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Universität für angewandte Kunst Wien
University of Applied Arts Vienna

 Club of Rome - Austrian Chapter
Verein zur Förderung des Club of Rome - Austrian Chapter





Economy and Work

Options for SDG 8

Dr. Friedrich Hinterberger

Prresentation for Arts for Change
Angewandte, 19. May 2021



Overview

- ▶ Who we are:
 - Fritz Hinterberger, Angewandte, UniNETZ, Club of Rome, scientists4future ...
- ▶ What is at stake: Challenges and Goals
- ▶ Options for SDG 8
- ▶ Expected results

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Who

My Affiliations
and I

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Dr. Friedrich Hinterberger



- ▶ born 1959 in Schwanenstadt / OÖ
- ▶ Studies in Economics at Johannes Kepler Universität Linz
- ▶ PhD on „Monetäre Sozialpolitik“ at Justus Liebig Universität Gießen
- ▶ Stays at Universities in **Roma** and **Firenze** as well as at NYU and New School for Social Research in **New York**
- ▶ 1993-2000 **Wuppertal Institut für Klima, Umwelt, Energie**
- ▶ Founder of **SERI - Sustainable Europe Research Institute**
- ▶ Senior Scientist at the **University for Applied Arts** in Wien Project UniNEIZ: Universitäten und nachhaltige Entwicklungsziele
- ▶ Lecturer at various Universities
- ▶ Founder of **cooppa**, a media cooperative

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Aber auch: Fritz Hinterberger



- ▶ 1974: reading of „Limits to growth“
- ▶ 1978: **Anti-nuclear-movement** (Zwentendorf)
- ▶ 1979: member of local council **PUM** (Partei für Umweltschutz und Menschlichkeit / Schwanenstadt)
- ▶ 1980: first „Alternativreferent“ at Univ of Linz students council
- ▶ 1982: **peace movement** Pressereferent at Univ of Linz students council
- ▶ 1983: interdisciplinary Seminar on „growth“
- ▶ 1984: Civil Service at **Amnesty international**
- ▶ Thesis on „mikroelektronics, jobs and growth“
- ▶ Today: **Scientist for Future**, author, speaker, and researcher
- ▶ Vice president and General sekretary of the **Club of Rome** - Austrian Chapter
- ▶ Co-Founder of Krumbacher Kreise, Stories4change/Youth4planet Austria

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University for Applied Arts Vienna
Institute for Art and Society






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Das UniNETZ-Projekt



- ▶ Wissenschaftler*innen und Künstler*innen aus 18 Partnerinstitutionen
- ▶ Ziel ist die Darstellung von Optionen, wie die UN Sustainable Development Goals umgesetzt werden können
- ▶ von 2019-2021 wird an einem Optionenbericht gearbeitet, der die Bundesregierung in der Umsetzung der SDGs unterstützen soll.

 **UniNETZ**
Verantwortung für nachhaltige Entwicklung

www.uninetz.at

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17 Sustainable Development Goals (SDGs): a global government programme



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Scientists for Future (S4F)

- S4F ist ein **überinstitutioneller, überparteilicher und interdisziplinärer** Zusammenschluss von Wissenschaftler*innen, die sich für eine nachhaltige Zukunft engagieren.

Stellungnahme Anfang 2019

- „Als Wissenschaftlerinnen und Wissenschaftler erklären wir auf Grundlage gesicherter wissenschaftlicher Erkenntnisse: Diese Anliegen [der Fridays for Future] sind berechtigt und gut begründet. Die derzeitigen Maßnahmen zum Klima-, Arten-, Wald-, Meeres- und Bodenschutz reichen bei weitem nicht aus.“

<https://de.scientists4future.org/ueber-uns/stellungnahme/>
<https://de.scientists4future.org/ueber-uns/charta/>



