Prevention of Work Accidents, Work Diseases and Work-related Health Hazards of Apprentices, Young Workers and new Recruits in SMEs

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Topics of the Presentation

i) OSH in SMEs

ii) New ISSA- Joint Research Project

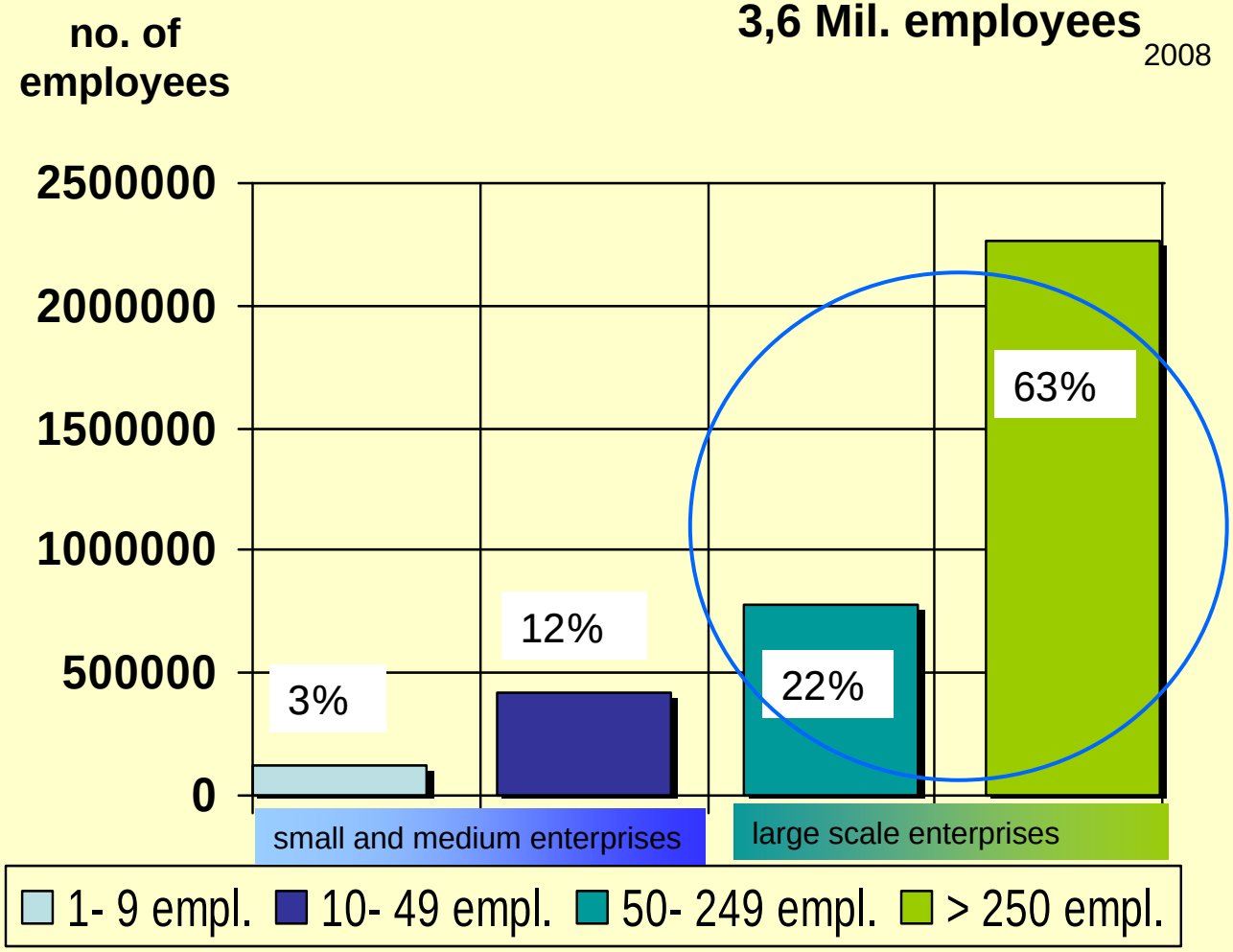
Why is the topic of our project
so important?

Statistics particularly electrical accidents
of young workers (BG Metal, BG ETEM)

Electrical accident= accident caused
by electricity

Germany- Metal Sector- Employees

BG Metal is responsible for metal industries and smaller metal trades.

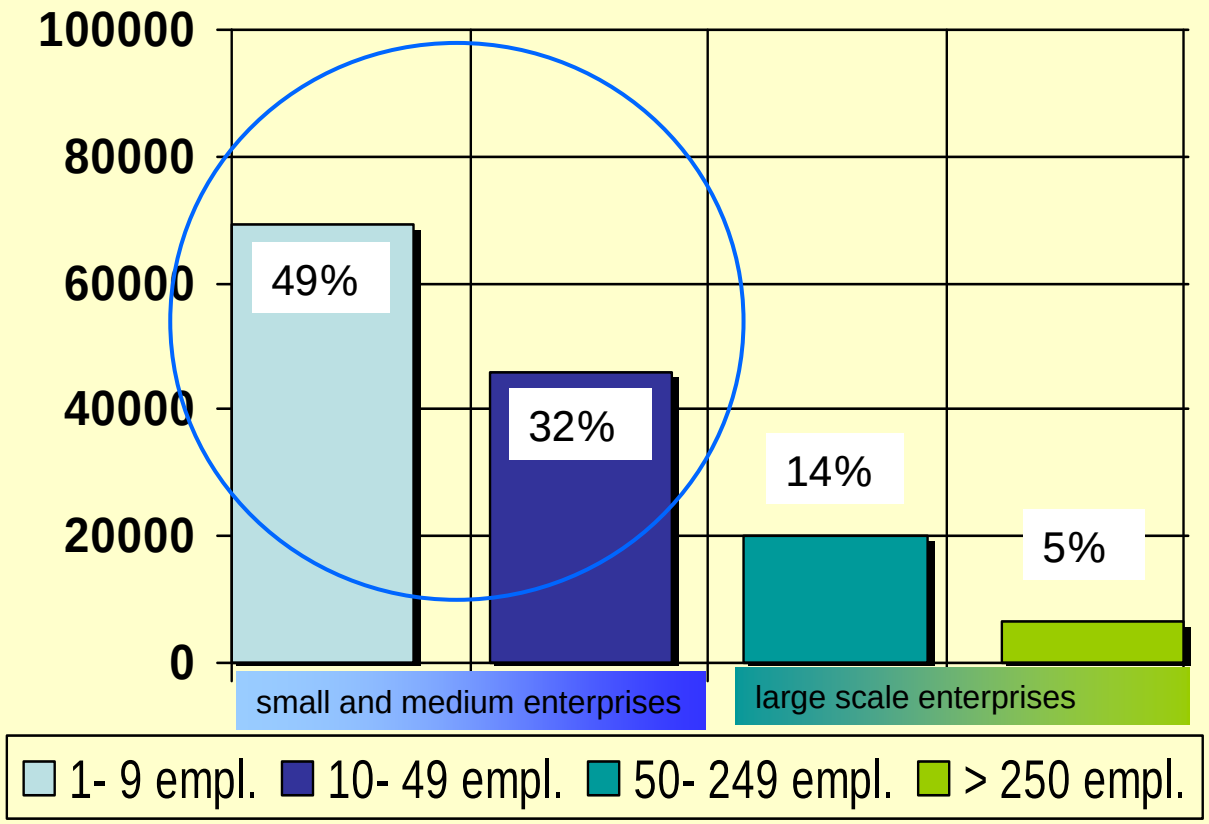


Germany- Metal Sector- Companies

We are responsible for a large number of small companies.

