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Past dynamics and current challenges in the transformation towards sustainable meat production & consumption

Side event session by the Trafo 3.0 project at the IST Conference 2016

Introduction & facilitation:
Franziska Wolff, Oeko-Institut

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Session context

- Session is part of a side-event of the Trafo 3.0 project…
- …. on three different transformation processes
- Overall 3 sessions today:

  10:30 – 12:00 Sustainable meat production & consumption

  12:45 – 14:15 Paperless book publishing & reading

  14:30 – 16:00 Light electric mobility (e-bikes)
- You are also very welcome in the other sessions!

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Session program

10:30 Short introduction into the session and the Trafo 3.0 project (Dirk A. Heyen, Oeko Institute)

10:40 **„Past dynamics and current challenges in the transformation towards sustainable meat production & consumption”** (Dr. Dietlinde Quack, Oeko Institute) followed by 10 min. Q&A

11:10 **“Agriculture-related issues in the transformation process of meat production”** (Dr. Ulrike Klöble, KTBL) followed by 10 min. Q&A

11:40 Discussion with audience and all presenters

12:00 The end

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The Trafo 3.0 project

- Trafo 3.0 is a current research project
  - Conducted by Oeko-Institut together with various stakeholders
  - Funded by the German Ministry for Education and Research (BMBF)
  - Running from April 2015 to March 2018
  - Website: www.trafo-3-0.de (German language only)
- Research question: (How) can societal transformation processes be initiated, supported and governed towards sustainability?
- Understanding of transformations:
  - Fundamental (long-term) change of socio-technical (sub-) systems
  - Not only technological change but systemic, co-evolutionary change
  - Multi-level-perspective

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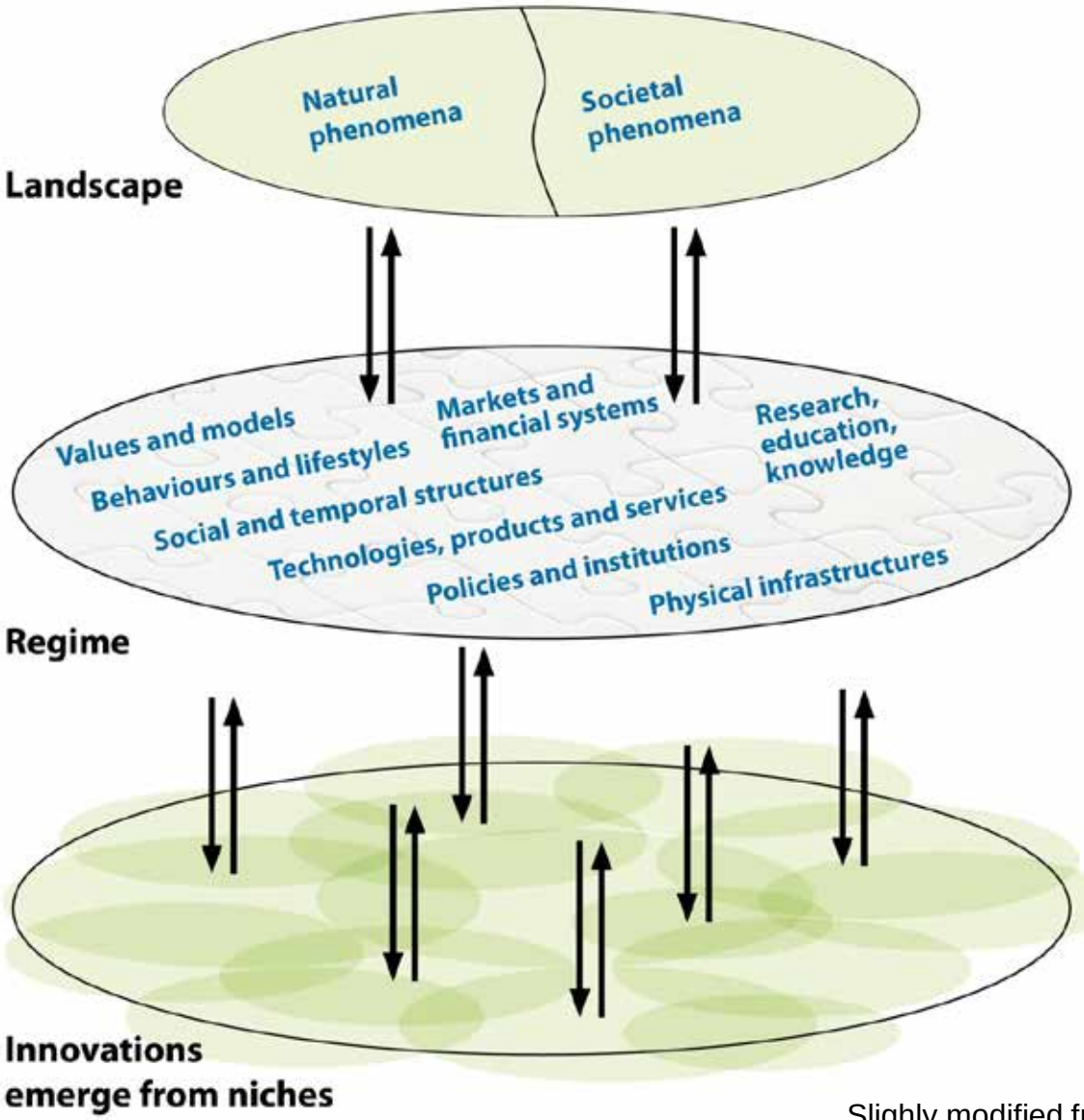
Systemic and multi-level perspective



