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Resilient nations.

10th WORKSHOP OF REGIONAL APPROACH TO
STOCKPILE REDUCTION (RASR)
OF CONVENTIONAL WEAPONS AND MUNITIONS
9-11 October 2018
Tirana, Albania

Challenges and good practices in disposal of
large caliber ammunition including
environmental aspects of the disposal

UNDP BiH

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Content

- *Context*
- *Ammunition disposal challenges*
- *Environmental aspect*
- *Lessons learned*



• Context

- 2007 - stock of ammunition of 36,000 tonnes;
- Average age 35+ years - almost all with no service/storage history;
- Country wide presence;
- 2013 start of 100% Inspection and inventory;
- Overarching coordination BiH AWE Master plan;
- Continuous international support;
- Currently at 14,000 tonnes total.

- *In the last 10 year the international community has supported disposal over 15,000 tonnes of ammo;*
- *AF Formation kit calls for 7000 tonnes;*
- *UNDP was/is at the forefront of industrial demilitarization supported by the EU in four stages (SAC BiH I&II, EXPLODE and EUSTAR) amounting to 12,4 million EURO;*
- *Also supporting specific disposal activities: Germany, Netherlands, Norway and USA;*
- *By end of 2019 AWE Master plan calls for disposal of all unsafe/surplus ammunition to enable sustainable stockpile management system start with overall stocks at/or under 10,000.*



- *Large quantities on uncared for ammunition;*
- *Situation worsen by sealing the crates before an inventory;*
- *Majority stored in improper conditions;*
- *No maintenance whatsoever;*
- *No clear indicators on origin, number, types and/or models;*
- *Expired shelf life.*









