

Radiation processing : create new business opportunity



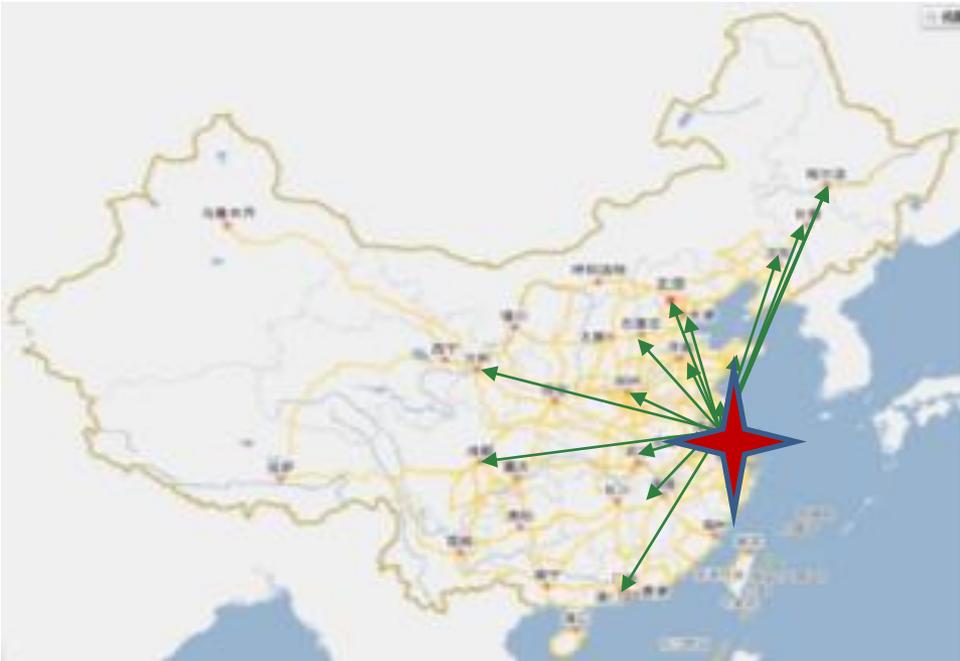
Dr. Yuwei Zhang

Wuxi El Pont Radiation Technology

Who We Are



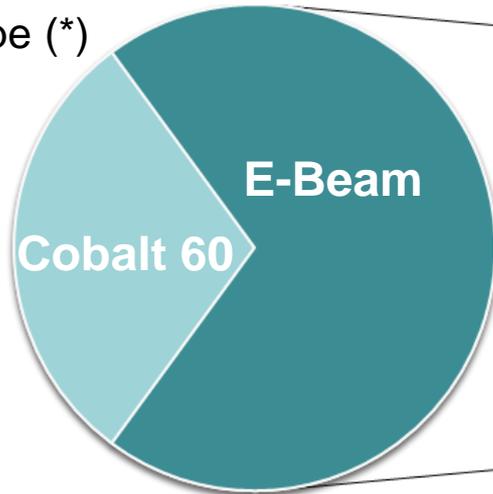
EL PONT



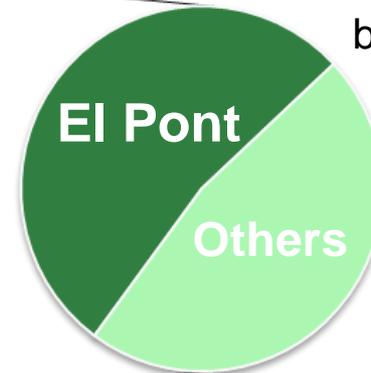
Leading supplier of China industrial E-beam solution

- **No.1 market share in China, 200+ units in total sales**
- **The only research institute in China, dedicating to E-beam technology and winning governmental support**

Market Breakdown
by Machine Type (*)



