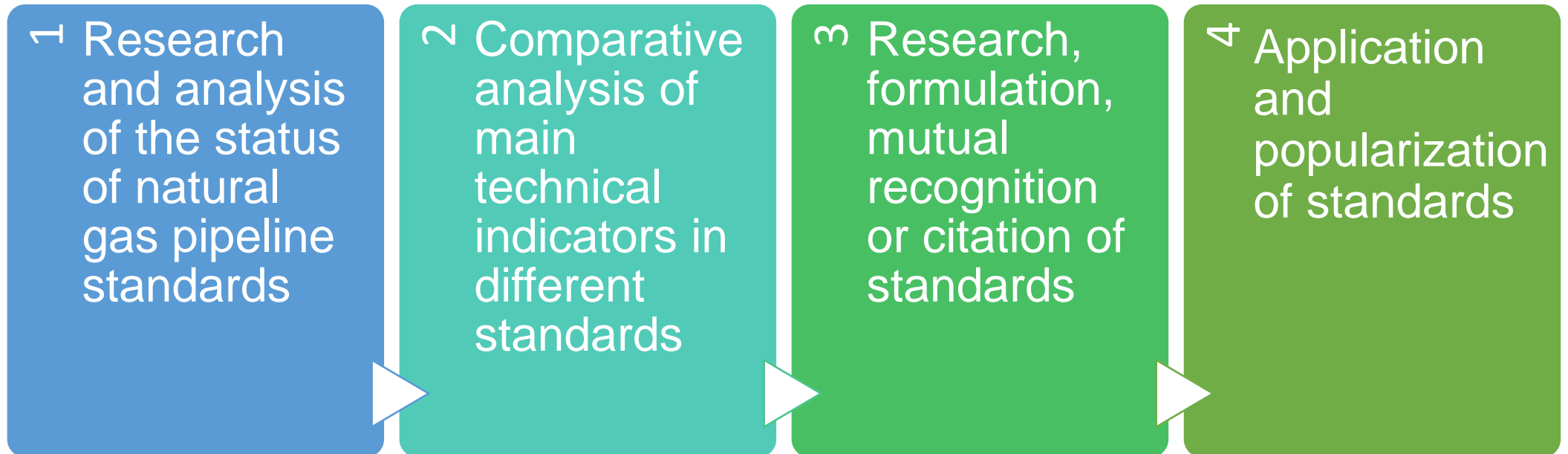
Cooperation Mode	Cycle	Difficulty	Effect	Application Scope
Joint Formulation of International Standards	3-5 years	High	Normal	Applicable to the cooperation among a number of countries
Mutual Recognition of Standards between Countries and Enterprises	Several months-1 year	Moderate	Good	Applicable to the cooperation between two countries or enterprises

Standard cooperation mode



Cooperation Mode	Cycle	Difficulty	Effect	Application Scope
Adoption or Introduction of Advanced Standards	Several months	Low	Normal	Applicable to the cooperation between two or more countries
Joint Formulation of Standards in the Local Country	1-2 year(s)	Moderate	Good	Applicable to the cooperation between two countries

Standard Cooperation Methods



Case Analysis

A transnational pipeline passes through three tunnel groups. Tunnel crossing works, as dominant works of the transnational pipeline, are of great importance to the operation and maintenance of the transnational pipeline in terms of design and construction level.