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WSS

2 Prospective
28 Non-Prospective

WSS

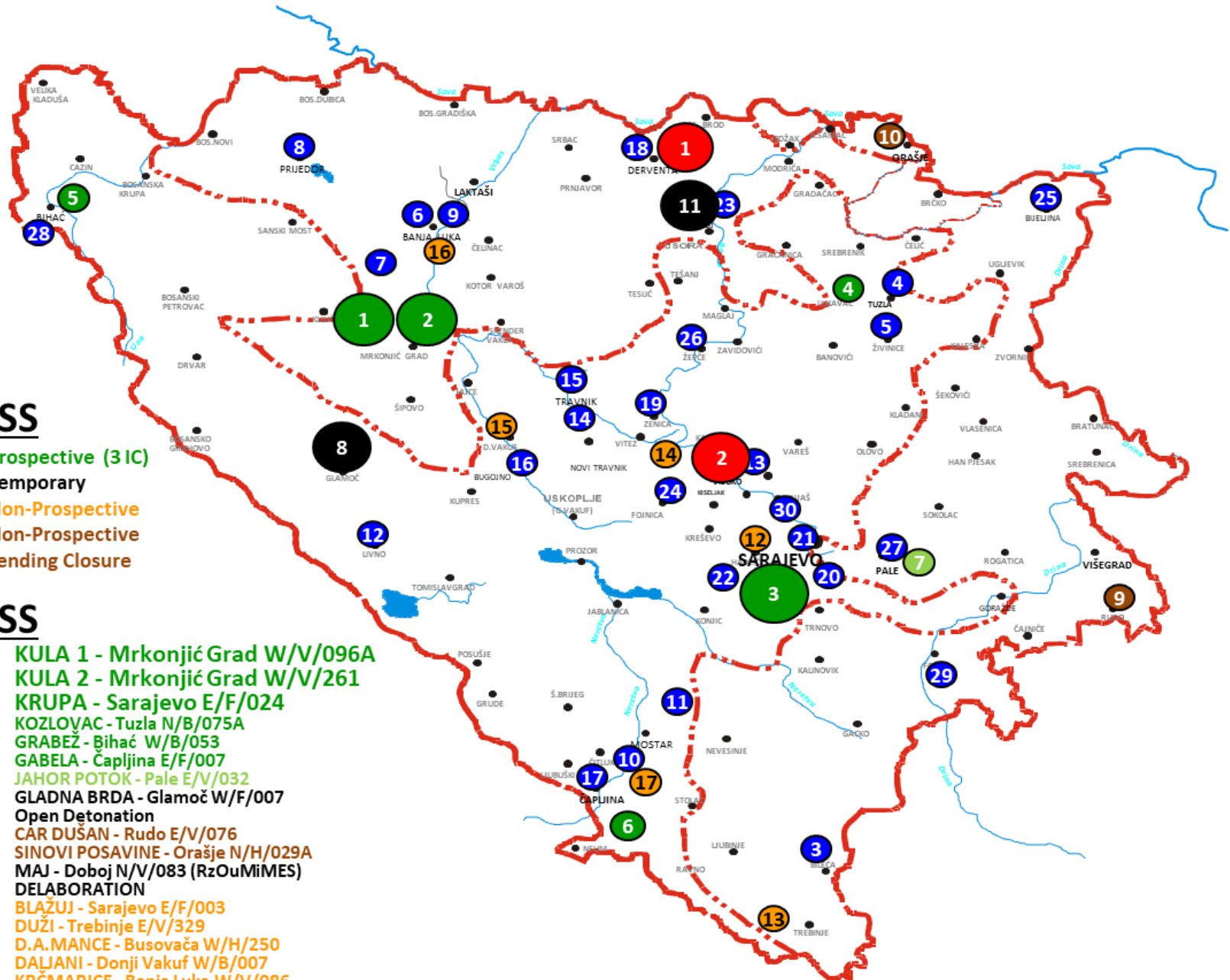
1. RABIĆ - Derвента N/V/039
2. T.T.BUZA - Visoko N/B/187
3. BILEČKI BORCI - Bileća E/V/006
4. H.K.G. - Tuzla N/B/075
5. DUBRAVE - Tuzla N/B/165
6. KOZARA - Banja Luka W/V/075
7. M.BOSNIĆ - Manjača W/V/083
8. Ž.ZGONJANIN - Prijedor W/V/111
9. KR.BRIGADA - Banja Luka W/V/081
10. S.B.KRALJEVIĆ - Mostar E/F/017
11. MIRALEM JUGO - Mostar E/B/342
12. A.B.BUŠIĆ - Livno W/H/324
13. MATREZ - Visoko N/B/188
14. STOJKOVIĆI - Novi Travnik W/H/241
15. TRAVNIK - Travnik W/B/001
16. A.Ĺ.ŠUTAK - Bugojno W/B/275
17. B.ŠIMOVIĆ - Čapljina E/H/007
18. Z.ČELAR - Derвента N/V/077
19. M.BRIGADE - Zenica N/B/082
20. RAJLOVAC - Sarajevo E/F/032
21. BUTILE - Sarajevo E/F/010
22. Z.IMAMOVIĆ - Pazarić E/F/002
23. V.R.PUTNIK - Doboj N/V/031
24. M.L.MATURICA - Kiseljak W/F/015
25. V.S.STEPANOVIĆ - Bijeljina N/V/050
26. J.K.GRABO - Žepče N/H/020
27. MILOŠ QBILIĆ - Pale E/V/066
28. ADIL BEŠIĆ - Bihać W/B/262
29. LIVADE - Foča E/V/045
30. E.SEHOVIĆ - Semizovac E/F/018

ASS

6 Prospective (3 IC)
2 Temporary
6 Non-Prospective
3 Non-Prospective
Pending Closure

ASS

1. KULA 1 - Mrkonjić Grad W/V/096A
2. KULA 2 - Mrkonjić Grad W/V/261
3. KRUPA - Sarajevo E/F/024
4. KOZLOVAC - Tuzla N/B/075A
5. GRABEŽ - Bihać W/B/053
6. GABELA - Čapljina E/F/007
7. JAHOR POTOK - Pale E/V/032
8. GLADNA BRDA - Glamoč W/F/007
Open Detonation
9. ČAR DUŠAN - Rudo E/V/076
10. SINOVI POSAVINE - Orašje N/H/029A
11. MAJ - Doboj N/V/083 (RzOuMIMES)
DELABORATION
12. BLAŽUJ - Sarajevo E/F/003
13. DUŽI - Trebinje E/V/329
14. D.A.MANCE - Busovača W/H/250
15. DALJANI - Donji Vakuf W/B/007
16. KRČMARICE - Banja Luka W/V/086
17. BAČEVIĆI - Mostar E/H/346





