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and Communications DETEC

Federal Office for the Environment FOEN

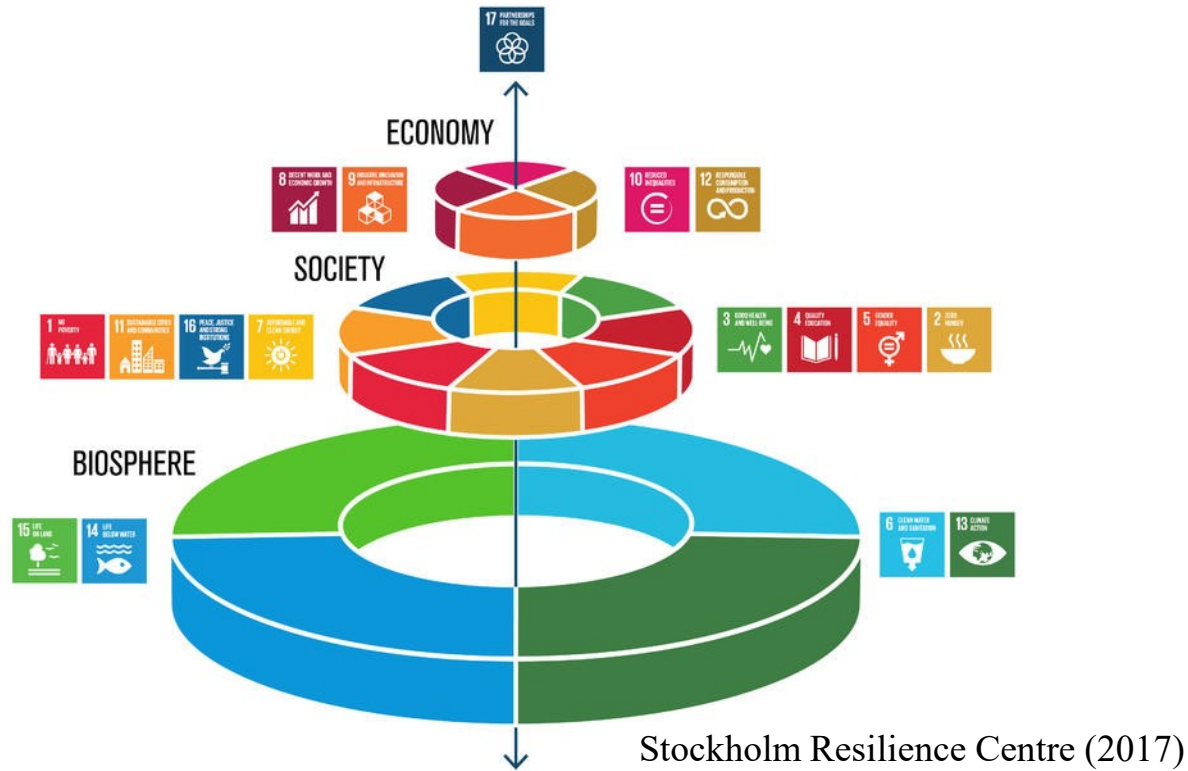
Innovation in the context of the SDG : The Swiss toolbox

Policy Intervention
IfTI Global Symposium
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SDG



