

Chinese Hydrogen update

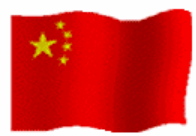
Dinghuan SHI

Ministry of Science and Technology of China

6th IPHE steering Committee Meeting

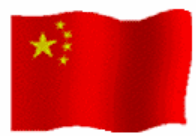
Reykjavik, Iceland

26 – 27 September 2006



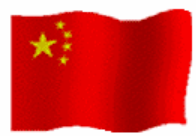
Outline

- **New policy initiatives on H₂ and FC**
- **Demonstration**
 - **GEF/UNDP FCB Demo in China**
 - **Green Coal-Based Power Generation**
- **Hydrogen events in 2006**



2006 thematic 863 program call for proposals launched

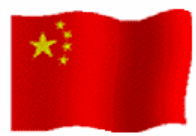
The Chinese government launched the 2006 Thematic 863 Programme Call for Proposals in August 2006. Within the ten key fields, the budget for Advanced Energy Technology is totally RMB224 million (equivalent to \$28million). The field is composed of four thematic components: hydrogen and fuel cell, efficient energy-saving and distributed energy, clean coal, and renewable energy. The total budget for hydrogen and fuel cell is RMB 75 million (\$ 9.4 million).



Budget distribution in 2006 call for proposals in H₂/FC

Explorative project	Total budget RMB million
Hydrogen production	10.0
Hydrogen storage and transportation	12.0
Fuel cell	12.0
Hydrogen safety	4.0

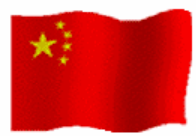
Objective project	Total budget RMB million
Distributed small-scale hydrogen production from liquid fuel or natural gas	5.0
Novel hydrogen storage technology, including metal hydride and high-pressure tank	9.0
Key technologies for hydrogen station	8.5
PEM-FC for stationary power generation	5.0
SOFC, including plate and tubular SOFC	9.5



GEF/UNDP FCB Demo in China



Three fuel cell buses purchased from Daimler-Chrysler began demonstration operation in Beijing on June 20, 2006.



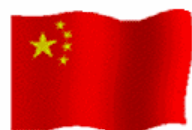
Green Coal-Based Power Generation



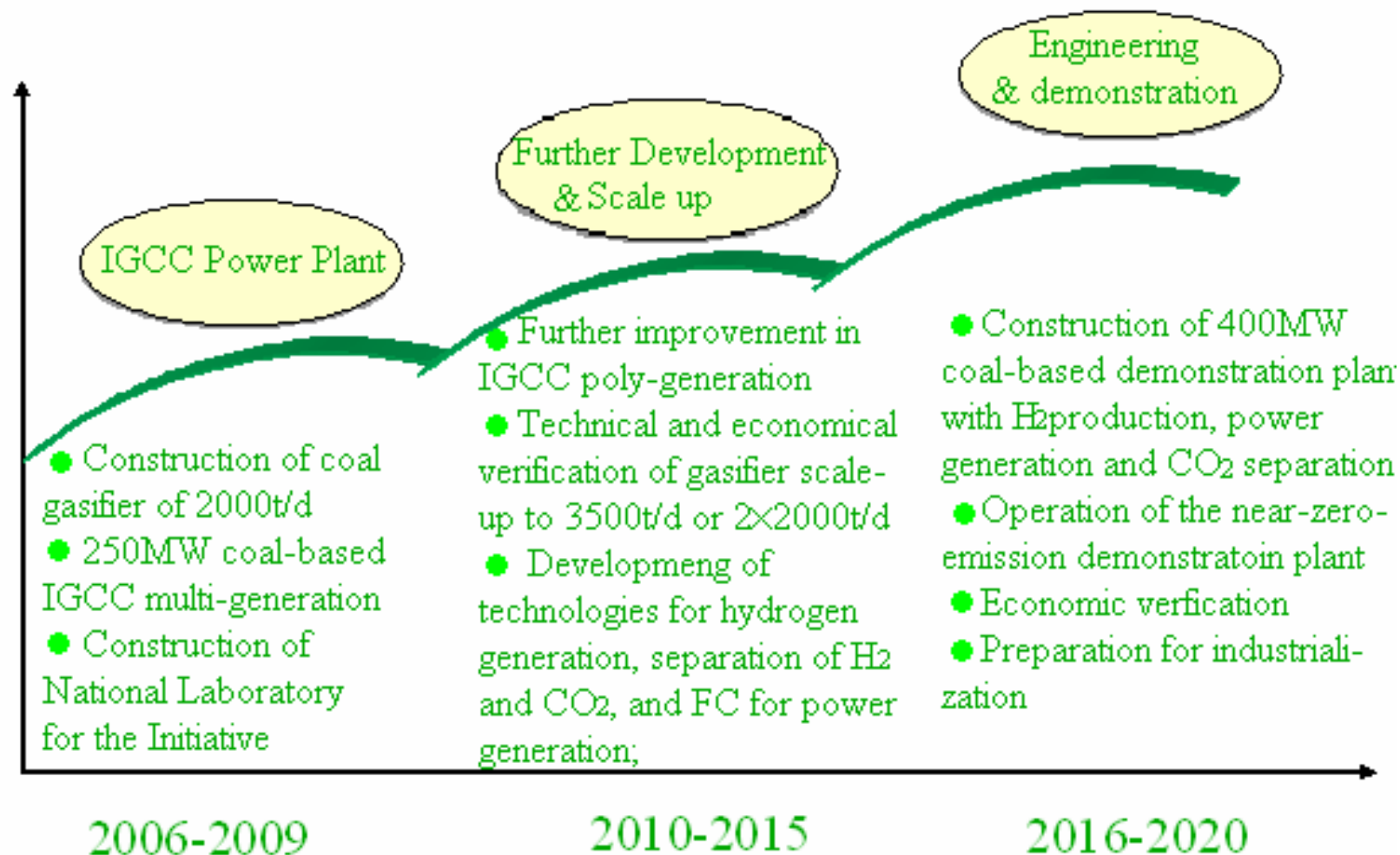
Chinese vice Premier ZENG Peiyan interviewed the directors of the companies

