

# **NewMiners meet Locals**

Interactive Workshop  
NewMine kick-off

Houthalen-Helchteren  
6/2/2017

# Programma

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- 20h00: Welcome
- 20h05: Panel on ELFM, CtC, Locals & NewMine
- 20h30: Small Group Conversations
- 21h30: Plenary Exchange
- 21h55: Conclusions & View ahead
- 22h00: Closure

# Panel

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- **Yves Tielemans, Group Machiels, Project Manager Closing the Circle at Remo Landfill**
- **Maurice Ballard, Chairman of 'de Locals'**
- **Joakim Krook, Linköping University, Faculty/Promotor NewMine**

Koen Sips, Point Consulting Group, Moderator

# Panel

- The Past
  - Where do we come from? Professionally, region, company, country, research focus etc vis-a-vis LFM
- The Present
  - What has moved in recent years & where are you now?
- The Future
  - Plans en interests for Closing the Circle, NewMine, Locals

# Small Group Conversations

- **Getting to know each other:** (5')  
Quick round: name, affiliation, & question
- **Chosing a few relevant questions:** (10')  
(Locals, NewMiners, Others)
- **Summary of NewMine Work Package:** (5')  
Coördinator summarizes (sub)domain, objectives, research questions & methods
- **ESR:** Phd's pitch their research! (10')
- **Answering the relevant questions** (30')

# Small Group Conversations

- 1 hour for interesting exchange
- Self-Organising Conversations
- 3 roles to divide (volunteers)
  - Time keeper
  - Moderator
  - Notulist
- Plenary debrief
  - Short Summary (1 relevant question to comment upon)
  - Question/suggestion for other groups or panel

# Plenary Exchange

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- Share a new insight that comes out of the group conversation (conclusion, question answered)
- Share a challenge, open/new question that we should take further with us as a research community

# Conclusions & View ahead

- Take away for NewMiners, for 'Locals' :
  - Tom Jones & Maurice Ballard
- Relevant questions (& answers) part of learning
- How to stay in touch?
  - LinkedIn group
  - Facebook
  - Newsletter & communication channels NewMine
  - Events



May 5, 2006



**Don't forget the past**  
**Don't forget the concerns of citizens**



# 1- Information → TRUST



- NIMBY as an **excuse** to **minimize** reality
- Give fair, correct **first hand information** directly to the Locals: **technologies, security, ...**
- Approach **social change** as any other **technological challenge**

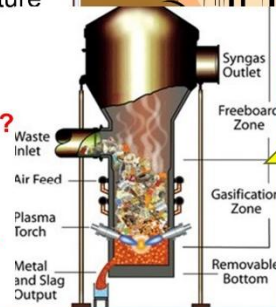
## Impact on Environment

- Air, CO<sub>2</sub> processing
- Water and soil
- Wildlife, biodiversity
- How do you 'restore' nature?
- By cutting down woods?
- Risk for stench



## Technology & Approach

- Digging it up in open air without protective measures?
- **They are not going to transport everything elsewhere for processing, are they? (= mobility infarct + risks for humans & environment)**
- **Plasmatechnology:** fairy tale, nightmare?
- Remo is a **test case: so what if it goes wrong?**
- When is it all going to end? And how can we be **sure** of that? (or will 'someone' just adapt the permit according to the industrial need?)
- Any guarantee that site really will be left to nature after 20 yrs?
- **Energy balance:** worthwhile or sheer scientist's theoretical arrogance?
- **Hydrogen? Natural gas? Plasma? a BOMB?**
- **What will they do with the final fraction? (plasmarock, fly-ash, unprocessables, hazardous cocktails?)**
- **Independent judging of health and safety? A SEVESO-site by regulations?**



## Health Impact

- 500 Ktonnes/Yr Waste-to-Energy = another form of incineration? Exhaust Limits absolute? Detection limits accounted for? Low enough? Pass = healthy???
- Any studies known about **ultra-fine dust**? And its **consequences**?
- **Baseline Measurement of current level of pollution in the bodies of local population?**
- **What is the EWS Early Warning System?**
- **Which part of population will be monitored c.q. safeguarded? And thus: who will NOT be...**



## Social Impact

**Local Community** torn and divided – fierce emotions for and against



**What's in it for the local community?**

- nature? When - if at all realistic?
  - energy/power/heat? For whom?
  - jobs? How many FTE's? what kind of jobs?
  - financially? (Town, population?)
- Or is Machiels (once again) the only winner and the locals get the burden (again)?
- green energy? The tax-payer will 'gladly' invest, but others will happily harvest the return?