142,000 companies

2008

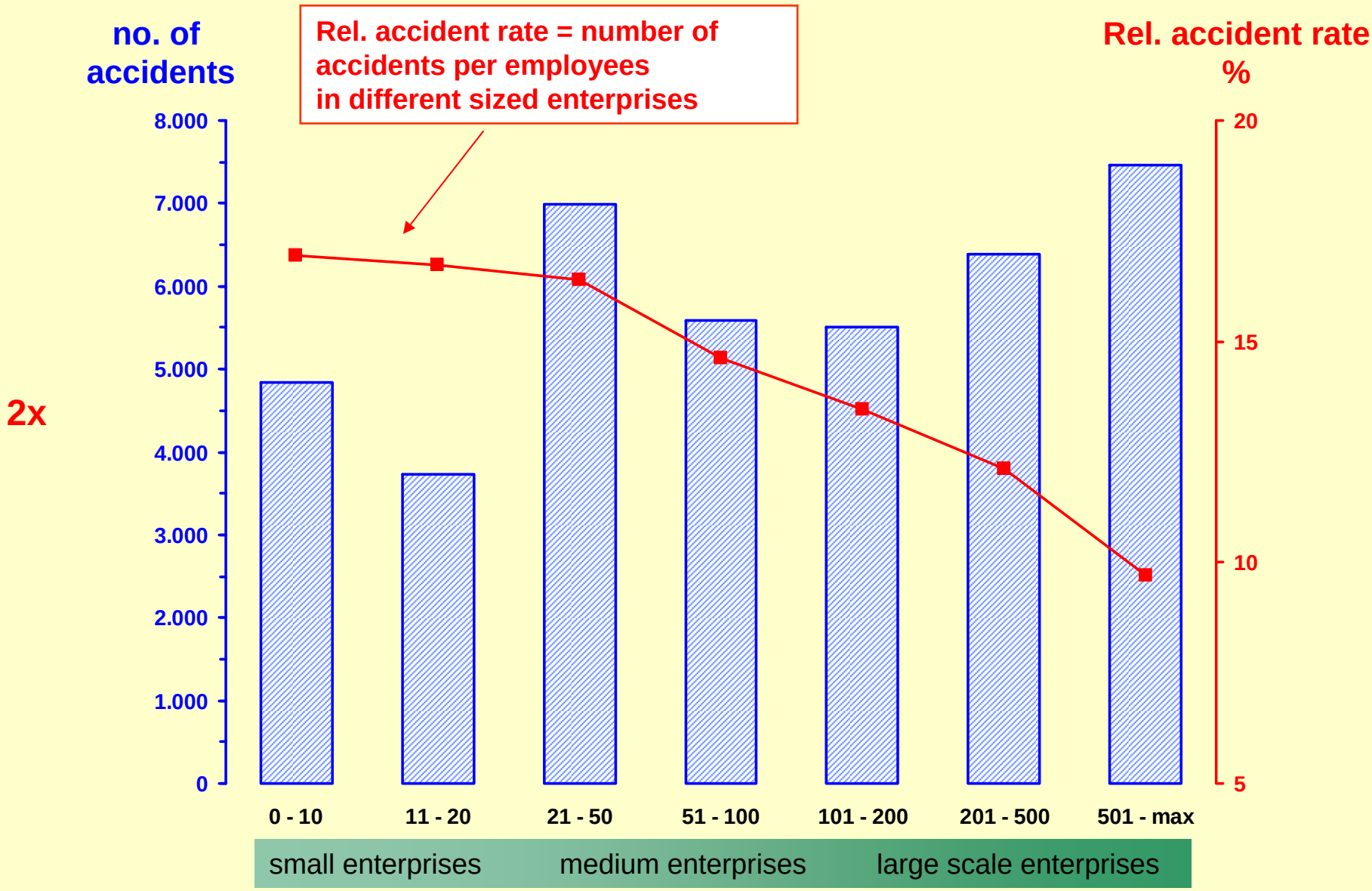


Metal sector EU:

1-9 empl.: 92 %, 10-49 empl.: 7 %

Accident Rate in regards to Size of the Enterprise

2006: 1Mil. empl.: 43,000 acc.



Reasons of Accidents- OSH in SMEs

OSH in SMEs depends on the engagement of the employer directly.

Responsibility for OSH and interaction between economy and OSH

- many employers don´t know
- their responsibility for OSH
- that economy and OSH are closely connected
- OSH are often considered as additional costs
- no organization of OSH
- employees are not included

Support of the employers

- no internal safety experts and company doctors are working in the enterprise
- not enough external safety and health experts are available
- employers are not trained and qualified sufficiently in OSH
- hazards and risks are often unknown (necessary measures are not taken up)
- instructions for OSH
  - are often missing
  - are not written in a clear manner

Risk Assessment- Problems of Employers in SMEs

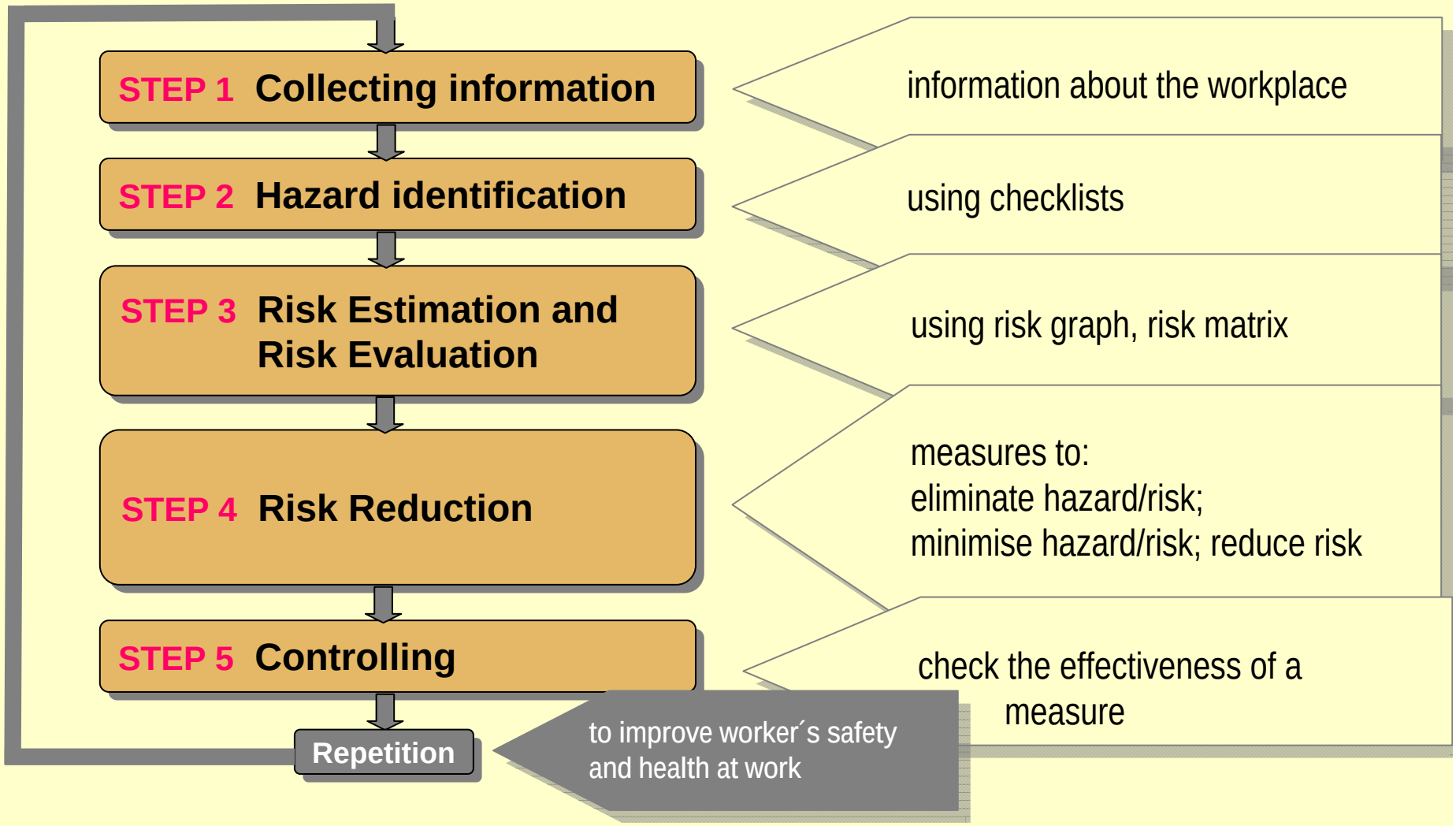
1. **Risk assessment is one of the best methods to achieve healthy workplaces.**
2. **Often, the employers are not able to carry out (themselves) RAs, they need the support of OSH experts.**
3. **Due to the high number of SMEs, it is not possible that OSH experts visit the enterprise each year.**

⇨ **The employers must learn to carry out the RA without help.**

⇨ **Instructions for risk assessment**

Risk assessment

European Framework Directive 89/391/EEC; General regulation OSH for employees



Risk Assessment

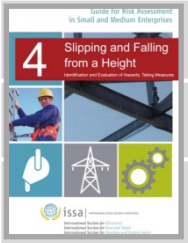
RA is a series of logical steps to enable, in a systematic way, the analysis and evaluation of risks.

