



FESTO

**Demand-
driven
Education
and Training
for
Employability
and
Productivity
in Agro
Industries**

**ESCAP/OHRL
LS Asia-
Pacific
Regional
Meeting**

The Project History

**FESTO**

A close cooperation with the target of:

Agro Industries
a competency based qualification
program in Automation Technology and
Process Control for developing
countries

Festo – The Automation Company



Festo Industry:

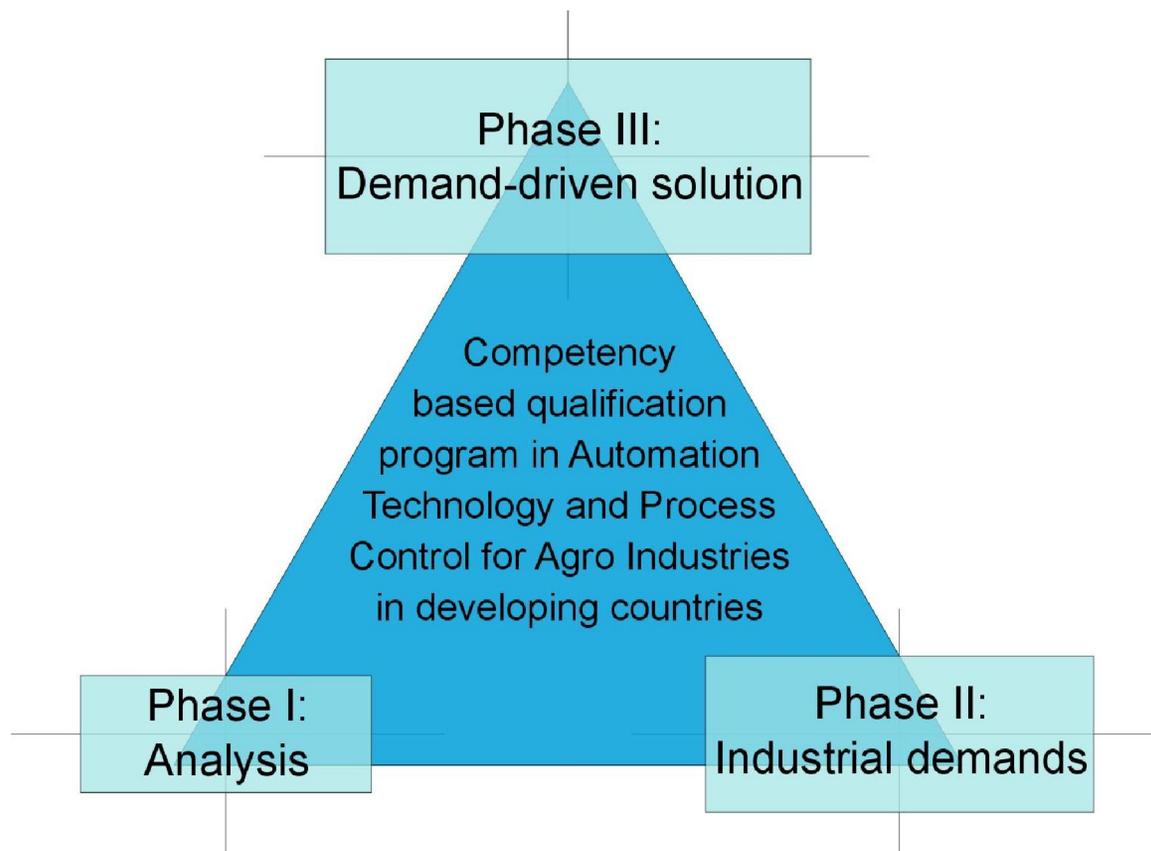
Festo is offering components and solutions in Factory and Process Automation since 75 years.

- Represented in 176 countries
- Over 15,700 employees
- R&D budget is 9.5 % of the turn-over
- Training investment 1.5% of the turn-over

Festo Didactic:

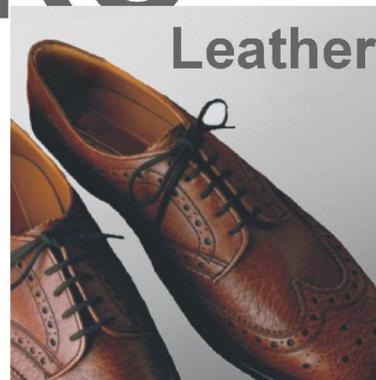
Offering 40 years of experience in complete solutions for Education and Training in the entire area of Automation Technology from the Basic Technologies of Mechatronics until Fully Automated Production Systems.

