

# Local community participation in technological complex Enhanced Landfill Mining projects **‘The Locals’: benefits and needs**



Athens 2015 International Landfill Mining Conference

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**September 24-25, 2015**

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GreenVille, Center of CleanTech  
Houthalen-Helchteren - Belgium

May 5, 2006



STOP  
START

TOT HIER  
EN NIET VERDER!

TOT HIER  
EN NIET VERDER!



# Back in time...

## Landfill=questions unanswered

- Stench, dust, heavy traffic
- The lost of high quality nature into landfill
- Wildlife, biodiversity evolution?
- Ground water and soil pollution?
- What kind of environment will we find here after 10 or 20 years?

 Time for new visions to turn a negative atmosphere into positive perspectives

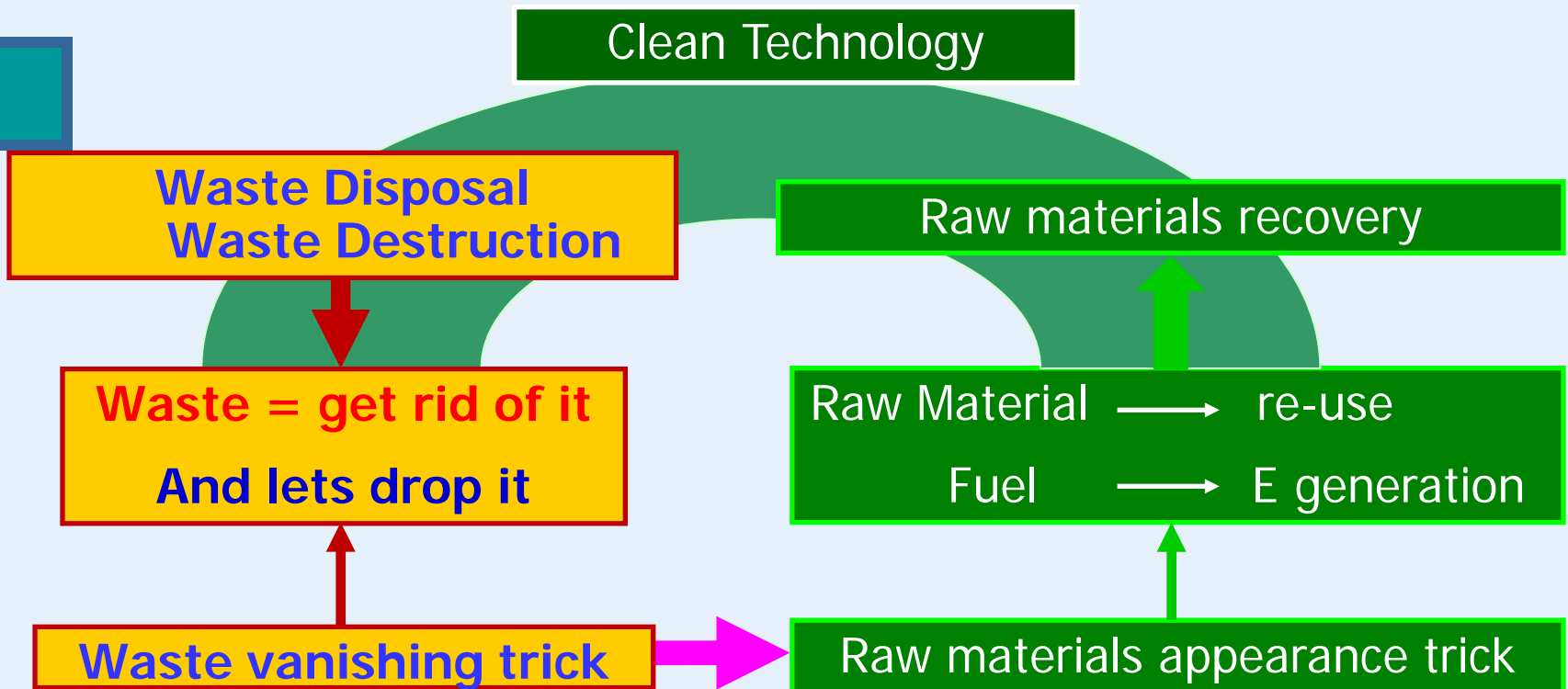


**For today's and future  
generations**

**Stop postponing our  
waste problem  
to future generations**



**Let's do that with waste, what is supposed to happen with raw materials!**

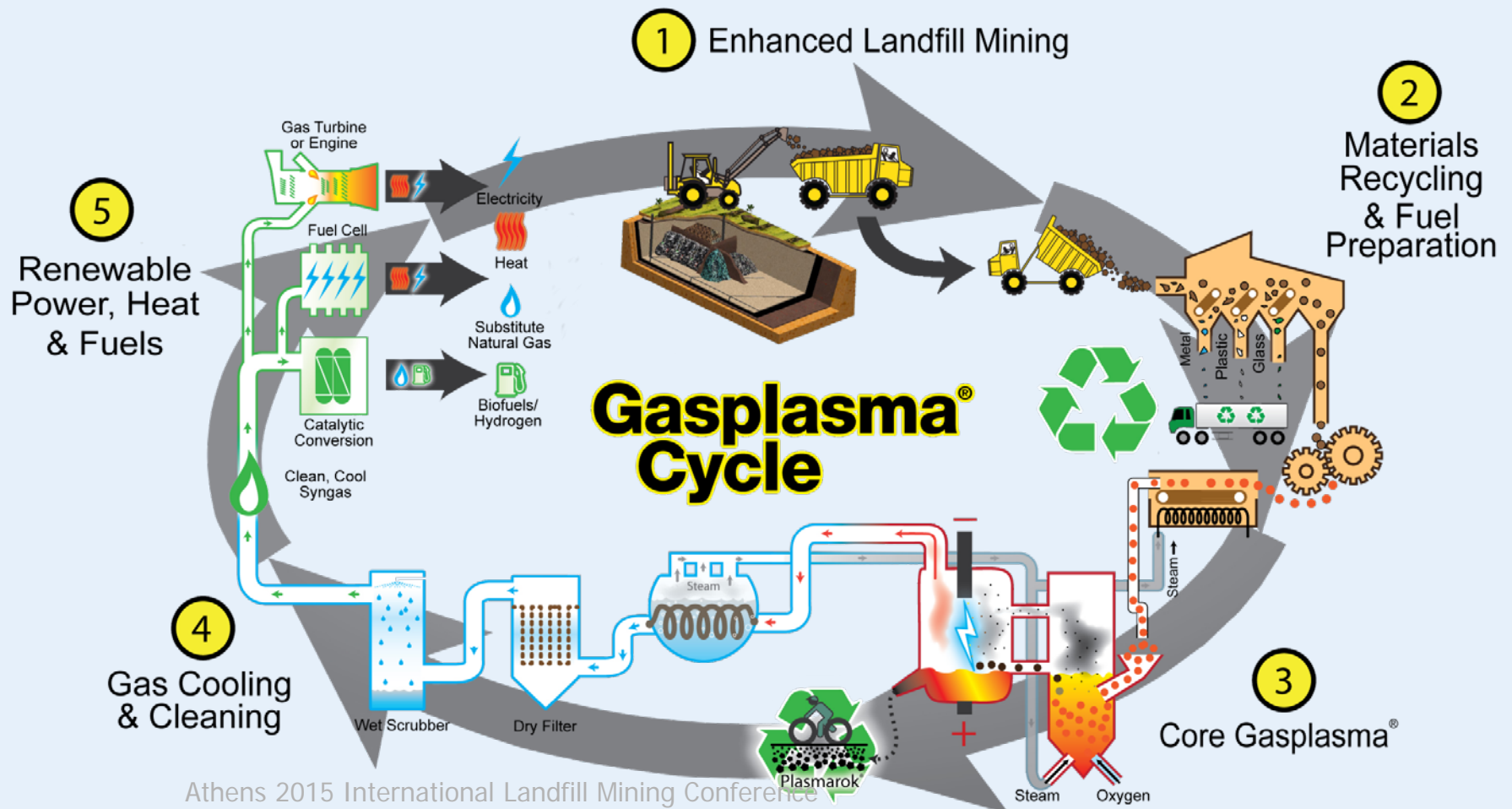




GROUP  
**MACHIELS**

# 2008

## Closing the Circle (CtC)

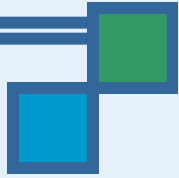






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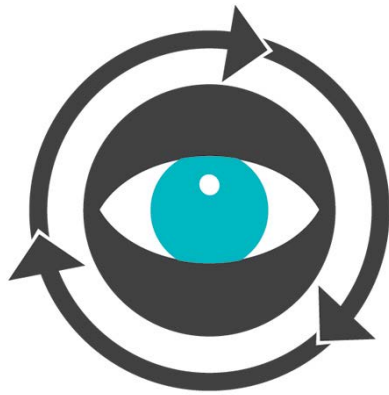
# Obstacles towards transition

- Amusement and entertainment value in the being "for or against" the project
- Utility principle: what's in for me
- Polarisation: believers  $\Leftrightarrow$  non believers
- Neither officials, nor complainants have always right.



