

Local community involvement in complex technological projects: Challenges for long term planning and dealing with uncertainty

Koen Sips, Marc Craps

Cycloop,

network for facilitation and action research
in multi-actor collaboration

Athens International Landfill Mining Conference - 25 September 2015

Practical Question

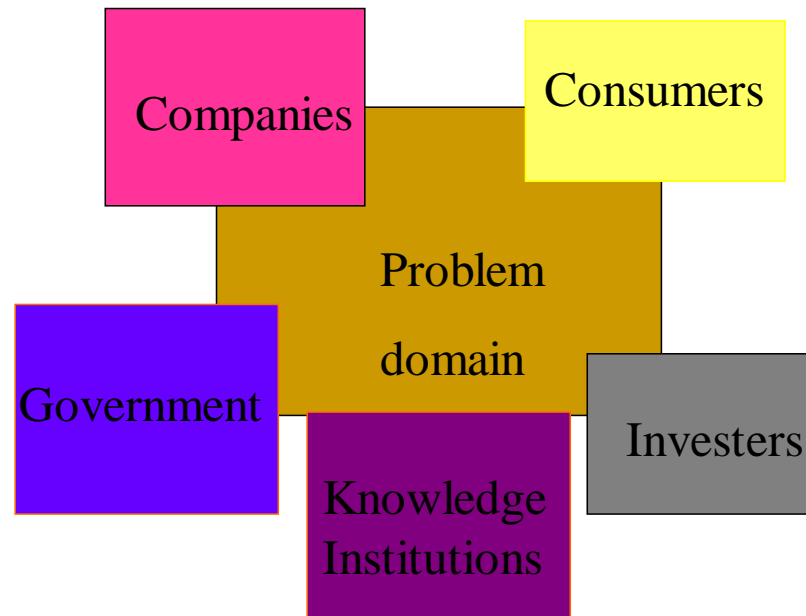
- How can we organize interorganizational solidarity and long term planning related to Landfill Mining?
- LFM or Enhanced Landfill Mining (ELFM) = promising perspective for sustainable materials management
- On a global scale (primary mining, climate change, export and treatment of waste streams, etc)
- What about the local community level where landfill mining and recycling activities actually take place?
=> NIMBY