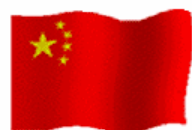
The eight companies signed the contract on December 23, 2005



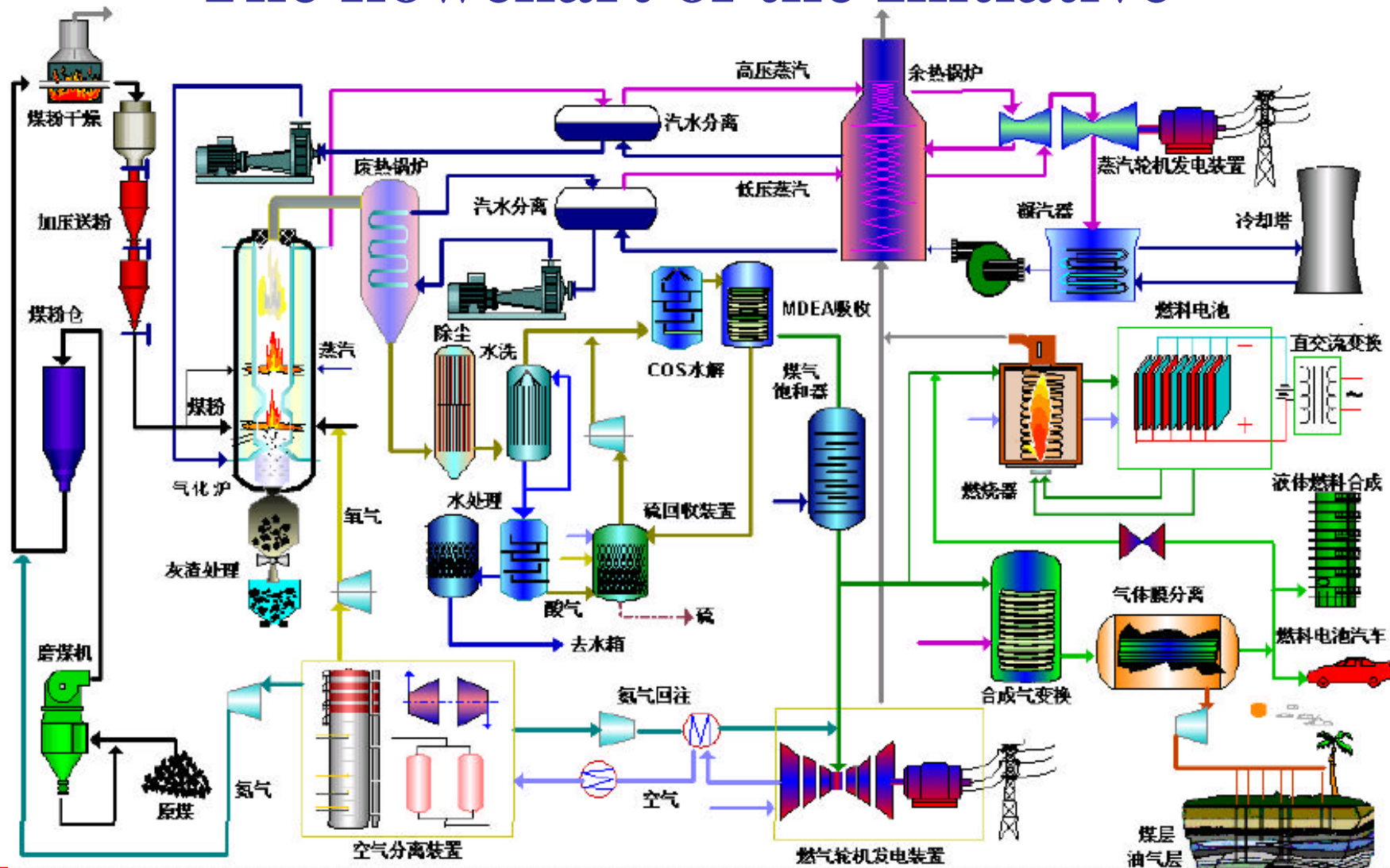


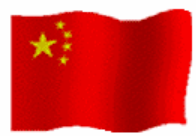
The roadmap of the Initiative



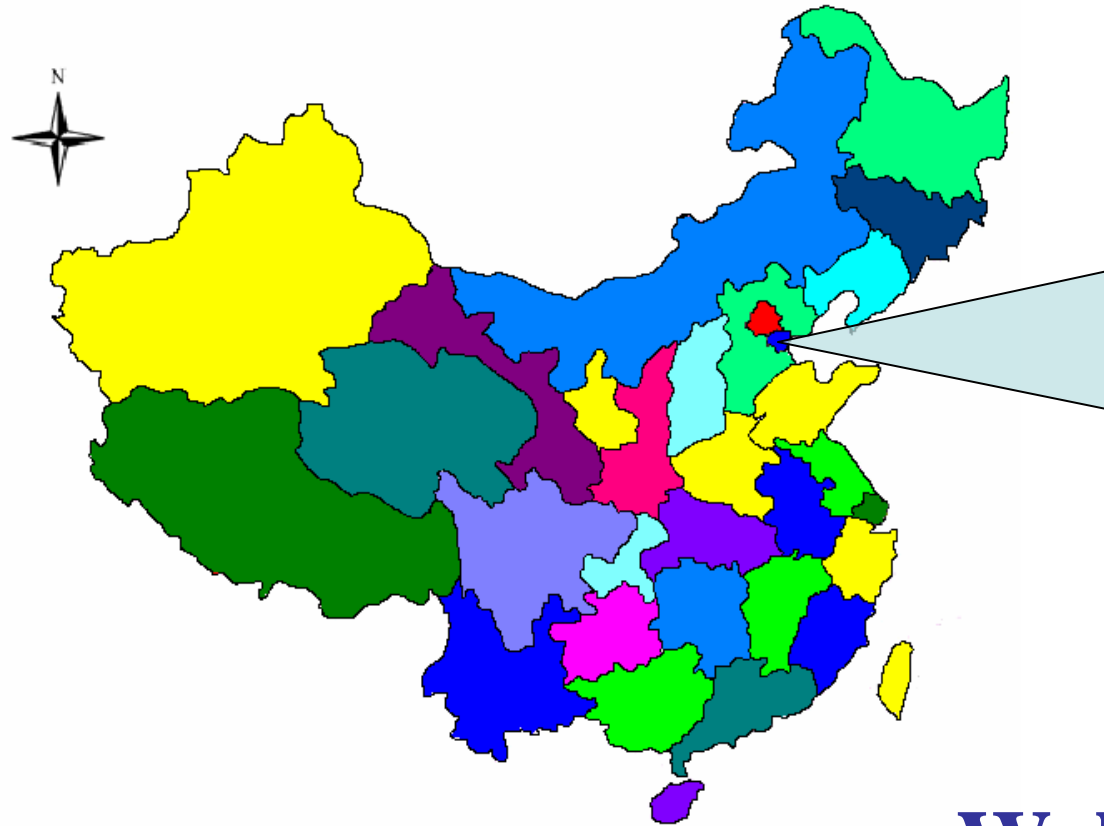


The flowchart of the Initiative





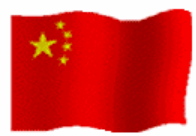
The demonstration location



Location: Tianjin
Startup: 2007



Welcome to visit us!



Demonstration of H₂ vehicle in campus



Three fuel cell buses purchased from Daimler-Chrysler began demonstration operation in Beijing on June 20, 2006.

An aerial photograph of a traditional Chinese village. The village features a prominent yellow wall that winds through the buildings. The architecture is characterized by dark, tiled roofs and wooden structures. In the background, a large, rugged mountain rises, partially covered in snow. The foreground shows a mix of trees, some with bare branches and others with light-colored blossoms, suggesting a winter or early spring setting. The overall scene is a blend of natural beauty and traditional human habitation.

Thanks for your Attention