

“From best Technology to Good Business”

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Outline

- ❑ General Considerations
- ❑ Technology transfer from Research Organizations
- ❑ A case study in USA
- ❑ A successful example in CERTH
- ❑ Conclusions

CERTH's Mission Statement

- ❑ High Quality Scientific Research
- ❑ Emphasis on technological research
- ❑ Cooperation with Universities
- ❑ Link with production



Technology areas

- ❑ Agriculture – Food
- ❑ Energy
- ❑ Environment
- ❑ Information technologies
- ❑ Medical
- ❑ Transportation

Technology transfer

- ❑ Exploit a specific technology towards a market need
- ❑ Benefits:
 - Economic development
 - New job creation

Ways to Commercially Utilize a Technology

- ❑ **Direct exploitation of technology**
- ❑ **Licensing the Technology**
- ❑ **Transfer of Technology to**
 - **An Existing Company**
 - **A New Company created by entrepreneurs**
 - **A New Spin-off company created by researchers**

Energy- Clean fuels: General Considerations

- ❑ **Is absolutely underspinning of modern society**
- ❑ **Massive in scale and scope**
- ❑ **Scale is so large that “economics really matters”**

Clean fossil fuels

Key technological factors

- ❑ **Gasoline and diesel key transportation fuels in the foreseeable future**
- ❑ **Catalyst applications absolutely necessary for their production**
- ❑ **Laboratory technology essential for a priori catalyst ranking**

Catalysts for clean fuels



FCCU: From Bench-Scale to Pilot Plant and to Commercial Units

Laboratory



Pilot Plant



Industrial Unit



Catalyst selection essentials

- ❑ **Reliable laboratory catalyst testing**
- ❑ **Credible Catalyst rankings**
- ❑ **Consistent catalyst quality**

UNITED STATES OF AMERICA

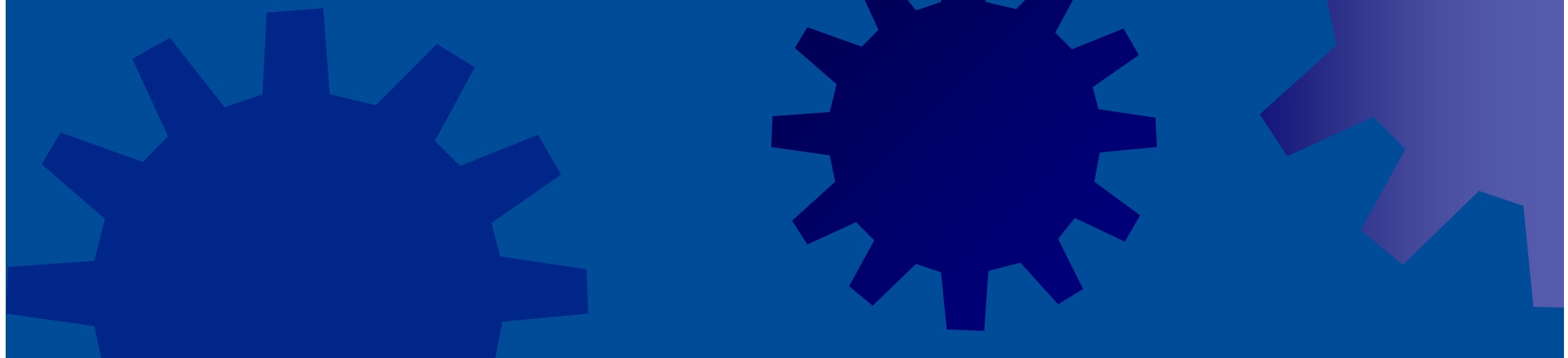


Lessons from USA

- ❑ Fundamental knowledge important but not essential in technology development
- ❑ Building on and improving technologies that work offer high chance of success
- ❑ Technologies that depend on scientific breakthrough have a high degree of time uncertainty

