



SMC

International Training

"Best practice in training people in field of automation"

ACB HR CONFERENCE

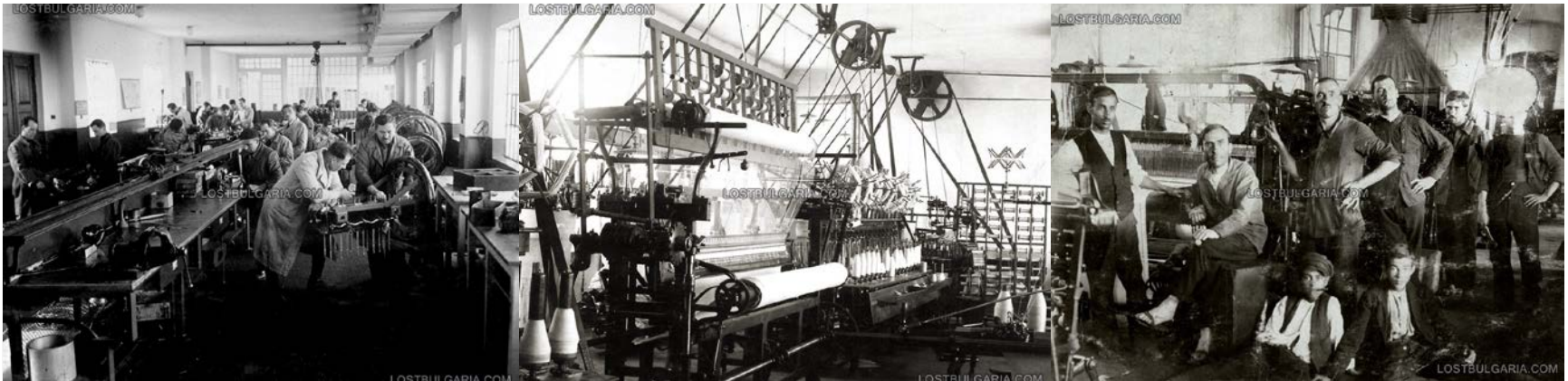
30.09-01.10.2014

Hilton Hotel, Sofia.





What is happening in Industry?



Evolution

What is happening in Industry?



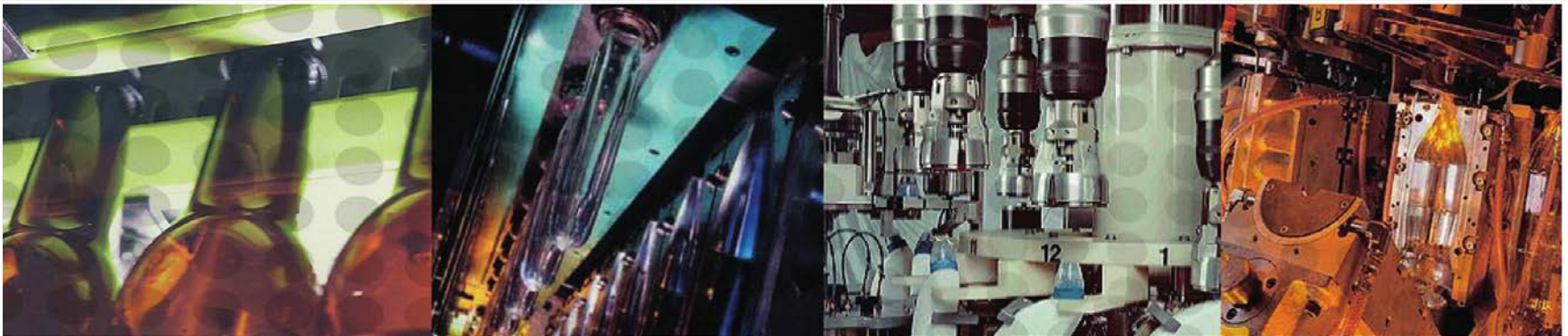
Evolution

What is happening in Industry?



Innovation

What is happening in Industry?



Innovation



What is happening in Industry?



Flexibility

What is happening in Industry?



Flexibility

What is happening in Industry?



Automation of the processes

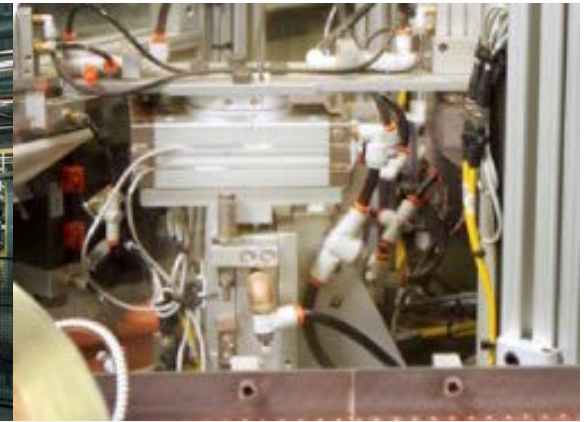
What is happening in Industry?



