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Introduction + Lessons Learned in CWPP China Wind Power (Training & Research Programme)



Sustainable Wind Power Implementation, Operation & Maintenance through Training & Applied Research

2005 – 2010 – 2014

2014-04-07



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Consulting Components (C2, C3 & C4)



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Main Areas of GIZ Activities in China



Sustainable Economic
Development



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Environmental Policy
and
Energy Management

Economic and Social Development

Legal Cooperation

Financial Sector Development

Vocational Training and
Labour Market Policy

Corporate Social Responsibility

Environmental Policies and Economics

Energy Management

Sustainable Urban Development

Natural Resources Management

Climate Policy

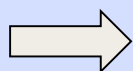


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China Wind Power (Training & Research) Project CWPP - Phase I

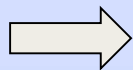


Project Duration
项目时间



5 Years; 五年: 2005/04 – 2010/10 5 Mio €uro

Implementation-Organizations 项目执行方



GIZ (Put in charge by German Ministry for Economic Cooperation and Development) 德国技术合作公司 (受德国联邦经济合作和发展部委托)

China Long Yuan Electric Power Group (CLYPG)
中国龙源电力集团公司

China Electric Power Research Institute (CEPRI)
中国电力科学研究院

Objective
目标



The professional and technical **capacity** of public and private institutions for the nationwide expansion of grid connected **wind energy** use is improved.





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China Wind Power Programme (CWPP) - Applied Research & Training Phase II

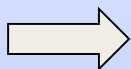


Project Duration 项目时间



4 Years: **2010/11 – 2014/10** **4 Mio €uro**

Implementation-Organizations 项目执行方



GIZ (Put in charge by German Ministry for Economic Cooperation and Development)
德国技术合作公司 (受德国联邦经济合作和发展部委托)

China Electric Power Research Institute (CEPRI)
中国电力科学研究院

China Long Yuan Electric Power Group (CLYPG)
中国龙源电力集团公司

Ministry of Education 教育部

Objective 目标

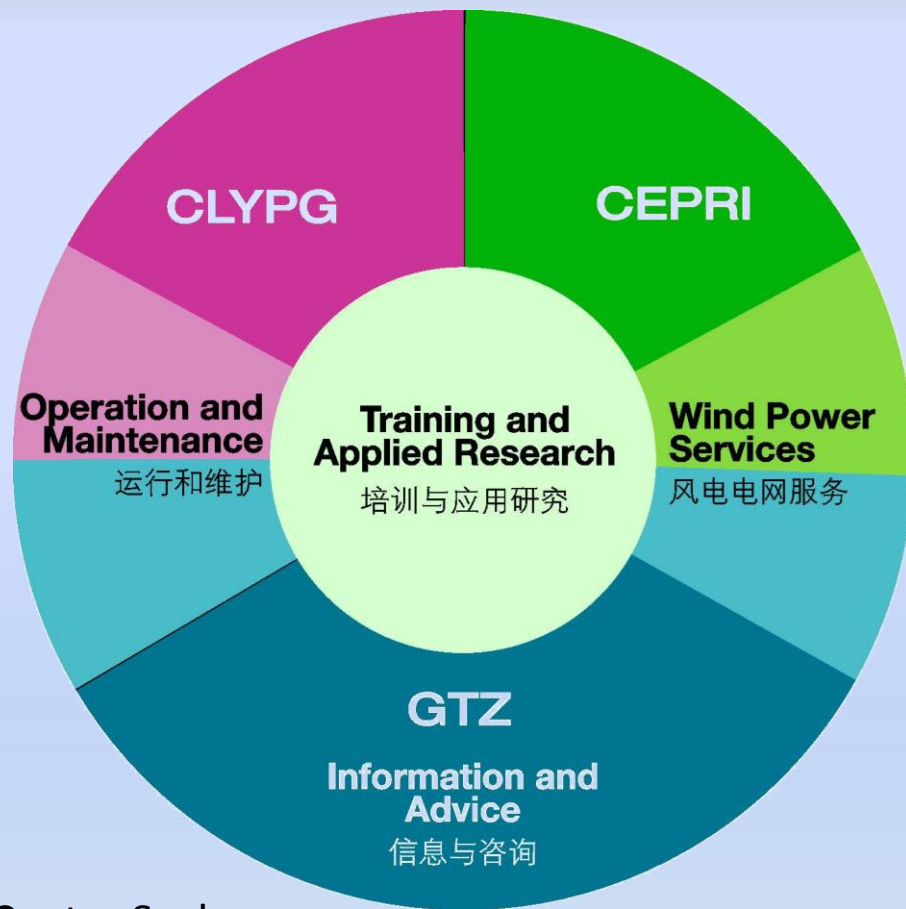


The technical and **regulatory capacities** of public and private institutions for the nationwide expansion of wind power and the **grid integration of renewable** energies are improved.



