

Japan's NOC Study -A Summary of the Japanese Study Conclusions-

NOC Conference in Houston

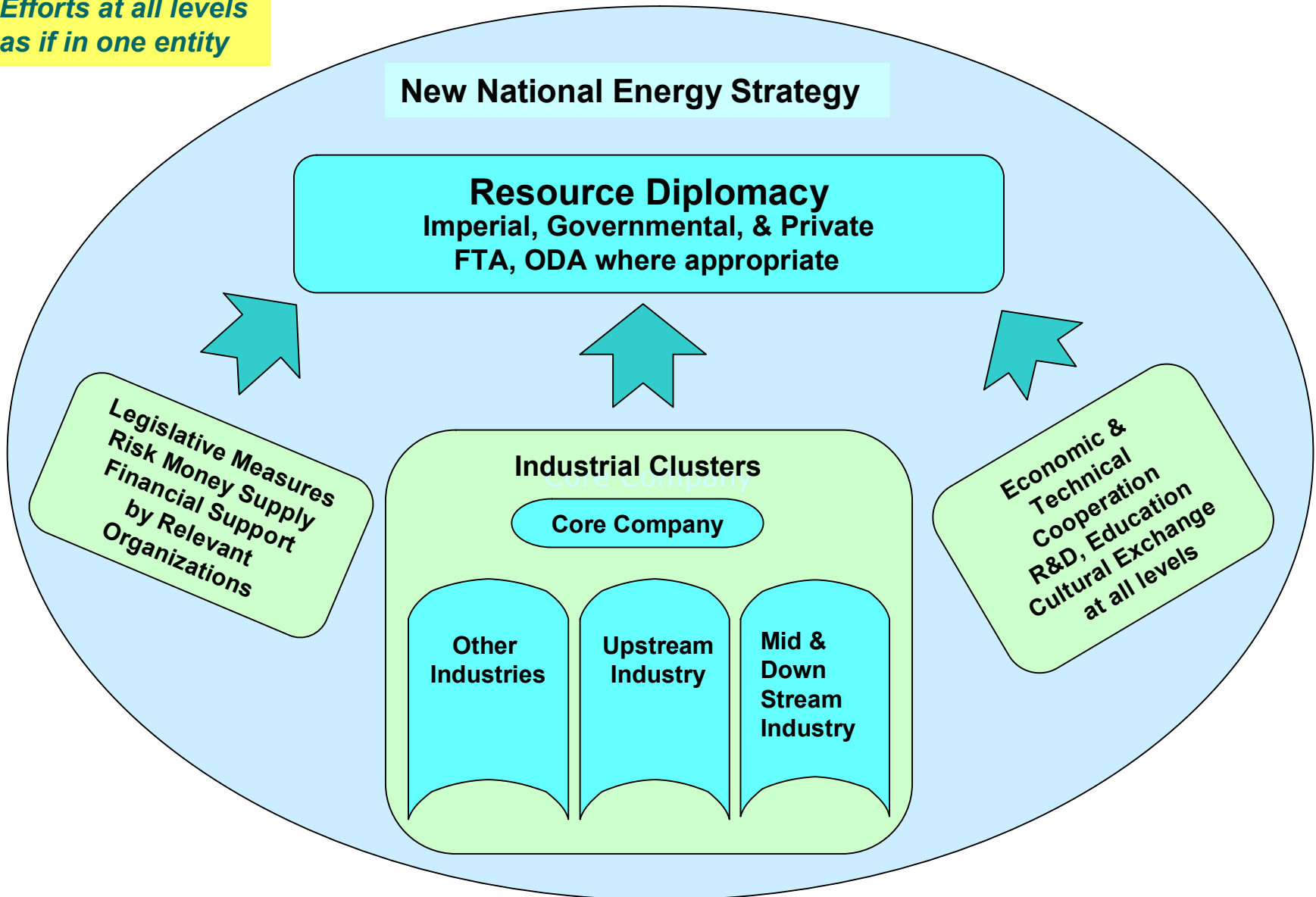
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Japan Petroleum Energy Center (JPEC)

