Can a Retailer Contribute to Adaptive and Sustainable Polycentric Water Governance in South Africa ?

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Purpose of the presentation:

1. Insights into how WOOLWORTHS deals with the issue of sustainable water supply under conditions of current environmental and future climatic changes
2. Implications of this approach for sustainable water resources management (WRM)

<u>Underlying argument:</u>

- The Business model '***Farming for the Future***' in supply chain = a environmental innovation ➔ fostering sustainable WRM
- Proactive engagement outside firm boundaries requires specific organizational capabilities
  - Crucial role of learning capacities and engagement of other stakeholders

Introduction

- Research Question: **How** and **why** do business organisations contribute to water resources management?
- Aim: understand the **influence** and **interaction** of **institutional drivers** and **organizational drivers** (company characteristics and strategic orientation) that prompted Woolworths' proactive engagement?

Approach & Method

- Qualitative method: series of semi-structured interviews (2009-2012) and document analysis

- Insights from various research fields: governance (governance challenges), business and management lit. (drivers)

HOW

- WWs' water management measures
- Adaptation types:
    1. coping
    2. substantial adjustments
    3. transformation
- Learning processes

WHY

- Instructional drivers
- Organisational drivers and capacities

The South African retailer WOOLWORTHS

- Environmental leader in retail sector
- Costumers: **medium to high end** income bracket
- Brand differentiation: high **quality, sustainability**, consumer trust and innovation
- 'The **Good Business Journey**' (GBJ) = 5 year sustainability plan
  - ➢ Sustainability targets
  - ➢ Tracking & measurement system ➔ M&E

- Domestic market share: Food: 9%, Fresh produce :**33%**
  - 95% of fresh produce sourced from South Africa

➔ large **water foot print** in supply chain (i.e. agricultural production)

➔ **Water** acknowledged as a **key risk**

WOOLWORTHS' proactive engagement in Water resources management

Level	Measures
Company operations (operational level)	▪ In-store water use **monitoring** (water meters) ▪ Water **efficiency**: e.g. rain water harvesting and grey water recycling in new stores, underground spring utilization @ HQ, real estate criteria (storm and waste water management) ▪ **Staff education**: e.g. water conservation , store campaigns
Supply chain (farm/sub-catchment level)	▪ **Farming for the Future** – agricultural model for sustainable land & water management
Beyond the supply chain	▪ **WWF's Water Balance Programme**– Sponsoring of alien clearing activities ▪ **Customer education** shopping bag campaigns, company magazine *Taste* (e.g. water saving tips)

No regret measures: immediate cost savings

Environmental innovation' (Kemp & Pearson, 2007)

Corporate social responsibility

Background: Farming for the Future (FfF)

- **Dynamic scientific model** assists in identifying risk areas at the farm level and provides opportunities for changing management practices
- Developed jointly: In-house technologists, environmental consultancy, farmers
- **Supply farms**: expert advise on sustainable water & land management practices
- **Annual farm audit**:

soil management	irrigation water management	environmental legal requirements	biodiversity management
waste & waste water management	cooling and energy use and carbon footprint	pest and plant management	self-audit

BENEFITS:

- **Positive impact on water resources**: reduced use of pesticide and fertilizers, less over-irrigation improved waste water management plans
- **Benefit for farmers:** ↓ costs and ↑ yield & quality