Examples CEPRI:

- Wind Turbine Test Lab IEC61400
- CEPRI Wind Power Dep. From 3 to 150 staff
- Introduction of new grid code (+LVRT)
- support wind power prediction system



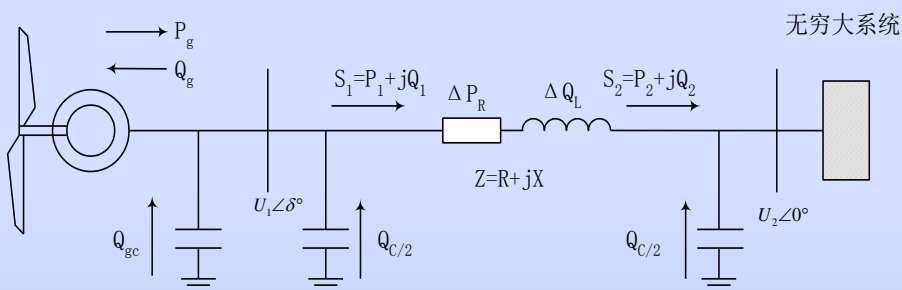
Examples CLYPG:

- Wind Power Training Centre Suzhou
- >4000 O&M staff trained
- Introduction of regular safety courses
- Wind Turbine Training Test Bench



Wind Turbine 1.5 MW

Used for training, testing and applied research at **Zhangbei**



Blended Learning
using Online
<http://learn.cwpc.cn>
face to face and
practical training

English

Username
admin

Password
.....