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The Club of Rome



www.clubofrome.at



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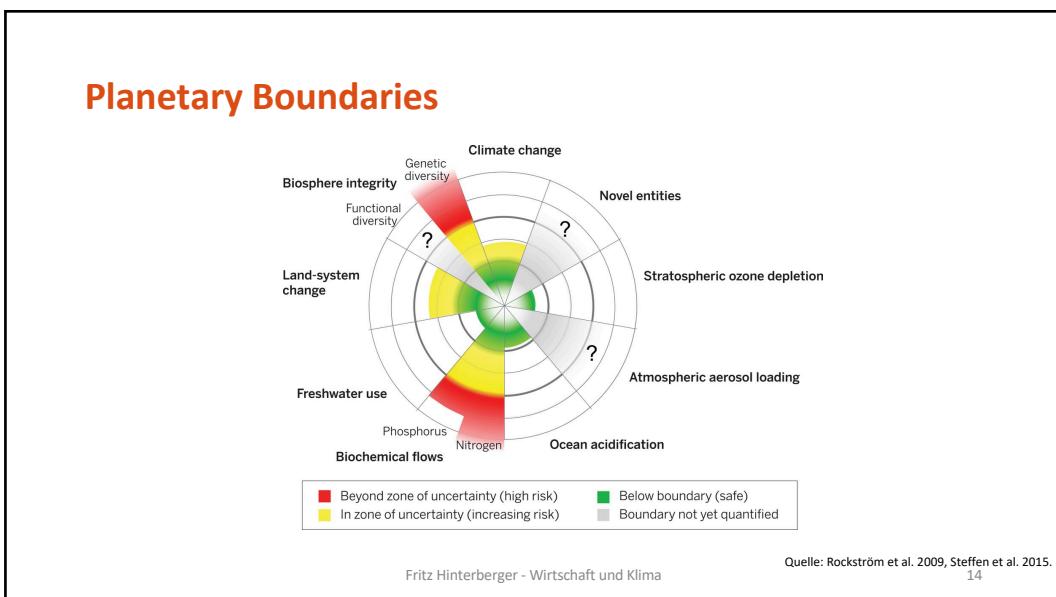
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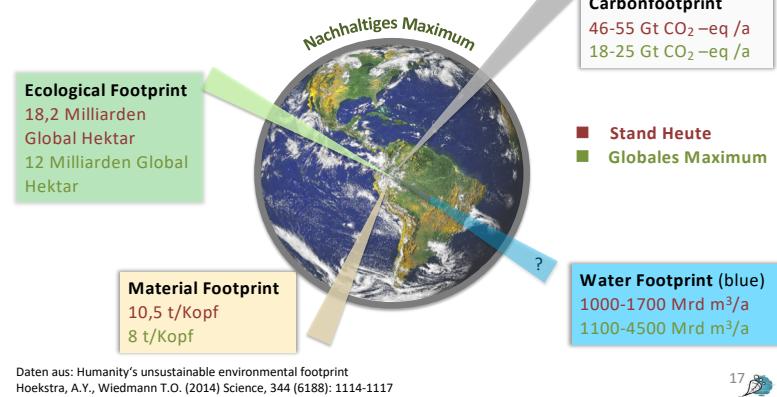
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Spaceship Earth: environmental footprints