Efficiency

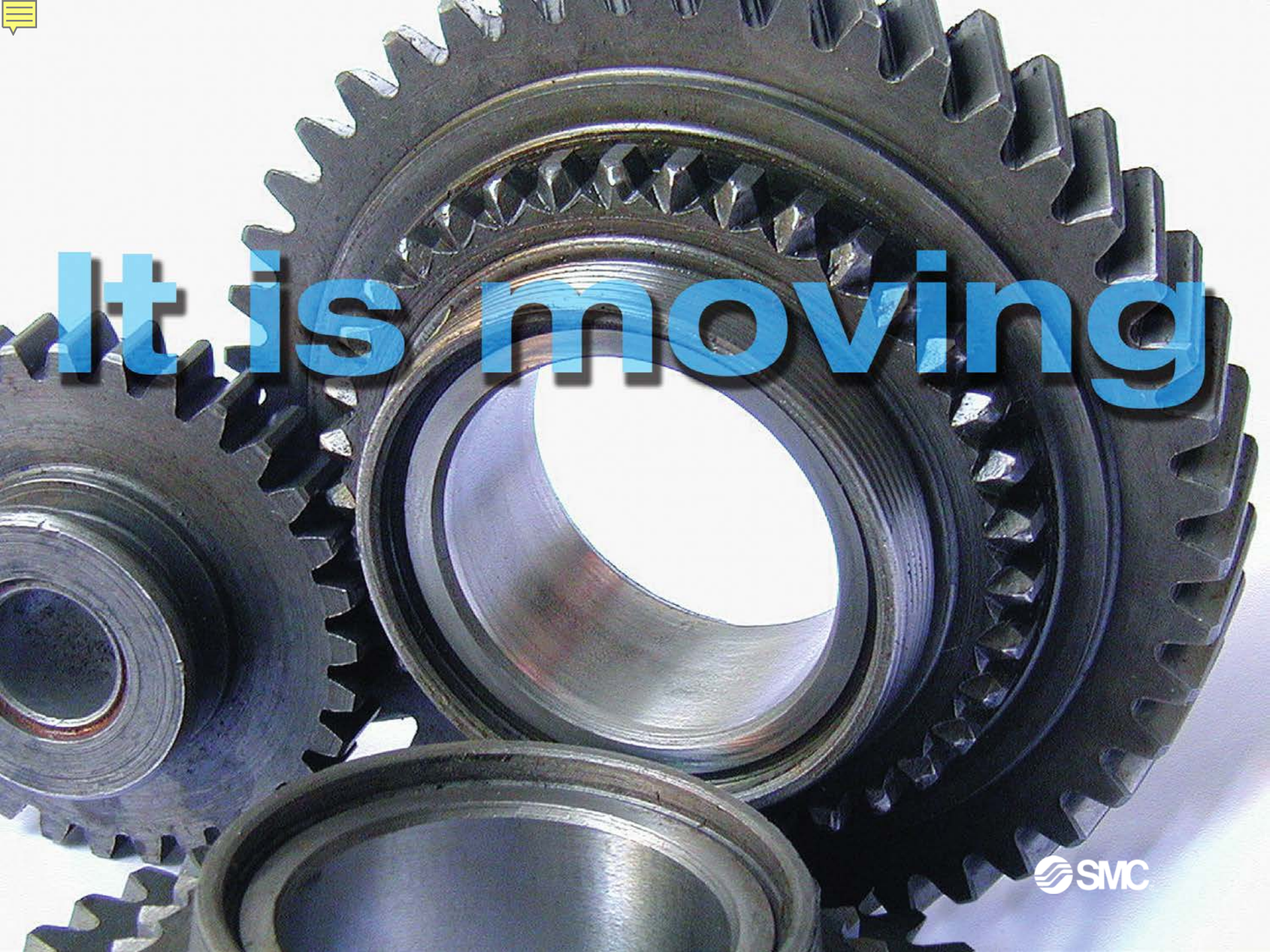


Productivity



Quality

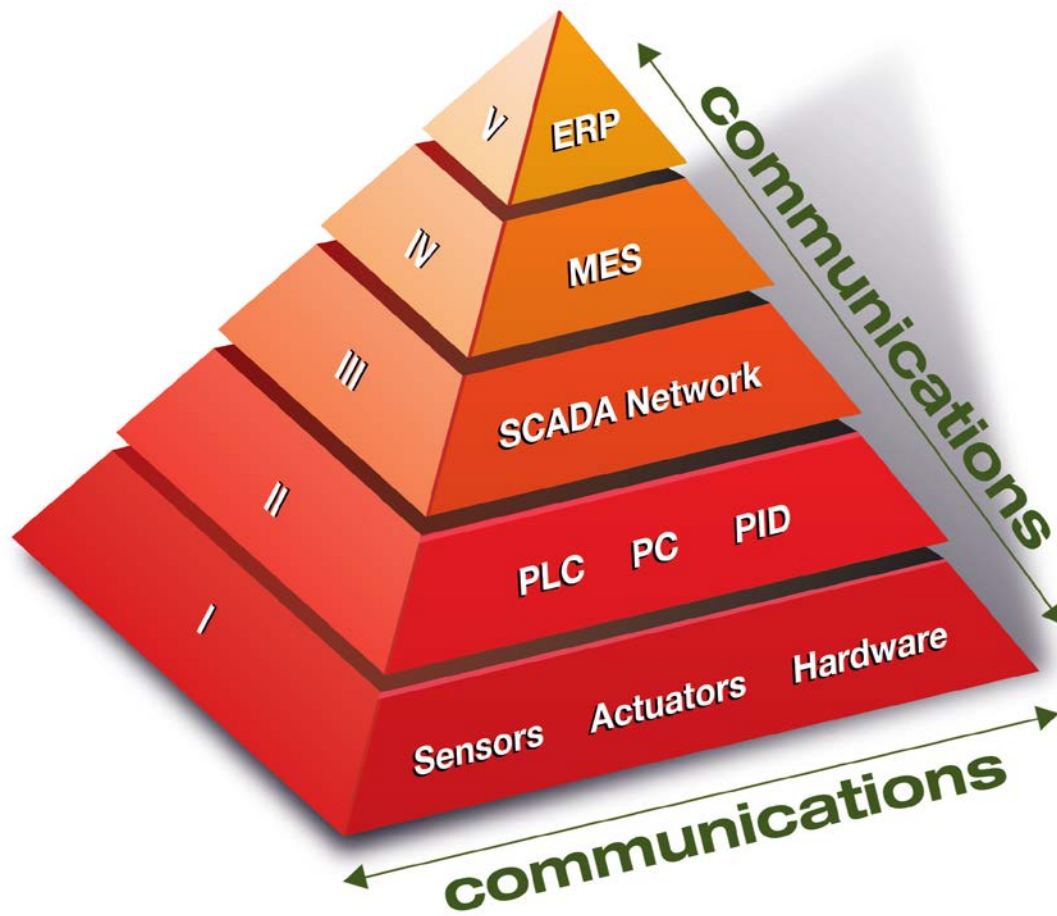
Automation of the processes



It is moving

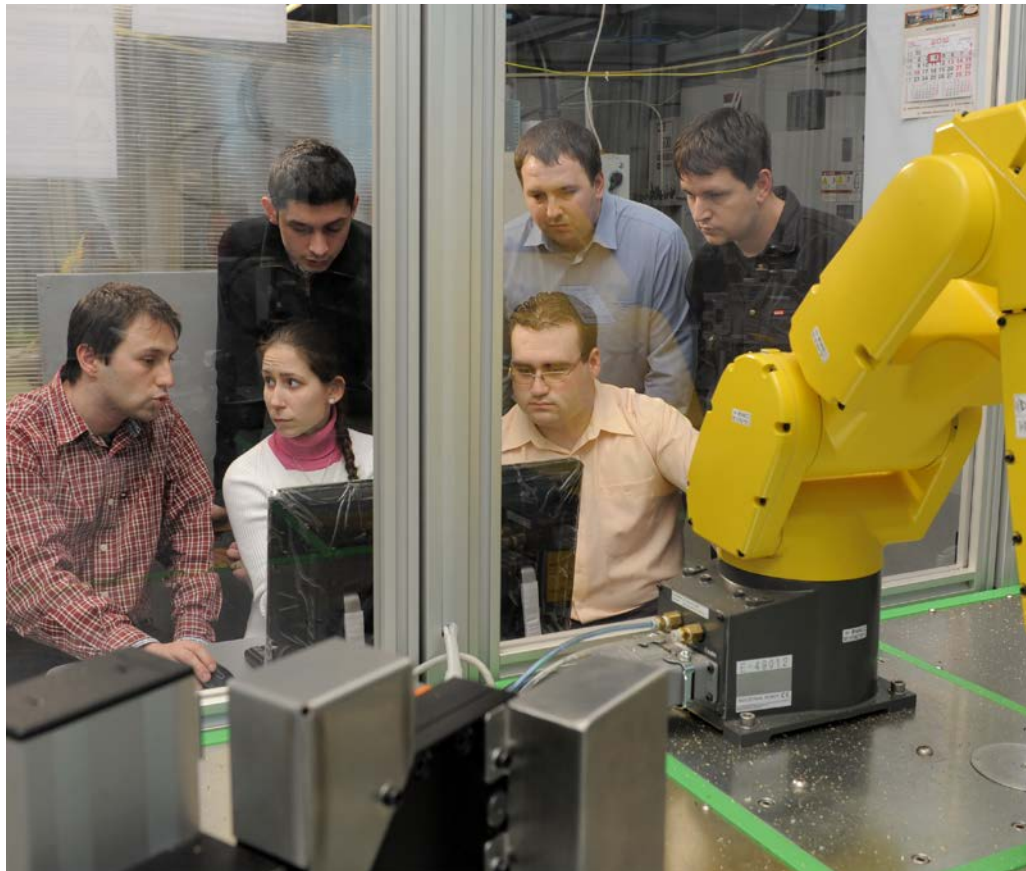


Integration and Interaction of Technologies



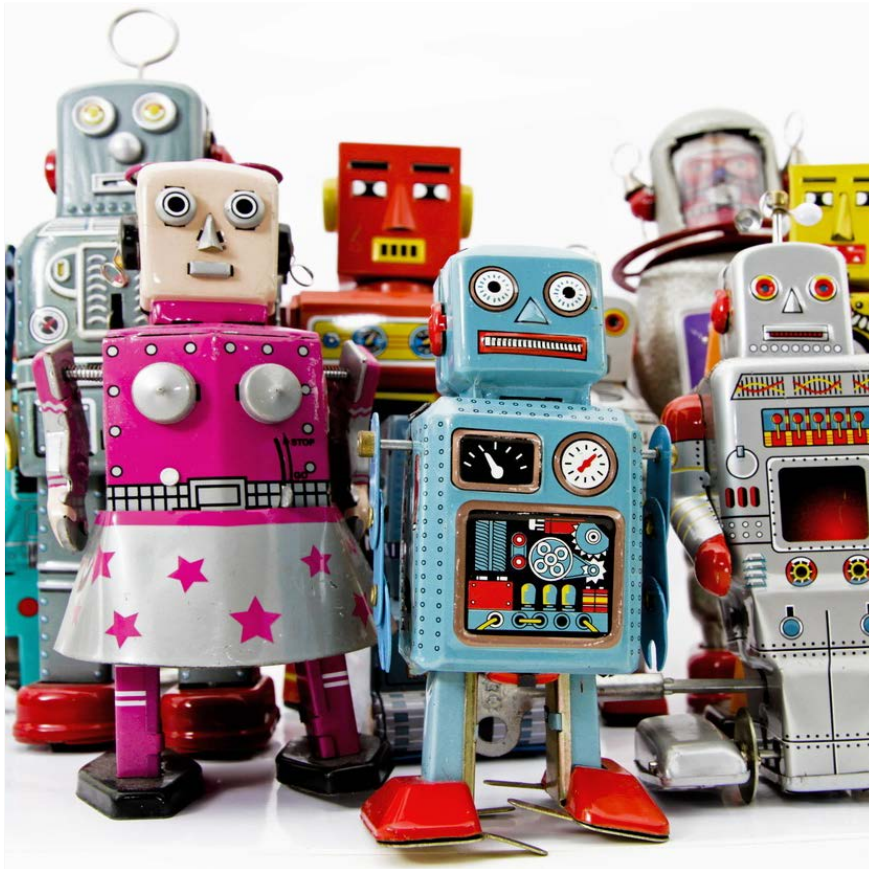