Login

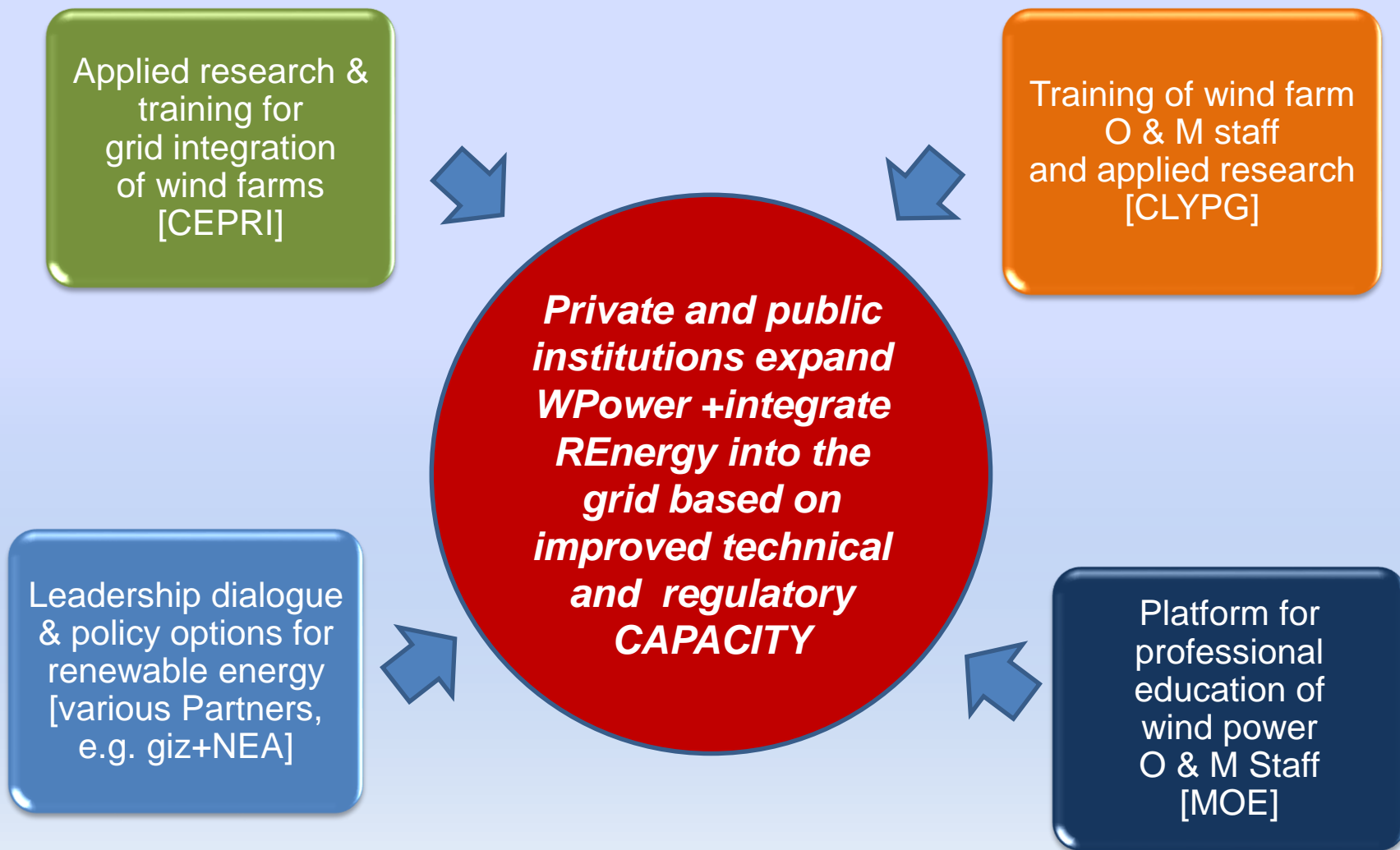
My account
I lost my password

Help
Wind Power Resource
Wind Power Electricity
Wind Turbine Technology
Wind Power Development



[Click here](#) for another video that we recommend.

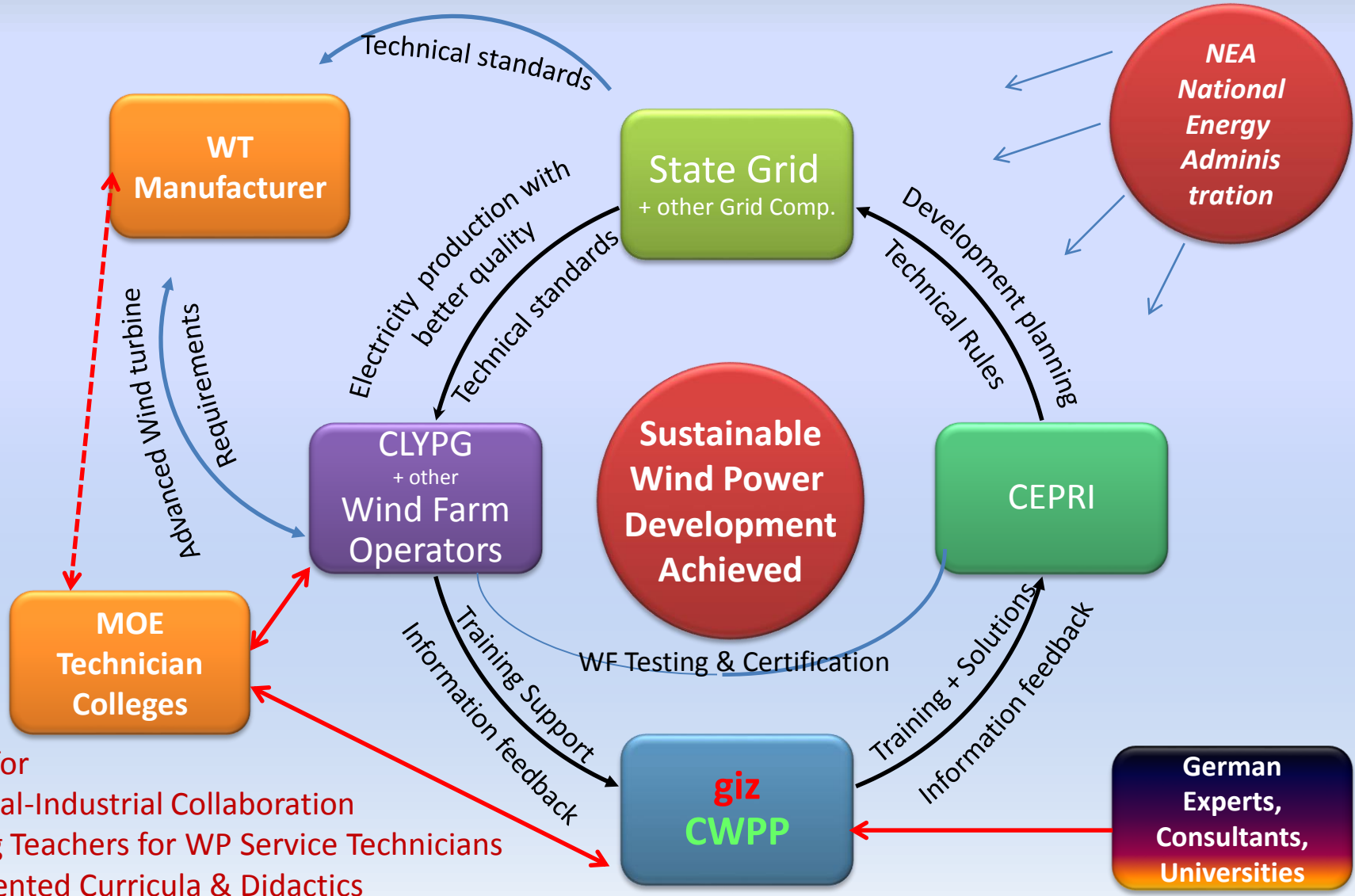
How to use this platform





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Why was CWPP successful? Because all stakeholders were involved!



