



This project is co-funded by the European Union and the Republic of Turkey

# Technical Assistance for Assessment of Türkiye's Potential on Transition to Circular Economy

EuropeAid/140562/IH/SER/TR

Circular ELV: De-Pollution & Dismantling

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Activity 1.2.2 - Circular Economy Workshops  
4th of October 2022, Ankara, Türkiye

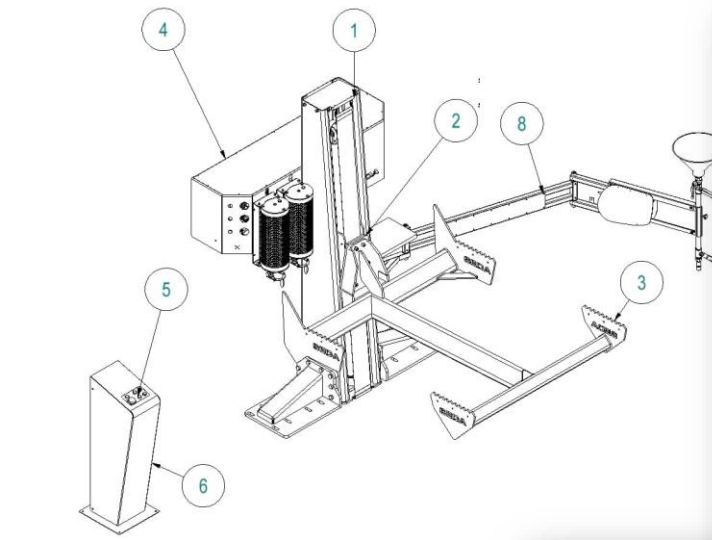
# SEDA & SEDA's Network



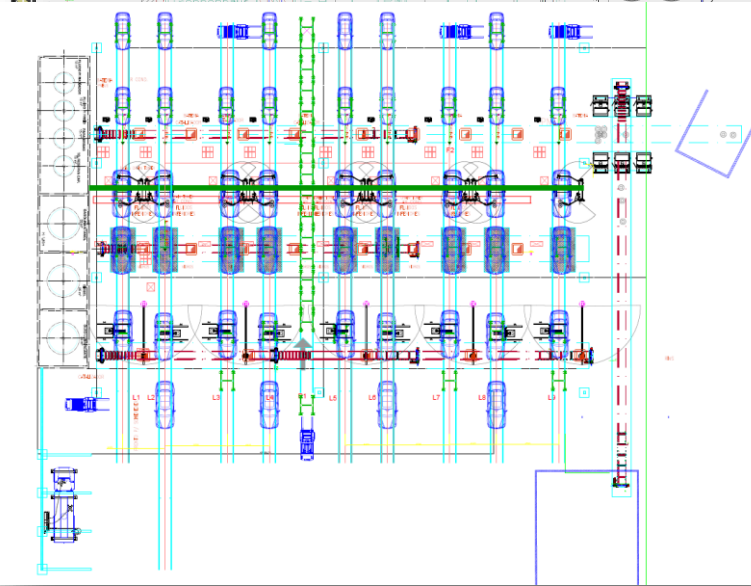
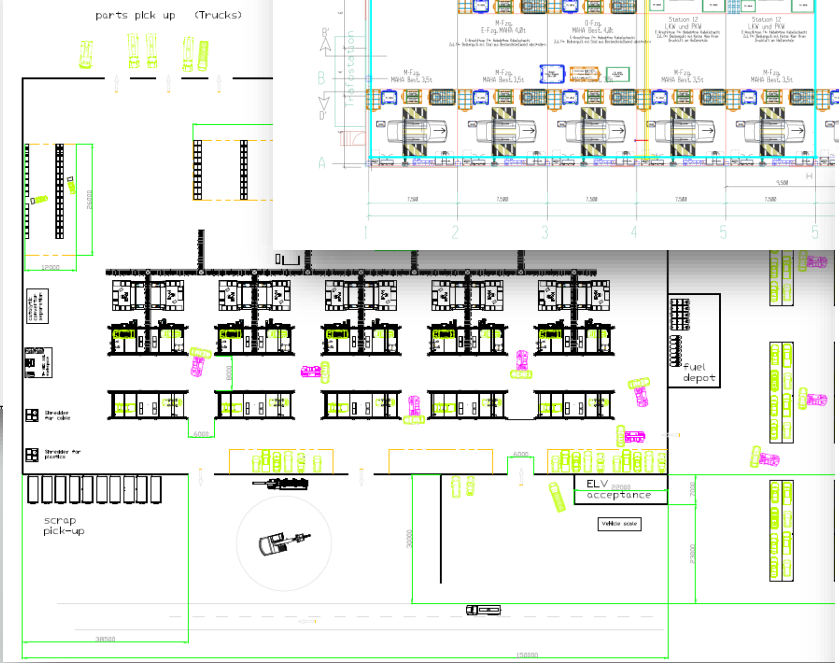
