

Multiple Paths of Development:
Knowledge Bases and Institutional
Characteristics of the Swedish Food
Sector

Elena Zukauskaite &
Jerker Moodysson
CIRCLE, Lund University

Overview of the presentation

- Point of departure
- Aim
- Conceptual framework
- Analysis
- Conclusions

POINT OF DEPARTURE

Food sector in Skåne

- Value- added products
- Functional food
- Exploiting new knowledge and technologies (Asheim and Coenen, 2005)
- Sector in crisis
- Diminishing R&D departments
- Incremental improvements (Lagnevik et al., 2003)

Diverse sector when it comes to perception of innovation and absorptive capacity (Gellynck and Vermeire, 2009; Tripl, 2011).

Diversity specified on the knowledge base of the firms in the same industry.

AIM

Aim

- To explain the complex development of the food sector in southern Sweden in the past decades, focusing on the relation between institutions and innovation practices and taking into account the diversity of the actors.
- Capture how firms go about when they innovate and why their modes of innovation differ.

CONCEPTUAL FRAMEWORK

Institutions and Path Dependency

Institutions

- regulations, norms, traditions, procedures
- enable and hinder innovation processes (Hodgson, 2003)
- geographically bounded (Martin, 2000)
- provide incentives for actions (Edquist and Johnson, 1997)
- actors can interpret and respond differently (Strambach, 2010; Hodgson 2003; North, 2010)

Path dependency

- (partly) due to interrelatedness and slow change of institutions;
- negative or positive lock-in (Asheim and Gertler, 2005; Boschma and Lambooy, 1999)
- geographically bounded (Martin and Sunley, 2010)

There can be multiple paths within the same region and within the same sector.

Path creation

- Stemming from previous rounds of development which can be enabling or hindering (Martin and Simmie 2008; Martin and Sunley, 2010; Simmie, 2012)
- Multiple paths: incremental change, radical change and diversification (Trippi and Otto, 2009)