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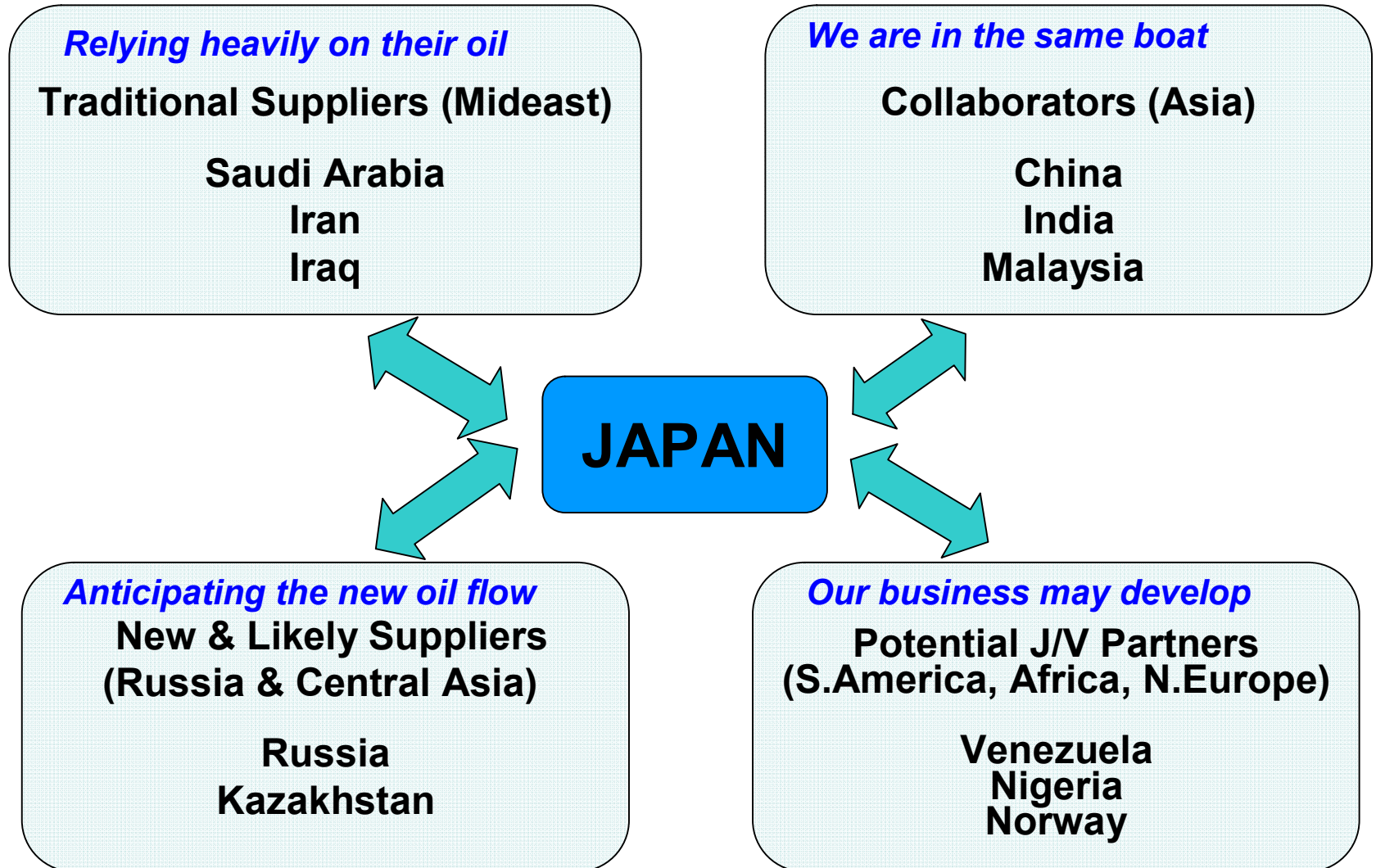
How We Tackle the Energy Issues

