

Should nuclear waste policy adopt the concept of Social License to Operate?

Markku Lehtonen (Universitat
Pompeu Fabra & EHESS & University of
Sussex),

**M. Kojo, T. Litmanen, T. Jartti &
M. Kari** (Univ. Jyväskylä &
Tampere)

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History and rationale

Definitions & relations with related concepts

SLO in the nuclear sector?

2



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Social Licence to Operate (SLO)

- Mining, extractive industries
- Legal licence alone is not enough
- Acceptance, acceptability, approval

the extent “to which a corporation and its activities meet the expectations of local communities, the wider society, and various constituent groups” (Gunningham et al. 2004, 308)

- **“Soft contract** ... based on trust and mutual understanding between the involved parties” (Mundeva 2016, 1)
- Cannot be self-declared (cf. Corporate Social Responsibility)
- Granted by the community

- Very seldom used in the nuclear sector
- Finland, Sweden and France as examples
- Finnish Research Programme on nuclear waste management (KYT2018)

SLO challenges

The holder of an SLO: project, company or industry?

SLO is granted by the community – but which community?

Relationships between legal, political and social licences?

Discursive and framing power in defining SLO

Universality vs. country-specificity

Trust – or mistrust?

Measuring SLO: absence of open conflict => company/organisation has an SLO?



How to measure SLO?

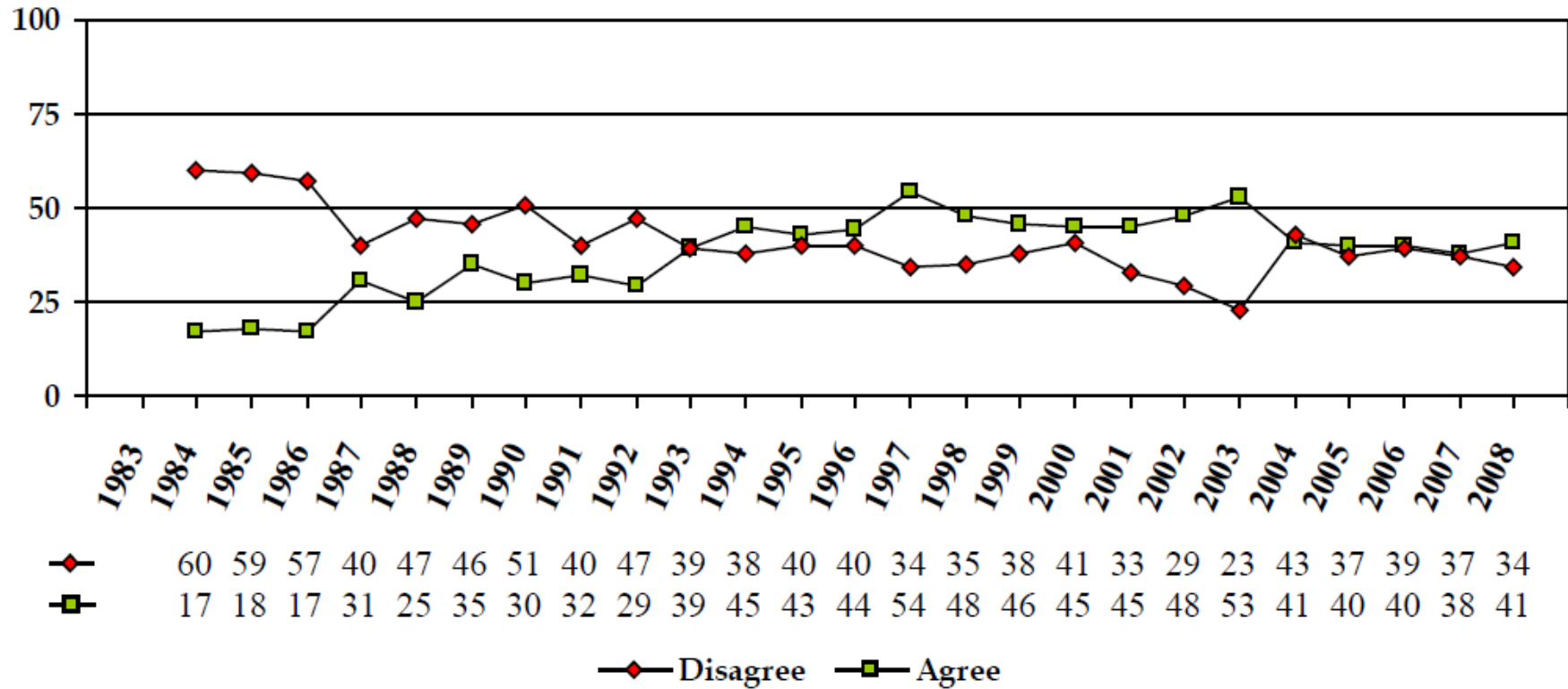
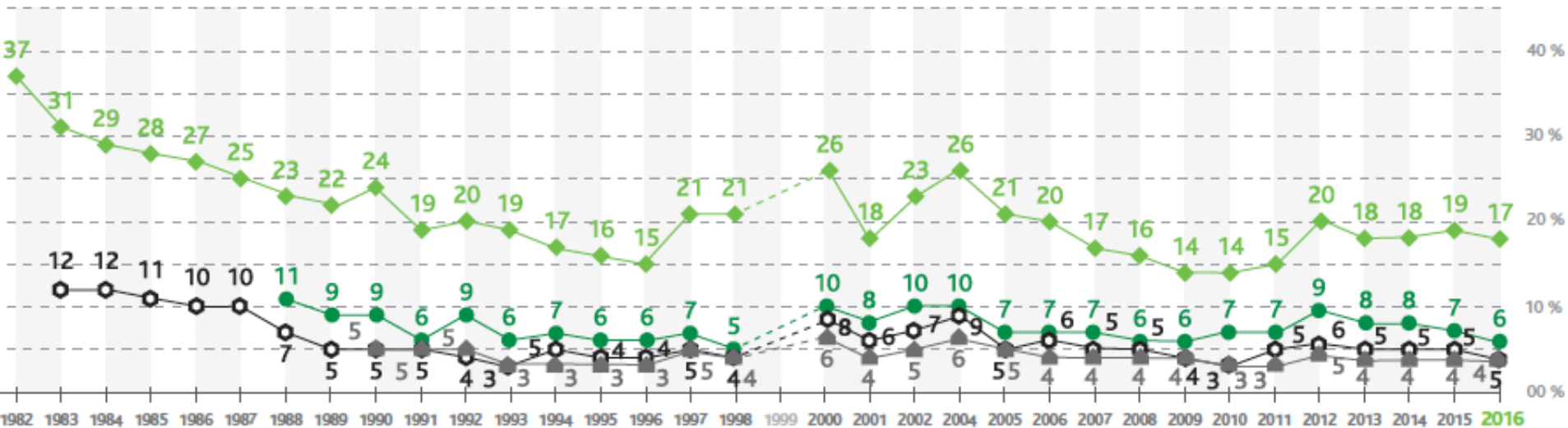