Slighly modified from Geels

The Trafo 3.0 project

- Conceptual framework based on literature, earlier projects + 2 case studies with ex-post analysis of niche-to-mainstream developments of renewable energy and organic farming/food in Germany
- Analytical & action-oriented research in 3 areas, based on framework
  - Status quo analysis of system elements, their interlinkages and effects
  - Analysis of innovation/transformation‘s sustainability effects / potentials
  - Working with real-world initiatives and dialogue with further stakeholders
  - Recommendations for supporting and governing the transformation
- Lessons learnt across case studies and “historical cases”
- Overall objective: further development and field-testing of a heuristic and the drafting of an electronic manual to support politicians and practitioners in contributing to socio-ecological transformations

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Past dynamics and current challenges in the transformation towards sustainable meat production & consumption

Insights from the Trafo 3.0 project

Dr. Dietlinde Quack, Oeko-Institut

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Characteristics of the transformation

Reduction in meat consumption in Germany on a level as recommended by the DGE (German Nutrition Society): 15-30 kg / person and year, equivalent to about half the current consumption per capita.

Reduction in meat production in Germany: Self-sufficiency does not exceed substantially 100 percent, meaning that the targeted reduction of meat consumption in Germany is not compensated by an increase in exports and production is not export oriented.

Improvement of meat production in Germany concerning environmental and animal welfare criteria: the market share of such meat products increases that are produced on a high environmental and animal welfare level.

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Position of societal opinion leaders

The Scientific Advisory Board for Agricultural Policy, Food and Consumer Health Protection (WBA) at BMEL, the German Federal Ministry for Food and Agriculture, in his report entitled "Towards a socially accepted animal husbandry" (2015):

"**Given the global environmental footprint and the adverse health effects of a very high meat consumption, the WBA is in favor of a strategy that combines an animal and environmental friendly production with a reduced consumption level. It is essential to develop economic opportunities for the necessary changes in animal husbandry and to introduce a new culture of production and consumption of animal products.** "

(translation by the author)

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Status quo of the transformation: Meat Consumption in Germany

