



Federal Office of Defence Technology and Procurement



**Disposal / destruction of German cluster
munitions stockpiles
- Conference Genf Juni 2011 -**



Bundeswehr



Subject: Disposal / destruction of German cluster munition stockpiles

Held by:

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Photos with friendly authorization of the companys : Fa. Nammo Buck GmbH and Fa. Muni Berka

Overview



- Disposal of German Cluster Munition (Situation of the destruction in Juni 2011)
- The utilization process (method used for destruction)
- Special risks
- Cost for the utilization of cluster munitions
- Time schedule of the utilization Process



Quantity of German Cluster Munition

Disposal of German Cluster Munition :

Sum of German Cluster Munitions
= 520.000 EA (more than 51.000 t)



more than 60.500.000 pieces of Submunitions !





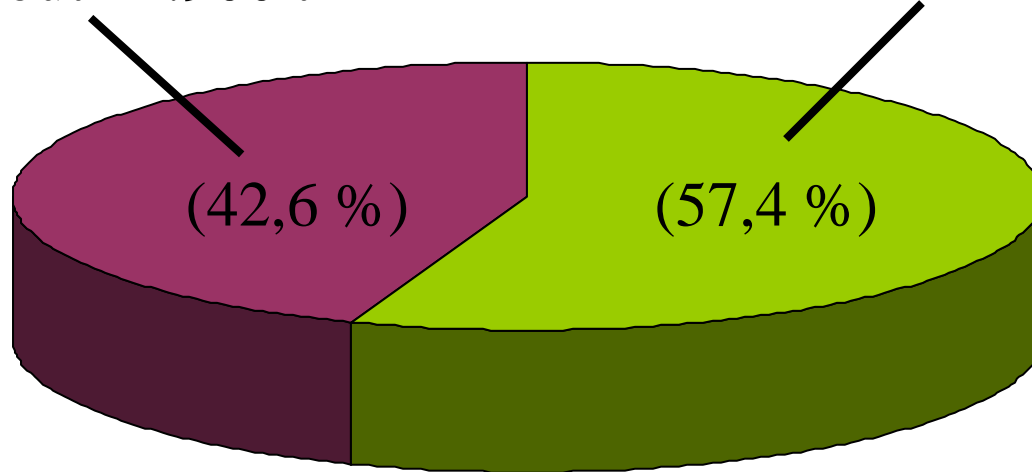
Disposal of the German Cluster Munition (Juni 2011)

| Designation | Submunition each Warhead (EA) | Already destroyed – Juni 2011 | Still to destroy - Juni 2011 |
|---|--|--|---|
| 203 mm, 155mm Projectile (DM 602, DM 612, DM 632, DM652, DM 642, M483A1) | From 63 EA up to 120 EA | 17.290 t | 10.585 t |
| BL 755 | 147 EA | 6.009 t | 0 t |
| Ausstoßgerätesatz DM 11, DM12, DM22, DM31, DM32 | From 200 EA up to 4.536 EA | 3.532 t | 265 t |
| MLRS M26-RPC | 6 Raks a 644 EA = 3.864 EA | 2.686 t | 11.101 t |
| | | | |
| Summary : | > 60.500.000 EA | 29.517 t | 21.951 t |

Disposal of the German Cluster Mmunition (Juni 2011)

Still to destroy :
round about 21.900 t

Already destroyed :
round about 29.500 t



Completion of disposal : scheduled for December 2015

1) The problematic Way



The problematic Way



- **Problems with environmental regulations (Dioxine, Furane ...)**
- **Possibility of active submunition in the detonation area**