Figure 14.

Residents of Eurajoki disagreeing and agreeing with the view that final disposal in the Finnish bedrock is safe (%) Based on data from the annual Energy Attitudes of the Finns (1983-2008) study.

ÉVOLUTIONS 1982 À 2016

Évolution depuis 1982 des % de réponses « oui »
à la question : « Accepteriez-vous de vivre près... »



- ◆ D'UNE CENTRALE NUCLÉAIRE
- D'UNE INSTALLATION CHIMIQUE IMPORTANTE
- ⬢ D'UN SITE DE STOCKAGE DE DÉCHETS RADIOACTIFS
- ▲ D'UN SITE DE STOCKAGE DE DÉCHETS CHIMIQUES



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**Community:
resources**

**Government-
company: legal
contracts**

**Government:
accountable to the
community**

**But government is
not a monolith...**

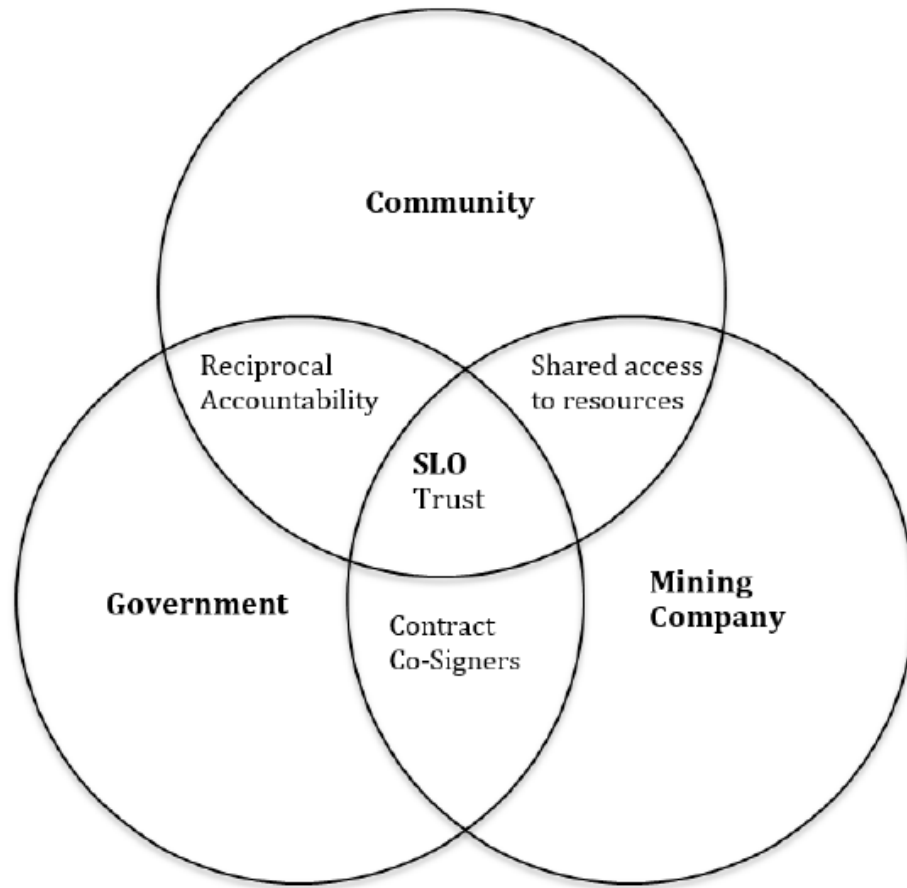


Figure 1.1. Interconnectedness between government, mining company and community

Legal licence = the formal permission to operate

Political licence = support by government/parliament for the project

SLO = informal, granted by the community



Fig. 1. The SAP Model—reproduced with permission from [Bice et al. \(2017\)](#).

A “conventional” framework for analysing SLO



Source: Boutilier & Thomson (2011)

Economic legitimacy

Socio-political legitimacy

Interactional trust

Institutionalised trust

- Equitable distribution of risks, costs and benefits
- Dialogue, listening
- Protecting social, environmental and cultural ways of life
- Fulfilling promises
- Joint envisioning of new development goals
- Participation and engagement
- Reciprocal interaction
- Community-company relations “based on an enduring regard for each other’s interests”
- Trust taken for granted
- Psychological identification amongst the citizens with the values and interests of the company/organisation



