



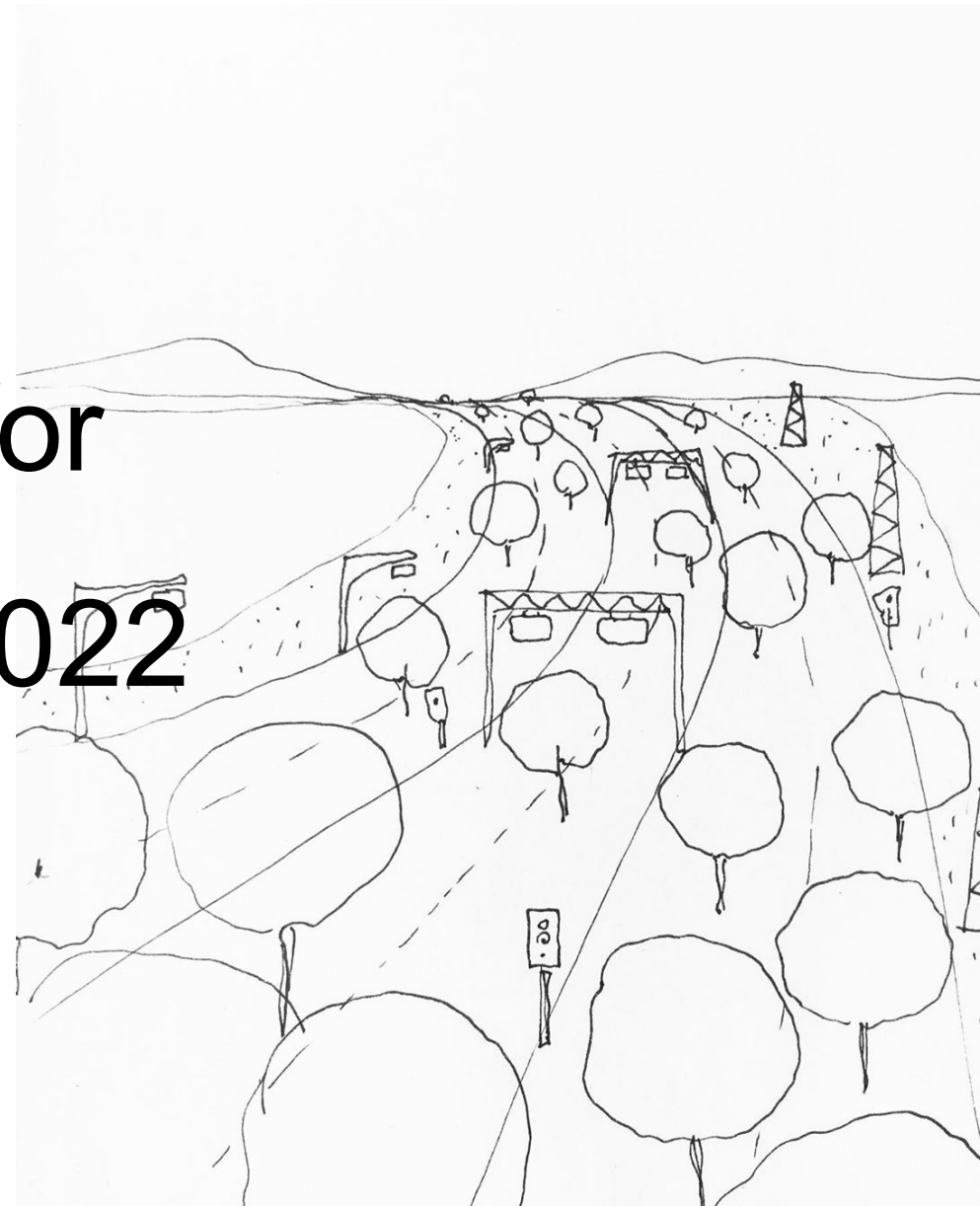
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of the Environment,
Transport, Energy and Communications DETEC

Federal Office for the Environment FOEN
Environmental Monitoring Section

Forward Looking for the Swiss SOER2022



Annual FLIS-meeting 8th September 2020, Foresight activities in countries
Karin Fink & Klaus Kammer FOEN, Switzerland

Hopes... and Goals!