Changes achieved via FfF

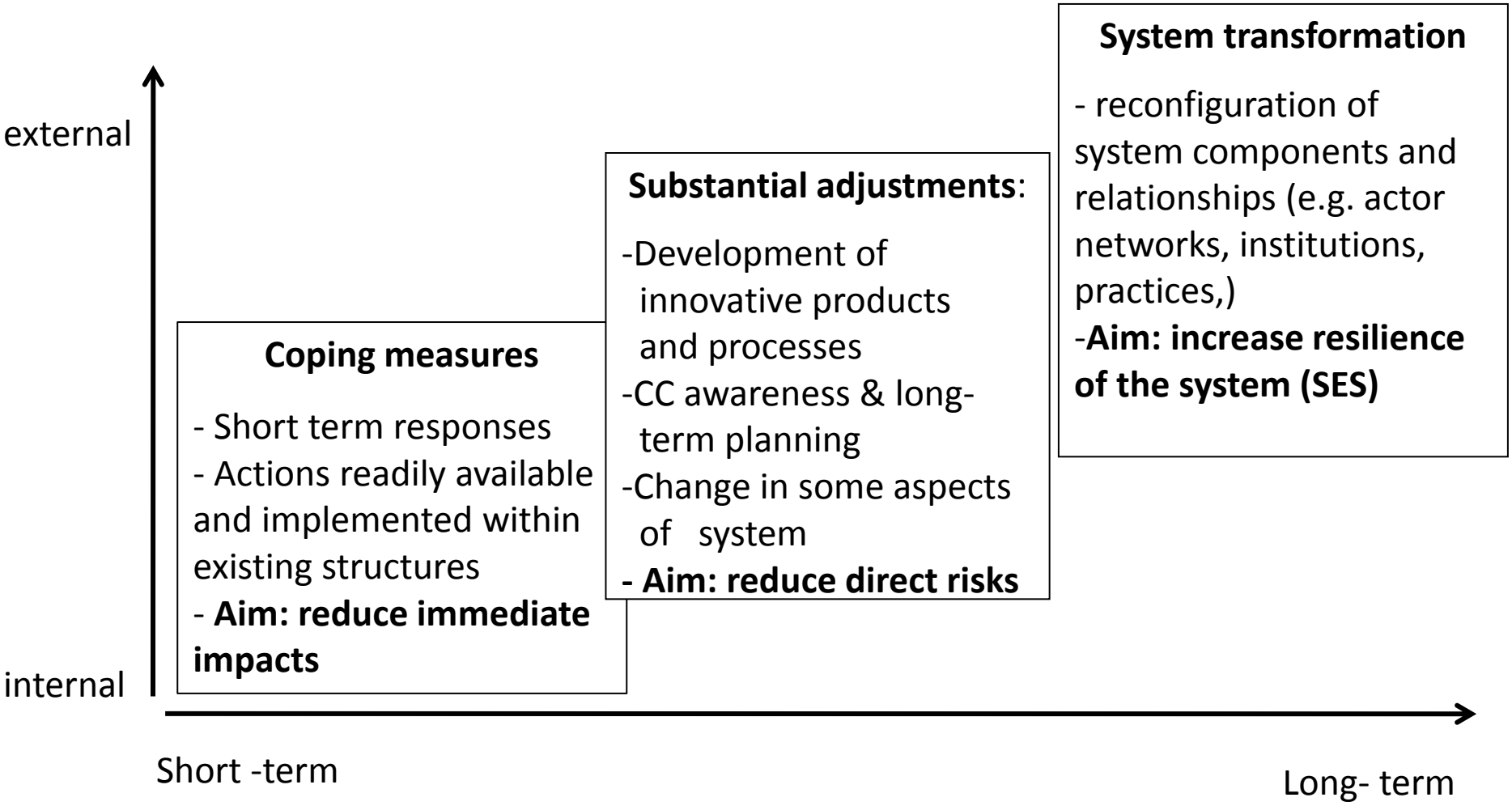
1. New way of engagement in water resources management: **direct influence** on water management at farm level of suppliers

2. Changed relations in supply chain: **capacity building, & skills development** via audits and trainings

3. **Knowledge generation** of the complex system: shared learning process btw. Woolworths' technologists, consultancy and farmers