Market Breakdown
by Manufacture

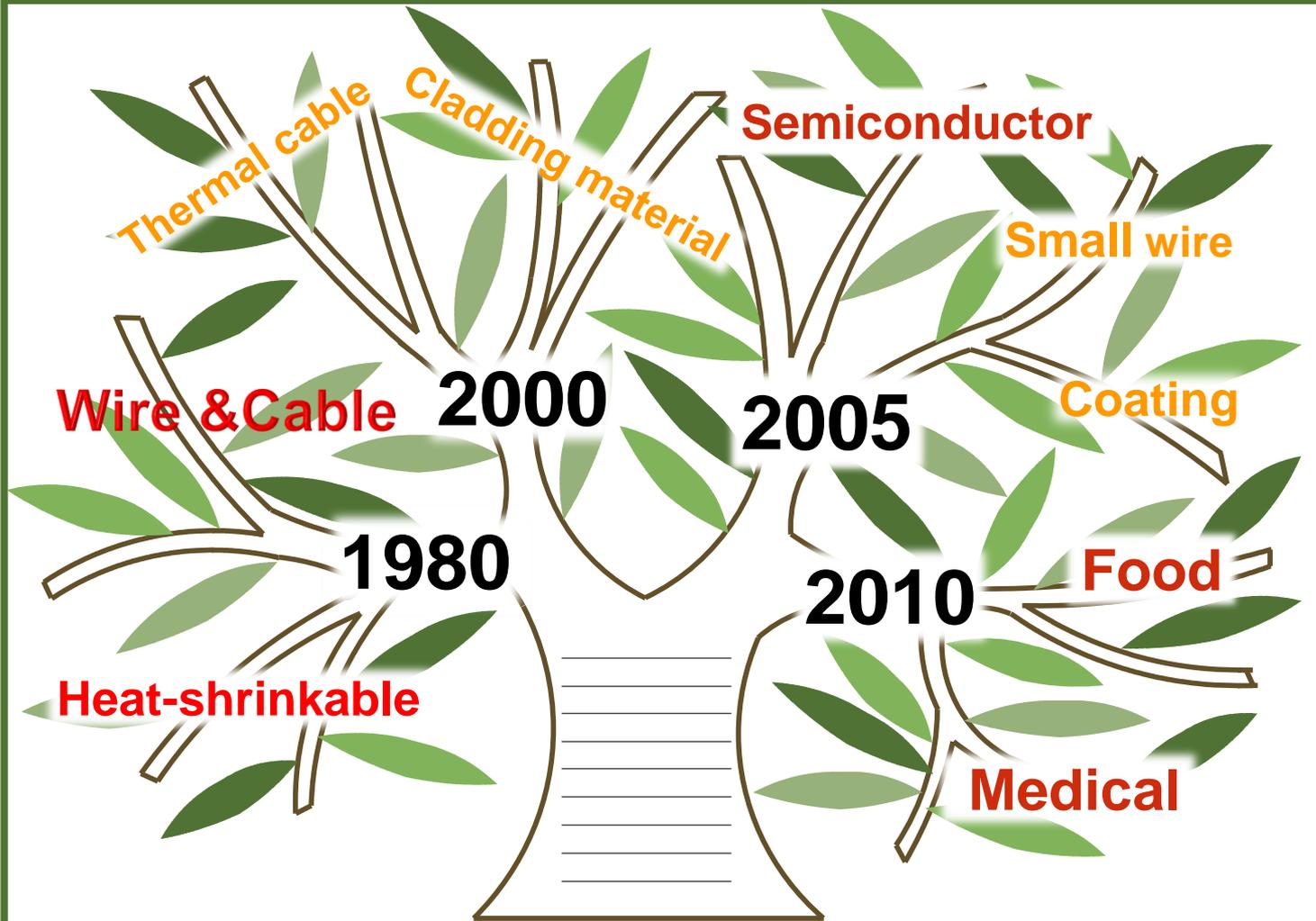


(*) Information source from China Isotope & Radiation Association, Oct 2013

Advantage of E-Beam Technology

- Clean energy
- Safer Equipment
- Environmental friendly
- High productivity

Developing Tree



Mid-energy electron accelerator

China first electron accelerator



The Ministry of Posts and Telecommunications published Stamps for our accelerator

