

# LEM - A global leader in its Core Components Business

smdays Conference  
Zurich, September 13, 2007



At the heart of power electronics



## Agenda

1. About LEM
2. LEM at a glance
3. At the heart of power electronics
4. Results
5. Strategic priorities
6. Outlook



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## 1. About LEM

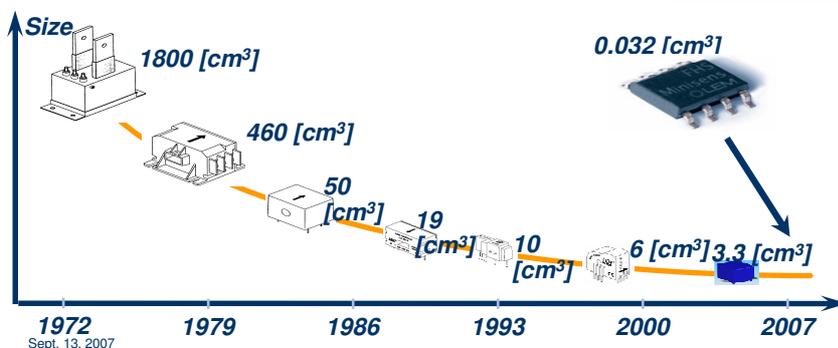
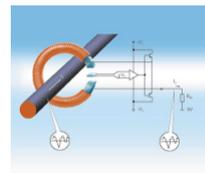
- LEM is the global market leader in providing innovative and high quality solutions for measuring electrical parameters.
- Its current and voltage transducers are used in a broad range of applications in industrial, traction, energy & automation and automotive markets.
- LEM is a high growth global company with approximately 900 employees. It has production plants in Geneva (Switzerland), Machida (Japan), Beijing (China) and regional sales offices close to its clients locations.
- LEM is listed on the SWX Swiss Exchange since 1986. Sales of CHF +184 million (FY 2006/7)

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## 2. LEM at a glance .... products & technologies

- Contact free measurement of current and voltage by magnetic induction
- From 10'000 Amp to 0.01 Amp



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## 2. LEM at a glance .... global footprint



★ **Production Centers:**  
 Geneva, Switzerland 380 employees  
 Beijing, China 230 employees  
 Tokyo, Japan 150 employees

★ **Adaptation Centers:**  
 Milwaukee, USA 25 employees  
 Tver, Russia 85 employees

**Direct sales, agents, reps and distributors, worldwide.**

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## 2. LEM at a glance .... markets served

### Traditional Markets



- **Industry**
  - All areas of reliable current measurement
  - Motor drives, power conversion AC/DC, power supplies, UPS, welding, medical scanners, new energies, leakage currents

### New Markets



- **Automotive**
  - Battery Management in SUV, HEV
  - X-by-wire applications



- **Traction & Trackside**
  - on-board applications, inverters
  - Trackside and energy monitoring



- **Energy & Automation**
  - Process control
  - Battery Monitoring, Energy Metering

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## 2. LEM at a glance .... business model

### “LEM Inside”

- Working with leading customers in close and confidential relationships
- Pure play company focused solely on the components market
- Market share driven

### Application know-how

- In-depth knowledge of customer application enables us to supply exactly what the customer needs
- Working locally @ design-in, in global environment @ supply
- Offering both Standard and Customer specific products
- Components with signal to application as required  
Fast and precise, calculated RMS, data communication
- Best cost, quality and service

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## 2. LEM at a glance .... Leadership position

- LEM pioneered the applications in the 70's and has 50% market share today
- Competitors are
  - captive divisions of bigger system companies
  - or similar component companies
- LEM is creating new markets and has consistently expanded the TAM (total available market), recently the Automotive and Energy & Automation.
- 'Made by LEM' stands for reliability & high quality. Strong brand awareness.

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## 2. LEM at a glance .... Leadership position

- LEM has introduced the first ASIC chip to measure the Hall effect integrated with signal processing.
- LEM is integrating more electronics in its transducers to interface and communicate directly in the application
  - DSP, processor, communication bus, system.
- LEM keeps introducing new flagship products.
  - Yr -1 Minisens, Sentinel, WiLEM,
  - Yr 0 SMD low cost open loop



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## 3. At the heart of ... the Motor Drive

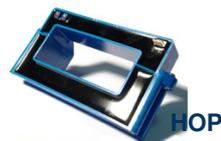


- Motor Drive is a big industry that add a control function to a modern motor, under a brand specific software platform:
  - Need for speed and torque control for technical and comfort reasons
  - Resulting in substantial energy savings of ~30%
- The power electronics in the Motor Drive need the current transducer to measure and feedback the required power.