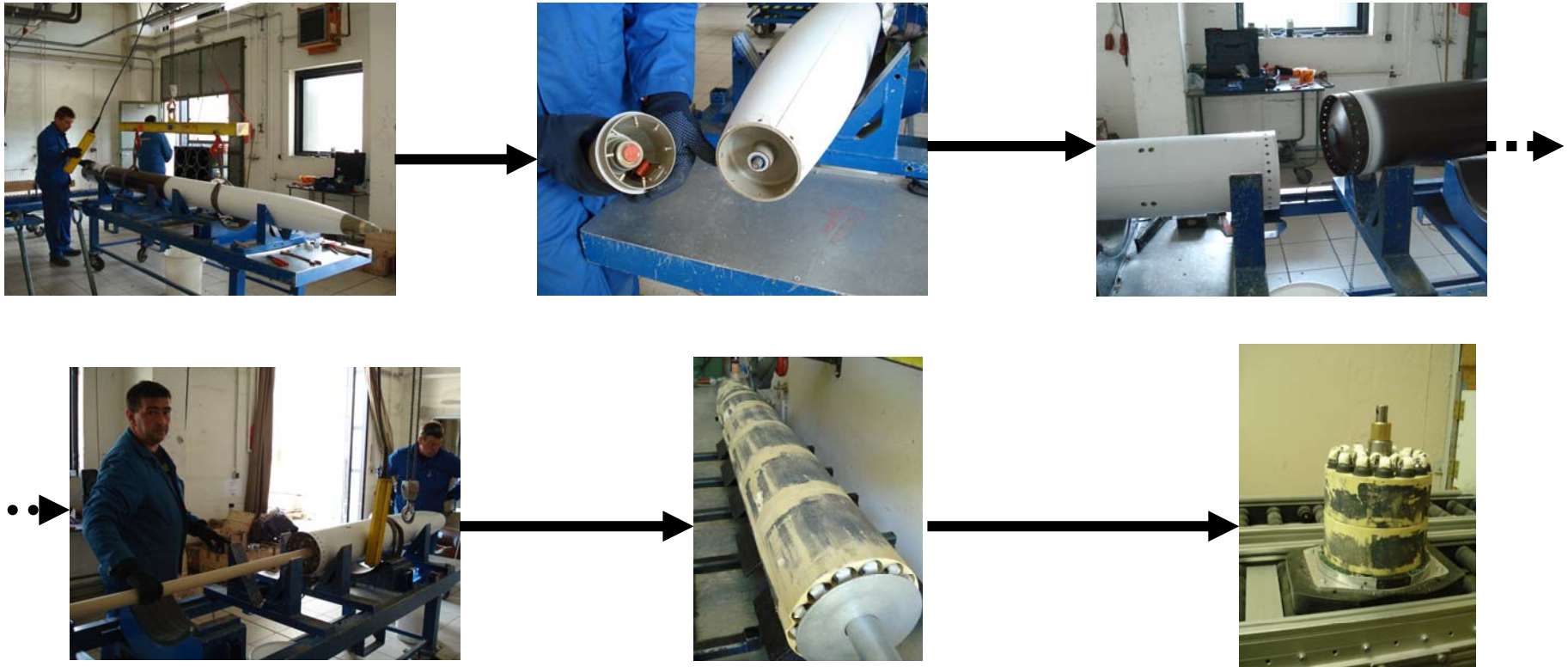


The Utilization Process (Method in Germany)



General process to destroy German Cluster Muniton (1)

- **Deactivation of the Warhead (removal of fuzes and explosives)**



General process to destroy German Cluster Mmunition (2)

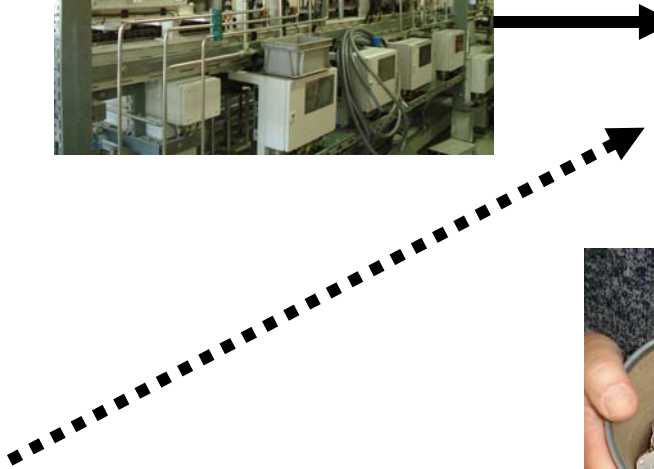
- Destruction of the submunitions:



(MLRS)



(ICM)

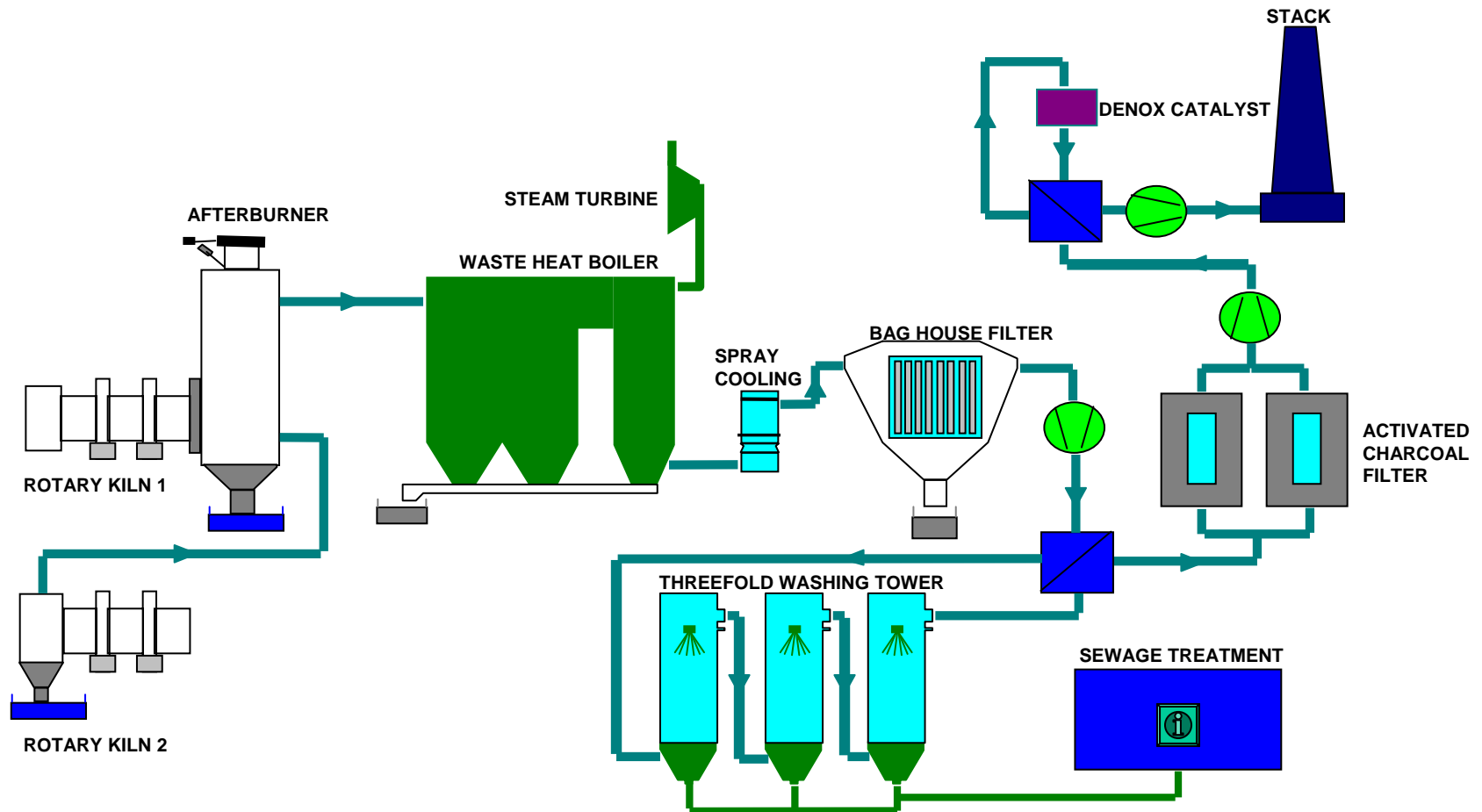


General process to destroy German Cluster Mmunition (3)

