

# Siemens Automation & Drives in India

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Siemens Capital Market Days in India November 29th, 2005

# Safe Harbor Statement



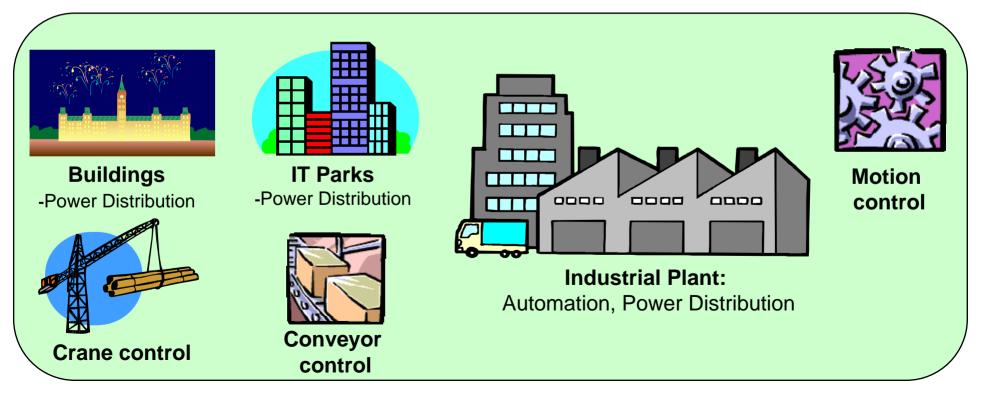
This presentation contains forward-looking statements and information – that is, statements related to future, not past, events. These statements may be identified either orally or in writing by words as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates," "will" or words of similar meaning. Such statements are based on our current expectations and certain assumptions, and are, therefore, subject to certain risks and uncertainties. A variety of factors, many of which are beyond Siemens' control, affect its operations, performance, business strategy and results and could cause the actual results, performance or achievements of Siemens worldwide to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements. For us, particular uncertainties arise, among others, from changes in general economic and business conditions, changes in currency exchange rates and interest rates, introduction of competing products or technologies by other companies, lack of acceptance of new products or services by customers targeted by Siemens worldwide, changes in business strategy and various other factors. More detailed information about certain of these factors is contained in Siemens' filings with the SEC, which are available on the Siemens website, <u>www.siemens.com</u> and on the SEC's website, <u>www.sec.gov</u>. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the relevant forward-looking statement as anticipated, believed, estimated, expected, intended, planned or projected. Siemens does not intend or assume any obligation to update or revise these forward-looking statements in light of developments which differ from those anticipated.

# Automation & Drives has a wide range of Customers from Industry to Housing



### **Automation and Drives:**

Our range of innovative products, systems and solutions for customer's special requirements is as varied and diverse as industry and trade itself



# A&D offers Switchgear, Motors and Generators for Industry & Infrastructure



CD

#### **Control and Distribution**

LV Switchgear: Contactors, Bi Relays, Air Circuit Breakers, MCCBs etc.

Global source for Definite Purpose Contactors







ACBs (630 to 6300A) Co

Contactors Bi Relays

ET

### **Electrical Installation Technology**

Circuit Protection & Wiring Accessories. MCBs, RCCBs, DIN Fuses etc.







RCCB

Fuse

SD-M

#### Standard Drives - Motors

Industrial Motors (0.18kW - 1000kW)

Super Efficient motors



GEN.

Wind Mill Generators (upto 1.25MW)



# A&D Systems: Programmable Logic Controllers and Drives



AS, SP

### **Automation Systems:**

Programmable Logic Controllers
Solutions for Process Automation





SIMATIC S7 300

Distributed I/O's

DS

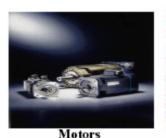
Standard Drives
Large Drives (> 250KW)
Motion Control Solutions (MCPM)