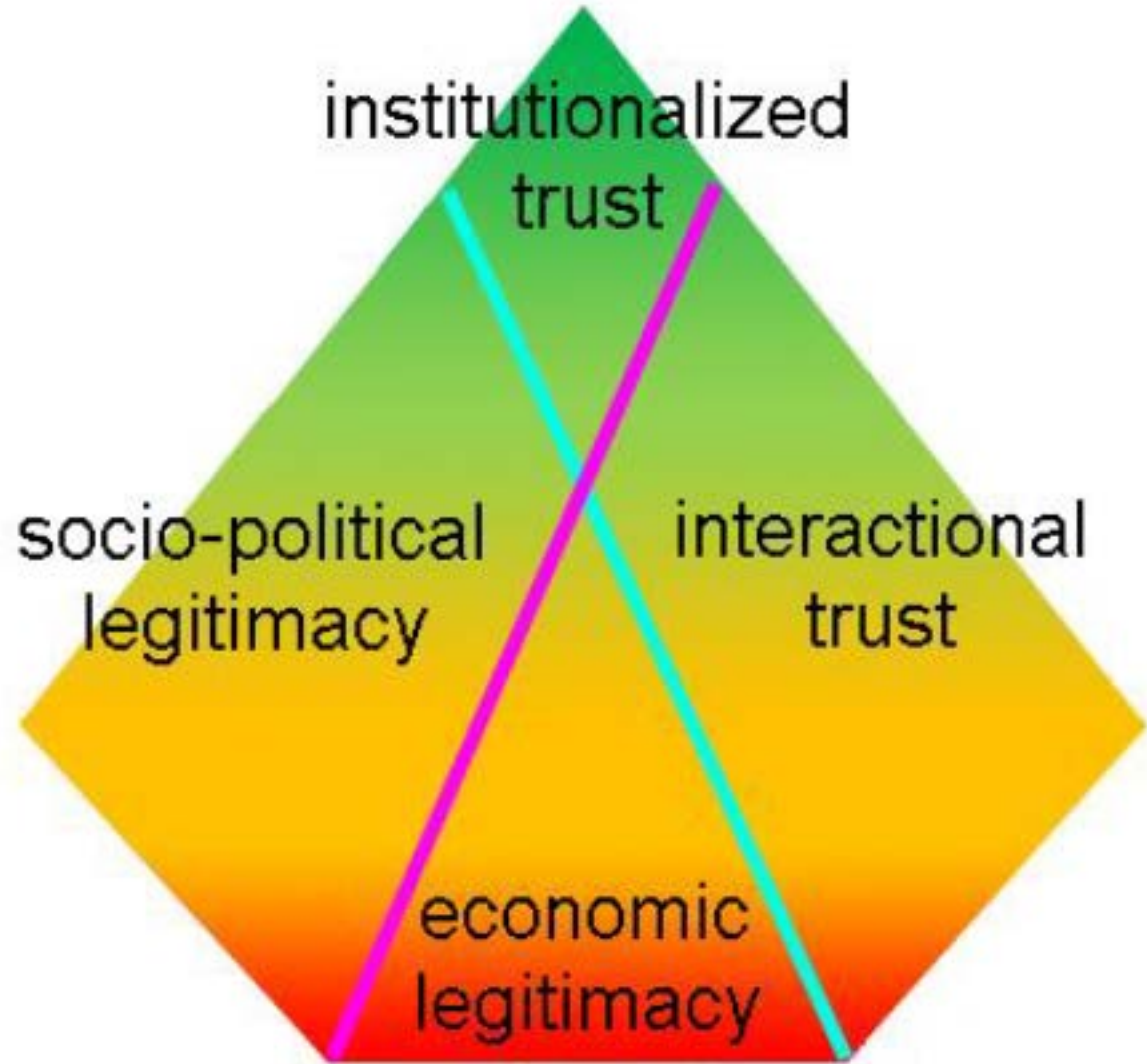
The arrowhead model of SLO

Full trust

Approval

Acceptance

Withdrawal



Insights from three forerunner countries: Finland, Sweden and France



Finland

Eurajoki: nuclear
community

- World's first operating HLW repository (?): early 2020s
- Backed up by municipal and parliamentary approval
- Participatory EIA 1997-99
- Absence of conflict, little contestation
- Benefit package negotiated behind the scenes between the management company (Posiva) and the municipality

Sweden

Östhammar
(&Oskarshamn):
nuclear communities

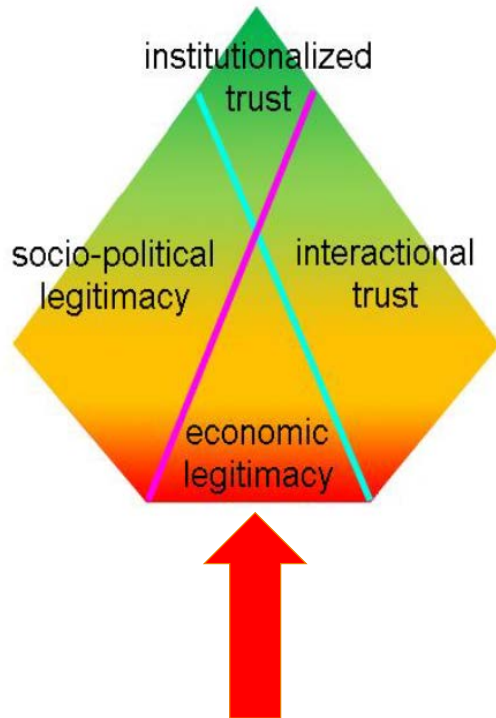
- Repository construction licence under review
- Participatory, dialogical planning of the project
- Contestation and critical technical analysis by NGOs
- Elaborate community benefits via value-added programmes between the management company (SKB) and the municipality

France

Bure: “nuclear-virgin”
area

- Planned repository operation in 2030
- Government alone can decide
- Implementation by govt agency (Andra)
- Participation mostly at national level
- Legally mandatory benefit schemes
- Persistent contestation