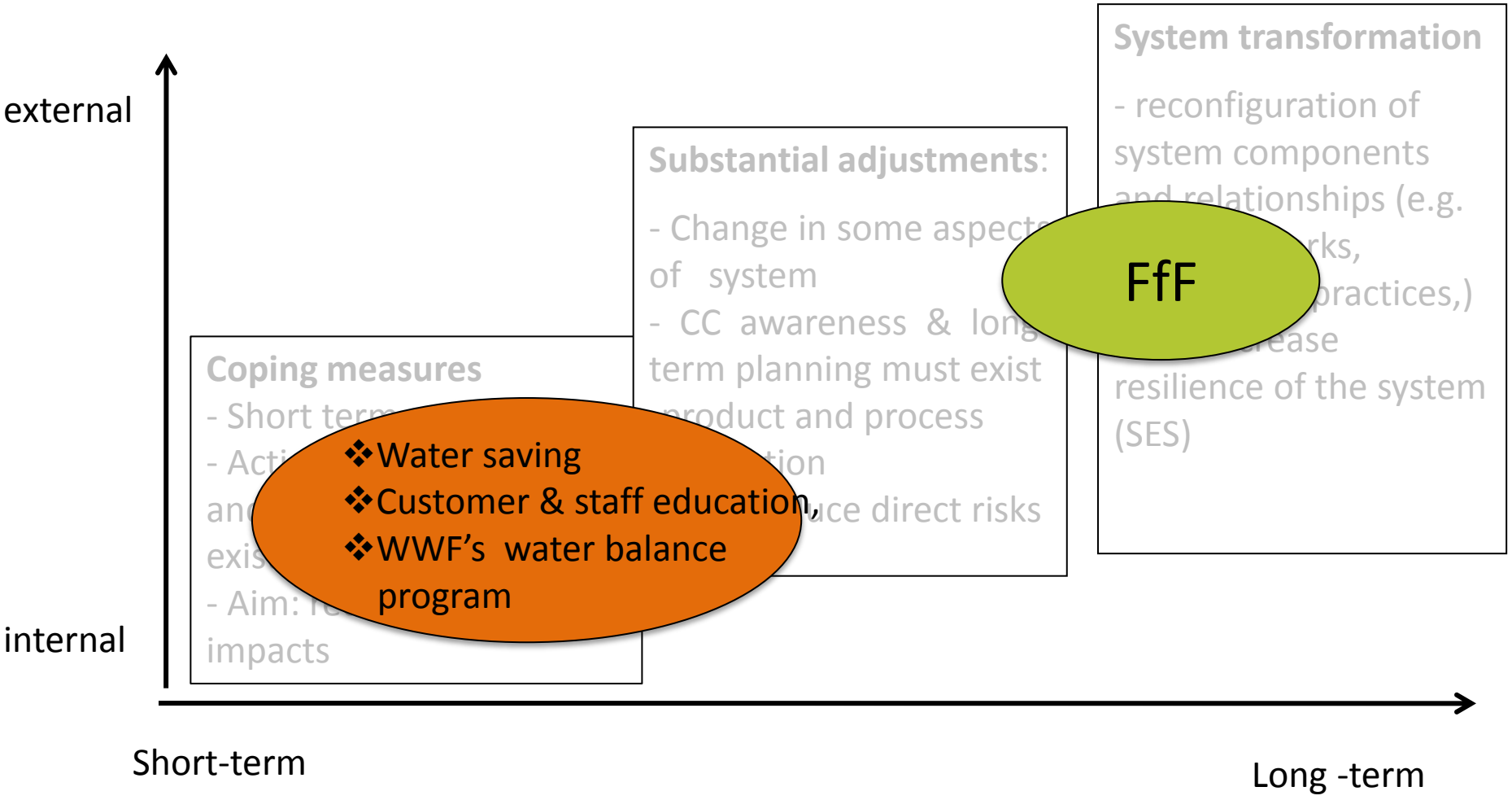
4. Change in **perceptions**:
   - Farmers: productivity linked to the env. integrity of land and water resources
   - Food technologists and buyers: focus not only on food hygiene and safety but source of the product (sustainable management practices)