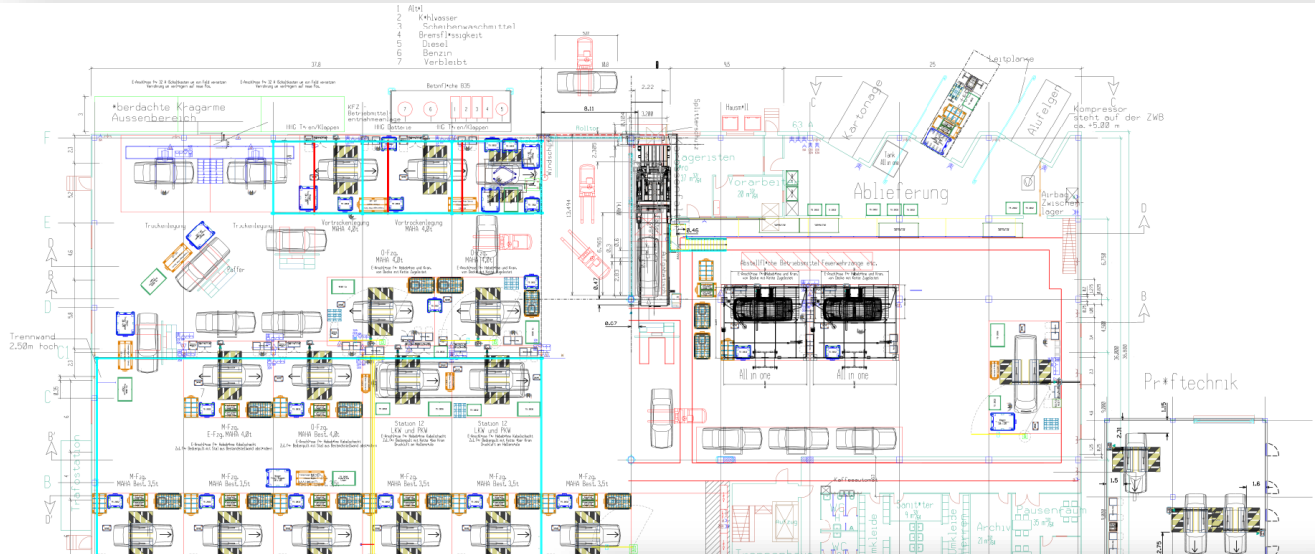
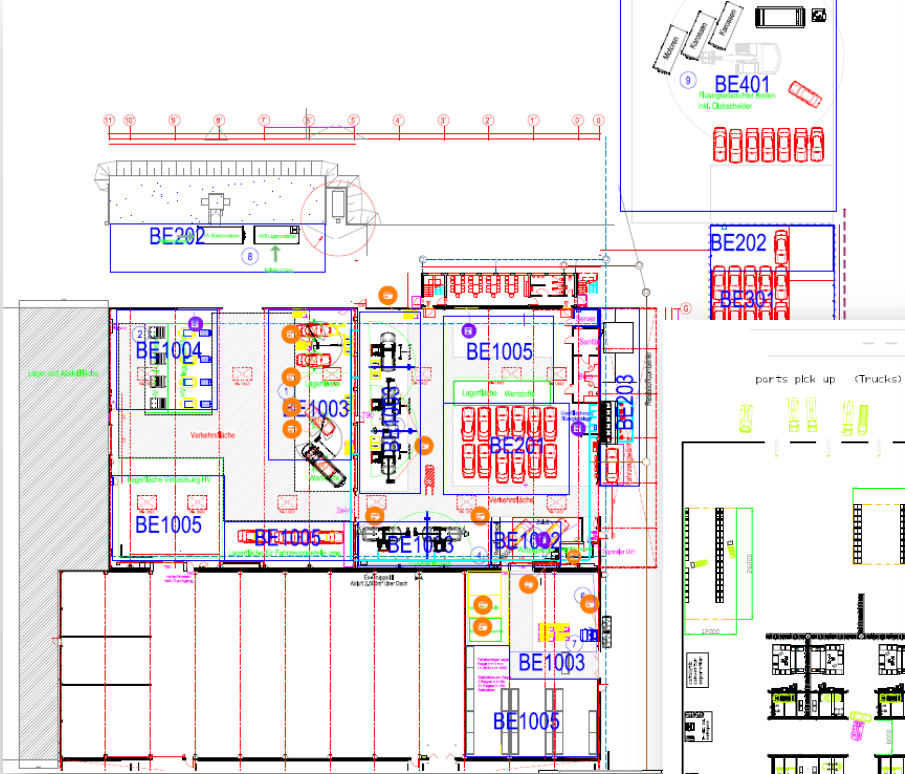
- World market leader in car recycling equipment
- Over 50 years on the market
- Headquarters in Tyrol
- 6 subsidiaries
- 26 distributors worldwide
- Own research & development department
- ISO: 9001 certified