Classification of Hazard Factors

1. Mechanical hazards		1.1 unprotected moving machine parts	1.2 parts with dangerous surfaces	1.3 movable transportation equipment, movable work equipment		1.4 uncontrolled moving parts	1.
2. Electrical hazards		2.1 electric shock	2.2 electric arcs	2.3 electrostatic charge			
3. Hazardous substances		3.1 gases	3.2 vapours	3.3 aerosols		3.4 liquids	
4. Biological hazards		4.1 infection hazard through pathogenic microorganisms (e.g. bacteria, viruses, fungi)	4.2 allergenic and toxic substances from micro-organisms				
5. Fire and explosion hazards		5.1 fire hazard through solids, liquids, gases	5.2 explosive atmosphere	5.3 explosive substances			
6. Thermal hazards		6.1 hot materials/surfaces	6.2 cold materials/surfaces				
7. Hazard through special physical impact		7.1 noise	7.2 ultrasound, subsonic noise	7.3 whole-body vibration			
8. Hazards through work environment		8.1 climate	8.2 lighting, light	8.3 drowning			

Risk Assessment- ISSA- Projects “EU 27”

Instructions (brochures) for employers to identify risks at workplaces and to take measures.

Guides for Risk Assessment		Experts from
1. Noise		Austria, Germany
2. Machinery hazards		Austria, Germany, Slovakia
3. Chemical hazards		Austria, Czech Republic, Germany, Poland, Slovakia
4. Slipping and falling from a heigh		Bulgaria, Germany
5. Mental workload		Austria, Bulgaria, Germany, Poland, Slovakia
6. Electrical hazards		Bulgaria, Czech Republic, Germany, Poland
7. Explosion hazards		Austria, Cyprus, Germany, Slovakia, Switzerland, Belgium
8. Hand- arm and whole- body vibrations		Austria, Czech Republic, Germany, Hungary, Slovakia
9. Ergonomics (physical strain)		Austria, Germany, Switzerland
10. Risk assessment- General guide		Austria, Czech Republic, Germany, Hungary, Poland, Slovakia

Free downloadable: http://www.issa.int (also in Spanish!)

New ISSA- Joint Research Projects

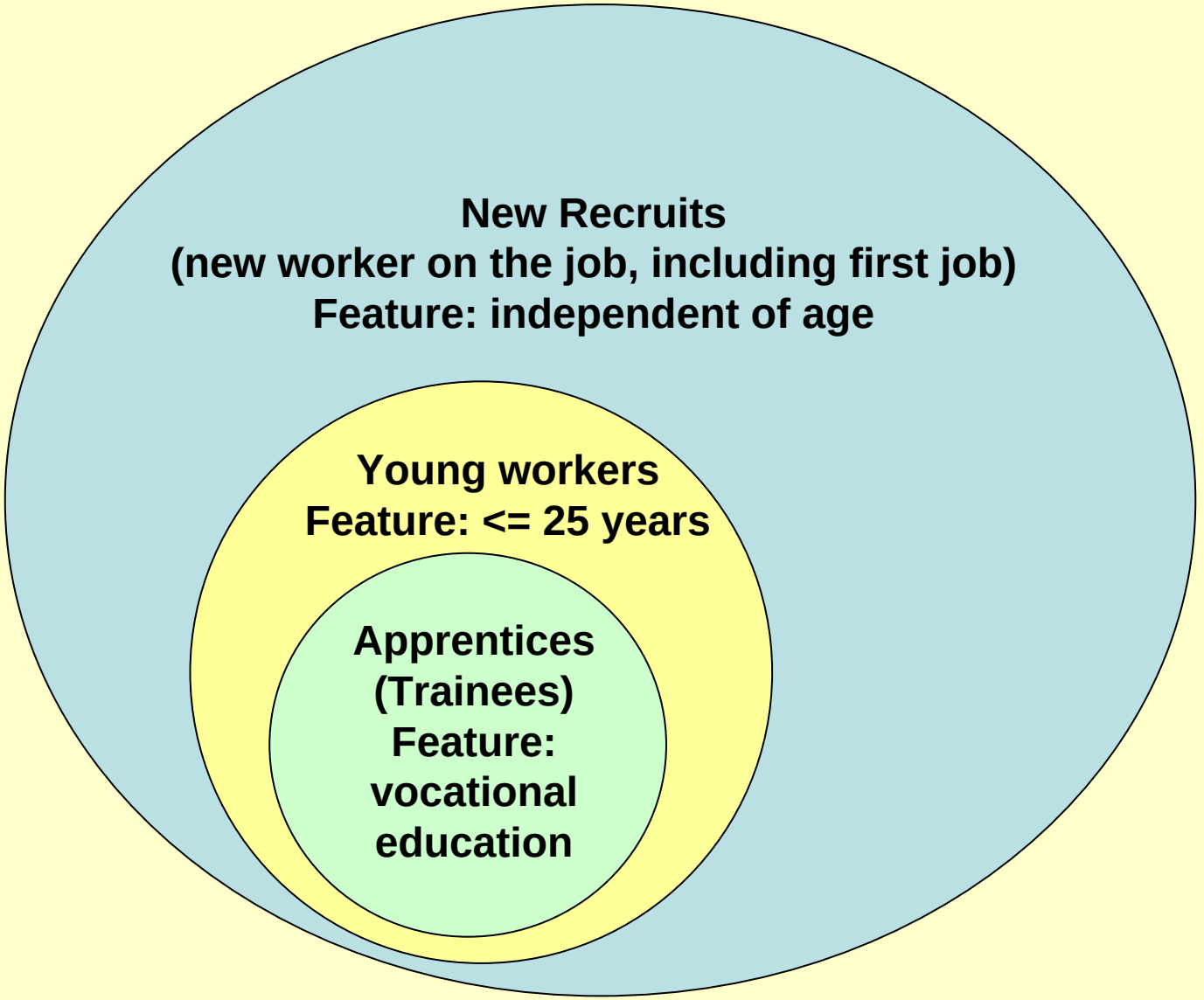
Prevention of Work Accidents, Work Diseases and Work-related Health Hazards of Apprentices, Young Workers and new Recruits

Project partner:
ISSA sections:
“Electricity”,
“Iron and Metal”
“Machine and System Safety”
“Training and Education”
“Agriculture”
“Construction”

Duration:
From September 2009 till December 2014

Target Groups

SMEs= Less than 50 employees



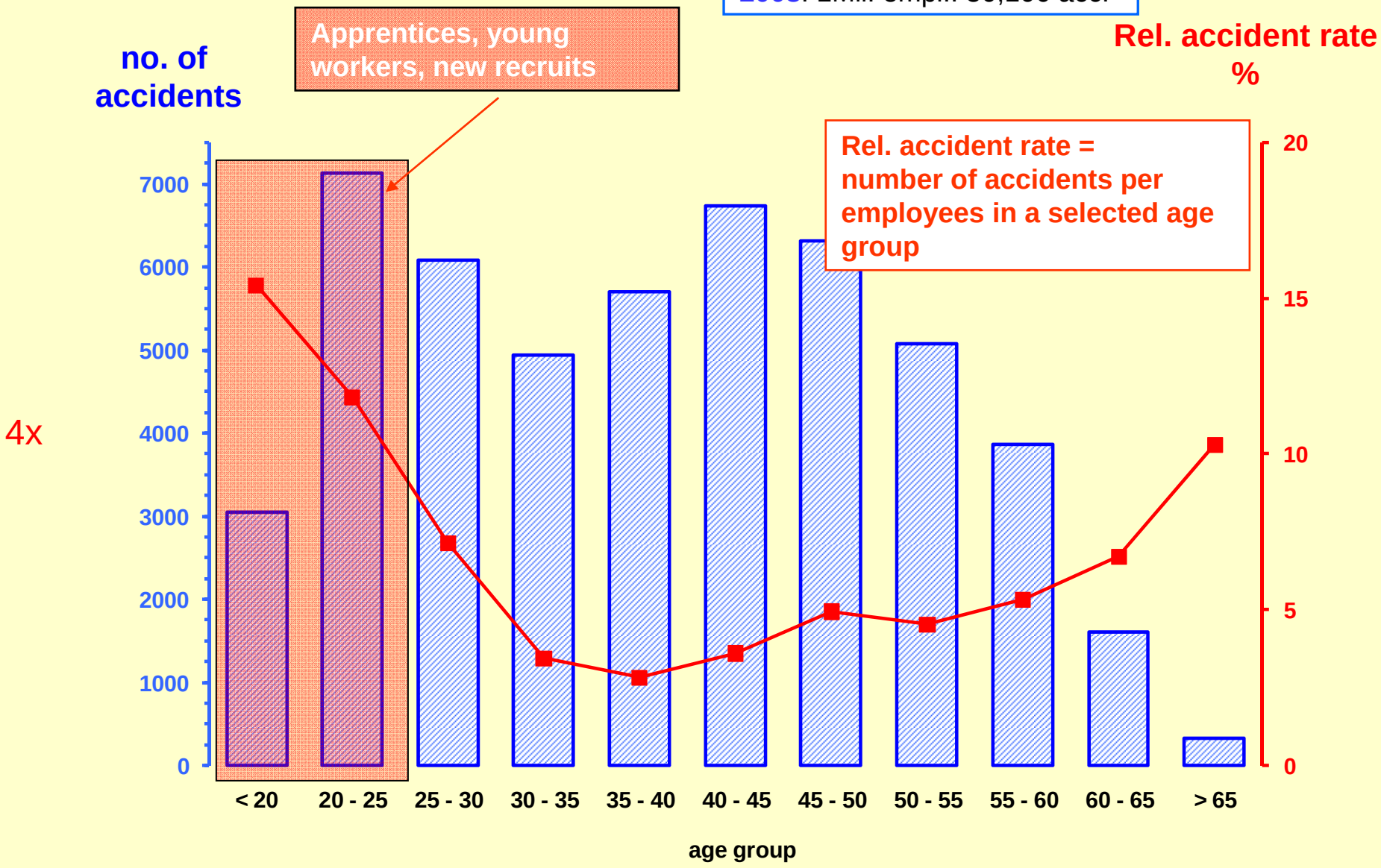
ISSA- Joint Research Projects “Young workers”