82mm
МБ, М63
МИНА ТРЕТИ
КВ 9002-2
БЕХЕ ОЧНО
ШЕ ДОИВ
УТАЈБ
УТ, М68

EXPLOSIVE
1.2C
1

0750

210-5000000000

0750

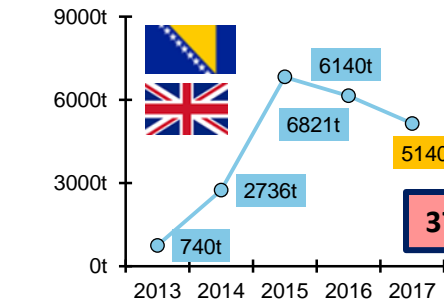
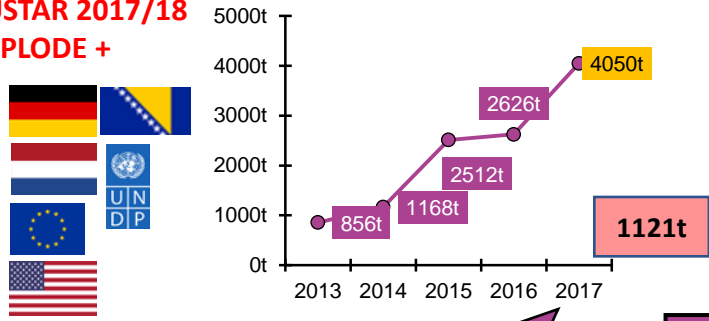


AWE Master Plan



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**EUSTAR 2017/18
EXPLODE +**



**SAFE-UP BiH 2017/18
EXPLODE +**

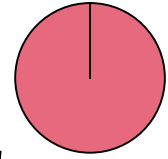


Reconstruction
Fire Fighting



Fencing
Intruder Detection System
Barrier
IDS KULA II

SAFE-UP BiH 2017/18



**SAFE-UP BiH
2017/18**

Physical Inspection
AMMO Techniques
KTP
ADR
ADRI
Delaboration
Maintenance
Chemical Analysis

2018

DISPOSAL

**SECURITY
90%**

**SALES
100%**

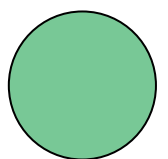
**100%
INVENTORY**

**CB&T
75%**

**SAFETY
70%**

**SOP's
REGULATIONS
80%**

**MASTERPLAN
ORGANIZATION
100%**



100%
Strategic Board
Coordination Committee
AWE Task Force
Working Groups
Training Cells



Regulations
SOP's
AWE TC





*This project is funded
by
the European Union*



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Ministry of Defense
Bosnia and Herzegovina