Transfer of technology in clean fuels

The Experience of CERTH

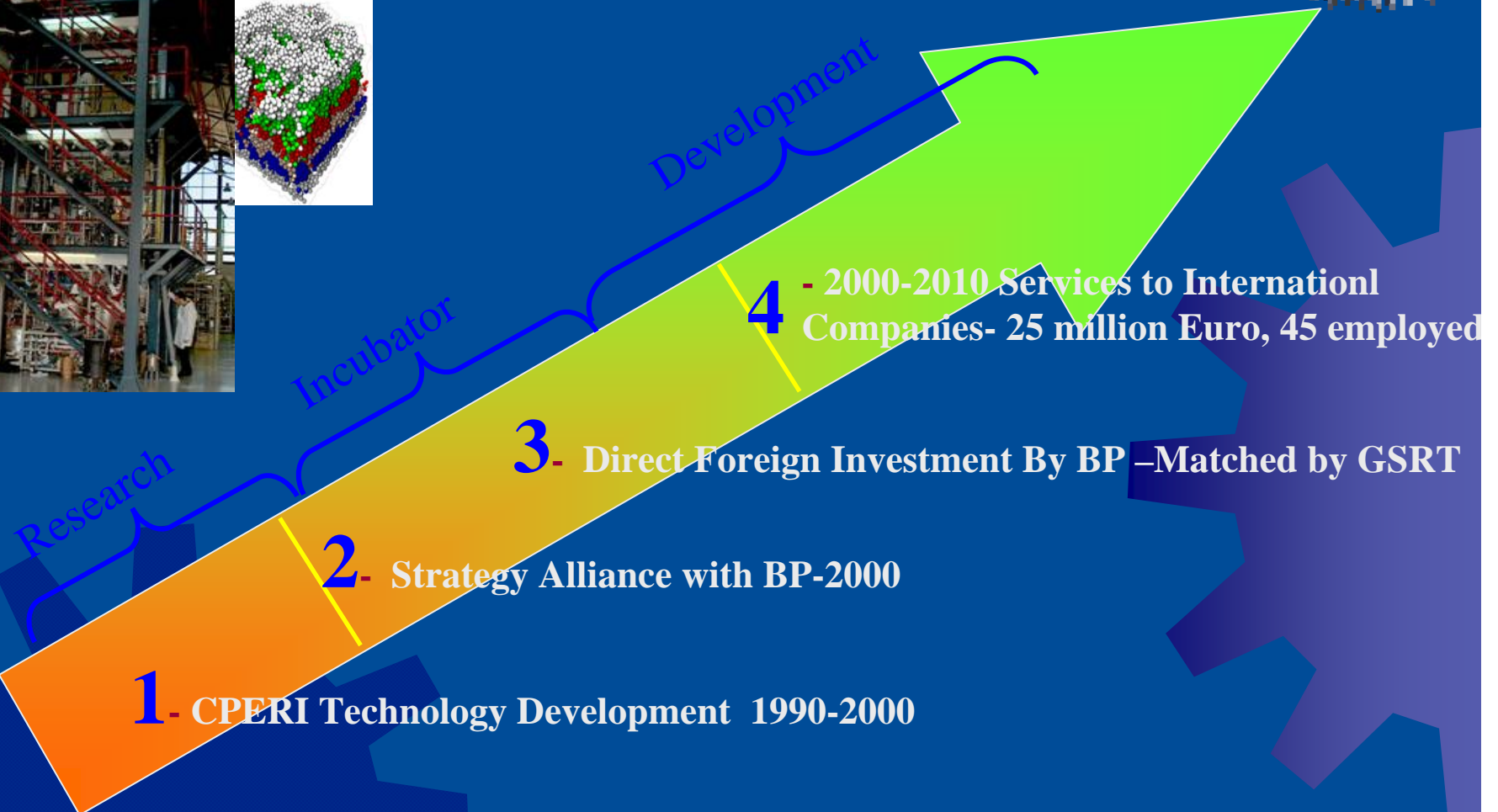
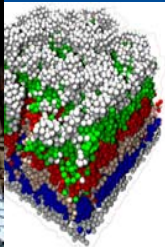