Scope and scale of WRM measures

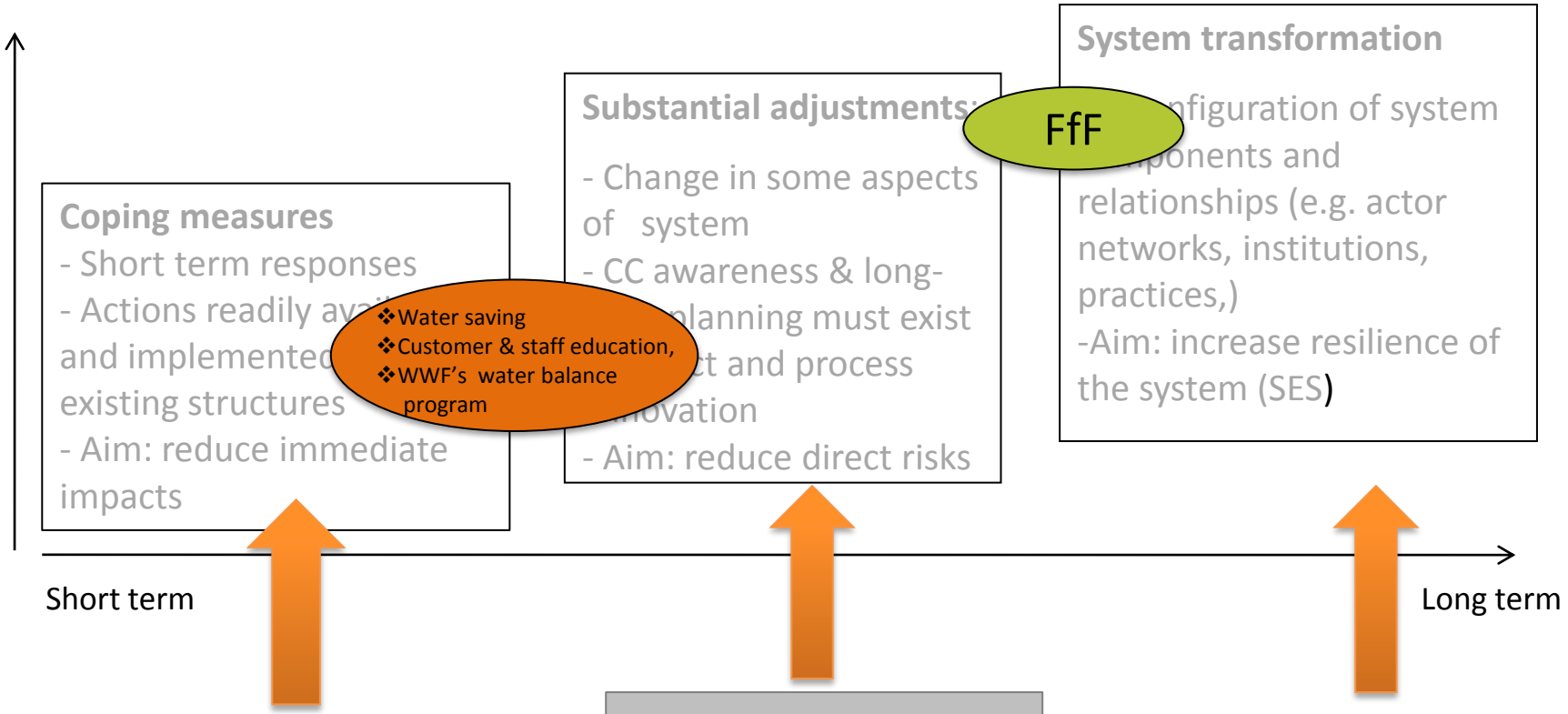


Adapted from: Moser and Ekstrom (2010)