Efforts at all levels
as if in one entity



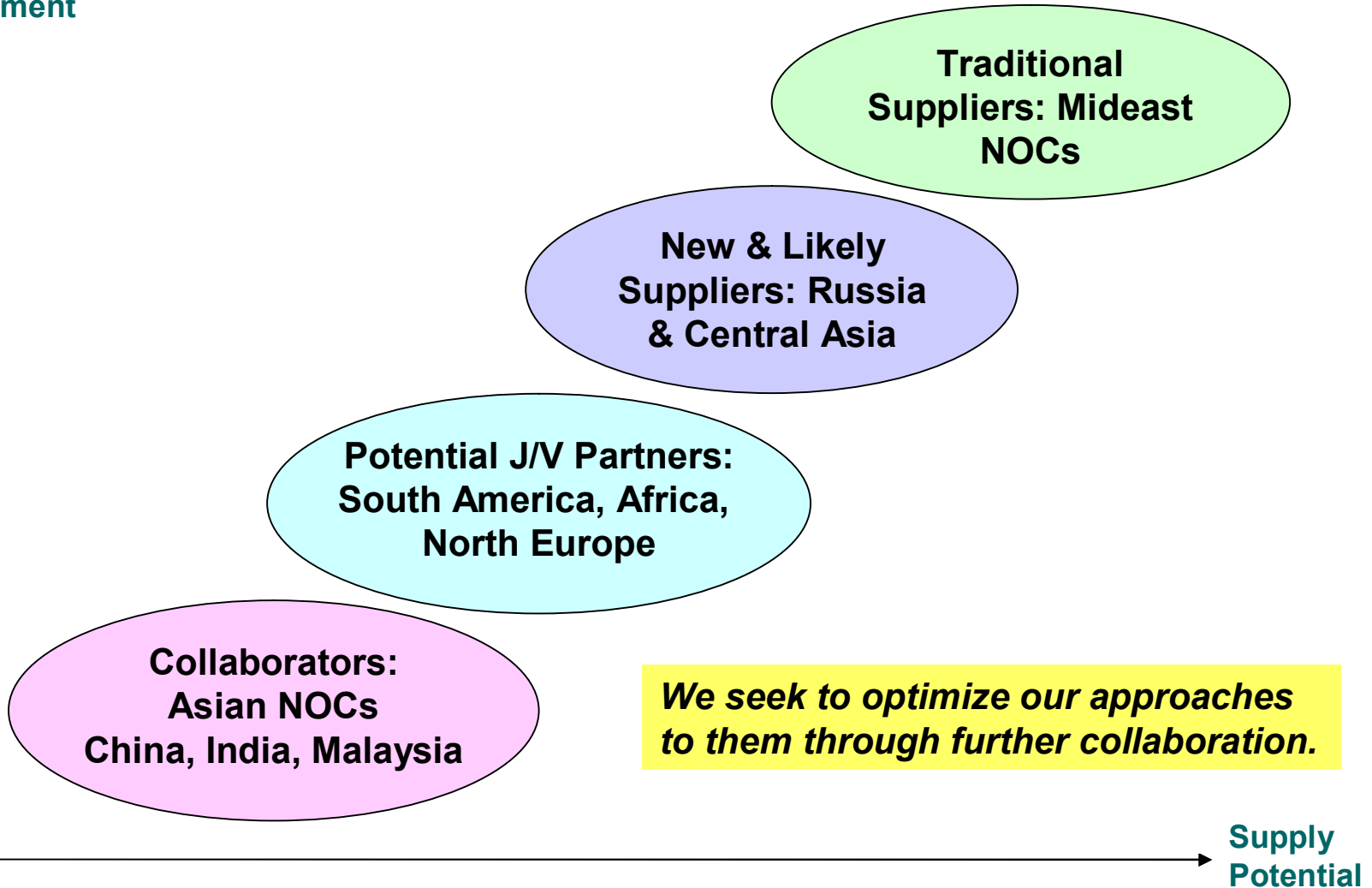
How We View the NOCs in Groups

-Aiming at the well-balanced resource diplomacy-



Sample Positioning of 4 NOC Groups

Difficulty in