- ✱ **Management level: Enterprise Resource Planning**
- ✱ **Planning level: Manufacturing Execution System**
- ✱ **Supervisory level: Supervisory Control and Data Acquisition**
- ✱ **Control level: logical devices**
- ✱ **Field level: physical devices**

The Modern Industry Needs Variety of Skills



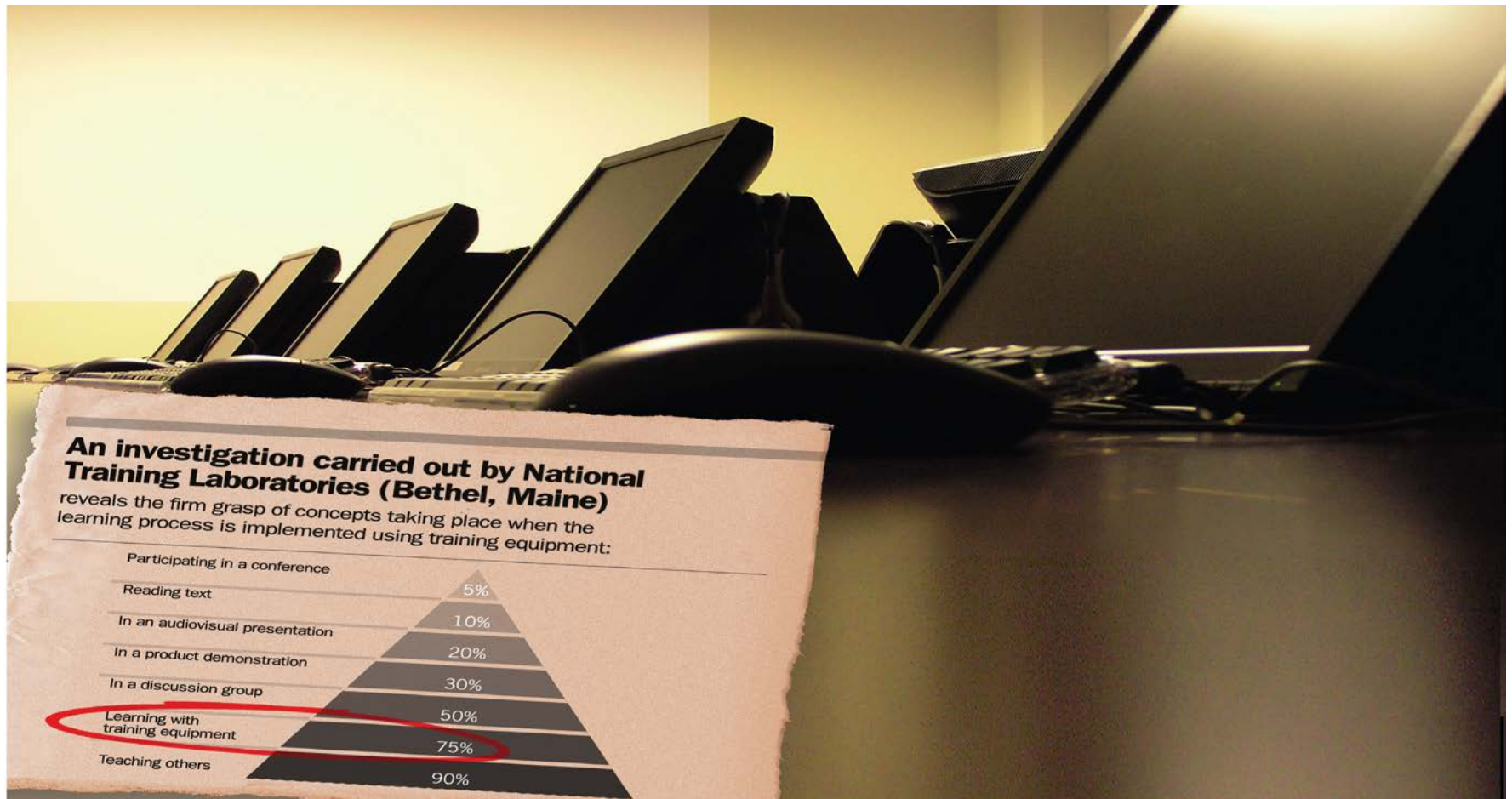
- Analyze
- Design
- Teamwork
- Installation & assembly
- Diagnosis and repair of the equipment
- Interpretation of documentation
- Programming of controllers
- Decision-taking
- Coordination of processes for preventive maintenance
- Monitoring of communication networks
- Interaction with graphic interfaces