- Disposal of submunitions (explosives)

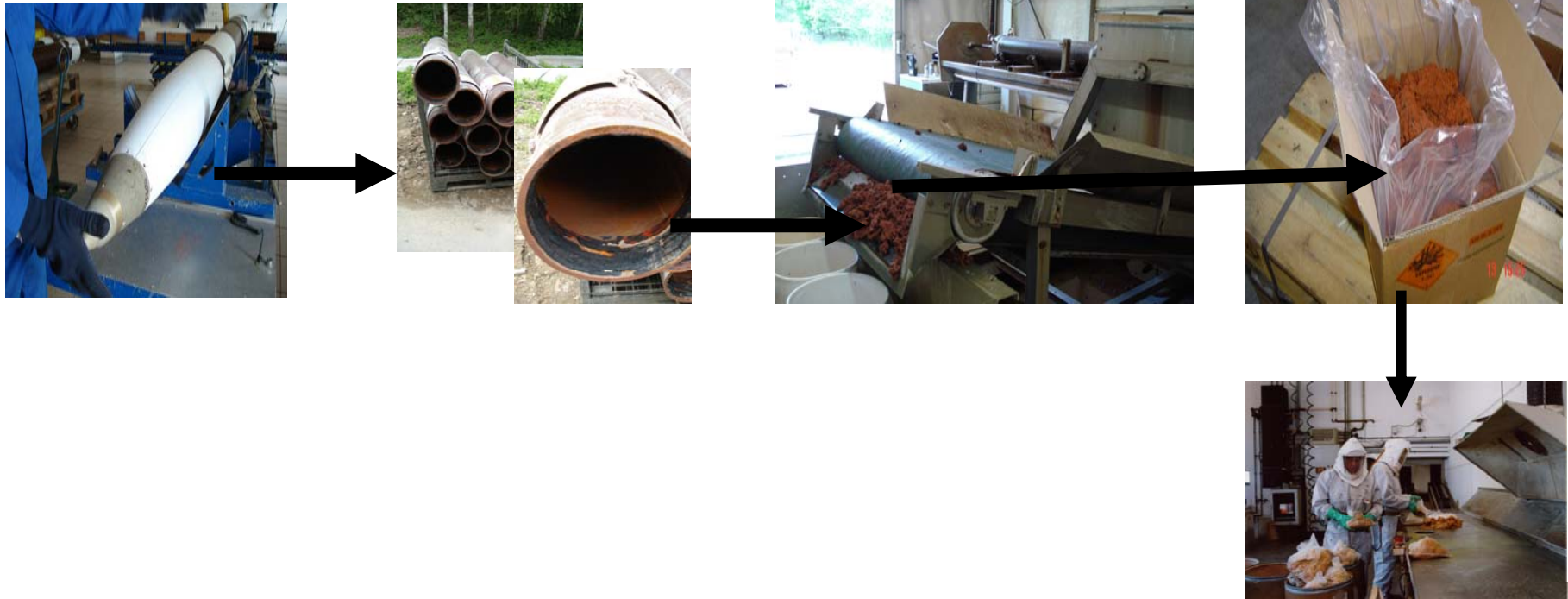


General process to destroy German Cluster Munition (4)



General process to destroy German Cluster Munition (5)

Disposal of residues :