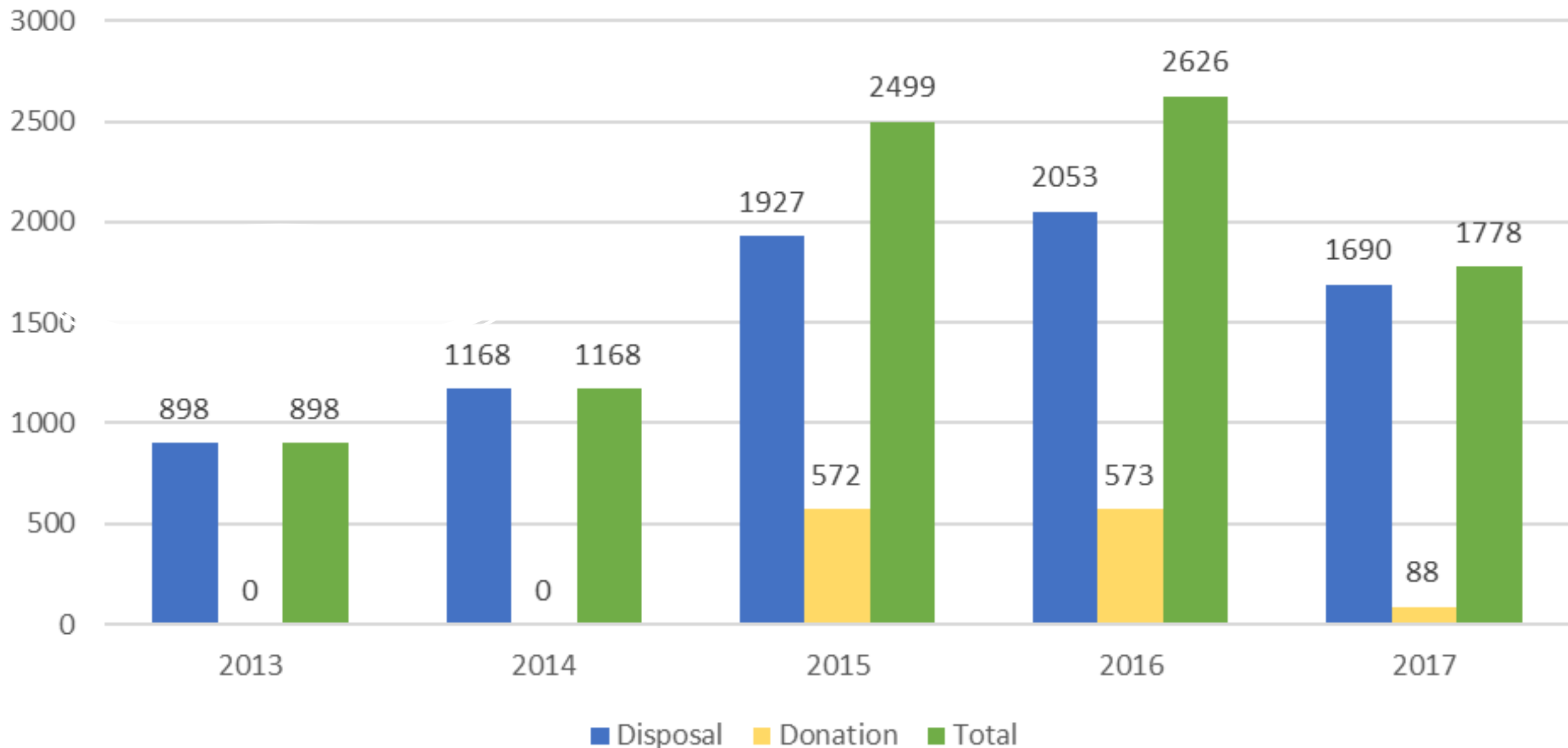
European Union is continuously supporting efforts of the Ministry of Defense BiH to reduce stockpile thus providing for higher safety on ASS locations, but also in the country and region as well.

Ammunition disposal challenges

- *Unknow ammunition status/history*
- *Systematic approach*
- *Limited capacity / technically inadequate*
- *Resource management vs. available time*
- *High hazardous ammunition disposal*
- *Sustainability*



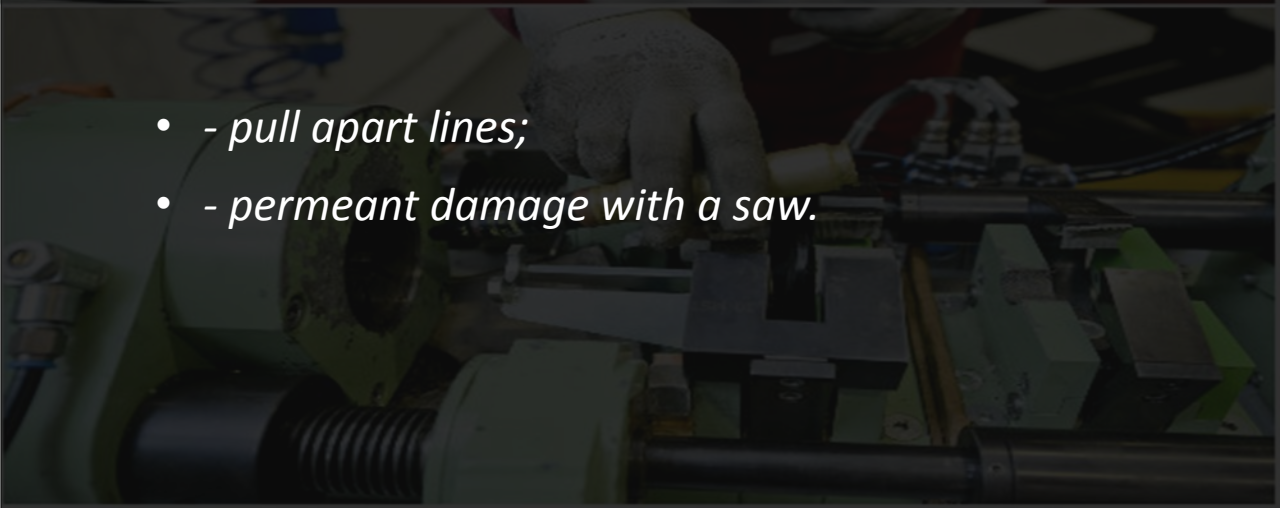
MoD/AF BiH supported by IC partners 2013 - 2017 (in tonnes)