We see forward looking analysis as a tool

- **A tool for communication**

- Allowing us to talk about new – yet unnegotiated - options for action
- Communication of tentative dataset (example COVID-19)
- Starting a dialog about desirable futures with a broader audience

- **A tool for policy making:**

- preparedness
- development of new options for action
- support of informed political decisions



The approach

Analysis on 2 Levels:

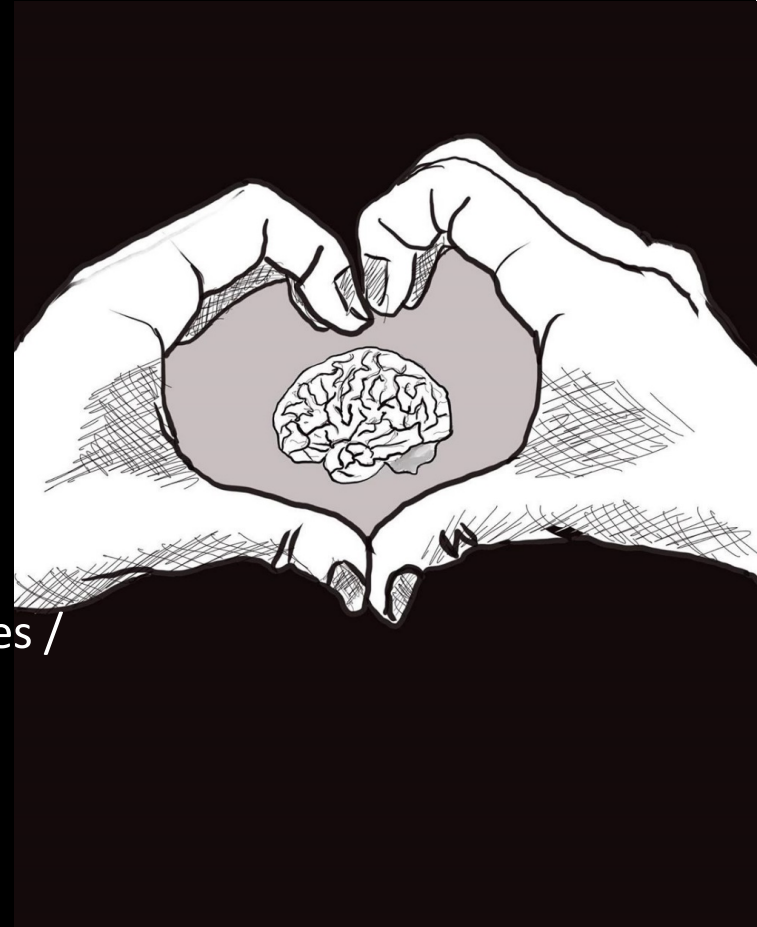
First Level: Systems Food, Housing and Mobility

- Mapping the systems into the MLP Modell*
- Identification of main levers, possible actions*
- Discuss those in the light of Drivers of change

Second Level: «classical» env. topics

- Map / Track influence of Drivers of Change
- Experts judge the robustness and prepairness of their measures / adjust need for action
- Identification of new possibilites for action / measures