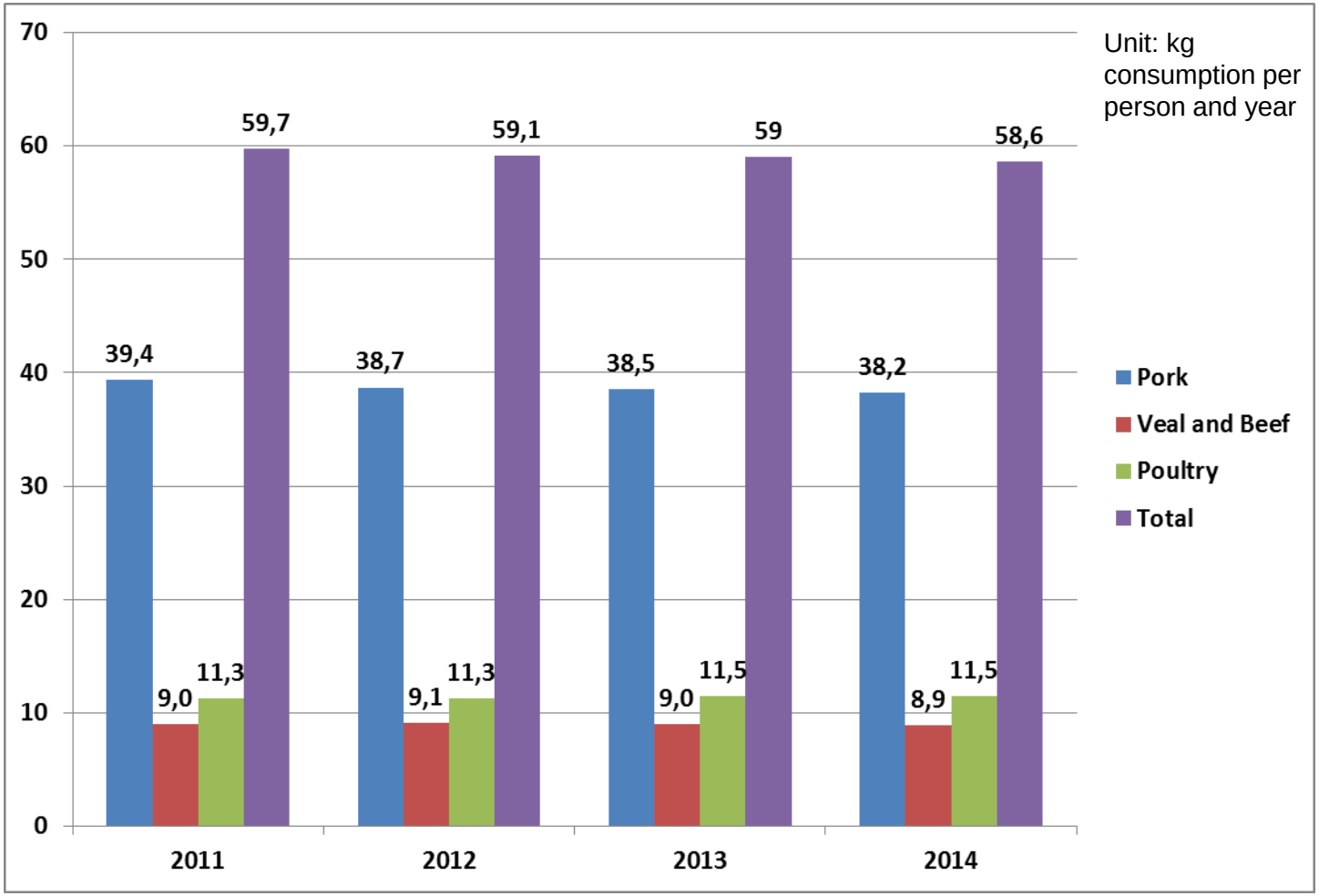

Diagramm Öko-Institut on the bases of Fleischatlas 2016

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Status quo of the transformation

In recent years, a slight decrease of meat consumption was observed at a high level. In 2014 the share of vegetarians in Germany was 10%.

The proportion of meat and meat products on the market, which are produced environmental and animal friendly, exceeding the current legal regulations, is very small (eg: less than 1% organic; lack of financing for animal welfare initiative).

Self-sufficiency for beef, poultry and pork was more than 100% in 2013 (109/109/118%).

è the transformation to sustainable production and sustainable consumption of meat is (yet) still in the niche

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Potential winners and loosers of the transformation

Potential winners

- Farms and farmers with environmental and animal friendly production
- Manufacturer of meatless products (e.g. established sausage producers who expand their range)
- Retailers that adapt to consumer needs and wishes

Potential losers

- Conventional farms and regions with high density of livestock farming / industrial livestock farming
- Small, well-established manufacturers of organic meat products and meatless products ("pioneers"), that are put out of business by (new) big players on the market.
- slaughterhouses

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Focus agricultural production: environmental and animal welfare aspects

Environmental impacts:

- Landuse / landuse changes, e.g. 60-70% of agricultural area is used for feed production
- Greenhouse gases, e.g. 71% of the GHG of agriculture result from animal husbandry
- Eutrophication, excess nitrogen and phosphate
- Biodiversity losses
- Pharmaceutical products (e.g. antibiotics)

Animal welfare:

- Husbandry conditions
- Breeding / breeding goals

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Focus agricultural production: economic aspects

Producer prices for meat are on a low level. For many farms, e.g. in pig fattening, production costs are higher than producer prices.

The percentage of consumers' expenditure that went as revenue to agriculture decreased strongly in recent decades:

In 1950/51 of 1 Euro spent by consumers for meat and meat products 66,8 Cent went as revenue to agriculture whereas in 2013 only 25,7 Cent

- è Structural changes, less and less farms with more and more animals each
- è Limited ability to consider – costly - measures to reduce environmental impacts and improve animal welfare

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- A more environmental and animal friendly production causes higher production costs.
- Who bears these costs?