## Traffic Impact

- During construction?
- During operation: 50-100 trucks per day extra on the nearby roads for semi-finished or w-t-m-product?
- **+ yet again incoming freight (high caloric waste, needed for constant plasma-feed?)**
- **Critized new-to-build highway (through natural reserve) absolutely necessary**

## Communication & Follow-up

- Will all **questions** that were raised during locals meetings also be **examined and answered**?
- Will they also been taken into account and how?
- What is our continued involvement in this project after the Conference?
- How will the population get informed and when?



# DE LOCALS

Think Global, Act Local

three years after their participation in the first international symposium

## 'Locals' torn between concerns and positivism

growing confidence between the actors, yet lots of questions still to be answered

CONTRIBUTORS: THE LOCALS - POSTER FOR LOCALS' SYMPOSIUM 2013, TRANSLATED FROM DUTCH



DE LOCALS

Think Global, Act Local



## 2- Dialogue



- Give an opportunity to **acquire insight** as well as **information & reflections**
- Using: technical education, Local research, company visits → **Scientifically based**
- Scientists, technology holders, knowledge institutions... and Group Machiels
  - **increase knowledge level**
  - **create confidence**
  - **lasting dialogue**

# Closing the Circle project goal: restore entire area as sustainable nature



GROUP  
**MACHIELS**

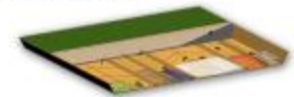
CLOSING THE CIRCLE • ENHANCED LAND FILL MINING

**C. DUURZAAM NATUURGEBIED**

**B. CLOSING THE CIRCLE**

**A. ACTUELE SITUATIE**

**1** FASE I:  
Tijdelijke opslag



**2** ZONE VOOR INSTALLATIES:  
FASE II plasma demonstratie installatie  
en FASE III full scale closing the circle  
(uitbreiding u1 en u2)



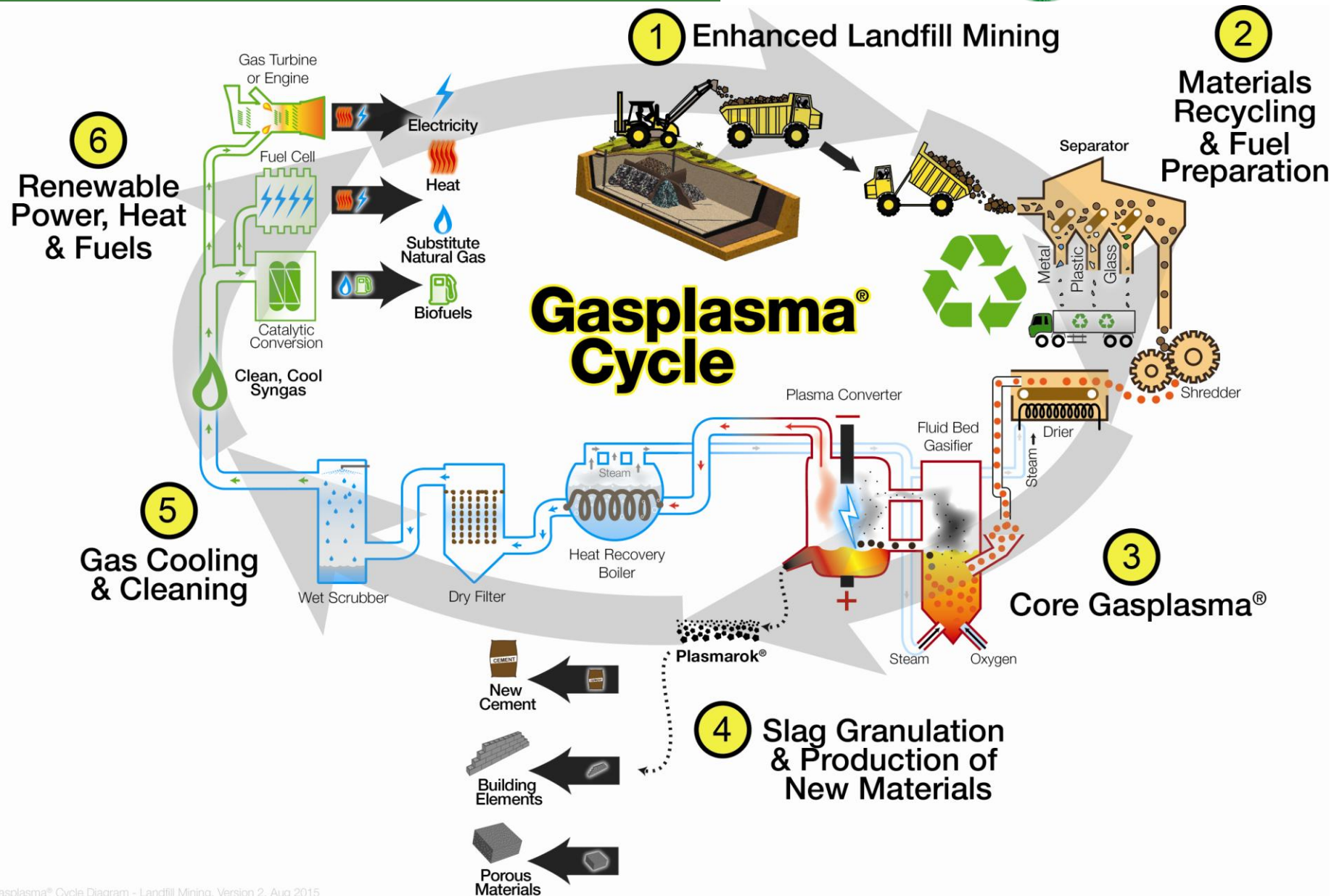
**3** FASE III:  
Zone voor finale opslag