The Modern Industry is Based on Interaction of Technologies



- Pneumatics & Electro-pneumatics
- Hydraulics & Electro-hydraulics
- Electrical engineering
- Electronics
- Sensors
- PLCs
- Robotics
- Industrial communications
- Identification systems
- HMI (Human-machine interface)
- Remote control

How to Educate Technical Personnel



SMC International Training



Training solutions, adapted to the industry demands
Range overview

PNEUMATE-200 Your mate in pneumatics



Small-sized, light and portable training equipment that includes extensive features which provide an enjoyable and rapid way of acquiring the fundamental concepts of pneumatics and electro-pneumatics.

Ready for use any time and anywhere.

In 5 Variations.



PNEUTRAINER-200 Pneumatics-Electropneumatics



A fully modular system designed for the development of professional skills related to pneumatics and electro-pneumatics.

Its flexibility makes the PNEUTRAINER-200 equipment adaptable to all types of client requirements and needs.

It also makes a staggered investment over time possible.

6 standard compositions



VAC-200 Vacuum technology



VAC-200 complements the PNEUTRAINER-200 (Pneumatics and electro-pneumatics trainer) family, including the most widely used vacuum components in industry.



HYDROTRAINER-200 Hydraulics-Electrohydraulics



HYDROTRAINER-200 is designed in various standard layouts which also enables personalization according to the requirements of each user.

- Hydraulics: Level I
- Hydraulics: Level II
- Electro-hydraulics
- Proportional hydraulics: Level I
- Applications in proportional hydraulics: Level II



AUTOMATE-200 Enter the world of automation



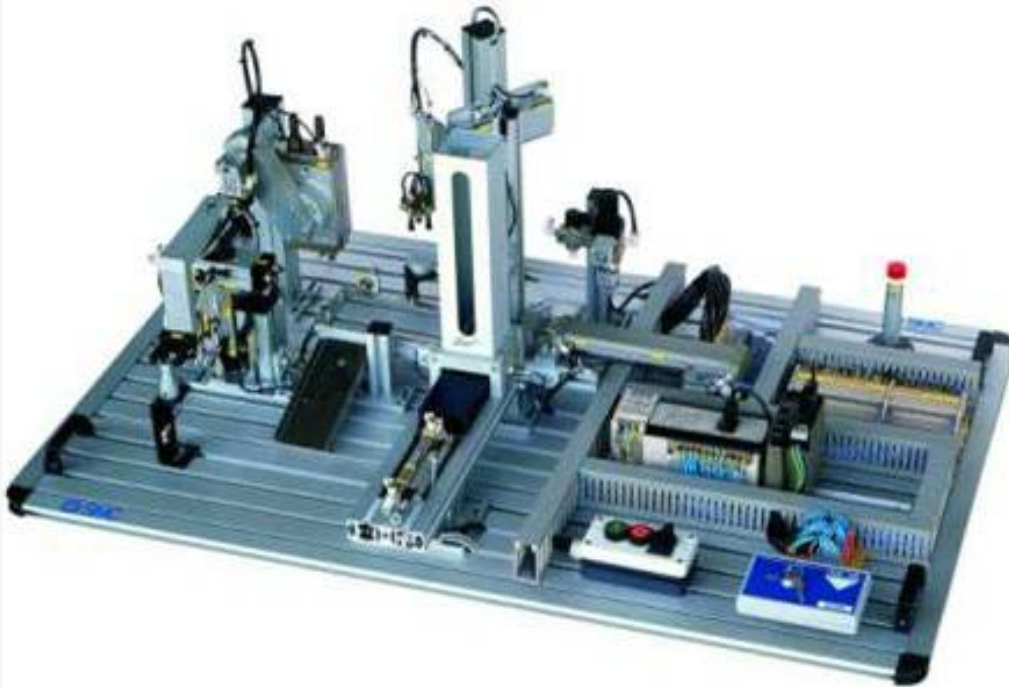
You will be able to study the basic principles of automation easily and intuitively.

It includes a multimedia DVD with guided lessons and activities

It can be controlled manually or automatically using a PLC



MAP-200 Handling systems



The study of the handling techniques in a series of training equipment which reproduces the most common handling applications in an industrial environment using electro-pneumatic technology.

The most complex system represent small “assembly minicell”.



