



Historical Event Analysis

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Dynamics of TIS

- Understand what happens within TIS
 - > over time
- Identify patterns for theory building
 - > need a lot of data
- Understand emergence of new industries / technological fields / technologies
 - > traditional data/methods not suitable e.g. diffusion curves



Process/event analysis (Poole, van de Ven 2000)

- Variance vs process analysis
- Session 08: Two Modes of Thought: Variance and Process Models by Prof Van de Ven
- <http://mediasite.csom.umn.edu/Mediasite/Play/68923d741df043a684c0c392c1c864671d>



Historical event analysis

- Event = smallest unit in which change is detected
- Longitudinal data = over time
- Reconstruct history
- Identify patterns
- Explain sequence of events



Basic steps

1. Operationalise system functions
 - > determine event categories
- > Exercise 1



Function 1: Entrepreneurial activity (Hekkert et al 2007 pp. 421)

“There is no such thing as an innovation system without entrepreneurs. Entrepreneurs are essential for a well functioning innovation system. The role of the entrepreneur is to turn the potential of new knowledge, networks, and markets into concrete actions to generate—and take advantage of—new business opportunities. Entrepreneurs can be either new entrants that have the vision of business opportunities in new markets, or incumbent companies who diversify their business strategy to take advantage of new developments [...]”



Function 4: Guidance of the Search (Hekkert et al 2007 p. 423)

[...] Guidance of the search refers to those activities within the innovation system that can positively affect the visibility and clarity of specific wants among technology users [...]

[...] Note that guidance of the search is not solely a matter of market or government influence; it is often an interactive and cumulative process of exchanging ideas between technology producers, technology users, and many other actors, in which the technology itself is not a constant but a variable. Expectations are an important, though elusive, phenomenon in this [...]



Event categories

System Functions	Indicator	Sign/Value
Function 1: Entrepreneurial Activities	Project started	+1
	Contractors provide turn-key technology	
	Project stopped Lack of contractors	-1
Function 2: Knowledge Development	Desktop/Assessment/Feasibility studies, Reports	+1
Function 3: Knowledge Diffusion	Conferences, Meeting, Network days, Excursions, Platforms,	+1
Function 4: Guidance of the Search	General: Positive expectations of renewable energy; Regulations by government on renewable energy	+1
	Specific: Positive expectations on specific technology; Regulations by government on specific technology	
	General: Negative expectations of renewable energy; Regulations by government on renewable energy	-1
	Specific: Negative expectations on specific technology; Regulations by government on specific technology	
Function 5: Market Formation	Feed-in rates, environmental standards, green labels, taxes	+1
	Expressed lack of feed-in rates, lack of environmental standards, green labels, taxes	-1
Function 6: Resources Mobilisation	Subsidies, Investments	+1
	Expressed lack of subsidies, investments	-1
Function 7: Advocacy Coalition	Lobby by actors to improve technical, institutional and financial conditions for specific technology	+1
	Expressed lack of lobby by actors; Lobby for other technology that competes with specific technology	-1
Events with NO Function	Context (oil price, wars etc), technical info, general about renewable energy, double (count only 1 time)	