**A** - ANORGANISCHE OPSLAG  
**O** - ORGANISCHE OPSLAG





# Closing the Circle technology chain



# Existing hydrogen applications





# Closing the Circle demonstration plant

2. RDF preparation

4. Syngas upcycling to hydrogen

6. Hydrogen distribution and fuelling stations

3. Plasma gasification installation

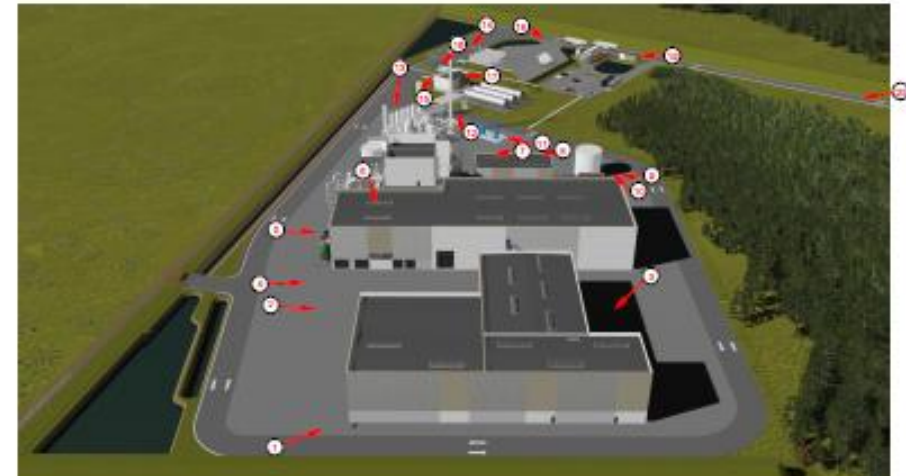
5. Pressurize and store hydrogen

1. Sorting of mined waste

Line (m)	Street (m)	Height (m)
766	8190	17.0
1980	17895	17.0
221	7821	17.0
9641	17891	17.0
2623	29881	17.0
9319	28780	17.0
9649	34020	17.0
1637	34020	17.0

