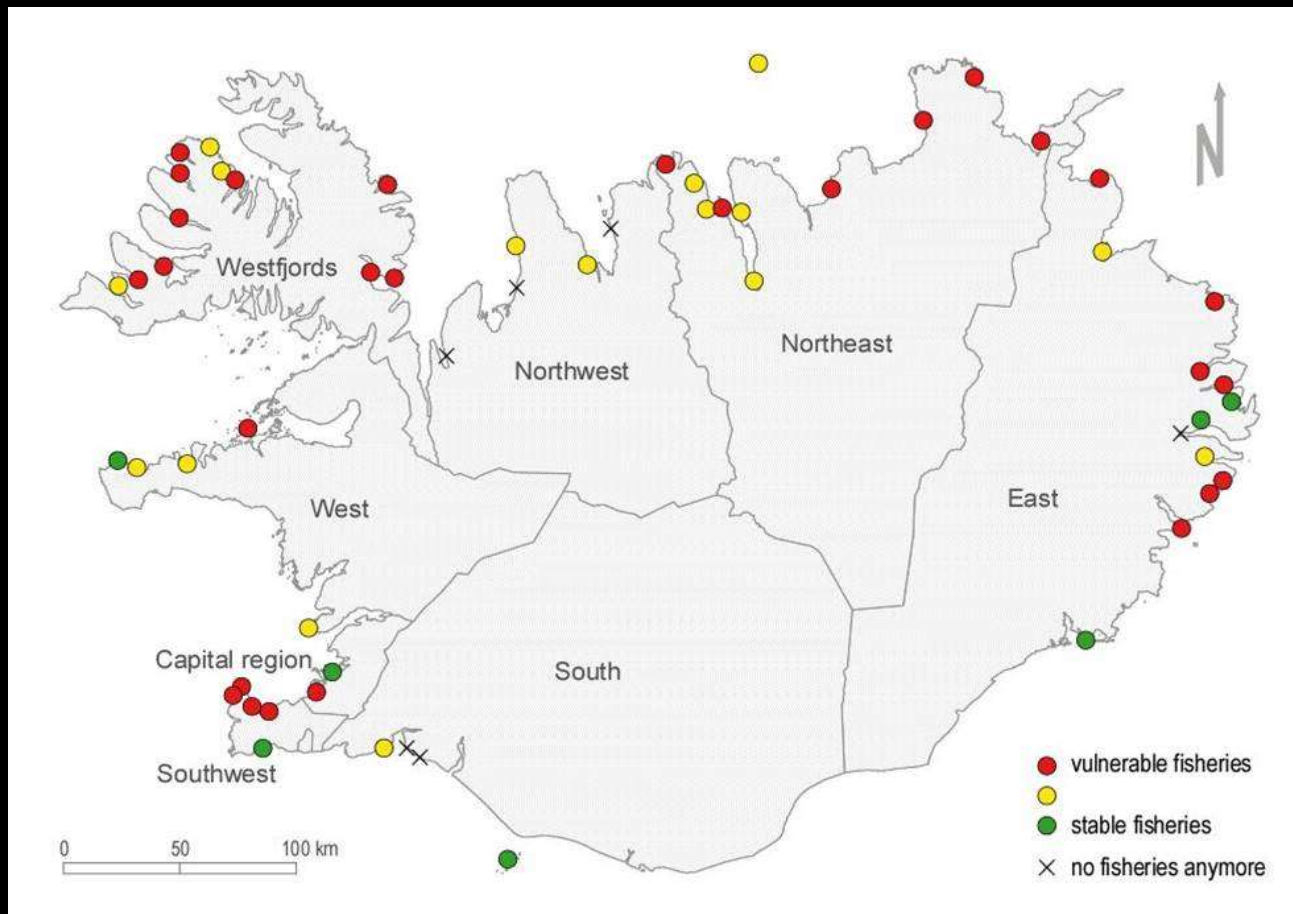# Local Resilience
in Shrinking Places

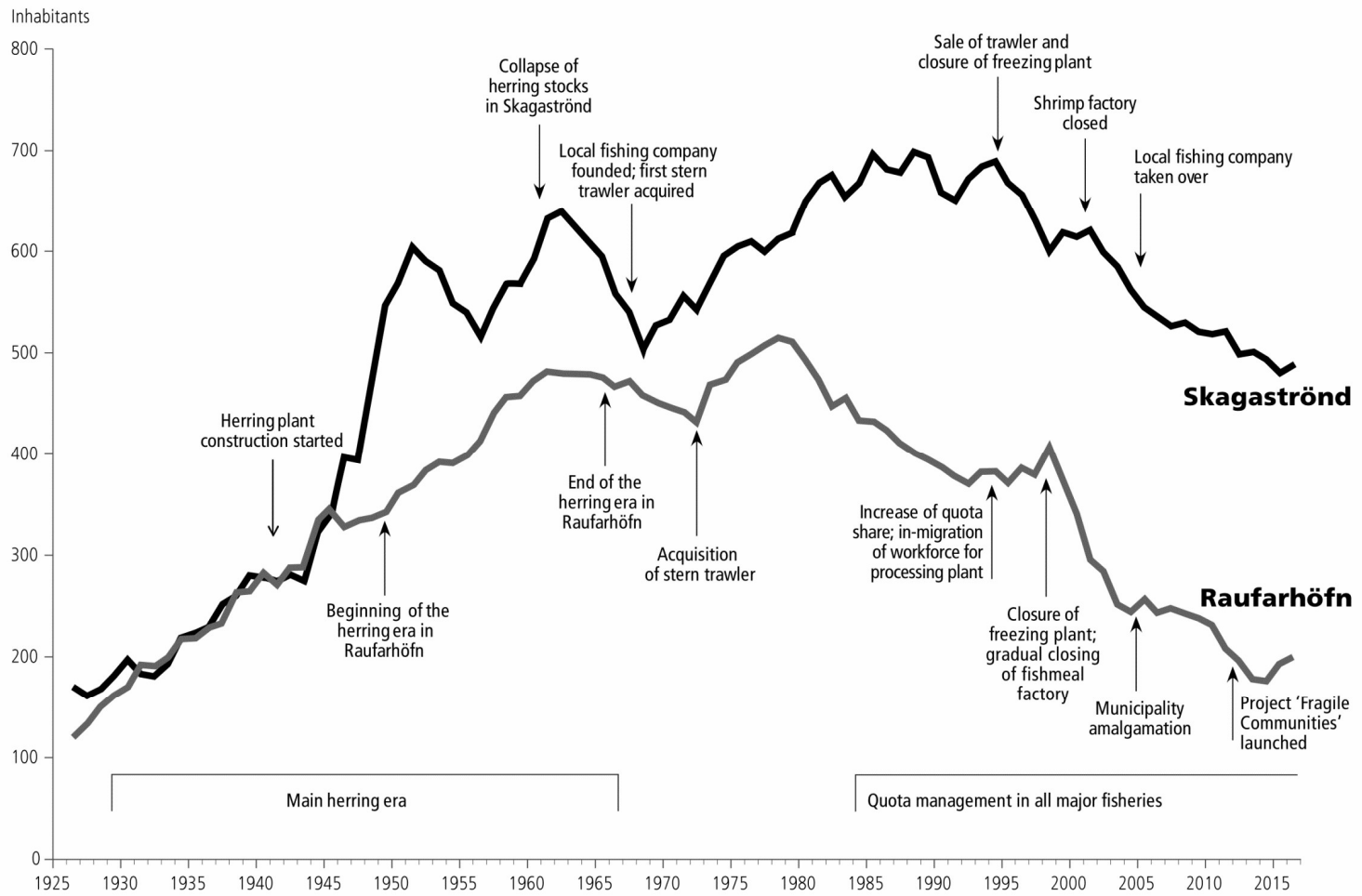Matthias Kokorsch
University Centre of the Westfjords

Community Resilience

Community resilience is
'the ability of a community to cope and adjust to **stresses caused by social, political, and environmental change** and to engage **community resources** to overcome adversity and take advantage of opportunities in **response** to change' (Amundsen, 2012, p. 46)

Resiliene of whom to what?

Inhabitants

800

700 — Collapse of herring stocks in Skagaströnd — Sale of trawler and closure of freezing plant

Local fishing company founded; first stern trawler acquired — Shrimp factory closed — Local fishing company taken over

600

Herring plant construction started — End of the herring era in Raufarhöfn

500 — Skagaströnd

Acquisition of stern trawler — Increase of quota share; in-migration of workforce for processing plant