Summary of the main points

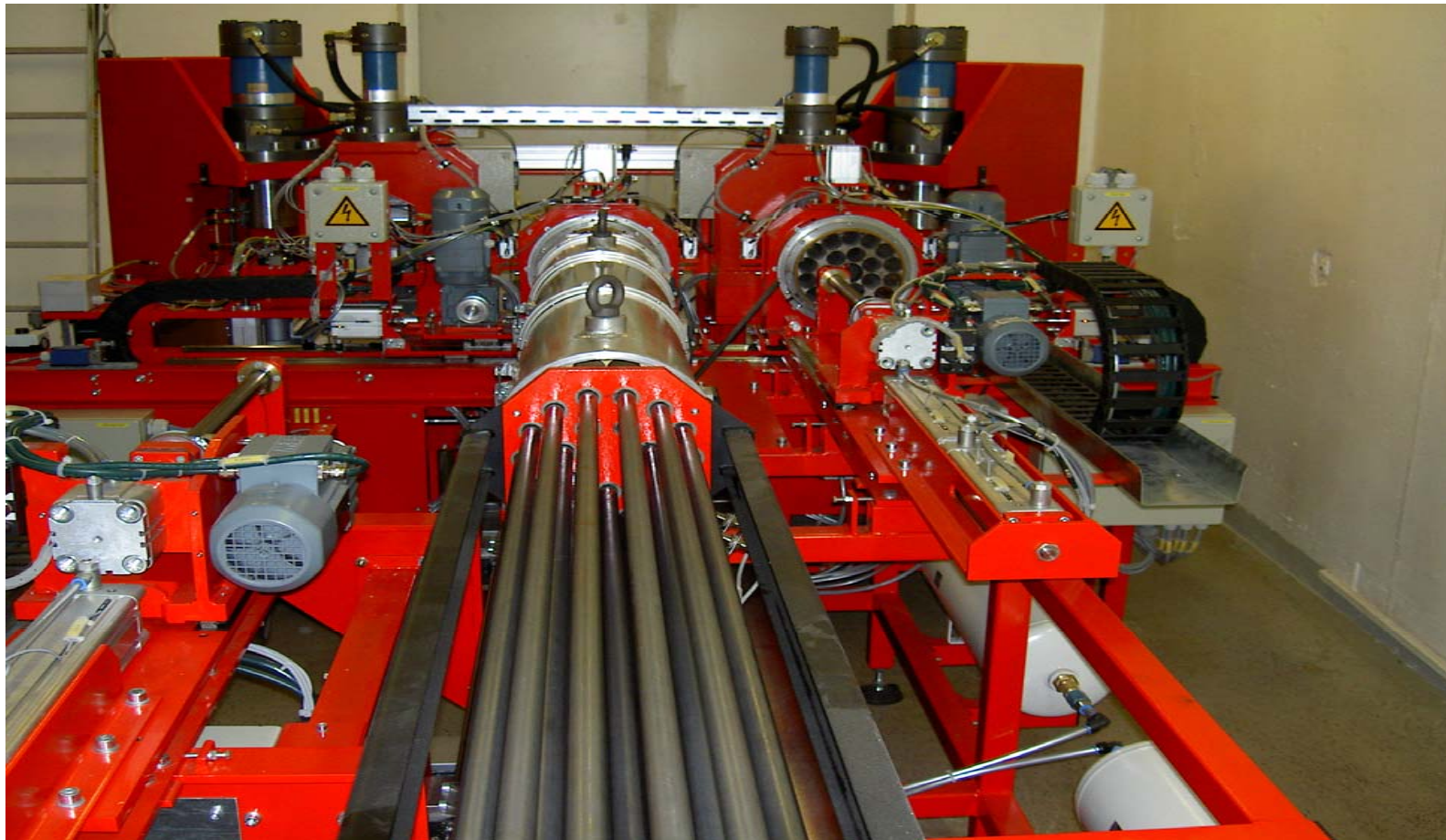
- Full automatic process !!
- No persons during the disposal process !!
- Loading of the complete warhead
- Thermal treatment of the submunitions or recycling