Case: Enhanced Landfill Mining - Belgium

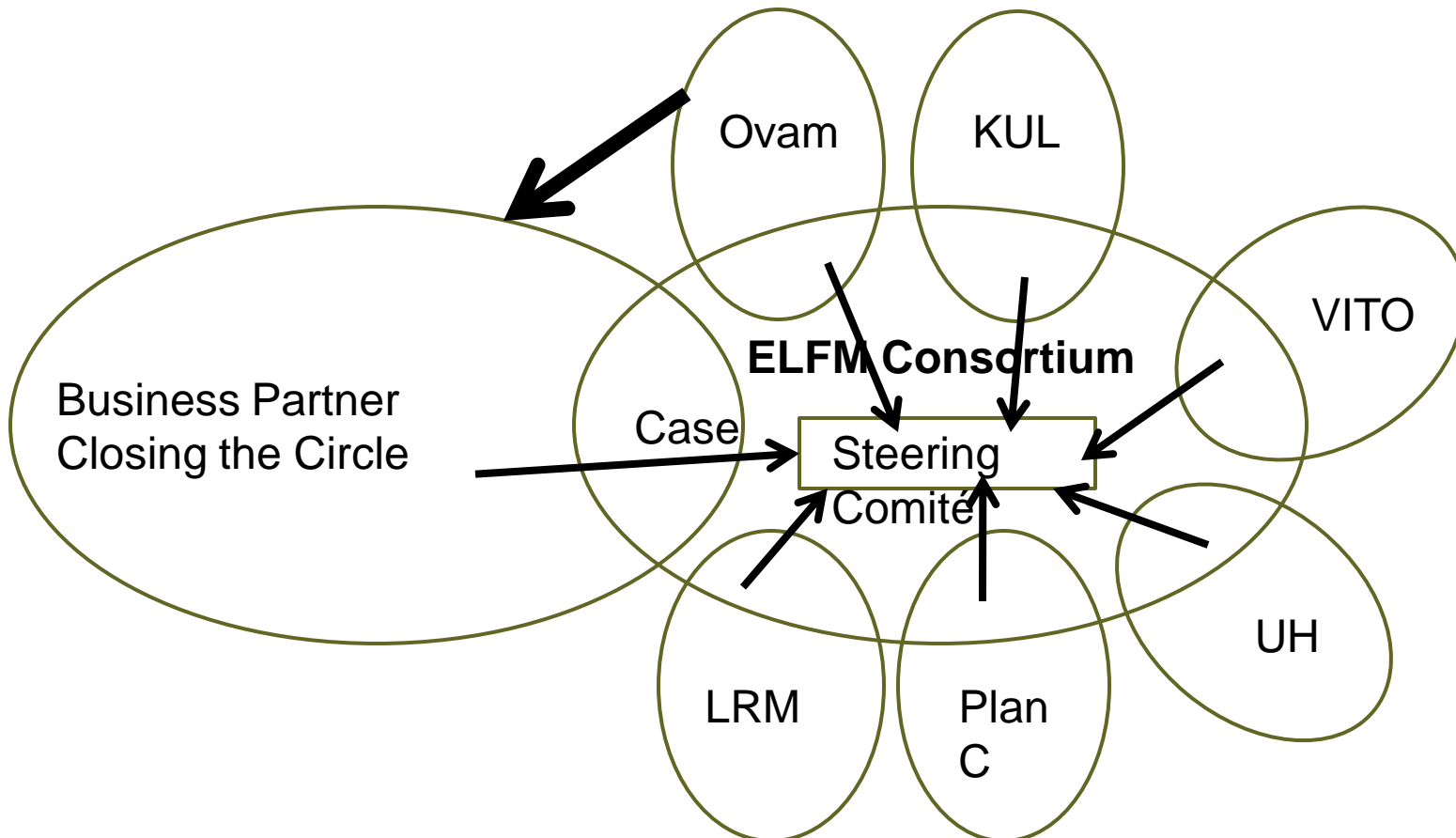


Multi-actor setting

Stakeholders in Multi-Actor-Collaboration