IPC-200 Industrial Process Control



IPC-200 simulates a drink production and bottling plant and includes the industrial technologies used in companies with an industrial process, such as pneumatics, electro-pneumatics, PLCs, sensors, fluid control, electric actuators, etc.



MAS-200 Modular assembly system



MAS-200 is a modular training system which simulates a real industrial assembly process, incorporating the technologies required by today's automated industry.

The complete system consists of five stations. The various parts of the final assembled product (base, bearing, shaft and lid) are fed into four of the stations.



FMS-200 Flexible integrated assembling systems



The FMS-200 system is the ideal answer to integral training in industrial automation. It is fully modular and flexible equipment and in keeping with industrial reality. The technologies included in its different assembly stations, as well as the assembly process with several variants, allow the user to develop the professional skills required by today's automated industry.



FMS-200 Flexible integrated assembling systems



In this FMS-200 version, each of the stations includes an individual transfer section so that it is not necessary to acquire the linear transfer system.

A multitude of different combinations of stations can be developed, creating different layouts with the possibility of joining stations at 90° or 180°.



HAS-200 Highly Automated System



The HAS-200 system has been devised based on the training requirements in industries with a high level of automation. Its versatility and attractive design allow the reproduction (emulation) of the operation of a real factory, thus allowing the study of different scenarios.



ENS-200 Energy Saving Trainer



Saving energy means saving money and taking care of the environment at the same time.

With ENS-200 you can show your technicians how to detect possible excess consumption and put forward preventive actions



MAP-206 Electrical Handling System



This is an efficient way of becoming familiar with the electric actuators

Electric actuators are increasingly important in industry.

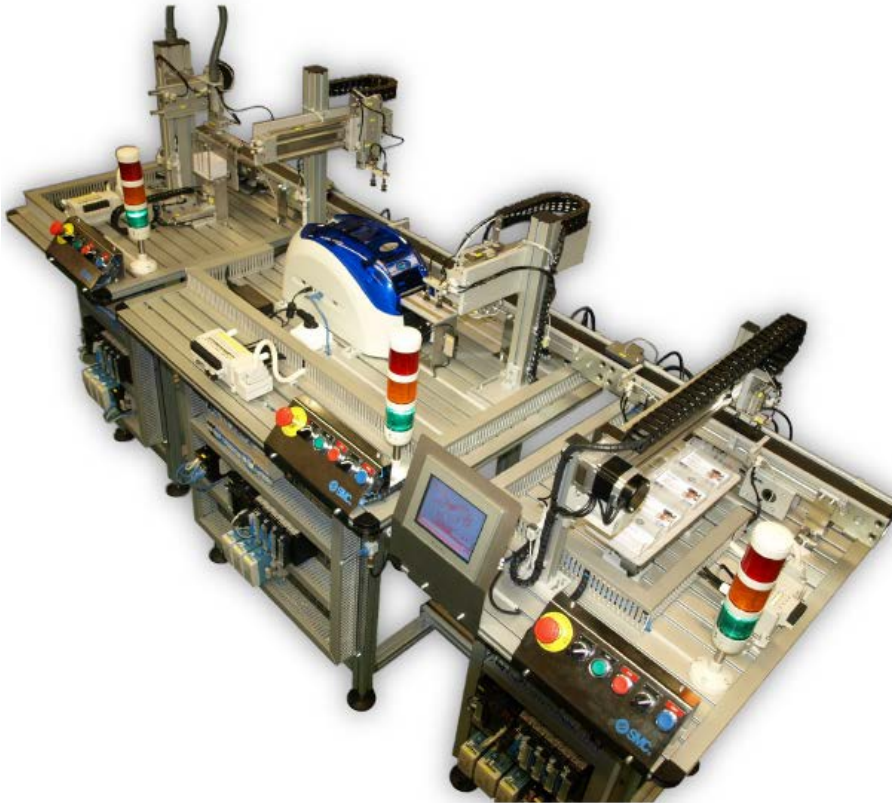
It is comprised of components which are widely used in industry.

It has three electric axes, two of which are servo-controlled.

It includes an HMI, with built-in PLC



CPS-200 Cards Printing System



Smart cards are widely used for access control and identification.

It is possible to have fun learning how to program a complete automated production system.