# SEDA ELV De-Pollution & Disassembling Equipment



# SEDA Facility Planning & Design



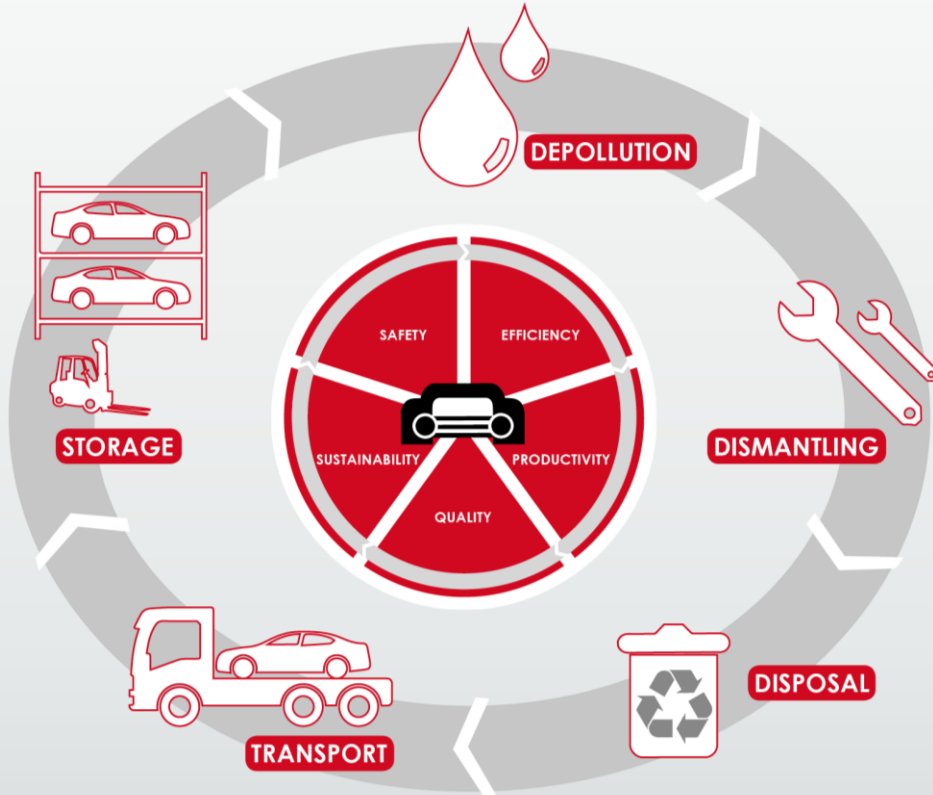
# SEDA References



# EU ELV Directive – Targets



- From 2006:
  - ✓ Minimum reuse and recovery rate: 85%
  - ✓ Minimum reuse and recycling rate: 80%
- From 2015:
  - ✓ Minimum reuse and recovery rate: 95%
  - ✓ Minimum reuse and recycling rate: 85%



## Design (Producer) responsibilities:

- to limit the use of hazardous substances in vehicles
- to design cars in a way that facilitates dismantling, recycling, reuse and recovery
- integrate more recycled materials in new vehicles

## Organisational responsibilities:

- Economic operators to set up collection systems and achieve targets

## Information responsibility (coding standards):

- Coding standards to facilitate identification of components suitable for reuse and recovery
- Provide dismantling information, ia on location of all hazardous substances in vehicles: IDIS – International Dismantling Information System

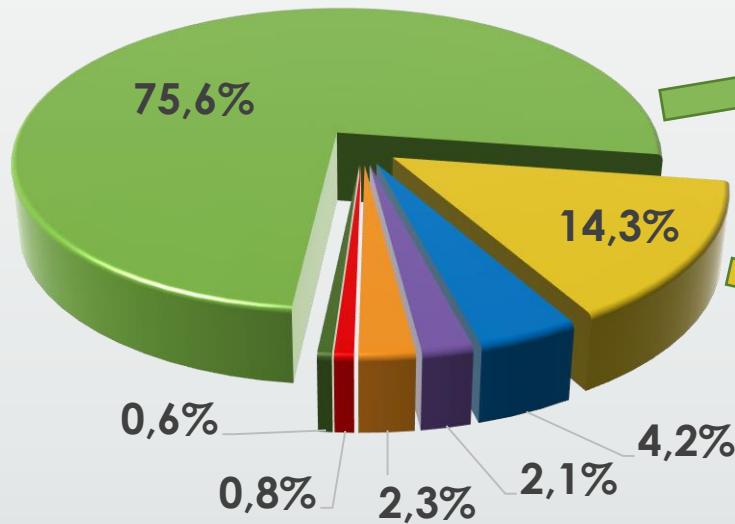
# Resources a scrap car offers



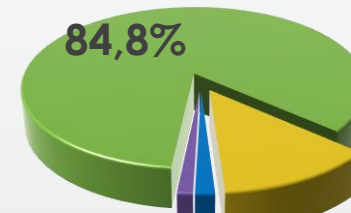
Material	KG	%
Scrap metal	690,00	69,26%
Plastics (PP, PA, ABS...)	20,00	2,01%
Cables	11,00	1,10%
Aluminium (radiators, parts...)	25,00	2,51%
Motors (alu) 0.5 motor for spare part	52,00	5,22%
Catalytic converter	0,30	0,03%
Batteries	12,00	1,20%
Tyres (Qty 5)	35,00	3,51%
Glass	30,00	3,01%
Spare parts	100,00	10,04%
Fuel (petrol, diesel)	10,40	1,04%
Waste oil (engine, transmission, gear & steering oil)	5,80	0,58%
Coolant fluid	2,80	0,28%
Brake fluid	1,00	0,10%
Windscreenwasher fluid	1,00	0,10%
	996,30	100,00%
<b>Source:</b>		
Re-source Engineering Solutions, France		