Graphics by Benet Lukacs/Azote

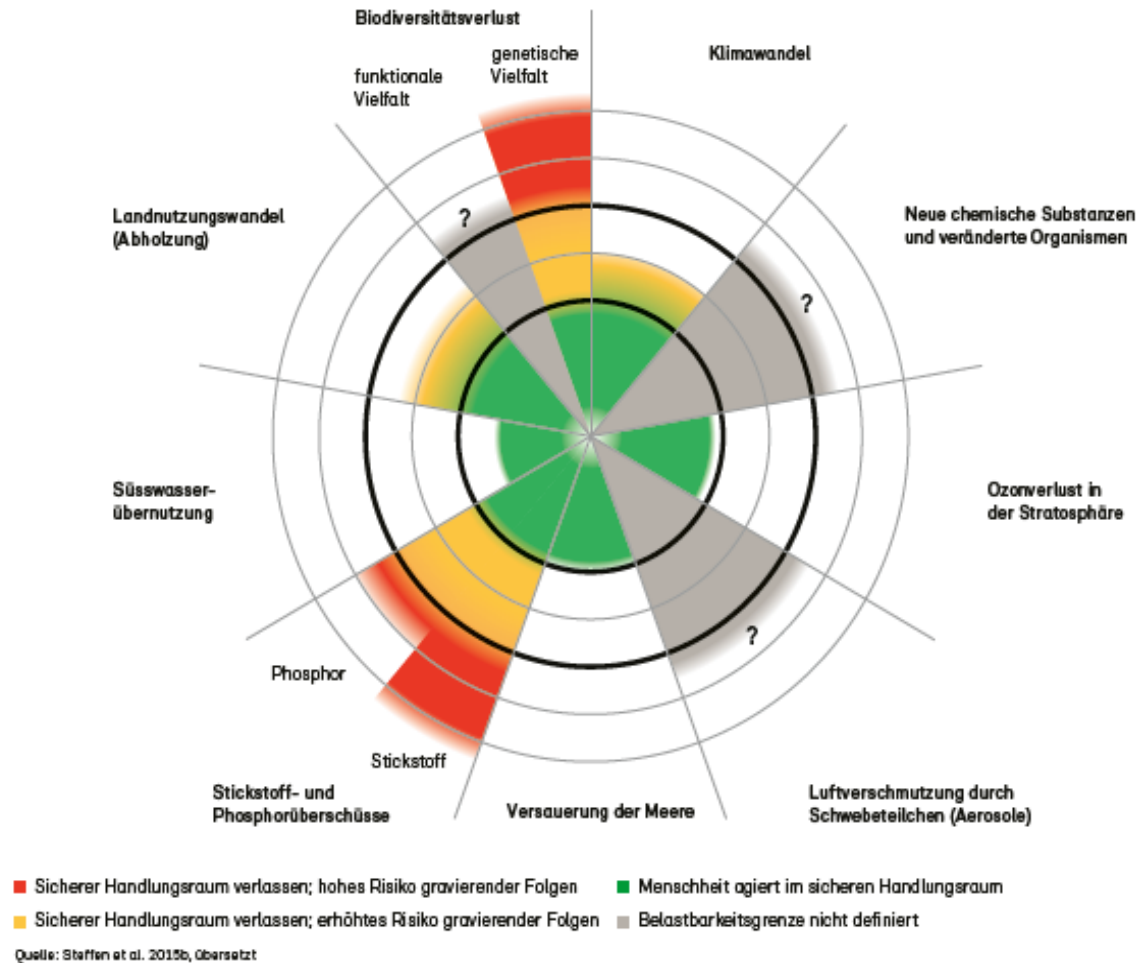


State of the Environment Switzerland

The «Environment Switzerland 2018» report provides an overview of the current state and development of the environment in our country. It assesses the measures implemented by the federal authorities to improve the quality of the environment and identifies areas in which further action is required.



<https://www.bafu.admin.ch/bafu/en/home/documentation/reports/environmental-report-2018.html>



High resource consumption

If all the countries would consume as much resources as Switzerland, planetary boundaries would be massively exceeded



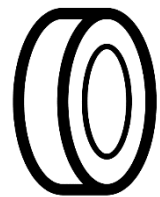
Consumption & production:
Food, Mobility and Housing are responsible for 2/3 of the environmental impact