Economic legitimacy

France

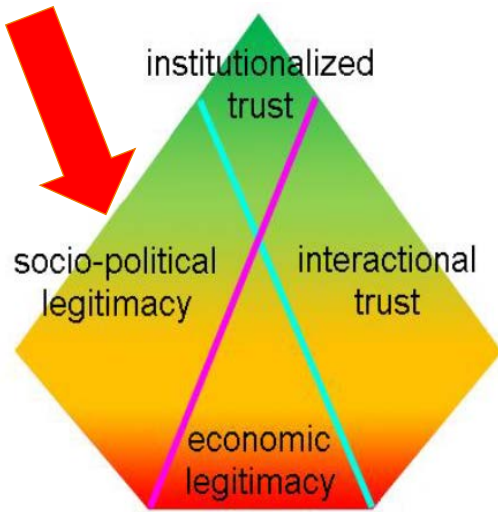
- legally mandated benefit schemes not universally accepted
- municipalities contest the equitability of benefit distribution
- widespread view of the benefit packages as bribery

Finland

- yes, Eurajoki got what it wanted (including a NPP)
- little if any critique of benefit package as bribery

Sweden

- yes, municipalities use their strong bargaining position
- some suspicions of bribery



France

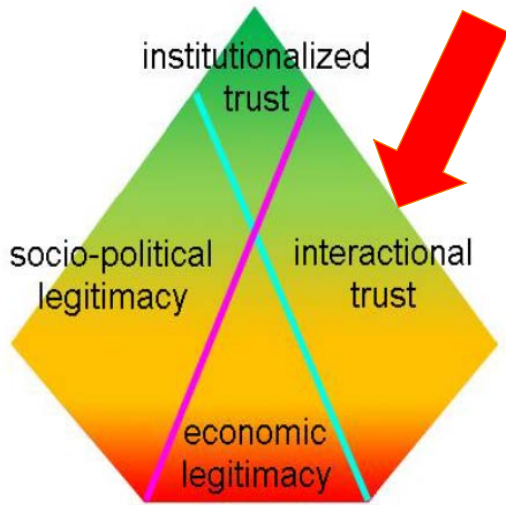
- moderate/weak socio-political legitimacy
- lack of transparency as an enduring topic of criticism
- national-level consultations and local liaison committee moderately appreciated

Finland

- no great expectations, hence no major disappointments?
- Posiva's successful local communication and storytelling

Sweden

- yes, even the critics are satisfied with the processes of dialogue
- academic and NGO critique against SKB's "PR work"