The Project Strategy



Definition of a short-term qualification strategy based on three phases

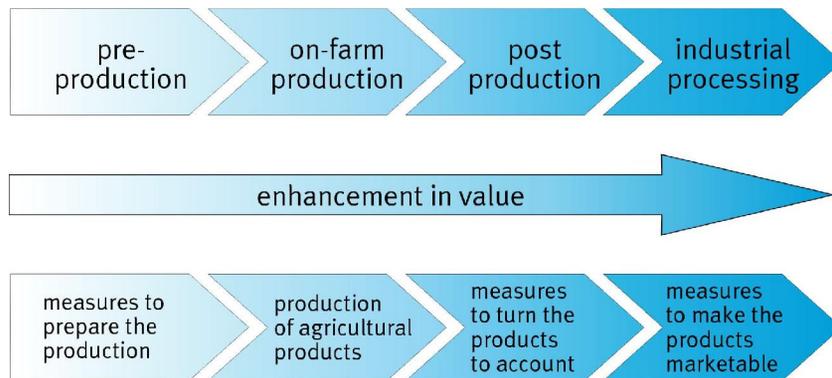
Phase I - Analysis



AGRO

Agro Industries representing the industrialized production of half-finished or finished products based on agricultural or horticultural raw material. This raw material is able to grow and to reproduce themselves – the essential definition of live.

