



**“doing the right things and doing the things right”**

**3<sup>rd</sup> German-Arab Education and Vocational Training Forum  
Session 4: New Developments in and Potentials for VET  
October 06<sup>th</sup> / 07<sup>th</sup> 2011 in Berlin**

# Lufthansa Technical Training

- global training network



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## Primary Goals of the Dual Training System

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## Real life relevance

- ✈ Application of training knowledge
- ✈ Use of original tools, materials, documentation
- ✈ Adaptation of production process
- ✈ Working environment / shift system
- ✈ Reduction of transitional problems of moving from an educational to a working environment

# Primary Goals of the Dual Training System

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## **Socialisation**

### Trainee's view

- ➔ Identification with company and workforce
- ➔ Experience of pressure and conflict situations
- ➔ Ability to work in a team
- ➔ Motivation “be part of it”

### Existing staff's view

- ➔ Integration of existing staff in training and development
- ➔ Development of soft skills and new input from young-generation

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- ✈ Plus: training is market-driven  
=> new technologies etc. are automatically incorporated
- ✈ Plus: productivity

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# Achievement of Goals

## Doing the right things

- Structured “total skill” training plan
- Integrated and holistic concept covering school and company
- Monitoring and supervision
- Feedback and appraisal system
- Integration in working process
- Qualification of coaches and supervisors
- Commitment of management



# Achievement of Goals

## Doing things right

- ➔ Appraisal of the individual
- ➔ Taking care
- ➔ No cheap labour
- ➔ No “parking spot”
- ➔ Avoiding “competition for jobs”
- ➔ Stressing “coming colleagues”
- ➔ Motivation for know-how transfer
- ➔ Providing sufficient budget
- ➔ Prioritisation within operational needs
- ➔ Appreciation of status of trainee and coach







Thank you for listening !  
Any questions ?

# Implementation of the Dual Training System

## Structure is key

- ➔ Is there a structure given by the regulator?
- ➔ If so, is it sufficient under the light of dual approach?
- ➔ If not, how to create an own structure and implement it properly and sustainable?
- ➔ How to deal with threads and problems?
- ➔ Chances: start with a new approach.



# Challenges and Opportunities of Implementing a Dual Training System

## Challenges

- ✈ Very small individual companies
- ✈ Limited (financial) resources
- ✈ Lack of regulation
- ✈ Missing public element
- ✈ Lack of deep training mind-set

## Opportunities

- ✈ Freedom in doing
- ✈ Open mind
- ✈ New motivation of all parties
- ✈ High expectations
- ✈ Financial funding available



# Chances and Risks of Implementing a Dual Training System

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## Chances

- ✈ Creating a perspective for young generation
- ✈ Creating the backbone of tomorrows economy

## Risks

- ✈ Missing the momentum





# Characteristics Dual Training System

- ✈ Dual Training is the main instrument to integrate young generations into employment (and society)
- ✈ The training process is directly determined by qualification requirements of real work situations
- ✈ The apprentice receives an allowance during training
- ✈ Training is market-driven, new technologies etc. are automatically involved
- ✈ Dual use of the economic infrastructure for production and for training
- ✈ Graduates are directly ready to work and to act as multiplier again
- ✈ Qualification demands from business will be more likely converted into the training process if the trainees face real working situations as soon as possible
- ✈ The Dual Training System produces less transitional problems of moving from an educational to a working environment
- ✈ Coordination between labour market needs and training output



# Lufthansa Aviation Group



## Lufthansa

**No 2 in international  
air traffic**

Revenue 20.90 Mrd. €



**Market-leader for  
inflight-solutions**

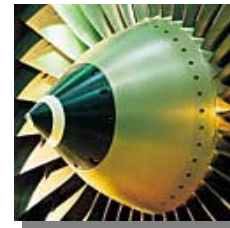
Revenue 2,25 Mrd.€\*



## Lufthansa Cargo

**One of world-biggest  
cargo airlines**

Revenue 2,79 Mrd. €\*



## Lufthansa Technik

**Global provider for  
technical services**

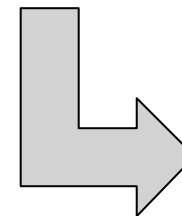
Revenue 4,08 Mrd. €\*



## Lufthansa Systems

**IT-solutions for the  
aviation industry**

Revenue 0,59 Mrd. €\*



## Lufthansa Technical Training

Lufthansa Corporate Data, 2010

\*Lufthansa Technik and 18 consolidated companies of Lufthansa Technik Group



# Lufthansa Aviation Group – Our employees

- ca. 120,000 employees
- representing 146 nationalities
- More than 35 company qualification programs und multiple direct entry options
- 300 Mio. Euro per year spent for qualification and training
- More than 84,000 applications in 2010
- ca. 2,200 new employees in 2010