Interactional, project-focused trust

France

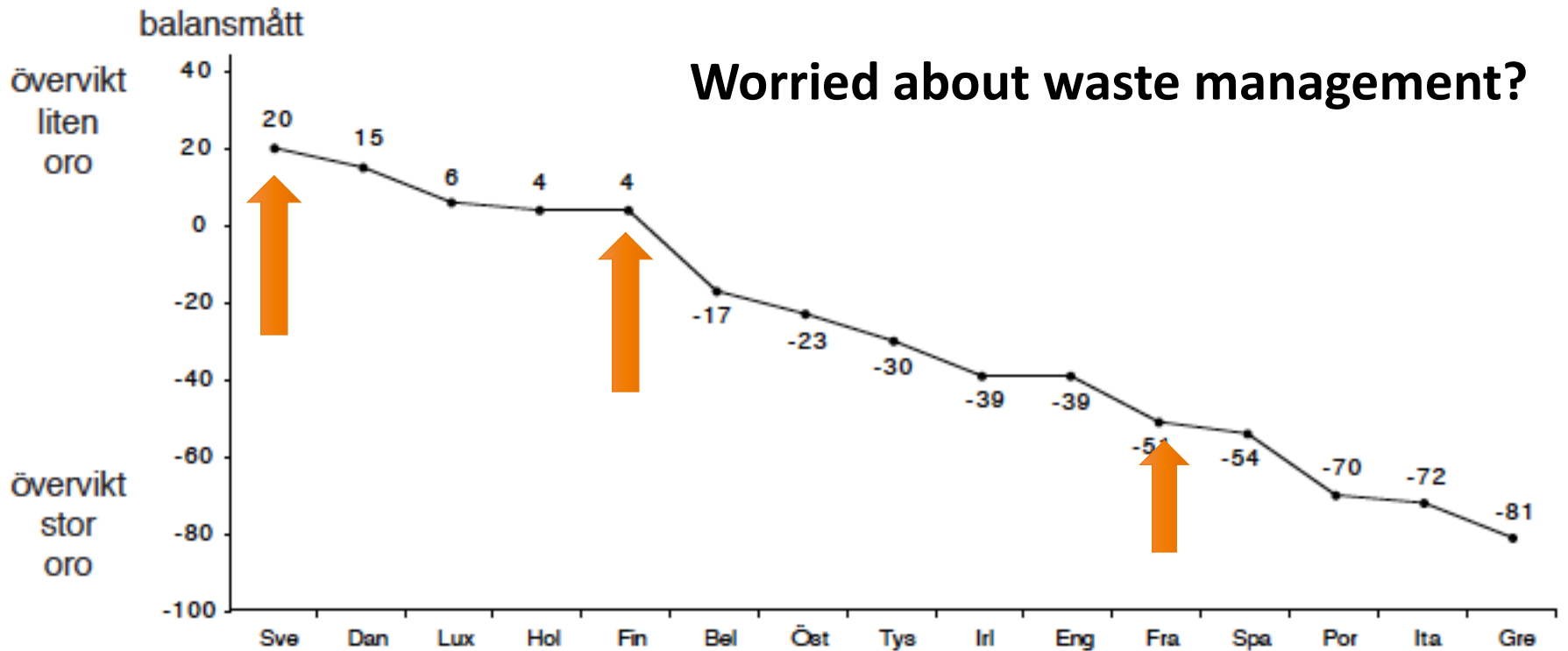
- “if they say it’s safe”, then it must be...”
- failed promises!
- “it’s all been decided already”
- but: the state is expected to lead with a strong hand
- critique against Andra’s land acquisition tactics

Finland

- high although recently declining trust in project safety
- no failed promises (?)
- safety not subject to public deliberation (e.g. EIA)
- purely technical framing of the project

Sweden

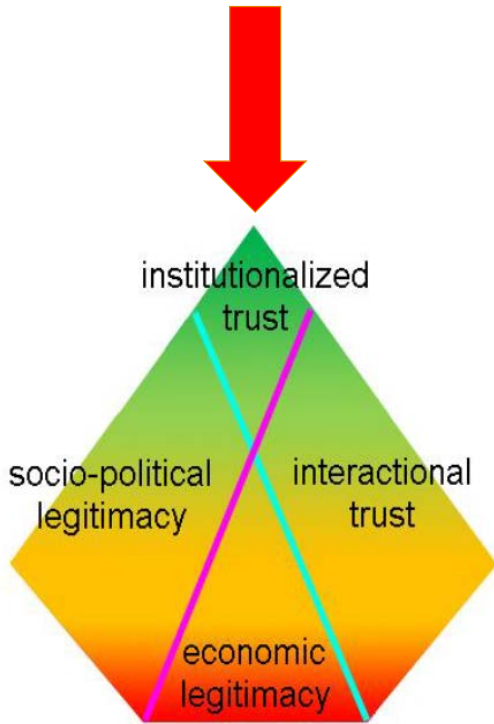
- high trust among locals in project safety
- no failed promises (?)
- but growing criticism, via counter-expertise (cf. history of counter-expertise)



Kommentar: Vet ej svar ingår i procentbasen. Frågeformulering: "Would you say you are very worried, fairly worried, not very worried or not at all worried about the way radioactive waste is managed in country?". Balansmättet utgör andelen ej oroade (inte alls oroade och inte särskilt oroade) minus andelen oroade (mycket och ganska oroade). Källa: International Nuclear Regulators Association (INRA), "Europeans and radioactive waste". European Coordination Office, 2002. Eurobarometer 56.2.



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Reached to a certain extent in the Finnish and Swedish “nuclear communities”

But is “psychological identification” always desirable?

Conditions for full trust, institutionalised trust, psychological identification?

- Co-optation
- Dependency
- “Peripheralisation”
- Asymmetries of power

Multidimensionality of trust

- Interpersonal, institutional, ideological
- Trust by whom?

Constructive, “healthy” mistrust?