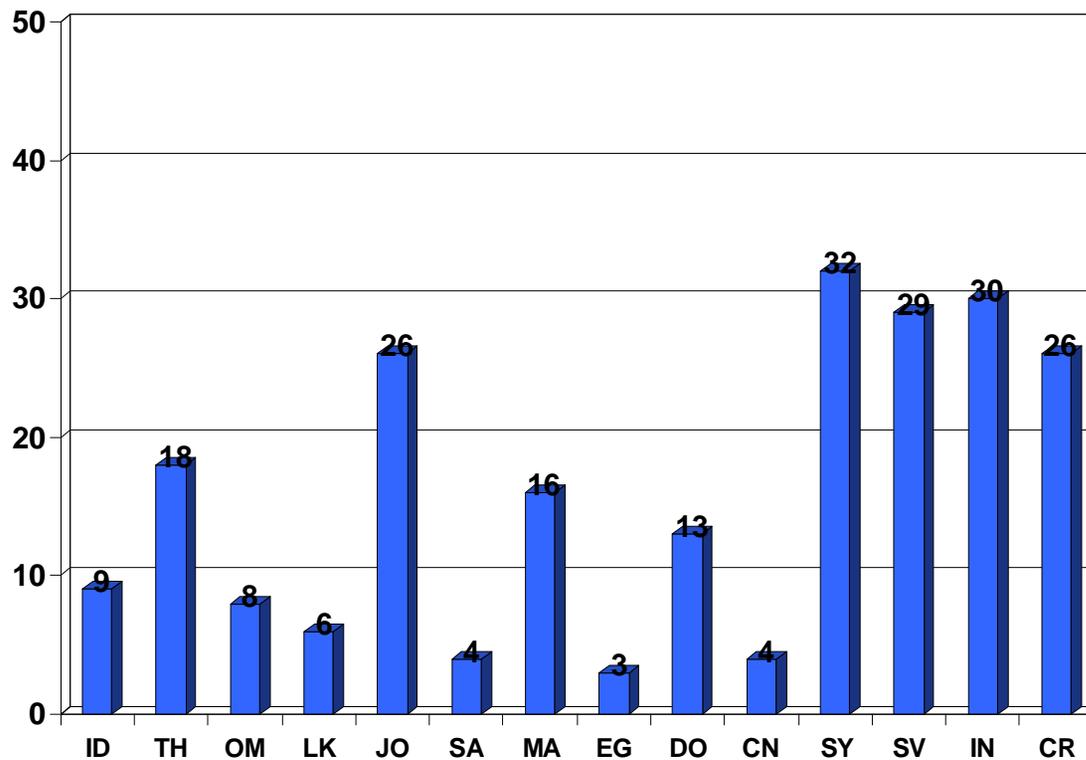
Phase I - Analysis



- high-income countries add US\$ 180 of value
by processing of one ton of agricultural products, developing countries only US\$ 40
- in high-income countries 98% of agricultural production undergoes industrial processing,
in developing countries barely 30% even 40 to 60% of the manufacturing value in these countries is generated by agro-industries.

Phase 2 – Industrial Demands

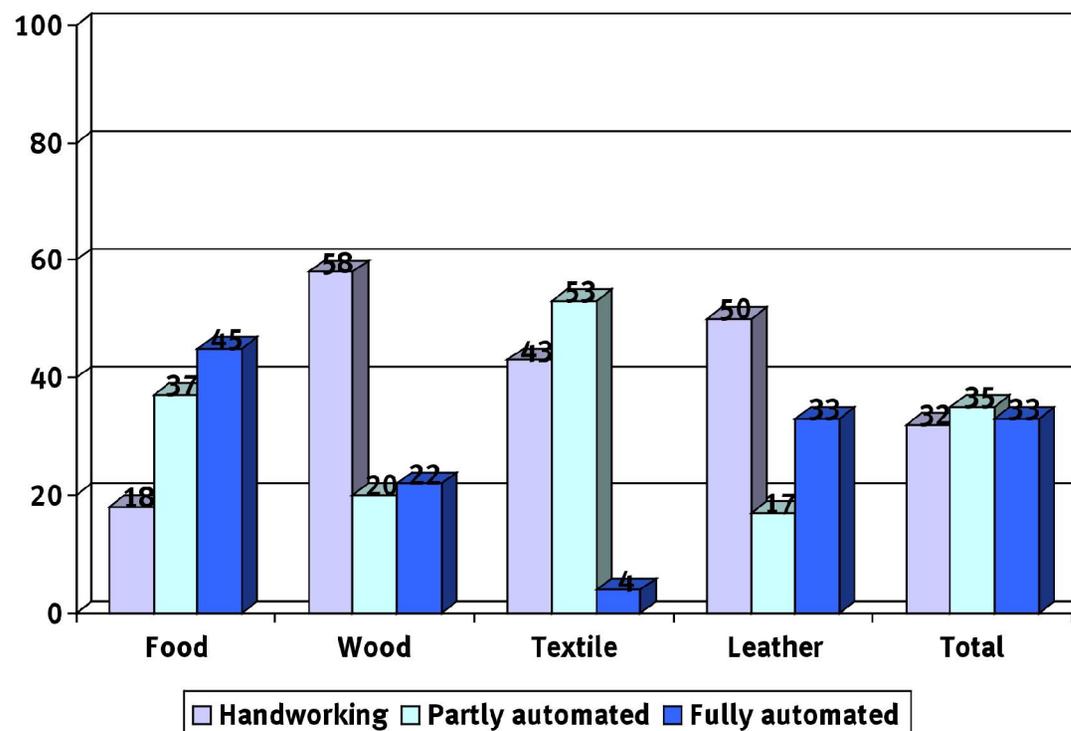
Interviewed companies International



We conducted an international market survey in 215 companies in 14 countries to evaluate the specific needs and requirements of the Industry. 42% of our interview partners came from the area of Agro Industries.