2. Find events from grey and professional literature

-> Exercise 2



3. List events chronologically in database



4. Allocate event categories to system functions

-> Exercise 3

+1 if event contributes positively to the fulfilment of the system function

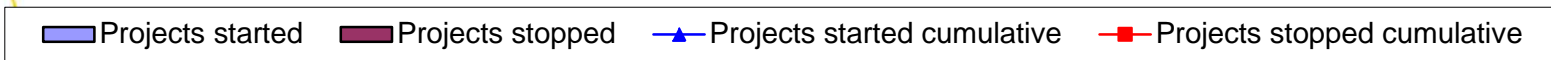
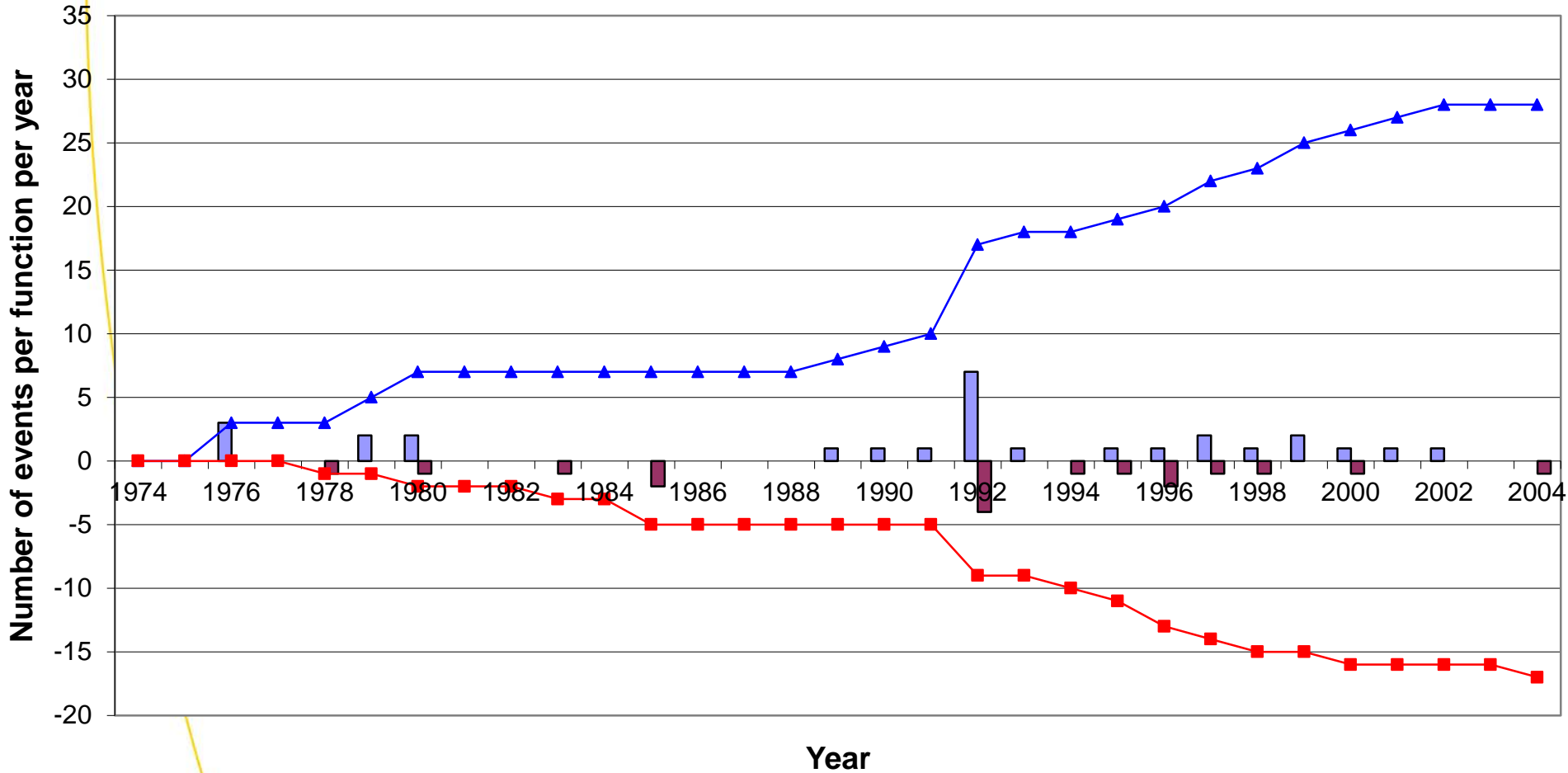
-1 if event contributes negatively to the fulfilment of the system function