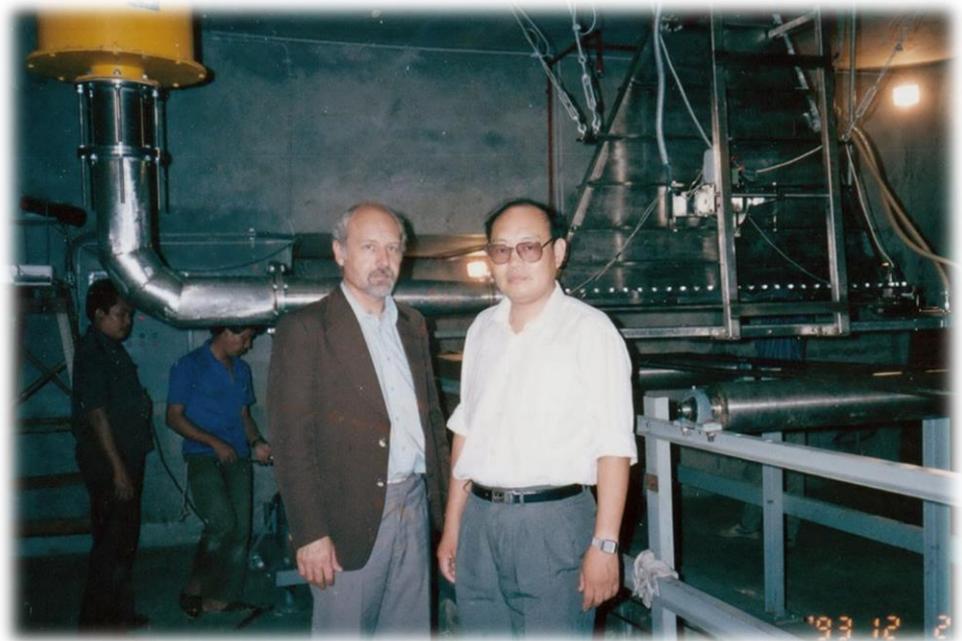
First export enterprise from China to many countries (Korea, Russia, India, Turkey, Indonesia etc).



Indonesia Atomic Energy Institute, 1992



Visited by Then-President



Supported by IAEA

≥22 years working life

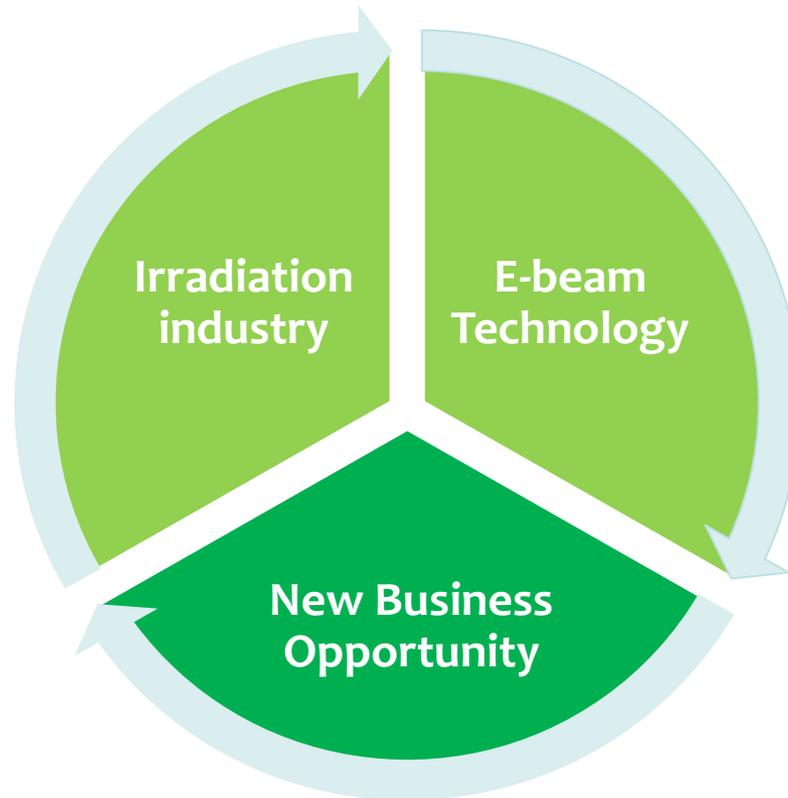


First visit in 1992 for installation
In Indonesia



Re-visited in 2014

Growth Cycle





Mid-energy

- Total sales(1-3Mev):150+ units
- Main applications :
wire & cable & Heat-shrinkable material, ect.
- Typical customers:CYG, CIAC, WOER,KINWA,etc.
- CYG has purchased 13 units.



