



**力诺瑞特太阳能**  
LINUO PARADIGMA SOLAR ENERGY

# Shandong Linuo Paradigma Co. Ltd.

**A German solar company going to teach China;  
and what we learned from China**

3rd International Symposium  
**New Energy for the South**  
Science Park Gelsenkirchen  
Gelsenkirchen/Germany, 12-13 May 2005



# Shandong Linuo Paradigma



Linuo Paradigma is located in Jinan, Shandong province. Actually, about 800 people are employed in R&D, production and sales.



The JV was established in July 2001. The target of the JV is to introduce German solar thermal technology to the Chinese market.



## The joint-venture partners

Linuo Paradigma is a 50/50 joint-venture between the German Paradigma Group and the Chinese Linuo Group

Paradigma is one of the leading companies on the European solar thermal market.

Linuo Group is one of the biggest Chinese manufacturers of all kind of different glass products. (medical glass, household glassware, crystal glass, solar vacuum tubes)

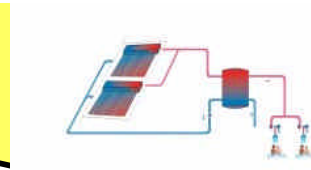
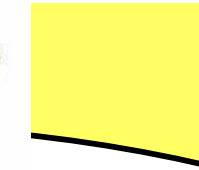
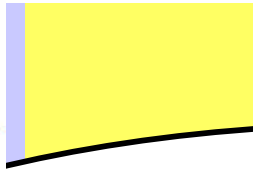
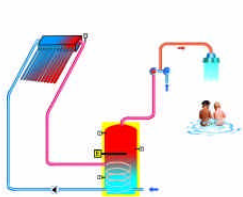




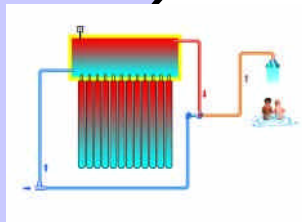
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# The portfolio of Linuo Paradigma

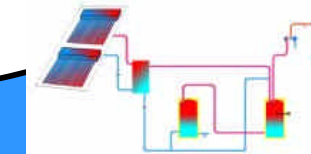
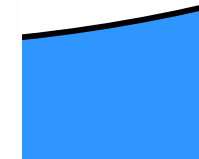
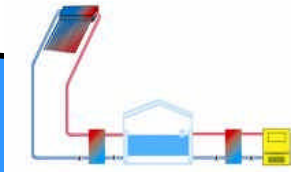
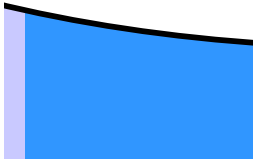
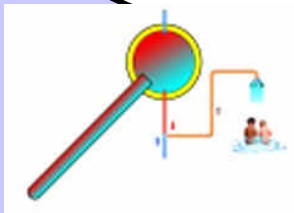
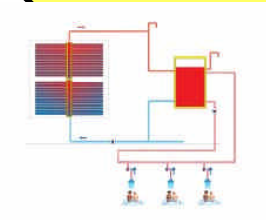
hot water for single apartments and villas



large scale systems for apartment buildings



## Solar thermal solutions of Linuo Paradigma



large scale systems for commercial use



# The sales channels of Linuo Paradigma

more than 1.500  
Solar-shops  
in China (Franchise)



Linuo Paradigma  
Projects



export with  
OEM partners





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# The unique selling point of Linuo Paradigma

established in 2001, Linuo Paradigma was successful in an „old“ market with more than 3.000 competitors. Starting at zero-point, LP became one of the TOP 5 solar companies in China.

- LP is the only Sino-German JV on the Chinese market, with the predicate „German quality“
- LP can provide both, traditional Chinese solar systems (non-pressurized, open systems) and systems according to European standards (pressurized, two-loop)
- LP can deliver German system technology at the price level of Chinese production





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## the key to the fast success in China

- USPs
- high investment in advertisement
- open communication and tolerance between the partners
- strength and relationships of the Chinese partner
- balance between advertisement, the structure of the company and the sales network





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## effects of the joint-venture

- access to the chinese purchase market for Paradigma and its suppliers
- know-how transfer back to germany (aqua system of Paradigma)
- traditional Chinese products for the south-european market
- rethink the European way of using solar energy (keep it simple)
- new solutions in the portfolio, combining both, Chinese and German technology





every country is different from its climate, customers habits and requirements, but also external market conditions.

- we face lack of electricity in several countries, which can disable forced circulation systems
- hot water demand profiles and temperature requirements depend on culture and requirements for comfort (changing quickly)
- there is no global architecture, so experience in integration must be developed for each market separately
- there is no „best“ solar solution
- large scale solar thermal solutions normally can not be cost efficient, as European solar technology is too expensive, but made in China, it can be possible





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## advantages of a Chinese-German cooperation

- German solar technology combined with production in China already allows economic large scale solutions in developed countries. It is a chance to reduce the use of fossil fuels actively by supporting existing and new hot water and heating systems.
- German solar technology combined with Chinese technology (non-pressurized, two loop) allows solar solutions with high reliability at reasonable cost level in transmission countries
- Chinese solar technology combined with European quality requirements allows solar solutions with high reliability as a first step to hot water and can slow down the increase of use of fossil fuel





## something to argue about

In China, a family can get a solar water heater for about 200 € in a shop (already installed, 130 l tank). Everyone can install it. After 3 maybe 5 years, the efficiency could get worse and if the customer realizes the lack of hot water, he will buy a new one. It is ugly, it is less efficient than a German two-loop, pressurized system.

In Germany you pay more than 10, up to 20 times more than in China for the same result – hot water. Just experienced staff can install it.

Will it last 10 times longer?

Is it that more efficient?

For several countries and real success of solar energy in general:

**less is more!**





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**Thank you for your attention**