- Mistrust as the basis of liberal democracy
- “Overtrust”, gullibility
- Trust: warranted and unwarranted
- Mistrust as basis for regulatory institutions
- Mistrust as citizen vigilance and basis of counter-expertise





Social

Generalised
&
Particularised

Institutional

Diffuse
&
Specific/particularised

Ideological

Broader beliefs of appropriate relations between state, market, democracy, authoritarianism..



Institutional and ideological trust and mistrust in the Finnish, French and Swedish repository projects



(Mis)trust in

- Waste management company/agency
- Nuclear utilities
- Safety authority
- Energy ministry
- Experts & scientists
- Government
- Political system
- etc.

(Mis)trust on the part of the authorities, experts, waste managers towards the citizens

Institutional trust

France

- Relatively low (and slightly declining) trust in Andra and safety authorities
- Trust in competence, mistrust in sincerity
- Resigned trust
- Overtrust in, and mistrust of, the state?

Finland

- State authorities but also energy industry trusted
- Pragmatic, resigned, unwarranted trust at the local level?
- Overtrust in authorities?

Sweden

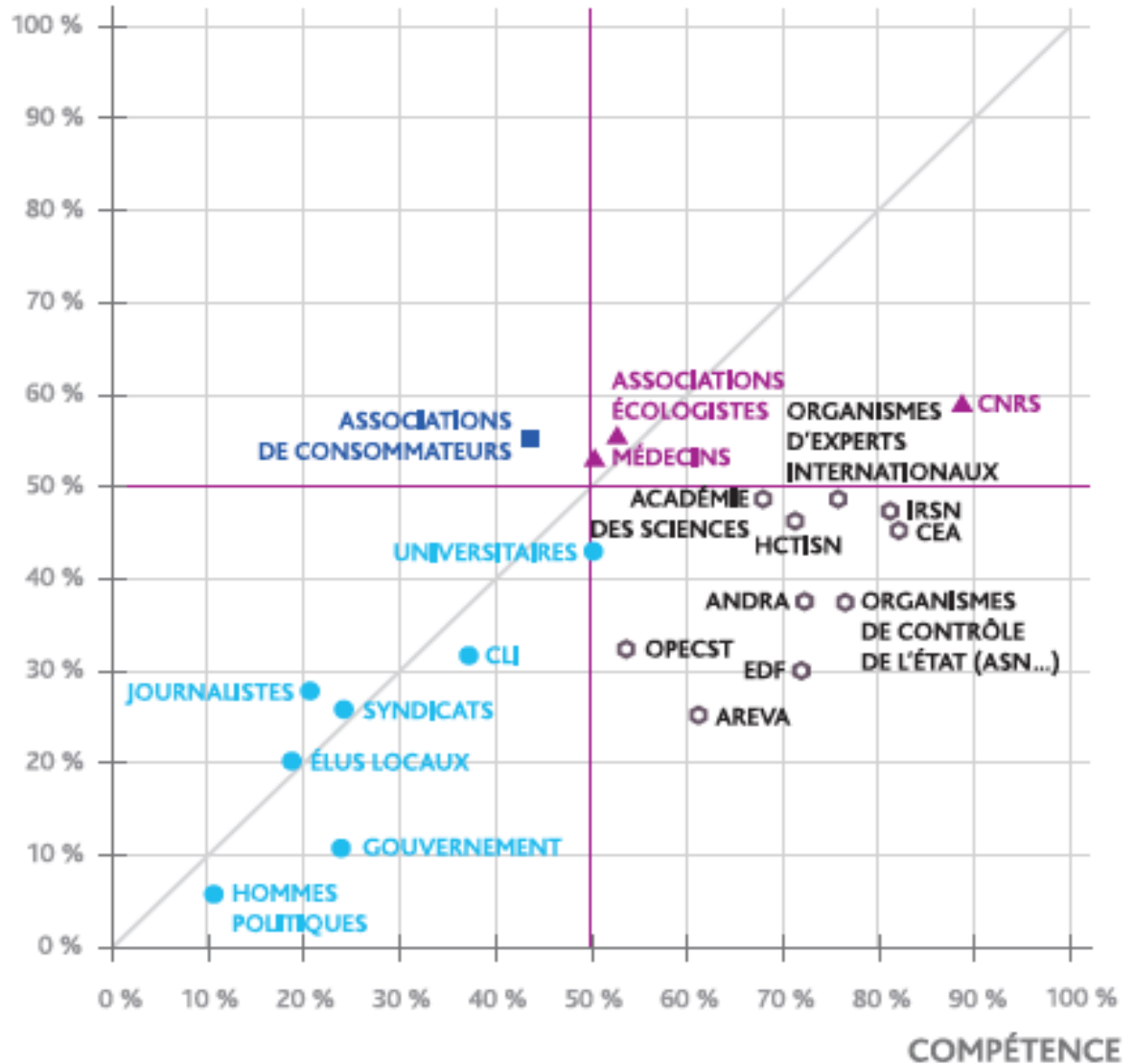
- strong trust in institutions of dialogical, representative democracy, which enables mistrust-based counter-expertise and citizen vigilance?