**Master Drives** 

**MCMT** 

Motion Control for Machine Tools

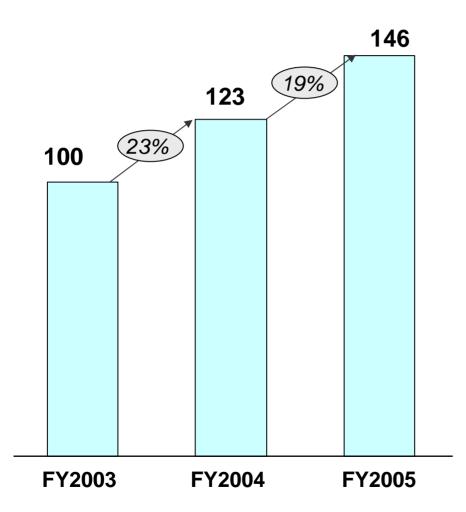




# A&D Market is growing at double digit growth rate



## **Market** (Indexed)



### Market characteristics

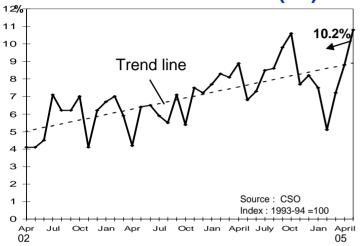
- Automation & Drives (A&D) market is driven by fresh investments in Industry & Infrastructure
- Indian economy; especially Industry is on a sustained growth path
- Market sectors with high growth:
   <u>Industry:</u> Metals, Pharmaceuticals, Food &
   Beverages, Automobile
   <u>Infrastructure</u>: Buildings (IT parks, Commercial complexes, Residential), Electricity distribution
- Market comprises of OEMs, Contractors/ Panel Builders and End Users
- Sales Channels (Dealers/ System Houses) play a crucial role to ensure high market reach

Source: A&D India

# Macro Economic indicators of India are positive

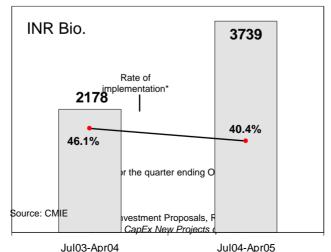
# SIEMENS

### **Industrial Production (IIP)**

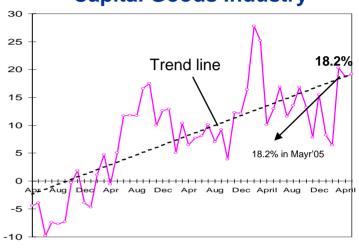


■ Index of Industrial Production is growing at ~ 10% p.a.

### **Investment Scenario**



### **Capital Goods Industry**



 Capital goods industry growing at ~ 18% p.a.

Fresh investment proposals increased by 72%

(Note: For IIP and Capital Goods industry % change over corresponding period of the previous year)

# Fresh Investment is the major demand driver for A&D



| Customer Industry |
|-------------------|
| Sectors           |

| Metals              | _           |
|---------------------|-------------|
| Food & Beverages    | <b>/</b>    |
| Automotive          | <b>—</b>    |
| Chemicals           |             |
| Electricity         |             |
| Textiles            | <b>&gt;</b> |
| Cement              | <b>/</b>    |
| Buildings sector    | <b>/</b>    |
| Refinery, Petroleum | <b></b>     |
| Mining              | <b>→</b>    |

# Electro Market Growth<sup>1)</sup>

# Demand drivers

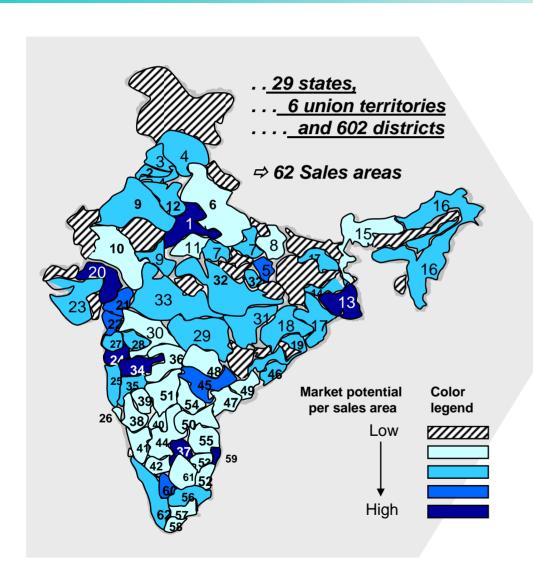
| in FY06 |   |
|---------|---|
| 34%     | <ul> <li>Metals sector growth driven by growth in<br/>construction sector and Automobile industry</li> </ul>      |
| 45%     | <ul> <li>F&amp;B sector is growing mainly in Dairy products,</li> </ul>   |
| 17%     | packaged snack food and beverages (e.g. bottled water)  |
| 15%     | <ul> <li>Automotive sector growing at double digit in</li> </ul>  |
| 10%     | Motor cycles, Passenger cars as well as Auto ancillaries  |
| >30%    | <ul> <li>Buildings sector witnessing growth due to boom</li> </ul>  |
| 19%     | in Real Estate<br>(Commercial complexes, Multiplexes,   |
| 10%     | Up-market Residential projects, IT parks etc.)  |
| 2%      | <ul> <li>→ Fresh investments in Greenfield projects,<br/>expansions are resulting in higher market for</li> </ul> |