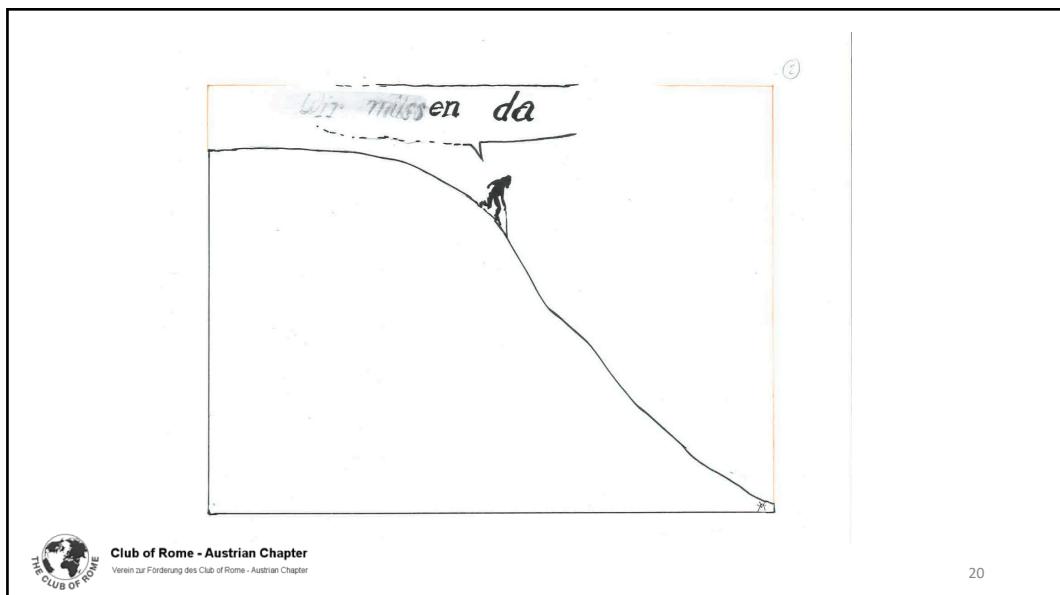
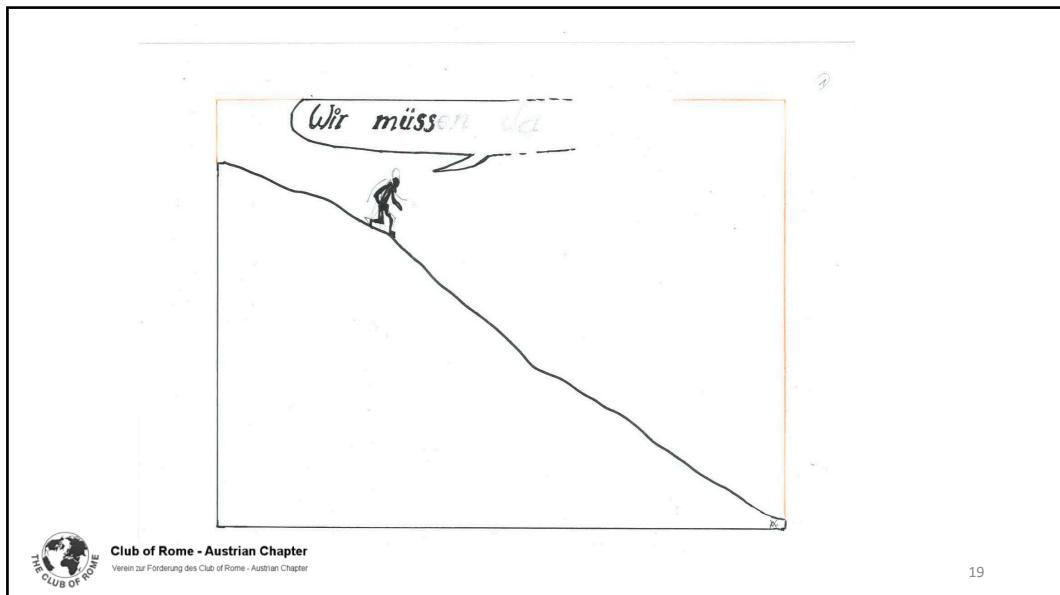
The **limits of global carrying capacity** are very abstract and a connection with products (and their production) is difficult to convey!