5Mev accelerator

-----Semiconductor & PTFE



Snapshot of semiconductor irradiation in workshops

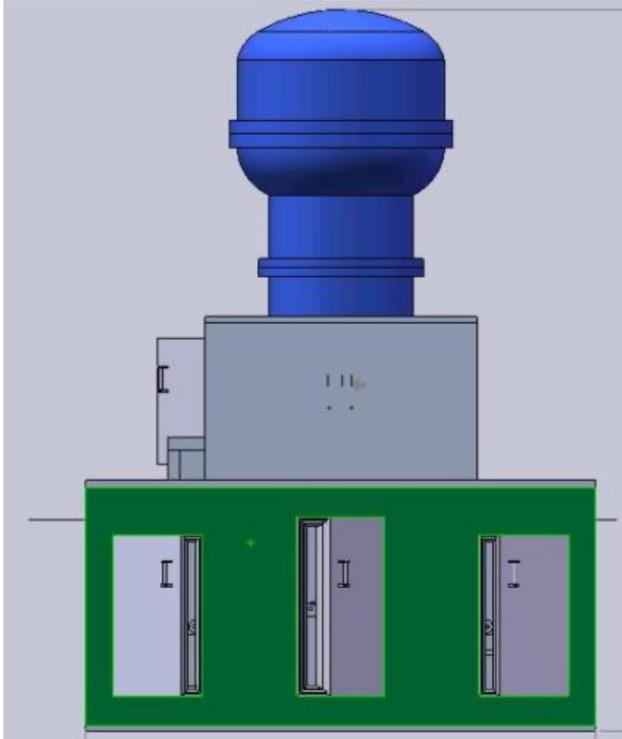


Irradiated PTFE powder for global customers



Total sales(5MeV) : 10+ units.