400 — Beginning of the herring era in Raufarhöfn — Raufarhöfn

Closure of freezing plant; gradual closing of fishmeal factory

300 — Municipality amalgamation — Project 'Fragile Communities' launched

200

100 — Main herring era — Quota management in all major fisheries

0

1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015

Resilience

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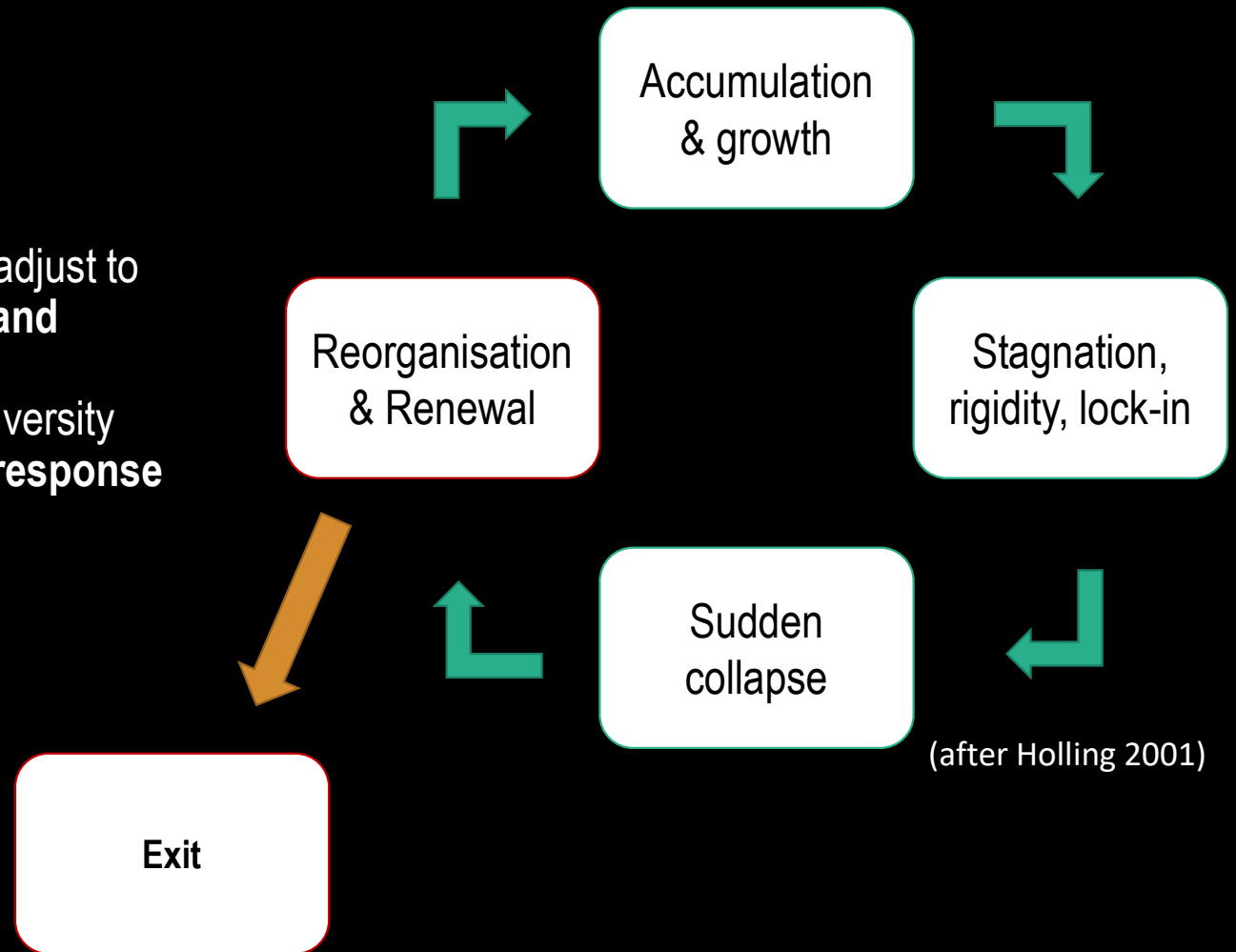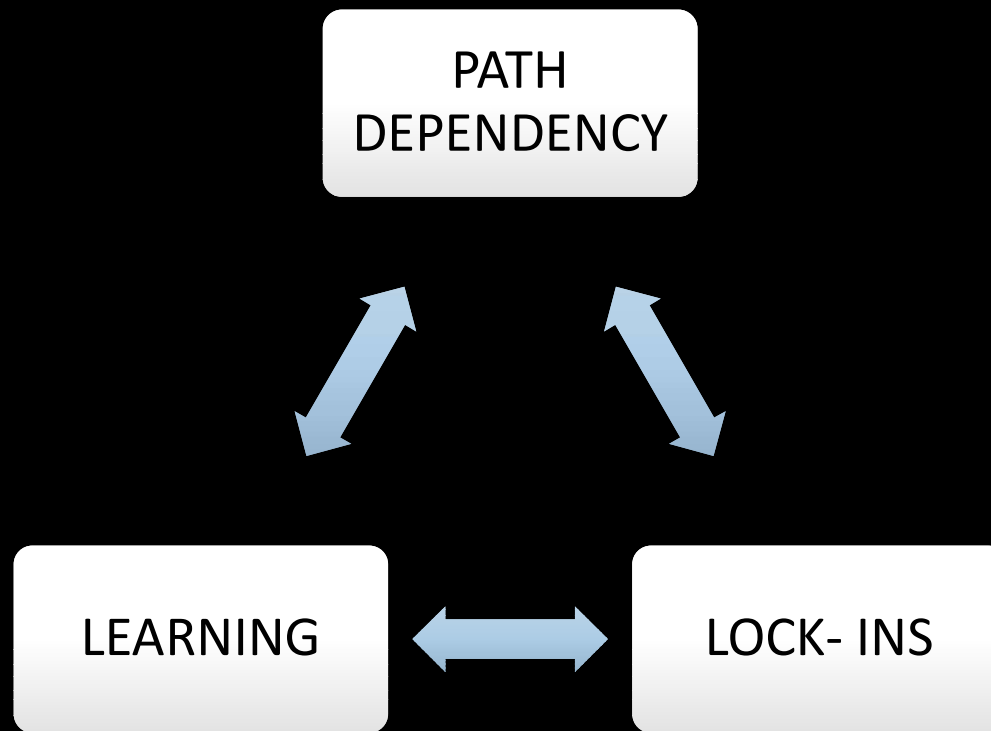(Amundsen, 2012, p. 46)