Phase 2 – Industrial Demands

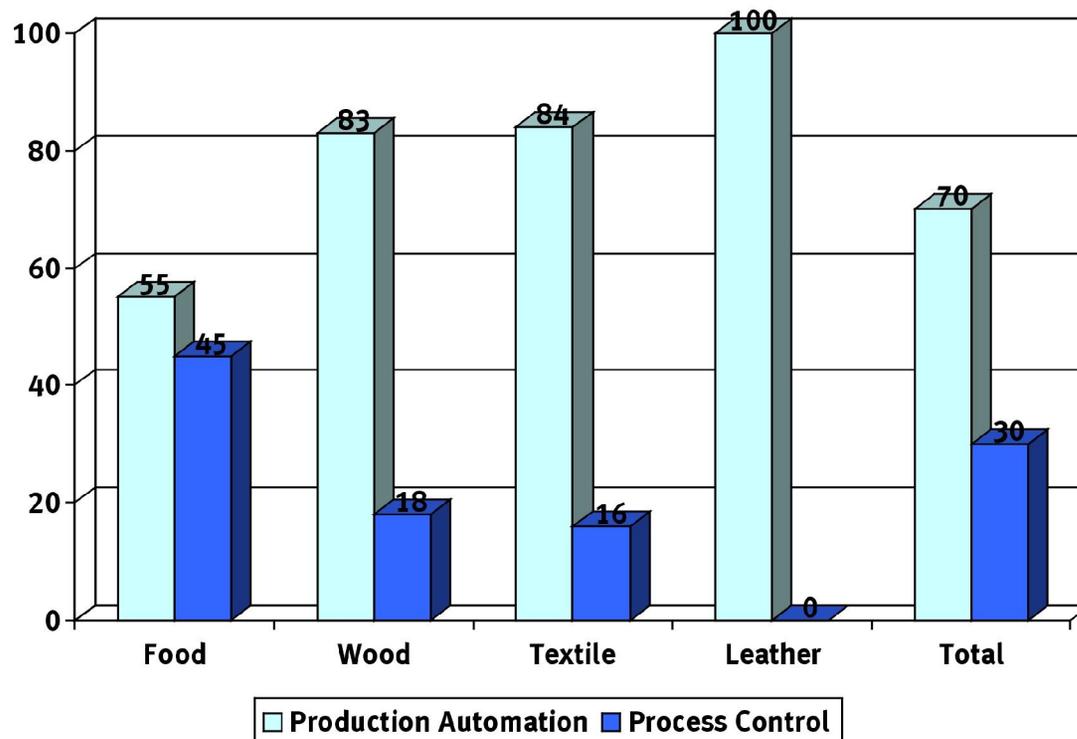
Production process data:
level of automation according the sector



This chart shows the level of Automation within the different sectors of Agro industrial production

Phase 2 – Industrial Demands

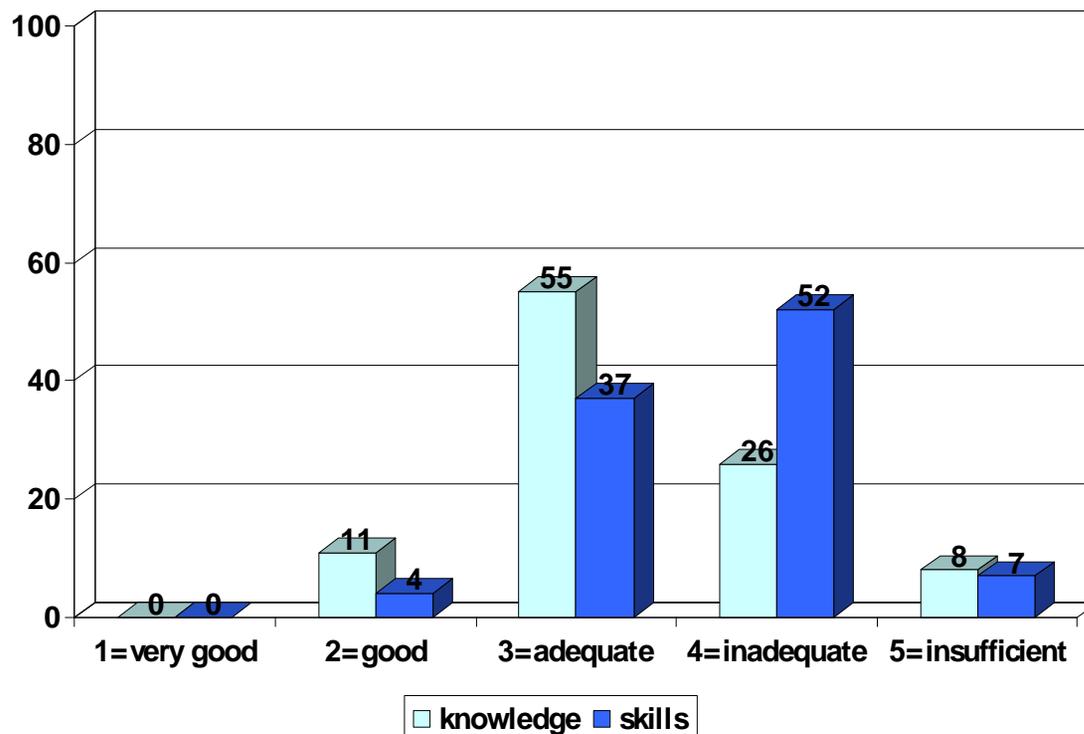
Production process data:
production automation/process control according the sector