Why is this topic so important?

Accident Rate in regards to Age

BG Metal

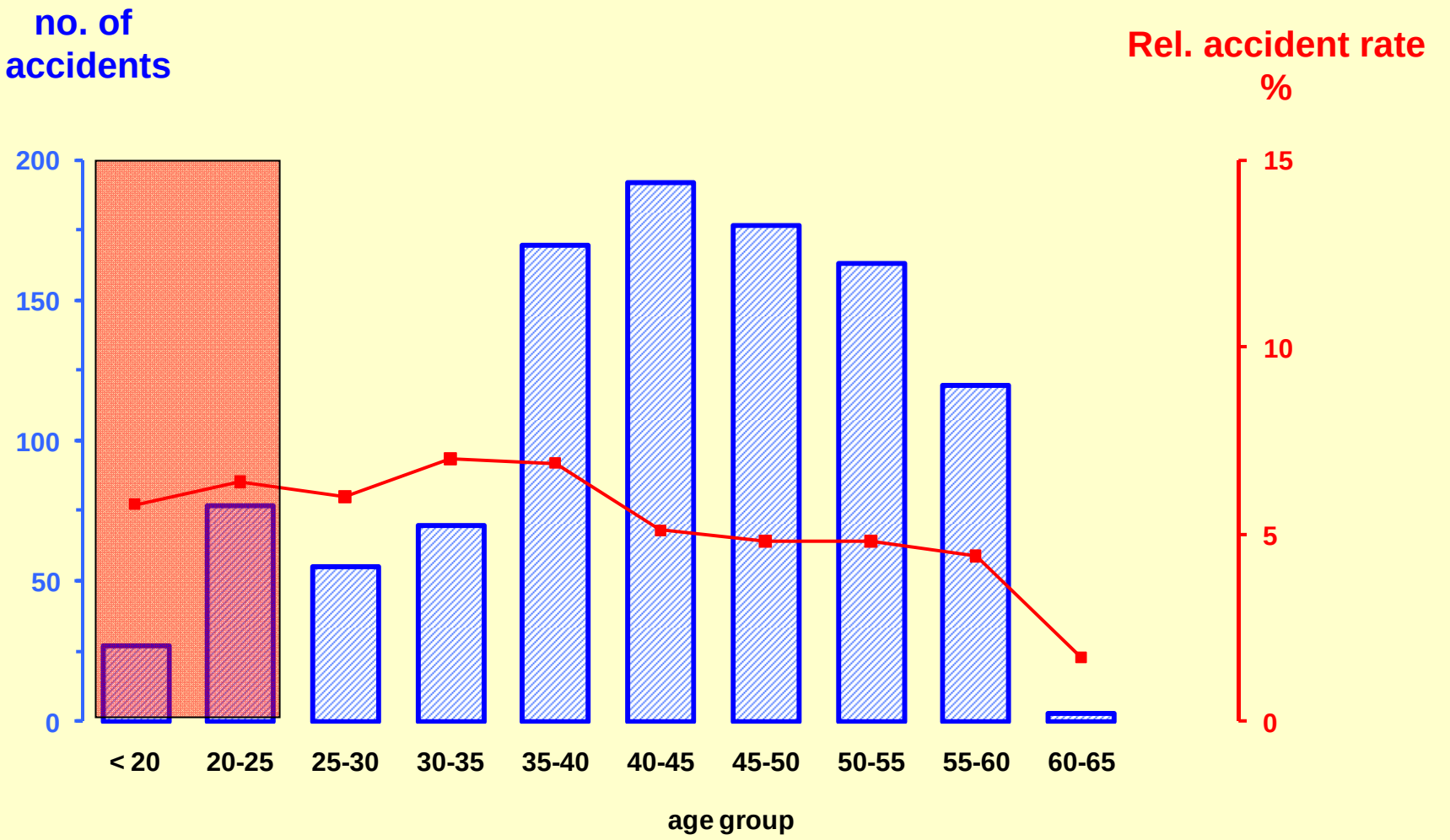
2008: 1Mil. empl.: 50,100 acc.



Accident Rate in regards to Age in a large enterprise

BG Metal

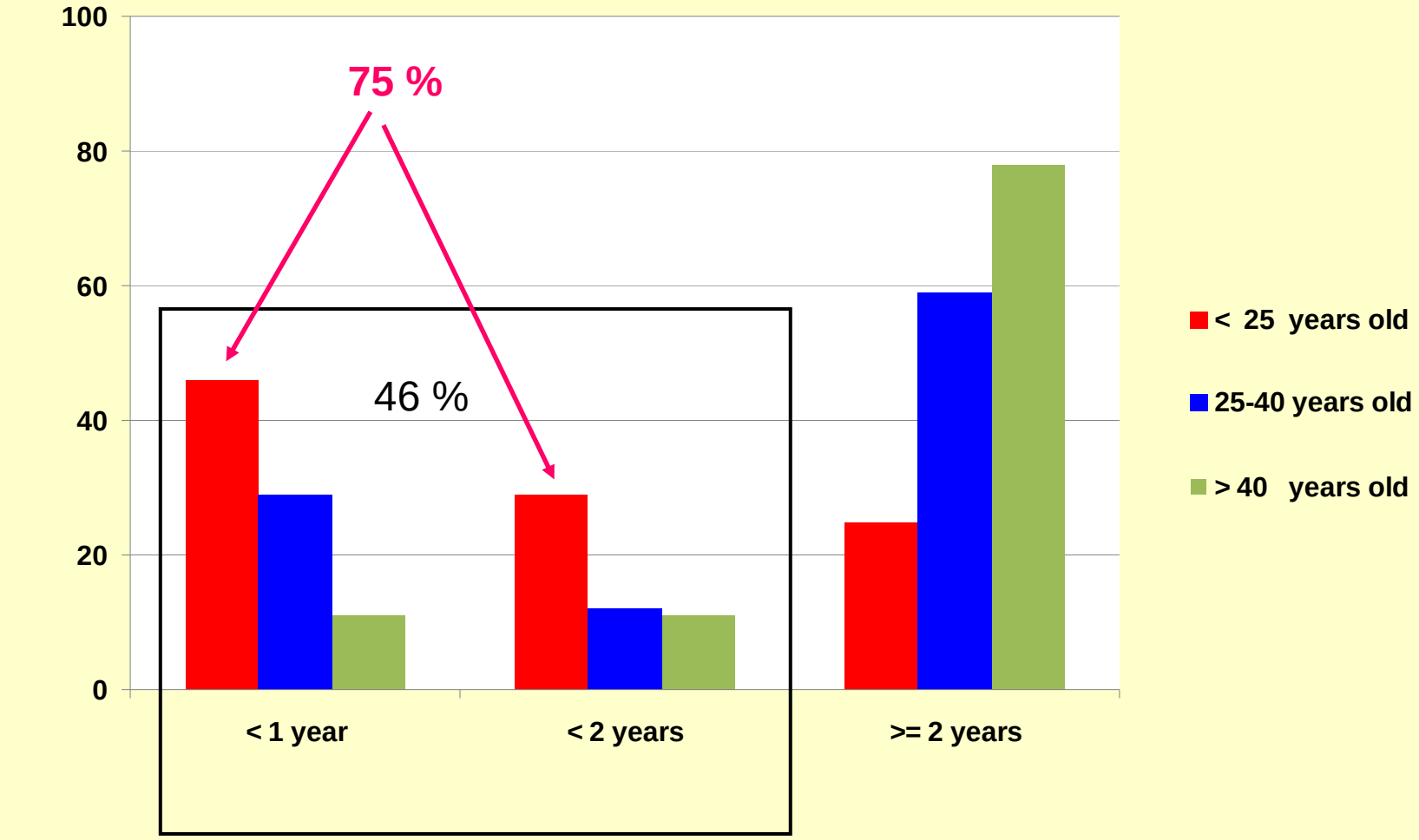
2007/2008: 6 months, large enterprise,
20.000 empl., 1054 acc.