# Lufthansa Technical Training

## - at a glance

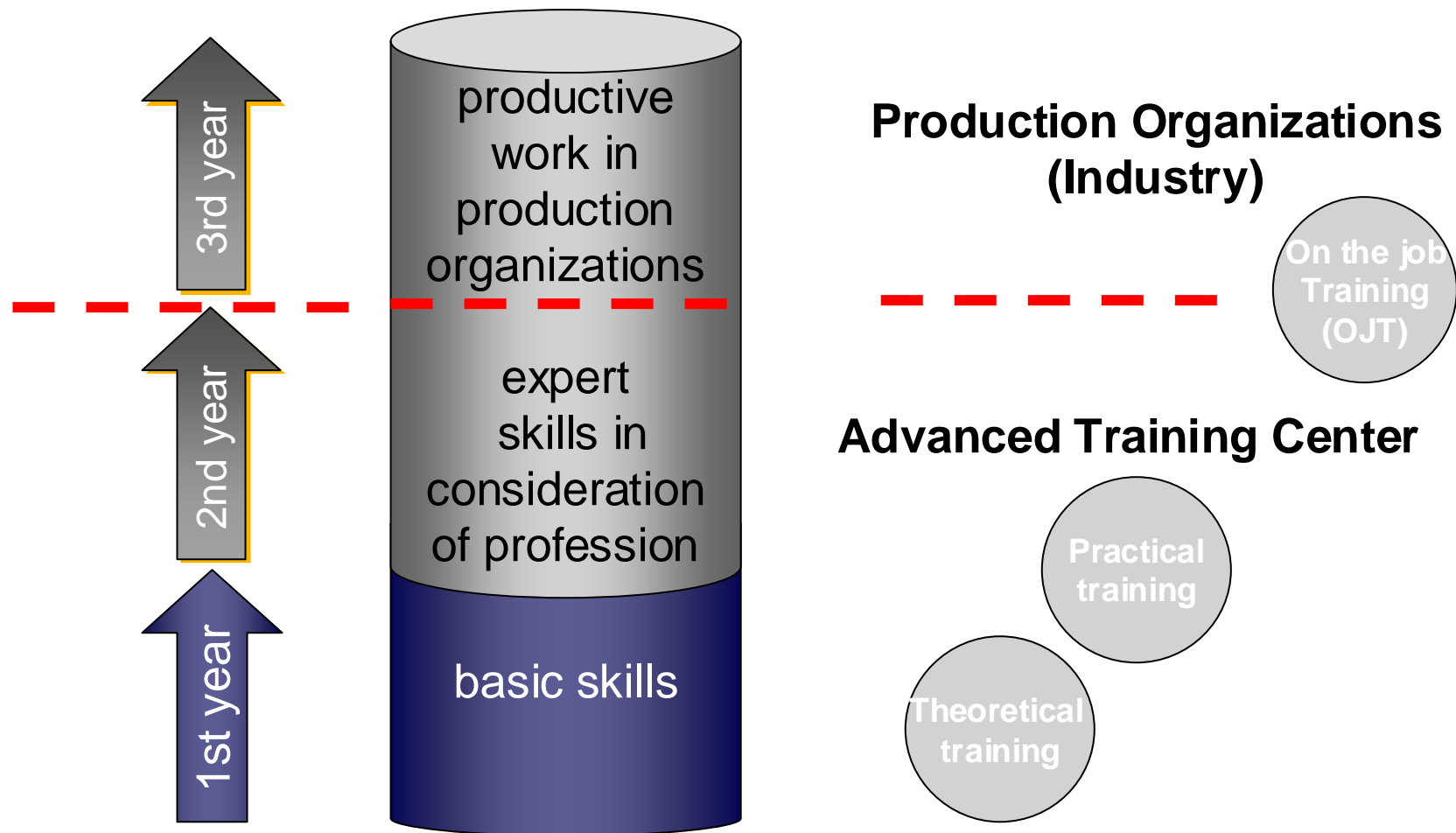
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- LTT is the world's first training organisation to be certified in accordance with EASA Part-147.
- 440 experienced instructors, advisers and admin staff worldwide.
- Access to flight simulators, to the Lufthansa fleet, to maintenance facilities and workshops of Lufthansa Technik.
- Basic technical training and type-related further training; Management and executive training
- More than 600 corporate customers worldwide
- More than 24,000 training days per year in continuing education
- Permanently 800 - 900 apprentices in vocational training for Lufthansa Technik in 13 different programs and trades (aircraft maintenance, industrial trades, commercial, logistics etc.)