28%



24%



12%



Part of the environmental impact abroad from CH



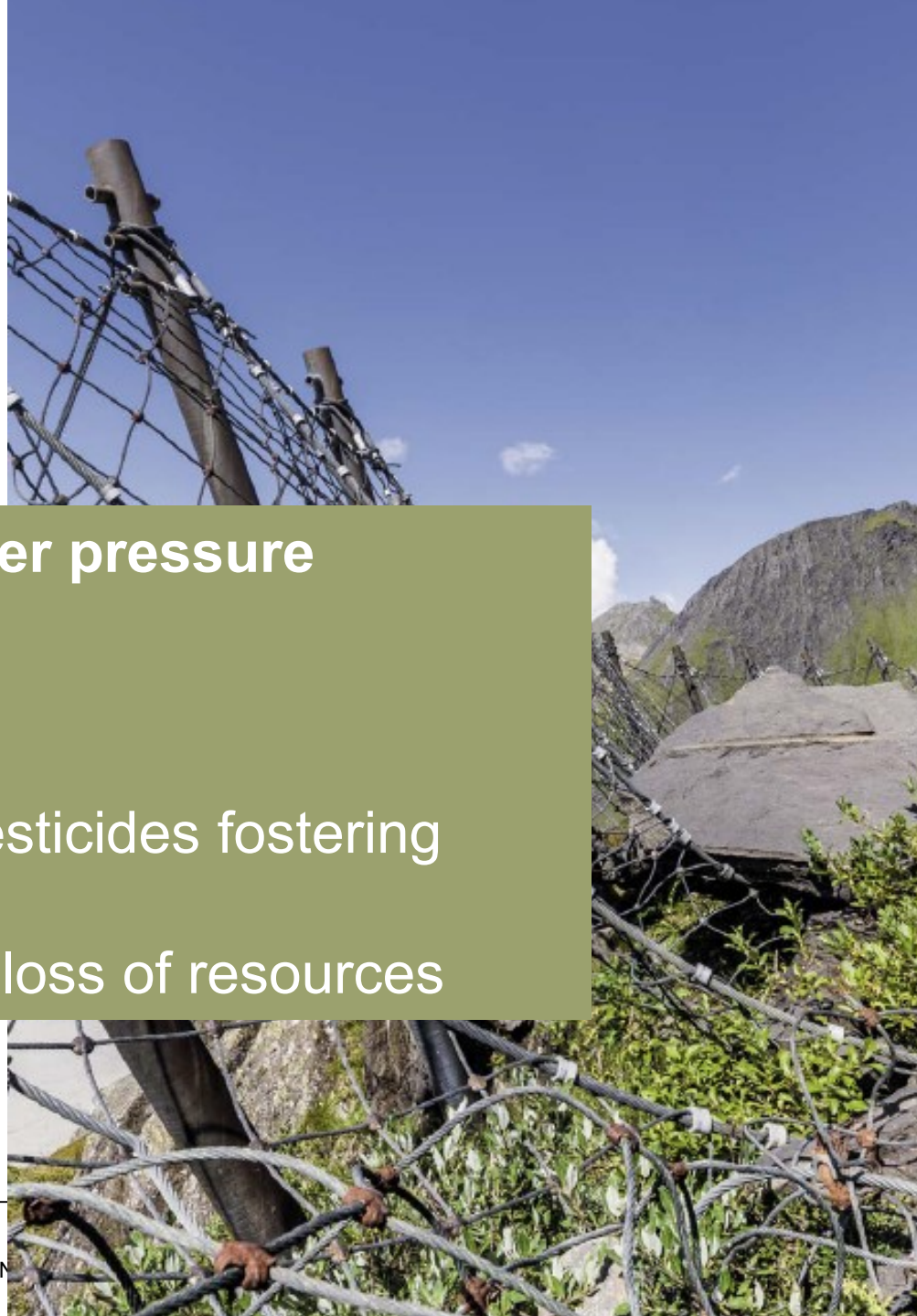
3/4 (2015)



The Environment stays under pressure

Challenges:

- Climate change
- Soil protection
- Nitrogen immissions and pesticides fostering biodiversity losses
- High volumes of waste and loss of resources





Chances for the swiss environmental policy

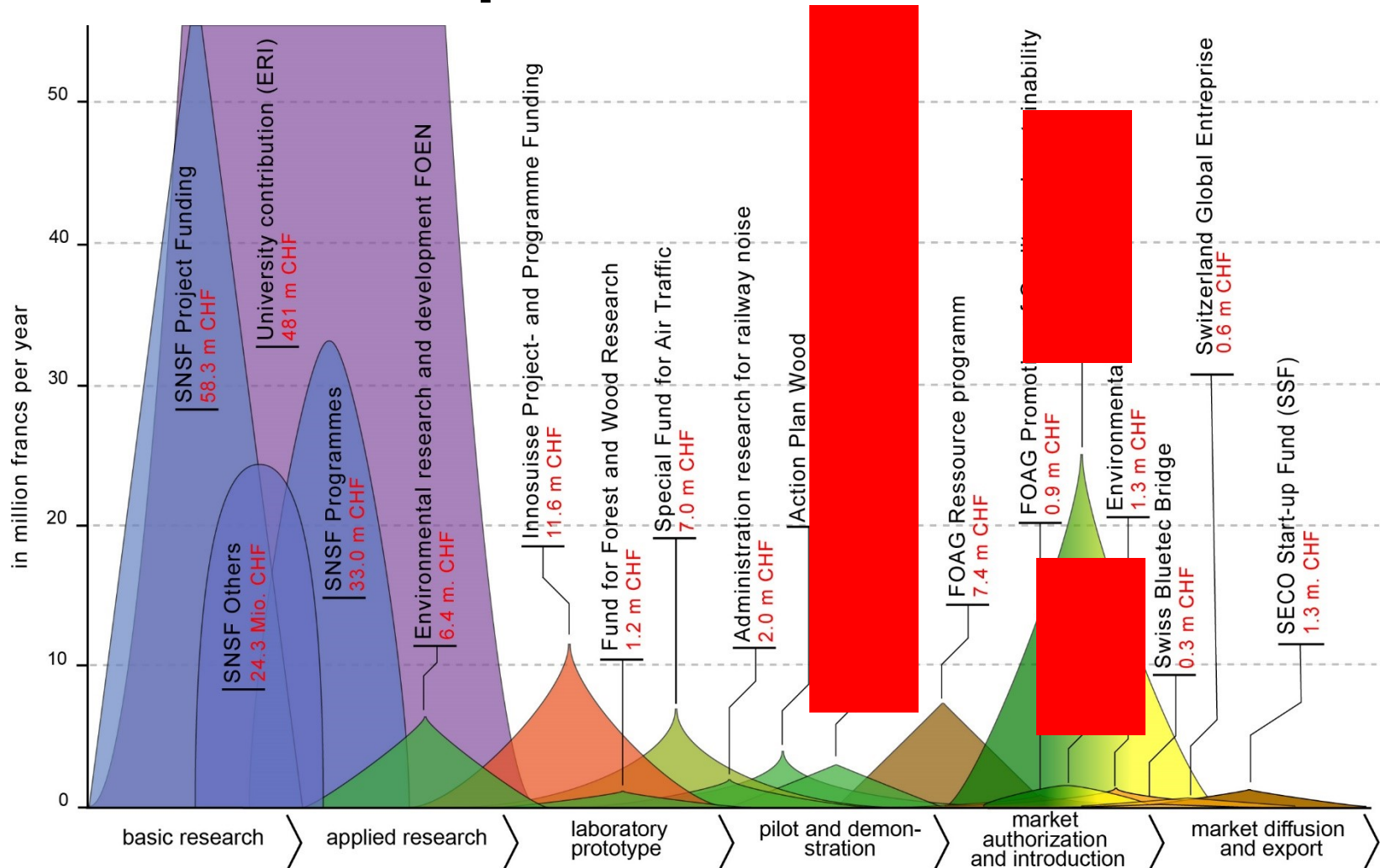
- Strengthening the cooperation between the economy and the federal and cantonal authorities