Accidents in regards to the Start Date and the Date of Accident

BG Metal

evaluated: 300 accidents, 2009

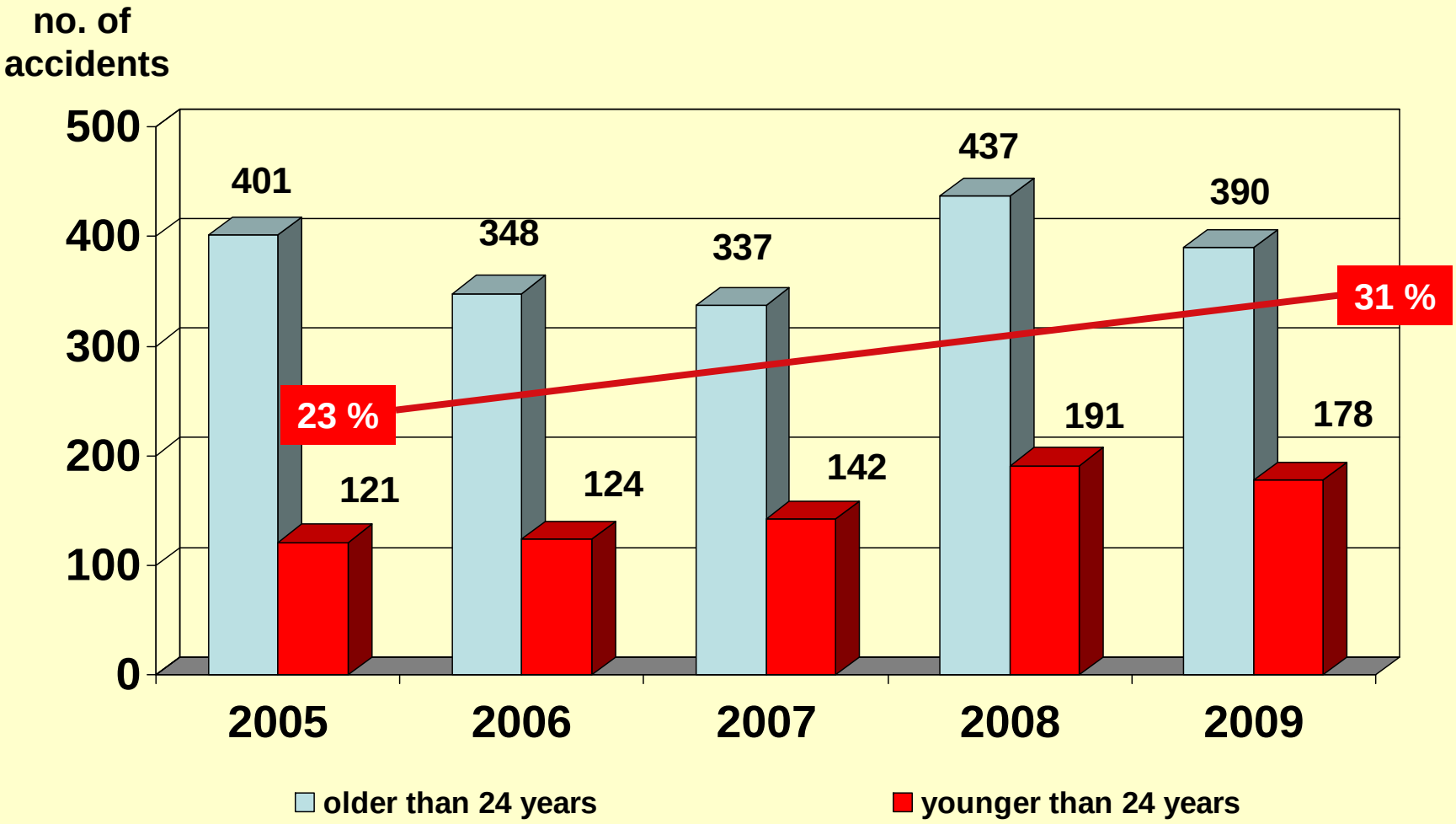


Reportable electrical Accidents in regards to Age

BG ETEM

Absence from work for more than 3 days

Germany (2008, all branches):
8 times more employees who are older than 24 years

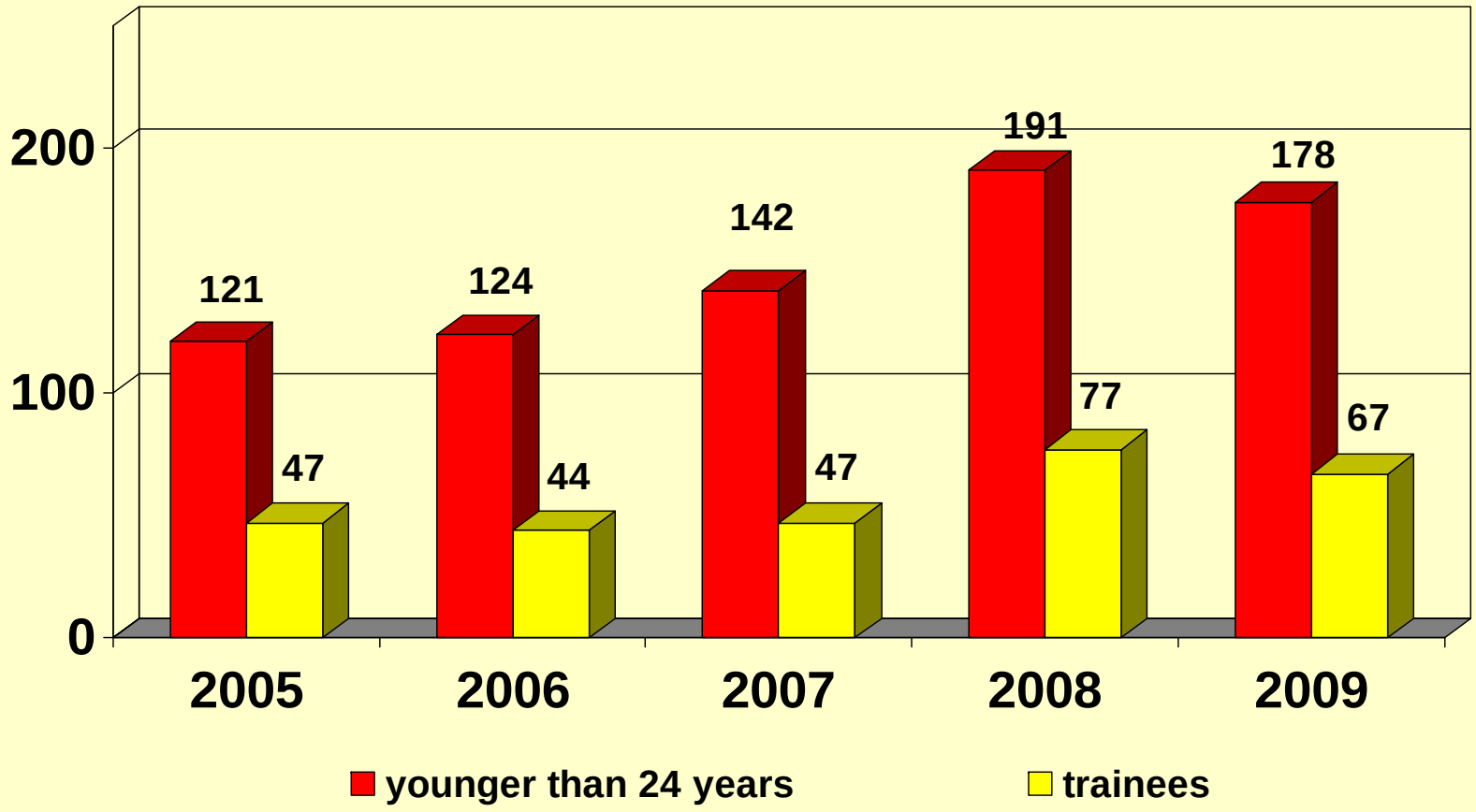


H. Gruber

Reportable electrical Accidents of Trainees

BG ETEM

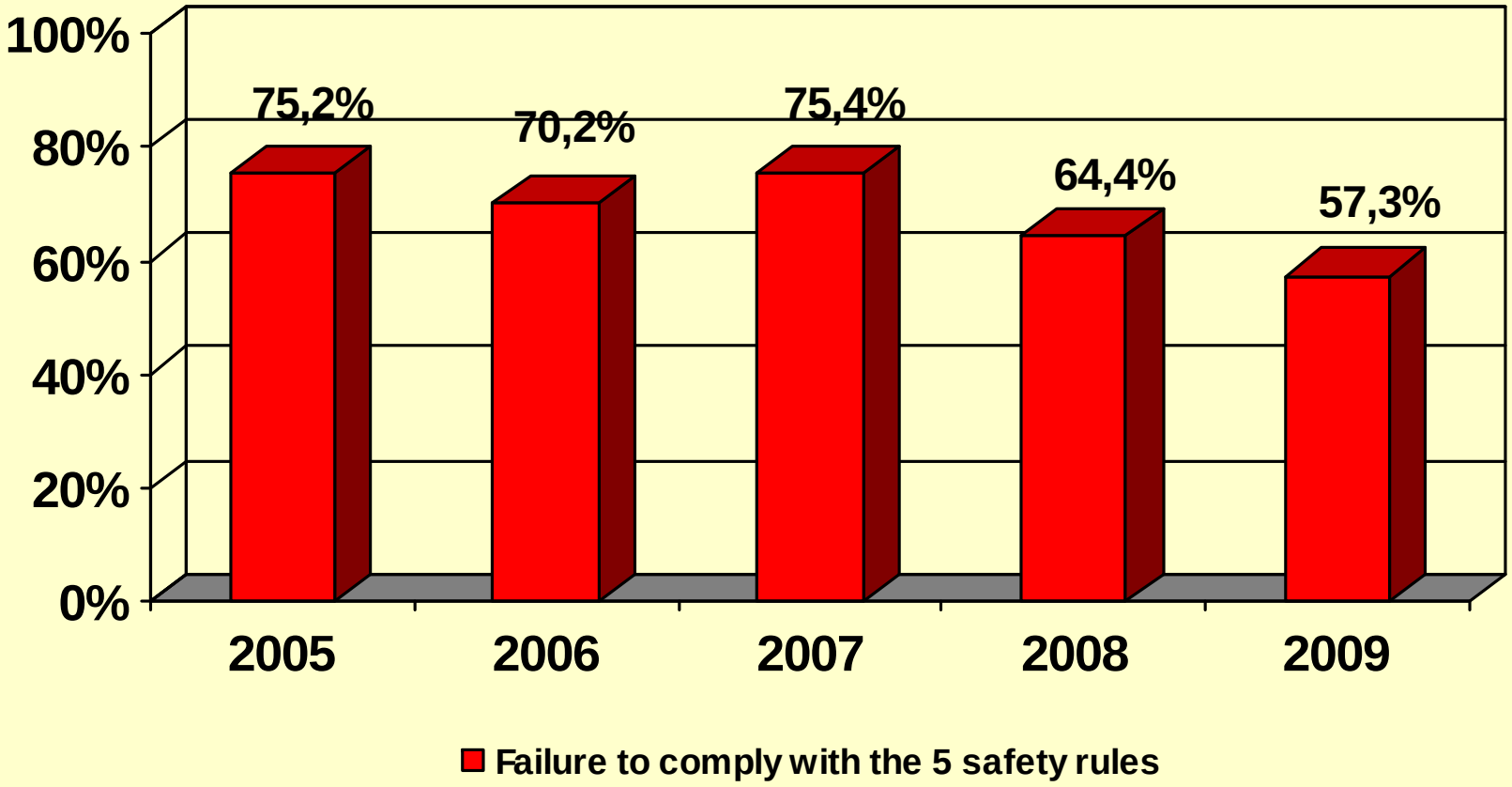
Every 2. or 3. accident is an accident of a trainee!



Causes for electrical Accidents of young Workers

BG ETEM

1. Failure to comply with the 5 safety rules