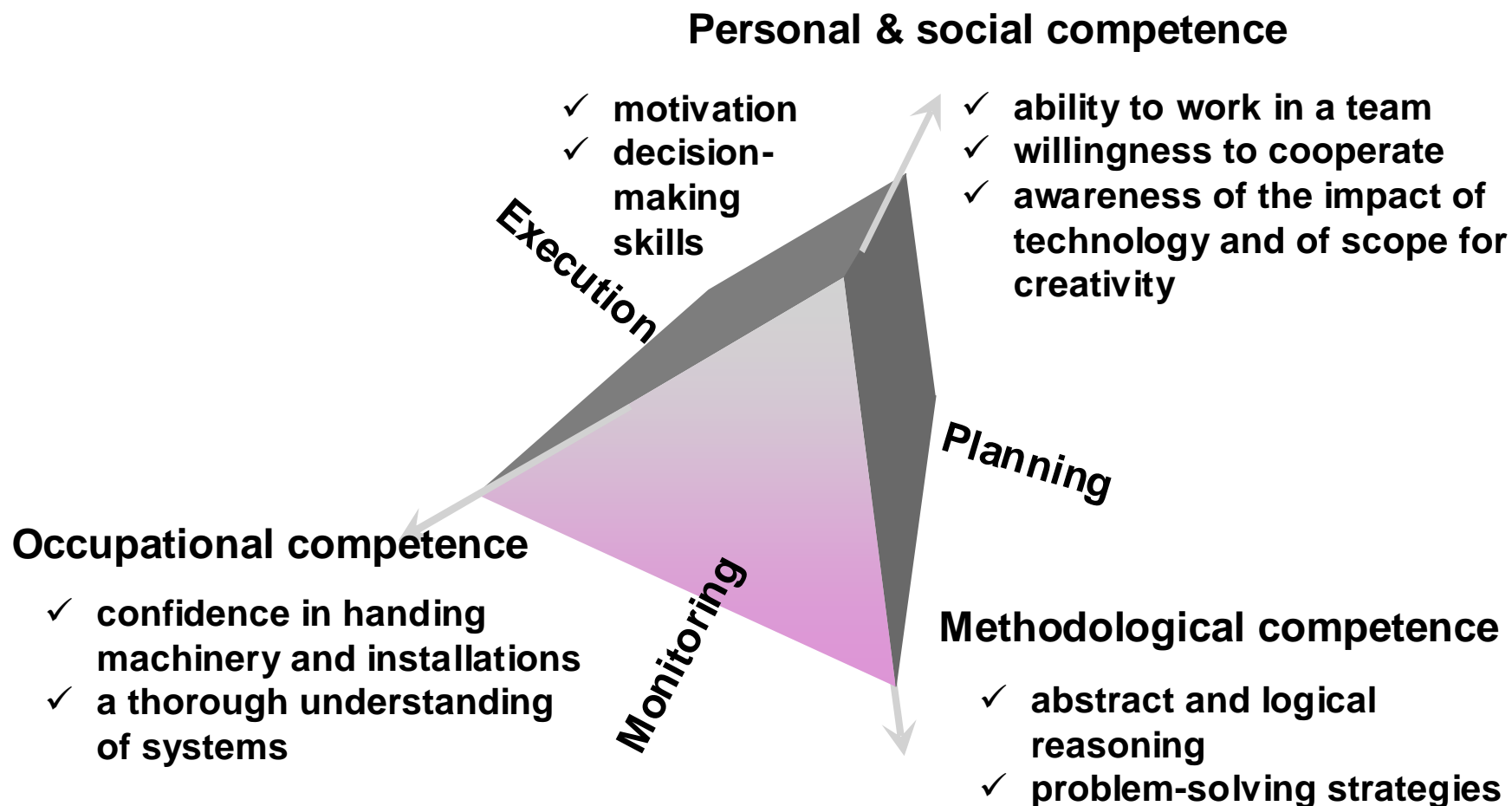
# LTT proposal for Advanced Training Center (ATC)

## - professional training: breakdown



# LTT proposal for Advanced Training Center (ATC)

## - professional training: range of competences



# LTT proposal for Advanced Training Center (ATC)

## - professional training: example of first year program



### The first year:

• Classroom Training	14 Weeks
• Safety Procedure & First Aid	1 Week
• Basic Skills in Metal work	8 Weeks
• Welding & Soldering	2 Weeks
• Power Tools	6 Weeks
• Sheet Metal	3 Weeks
• Bonding Techniques	1 Week
• Hydraulic and Installations	3 Weeks
• Project / Group Work	4 Weeks
• Technical English	2 Weeks
• Vacation	5 Weeks
<u>Total</u>	<u>52 Weeks</u>

# LTT proposal for Advanced Training Center (ATC)

## - professional training: up to date tutorial in class

### Objectives:

- Extend basic knowledge
- Enhance subjects covered by CBT
- Address non-technical subjects
- Support soft skills, e.g. team work and communication