LTS



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HOP

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### 3. At the heart of ... Washing Machines



- Industry is facing two demands:
  - Desire for easier and low cost control and fine regulation
  - Need for energy savings
- By adding power electronics in the Motor Drive, **Minisens** will control and adapt washing programs, lower energy consumption, and reduce noise



Minisens

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### 3. At the heart of ... Standby Batteries

- Standby Batteries are used in UPS systems for critical applications to ensure power at all times
  - hospitals, airports, data-centers and banks
  - developing countries
- The **Sentinel** measures the state of health of these batteries



Sentinel

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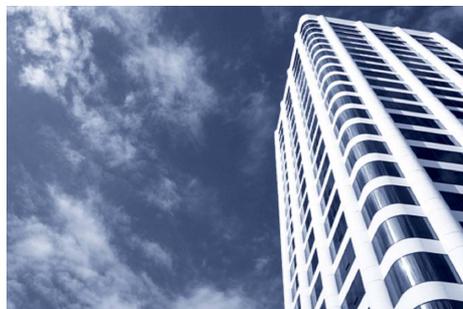
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### 3. At the heart of ...Energy Metering

- Electrical sub-metering is a powerful tool to provide information on local energy consumption
  - **Wi-LEM** gives a precise image about the power consumption
- The wireless transmission is integrated, making Wi-LEM easy to install and integrate in a monitoring system
- Towards real energy efficiency, ... 'measure and manage'



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### 3. At the heart of ... Hybrid Electric Vehicles



- Modern HEV's have classical combustion engine and electric motor using the battery power.
- Monitoring current flows to and from the high power Battery is a critical feature, done by the Transducer.

DHAB



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## 4. Market factors providing strong tailwind

**More energy**

**Reliable energy**

**Better regulation  
Increased comfort**

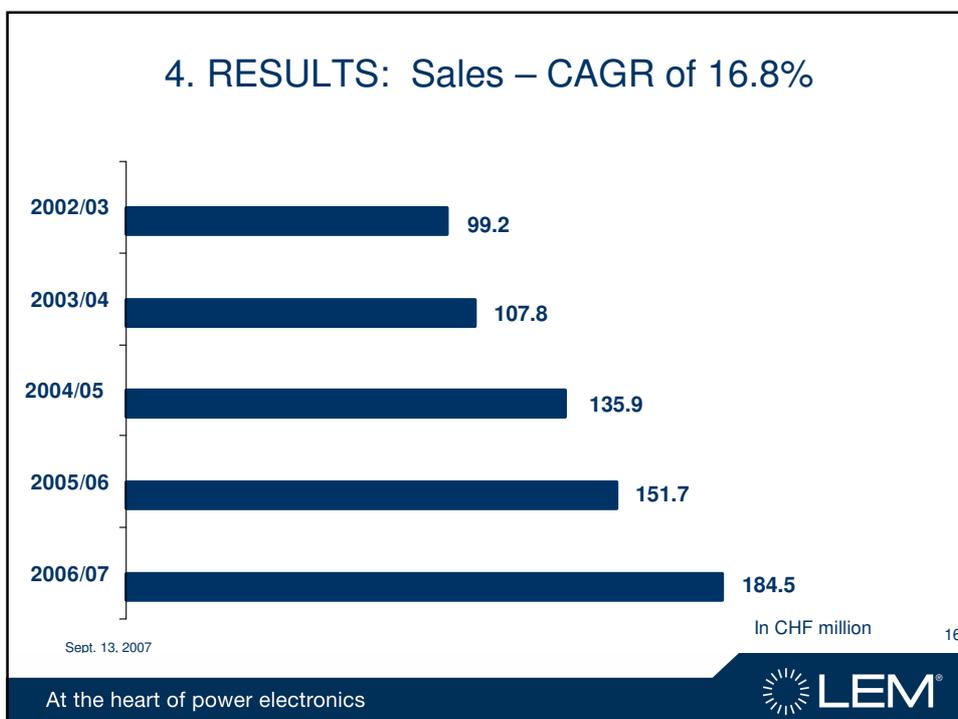
**Need for mobility**

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## 4. RESULTS: Sales – CAGR of 16.8%