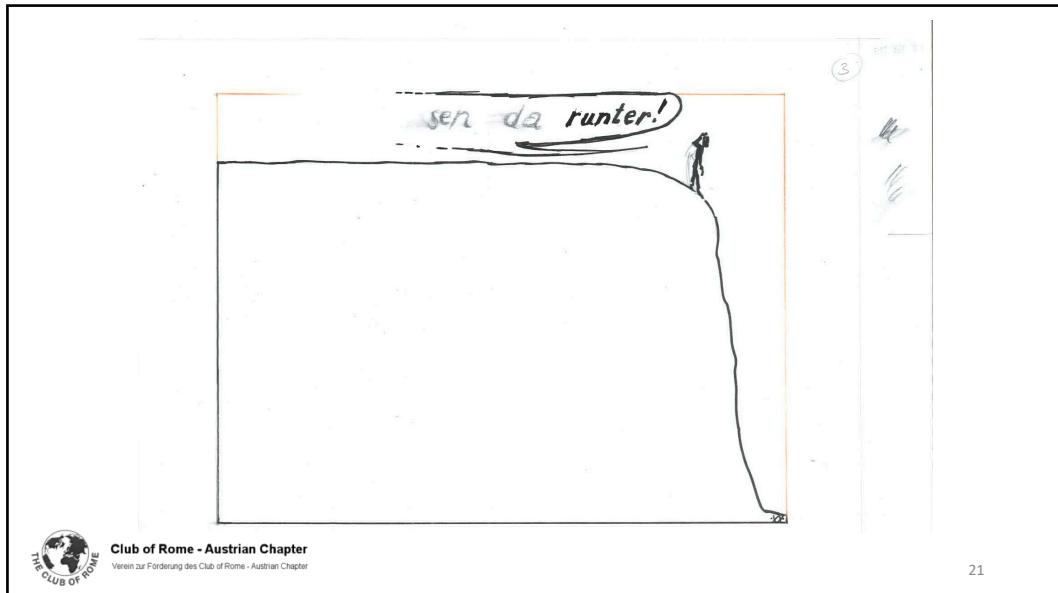
Ecological Footprints help: Are fully scalable and can be related to **countries, people or products/services.**



What does this mean?

- ▶ We can only emit a further 600 to 700 Gt CO₂
- ▶ That is 6-700,000,000,000 tonnes
- ▶ **100 tonnes for each person living today**
- ▶ Today the **average European** is responsible for **8.5 tonnes per year**
- ▶ **By 2050 this has to fall to only 1 ton per year**
i.e. less than 3 kg per day (instead of 25 kg today)
- ▶ **For heating, light, transport, food and for all other consumption**
- ▶ **200 g of pork equals 1 kg of CO₂ eq.**
(2/3 of which comes from soy production in Latin America)





Growth ! ?

- ▶ **Gross Domestic Product (GDP):**
everything that is **produced and consumed** within a year.

Today in Austria: **44.000 € / capita**
(2020 „only“ 40.000 €)

- ▶ 20 Years ago: **30.000 € / capita**
(growth until 2019: +50% = 2% per year)
- ▶ 40 Years ago : **16.000 € / capita**
(growth: tripling in 20 years)
- ▶ 60 Years ago : **6.500 € / capita**
(growth: sevenfold until today)

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But:

- ▶ Growth increases **resource consumption**
- ▶ Growth leads to **more emissions**
- ▶ Growth **increases stress!**
- ▶ Growth does **not** automatically mean a **better quality of life**



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Growth during Covid-19

▶ GDP per capita in Austria

stagnation since 2008 (source: World Bank)

▶ 2020 (Austria) - 6,6 %

▶ Prognosis (source: WIFO)

2021: 2,3
2022: 4,3

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Does growth create jobs?

- ▶ yes
- ▶ but
- ▶ **Technical progress increases productivity**
(less jobs are needed)
- ▶ **Do we need growth to create jobs?**



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Climate neutrality

- ▶ 90% less emissions
- ▶ 50% less GDP?
- ▶ 80% fewer jobs?

Is that the consequence?



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Options for SDG 8?



Jobs without growth?

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Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (1)

8.1 Sustain **per capita economic growth** in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

8.2 Achieve higher levels of **economic productivity** through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

8.3 Promote development-oriented policies that support productive activities, **decent job creation**, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4 Improve progressively, through 2030, **global resource efficiency** in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

8.5 By 2030, achieve **full and productive employment** and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

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The first goal: growth



8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

Criticism
The decline in growth cannot be stopped - at most it can be distributed.
"Decoupling" from negative (environmental) impacts is limited.
"Coupling" to positive impacts (jobs and quality of life) is limited.

Corona
The economy will shrink in 2020 >>> government stimulus measures

Our response
Alternative measures of prosperity. Quality of life as a goal! Generously implement the necessary investment programmes, fully financed by money and partly "unconditional" (how "conditional"?).