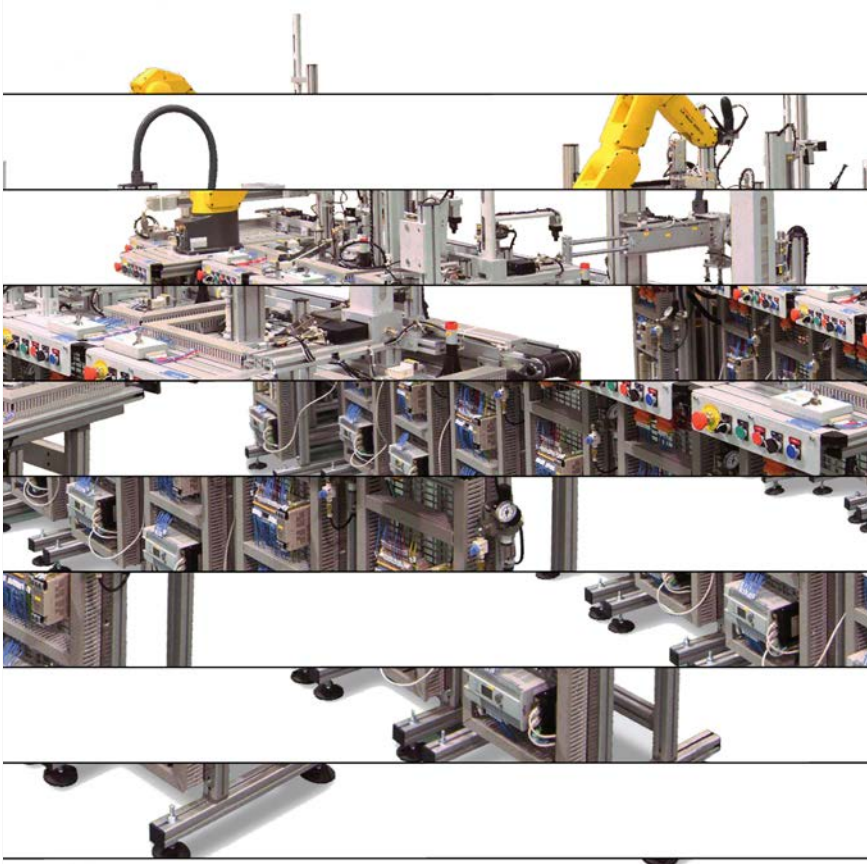
It includes **RFID** read/write technology based on the examples of smart cards.

The resulting product can be used by the user as an identification card.

It includes an HMI (Human Machine Interface) for controlling the process.



FAS-200 Flexible Assembly System



FAS-200 features more stations within the same space which means more students will be able to work at the same time.

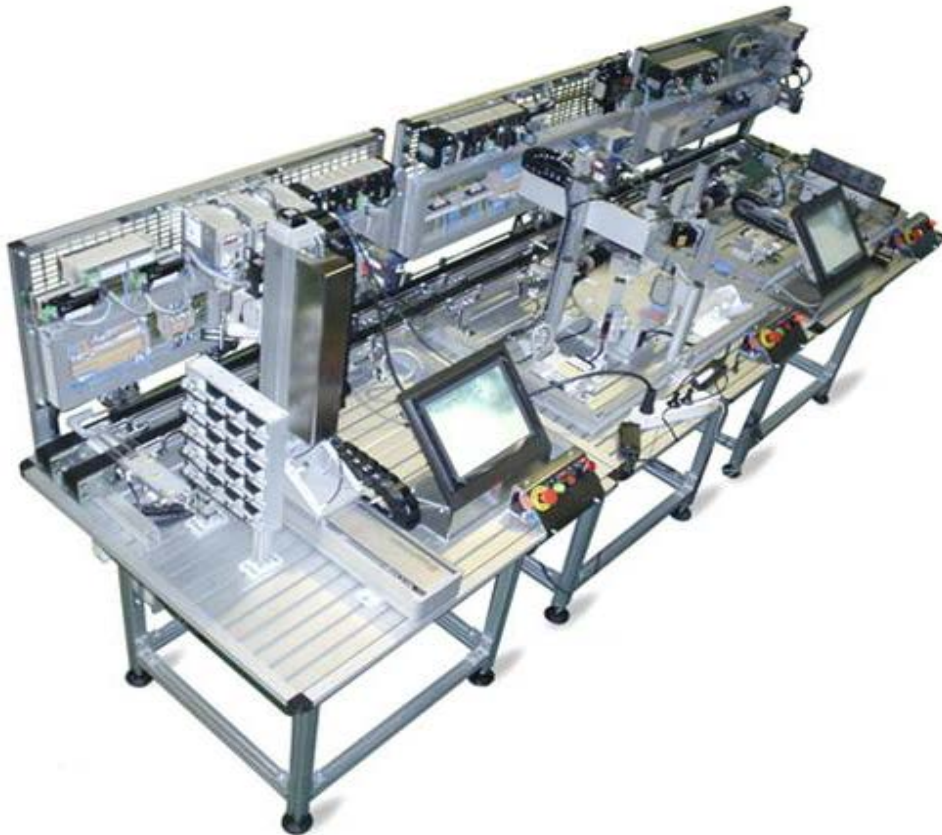
It has several technologies used in automation processes in the one trainer only.

It includes a troubleshooting simulation box per station.

Option of including PLCs, robots and industrial communications by different manufacturers



ITS-200 Innovative Training System



It includes cutting-edge sensorics.

It includes different electric actuators:

- AC motor with frequency converter.
- DC motor.
- Servo-controlled axes.

The system operates continuously without having to add raw materials.

Remote control option.

Different PLC options and communications



AUTOSIM-200



AUTOSIM-200 enables simulating models in 2D and 3D which are pre-set by the user or developed by SMC International Training.

