

*The European Energy Venture Fair 2005*

*September 27th 2005  
Zurich, Switzerland*

*Jon Karlsen, CEO Magtech*



**Magtech™**

***”Changing the world of  
electric power conversion  
through improved power  
quality solutions”***



***Magtech is a venture capital funded\* company based in Moss, Norway with a very strong patent portfolio within the area of controllable magnetic inductance***

***We are 20 highly qualified and motivated people (mostly engineers) dedicated to develop Magtech into a major success!***

\* **Investors:** Norsk Hydro, BankInvest Group, Glastad Invest, Bakelittfabrikken



***Our patented technology is groundbreaking:***

***We can control current and voltage:***

- Using only copper, steel and iron***
- With no moving parts***
- Using conventional electrical equipment designs***

***Giving a solution that is:***

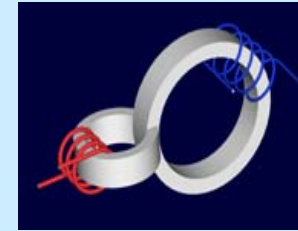
- Very robust***
- Fast responding***
- Continuous and adjustable over a wide range***
- Scalable to different sizes and modules ranging from low to high voltages and currents***

***No other technology combines these properties!***



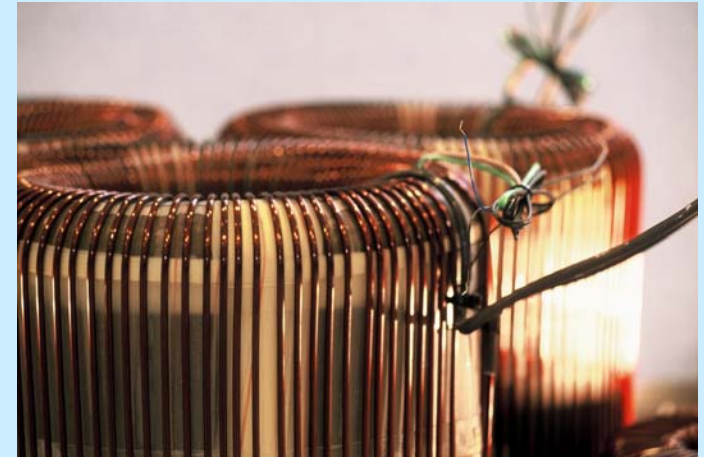
## ***Magtech's technology:***

***Using the principle of orthogonal fields, known as “virtual air gaps” in magnetic technology***



***Combining two magnetic fields, one controlling the characteristics of the other.***

***Magtech Controllable Inductance (MCI)***

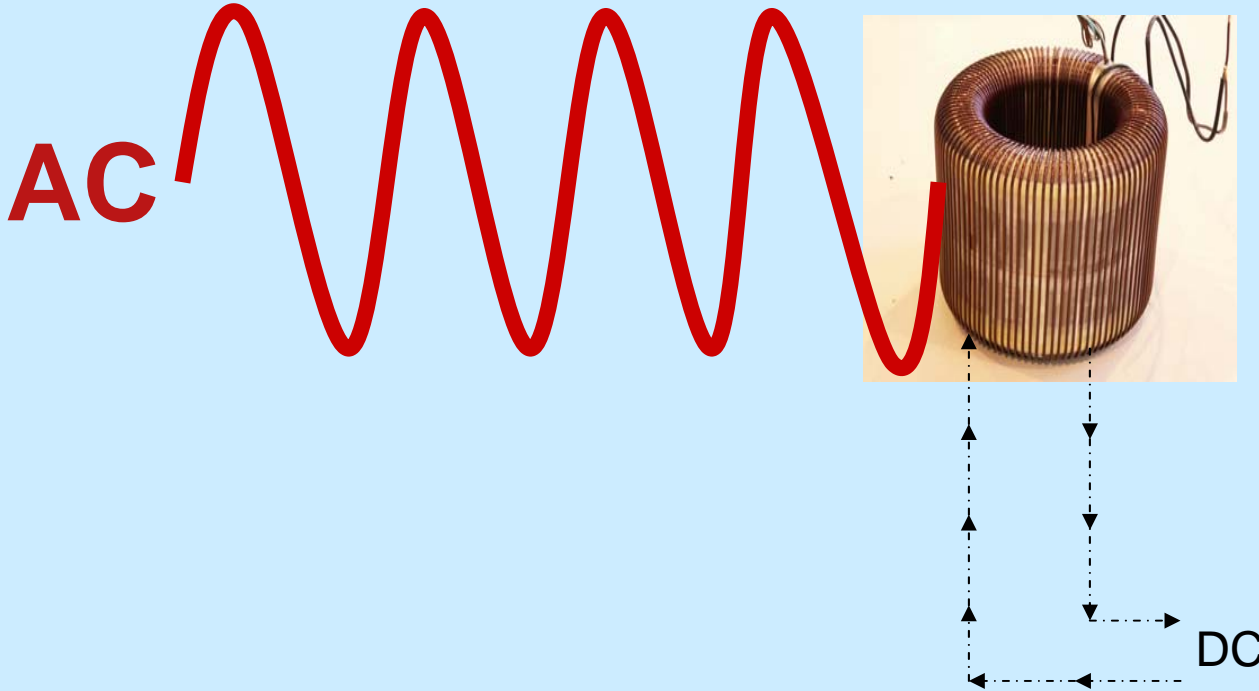


***More robust and durable than semiconductors***

***More robust, durable and faster than mechanical solutions***



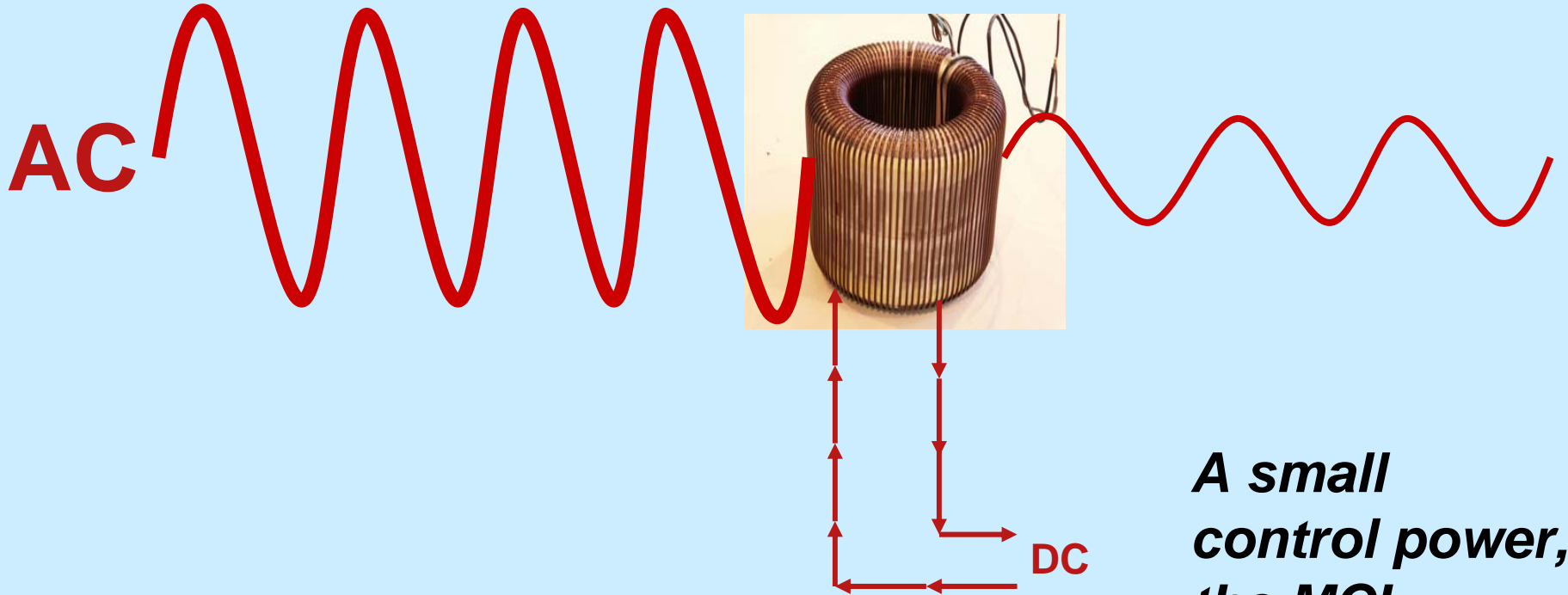
***MCI - a controllable, fast and dynamic - magnetic “AC power valve”***