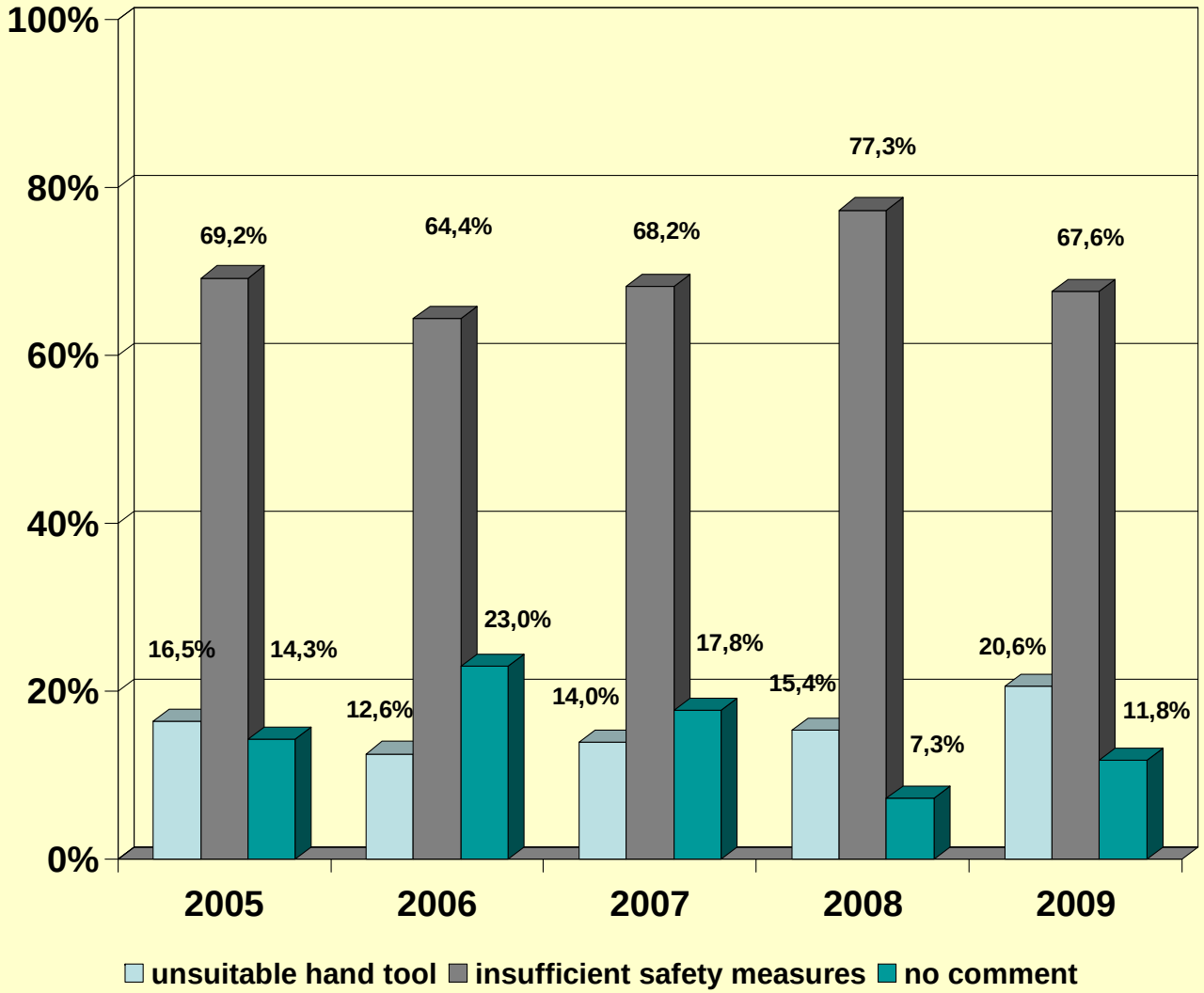
5 Safety Rules

1. Freischalten	**1. Disconnect from the power supply** **Disconnect mains!**
2. Gegen Wiedereinschalten sichern	**2. Take the necessary means to prevent closing of the isolating switches** **Prevent reconnection!**
3. Spannungsfreiheit feststellen	**3. Test absence of voltage** **Test for absence of harmful voltages!**
4. Erden und Kurzschließen	**4. Earthing and short-circuiting** **Ground and short circuit!**
5. Benachbarte unter Spannung stehende Teile abdecken oder abschranken	**5. Protect adjacent live parts by covers and barriers and fit a suitable warning notice** **Cover or close off nearby live parts!**