## 4. Results: Profit and Loss

CHF million	2005/06	2006/07	Q1 2007/07
Sales	151.7	184.6	49.9
Gross margin in %	42.7	42.0	46.1
Operating costs	49.3	51.9	xx
<b>EBIT</b>	<b>15.5</b>	<b>25.5</b>	<b>9.6</b>
Net financial expenses	(4.8)	(0.7)	(0.07)
Income taxes	(1.7)	(9.2)	(3.3)
<b>Net earnings</b>	<b>9.1</b>	<b>15.6</b>	<b>6.4</b>
<hr/>			
Discontinued Operations			
Net earnings	15.9		
<b>Net earnings LEM Group</b>	<b>25.0</b>	<b>15.6</b>	

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## 4. Share price (SWX)



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**Global leadership**  
Remain the global leader in providing transducers to measure electrical parameters

- Continue to anticipate customer needs and deliver advanced products

**New technologies and applications**  
Develop new applications in new markets using our existing and adjacent know-how

- Targeting of new customers with our flagship products
- Keeping R&D investment high and a priority

**Maximize value for our customers**  
Offer global presence with seamless service and follow customers to Asia

- Expansion of our sales teams where the business will be
- BRIC countries

**Focus on profitable growth**  
Achieve Operational excellence and run cost effective and service oriented production sites

- Further expansion of the China plant
- Low cost global sourcing project

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## 5. Strategic priorities, tuned per segment

*“ Focus on the core business of manufacturing and supplying current and voltage transducers to a number of different industrial and automotive markets “*

<p><b>Industrial</b></p> <ul style="list-style-type: none"> <li>• Traditional business: growth above industry average</li> <li>• New applications, new products, growth by innovation</li> <li>• Expand 'Fortune 1000' customer base</li> <li>• Drive to lower cost manufacturing</li> </ul> <p style="text-align: center; background-color: white; padding: 5px;"><b>Differentiator</b></p>	<p><b>Automotive</b></p> <ul style="list-style-type: none"> <li>• Role of Innovator &amp; Specialist</li> <li>• New business model focus top customers automotive Q-C-D performance</li> <li>• HEV-EV-power electronics</li> </ul> <p style="text-align: center; background-color: white; padding: 5px;"><b>Innovator</b></p>
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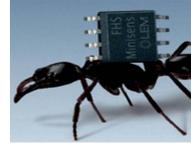
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## 5. Focus on innovation

- **Miniturization**

- LEM's first fully solid state integrated transducer
- Efficient low cost – low current measurement device taking advantage of state-of-the-art Silicon technologies



- **Battery Monitoring**

- Sentinel can measure the state of health of standby batteries used in various back-up energy systems



- **Higher level of Integration (MacroComponents)**

- For condition monitoring in various applications in Automation LEM offers direct interface to microcontrollers



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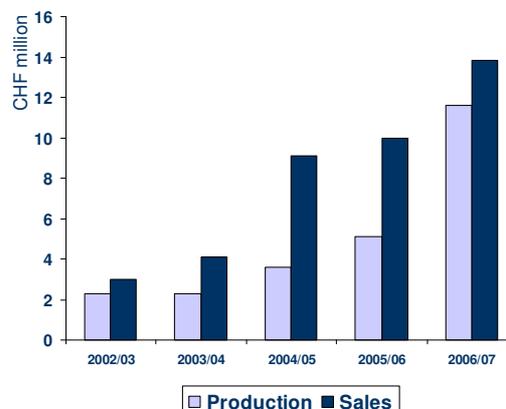
## 5. China development

- **Sales**

- Sales growth 31% yoy
- Sales team increased
- Offices in Beijing, Shanghai and Shenzhen

- **Production**

- Production volume more than doubled since last year
- Transfer of key products to China
- "Made by LEM" quality



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## 6. Outlook (1/2)

- Although we see NO sign of a decline in current record demands, history has taught us that recent levels of growth can not be sustained for ever
- We see further potential to maintain the improvement in profitability
  - By further transfer to low cost production and sourcing
  - By adapting our structure to the new size and roles of the various production and R&D centers
- Automotive Segment should see signs of upturn by end of 2007/08

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## 6. Outlook (2/2)

In the mid-term, LEM is ideally positioned to take maximum advantage of fundamental growth drivers:

- Strong new product pipeline as engine for future growth by substantially increasing the total available market TAM
- Need for more energy, more savings, more renewable energy
- Increasing electrical and electronic management of various functions in the car and of the (hybrid) electrical vehicle

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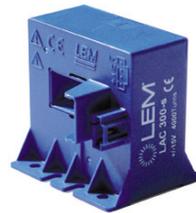
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## Agenda

1. The communications team
2. Flashback to FY 2006/07
3. Strategy for the new year
4. PR Plan
5. Advertising Plan
6. lem.com
7. Market Research



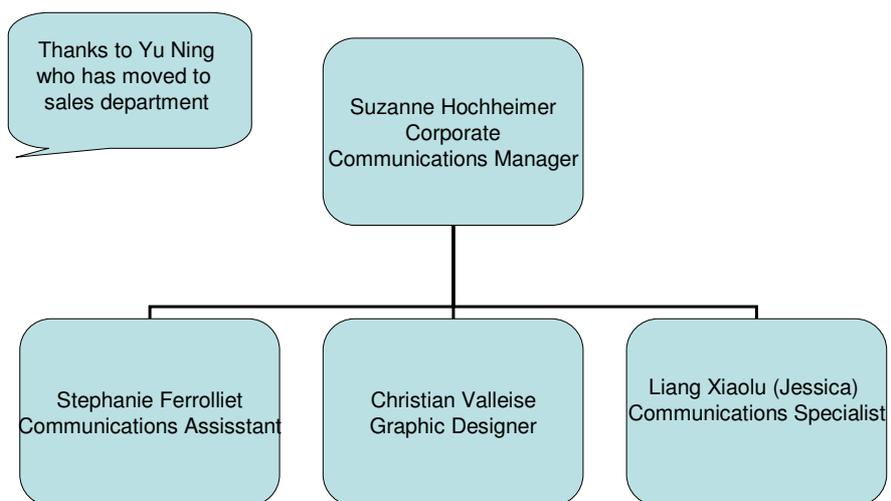
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## 1. The communications team



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## 2. Flashback

- Corporate Identity
  - ✓ Successful launch of new Corporate Identity, Brand Identity and Positioning
  - ✓ Brand Book and Communication Materials
  - ✓ Roll out to all countries
  - ✓ Development of new Corporate Advertising
  - ✓ Folders, Binders, Give-a-ways



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## 2. Flashback

- Financial PR
  - ✓ Press and Investor Conference in Zürich – June 2006, June 2007
  - ✓ Press meetings in Zurich in Fall
  - ✓ Press and Analysts conference call in January 2007
  - ✓ Attendance of investor conferences and road-shows by PVI and Awa
  - ✓ Share price development from around CHF 150 to about CHF 300



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## 2. Flashback

- Product PR
  - ✓ Press conference for **Wi-LEM**
    - London, Paris and Munich with 50 journalists attending
    - Phone interviews for US (Electronic Design, EE Times, Darnell Group, AnalogZONE)
  - ✓ Placement of almost 30 technical articles so far
  - ✓ Coverage in 80 publications



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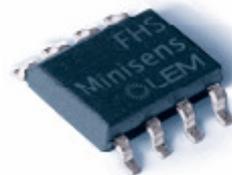
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## 2. Flashback

- Product PR
  - ✓ Press conferences for **Minisens**
    - Milan, Munich, Paris and Shanghai
    - Meeting with journalists in Denmark, Sweden and Finland
    - Total over 70 journalists
  - ✓ Launch and phone interviews for USA and CA
    - ✓ Article in Appliance Magazine
  - ✓ Requests from website
  - ✓ Over 70 publications so far – see booklet



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## 2. Flashback

- Product PR – all other launches
- ✓ 10 other Products launched last year
  - HAB, DHAB
  - Sentinel, AHR, AT, TT
  - LAC 300-S
  - **LAX, HASS, LA 306-S**
- ✓ Generated coverage in 104 different publications over Europe
- ✓ 404 articles in total - still counting



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## 2. Flashback

- PR Network
- ✓ Further extended our European PR Network to include:
  - AT, BeNeLux, CH, DE, ES, FR, IT, UK, pan-regional
  - And new DK, SE, FI since end of March
- ✓ New agency for USA and CA



[www.hartboillot.com](http://www.hartboillot.com)

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[www.napier.co.uk](http://www.napier.co.uk)

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## 2. Flashback

- Website
  - ✓ Roll out of Corporate website in EN in November 2006 including e-commerce
  - ✓ Roll-out of DE and FR pages in February
  - ✓ e-commerce 35 orders all small and from new customers
    - Currently more biz from Europe than USA
  - ✓ We have over 1000 visitors on our site per day

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## 2. Flashback

- Trade shows:
  - Attended all over the world in CN, CZ, JP, ES, DE, UK, USA, HU, IT, RU
  - In collaboration with our distributors,...



