

# Productive Automation Toolbox

erlin Gerin  
quare D  
lemecanique



A new approach to Automation



*Building a New Electric World*



# **I. Activity and strategy**

**II. Key points**

**III. Preferred Implementations**

**IV. New products**

**V. Conclusion**

**VI. Appendices**



# I. Automation Business

**End Users / System Integrators**

**OEM Machine Builders**

**OEM Panel Builders**

**Distributors**



**Basic Products**

**Generic offer**



**Automation  
function Packages**



**Machine  
applications**

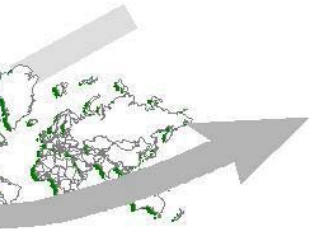
**Application offer**



**Process &  
Building**



# I. Automation, a growth vehicle for Schneider Electric



## ■ Automation is CORE for performance and productivity

- Automation is a way to develop durable relationship and intimacy with customer
- Automation is a profitable business
- Automation and Energy-efficiency have strong links

## ■ Strengths

- A dedicated organisation and well balanced international presence
- Strategic acquisitions and Strong leadership
- Strategic investments meeting our customers needs

## ■ Opportunities

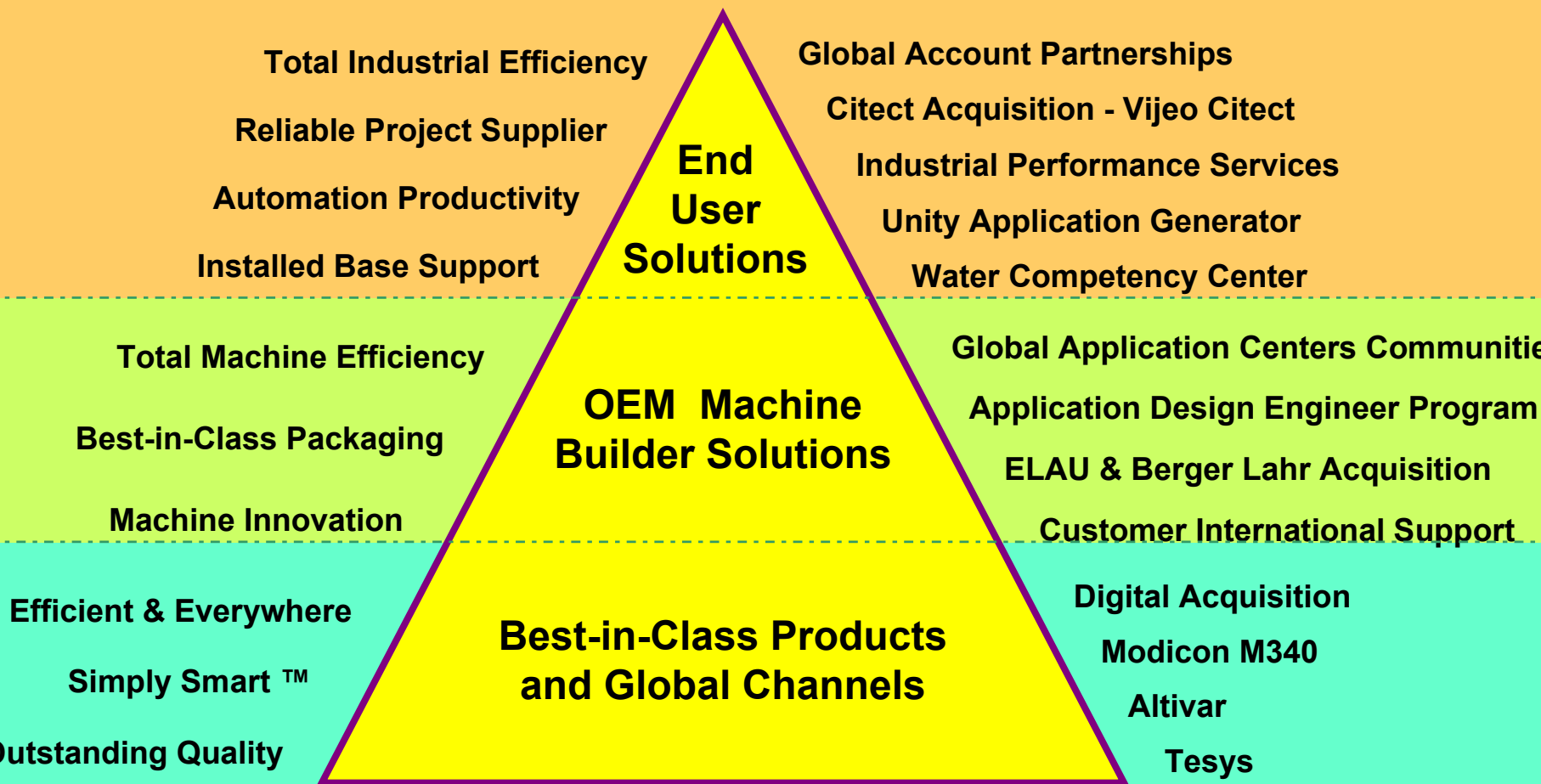
- Market growth in Asia
- Concentrate on solutions & Software integration
- Further development of Motion applications