Comparative
analysis

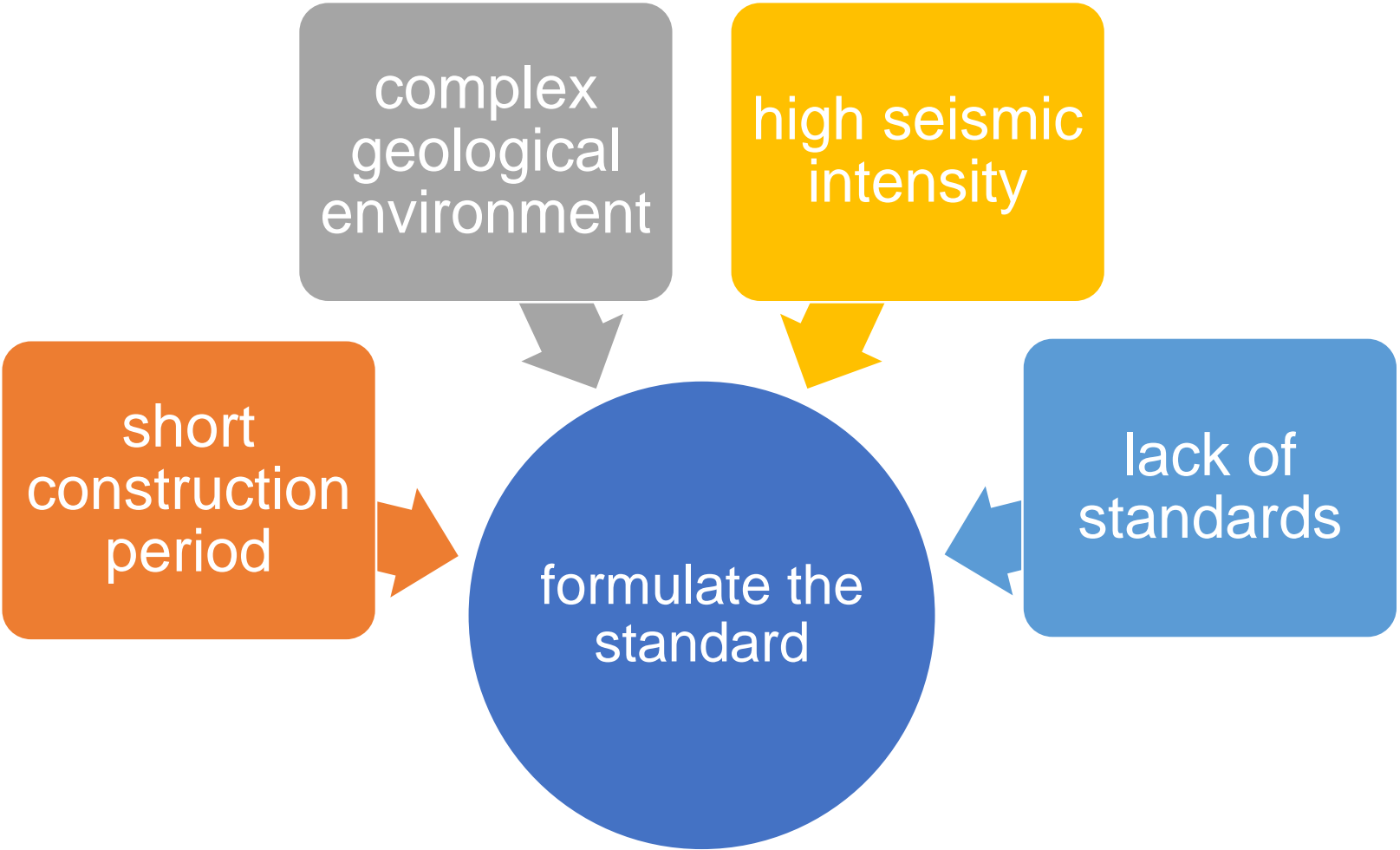
Different investigation stage
division

Different investigation plan
bases

Different technical requirements
for detection

Different test data requirements

Case Analysis



Case Analysis

- Standard application
 - The natural gas pipeline tunnel standard has successfully applied to the tunnel's survey.
 - The successful application has not only fully guaranteed the rationality and advancement of the technical scheme, but also laid a solid foundation for project construction and reduced project investment cost by about over 100 million dollars.

Conclusions



- Though the study on the status quo of the standards for the natural gas pipelines in the countries along the “Belt and Road”, proposing four standardized cooperation modes;
- Putting forward the steps for implementation of standardized cooperation strategies;
- The standard cooperation strategies and methods have been practically applied and verified in the transnational pipeline.

Thank You!