- *Ammunition disposal processing at TROM Dobož ammunition disposal site – UNDP team*

- *- pull apart lines;*
- *- permeant damage with a saw.*



Environmental aspects

- *3R approach*
- *Reduction of pollution*
- *Energy efficiency*





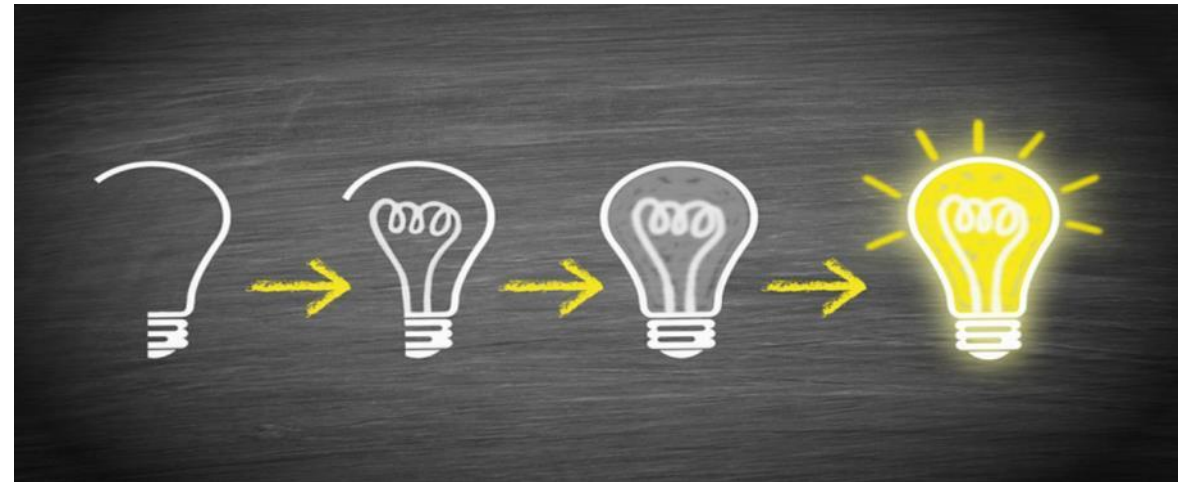


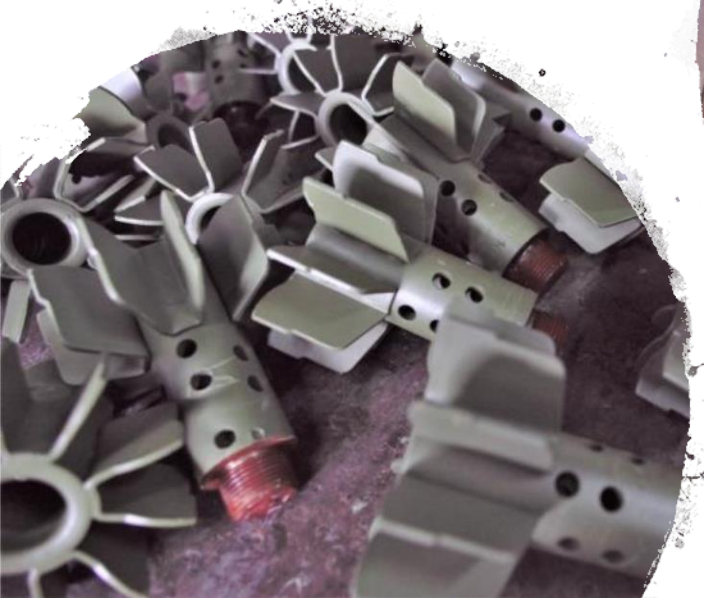
Lessons learned

- *Baseline is everything*
- *Mindset change*
- *Flexible approach*
- *Regional cooperation*
- *National defense capacities*
- *Value for money*



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Q&A...