Accumulation & growth

Stagnation, rigidity, lock-in

Sudden collapse

Reorganisation & Renewal

Exit

(after Holling 2001)

ADJUSTING & ADOPTING

Path dependency

Path dependence is characterised by technology and process related decisions made in the past that influence later choices of method, designs, and practices . Furthermore,

"…it does not mean a rigid sequence determined by technology and the past, but a road map in which an established direction leads more easily one way than another – and wholesale reversals are difficult. This logic applies to industrial locations as well." (Martin & Sunley, 2010, p. 62)

Lock- In

Lock-ins appear in old industrial branches, "in which initial strengths based on geography and networks, such as industrial atmosphere, highly specialized infrastructure, close inter-firm relations and strong support by regional institutions, turned into barriers to innovation" (Hassink, 2010, p. 450).

(…)

Lock-ins are thus the adverse result of undiversified local and regional economies and relate to the over-embeddedness and structural change. This comes with a rigidity to changes and a hesitance towards adjustments, modifications and new technologies.

Lock- In

Functional Lock Ins…
…appear in declining industrial areas with strict hierarchical networks and ossified leaders. The crusted structures hinder the *shift to alternative development path*

Cognitive Lock Ins…
…are processes in which "world views and strategies tend to be homogenous in the sense that hinders *innovative imagination*" (Underthun et al., 2014, p. 122)

Organizational Lock Ins…
…are linked to cognitive lock-ins and the overreliance on local networks and ties, but also to *institutional inertia*.

Political Lock Ins…
…thick institutional tissues aiming at preserving existing traditional industrial structures and therefore unnecessarily slowing down industrial restructuring and indirectly hampering the development of *indigenous potential and creativity* (Hassink, 2010, p. 453).

Assessing resilience

Table 11 Components for the identification and evaluation of resilience-building strategies

Component	Description/Definition	Source
Adaptive capacity	Adjustment in a system's behaviour and characteristics that enhance its ability to cope with external stresses; ability to modify or change to cope with stress.	Adger et al. 2004, Berkes and Ross 2013, Roberts and Townsend 2015
Coping strategy	Innovation, networking and formation of identity; new solutions to local problems.	Bærenholdt and Aarsæther 2002, Norris et al. 2008, Wilson 2013
Community capacity	Connectedness and political networking.	Bristow and Healy 2014, Dawley et al. 2010, Norris et al. 2008, Wilson 2013
Local agency/ fate control	Destiny in own hand; Ability to shape own future.	Marsden, 1999; Measham, Darbas, Williams, & Taylor, 2012
Place attachment/ Sense of belonging	Emotional ties; being open and welcoming; encouraging participation in community.	Amundsen 2012, Looker 2014, Roberts and Townsend 2015, Steiner and Atterton 2015