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### 3. Strategy for 2007/08

***Continue to develop and increase LEMs brand and product awareness amongst the relevant stakeholders by:***

- Extending the PR Network to replicate the success in Europe
- Developing and fostering relationships with the “media that matters”
- Well targeted advertising to complement the press releases
- Roll-out of website to JP, CN and RU and continuous improvements
- Remaining close to customers by attending selected trade shows

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### 4. PR strategy for 2007/08

***Establish LEM as the market leader of highest quality solutions for measuring electrical parameters and subject matter expert by:***

- Expanding European agency Network to include
  - HU, PL and RU
- Expanding global Network
  - ✓ CN
  - JP later next year
- Developing good working relationships with the media to insure placement of press releases and technical articles
- Maximize speaking opportunities and interviews
- Product launches: **HMS**, **LTS-P**, Rogowski, Sentinel3, DX, HAH, HC5
- Technical articles and customer testimonials

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## 4. PR for China

- Selection of a Public Relations agency for China
- Weber Shandwick based in Beijing 
- We will be working closely to set up the communications network in the next weeks.
- Determine the relevant media list
- Start developing the communications plan

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## 5. Advertising plan for 2007/08

- Advertising spend maintained for EU and CN
- Increase for USA and JP
- Emphasis on new products:
  - Minisens, Wi-LEM, Sentinel, HMS, E&A products, Auto
  - Will create new ads for HMS and Auto
- Have developed ad plans accordingly:
- CN, EU and US plans are complete
- JP needs work



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## 5. Ad plan China

No.	Name	Times	Remark
1	The world of Inverters	12	ITR:inverter
2	Dianqi chuandong(Electronic control)	4	ITR:inverter/servo driver
3	Control&Driver	4	ITR:inverter/servo driver
4	Electronic Component & Device Applications	6	Component application(whole applications)
5	The world of Power supply	12	ITR: Power
6	EDN China	3	Electronics,famous magazine:improve brand
7	Sensor world	2	Sensor(whole applications)
8	Control Engineering China	3	Control,famous magazine:improve brand
9	Electric welding machine	6	ITR: Welding
10	China power supply survey	4	ITR:Power
11	Power supplytechnologies and application	4	ITR:Power
12	China power supply informaiton	4	ITR:Power
13	China railway	2	China railway:famous magazine:TTR
14	World railway	1	China subway:TTR
15	DianLi DianZi Jishu(Power electronics tech.)	6	Power electronics(whole applicaitons)

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## 6. lem.com

- Translation process for JP and CN has commenced
- RU process needs to be determined
- Roll out to start by end Q1 07/08
- Extranet for Distributors
- Personalized price list per distributor
  - Standard lead times
  - New product launch packs
  - PCN page - almost ready
  - Press releases prior to official release
  - “Marketing Hub” containing Advertising, Posters, Folders, Photos, Brand Book, Logos
- RSS feed in English  Really Simple Syndication

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Feature Products

- **Minisens (FHS 40-P/SP600)**  
 Minisens, taking miniaturization to the next level! A fully fledged current transducer for isolated current measurement with magnetic concentrators in an IC SO8 size...
- **Wi-LEM**  
 The Wireless Local Energy Meter is a complete set of components for sub-metering that is fast and easy to install...

Product Search  
 Model name  
 + Advanced search

LEM Worldwide  
 / LEM in China  
 / LEM in Japan  
 / LEM in UK  
 / LEM in USA  
 / LEM in France

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## 7. Measure and Mirror Research

- Research study we do with both our **customers and employees** to see how they perceive LEM with special focus on:
  - Quality of relations
  - Efficiency of processes
  - Quality of products
  - Will launch to customers end of August 2007
  - Will launch to all indirect employees 15 August

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## 7. Voice of the employee

- This research will be done in parallel to the Measure & Mirror
- For all LEM employees start date 15 August
- Topics covered are:
  - Strategy
  - Management, Senior Management
  - Organization
  - Quality and customer focus
  - The job
  - The team
  - Work environment



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