Credibility and competence of nuclear-sector stakeholders

Institutional trust in France

CRÉDIBILITÉ



Ideological trust



France

- ambiguous trust/mistrust relationship with the state
- private arrangements necessarily illegitimate
- “country of mistrust” – or of healthy scepticism?
- unrealistic expectations towards the state?
- trust- or mistrust-based democracy? Ideological trust in the state, yet mistrust is prevalent

Finland

- legalism and representative democracy
- mistrust of deliberative democracy
- state as the incarnation of the common good
- trust-based democracy: the bureaucrat as the legitimate defender and definer of the public interest

Sweden

- representative democracy and legalism
- but representative democracy has to be dialogical
- mistrust of deliberative (decision-making) democracy

Should nuclear (waste management) sector forget about SLO?

... and why trust
is not a silver
bullet

Conclusions

Unclear who is “the community”

- Divided communities, heterogeneous publics
- Nuclear communities; dependence on nuclear industry

Capacity of “the community” to grant an SLO?

- Cognitive capacities, mistrust-based counter-expertise
- Economic and political independence

Relationships between social, legal, and political licences

- Role(s) of the state
- National-level community: lack of interest?
- SLO undermining the legal and legal licences?

Ideological trust, mistrust-based democracy and SLO

- Trust-based and mistrust-based democracies

Virtues of mistrust

- Constructive tension between trust and mistrust

The End



Level & Label	Description	Role in Determining SLO Levels as Described in Thomson & Boutilier Pyramid Model
1. Economic legitimacy	The perception that the project/company offers a benefit to the perceiver.	If lacking, most stakeholders will withhold or withdraw the SLO. If present, many will grant an acceptance level of SLO.
2a. Socio-political legitimacy	The perception that the project/company contributes to the well-being of the region, respects the local way of life, meets expectations about its role in society, and acts according to stakeholders' views of fairness.	If lacking, approval level of SLO is less likely. If both this and interactional trust (2a & 2b) are lacking, approval level is rarely granted by any stakeholder.
2b. Interactional trust	The perception that the company and its management listens, responds, keeps promises, engages in mutual dialogue, and exhibits reciprocity in its interactions.	If lacking, approval level of SLO is less likely. If both this and socio-political legitimacy (2a & 2b) are lacking, approval level is rarely granted.
3. Institutionalized trust	The perception that relations between the stakeholders' institutions (e.g., the community's representative organizations) and the project/company are based on an enduring regard for each other's interests.	If lacking, psychological identification is unlikely. If lacking but both socio-political legitimacy and interactional trust are present (2a & 2b), most stakeholders will grant approval level of SLO.

trust, mistrust, the state,
and community benefit
schemes

Weaknesses in the SLO literature

Trust is not sufficiently conceptualised and problematized in SLO literature: the various types of trust and mistrust (esp. institutional and ideological)

Trust is not a silver bullet: trust has its downsides and mistrust has its virtues

We emphasise the role of the government and state – which is central in nuclear waste policies

Analysing benefit schemes is an angle seldom adopted for the analysis of SLO



Does high level of institutional/generalised trust enhance chances that an organisation obtains an SLO?



Research questions

What community benefit measures have the NWM companies/agencies/authorities implemented in order to obtain an SLO for the project?

How do local and national communities/stakeholders perceive these actions, and what is their impact of the SLO of the projects in question?

Measures designed to enhance SLO
Perceptions concerning the five key elements of our framework. First, we apply the two forms of legitimacy, as described by Thomson and Boutilier:

- Economic legitimacy
- Socio-political legitimacy

three types/dimensions of trust **and** mistrust

- Project-level and interpersonal trust/mistrust
- Institutional trust/mistrust
- Ideological trust/mistrust

We will particularly highlight