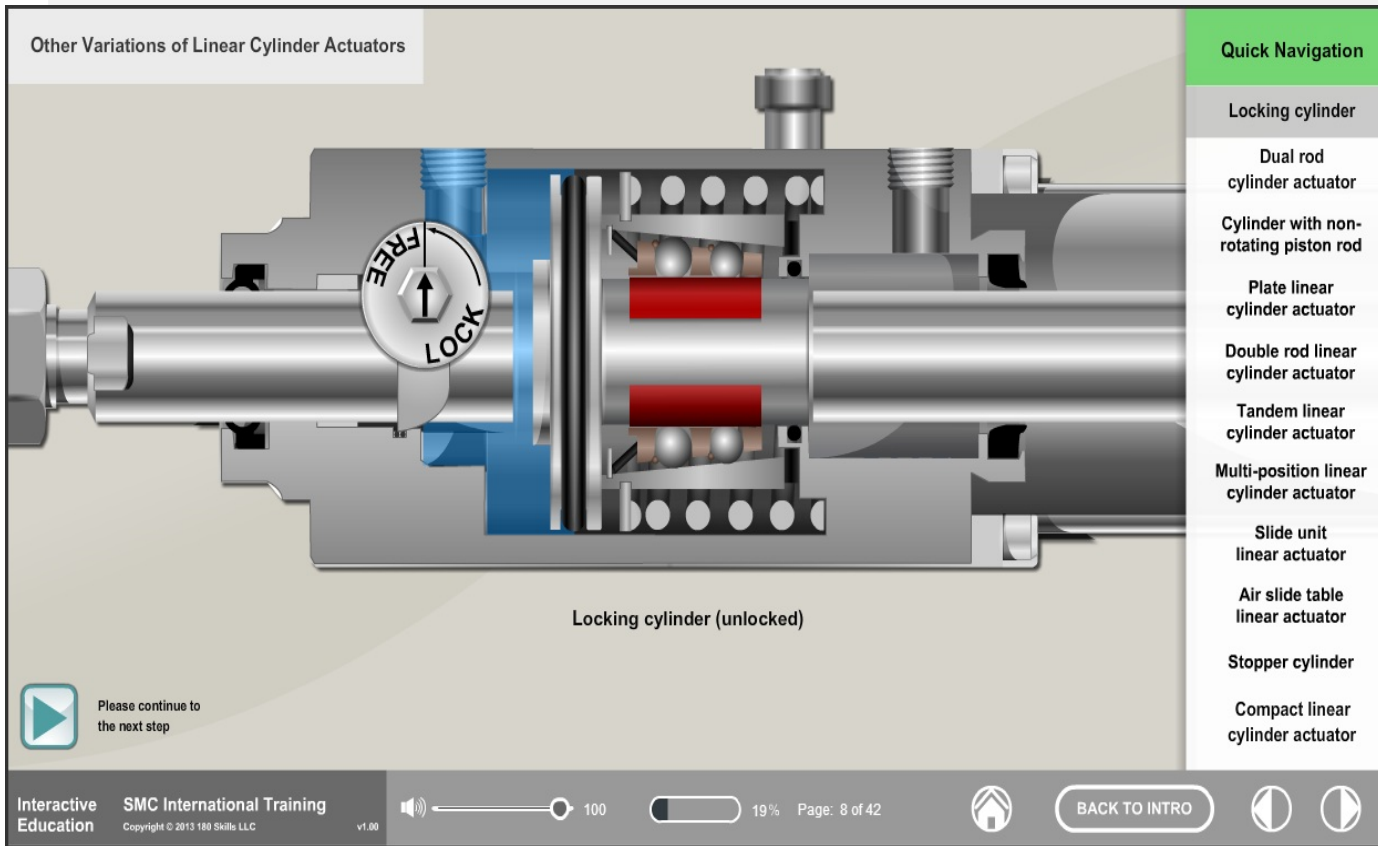
It includes a virtual PLC for controlling the circuits and models to be simulated.

AUTOSIM-200 enables communication with real SMC International Training equipment.

AUTOSIM-200 ADVANCED enables transferring the program used in the simulation to a real PLC

E-LEARNING

Other Variations of Linear Cylinder Actuators



Locking cylinder (unlocked)

Please continue to the next step

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 - Dual rod cylinder actuator
 - Cylinder with non-rotating piston rod
 - Plate linear cylinder actuator
 - Double rod linear cylinder actuator
 - Tandem linear cylinder actuator
 - Multi-position linear cylinder actuator
- Slide unit linear actuator
- Air slide table linear actuator
- Stopper cylinder
- Compact linear cylinder actuator

16 courses
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covering the
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automation.

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Why Training Equipment from SMC International Training



With a global market share of 32% we are worldwide leading experts in pneumatics.

We are a strong partner to the industry and develop state-of-the-art automation solutions

- **customized solutions**
- **innovative products**
- **tailor-made services**

Why Training Equipment from SMC International Training

Forbes

The World's Most
Innovative Companies

		Enterprise value (billion \$)	Innovation Premium
1	Salesforce.com	21	75.1
2	Amazon.com	93	58.9
5	Apple	303	48.2
7	Google	138	44.9
49	SMC	11	25.6
63	SAP	69	22.1
73	Johnson Control	32	21.9
86	Microsoft	186	18.0
93	ABB	49	16.7

SMC Top in Innovation

SMC ranks among the top 50 of Forbes' most innovative companies - exclusively representing the pneumatics industry.

Our Portfolio

Variety and Innovation



For the optimum solution

we choose from a broad portfolio of innovative components consisting of more than 13,000 basic products and 600,000 variations or develop and engineer totally new customized solutions to meet your individual needs.

SMC Bulgaria – we are here to serve you



15 employee

2 more sales offices – Plovdiv and Shumen

150 m² local stock, more than 1500 positions

Show room and training room



Thank you for your attention!