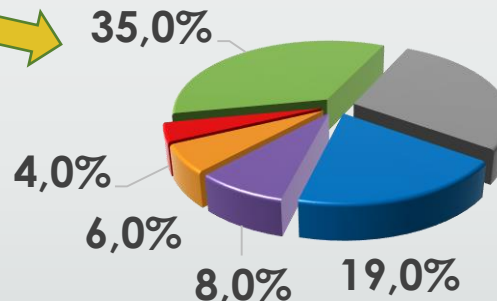
# Resources a scrap car offers



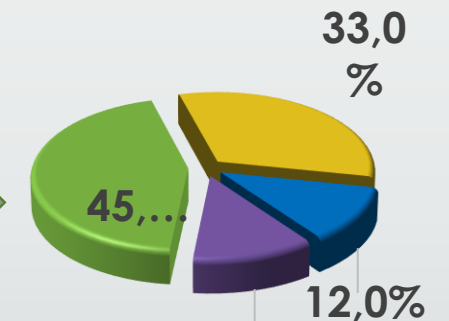
- Metals
- Polymers
- Elastomers
- Glas
- Fluids
- Natural Materials
- Ohter



- Steel
- Aluminum
- Other Metals
- Copper



- Other Polymers
- PP
- P/E
- PA
- PUR
- ABS



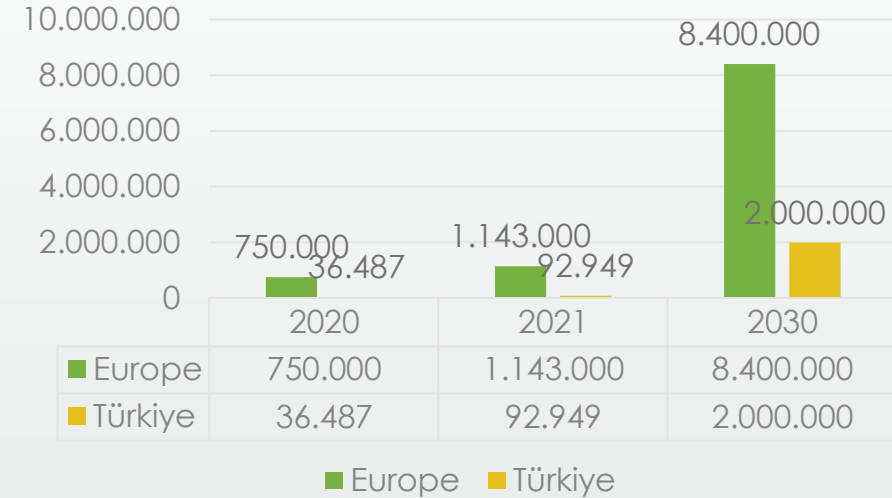
- PP pure
- PP with more than 10% mineral load
- PP with glass charge