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17 Sustainable Development Goals (SDGs): a global government programme

1 KEINE ARMUT 	2 KEIN HUNGER 	3 GESUNDHEIT UND WOHLERGEHEN 	4 HOCHWERTIGE BILDUNG 	5 GESCHLECHTER-GLEICHHEIT 	6 SAUBERES WASSER UND SANITÄR-EINRICHTUNGEN 
7 BEZAHLBARE UND SAUBERE ENERGIE 	8 MENSCHENWÖRDIGE ARBEIT UND WIRTSCHAFTS-WACHSTUM 				
13 MASSNAHMEN ZUM KLIMASCHUTZ 	14 LEBEN UNTER WASSER 	15 LEBEN AN LAND 	16 FRIEDEN, GERECHTIGKEIT UND STARKE INSTITUTIONEN 	17 PARTNER-SCHAFTEN ZUR ERREICHUNG DER ZIELE 	ZIELE FÜR NACHHALTIGE ENTWICKLUNG 

More than Climate, Growth and Jobs

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A concrete measure

- A "holistic set of indicators and indices for all SDGs" measures progress towards the SDGs and its contribution to achieving the individual targets.



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The second goal: productivity



„**8.2** Achieve higher levels of **economic productivity** through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors“

Criticism

One-sided increase in labour productivity creates "stress" and destroys jobs.

Corona

Experiences from the "crisis" will further increase productivity in "business as usual".

Our response

An expanded concept of productivity. "Systemic competitiveness".

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Advanced decoupling

Environmental consumption

- = Environmental consumption/resource use
 - x resource use /production (GDP)
 - x production (GDP) / quality of life
 - x Quality of life

Systemic Competitiveness: micro, meso, macro, meta

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example



STAATSHILFEN

AUA braucht womöglich 800 Mio. Euro

Der Geldbedarf bei der AUA könnte höher sein als bisher angenommen. Bei den Verhandlungen über Hilfe durch die Republik wird laut ZIB unter Berufung auf Branchenkennern über einen Finanzbedarf von 800 Mio. Euro - alleine heuer - geredet. Im Gegenzug soll der AUA-Mutterkonzern Lufthansa eine Standortgarantie abgeben.

Online seit heute, 15.04 Uhr

<https://orf.at/stories/3161029/>
<https://orf.at/stories/3161134/>

#SavePeopleNotPlanes: Keine Milliardenhilfen für die Flugindustrie!



Stay Grounded & Partners hat diese Petition an Sebastian Kurz (Bundeskanzler) und an 3 mehr gestartet.

<https://www.change.org/p/offener-brief-an-den-bundeskanzler-und-die-ministerien-savepeoplenotplanes-keine-milliardenhilfen-für-die-flugindustrie>

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Concrete measures

- ▶ **Invest €40 billion in the transport sector** by 2030 with the aim of reducing CO2 emissions by 50%. To achieve this, the transport sector must be transformed.
- ▶ **Invest €45 billion in the renovation of buildings** by 2030 with the aim of reducing CO2 emissions by 50%.
- ▶ **Invest €50 billion in the energy sector** by 2030 with the aim of reducing CO2 emissions by 50%.
- ▶ **Invest €100 billion in "social system"** by 2030. Basic services cover six areas in this report: Health care, education, democracy and legal assistance, housing, nutrition, mobility and information.



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The third goal: decent jobs



„8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services“

Criticism

These goals can be interpreted in very different ways and require concretisation. What should grow, what should shrink?

Corona

The "old" thinking returns and does not solve the problems at work, but creates new ones (also for the environment).

Our answer

Define a direction for the desired development. Regionalisation and re-industrialisation of the regions. "Industrial policy" for more quality of life

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Concrete measures

- ▶ Combination of measures 1: a) **Phasing-out import of transatlantic soy** (legal freedom from deforestation, increase in organic share, public procurement, import stop/moratorium) b) Substitution and reduction: **sustainable protein strategy** (diversification of protein sources, organic farming, regionalisation, increase in legume cultivation, agricultural policy), c) New regional value creation and **reduction of pork production** within ecological limits (regional infrastructures, support programmes, reduction via animal welfare and environmental criteria, organic farming, research).

