



Aalto University
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Conferences as Periodical Arenas for Creating New Sustainable Fields

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*“Field-Configuring Events: Time, Space and Relations”
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PhD Thesis – ‘Micro-Dynamics in Creating Fields for Emerging Sustainable Energy Technologies’

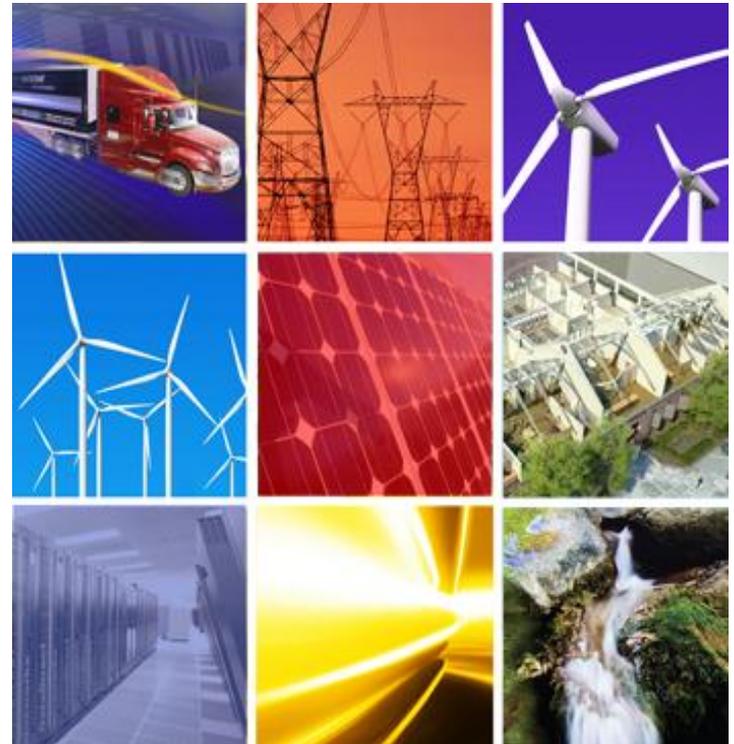
Topics: Field-configuring events, field legitimacy, sociology of expectations, sustainability niches

Nissilä, H., Lempiälä, T., Lovio, R. 2014. Constructing Expectations for Solar Technology over Multiple Field-Configuring Events: a Narrative Perspective. *Science and Technology Studies*. Vol 27, No.1. (2014).

Nissilä, H. Field-Configuring Events as Periodical Arenas for Creating Sustainable Fields. In review.

Nissilä, H., Holopainen, M, Rajala, R. The Boom and the Bust of the Solar Technology Industry: Regaining Legitimacy after Market Disappointment. Presented at the EGOS Colloquium, 05.07.2014, Rotterdam.

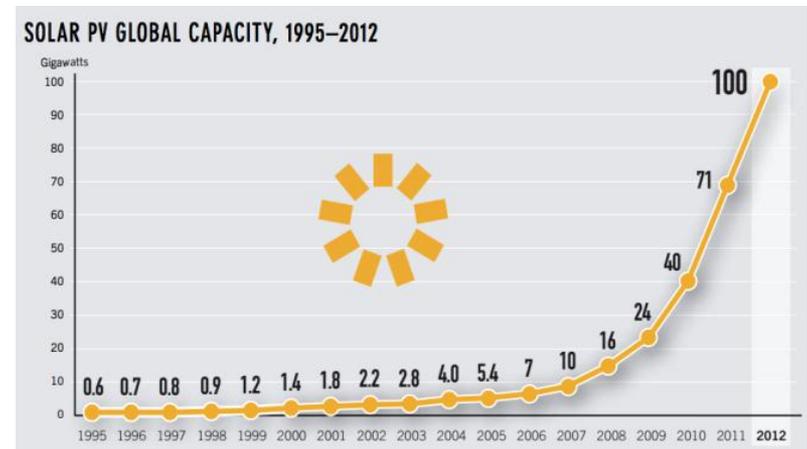
Heiskanen, E., Nissilä, H., Lovio, R. Demonstration Projects as Niches for Sustainable Technologies: Case Solar Building-Integration in Finland. In review.