# 2010

## First Localsmeeting



# 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

### Abstract

'Locals' represent concerned population around Remo Landfill where ELFM-project is to be started.

- So far, population of Houthalen-Helchteren and surroundings have only seen **negative impact** of waste treatment:
- **Waste incinerator** at Houthalen (approx. 80.000 Tonnes/Yr since 1984), often subject of negative newsreports
- **Landfill Remo** Helchteren (since early 70's): 18 Mio. Tonnes of filth buried in our back-yard?
- And now, another **unhealthy (or shall we call it insane?) waste project** in our community?

Worries and anger concern odour/stench, declining mobility, unsafe roads, threats to public health (fine dust, soot particles,...)

### 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 how?

- 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 be taken into account and how?
- What is our continued involvement in this project after the Conference?
- How will the population get informed and when?



# The Locals, who are they?



**The Locals, first stakeholders living within the surroundings of a waste facility.**



# 1- Let's not forget ...

- Don't forget **the past**
- Don't forget the **concerns of citizens**
- NIMBY is **no excuse** to **minimize** reality
- It's all about absolute **trust** and absolute **certainty**
- Politicians don't decide on technical level but on **strategic level**

## 2- Looking for new challenges

- increase **knowledge** to increase **involvement**
- Approach **social change** like any other **technological challenge**
- **Scientific** basis is always at the base of **innovation**



**Involving people = other debate**





# 3- Sharing knowledge is exchanging trust

- First 'see', then 'know'  
so people can 'choose'



- Give the opportunity to **acquire insight** as well as **information** organizing company visits, lectures, symposia
- create **confidence** for a lasting **dialogue**:

➡ let the **experts explain**: Scientists, technology holders, knowledge institutions... and Group Machiels





A group of approximately 15 people are seated around a large, white, U-shaped conference table in a modern meeting room. The room features wood-paneled walls, a whiteboard at the far end, and a projector mounted on the ceiling. Several water bottles and papers are on the table. The people are dressed in business casual attire, and the atmosphere appears to be a formal meeting or discussion.

29<sup>th</sup> Locals meeting





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# Communication

## ■ From the Company to the Locals:

### ■ Locals will be informed, directly:

- Receive always **first hand** information.
- Confidence through **openness**.
- **Research group**  $\leftrightarrow$  Locals: open communication.
- Site **visits**.

➡ Locals do understand complex issues!



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# Communication

- **From the Locals to the Company:**
  - Locals inform about the concerns of the society
    - Ask specific and concrete **questions**.
    - **Feed** the research group.
    - **Proposals/following up** on security agreements.



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# Communication

## ■ From the Locals to local residents:

- Not all questions can be answered immediately (**trajectory**).
  - **Science-based** answers.
  - Learning Process by the **experience** of improvement.

➡ ■ Understanding makes people involved in the progress of society

# Closing the Circle masterplan



GROUP  
**MACHIELS**

CLOSING THE CIRCLE • ENHANCED LAND FILL MINING

C. DUURZAAM NATUURGEBIED

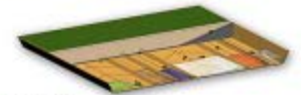
B. CLOSING THE CIRCLE

A. ACTUELE SITUATIE

1 FASE I:  
TIJDELIJKE OPSLAG

2 FASE II:  
PLASMA DEMONSTRATIE INSTALLATIE

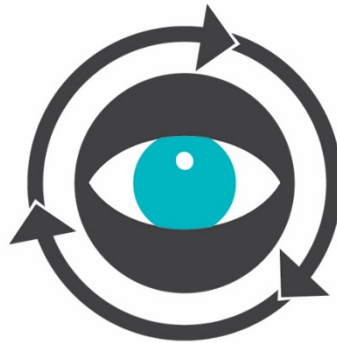
3 FASE III:  
FULL SCALE CLOSING THE CIRCLE  
(UITBREIDING U1 EN U2)



## Key Figures

- Total area: 230 ha
- 143 ha landfill
- 16+ Mtons waste stored





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**Thank you for your attention.**

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