Assessing resilience

Component	Description/Definition	Source
Civic engagement	(Political) involvement; working together in problem solving measures.	Besser 2013, Norris et al. 2008
Collective and/or self- efficacy	Belief that change can be achieved by the community;	Berkes and Ross 2013, Roberts and Townsend 2015
Transformation	Ability to create new pathways and enhance functioning.	Dawley et al. 2010, Keck and Sakdapolrak 2013, Walker et al. 2004
Community infrastructure	Services provided, to people and industries.	Amundsen 2012, Christopherson et al. 2010, Park 2016
Innovation & education	A skilled, innovative and entrepreneurial work-force	Christopherson et al. 2010
Driver of change	Public or private	Steiner and Atterton 2015
Diversified economy	No over-reliance on a single industry	Christopherson et al. 2010, Steiner and Atterton 2015

Table 12 Assessment of resilience-building components in the case study locations.

Component	Skagaströnd	Raufarhöfn
Place attachment/ Sense of belonging	Strong	Strong
Civic engagement	Medium	Medium/ low
Collective and/or self- efficacy	Given	Improving
Community capacity	Strong ties and high level of networking	Weak ties or networking
Local Agency & fate control	Self-sufficient	Fully dependent
Community Infrastructure	Good	Limited, threatened
Diversified Economy	Improving	Single resource-dependency
Innovation & education	Level of entrepreneurship and education improving	Limited entrepreneurship and low educational level
Driver of change	Diverse	External
Adaptive Capacity	Potential for adaptation	Capacity lacking
Coping Strategy	Adjusting	Adjustment problematic
Transformation	New pathways found	Lock-in
Overall assessment	Resilient	Non-resilient

Socio-Economic stressor

Lack of substantial funding
Outmigration & fluctuation
Mono-dependency on single industry
Over-embeddedness
High costs (e.g. transportation)

Endogenous obstacles

Lock- in (e.g. Cognitive lock in)
Lack of self-efficacy
Brain drain
Crusted structures
Over-reliance on local networks

COMMUNITY RESILIENCE

... is the ability of a community to cope and adjust to stresses caused by social, political, and environmental change and to engage community resources to overcome adversity and take advantage of opportunities in response to change (Amundsen, 2013)

Environmental stressor

Local impact of climate crisis
Challenging natural environment
Transportation issues in winter months
Uneven distribution of natural resources

Political stressor

Insufficient support system for innovation
Growth orientation
Focus on short term solutions
Institutional inertia

How to adjust to structural changes?

Minor reorientation
- diversification into new but related industries
- adaptive restructuring

Major reorientation
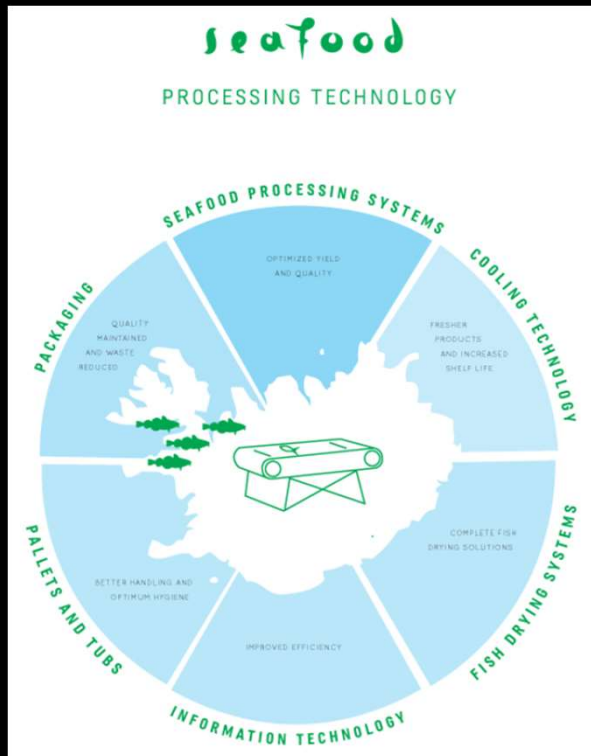- diversification into unrelated/novel industries
- deep restructuring

Renewal
- upgrading existing industries to make the community more competitive

Minor reorientation (…)

Major reorientation (smart specialization)

Renewal
(new dependencies or the question of scale)