A&D

2%

# Arriving at Market transparency for "Continent" India was a marathon task

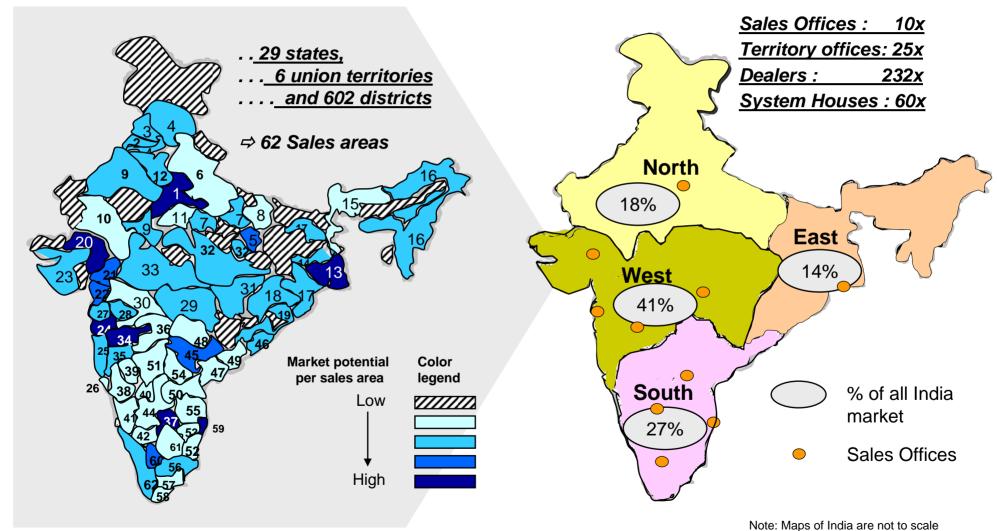




- ...and we did it scientifically
- India divided into 62 logical sales areas
- Served market measured per Sales area per business unit
- Industry sector wise opportunity mapped in on line CRM tool
- Top Down Market estimation based on IEEMA<sup>1)</sup> data, published data
- >10,000 Customers captured in CRM
- Indian market covered through
   ~ 300x sales channels

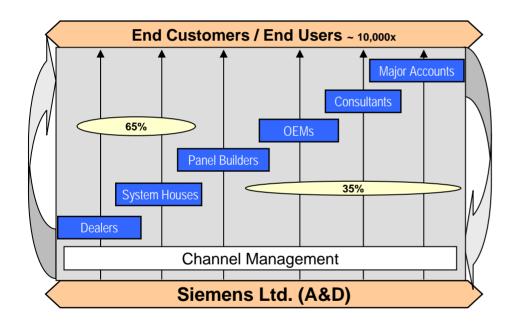
# Based on market information, A&D aligned its sales organization, to improve penetration





# A&D has put in place a rigorous Channel Management program



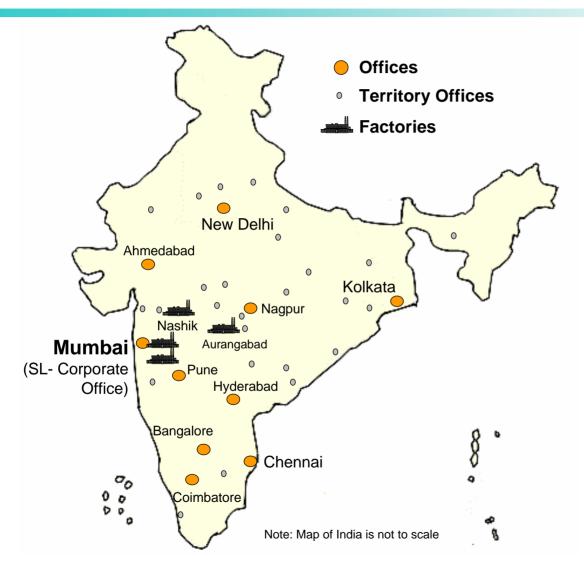


- A&D serves it's customers through various Channels
- Dealers and System Houses account for ~
   65% of total sales
- A&D follows a systematic Channel Management program
  - Performance categorization (ABC) of channels for sales & profitability
  - Sales area wise market extraction measurement
  - Actions to improve channel performance and market penetration
  - Transparent sales policy to reward achievers
  - Training/ support to channels with potential
  - Termination of non-performing channels