*see next slides



More in detail ... 1 > describe the system in a MLP model

FOOD

Landscape / global trends / signals

Cluster 1 A growing, urbanising and migrating global population	Cluster 2 Climate change and environmental degradation worldwide	Cluster 3 Increasing scarcity of and global competition for resources	Cluster 4 Accelerating technological change and convergence	Cluster 5 Power shifts in the global economy and geopolitical landscape	Cluster 6 Diversifying values, lifestyles and governance approaches
<p><i>Online Food</i> <i>Personalized food (App)</i> <i>Functional food</i></p> <p><i>Circular Urban Farming</i> <i>Radical Farming</i></p>	<p><i>Precision Farming</i> <i>Drohneinsatz (Bestäubung etc.)</i> <i>Synthetische Biologie/CRISPR</i></p>	<p><i>globalization > identity (trade war)</i></p> <p><i>Conflicts about fishing grounds</i> <i>Conflicts about land</i></p>	<p><i>Synergies food health climate</i> <i>Phthalat & microplastics in food</i> <i>CRISPR-technology / GMO</i></p> <p><i>Cities producing food (hors sol)</i></p>	<p><i>Zoonotic diseases</i> <i>mikrobiom-technologies for resilience</i></p> <p><i>Problem awareness (too positive attitude towards agriculture)</i></p>	

Environment: main pressures and impacts:

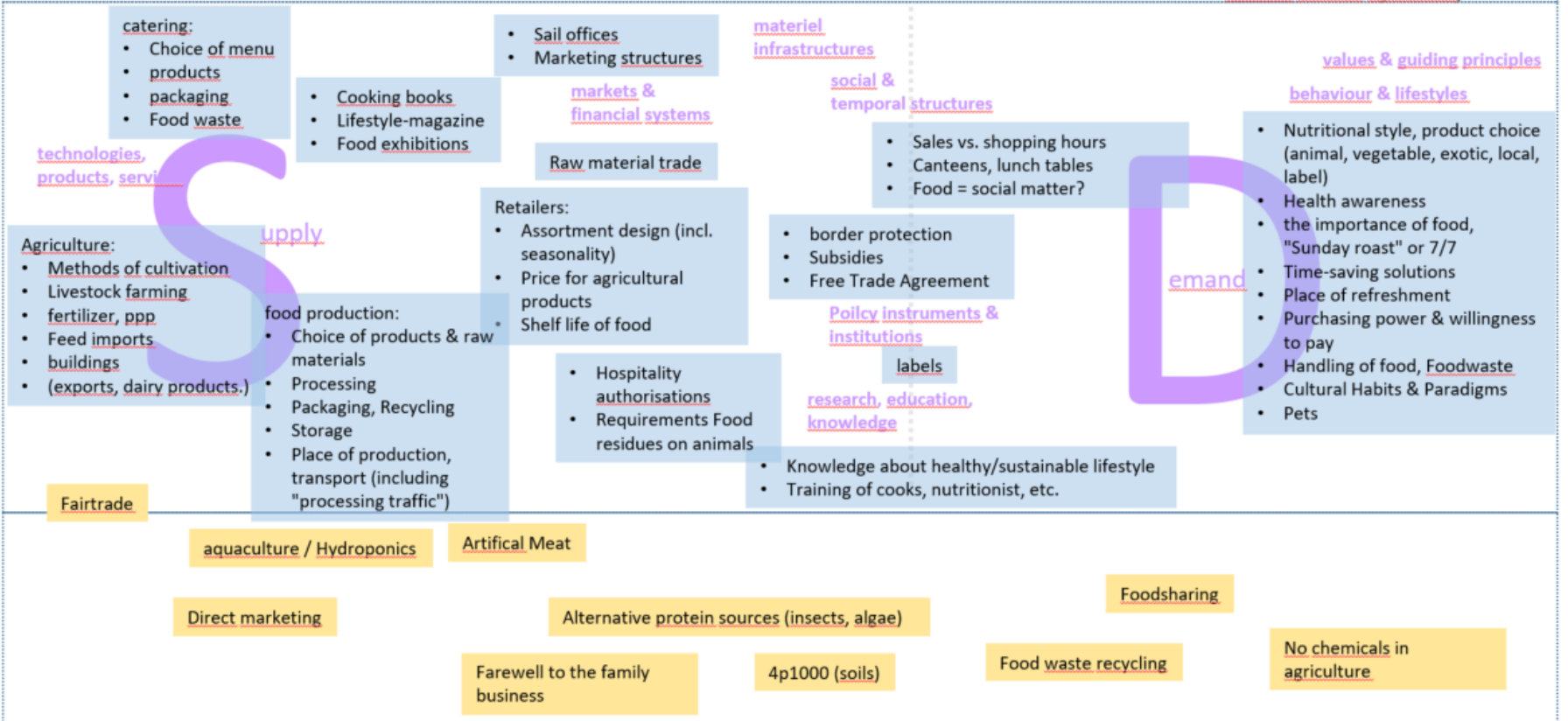
- GHG emissions
- Biodiversity loss worldwide
- Water footprint
- Groundwater
- Nitrogen
- PSM
- Soil (erosion)
- Land consumption
- Landscape Quality
- Littering, waste quantities
- Health (PM, PPP)

