



**DGUV**

Fachbereich Handel und Logistik

Berufsgenossenschaft

Handel und Warenlogistik

# Milk run trains – Idea of the past with future

Marcus Gaub

# Milk run trains – Idea of the past with future

What is the topic of this presentation?



[Schweizer Sozialarchiv]

# Milk run trains – Idea of the past with future

What is the topic of this presentation?



[DGUV]

# Milk run trains – Idea of the past with future

What is the topic of this presentation?



Operator

Trailers

Towing Unit

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Milk Run Trains (en.)

Trailer Trains (en.)

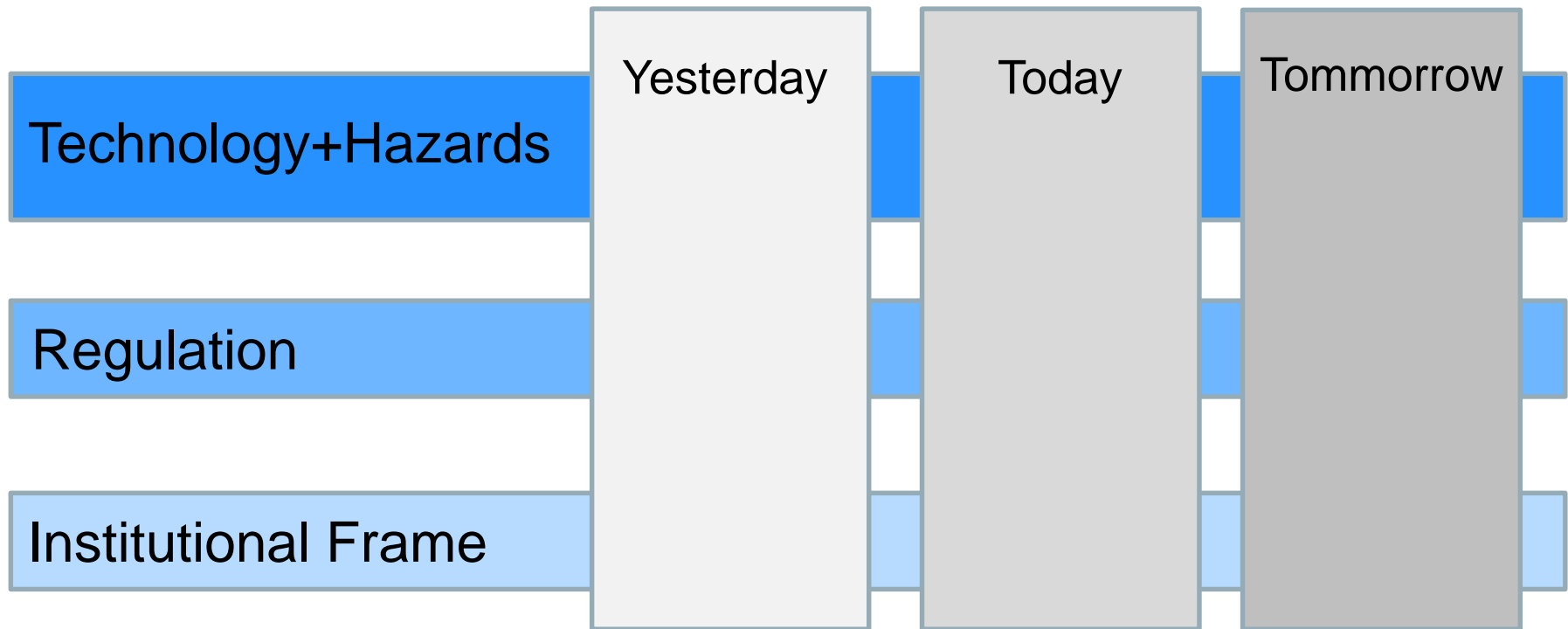
Tugger Trains (en.)

Routenzüge (dt.)