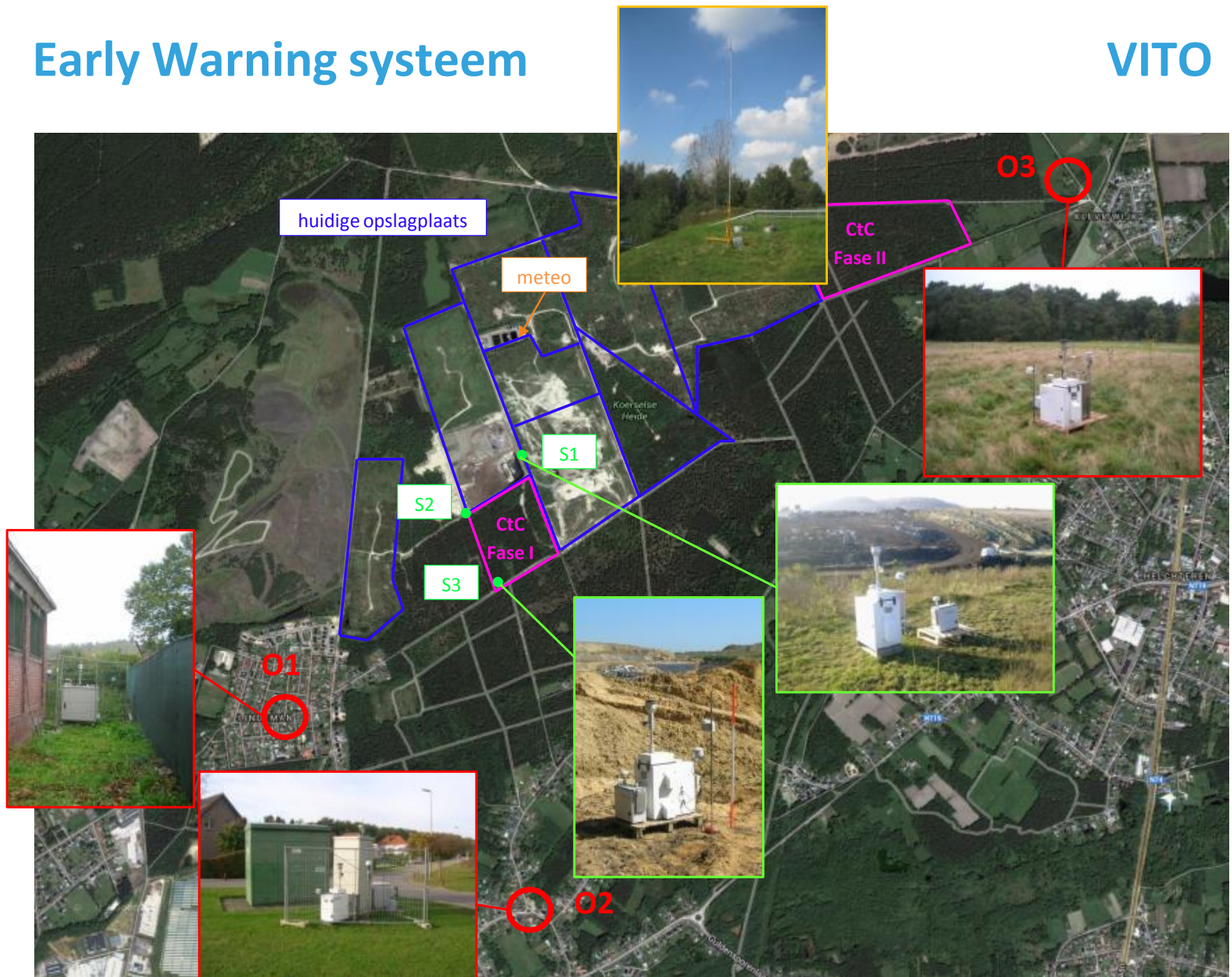


# Closing the Circle demonstration plant



# Early Warning systeem

VITO





EU TRAINING NETWORK FOR RESOURCE RECOVERY THROUGH ENHANCED LANDFILL MINING

“NEW-MINE aims to lay the foundation for a **resource- and environmentally driven** ELFM industry in the EU, through the development of innovative concepts, technologies and methods for **integrated resource recovery and remediation of landfills.**”

1

Event with locals – Joakim Krook (LiU, Sweden)