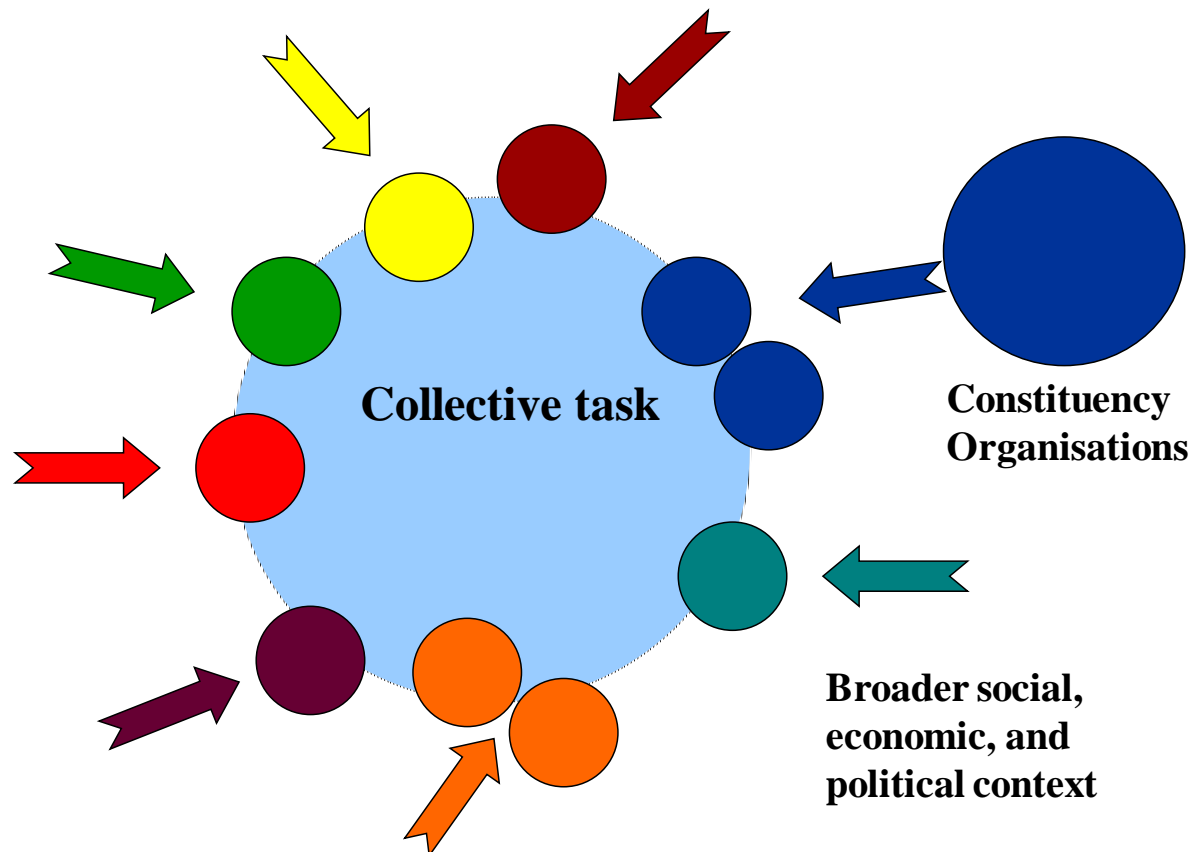


ELFM Consortium



Multi-actor meetings

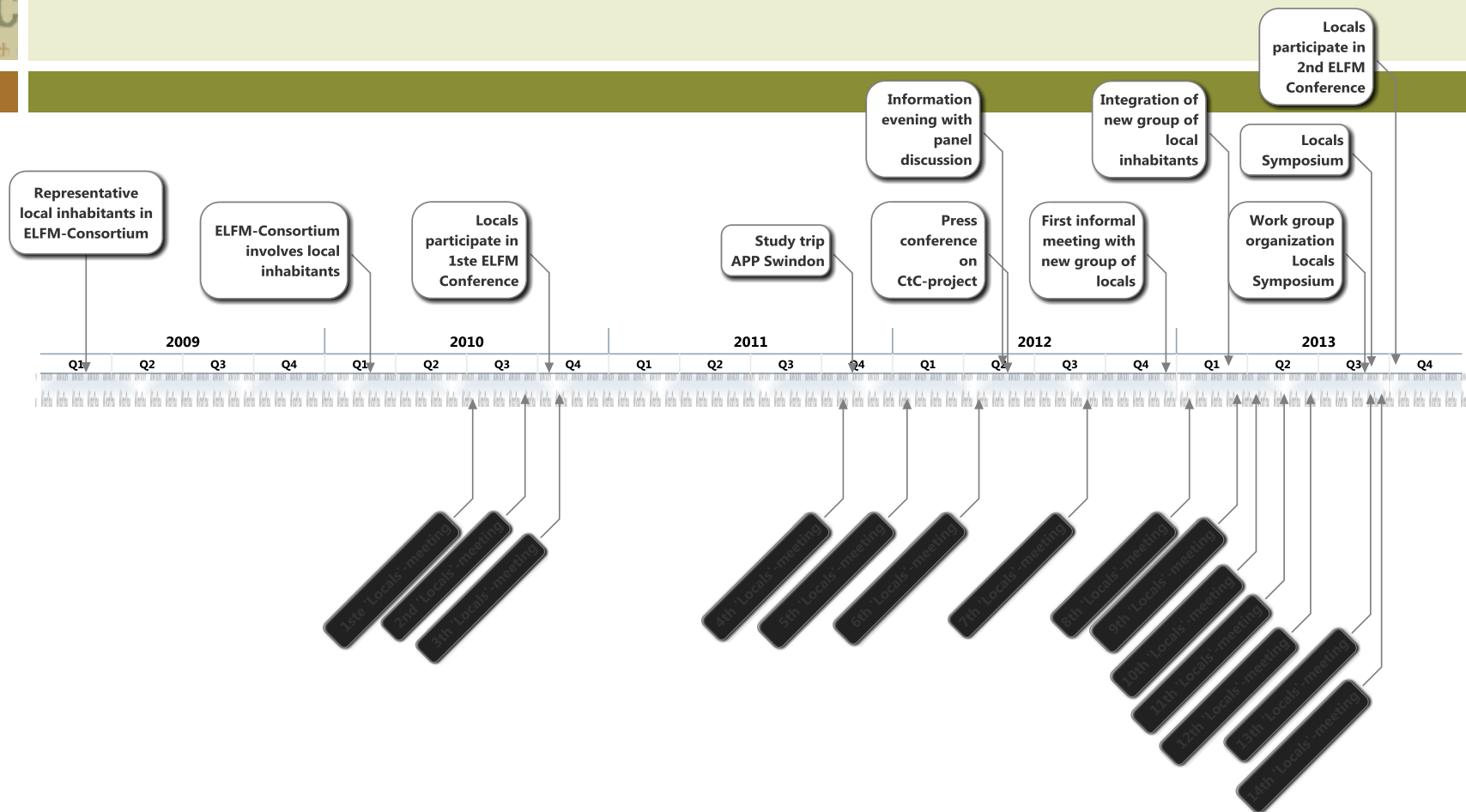
‘Collaborative task system’