Causes for electrical Accidents of young Workers

BG ETEM

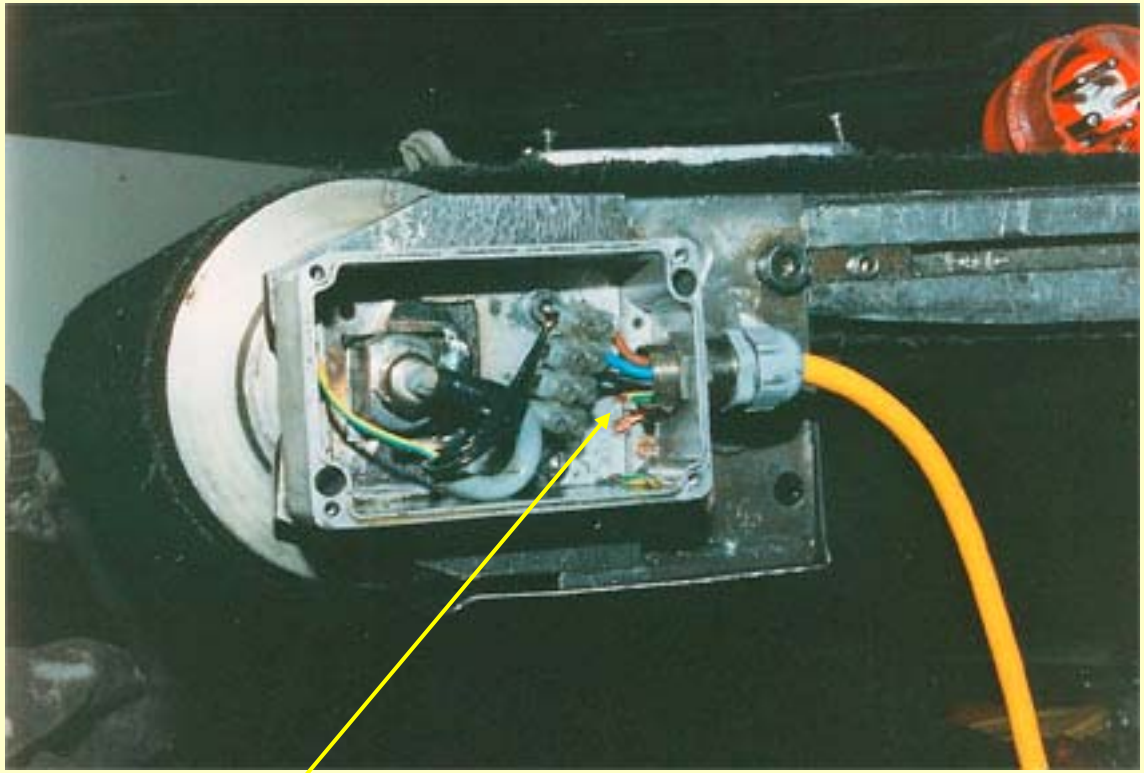
2. Incorrect behaviour



3. Defective electrical equipment (21,3 %)

Examples:

Machine deficiency (belt)



Defective protective conductor connection

Causes for electrical Accidents of young Workers

Defective connecting cable

Causes for electrical Accidents of young Workers

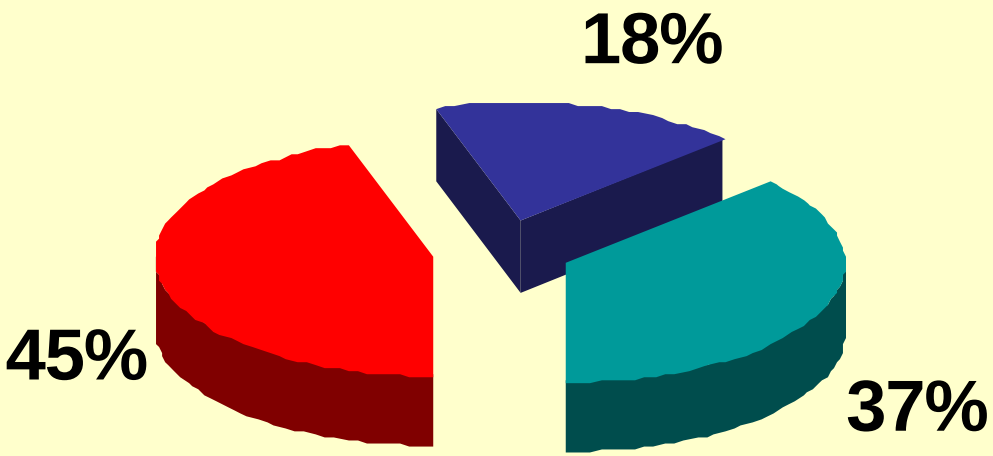
Defective construction site main cabinet

Defective main cabinet

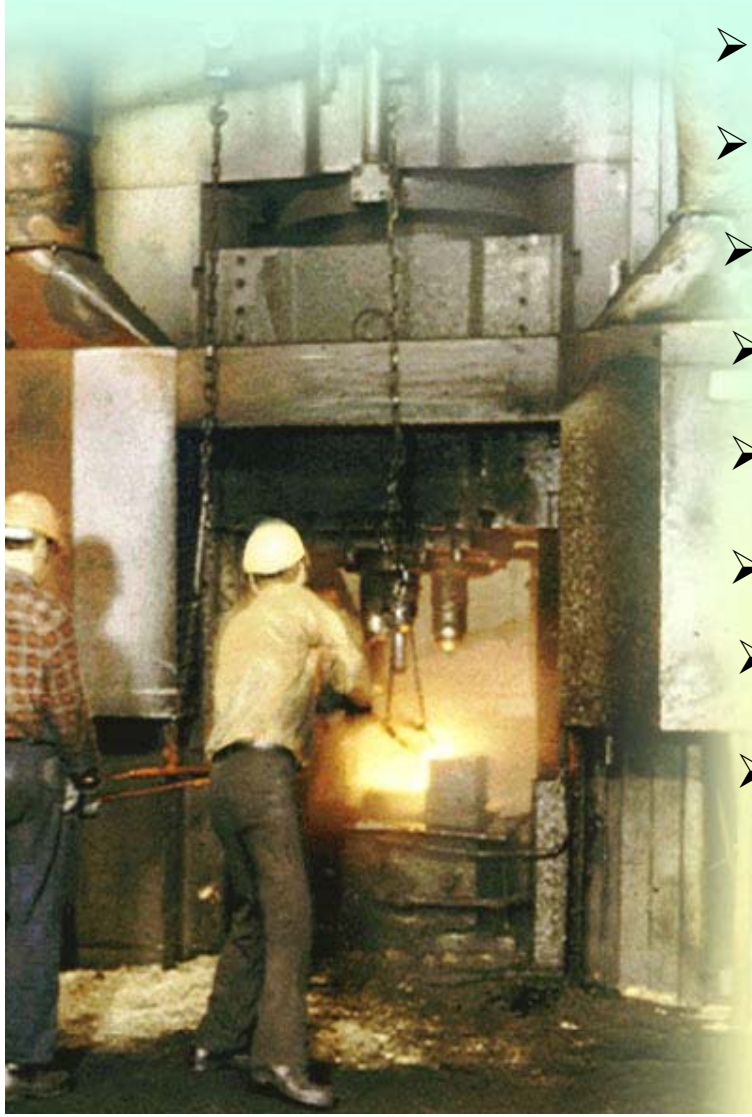
Causes for electric Accidents of young Workers