## Project Flow

2

### NEW-MINE S/T WPs

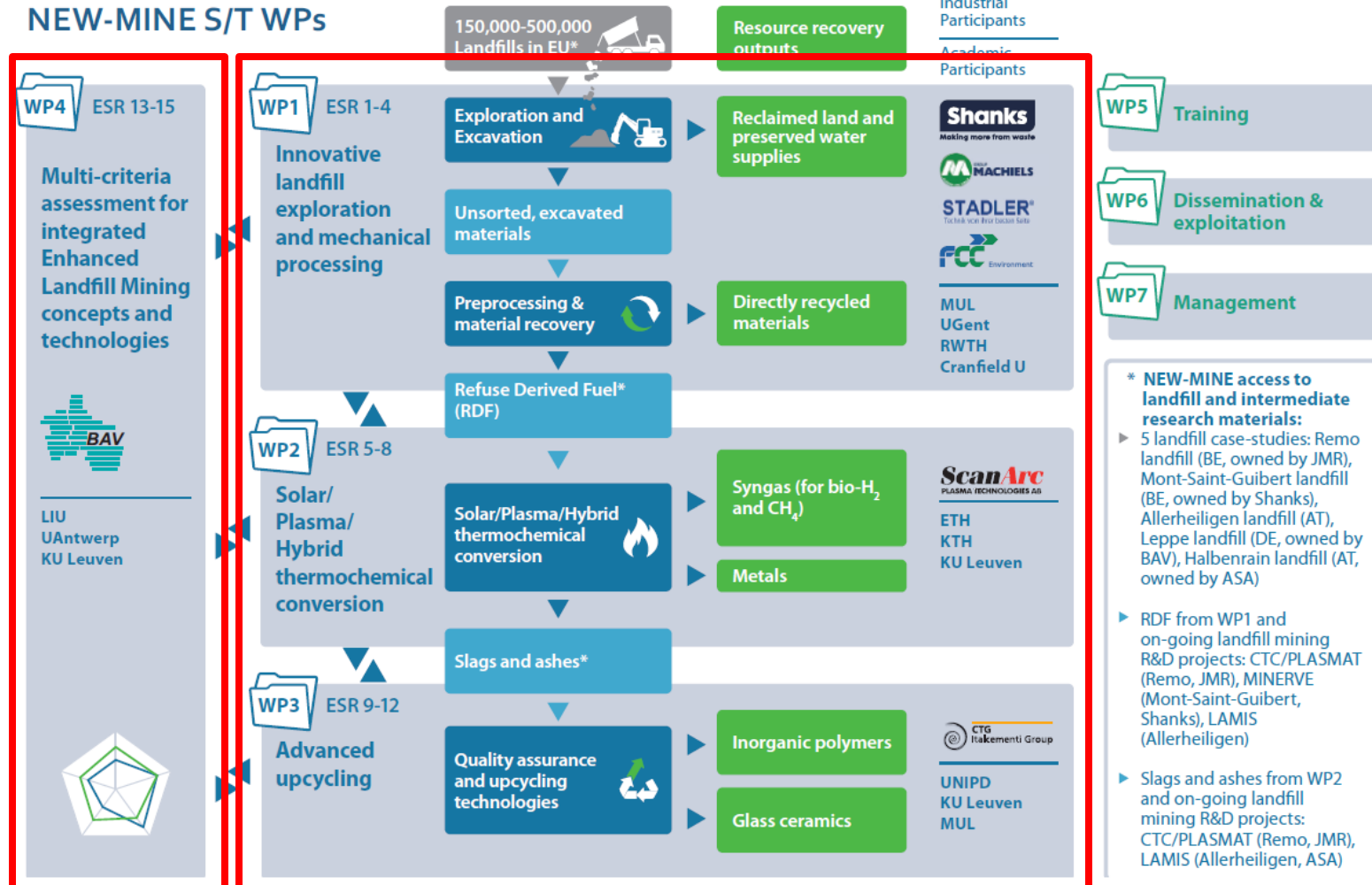
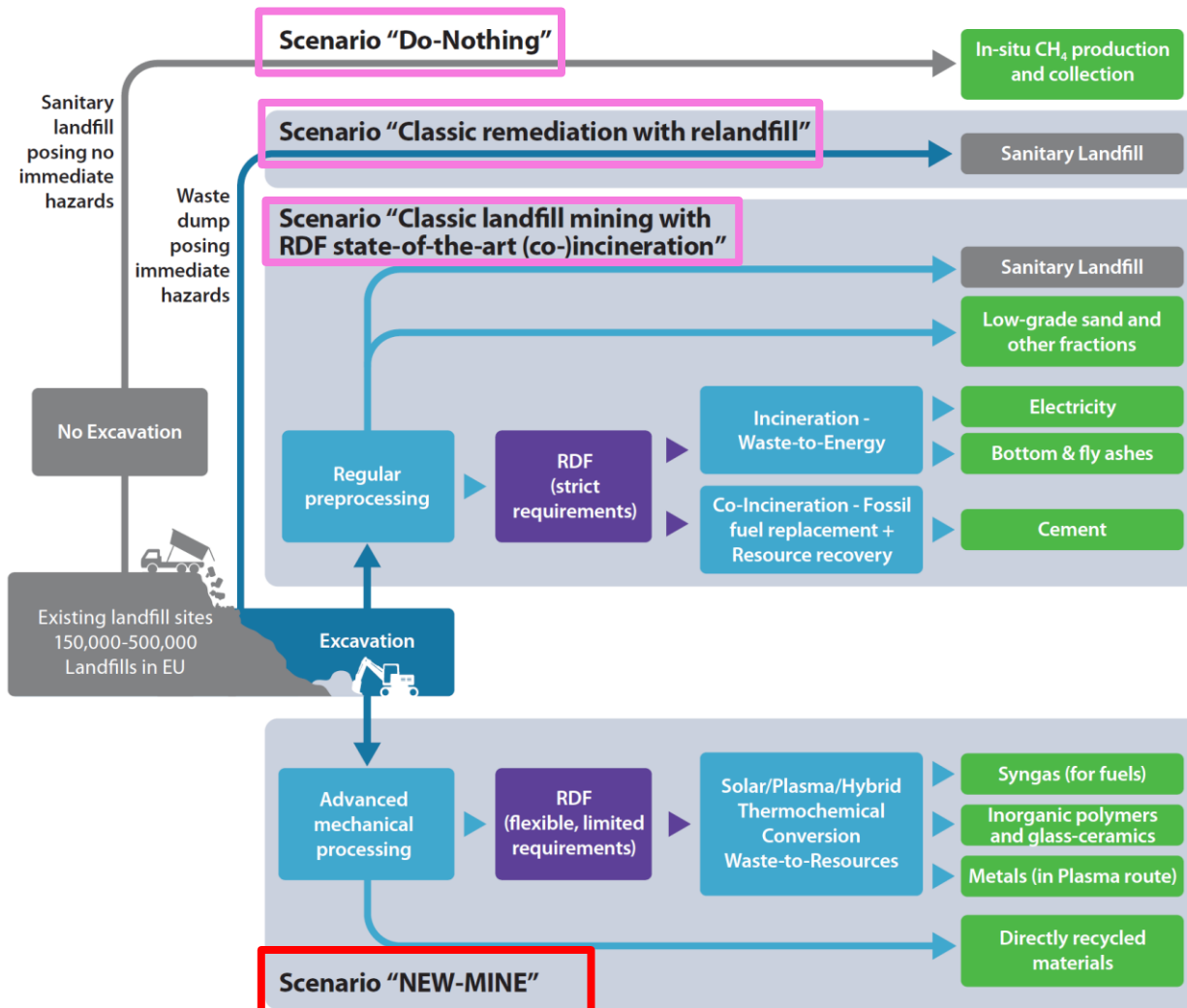


Figure 2. Overview of the NEW-MINE WPs and the value-chain approach

## WP4: landfill scenarios and cases

3



### 3 case-studies for multi-criteria assessments:

- REMO landfill (BE)
- Mont-Saint-Guibert landfill (BE)
- Allerheiligen landfill (AT)

## WP4-Multicriteria assessments

4

- ESR 13 – Methods for broader environmental assessments
  - ▣ Including global, regional AND local impacts/risks
  - ▣ When and where become important issues
- ESR 14 – Methods for economic and multi-criteria assessments
  - ▣ Specify critical factors and conditions for the business case (learning/guiding)
  - ▣ Trade-off analysis of economic and environmental performance (decision-support)
- ESR 15 – Methods for socio-economic valuation and policy support
  - ▣ Economic valuation of the main societal and environmental impacts
  - ▣ Stakeholder assessments and development of policy guidelines