Support innovations → from research to market / Sustainable Finance

- Use the opportunities of digitalisation
- Fostering the principle of precaution
- Keep up with european developments («Green Deal»)
- Engagement in international environmental policy



Swiss panorama of environmental innovation promotion





Environmental Technology Promotion

**Financing of innovations in the pilot phase with great
Focus on circular economy with following topics:**

- Phosphorus recycling from sewage sludge
- Phosphorus, Nitrogen and Kalium from urine
- Metal recycling in waste incineration plants: iron, aluminium, copper, zinc, but also gold, silver and platinum
- Rare metal recycling from electronic waste and batteries, including Lithium, Yttrium, Terbium, Europium
- Reuse and recycling of construction materials (concrete, steel, gravel, asphalt, etc.)
- Carbon Capture, Use and Storage

→ **www.bafu.admin.ch/innovation**



Technology Fund

Promotion of climate-friendly innovations since 2013

- Bank guarantees for companies developing their business in the phase of market entry and needing bank loans
- Focus on:
 - Reduction of greenhouse gases
 - Use of renewable energies
 - Efficient use of electric energy
 - Efficient use of natural resources
- Budget 25 Mio CHF per year
- Guarantees up to 3 Mio CHF/company during 10 years
- Portfolio with presently 100 companies

→ www.technologiefonds.ch



REPIC: Knowledge and Technology Transfer for climate innovation

Support for projects doing knowledge and technology transfer from CH towards developing & transition countries

- Interdepartemental platform (4 Swiss Federal Offices)
- Budget ~1.5 Mio CHF per year for projects
- Focus topics
 - **Renewable energy:** PV, solar thermal, geothermal, small hydropower, biomass
 - **Energy efficiency**
 - **Resource efficiency:** waste management and treatment, wastewater, industrial processes

REPIC

Renewable Energy
Energy - & Resource Efficiency
Promotion in
International
Cooperation

→ <http://www.repic.ch/repic-en>



REPIC: Examples of projects with African countries

Ökozentrum

Local production of
fruit dryers in Burkina
Faso



Swiss Fresh Water

Decentralized low cost
water desalination in
Senegal



Koa

Cocoa pulp using
solar energy in Ghana



TakaTaka Solutions
Waste management
in Nairobi / Kenya



Mad Eole

Wind energy
instead of diesel
in Madagascar



<http://www.repic.ch/repic-en/projects/>



Outlook: Climate Fund

- Currently the CO₂-law is under review in the Parliament
There will be higher taxes on CO₂ emissions, especially on airplane transportation
- One part of the tax revenues will be dedicated to a new Climate Fund with an expected amount of more than 1 Billion CHF/year
- A window of opportunity is opening to design new instruments to support climate friendly innovations (Climate Patent Fund? REPIC scale-up phase finance?)
- We are in the brainstorming phase → **IDEAS Welcome!**
→ Please send your suggestions to
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Sustainable Finance in Switzerland