Facilitation & Action Research



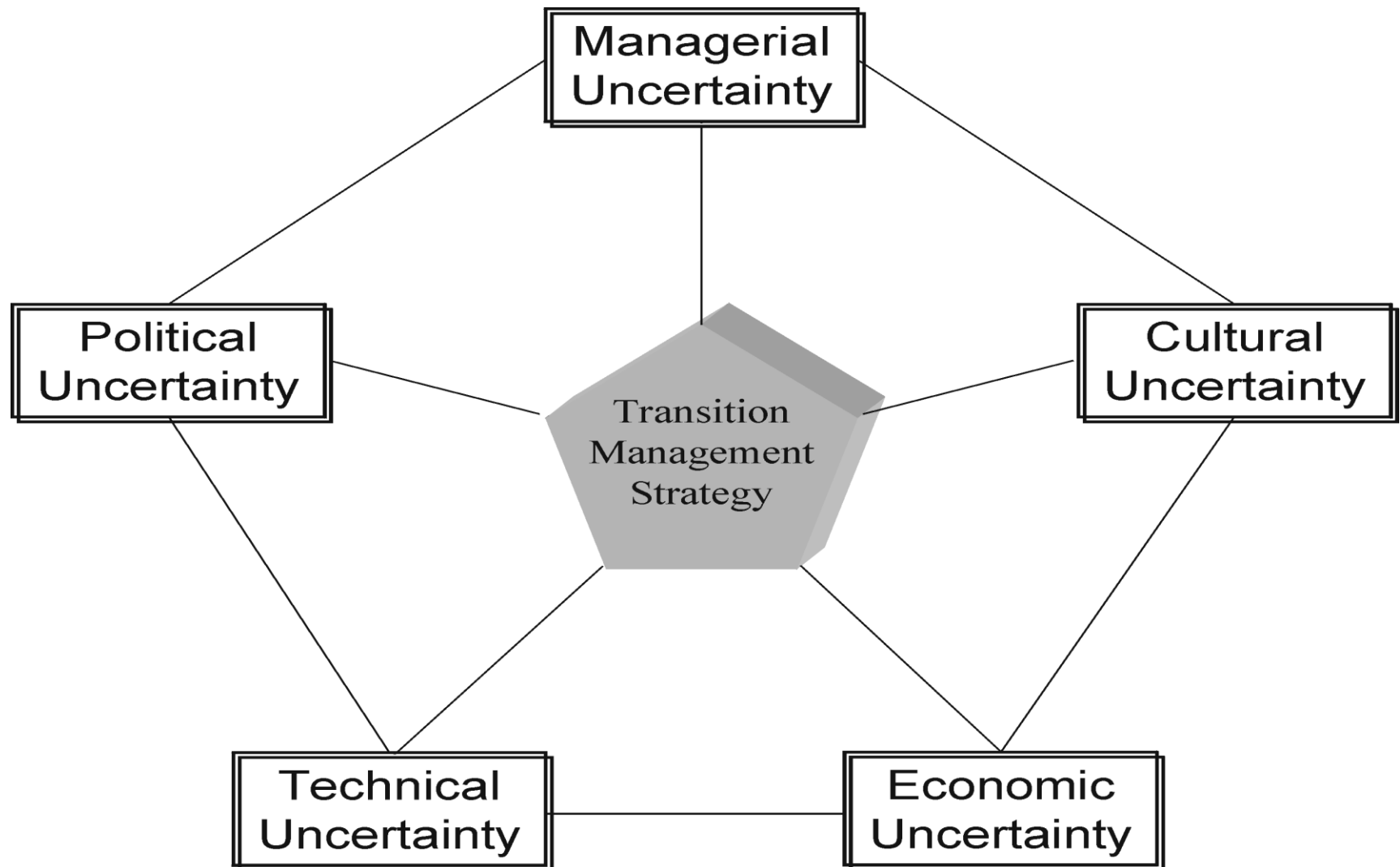
- Intake and retrospective interviews
- Preparation and facilitation of meetings
- Video of consortium meetings & locals meetings
- Reports and documents
- Feedback



Intergenerational Solidarity

- Over 20, 25, 30 years?
- With new people in charge
- Under different circumstances
- Who will remember what?
- How will agreements be interpreted and played out?
- Watch side effects & see where the externalities pop up
 - Precautionary principle
 - But stay adaptive
- Use opportunities
 - Transparency about the business case
 - PPP, cooperatives, ...