A&D Channel Management program in India is a Benchmark process within A&D Worldwide

# A&D is well represented all over India in line with market potential





# Representation of Siemens A&D across India

- 10 Regional Sales Offices and 25 Territory offices
- 232 Dealers
- 60 System Houses
- in 108 cities

- 4 Factories
  - Kalwa: Switchgear (CD), Motors
  - Aurangabad: Switchgear (ET)
  - Nashik: Drives & Automation
     Systems
- 2100 employees
- 9 own Regional Service Centres
- ~60 Authorised Service Centres

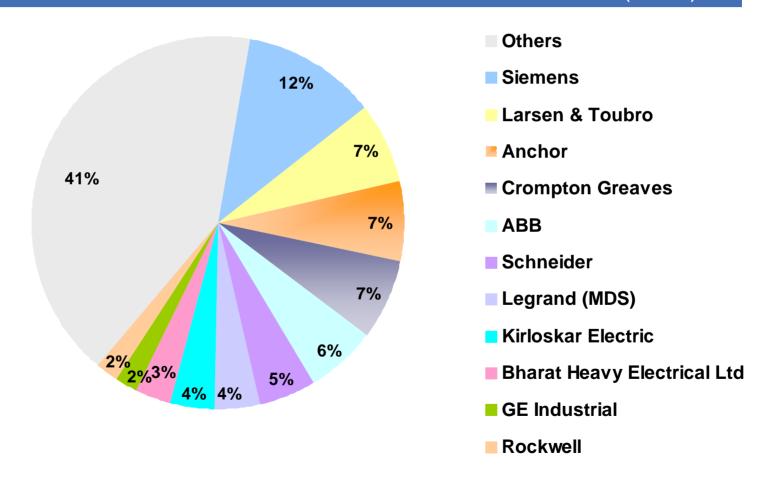
...with a wide network of service centres and business partners to serve the customers

Source: A&D, India

# A&D achieved Market Leadership in India through broad product palette in a fragmented market



# We are No. 1 in the Indian Automation & Drives Market (2004)



# Siemens A&D has a long manufacturing history in India



1960: Switchgear (CD) manufacturing started at Worli

1964: Motor production started at Kalwa

1974: Switchgear (CD) manufacturing started at Kalwa

1987: Electronic equipment manufacture commences at Nashik

1991: Switchgear (ET) Works starts functioning at Aurangabad

1992: Local R&D activities strengthened

2001: Technical Skills Development Centre set up in Kalwa

2005: Traction Factory set up at Kalwa

# A&D offers state of the art technology to Indian industry to boost competitiveness of Indian industry

- First to introduce Air Break Contactors to India in 1960s
- Introduction of Programmable Logic Controllers (PLC) in 1970s
- Pioneered Wind Generator manufacturing in India in 1991
- First to introduce Air Circuit Breaker with microprocessor based releases to India in 1990s

# A&D has 4 Factories in India with a new factory for Traction Motors under construction

SIEMENS

- Kalwa Works: Switchgear
  - Set up in 1974
  - Global source for Definite Purpose Contactors
- Kalwa Works: Motors & Generators
  - Set up in 1964
  - Largest Wind Generator Manufacturer in India
- Nashik Works: Drives & Automation Systems
  - Set up in 1987
  - Global development for Traction Inverters
- Aurangabad Works: Electrical Installation Technology Products
  - Set up in 1991
- Kalwa Traction Motor Works: New factory under construction