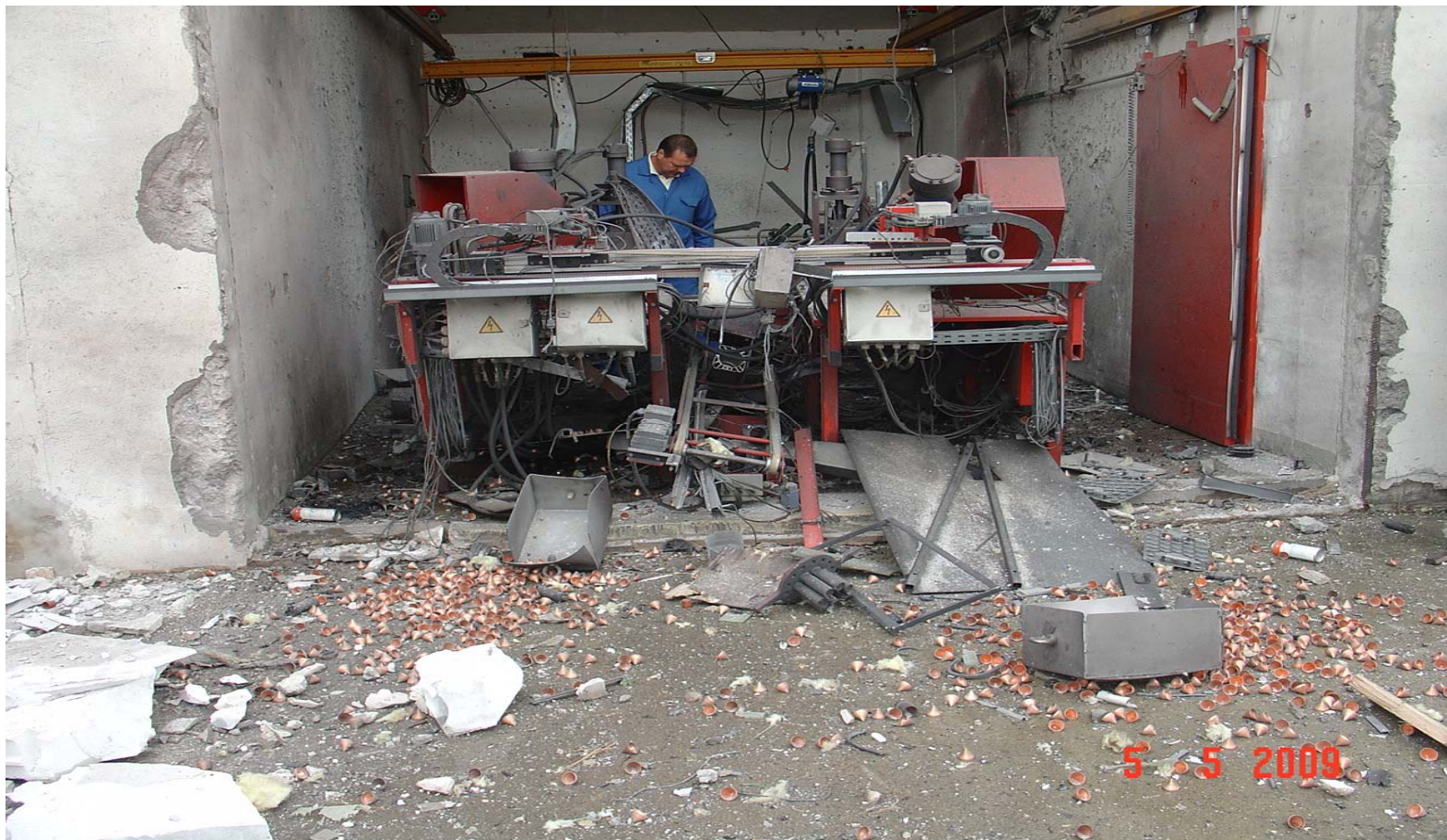


Special risks

Special risks – Disposal MLRS (1) Test equipment - 2009 (before...)



Special risks – Disposal MLRS (2) Test equipment - 2009 (afterwards...)