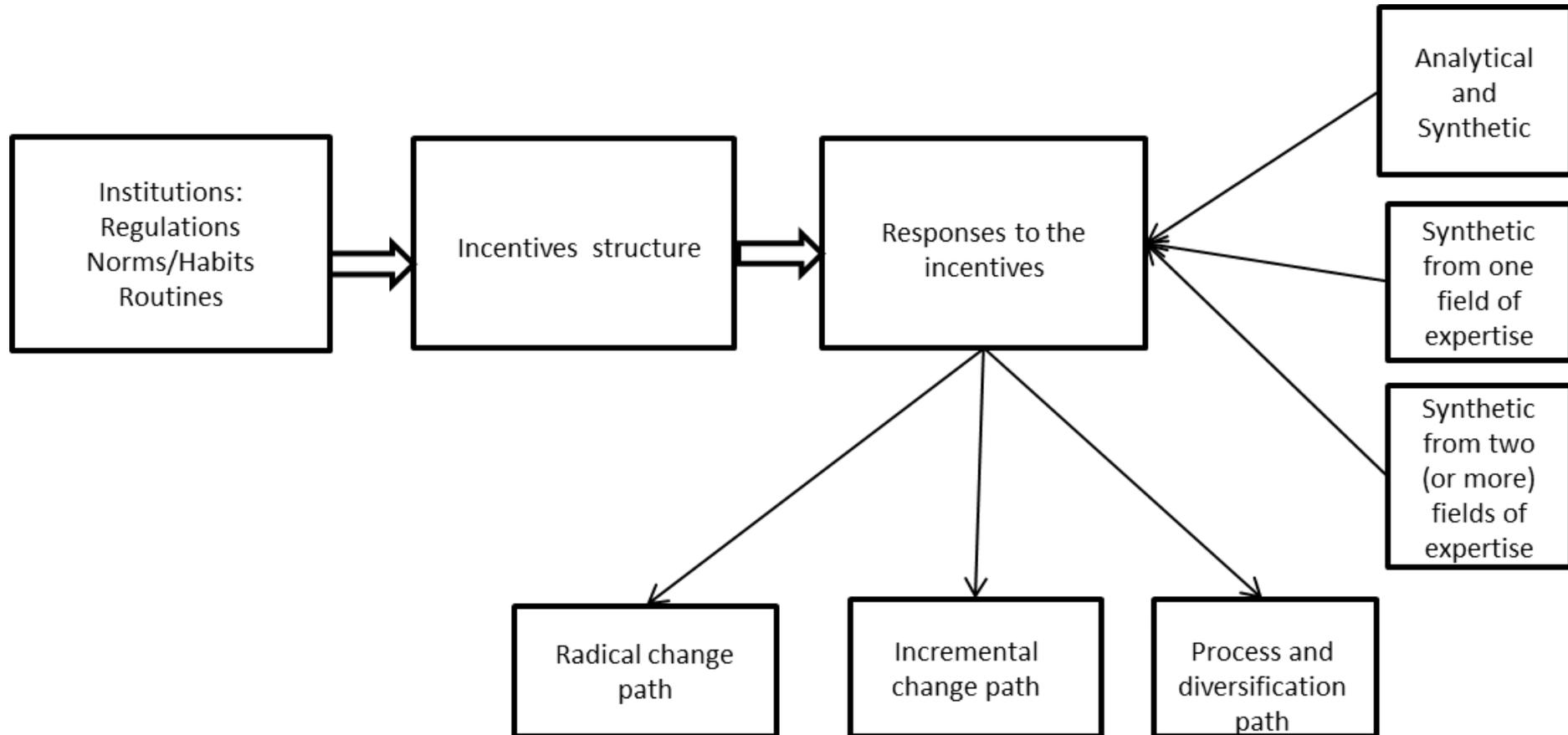
Knowledge base

- Firms abilities to learn, change and innovate depend on the knowledge base underlying their activities (Asheim and Gertler, 2005)
- Analytical: scientific, codified, know-why
- Synthetic: engineering, mostly tacit, know-how
- Symbolic: artistic, tacit, know-who (Asheim et al., 2007)

Food sector and knowledge bases

- Food sector as a whole – synthetic (Martin et al., 2011)
- But innovation processes can involve:
 - Synthetic and analytic (Moodysson et al., 2008)
 - Synthetic from different fields of expertise (Coenen and Moodysson, 2009)
 - Synthetic from one field of expertise (Lagnevik et al., 2003)

Summary of the conceptual framework



ANALYSIS

Three paths

- **Radical change:** food and health convergence, A+S KB, value added products, 'traditional' food with health benefits, medicine-like food (Why is honey a healthy product?)
- **Incremental change:** product development, S KB, changes in taste, ingredients (how can we reduce amount of sugar, but ensure the same taste?)
- **Diversification:** new processing technologies, S+S KB, products processed in a novel way (how can we preserve (how can we chop onion preserving it's qualities?))

Same institutions – different responses

Institution	Incentive	Responses S+A	Responses S	Responses S+S
EU membership	Competition in a global market	High value-added product	Reduced prices	Increased efficiency
Health trend	Development of healthy products	Functional food	Not unhealthy products	'Healthy' process
Shopping habits	Minor variation	Create new habit/slow diminishing of AKB	Slightly improved products	Create new habit/ improve in one field of expertise (related products)

Some institutions matter, others don't

Institution	Incentive	Responses S+A	Responses S	Responses S+S
VINNVÄXT	Industry-university-public sector cooperation	Public-private cooperation in regional support programs SFIN	-	-
Increased risk avoidance	Decrease the development of highly innovative products	Slow diminishing of AKB/ few companies	-	-
Changing norms: women and family	Convenience food	-	-	Initial trigger
Environmental sustainability	Ecological products	-	Adding new raw materials	-

CONCLUSIONS

Conclusions

- Institutional framework influencing firms in food sector is complex and provides harmonious and contradicting incentive structures.
- Knowledge base(s) of the firms influence to which incentives they respond and how they respond.
- Place and path-specific characteristics matter for innovation (Martin and Sunley, 2006, 2010), but how they are used depend on firms and their dominant KB.