- ▶ Combination of measures 2: a) **Reduction of pork consumption** and total meat consumption to 20 kg per capita and year in Austria (Planetary Health Diet, Nutrient Rich Food Index, social inequality, true costs, taxation, incentives, advertising ban, awareness raising), b) **Creation of alternative plant protein sources in the diet** (public procurement, protein strategy, awareness raising, infrastructures) c) **Reduction of food waste** (realistic minimum shelf life, labelling, regulation/guidelines, cooperation, monitoring, cascade use, transformation food system)



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The fourth goal: resource productivity



„**8.4 Improve progressively, through 2030, global resource efficiency** in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead“

Criticism

The absolute reduction of resource consumption and emissions is decisive

Corona

The goal is in danger of being pushed into the background

Our response

Political programmes for the substantial reduction of resource consumption (factor 10!) CO2 and resource taxes, dismantling of climate-damaging subsidies, minimum prices in the ETS.

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Concrete measures

- ▶ Combination of measures 1: Promotion of investments in resource-efficient innovation in the **steel, plastics and chemical industries**, from vehicle construction to the construction industry.
- ▶ Combination of measures 2: **Resource taxes**: Within the framework of a comprehensive socio-ecological tax reform, resource consumption is also taxed.
- ▶ Combination of measures 3: **Consultancy programmes for companies** that serve to improve resource efficiency by 1% per year, also under the influence of advancing digitalisation in the manufacturing sector.
- ▶ Combination of measures 4: **Supplementary regulatory measures** regarding guarantee and warranty periods, requirements for reparability and availability of spare parts.



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The fifth goal: full employment



„**8.5** By 2030, achieve **full and productive employment** and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value“

Criticism

Gainful employment is only one part, jobs are only a means to the end of increasing the quality of life. Full employment as usual a discontinued model

Corona

The "old" thinking returns and does not solve the problems in the workplace, but creates new ones (also for the environment).

Our response

Reduce working hours and increase the value of leisure time and other forms of work.

LO LERNENDE ORGANISATION
Zeitschrift für systemisches Management und Organisation

**Zukunft der Arbeit
Arbeitsformen der Zukunft**

Friedrich Hinterberger, "Burnout und Klimawandel haben die gleiche Ursache:
Wir arbeiten zuviel und zu intensiv", in: Lernende Organisation 45, S. 28-35, 2008

Burnout und Klimawandel
haben die gleiche Ursache:
Wir arbeiten zu viel
und zu intensiv

Einkommen und Konsum wie auch Arbeit und andere Aktivitäten (z.B. Freizeit) dienen der Befriedigung menschlicher Bedürfnisse. Und Arbeitsplätze erfüllen neben ihrer wirtschaftlichen auch eine wichtige soziale Funktion der „Teilnahme am gesellschaftlichen Leben“. Andererseits wird die (Erwerbs-)Arbeit für die, die Arbeit haben, immer intensiver und von vielen als negativ erlebt. Manche warten nur noch darauf, dass „endlich das Wochenende kommt“ und „das Leben beginnt“. In seinem Artikel wirft Friedrich Hinterberger, Leiter des SERI (Sustainable Europe Research Institute) einen sehr kritischen Blick auf die „Arbeit“, wie wir sie heute gestalten, und wirft neue Ideen auf.

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Concrete measures

- ▶ **Reduction of the normal working week** to 30 hours per week so that every employable person in Austria can accept gainful employment to the extent of e.g. 50,000 hours (this is a guideline value). **50,000 hours distributed over 50 years of life would be 25 hours per week.**
- ▶ **Flexibilisation of working time over the course of life:** The distribution over the years of life should be flexible - even, if desired, beyond today's usual "retirement age" (corresponding rights of workers are needed here).
 - ▶ **Adaptation of the general pension insurance system** to the new full working time with accompanying social transfers ("**basic income**") in the form of a negative income tax

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50.000 hours of gainful work are enough!

30 hours / week = 1200 hours / year

for more leisure, personal work, care work, community work,... for
ourselves and others

Instead of 40 hours / week, 40 weeks in a year, 40 years in a
lifetime

(as a basis for a "conditional basic income")

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Summary: how we can „save the world“

- ▶ Transition of the **whole energy system** (“Energiewende”)
- ▶ a **dematerialised circular economy** (“Ressourcenwende”)
- ▶ **Less meat consumption and food waste** (“Ernährungswende”)
- ▶ and **new life styles** (“Lebensstilwende”)

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Expected results

Where will all this lead us to?