Objectives:

- Supply security local & global
- Location-adapted agriculture all over the world

Regime

niches / Best Practice



More in detail ... 2 > identifications of levers from literature

SOER-22 for Switzerland: Levers for food system

lever	stakeholders	Environmental impacts			synergies	approaches
<p>↑</p> <p>↑</p> <p>□</p>	<p>Authorities: confederation, cantons, municipalities</p> <p>economy: Industries</p> <p>research</p> <p>education</p> <p>Civil Society</p> <p>policy</p>	<p>climate</p>	<p>biodiversity</p> <p>Inkl. Boden, Wasser, Wald</p>	<p>resources</p> <p>material- & waterfootprint</p>	<p>□</p>	<p>□</p>
<p>Resource-saving nutrition (demand-side)</p> <p>less animal products, synergies nutrition-climate / synergies nutrition-health, product-range</p> <p>↑</p> <p>Showing the interplay of supply and demand</p>	<ul style="list-style-type: none"> → consumers → confederation (offices) → catering → education: school, formation <p>□</p>	<p>+++↑</p> <p>Less meat consumption (consumption of animal products): = less land required for cultivation of feed- & pasture land > less land-use change/deforestation-rainforest = more-GHG-sinks/less-CO2-emissions.</p> <p>Less animal husbandry > less nitrous oxide (N2O), methane > less-GHG</p>	<p>+++↑</p> <p>Deforestation of forest areas reduced (by up to 80% according to Agroscope study)</p> <p>nitrate / phosphorus - 35%</p> <p>Less meat consumption (consumption of animal products): = less land requirement for cultivation of feed- & pasture land > less land-use change/deforestation-rainforest</p> <p>= less animal density > less over-fertilisation of ecosystems</p>	<p>+++↑</p> <p>Less meat production = reduction of water consumption (not quantified)</p>	<ul style="list-style-type: none"> → Healthier population, lower economic costs (health costs, absenteeism, etc.) > Swiss Nutrition Strategy → Air pollution control (less nitrogen, PM) → Long-term climate strategy → Less eutrophication less nitrate inputs to groundwater → Reduced eutrophication of water bodies → Protection of nutrient-poor ecosystems → Increasing food security both domestically and internationally 	<ul style="list-style-type: none"> → Awareness-raising measures for healthy and sustainable nutrition: on average, the consumption of animal products does not exceed the amount recommended by the Swiss food pyramid (> Strategic principles of nutrition for the long-term climate strategy) → Choice of dietary style (> Strategic principles on nutrition for the long-term climate strategy, NFP-69, EEA publication, in almost all sources) → Tailor prevention campaigns more closely to social groups (> Strategic basic principles on nutrition for the long-term climate strategy) → Advertising / campaigning: Support selected food categories (> Recommendations NFP-69) → Eliminate false incentives: subsidisation of sales promotion for animal products, reduced VAT rates for animal food and means of production (> Input paper Nutrition for the long-term climate strategy 2050) → Development of an integrated nutrition strategy (> Input paper Nutrition for the long-term climate strategy 2050) / Strengthening environmental aspects in the Swiss nutrition strategy (> Report-GW)
<p>Resource-saving nutrition (supply-side)</p>	<ul style="list-style-type: none"> → Retailers → Federation (BLV, BAFU, BAG) → Gastronomy → Cantons/communities: Catering services in hospitals, childcare centres, schools, ...), public procurement <p>> Empfehlungen für die Retailer</p>	<p>Coherence of effects? Less methane, because animal products are less attractive compared to plant products? Etc.</p> <p>Less-GHG because non-seasonal, airborne products, etc. not in the range, etc.</p> <p>Retailer</p>	<p>Less rainforest cleared, because products with palm oil as well as coffee, chocolate & co. are less attractive than those with palm oil</p> <p>Retailer</p> <p>> no longer carry environmentally harmful products in their range ></p>	<p>Retailers</p> <p>> no longer carry environmentally harmful products in their range</p> <p>> strengthen sales of local products through nudging</p> <p>> show the life cycle assessment of the respective products</p> <p>Less packaging products > less</p>	<p>□</p>	<ul style="list-style-type: none"> → Taxation of food products and foodstuffs that are harmful to the environment (> NFP-69) → Promotion of healthy food through potential financial incentives (lower VAT rates) (> NFP-69) → Range of products, range design (> NFP-69) → Create incentives (for large-scale distributors) for climate-friendly supply of seasonal products that are not grown in heated greenhouses, and to avoid products that are imported by air (> Input paper Nutrition for the long-term climate strategy)