Focus consumption

There is a broad and critical discussion on meat consumption in Germany – environmental issues, health issues as well as animal welfare issues are adressed

For consumers animal welfare is more and more important. Many consumers strongly dislike industrial livestock farming with a large number of animals per farm/stable.

Still there is a gap between consciousness and action: contrary what consumers say, only a small part pays the – much higher – price for organic meat and meat products.

In Germany usually no sufficient information is given on meat and meat products to allow consumers an informed choice taking into account e.g. quality issues, environmental and animal welfare issues

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Focus consumption – what about labels?

There are a number of labels for meat and meat products on the market that certify environmental friendly and/or animal friendly production, but

- They are hardly visible in shops. Labled products are rarely available. Exception: „bio“ organic agriculture
- Consumers do not know the labels, what is behind and if they are credible. Exception: „bio“ organic agriculture
- Knowledge of German consumers concerning meat brands, meat quality, meat preparation in general is low

Focus consumption – the German Tierwohl-Initiative / industry initiative animal welfare

Under the lead of the retailers the industry started an initiative to improve animal welfare on German pig and poultry farms.

Farmers have to fulfill certain criteria and have than to apply to participate. After an audit they may get money from the fonds.

Products from participating farms are not labelled and visible as animal friendly produced for consumers.

Experience: much more farmers want to participate in the Tierwohl-Initiative than money is available. E.g. for pigs only abouf half of willing farmers can participate and get money from the fonds. Consumers would strogly prefer to see which meat / meat products realy are animal friendly produced.

Website: http://initiative-tierwohl.de/

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System elements of the transformation – opportunities and barriers

	Opportunities & prospects	Barriers & risks
Values and guiding principles	A healthy diet is associated with a diet low in meat. The well being of animals is more and more important for consumers.	The (daily) cosumption of meat still is associated with positive media images and with masculinity
Material infrastructures	Animal welfare measures can be implemented in some cases with little capital expenditure	Long investment cycles for e.g. stable; strong geographical clustering of livestock
Markets	Industry initiative Tierwohl (Animal Welfare)	Strong market concentration in the meat and meat-processing industry and food retailing; low producer prices
Technologies and products	Product range and variety of alternative meatless products increases	Low availability and visibility of environmental and animal friendly products in shops. Large price differences between conventional and organic products.
Behaviour and lifestyles	In polls consumers express a willingness to pay for animal friendly produced meat.	Gap between stated values (for example, animal welfare) and actions (=purchase) of consumers
Social and temporal structures	Despite only low absolute proportion of vegans and vegetarians they affect positively the diversity in the kitchens	Consumers take less and less time to cook and eat
Research, education, knowledge	Several initiatives were started to improve the state of knowledge on animal welfare (e.g. round tables, demonstration projects)	Consumer knowledge on meat and meat products, their quality and preparation is low
Policy instruments and institutions	On the state level, there are positive approaches in agricultural policy. Pressure on agriculture from the EU increases as regards climate change and reducing excess nitrogen.	Policy focuses largely on competitiveness and export orientation. CAP is not sufficiently used for controlling towards sustainability.

Major approaches to facilitate the transformation

Development of a comprehensive vision of the German society: how should agriculture and animal husbandry look like in the future?

Increase of the market share of environmental and animal friendly produced meat and meat products:

- Creation of a national animal welfare label
- Declaration of husbandry conditions on the packaging of meat and meat products following the successful example of egg marking
- Continuation and expansion of the industry initiative TierWohl.

Removal of barriers that hinder a diet lower in meat and the use of sustainably produced meat and meat products in public catering.

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Addressed approaches in project

In the project, two approaches are addressed

On the production side: development of a comprehensive vision of the German society, how should agriculture and animal husbandry look like in the future?

- How should the concept look like a such a vision of the development: Which actors should be involved? Who should be the carrier of the process? How can a roadmap look like?

Consumption side: implementing a catering low in meat along with Studierendenwerken*:

- What are the main obstacles which currently preclude meat poorer caterers?
- What solutions exist to overcome these barriers?

*organisations providing social, financial and cultural support services to students in Germany

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Thank you for your attention!

Do you have any questions or comments?

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Discussion

- What are the main (sustainability) challenges in the transformation?
- What brought about past (sustainability) changes in the sector?
- What role do different actors (actor types) play for the transformation?
- How can state actors at different levels support & govern the transformation?
- …

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