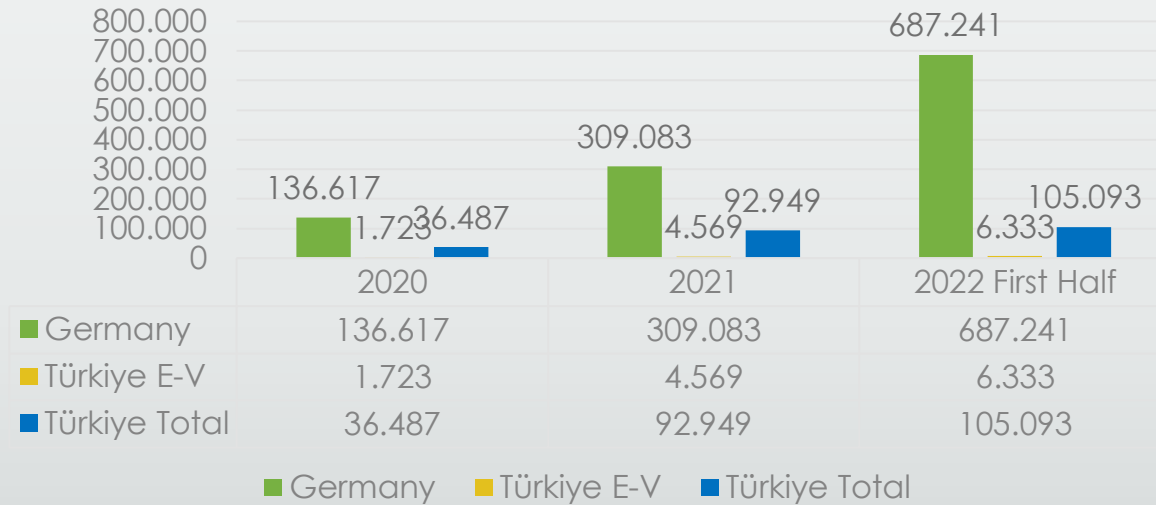
# E-Vehicles Europe vs. Türkiye



## E-Vehicles Europe & Türkiye

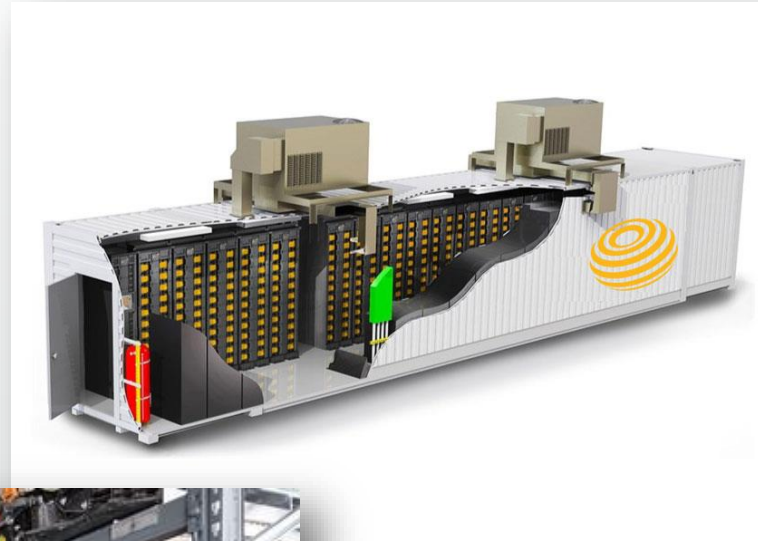


## E-Vehicles in Germany & Türkiye



Source: Statista Germany & TUIK Türkiye

# Li-Ion Batteries



- Average lifespan ~10 years
- Li-Ion battery pack 3-6 EUR / kg
- 250.000 tons of End of Life Batteries by 2030



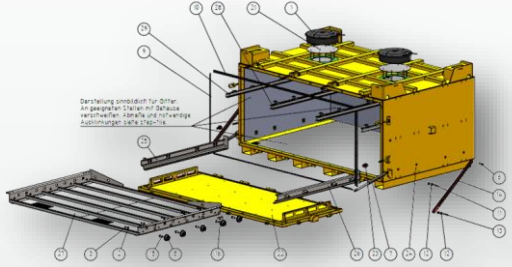
# Li-Ion Disassembling Equipment



- HV Stations
- HV Devices
- HV Tools & Accessories



# SEDA E-ELV De-Pollution & Disassembling Equipment



# HV Premises

- Support in the approval procedure
- Risk analysis
- Process description
- Drawings / Flow charts
- Specification booklet