### The Instructor:

- Adapt the learning speed
- Influence group dynamic
- React on knowledge deficits

### The Students:

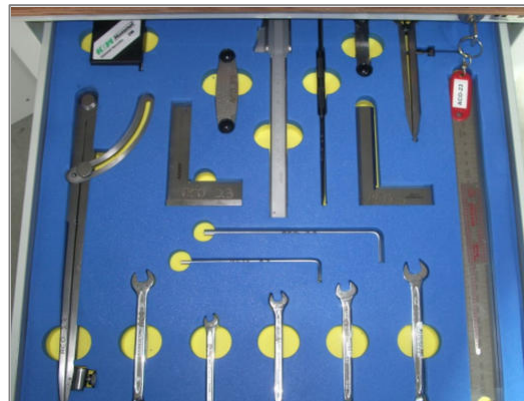
- Can address any open question
- Exchange achieved experience
- Discuss complex processes
- Achieve theoretical backgrounds

# LTT proposal for Advanced Training Center (ATC)

## - professional training: up to date workshop environment

### Training Environment

Beside classrooms, access to practical training environment is key to gain first hand experience and acquire lasting skills and techniques.



# LTT proposal for Advanced Training Center (ATC)

- professional training: up to date workshop training methods

## The lessons:

- Involve all side-aspects
  - working environment
  - handling of tools
  - safety precautions
  - quality awareness
  - use of documentation



## The Instructor:

- Instruct and observe trainees
- Prepare & guide project work
- Assess performed exercises

## The Students:

- Communicate within the team
- Plan and perform project work
- Consider quality requirements
- Apply human factors



# LTT proposal for Advanced Training Center (ATC)

## - Knowledge transfer: qualification of local instructors

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### Qualification of local instructors:

- Supporting recruitment by defining entry qualification
- Performing pre-selection of candidates
- Performing assessments and final selection
- Perform gap analysis of accepted junior instructor
- Preparation of individual instructor development plans
- Planning of required “Delta Trainings”
- LTT expert will act as Tutor for the local junior instructor
- Shadowing running training sessions performed by LTT experts
- Integration into training sessions: “learning to fly”
- Permanent feedback by Tutor
- Check out and nomination as instructor for defined subject
- Defining continuation training requirements as part of life long learning concept

# LTT proposal for Advanced Training Center (ATC)

## - professional training: On the Job Training at production site

### **The Production Organization provides:**

- Access to real work environment
- Latest equipment technology
- Access to real labour processes

### **The On the Job Training:**

- Performed in real production environment
- Guided, monitored, assessed and controlled by OJT Training Guide
- Led by qualified and experienced personnel of the production organization
- Supported by ATC tutors



### **The Students:**

- Plan and prepare work package
- Perform the selected tasks
- Apply the achieved knowledge
- Record performed tasks
- Achieve required competence



# LTT proposal for Advanced Training Center (ATC)

## - Knowledge Transfer: Training Management System

### Dialogue and Development System (DDS):

- collects examination and behavior results of trainees
- integrates a 360 degree feedback with inputs from:
  - Tutors and or instructors
  - Trainee colleagues
  - Self evaluation
- supports feedback culture
- supports soft skills and interdisciplinary competences
- identify positive and negative changes for individual support based on SWOT analysis

**Dialogue- und Development System for Commercial Trainees (DESA)**

☐ self-assessment  
☐ confidential report by training representative

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name of trainee: \_\_\_\_\_  
PK. number: \_\_\_\_\_  
age: \_\_\_\_\_

striven profession: \_\_\_\_\_  
year of training 0.5 ☐ 1 ☐ 1.5 ☐ 2 ☐ 2.5 ☐ 3 ☐ 3.5 ☐

		do not agree at all	agree completely					
		1	2	3	4	5	6	7
working behaviour								
1	starts willingly with so far unknown topics and tasks							
2	concentrates him-/herself on a given task until its successful finish							
3	performs systematically and structured							
4	performs independently in his/her defined area of tasks							
5	makes necessary decisions							
6	acts economically							
7	performs within negotiated time frames							
8	keeps his/her desk clean and orderly							
9	takes over responsibilities							
10	acts as arranged							
11	develops with new challenges and tasks							
12	carries out all given tasks correctly according to his/her level of training							
13	acts service oriented							

notes regarding working behaviour: \_\_\_\_\_

# Blended learning approach

- ↪ the *learning environment* shall contribute to the learning process while being as *realistic* as possible
- ↪ using the *same tools & documentation* the staff has available on the work floor
- ↪ knowing the *real work tasks and processes*. Train what is needed & necessary!

... *and* to understand how humans learn \* ...