Solar Energy in Finland

- A harsh context for the technology:
 - Low insolation, high seasonal variance
 - No political support, limited social acceptance
- Actions by government-related intermediary organizations
 - Conference series since 2011
 - Spurred by international growth
- "In Southern Finland the sun shines per annum as much as in North Germany"
 - Finland ca. 10 MW – Germany ca. 32,5 GW (April 2014)

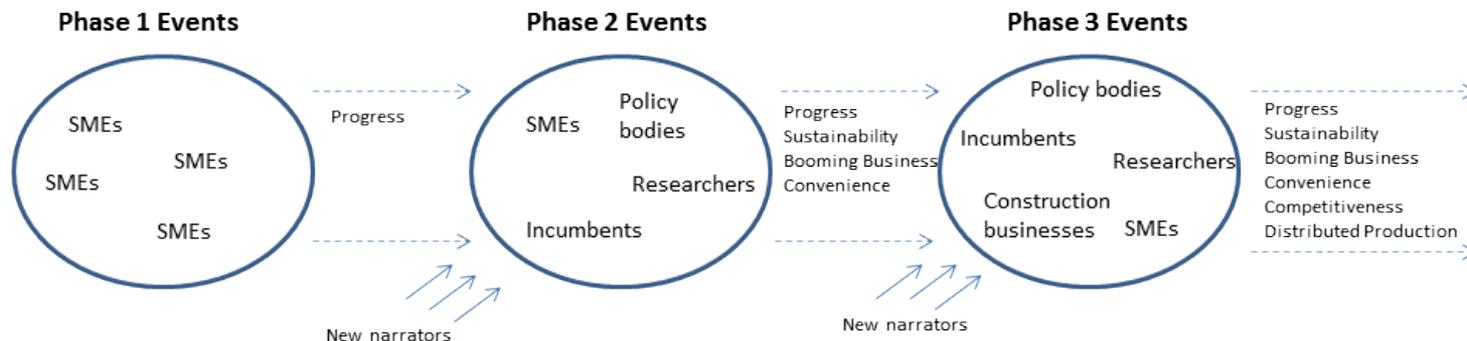
"A little bit paradoxically I guess one could say that the iPhone killed Nokia and the iPad killed the Finnish paper industry, but we'll make a comeback."
(Finnish Prime Minister, Sep' 2014)



	1. Solar energy in Finland and in EU	2. Solar Energy Forum	3. Innovating for Solar Energy	4. Get to Know Solar Energy	5. Solar Energy Workshop	6. Solar energy, materials and construction	7. Home markets for Solar Energy	8. Solar Energy in the North
Date	28.4.2011	8.12.2011	31.1.2012	27.-28.3.2012	21.6.2012	11.2.2013	4.5.2013	17.06.2014
Organizing Party	Tekes	Tekes	Cleen & Finpro	Aalto University Training Unit	Tekes	Tekes	Aalto University & solar industry association	Tekes
Event type	National small-sized event (60)	Grand event with international guests (220)	Learning-focused workshop (60)	Course, national small-sized event (40)	National medium-sized event (80)	Grand event with international guests (230)	National medium-sized event (100)	Grand event with international guests (300)
Focus	Status of solar in Finland and EU	Internationally growing market	Expertise in solar, energy storage and energy system	Utilization in construction and architecture	Utilization in construction and architecture	Bringing together supply and demand side actors	Home market creation	Status of solar in the Northern sphere
Main presenters	Researchers and SMEs in solar	SMEs in solar, energy incumbent, municipality, construction businesses	Led by an outside consultant	Solar industry association, SMEs, researchers	Construction businesses, energy incumbent, technology incumbents	Researchers, SMEs, energy incumbent, municipalities	Researchers, SMEs, association for renewables, intermediaries	Technology and energy incumbents, researchers, SMEs, association for renewables

Constructing Expectations for Solar Technology over Multiple Field-Configuring Events: a Narrative Perspective

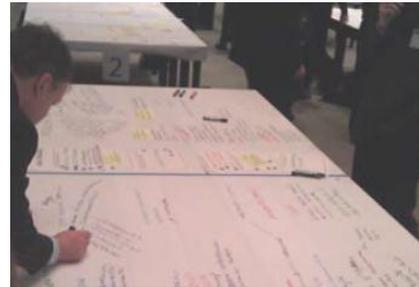
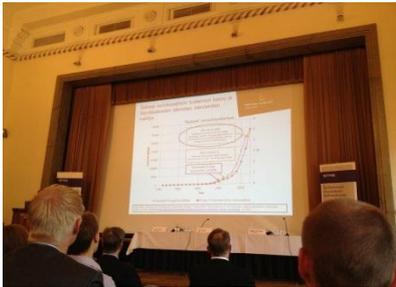
- Combining sociology of expectations literature (e.g. van Lente 1993) with the FCE literature
- Conferences as arenas for generating a common language around a new technological field
- RQ: How are visions and expectations constructed over a series of events?
- Instead of aligning visions and expectations, event series can aid in a gradual construction of complementary visions and expectations upon which to build the field's future



Picture 1. Evolvement of Expectation Work

The Field-Configuring Events Literature

- How conferences influence the emergence of organizational fields (e.g. Garud et al. 2008, Oliver & Montgomery, 2008) or change fields (Hardy & Maguire 2010, Schüssler et al. 2014).
- Empirical gap: FCEs as arenas for deliberately creating new sustainable fields