BG Metal

2009: Evaluation 67 reportable electrical accidents

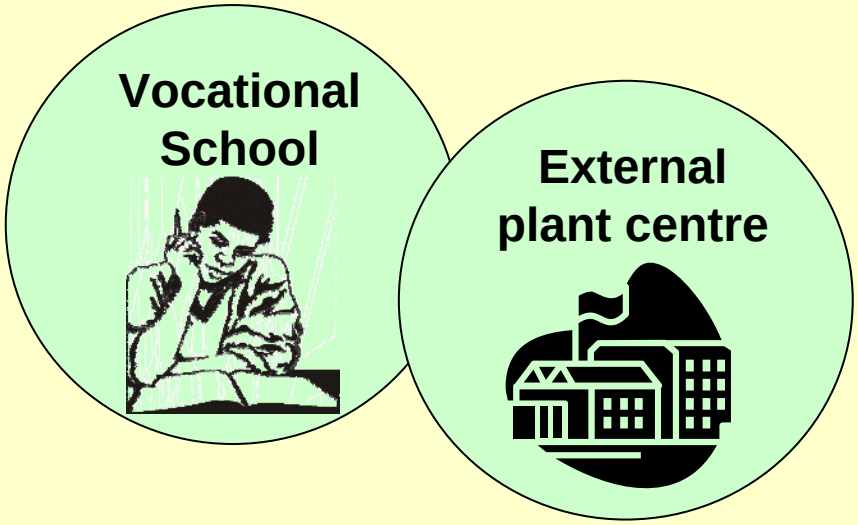


Accident Factors for Apprentices, Young Workers, new Recruits



- Inexperienced Workers
- Live like a candle in the wind
- High risk potential
- Lack of experience with occupational risks
- Risks at the workplace are unknown
- Insufficient sensitivity for OSH
- Missing qualification for safe working
- Often temporary contracts

Solutions: Apprentices (Trainees)



1. Teachers, instructors in vocational training must be trained in OSH
2. OSH must be included in the training of apprentices
3. Teaching material and good methods of teaching

Apprentices, Young Workers, new Recruits in SMEs

Entrants

1. Sufficient qualified in OSH
2. Sensitivity for OSH

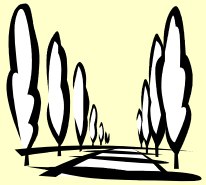
The Employers:

- Responsibility (Organization)
- Sensitivity for OSH
- Sufficient qualified in OSH
- Instructions for OSH (e.g. Risk Assessment)
- Must instruct (dependent on the workplace)
- Must know, what the young workers can do

Interaction

- Must know, what the apprentices have learned.
- The apprentices can use their knowledge (OSH) in SMEs.

ISSA- Joint Research Project “Young workers, new Recruits”



Way:
Cooperation and exchange of experience and knowledge between OSH experts from different countries

Aim:

“Online tool” for the target groups
1) teachers in vocational schools
2) employers in SMEs
3) OSH experts

Content:

- general recommendations for the target groups
- best practice examples in selected sectors

Own Internet page, internet page of ISSA, internet page of SMEs?

ISSA- Joint Research Project “Young workers”

Subjects

Project team 1 (Subject 1)

Prevention by the incorporation of OSH into the training of apprentices (trainees) in vocational schools and SMEs and into the training of young workers in SMEs

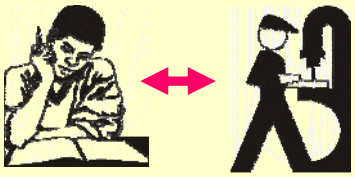
Project team 2 (Subject 2)

Prevention in SMEs (apprentices, young workers and new recruits independent of age)

ISSA Project “Young workers”

Project team 1- Education

Aim:



general recommendations for **teachers**

collection of best practice examples

Remarks:

- **Education of apprentices takes place in vocational schools and in SMEs**

  ⇨ incorpoation of OSH into the training in both cases

- **Interaction** between the **training facilities** and the **SMEs** is of particular importance.

- including OSH training for **young workers** in SMEs

  ⇨ Often **young workers** don´t have a training in OSH (no laws exist or they are not adapted accordingly).

- Guidelines for the training of teachers in the field of OSH

ISSA Project “Young workers”

Project team 2- SMEs

Aim:

general recommendations for **employers** in SMEs

collection of best practice examples

Remarks:

- Recommendation for the integration of apprentices, young workers and new recruits in SMEs.

  ⇨ e.g. mentors, methods of integration, instructions, training programmes for beginners, checklists for young workers

- Practical advices for employers to identify the special risk for apprentices, young workers and new recruits.

  ⇨ e.g. guide lines, checklists

- Influence of OSH trained (or experienced) workers

- Differences between small and large enterprises should be discussed.

ISSA Project “Young workers”

Project team 1- Education

Project team 2- SMEs

Aim:

general recommendations for **OSH experts**

collection of best practice examples

Remarks:

- Methods to create awareness for employers about OSH
- Methods create awareness for teachers about OSH

Good practice Example (structure, description, search criteria)

- used methods (How did you do it? e.g. learning game, questionnaire)
- used tools (What did you use to do it?, e.g. document, flyer)
- target group (What was the target group? e.g. students, age)
- statistics (Did you make or use statistics?)
- framework condition (What needs to be done?)
- approaches (Which steps or methods did you use to do the task?)
- programme (What was your plan to achieve your goal?)
- applicability (Did you check the applicability outside of your framework conditions?)
- indicators for success (Did you use indicators to measure the success? e.g. number of mentors in SMEs)

Questionnaire to describe the good practice example (also in Spanish!

Examples for good practices (1) | Project team 1- Education

The following examples were submitted till now:

Name/ Organization	Title	Short description
1. Alicia Rosas, Peru	Safetystar; www.tecsur.com.pe; Target group: new recruits	Training of employees to work safely in enterprises; an initiative of CASA TECSUR (Electric company, Peru)
2. Peter Coyle , UK, British Safety Council	BCS Entry Level Award in Workplace Hazard Awareness; www.britsafe.org/schools; Target group: young workers	Aim: To raise young people´s awareness of workplace hazards when they enter the workplace for the first time, 8-10 hours is recommended to complete the programme, the programme aims to provide students with a broad understanding of risk and hazards in the workplace, it is not specific to a particular industry
3. Sabine Storch, Germany, BG Metall	Incorporation of OSH in vocational schools www.mmbg.de; cklick on JUGEND, Login: Lehrer, lehren; Target group: teachers	Methods and materials for occupational schools, downloadable from webpage

The following examples were submitted till now:

Name/ Organization	Title	Short description
4. Peter Bärenz, Germany, BGN	Lernspiel (Learning game, play); Target group: apprentices	The apprentices learn examples of prevention through playing a game The students solve alone or together tasks of prevention (e.g. first aid, fire protection) with at most 12 stations.
5. Martina Hesse-Spötter, Albrecht Glöckle, Germany, BGETEM	1. Mir passiert schon nix (Nothing will happen to me), www.bgetem.de/nixx/nixx_home.html; 2. New workplaces- new risks; Target group: young workers	1. Campaign for apprentices (DVDs. brochures); 2. Advice for young workers in the printing industry

Examples for good practices (3)

The following examples were submitted till now:

Name/ Organization	Title	Short description
Stefan-Gabriel Kovacs, Romania	PROTECT; Target group: safety manager	Guide and a methodology for gradual implementation of safety culture for young workers into SMEs
Reinaldo Chavez, Jacinto Lavin, Cuba	Incorporation of OSH into the training of young electricians	Different methods of implemenation of OSH in the education

Examples for good practices (1)

The following examples were submitted till now:

Name/ Organization	Title	Short description
1. Bernard Leseux, France	Synergie; Practical training in risk assessment for vocational students, How to integrate OHS into education?; www.cra-alsace-moselle.fr; Target group: apprentices	Analysing the risks in real working situations and making proposals to improve safety (connection between school and enterprise)
2. Astrid Kaeding, Germany, BG Metall	Round table diskcussion for Safety and Health in SMEs; Target group: apprentices	Proof of qualification, Guidelines for the training of teachers in OSH in workshops and in the enterprise
3. Othmar Wettmann, Switzerland, suva	Sensibilisierungskampagne „Risikoverhalten Forst“ (Campaign for awareness of hazards in forestry) , www.suva.ch/forst; Target group: new recruits	Code of behavior in forestry (checklists, handouts, DVDs…)

Examples for good practices (2)

The following examples were submitted till now:

Name/ Organization	Title	Short description
Michael Abromeit, IAPA, Canada	Young workers awareness program (YWAP), www.youngworkers.ca; Target group: young workers	It helps young workers identify hazards at the workplace, while explaining that everyone has the legal right to protect their health
Rudy Burgherr, BUL and AGRISS, Switzerland	Multilingual brochures for foreigners on farms; www.bul.ch; Target group: new recruits	Prevention in agriculture, teaching material for the trainees and basic information for employers

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SISE 2010, Bogotá, Colombia