Investment



Toward a more Harmonious World with Asian Friends

**World
Oil & Gas
Reserves Holders
Producers
Exporters**



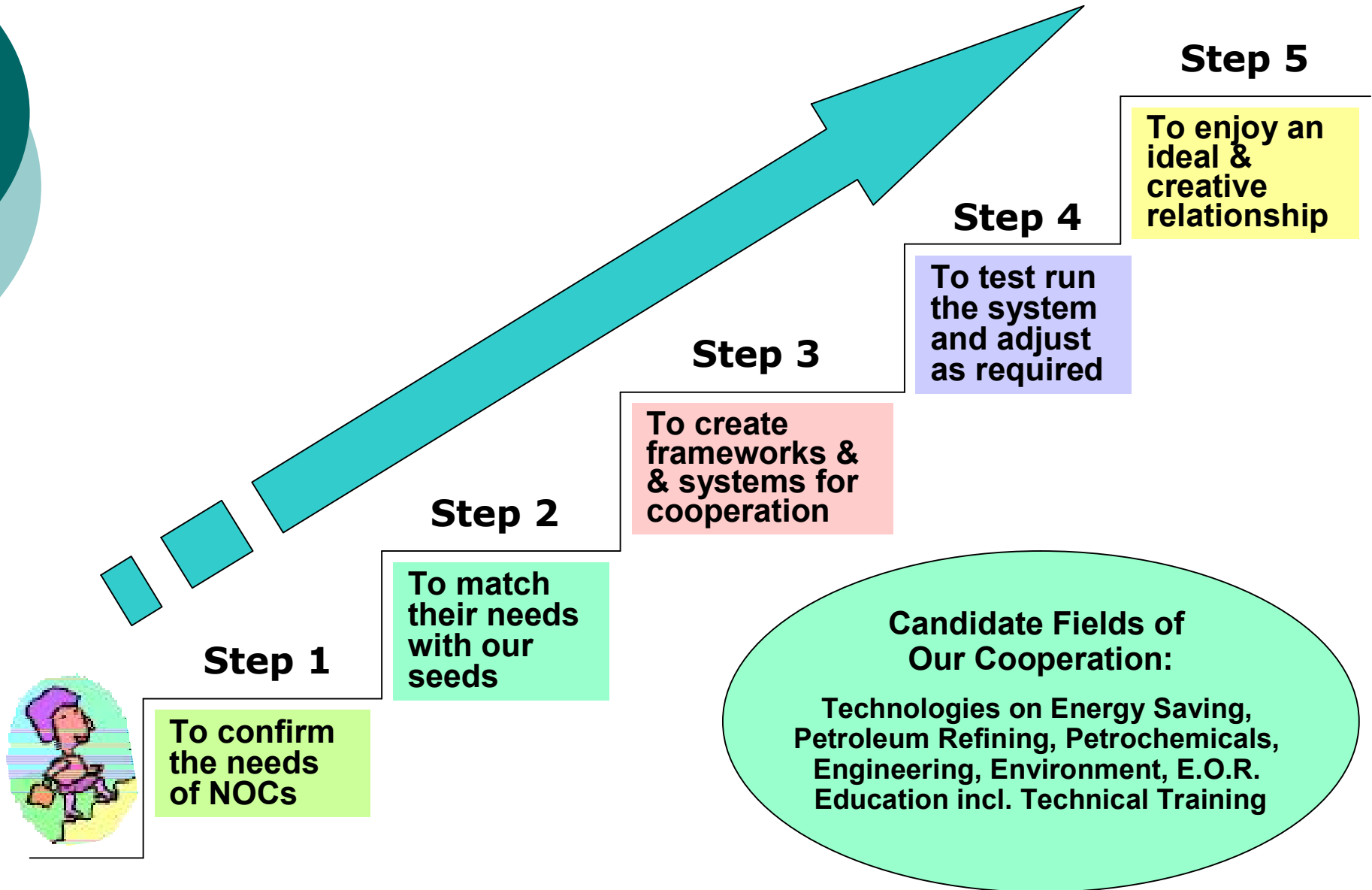
**World Oil & Gas
Consumers, Importers**