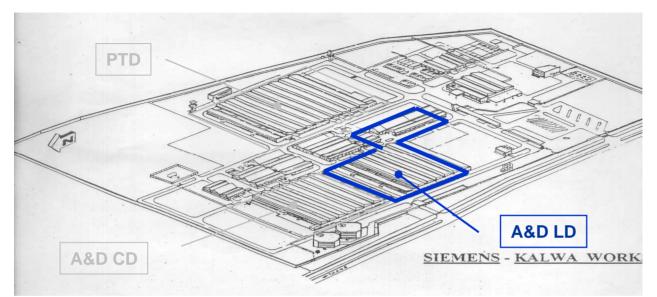
# Our factories have competencies in

- Design
- Engineering
- Production
- Testing
- Training
- Service

~1500 employees in above

# Kalwa Works: Motors & Generators (LD)





Location: Kalwa

Established: 1966

Covering Area: 240,400 sqm

Production Area: 14,500 sqm

### **Motor**



#### **Generator**



### **Main Products:**

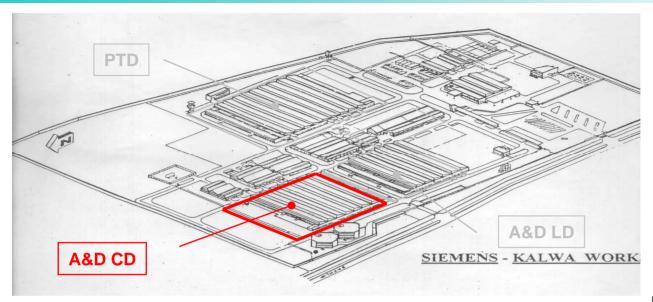
- Induction Motors (0.18kW 1000kW)
   Special Application Motors (Textile, Roller-Table, VFD Application, Eff-1)
   Super Efficient Motors
- Induction Generators (up to 1250kW)

### **New Products:**

- Traction Motors
- High Slip Generators for Wind Energy Application

# Kalwa Works: Switchgear (CD)





Location: Kalwa

Established: 1974

Covering Area: 240,400 sqm

Production Area: 15,800 sqm













### **Main Products:**

- Control Components:
   Power and Auxiliary Contactors,
   Overload Relays, Push Buttons etc.
- Power Distribution products:
   MOD Centre for ACBs, MCCBs etc.

### **New Products:**

- Premium range of Contactors,Premium range of Overload Relays
- Premium range of SDF

# Nashik Works: Drives & Automation Systems





Location: Nashik

Established: 1987

Covering Area: 142,223 sqm

Production Area: 23,146 sqm











### **Main Products:**

- Auxiliary Inverter
- Engineered Systems (Drives & PLCs)
- Railway Signaling Groups

### **New Products:**

Traction Inverters

# Aurangabad Works: Electrical Installation Technology Products





Location: Aurangabad

Established: 1991

Covering Area: 62,758 sqm

Production Area: 17,814 sqm







### **Main Products:**

- Fuses & Fuse Base
- MCBs (3kA)

#### **New Products:**

■ MCBs (10kA)

# 4 Point Program drives sustained growth for A&D



# Customer

 Enhance Customer productivity through TIA and TIP (TIA: Totally Integrated Automation TIP: Totally Integrated Power)

 Sector focus on F&B, Automotive, Infrastructure (Buildings) and Wind Energy

Customer Benefit selling

### **Processes**

- New products to create market differentiation
   (CD, ET, Generators, SD, AS)
- Employee suggestion scheme for continuous improvements
- Kaizen in manufacturing processes

# **Our 4 Point Program**



# People Excellence

- Technical and commercial Training for Employees and Channel Partners
- Management training for select Officers at IIM, Bangalore
- Reward excellence!
   ( Performance in Focus, Test and Reward, Excellence awards)

# Profitable growth

- Grow faster than the market
  - Sales area wise market transparency to guide actions
  - Increase market reach and penetration
  - Focus on Channel management
- Productivity and Benefit selling to improve competitiveness

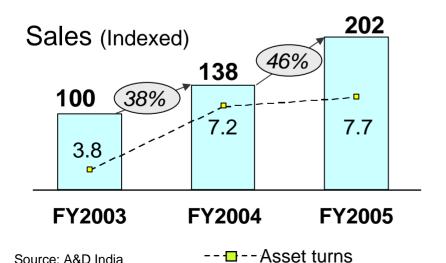
# Our sustained efforts have resulted in doubling sales in India over last two years



## Market (Indexed)



- A&D grows faster than the market
- 24% new customers added, which brought 34% additional sales over last two years



A&D has several success stories behind the growth:

- Successful new Product development
- F&B Sector major orders
- Wind Generator market leadership
- Successful Channel management
- Customer benefit selling
- Automobile sector:
   Toyota and Suzuki major orders
- Innovative solution for Large Drives (High - Low - High application)
- Automation solution for Shaft less Printing machine for Manugraph

# Our Product development and manufacturing capability gave us major export order



#### **3TF Power Contactors**



#### **3TR Power Contactors**



# Major Export Order!

### **Starting situation**

- Existing 3TF range needed up-gradation to stay ahead of competition
- Alternative range from Siemens AG was not cost competitive

# **Local development**



- New Product Line (3TR) developed locally:
  - Enhanced features
  - Costs within market target cost
  - Time to market 50% lower
- Gains in domestic market