How to manage uncertainty?



Uncertainty in LT planning for ELFM

- Technological uncertainty:
Best Available Technologies
- Economical uncertainty:
Market prices, competition, ...
- Legal uncertainty:
Regulatory changes (National, EU)
- Environmental uncertainty:
Effects on health & environment
- Spatial planning:
Population growth, land use

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, CO₂ 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?** (plamarock, 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?)
- **Criticized 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?



Research attention

- Derk Lorbach (2010)
 - Persistent problems (tough issues) => long term, require specific types of network and decision-making processes (complexity-based governance)
- Jan-Peter Voß, Adrian Smith, John Grin (2009)
 - Rethinking transition management: transition management as societal learning, policy design as a contested process of social innovation, needing reflexive capacities of democratic politics
- Graham Tobin (1999)
 - Sustainability and community resilience: the holy grail of hazards planning?

Research attention

- Walker, Haasnoot, & Kwakkel (2013):
 - ⇒ Long-term plans that can adapt to changing situations under conditions of deep uncertainty.
 - ⇒ A sustainable plan should not only achieve economic, environmental, and social objectives, but should be robust and able to be adapted over time to (unforeseen) future conditions.
- Look into conceptual approaches to designing a sustainable plan
 - ⇒ Roots in long-term planning called Assumption-Based Planning.
 - ⇒ Guiding principles for the design of a sustainable adaptive plan:
 - * Explore a wide variety of relevant uncertainties
 - * Connect short-term targets to long-term goals over time
 - * Commit to short-term actions while keeping options open
 - * Continuously monitor the world and take actions if necessary

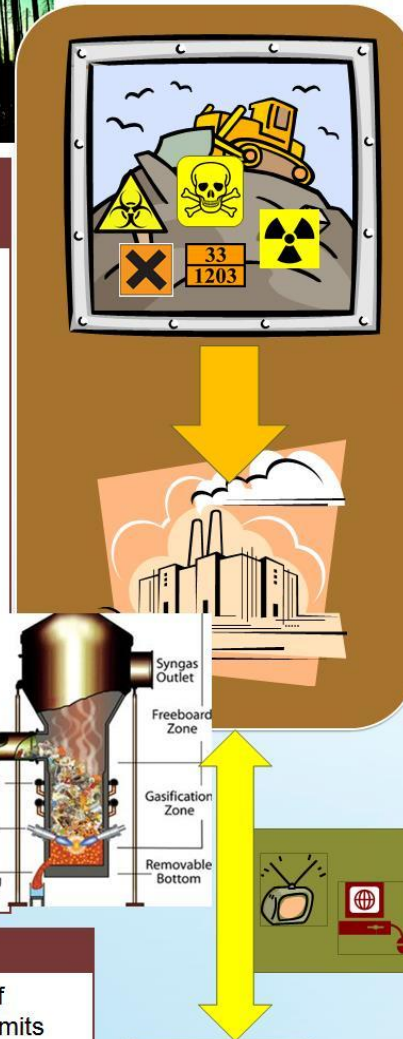
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Practical recommendations

- Keep the focus of a transdisciplinary scientific community on the case
- Keep the multi-actor platform with all the stakeholders together, as a value driven alliance committed to the long term vision (hand over representation, over time, in function of capacity and when projects or outcomes change)
- Tell stories and make the case part of the local history (also education, cultural debate)
- Document your activities and conclusions and leave traces in administrative process and procedures (play the system)
- Do your own communication! (multi-actor, broadband)

So the anthropologist Margaret Mead said:

- **Never** doubt that a **small group** of thoughtful, **committed** citizens can change the world; indeed, it's the only thing that **ever** has!
- And that counts for companies, scientists, governments, ... and the locals alike!

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