Special risks – Disposal MLRS (3)



Special risks – Disposal MLRS (4)





Costs for the utilization of the Cluster Munitions

Costs for the utilization of the Cluster Munitions (examples)

- MLRS M26 (1 Rocket a 644 Bombletts) : about 600 €each Piece
- Clusterbomb BL 755 : about 320 €each Piece
- 155 mm Projectile DM602 : about 25 €each Piece
- 203 mm Projectile DM602 : about 45 €each Piece

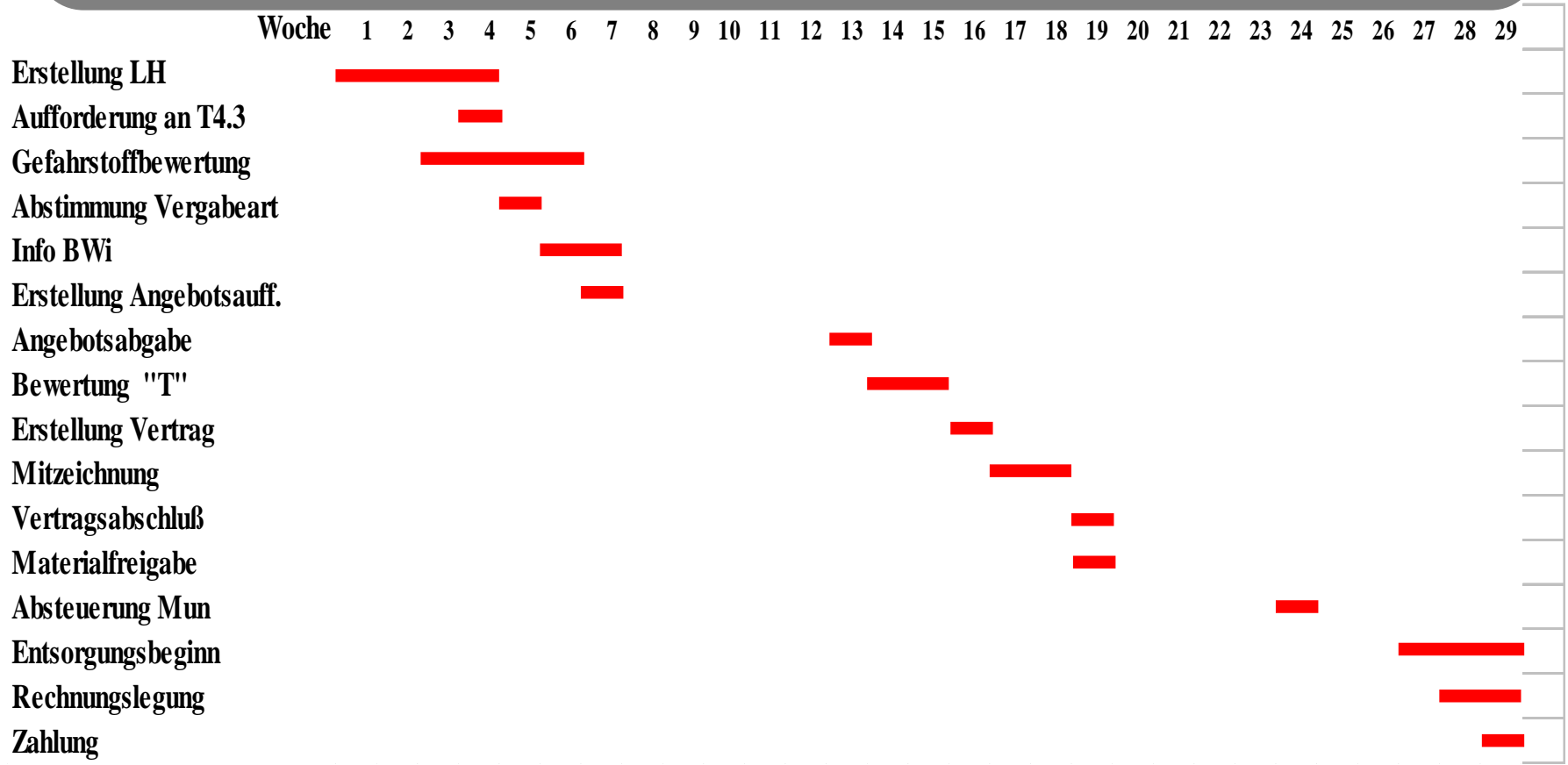
**General Costs for utilization the Disposal of German Cluster ammunition :
about 37 Mio. €**



Time schedule of the Utilization Process



Minimum time schedule of the utilization process



From the planning to payment (one Contract) : total about 29 Weeks

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