Application of the FCE literature to a novel empirical context

Creating 'sustainability niches' for emerging technologies

- Stream of empirical work (e.g. Geels 2002, Schot & Geels 2008, Markard et al. 2012)
- Interest in government-related interventions to promote sustainable technologies

New sustainable technologies not competitive on the market

- Likely to be ruled out by conventional industries

Garud and Gehman (2012): evolutionary perspective to 'sustainability journeys'

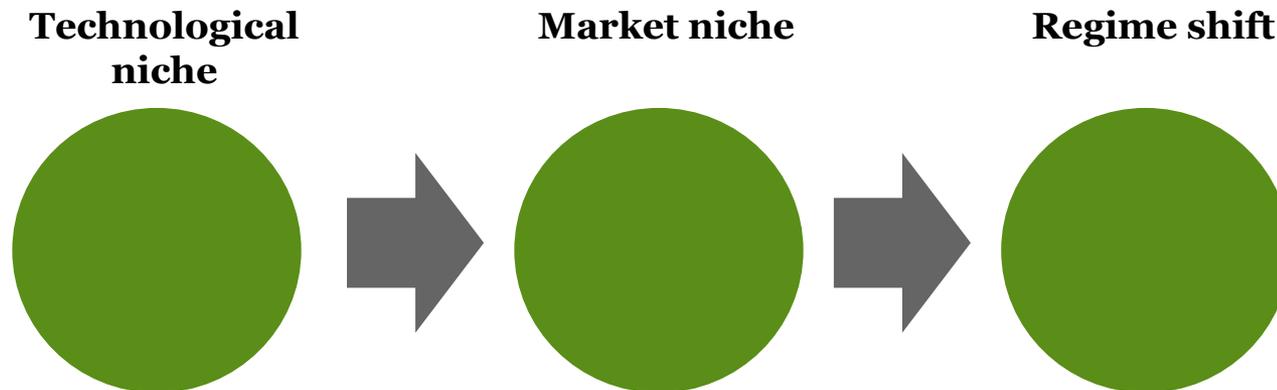
- *A 'transition' from one set of socio-technical requirements to another*
- *Change is 'disruptive' with not just technologies changing but also the 'social fabric' around them*

Niches as specific aspects of emerging fields:

- Steered beyond the promotion of single technologies towards generating broader change at the level of socio-technical systems, *'disruptive' systemic change*

Dichotomy between niches and regimes, i.e. established industries

- Niches
 - ... initially unstable socio-technical configurations developed by small networks of dedicated actors
 - ... *'protected spaces'* shielded from *'mainstream'* selection environments
 - ... *'sources of novelty'* within self-sustaining socio-technical dynamics
- How much should niches interact with the regimes?
 - Interaction can come at a cost, especially if the regime has very different goals (Diaz et al. 2013)
 - Niches can also benefit from interaction e.g. in terms of gaining legitimacy (Smith, 2007)



Object Phenomenon

The potential of field-configuring events as a periodically occurring, temporal arena for niche creation

Processes that nurture the single technology (niche-internal processes)

Developing networks,
Generating learning effects

Processes that create 'disruptive' systemic change, (niche-external processes)

Policy change towards a sustainability transition





Tekesin toiminnalliset malli-ohjelmassa syntyi yli sata

HENRIKKA HELLSTRÖM

Vastikään päättyneen monivuotisen Tekesin Toiminnalliset materiaalit -ohjelma osoittautui hedelmälliseksi, sillä sen rahoittamien hankkeiden joukosta syntyi yli 100 patenttia, yli 200 tieteellistä julkaisua ja 90 opinnäytetyötä. Lisäksi omaa teknologiaansa