### **DP**<sup>1)</sup> Contactors for USA:

## Success begets success!

- Local competence in manufacturing and product development leveraged
- SE&A, USA completely outsourced it's requirement of 3 Pole DP Contactors to India
- Development of new DP contactor series started

1) DP: Definite Purpose

# Asia's Largest Milk Powder Plant automated by Siemens A&D in India



- L&T Niro (Food Division) is setting up 100 TPD Milk Powder Plant at Mother Dairy, Gandhinagar
- Siemens A&D has been entrusted to design, manufacture, supply & commission the entire Process
  Automation system including the Electrics, Drive systems & development of Application Software





### Why Siemens?

- 'One Stop Shop' solution offering integration of Automation System, MCC/PCC and variable frequency drives along with Automatic Power Factor Control (APFC)
- Siemens offered Totally Integrated Automation (TIA)

### Scope

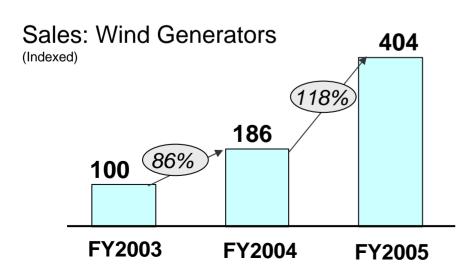
 DCS catering to 2,000 I/O's, AS Interface components, 90 intelligent MCC Feeders based on SIMOCODE, 36 Variable Frequency Drives with APFC

# A&D in India is the market leader in Wind Generator business



# A&D is Market Leader for Wind Generators in India





## Success story: Wind Generators

- India has 4<sup>th</sup> largest installed capacity for Wind Power Worldwide (2005)
   Installed base of Wind Power: 3.6 GW
   Of which, powered by A&D: 2.0 GW
   → A&D has ~60% market share in India
- A&D India's focus on Wind Power since 92/93 has paid rich dividends
- Focus on Customer needs and gearing up to meet their demand led to an exponential business growth
- A&D focused on two major players, Suzlon (6<sup>th</sup> largest OEM in the world) and Vestas
- The products were adapted to suit customer needs.
   (No. of variants: >10)
- India is estimated to have a potential of 45 GW for Wind Power.

# Going forward, A&D plans to maintain double digit growth rate



- A&D is market leader in India in Automation & Drives market
- We are on a high growth path.
   Growth > 40% p.a. for last 2 years
- To sustain the high growth momentum,
   A&D continues to rigorously implement the 4 Point program

#### Customer focus:

- Sector focus initiative (F&B, Automotive, Buildings)
- Propagate TIA and TIP to enhance customer benefit
- New Products to tap new opportunities

#### Processes:

- Develop flexible manufacturing to cater to growing demand
- Continuous improvement through Kaizen
- Finances: Channel Financing to improve Receivables
- People: Training and Reward excellence

# Reconciliations and definitions



"Group profit from Operations" is reconciled to "Income before income taxes" of Operations under "Reconciliation to financial statements" on the table "Segment information." See "Financial Reports/Fiscal 2005, Quarter 4 / Financial Statements" at our Investor Relations website under www.siemens.com

"ROE" (Return on equity) margin for SFS was calculated as SFS' income before income taxes divided by the allocated equity for SFS. Allocated equity for SFS as of September 30, 2005 was €983 million. See also Siemens' Form 20-F at our Investor Relations website under www.siemens.com

The allocated equity for SFS is determined and influenced by the respective credit ratings of the rating agencies and by the expected size and quality of its portfolio of leasing and factoring assets and equity investments and is determined annually. This allocation is designed to cover the risks of the underlying business and is in line with common credit risk management standards in banking. The actual risk profile of the SFS portfolio is monitored and controlled monthly and is evaluated against the allocated equity.

Siemens ties a portion of its executive incentive compensation to achieving economic value added (EVA) targets. EVA measures the profitability of a business (using Group profit for the Operating Groups and income before income taxes for the Financing and Real estate businesses as a base) against the additional cost of capital used to run a business, (using Net capital employed for the Operating Groups and risk-adjusted equity for the Financing and Real estate businesses as a base). A positive EVA means that a business has earned more than its cost of capital, and is therefore defined as value-creating. A negative EVA means that a business is earning less than its cost of capital and is therefore defined as value-destroying. Other organizations that use EVA may define and calculate EVA differently.

A reconciliation of EVA may be found on our Investor Relations website under <a href="www.siemens.com">www.siemens.com</a>

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