Technology transfer and CERTH

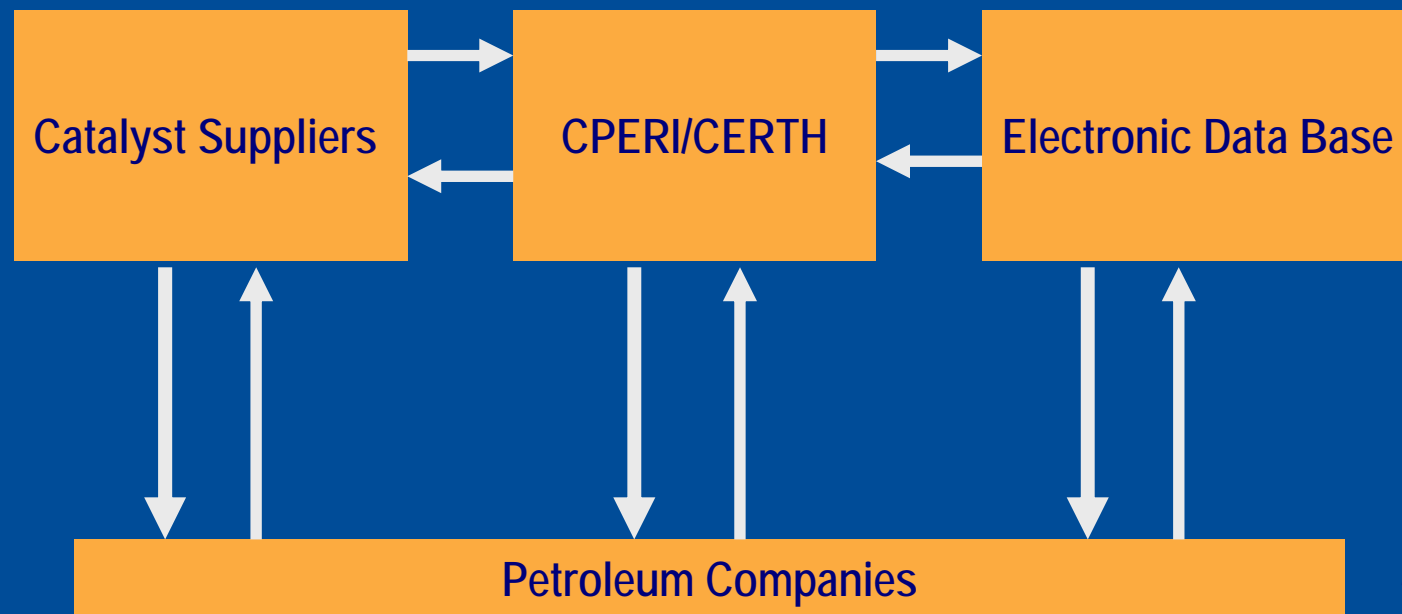
Clean fuels

- ❑ From Amoco Research Center - USA
- ❑ From Grace Davison- Worms Germany
- ❑ From Technology providers- NL
- ❑ Own technology

Example of Development Model



Technology Transfer Strategy



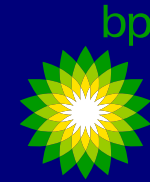
Important factors in sustainable technology transfer

- ❑ Best available technology a must
- ❑ Policy support at the highest level (EU, Greek Government)
- ❑ Adoption of an effective strategy
- ❑ Personnel training in Greece and abroad
- ❑ Team effort at all levels
- ❑ Worldwide social networking



CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS (CE.R.T.H.)

What makes CPERI so successful? A view by our strategic partner



BP Global Team



CENTRE FOR RESEARCH

... and strong working relationships
focused on delivering results and value

Conclusions

- ❑ High quality research key in producing exploitable results
- ❑ Support of entrepreneurship by research organization crucial
- ❑ Direct link with strategic partner and/or unique technology a factor for success
- ❑ Mentoring and management of organization important

ACKNOWLEDGEMENTS

The slide features a dark blue background with a horizontal yellow line. In the top right corner, there is a circular, sun-like pattern with a blue and white gradient. At the bottom, there are two large gear shapes: a dark blue one on the left and a purple one on the right.

- Greek Government –GSRT, RCM
- European Commission
- BP- Hellenic Petroleum
- CERTH – top down and bottom up team effort