Scope and scale of the measures



Required learning processes



SINGLE LOOP

Incremental changes to w/o questioning underlying assumptions

DOUBLE LOOP

Reflecting on how the problem is framed and whether the goal is appropriate

TRIPLE LOOP

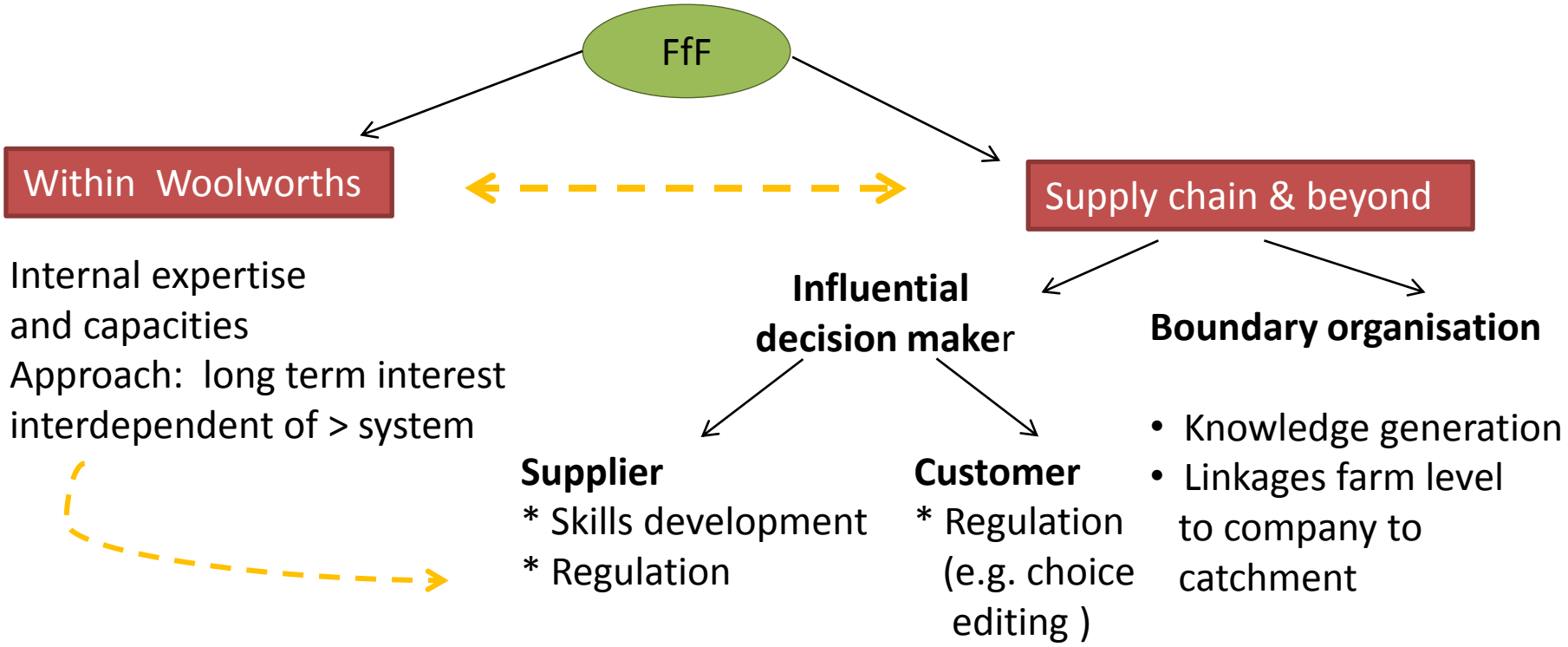
Examining assumptions about the nature of the system to be managed

Sources: Argyris and Schön, 1978; Hargrove, 2002

Institutional Drivers	Organizational Drivers and Capacities
Water governance as '**area of limited statehood'**	**Branding : quality and sustainability** – GBJ: sustainability targets and initiative – operational culture: mid management champions and executive leadership – Long term relationship with suppliers
Existing norms (i.e. consumer pressures, sectoral norms)	**Direct and long-term Supplier relations** – ↑Cooperation and ↓ transaction cost
	Organisational learning capacities - relations within, in supply chain and with experts

Recommendations

- Business organisations: organisational learning capacities
- Policy makers: when trying improving water governance engage with influential business organisations whose core business is directly linked to the resources



Thank you!
Questions ?

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