A demand-driven training solution must cover both parts of industrial Automation – Factory and Process Automation

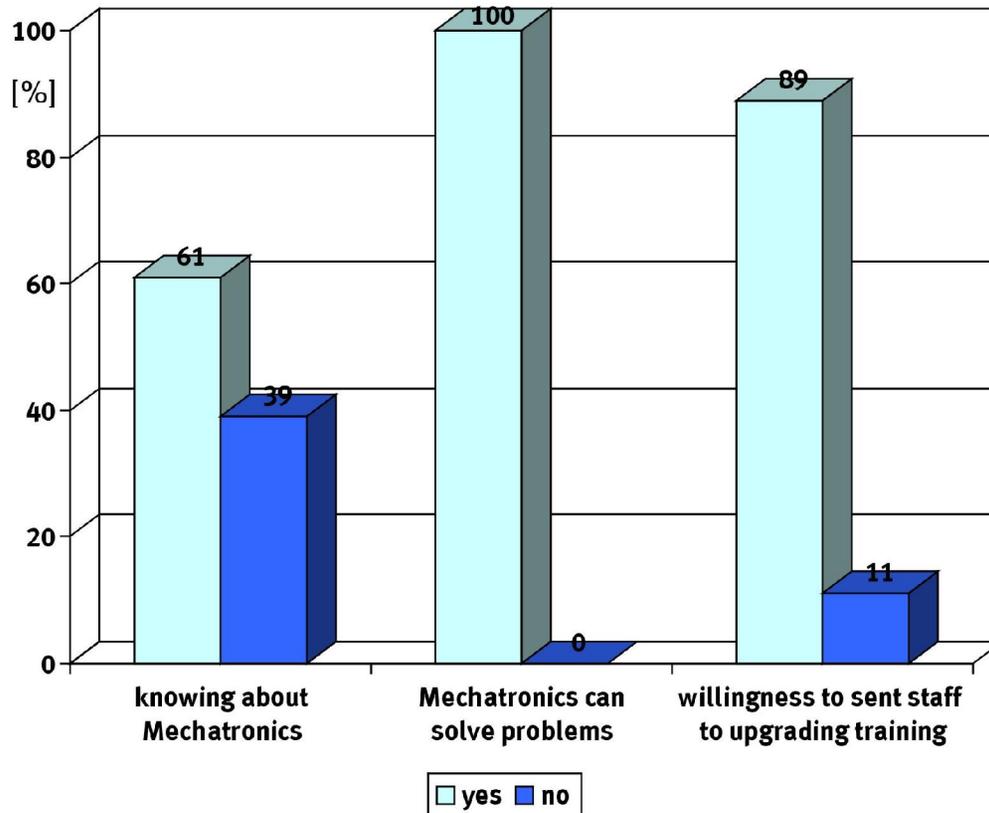
Phase 2 – Industrial Demands

Educational data:
satisfaction of the companies with knowledge/ skills of the graduates