# I. Our Automation Strategy

## Customers Expectations

## Core Execution Tactics





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## II. A world leader in Automation and Machine Control

- #1 in Push Buttons
- #1 in Limit switches, pressure switches and ultrasonic sensors
- #1 in Industrial Ethernet (Modbus/TCP)
- #3 in Programmable Logic Controllers (PLC)

- Trends

- Products with more and more embedded intelligence
- Software designed to improve productivity during development
- Safer machines and processes
- Easier communication between factory and business communication network





## II. A clear world leader in Motor Control

- #1 worldwide in standardised products
- Ambitions
  - A consistent, competitive, quality range
  - "Simply smart" solutions





## II. Motion & Drives (motion control)

■ #1 worldwide



■ Trends

- More than 15 % growth in 2006
- Huge potential through energy efficiency
- Easy to use and integrate
- International standards and norms
- Expertise in applications and solutions
- World leader in Packaging





## II. Human-Machine Interface (HMI) / Supervision

- #1 worldwide (Digital-ProFace / Schneider Electric)
  - #1 in Japan
- 2006 acquisition of Citect
- Trends
  - A 2-brand strategy to meet all customer needs
  - An innovative supervision range





## II. Schneider Electric strengthens its position in Automation in 2006 (1/2)

- **Automation Business Unit: an essential step in the development of Schneider Electric**
  - Automation is one of the **7 Business Units** created by Jean-Pascal Tricoire in June 2006
  - Led by Michel Crochon, it is dedicated to the industrial process market and Automation business customers
  
- **Automation Business Unit focuses on two areas**
  - **"Customers"**
    - > Original Equipment Manufacturers
    - > End users
    - > Systems integrators
  - **and "Products"** which brings together the Schneider Electric Automation range



## II. Schneider Electric strengthens its position in Automation in 2006 (2/2)

- **Many Acquisitions already made ....**
  - **Berger Lahr, Elau, Elin, ...**
  - **Schneider Electric's acquisition of Digital Electronics** clearly marked the beginning of a leadership strategy in visualisation for automation (terminals, software, etc.)
  
- **Acquisition of CITECT in 2006**
  - Now, Schneider Electric benefits from Citect's undisputed leadership in the SCADA (Supervisory Control And Data Acquisition) software market and its recent advances in MES (Manufacturing Execution Systems)
  
- **With its global coverage, Schneider Electric** can now offer complete industrial automation solutions through a worldwide partner network



## II. RoHS\*: well ahead

- **Our products and equipment are little or only indirectly affected**

Only 5% of our products are affected by the regulation

- **Corporate citizenship: Schneider Electric goes far beyond its strict legal obligations**

By 2008, hazardous substances will be eliminated from ALL low voltage products

[www.rohs.schneider-electric.com](http://www.rohs.schneider-electric.com)

- **Committed environmental policy**

For more than 5 years, Schneider Electric has had an eco-design policy for all its new product development

\* *Restriction of Hazardous Substances*





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## III. Deep focus on 6 applications



**Hoisting**



**HVAC**



**Material Handling**



**Packaging**



**Lifts**



**Textile**



# III. Preferred implementations: a new direction with customer-oriented solutions

■ **Schneider Electric offers typical architectures** rather than fully integrated solutions:

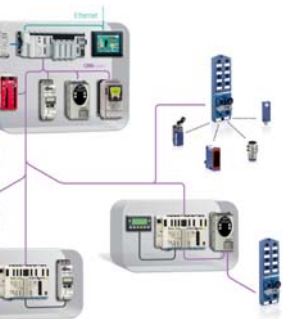
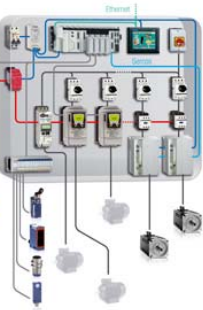
- flexible for adaptation to customer needs
- open to specific requirements of the business

■ **Preferred implementations**

- 11 generic architectures, tested, validated and documented, and designed to provide customized solutions
- 2 categories
  - > compact architectures
  - > distributed architectures

■ **Targeted customers**

Original Equipment Manufacturers and end users: Elevators, Air conditioning and ventilation, Material Handling, Food & Beverage, e





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## IV. Innovation in new products

- Modicon M340 PLC & Software
  - Very compact PLC
  - “Plug and Play” with other Schneider Electric products
  - Same Software programming tool for all PLC platforms
- UAG (Unity Application Generator) Software
  - allowing our customers to save time and cost in building their Automatisation solution
- Vijeo Citect SCADA supervisory Software
- ConneXview an industrial Ethernet diagnostic software
  - ease of use, ease of diagnose
- Tesys T  
Motor Management System with all communication protocols
- Tesys GV3  
Thermal-magnetic and magnetic circuit breakers up to 30 kW with easy connection terminal ... Everlink®





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## V. Industrial Automation: at the heart of Schneider Electric's strategy

- **Creation of a Division dedicated to automation and organized around its Customers**
  - Automation Business Unit
- **A targeted acquisition policy**
- **A clear world leader** in Motor control, Motion & Drive, Automation & Machine control, HMI
- **A range of adaptable solutions:** Preferred Implementations
- **Constant innovation:** Modicon M340, UAG, Vijeo CITECT, ConneXview, Tesys GV3, Tesys T, etc



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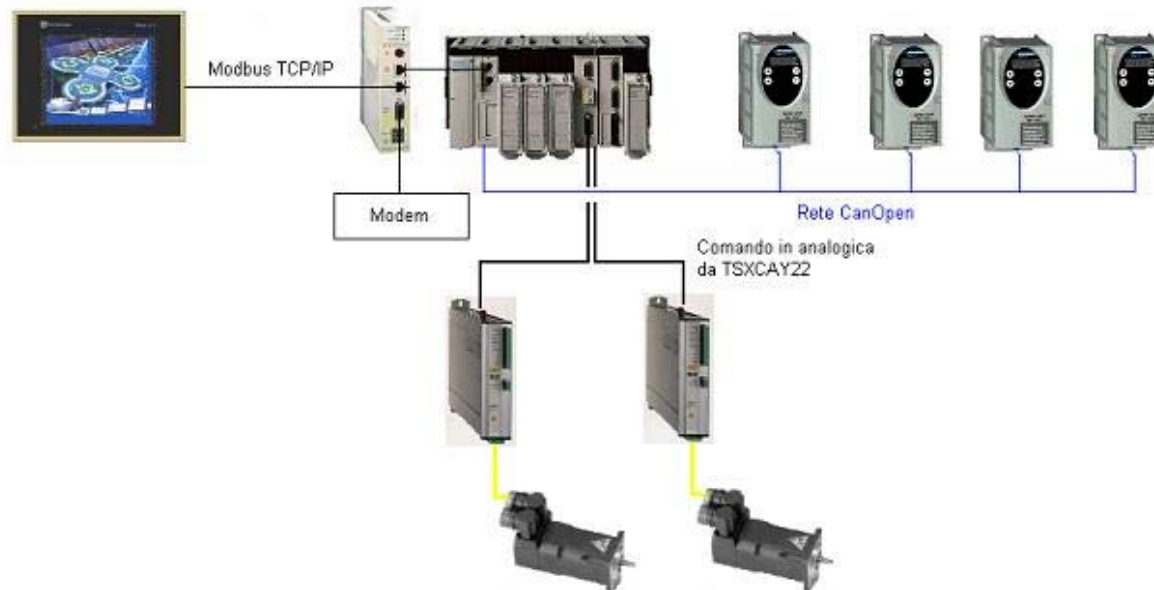


# VI. Example of Preferred Implementation CANopen distributed architecture (1/2)

## ■ Woodworking

Continuous gluing process for 2-3 layer laminated flooring.  
Machine : Kontact-k 450