More in detail ... 3 > identify DOI-impact on

- single environmental topics
- food, mobility, housing systems



> identify options for action

Methods / approaches / works....



Eionet report | No 1/2017

Mapping Europe's environmental future: understanding the impacts of global megatrends at the national level

Method tool kit

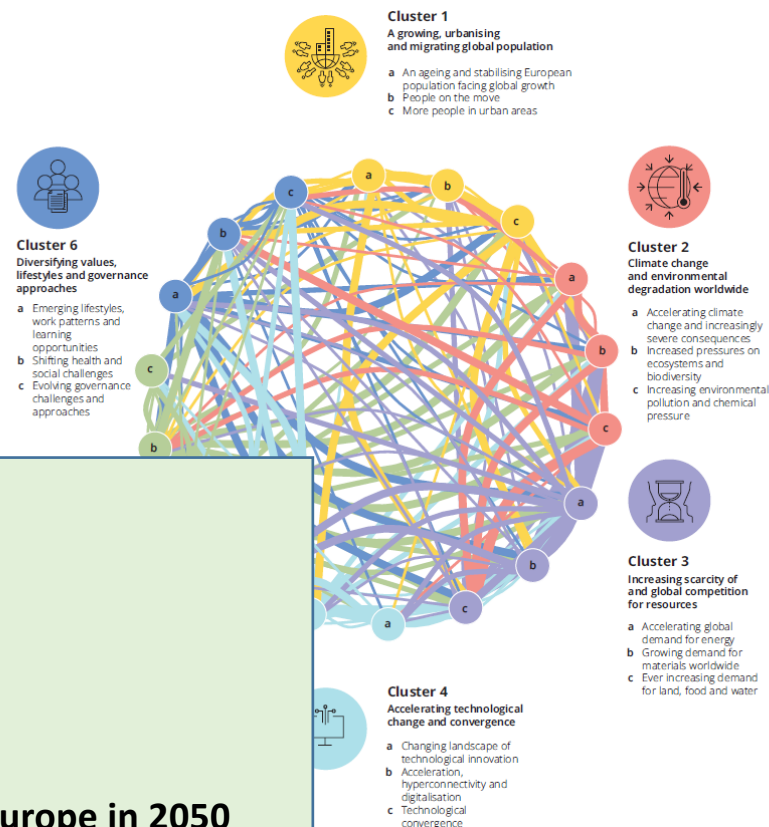


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Scenarios for a sustainable Europe in 2050 FLIS-project



Will it work ? Our Challenges :

How to link / combine the analysis of **drivers of change** with **scenarios**?

Always with the aim to create new / different options for action & solutions?