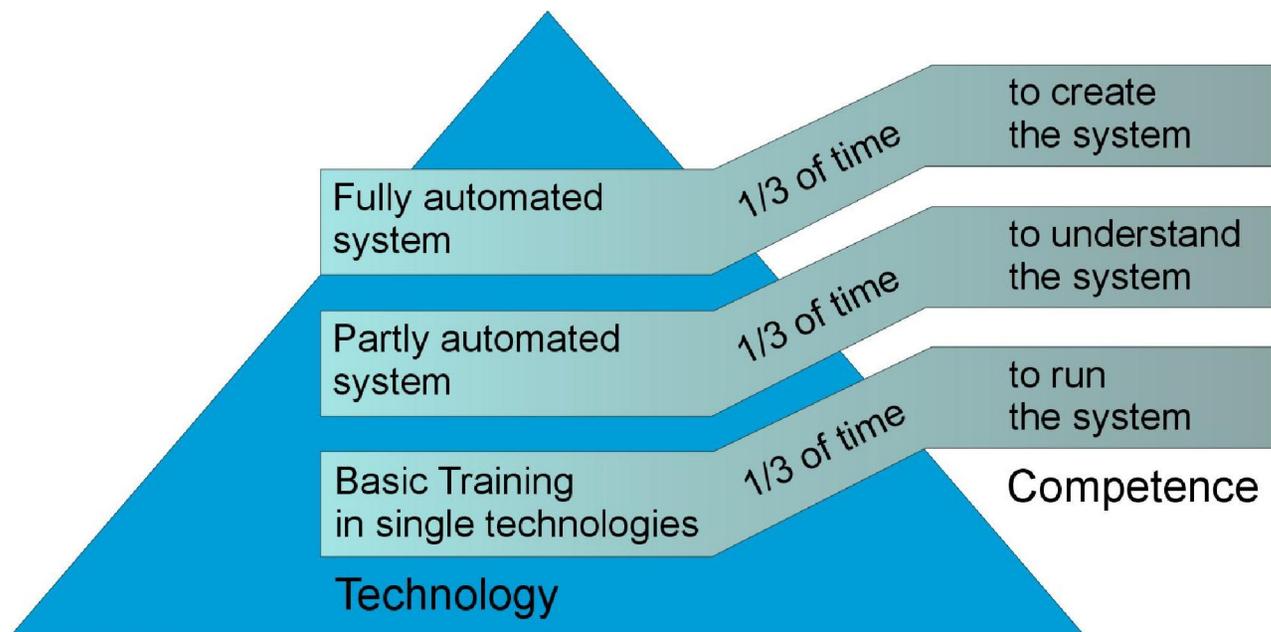
The result of this question is quite alarmingly, especially focusing on the skills of graduates

Phase 3 – Demand-driven Solution



According to the Industry, Mechatronics could solve a lot of problems.

Phase 3 – Demand-driven Solution



The teaching conception of Mechatronics is divided into three levels with the focus on technology and competence.

Phase 3 – Basic technologies of Mechatronics

Mechanics Electrics/Electronics Pneumatics Hydraulics

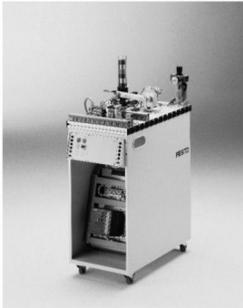


Sensorics Controllers Robotics CAD/CAM/CNC IT

Basic technologies representing the know-how transfer in technology and competences in the single technical disciplines of Mechatronics.

Phase 3 – Partly automated systems

Storage&Retrieval



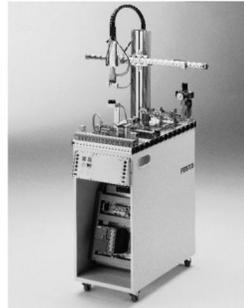
Processing



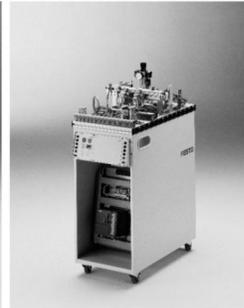
Quality



Handling



Transportation



Assembly

Partly automated systems representing the single production process steps in the industry. The focus of training is:

- Installation and Commissioning
- Programming
- Trouble Shooting

Phase 3 – Fully automated systems



Fully automated systems representing the interaction of the single production steps to an entire production process. The focus of training is:

- Installation and Commissioning
- Programming and Communication
- Maintenance and Trouble Shooting

Phase 3 – Demand-driven Solution



The AFB Factory is highly requested by our FACT partners worldwide because they can offer **ALL** aspects of Automation Technology and Mechatronics for Education **AND** Training.



**UNIDO and Festo partnership
For a successful future !**