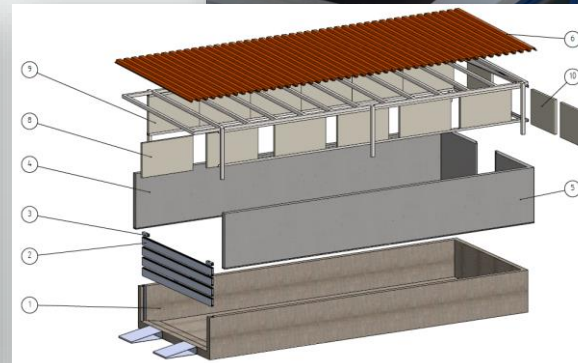
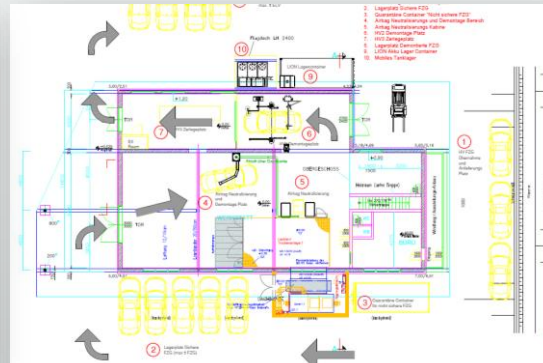
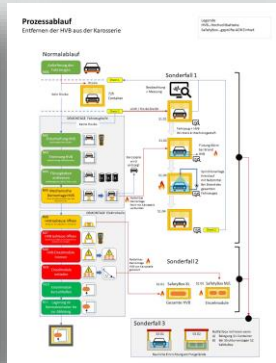
Prüfung	Ergebnis	Prüfungstermin	Prüfungsort	Prüfungsergebnis
1. Bauantrag	gebilligt	12.12.2018	BA 1	1. Bauantrag
2. Baugenehmigung	gebilligt	15.01.2019	BA 2	Baugenehmigung
3. Baubeginn	gebilligt	15.01.2019	BA 3	Baubeginn
4. Baufortschritt	gebilligt	15.01.2019	BA 4	Baufortschritt
5. Baubereitstellung	gebilligt	15.01.2019	BA 5	Baubereitstellung
6. Baubereitstellung	gebilligt	15.01.2019	BA 6	Baubereitstellung
7. Baubereitstellung	gebilligt	15.01.2019	BA 7	Baubereitstellung
8. Baubereitstellung	gebilligt	15.01.2019	BA 8	Baubereitstellung
9. Baubereitstellung	gebilligt	15.01.2019	BA 9	Baubereitstellung
10. Baubereitstellung	gebilligt	15.01.2019	BA 10	Baubereitstellung

22.3. Bewertung der Gefahren (DIN 4 und DIN 5)

Gefahr	Ursache	Maßnahme	Risiko
1.1.1.1.1.1.1	...	...	...
1.1.1.1.1.1.2	...	...	...
1.1.1.1.1.1.3	...	...	...
1.1.1.1.1.1.4	...	...	...
1.1.1.1.1.1.5	...	...	...
1.1.1.1.1.1.6	...	...	...
1.1.1.1.1.1.7	...	...	...
1.1.1.1.1.1.8	...	...	...
1.1.1.1.1.1.9	...	...	...
1.1.1.1.1.1.10	...	...	...

22.4. Beschreibung der Maßnahmen zur Risikoreduzierung (DIN 4)

Maßnahme	Maßnahme	Maßnahme	Maßnahme
1.1.1.1.1.1.1	...	...	...
1.1.1.1.1.1.2	...	...	...
1.1.1.1.1.1.3	...	...	...
1.1.1.1.1.1.4	...	...	...
1.1.1.1.1.1.5	...	...	...
1.1.1.1.1.1.6	...	...	...
1.1.1.1.1.1.7	...	...	...
1.1.1.1.1.1.8	...	...	...
1.1.1.1.1.1.9	...	...	...
1.1.1.1.1.1.10	...	...	...



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# Thanks for your attention.



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