## ■ Country: Italy





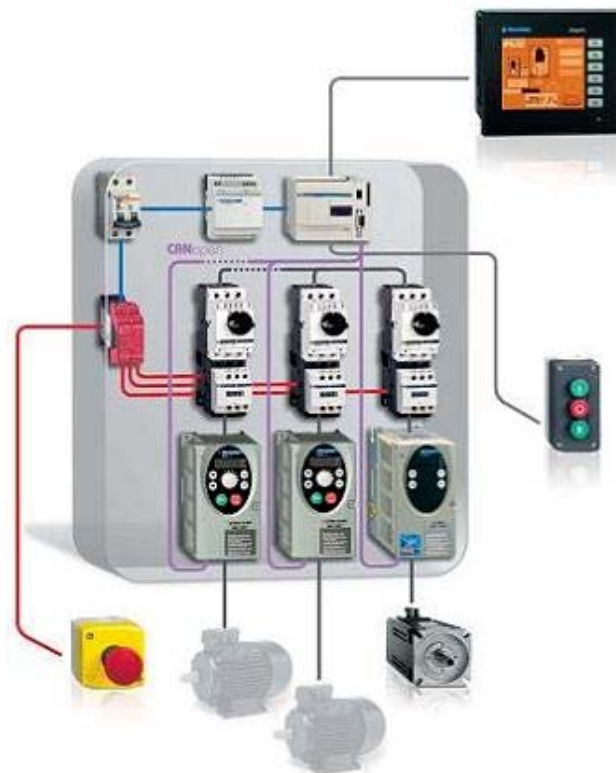
## VI. Example of Preferred Implementation CANopen distributed architecture (2/2)

- **CANopen: efficiency and freedom**
  - A wide, industry standard range
  - **Simpler, lower-cost** motion control
  - **Simpler communication** between PLCs and variable speed drives, giving improved motion control **at no extra cost.**
  
- High-performance software tools: **UnityPro, Vijeo designer, Powersuite**
  
- **Easy machine connection** via Ethernet TPC/IP



## VI. Example of Preferred Implementation Compact & versatile architecture (1/2)

- Filter systems for swimming pools
- Country: Netherlands





## VI. Example of Preferred Implementation

### Compact & versatile architecture (2/2)

- **Quieter** for users due to the integral noise reduction function of the **Altivar 31**  
Three Altivar 31 are located on-site (remote I/O) in an IP55 cabinet
- **Less heat release and more compact.**  
Tesy model U is smaller and can therefore be installed in a smaller cabinet
- **No need for conditioned air in the cabinet**
- **The customer saves by**
  - Using the CANopen bus integrated into the variator instead of buying 3 Profibus cards
  - Using CANopen components rather than Profibus DP components



## VI. New products (1/3)

### ■ Modicon M340

- Extremely **compact**, the new Modicon M340 PLC offers the **flexibility and services of a top-of-the-range PLC**
- Its unique feature is its ability to Plug&Play with other Telemecanique equipment
- The high capacity of the Unity range simplifies and reduces programming time



### ■ UAG (Unity Application Generator)

- Unity Application Generator is an advanced design and generation software tool that integrates multiple industrial PLCs and HMI/SCADA systems to provide an automation solution that is comparable with numeric Control-Command systems. UAG ensures consistency in the application through use of automatic object and application generation
  - > Time and cost savings
  - > Improved quality and reduced risk on commissioning
  - > Ability to capture and re-use your best practices





## VI. New products (2/3)

### ■ Vijeo Citect SCADA supervisory software

- For control engineers, production managers and industrial automation systems integrators who are looking for powerful performance and ease of configuration
- Provides multiple CPU support, multi-project Find & Replace and integrated Web XML web service



### ■ ConneXview

**Powerful, user-friendly, industrial Ethernet diagnostic software**

- Visualize the entire network on a single screen
- Edit and detect industrial Ethernet network problems





## VI. New products (3/3)

### ■ Tesys GV3 - Thermal-magnetic and magnetic circuit breakers up to 30 kW

- High breaking capacity, robust
- Save time, simple to install
- Everlink® power terminals give ,
  - Highly reliable connection over time
  - Constant tightening force on cables
  - Strong, safe, long-lasting connections in the most demanding environments



### ■ Tesys T - Motor Management System

- Guards against all motor malfunctions : overload, current peak, excessive consumption, etc
- Untimely stopping of a process or manufacturing relating to a motor is anticipated
- Open to all communication protocols (Modbus, CANOpen, etc.)

