





Presented by



EXCELLENCE IN TECHNOLOGY AND DIDACTIC SOLUTIONS

MARC WOERNER, LUCAS-NUELLE GMBH

NAME OF SPEAKER(S) LINE 2

Venue Naming Right Partner







Volkswagen Service Deutschland



brought to you by







EUROPÄISCHE UNION



STAATSMINISTERIUM FÜR WIRTSCHAFT ARBEIT UND VERKEHR



LN GROUP - KEY FIGURES 2013

- Employees:
- Turnover: export)
- Customers:
- Global operation:
- Product range:
- Research & development:

- approx. 300 80 million EUR (80%
- > 170,000, worldwide
- > 100 countries,
- > 110 international sales partners (ISP)
- > 10,000 articles,> 5,000 experiments,500 solution sets
- Investment = 12% of annual sales revenue



LN GROUP – AN OVERVIEW



Presented by





Excellence in Technology & **Didactic Solutions**

Core business: Technical training systems and laboratory equipment

Employees: 110 Headquarters : Kerpen Founded in 1973

Core business: Training systems for education in natural sciences

Employees: 140 Headquarters: Göttingen Founded in 1913

Core business: Advanced technical and vocational training, including associated consulting

Employees: 50 Headquarters : Kerpen Founded in 1968

TRENDS ON EDUCATION









1957 Independence

SKIL	LS L	EVEL AND	WEALTH	world skills
Skills level				Presented by
1				SAMSUNG
			Ма	rain /
			Sa	lary /
			G	DP
				→
Raw	material	Semi finished / finished product (Tier 2-4)	End product	
Value [USD\$/TON]	5 - 1.000	1.000 - 8.000	8.000 - ∞	
Work qualification	1 - 4	4 - 7	7 – 10	
Profit	low	medium	High	
Generating of Jobs	1	10	100	6

RAPID TECHNOLOGICAL CHANGES



7

WHAT SKILLS ARE NEEDED



world **skills** Leipzig2013

SAMSUNG

TEACHER QUALIFICATION

In order to improve the quality of the schools, as shown, the teacher

qualification have to be improved.



Long term teacher training and qualification – also as teacher

training center/colleges will be required.







DIMENSIONS OF THE LEARNING PROCESS



STATE OF THE ART LABORATORY

Example: Automotive laboratory



SAMPLE OF A CONCEPTUAL SOLUTION

Example: Common Rail Engine Management



Career entry

Practical application

TOTALLY INTEGRATED EDUCATION



RELEVANT COMPETENCIES







- Software/hardware competence
- Media competence
- Integration
- Modularity
- Classroom Manager
- Learning Management System/ Content Provider

Technology

Services

- Consultancy / planning
- Project development
- International project management
- Commissioning / implementation
- Training courses / knowledge transfer
- Train-the-trainer
- Supportive consultation
- After-sales service

Didactic concept

- Practical skills
- Teaching / learning levels
- Organizational level

AREAS OF COMPETENCIES

Qualitatively and technologically advanced solutions for laboratory training in the following areas:



Installation Engineering



Electrical Power Engineering



Machines, Power **Electronics and Drive** Technology



Basic Electricity, Electronics and EloTrain - Plug-In System



Communications Technology



Electropneumatics/



Laboratory Systems



Hydraulics

Microcomputers

Automation Technology



Refrigeration and Air-Conditioning Technology

PID

Process Control



Instrumentation



HOLISTIC APPROCH IS VITAL FOR PERFORMANCE



RELEVANT EXPERIANCE









BENEFITS OF LABORATORY SOLUTIONS

EFFECTIVENESS

Comprehensive solutions to maximize learning speed:

- Managing complexity
- Individual learning
- Practical skills: From theory to practice
- Solving problems through an understanding of systems
- Latest multimedia technology
- Interaction between training systems and real industry components
- Assessment of acquired skills
- Integration of learning processes

Total costs minimized by:

 Integration of measuring instruments into software

EFFICIENCY

- Management of larger classes too
- Maximum utilization of invested capital through optimal organization
- Reduced running costs (e.g. of textbooks, knowledge updates)

OUR CUSTOMERS – OUR SUCCESS!



THANK YOU! ANY QUESTIONS?