- Ecological sustainability in the financial sector is becoming increasingly important, both internationally and nationally.
- International:
 - Agenda 2030: at the sustainability conference in New York, agreement was reached on 17 universally valid goals for sustainable development, known as the Sustainable Development Goals (SDG);
 - Addis Accord: the Addis Ababa Action Agenda on the financing of sustainable development;
 - Paris Agreement, COP 21: the international community agreed, among other things, on the goal of making financial flows more consistent with a low carbon pathway (Article 2.1.c).
 - Biodiversity: IPBES, CBD



Sustainable Finance in Switzerland

- For the Swiss financial place, sustainability in the financial sector presents a considerable opportunity.
- The Swiss government primarily acts as
 - mediator and facilitator in this context,
 - cultivating an intensive dialogue with the financial industry and interested third parties and
 - supporting the creation of an optimal regulatory framework.
- Example: Swiss Pension Funds
- Cooperation <https://www.sustainablefinance.ch/en>



Sustainable Finance

Principles and role of the FOEN

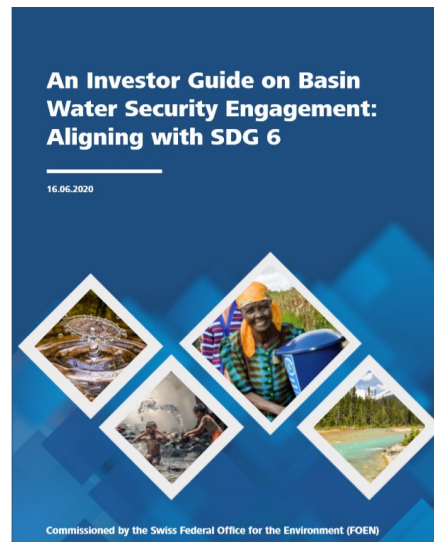
The green formula

Science based



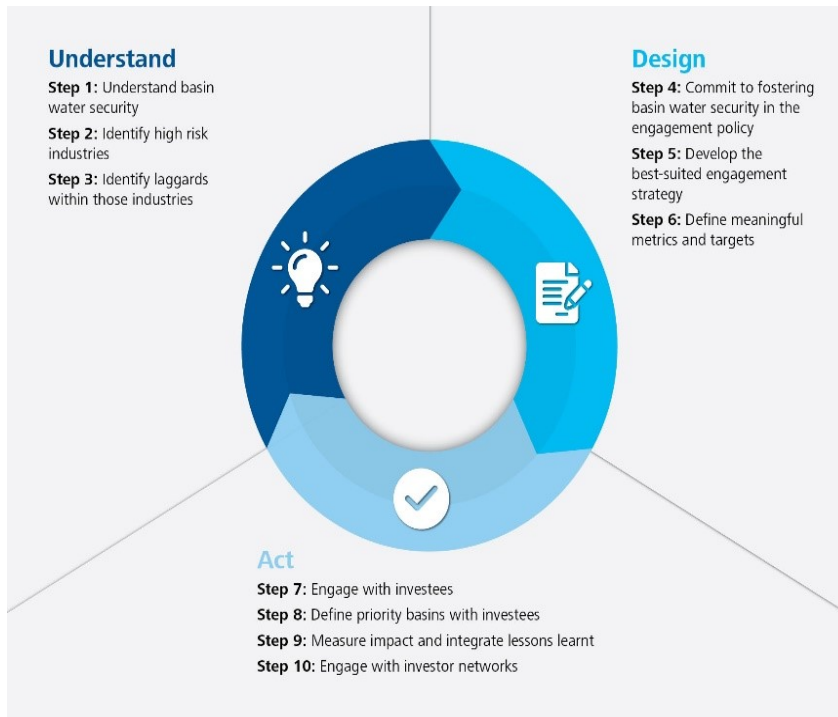
Aligned with
(international)
environmental goals

3 Examples from FOEN





Example: Water and financial markets



Way forward:

Landscape and markets for sustainable innovation promotion, investment and finance instruments are developing rapidly.

Digitisation could and should in this context be used to promote environmental innovation and sustainable finance and «help» private and institutional and public investors to comply with the SDG.

Objective: keep within the planetary boundaries!



<https://www.digitalerdialog.ch/en/>