5. Analyse data



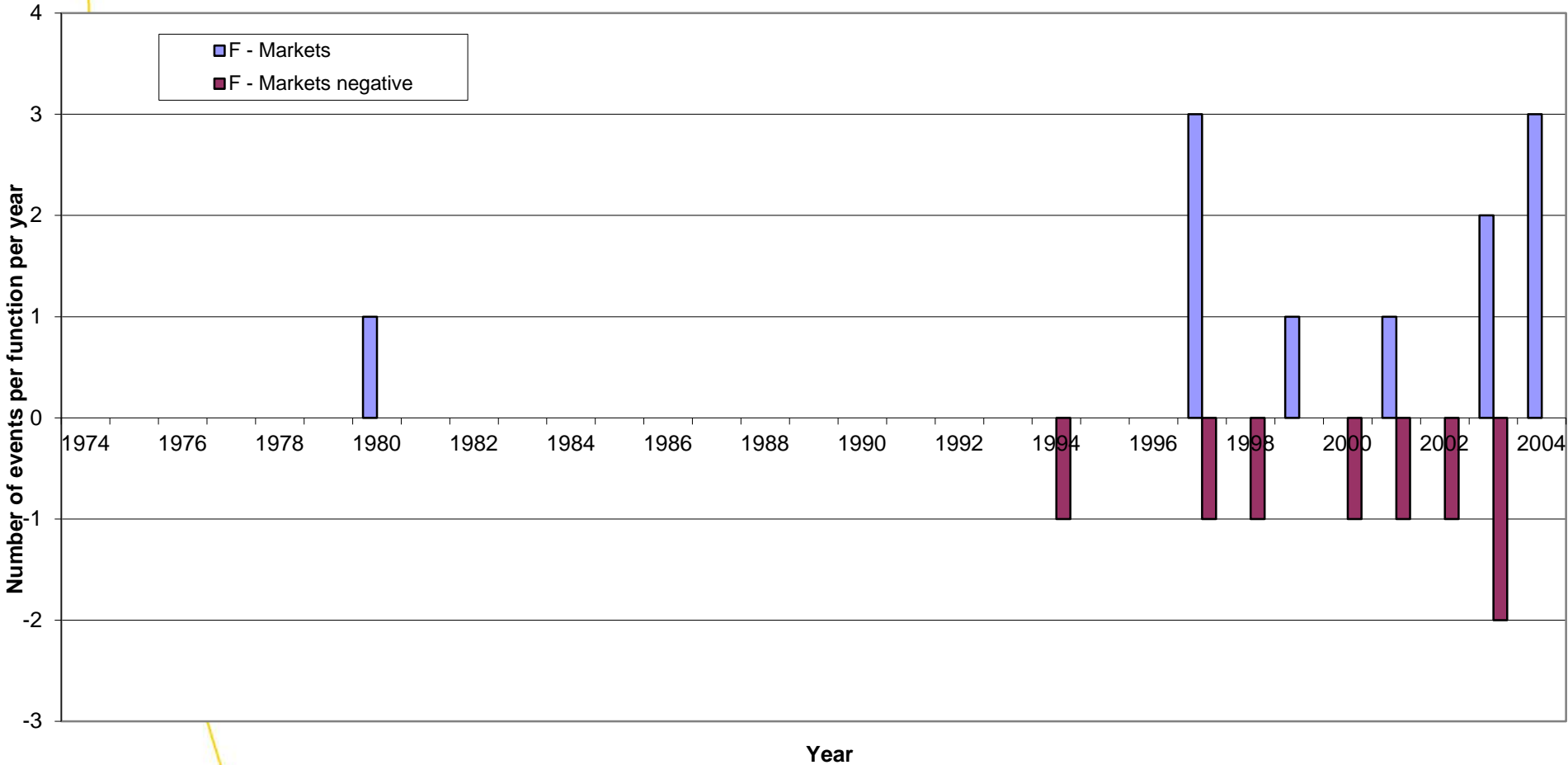
Function Entrepreneurial Activities





Too little events – use events in narrative

Function Market formation





How to interpret data?

- Narrative & interaction patterns
- Use graphs to identify trendline for each function and across functions
- Focus on peaks or dips
- Look back at events in database what happens around those years
- Find causal relations between events
- Reconstruct storyline (write in present tense)



Robustness of data

- Interviews to triangulate narrative
- Intercoder reliability
- Use event categories to design specific interview questions



Discussion

- Content vs form – interpretation
- Increase of amount of events – more sources or more attention in news?
- Overlap between functions
- Cross case analysis needed to identify reoccurring sequences
 - e.g. F4 -> F2 -> F1