**Asian
Oil & Gas
Consumers**

Japan

Optimization effect will be far greater when applied to wider areas. Thus, starting with the neighboring countries and regions, international application of optimum management and operation of the oil industries should be worth serious study. A chain of de facto alliances from Japan to Asia, possibly including Pan-Pacific and Central Asian Regions, may eventually be extended to the whole world !

How We Can Build up more Constructive and Cooperative Relationships with NOCs and related Organizations



Suggested Direction for Further Actions

- 1. To further develop to complete the basic concept of the approach presented here, including the international optimization of the oil industries**
- 2. To devise concrete action plans of collaboration based on the final strategic design above for actual application to the respective NOCs**
- 3. To communicate freely with the NOC counterparts to bring the action plans to perfection. And to create and institutionalize, if necessary, any further systems for more effective implementation**



Supplements

Traditional Suppliers (the Middle East)

1) Country & NOC - Relying heavily on their oil

- Saudi Aramco/Iran's NIOC/Iraq's INOC

2) Characteristics

- Top 3 holders of world oil reserves/Politically sensitive area
- Social & religious constraints

3) Candidate Fields of Liaison

- Conventional business (oil purchase/sale)/Downstream of Oil
- Upstream of Oil & Gas/Petrochemical Industry/Infrastructure
- Education

4) Issues to be addressed

- Political & diplomatic stance toward the region and respective issues may be questioned and affect the business results
- Geopolitical risks involved should always be taken into account

New & Likely Suppliers (the Northeast & Central Asia)

1) Country & NOC - Anticipating the new oil flow

- Russia's Rosneft (Gazprom)/Kazakhstan's KazMunaiGaz

2) Characteristics

- Resource-nationalism increasingly affecting foreign capitals (Russia)
- Political maneuver for balancing between Russia, China, US and the Middle East (Kazakhstan)

3) Candidate Fields of Liaison

- Upstream of Oil & Gas ②Oil purchase & sale/Oil downstream
- Petrochemical Industry/Pipeline construction/Business & legal consulting

4) Issues to be addressed

- Complications which may arise from the defective legal system and arbitrary political decisions should always be borne in mind as something of relatively frequent occurrence.

Collaborators (Asian countries)

1)Country & NOC - We are in the same boat

- China's CNPC,Sinopec, and CNOOC/India's ONGC, and IOC
- Malaysia's Petronas

2)Characteristics

- Rapid growth of oil demand
- Aggressive undertakings for overseas oil & gas acquisition

3)Candidate Fields of Liaison

- Energy saving technology/Environmental technology
- Petroleum downstream/Oil Stockpiling
- Petrochemical industry/Automobile related industries

4)Issues to be addressed

- As one of the countries in Asia, Japan can engage in all economic activities from an Asian point of view. Oil, gas, and energy security issue should be addressed in cooperation with the other Asian peer countries as collaborators.

Potential J/V Partners (Distant only geographically)

1)Country & NOC - Our business may develop

- Venezuela's PdVSA/Nigeria's NNPC/Norway's Statoil

2)Characteristics

- Fairly large size of oil & gas reserves/Though geographically distant they have had some oil business relations with Japan.

3)Candidate Fields of Liaison

- Crude oil transaction/Oil & gas upstream
- Petroleum downstream (e.g. Heavy oil cracking)
- Infrastructure incl. storage tank
- LNG related business

4)Issues to be addressed

- Geopolitical risks involved, particularly with Venezuela & Nigeria should be taken into account.
- The influence of these countries & NOCs over the world oil & gas markets should always be watched, monitored, and analyzed.