Platform for Educational-Industrial Collaboration
 Qualifying Teachers for WP Service Technicians
 Praxis-oriented Curricula & Didactics

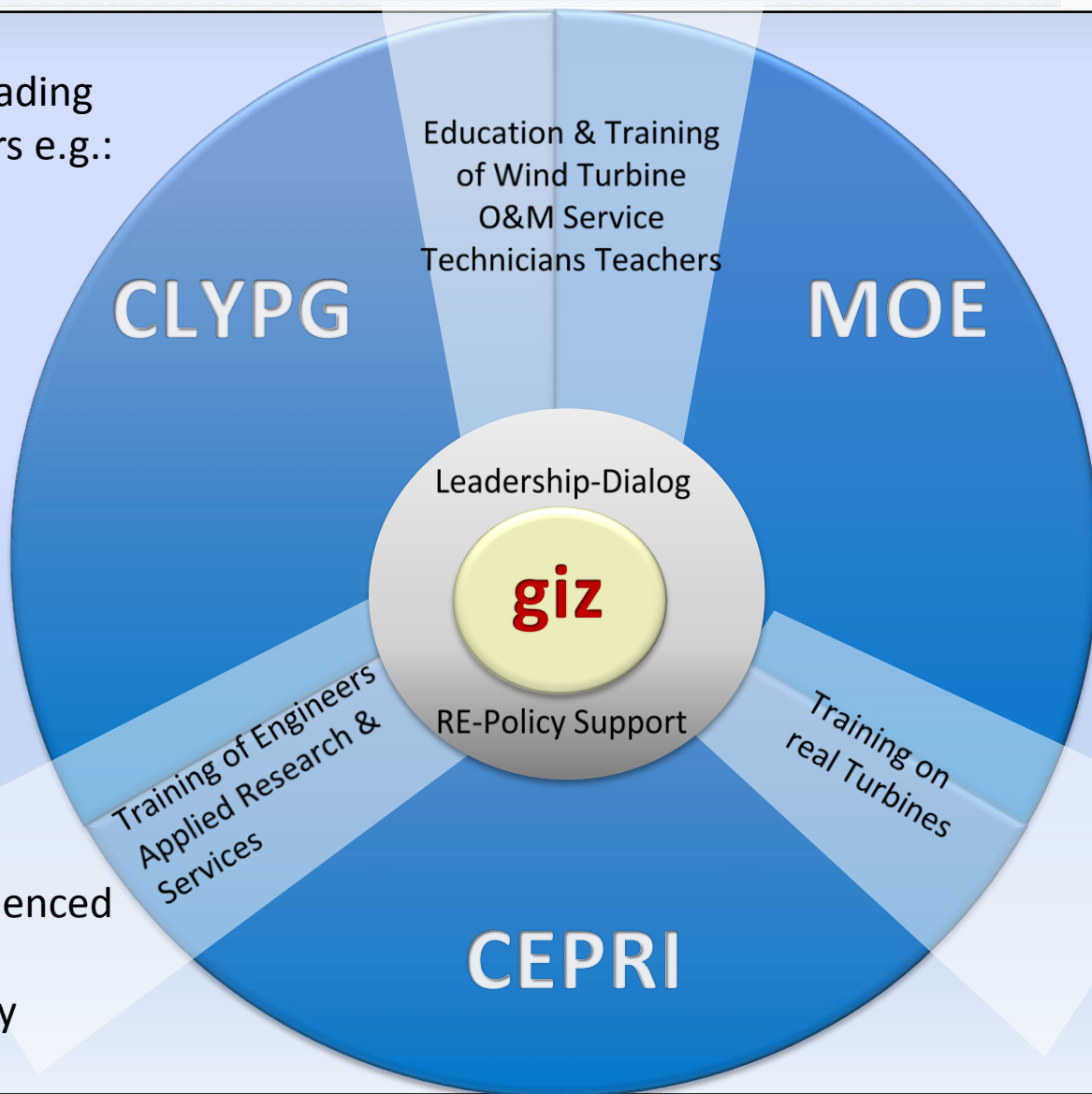


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THANK YOU VERY MUCH!



IMPORTANT were many leading foreign cooperation partners e.g.:
DNV-GL, WindGuard
MOE, MPE, DEWI,
RWE, Amprion, RWTH,
FGH, Kema, DigSILENT,
BFW, BZEE



Recommendations for Regional Wind Integration:

1. Involve all local players
2. Seek support from experienced wind power countries
3. Start Man-Power Capacity Building **NOW**