***No control power - the MCI “blocks”***



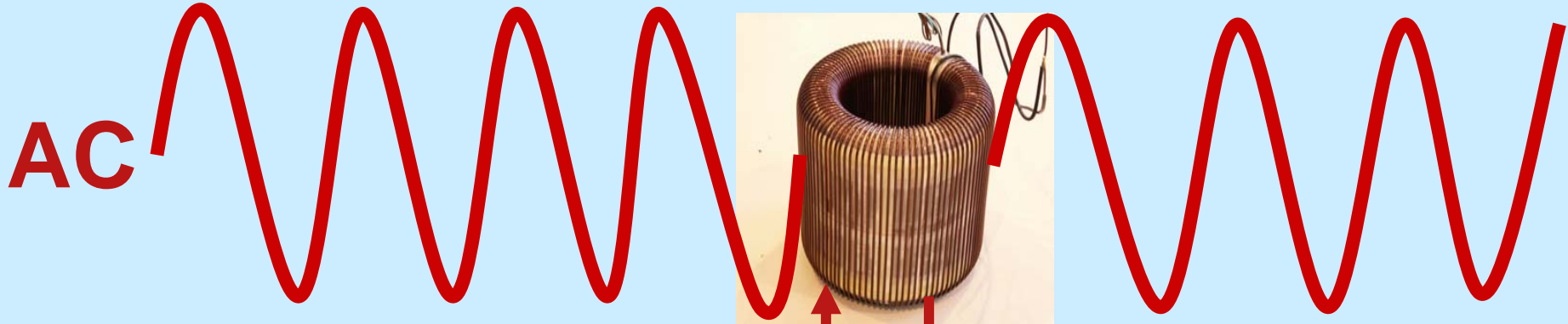
***MCI - a controllable, fast and dynamic - magnetic “AC power valve”***



***A small control power, the MCI “opens”***



# ***MCI - a controllable, fast and dynamic - magnetic “AC power valve”***



***More robust and durable AC power control than with semiconductors***  
***More robust, durable and faster than mechanical solutions***

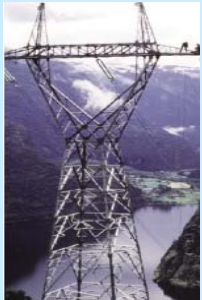
***More control power - the MCI “opens more”***



***Where does Magtech's technology offer unique competitive advantages?***

***Wherever reliability and power quality is crucial!***

***Entered markets; contracts awarded for deliveries:***



Transmission & distribution:  
Vattenfall,  
Hafslund, etc.



Oil industry:  
Aker Kvaerner

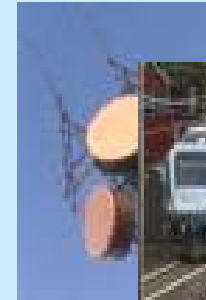


Power intensive  
Industries:  
Hydro Oil & Energy



Sub-sea:  
Oil & Gas

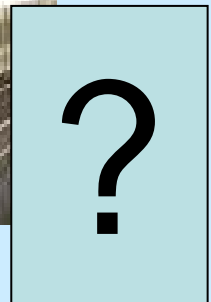
***Other possible markets:***



Telecom



Railroad



Many others...



## ***Magtech's first products:***

### ***Magtech Voltage Booster***

Grid owners and utilities  
*Lifts and controls voltage dynamically*



More than 30 units sold and installed in Scandinavia; large world wide market!

### ***Magtech Controllable Power Supply***

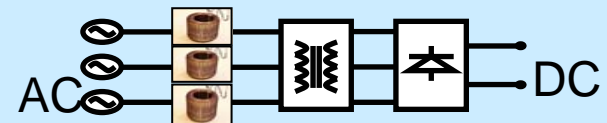
Aker Kværner  
*Power supply for electrostatic oil coalescer*



Two units sold:  
One topside and one prepared for sub-sea installation!

### ***Magtech high power rectifier***

Hydro Aluminum  
*High voltage operating rectifier*

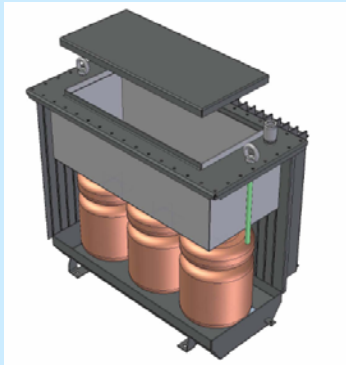


First unit to be delivered mid 2006



## **Unique strengths Magtech Voltage Booster:**

*Other voltage regulators are mechanical or semiconductor based:*



### **Unique strengths: (Crucial for the grid companies)**

#### **1. Robustness**

*Lightning/transients*

**No moving parts**

**No semiconductors in main circuit**

#### **2. Fast regulation of large changes**

**Reduce risk of too high voltage**

#### **3. No maintenance**

#### **4. Bypass – function if failure**

***The world wide voltage regulator market alone, is a multi - billion Euro market!***



## ***Magtech will be developed through:***

- 1. Direct sales of voltage boosters to the Nordic market and through channel partners internationally***
- 2. Continuous development of new products and MCI control units for these***
- 3. Customer project developments and sales of industrial niche applications***
- 4. Partnerships with major industrial players to extend Magtech`s technology and products into new applications (e.g. very high voltage and power, small units for electronic circuits,..)***



***We are looking for partners who are seeing the same huge market and profit potential as we see, and who are willing to invest in getting this groundbreaking technology into the market.***

***For more information, or to set up a meeting, contact:***

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