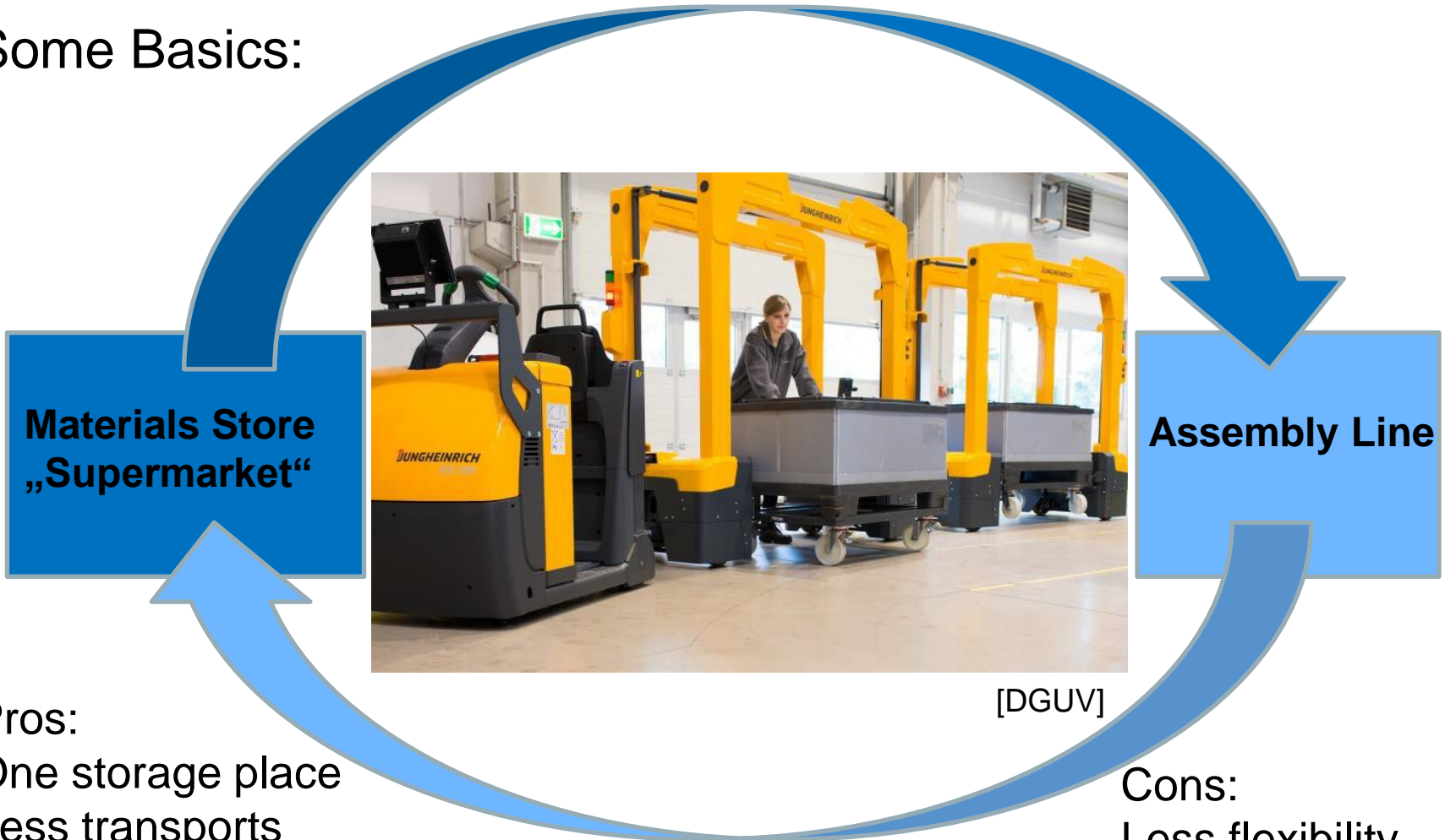
Tugger (fr.)

# Milk run trains – Idea of the past with future

## Structure of this presentation



Some Basics:



Pros:

- One storage place
- Less transports
- Less industrial trucks

Cons:

- Less flexibility
- Longer way to POU

## Yesterday: Technology and Hazards



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### **Technology:**

- Tractor and driver
- Simple trailers with 4 castors
- Pin coupling

### **Main Hazards:**

- Run over/crushing of persons
- Hand injuries during coupling
- From the track running the trailers
- Tipping of the trailer when cornering

## Today: Technology and Hazards



### Technology:

- Tractor and driver
- Adapted trailers with steering systems
- Special coupling systems
- Assistance systems for speed control

### Main Hazards:

- ~~Run over/crushing of persons~~
- ~~Hand injuries during coupling~~
- ~~From the track running the trailers~~
- ~~Tipping of the trailer when cornering~~
- Run over/crushing of persons at train start-up



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## Tomorrow: Technology and Hazards



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### **Technology:**

- Automated (guided) tractor
- Adapted trailers with steering systems
- Special coupling systems
- Assistance system for speed control
- People recognition systems

### **Main Hazards:**

- ~~Run over/crushing of persons at train start-up~~
- Control error (safety)
- Takeover of control (security)

## Development of technology and hazards



Main hazards relate to:

- Operator
- Co-Worker
- Hardware

- Operator
- Co-Worker
- (Hardware)

- Software

The hazards change, some are minimized by the technology development, others are created by the technology again

## Regulation



National User Regulation  
Machinery Law  
(National Standards)

- Operator
- User
- Manufacturer (H)



(National User Regulation)  
European HS Directives  
EU Machinery Directive  
EU Harmonized Standards  
International Standards

- Operator
- User
- Manufacturer (H)

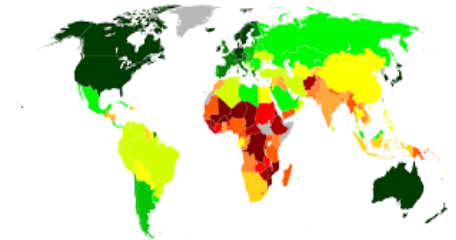


(National User Regulation)  
European HS Directives  
EU Machinery Directive  
EU Harmonized Standards  
International Standards

- Operator
- User
- Manufacturer (H)

Newly created hazards are not yet sufficiently addressed in regulation

## Institutions



The institutions that will draw up the relevant standards in future are doing so at international level, and OH&S should/must follow this path.  
**Standardization and testing are gaining in importance.**



[Milchkanne Käserei Kerzers Pittet; Vordere Gasse 15, CH 3210 Kerzers]

**Thank you very much for your attention!**