Low energy electron accelerator -----Self-shielded



Self-shielded low energy
electron accelerator



Sliding wall

New product development

-----Food and Medical irradiation



Total sales : 10+ Units



**10MeV-20Kw S-band
Linac electron accelerator**

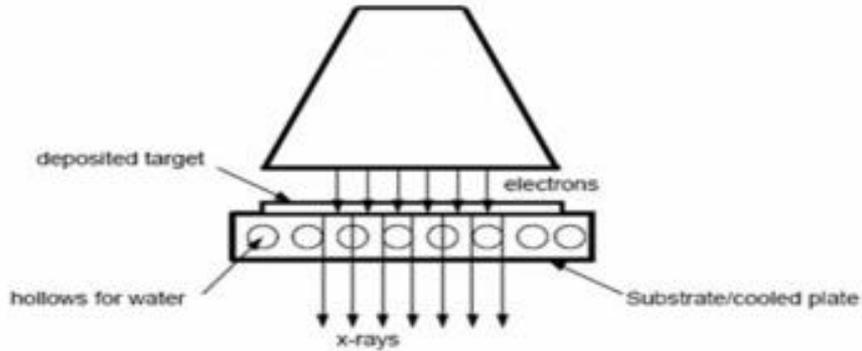


**10MeV-40Kw L-band
Linac electron accelerator**

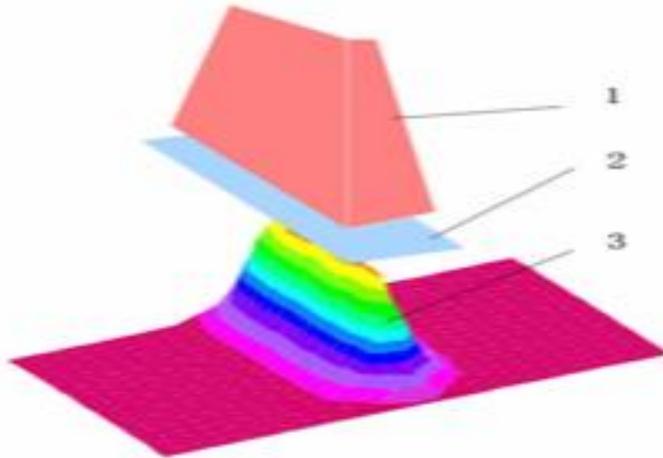
Headline News in Science and Technology Daily (the most authoritative newspaper in China's science and technology area)



X-Ray Technology



The target for high power beam.

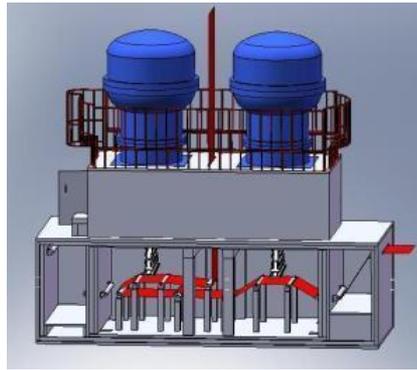
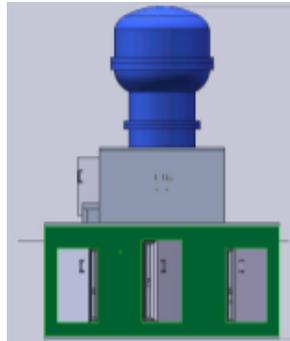


El Pont radiation service centres



Review & Summary:

The road of new product development in El Pont



Mid- and high-energy
electron accelerator

Self shielding

Twin-type self
shielding

10Mev Linac electron
accelerator (s- and l-
band)

Product Portfolio

- ★ designing & manufacturing both HFHV type and Linac E-beam
- ★ wider range of E-beam from 0.5MeV-10MeV
- ★ Successful application of E-beam with x-Ray

Type	AB0.2	AB0.5	AB0.8	AB1.0	AB1.5	AB2.0	AB2.5	AB3.0	AB5.0	AB10
Energy	0.2MeV	0.5MeV	0.8MeV	1.0MeV	1.5MeV	2.0MeV	2.5MeV	3.0MeV	5.0MeV	10MeV
Current	50-100mA	100mA	80mA	80mA	67mA	50mA	40mA	34mA	20mA	2mA, 4mA, 6mA
Beam power	10-50kW	50kW	64kW	80kW	100kW	100kW	100kW	100kW	100kW	20kW, 40kW, 60kW
Mode of shield	self-shield	self-shield	self-shield							
Application	film	wire& cable ,tyre	wire& cable, film,tyre	wire& cable, film,tyre	wire& cable, heat-shrinkin g,foamed plastics	wire& cable, heat-shrinkin g	wire& cable, heat-shrinkin g	wire& cable, heat-shrinkin g	wire& cable, heat-shrinkin g, sterilizat ion	sterilization

From follow the market to lead

- Persistence of technical innovation.
- Market development in new industry.
- Creating demand for the E-beam market.

Real Case: Film irradiation

- Open China irradiation film market.
- Total sales : \approx 30 sets.



Film irradiation application



Snapshot----once signing 12 sets with ZheJiang ZhongCheng(16 sets in total)



0.2MeV designed for film industry

Tire irradiation online production



Our unique technology

Insulating gas:

Adaptation of mixed gas(N₂+CO₂) to replace SF₆



SF6 recovery system



Mixed gas

Core advantages :

- 1) low cost.
- 2) acquire conveniently.
- 3) safe & friendly environment.
- 4) non-reuse to guarantee insulation.
- 5) saving building area.

Marketing results :

- 1) Total sales : 95% accelerators.
- 2) overseas market.
- 3) Attract more attention.



2 units of 0.55Mev self-shield accelerator (ACOME , French)

Conclusion

- Deeper market understanding
- To seize the initiative
- Dare to challenge status quo.
- Fueling unlimited opportunities for E-Beam.

THANK YOU !