Markku Helno kalpaa suomalaisia rohkeutta



8 events in 2011-2014

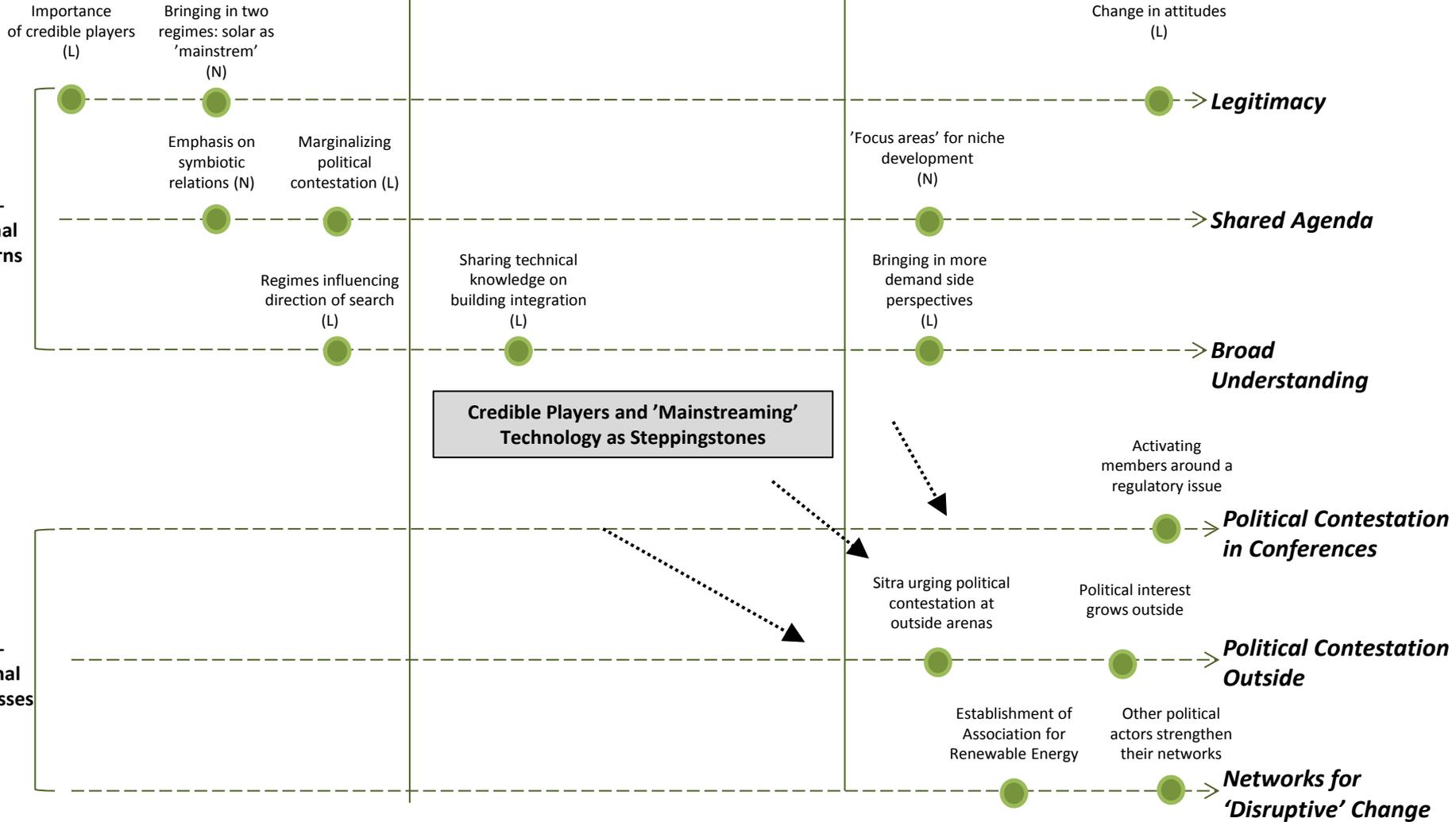
Field-notes	Archival data	Interviews
<ul style="list-style-type: none"> Observations at events 	<ul style="list-style-type: none"> Press releases, event programs, participant lists, media articles, presentations slides (ca. 2200) 	<ul style="list-style-type: none"> 11 semi-structured interviews with participants and event organizers
	<ul style="list-style-type: none"> Official documents: a solar cluster report, summaries of learning outcomes, solar catalogue etc. (160 p.) 	<ul style="list-style-type: none"> Numerous field interviews, short conversations

Findings

**Phase 1:
Attractiveness of Solar**

**Phase 2:
Opportunities for Built Environment**

**Phase 3:
Enlarging Linkages between Supply
and Demand**



Discussion and Conclusions

FCEs as a periodical sequence can be a fruitful arena for creating sustainable fields

...they can trigger processes focused on promoting the single innovation (niche-internal processes) that then generate steppingstones for processes 'disruptive' systemic change (niche-external processes).

... usefulness of sequences of FCEs in the niche development context (Garud, 2008, Schüssler et al. 2013)

... a niche can benefit from interaction with two regimes and other 'mainstream' players



Discussion and Conclusions

Field-maintaining and field-configuring developments taking place at the same time

... regime actors participated for their own purposes, disconnecting from the institutions requiring change (Schüssler et al. 2013)

... at the same time field-configuring dynamics possible via informal channels and leveraging the conferences to push for policy change at other arenas

... adds insight into the dichotomy of conferences as either field-maintaining or field-configuring (Schüssler and Sydow 2012)



Discussion and Conclusions

Interactional openness (Hardy & Maguire 2010) important

... also politically active, alternative actors joining despite the 'mainstream character' of the sequence

'Temporal space' for political interest to grow outside the conferences

... 3+ years period

... early conferences created gradual chain effects (Schüssler et al. 2013)

Role of organizing intermediaries important

... conferences officially kept in line with the organizers' roles in the national innovation system

... organizers stretch their roles behind the scenes



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Comments welcome 😊

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