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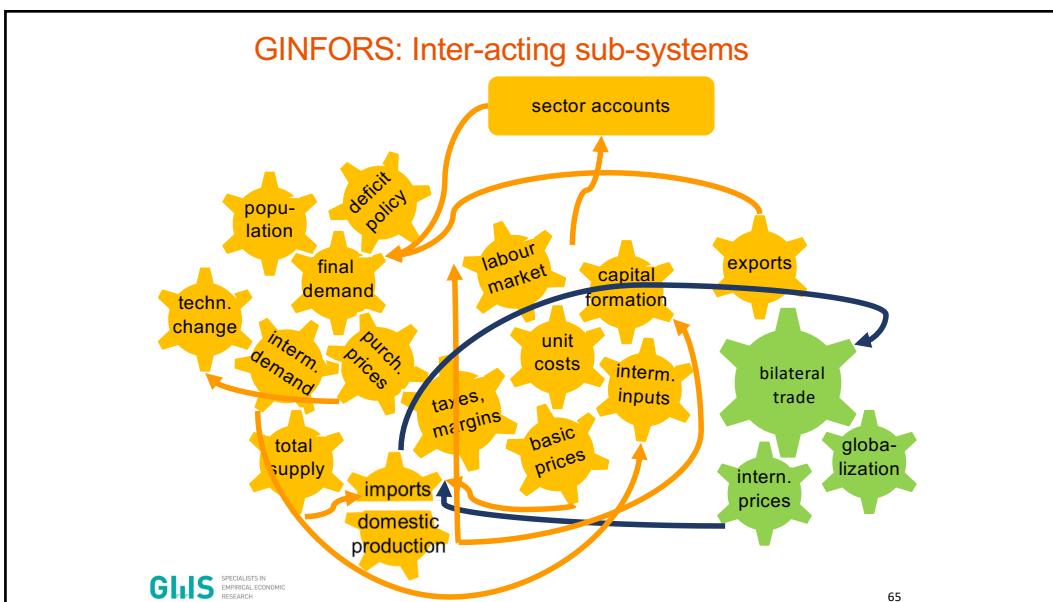
Model-based scenario-analysis

GliS SPECIALISTS IN
EMPIRICAL ECONOMIC
RESEARCH

- ▶ “nobody knows the future” > we need to make assumptions
- ▶ Scenarios give answers to questions of what-if
- ▶ Analyse the difference:
 - Compare two scenarios
 - Differences are the results of assumed changes

www.gws-os.com / © GWS 2018

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Modelling exercise show

- ▶ Halving CO2-Emissions until 2030 is possible!
- ▶ The necessary investments and the socio-ecological tax reform make the GDP grow.
- ▶ This can compensate for the reduction in consumption due to less gainful employment.
- ▶ But: other jobs = other skills are needed!



climate neutrality AND “**a good life for all**” can go together!

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Business as usual (until 2050) What **WOULD** happen if nothing happens?

- ▶ Growth of GDP per capita
global: **+43%** EU: **+28%**
- ▶ Growth of CO2-Emissions per capita
global: **+3%** EU: **-28%**
- ▶ Growth of CO2-Emissions (in absolute terms)
global: **+32%** EU: **-26%**
- ▶ Cumulative CO2-Emissions 2018-2050
global: **≈1,300 Gt** EU: **119 Gt**

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Not an option: Business as Usual

- ▶ By 2050 9.5 billion people will need resources (energy, material, land, water) for food and ‘westernised’ patterns of **consumption**
- ▶ Rapid increase in **demand for resources** of all kinds
- ▶ Rapid **price increases** of all commodities
- ▶ The incidence of **poverty** may increase substantially
- ▶ Consumers have **less disposable income** to spend. **Economic growth** would come under pressure, and **decrease** from current levels
- ▶ **Unemployment** would also likely increase

→ A 4-6 DEGREES WORLD!!!

= by no means sustainable

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meetPASS scenario (until 2050)



- ▶ Growth of GDP per capita
global: (+43%) **+55%** EU: (+27%) **+40%**
- ▶ Growth of CO2-Emissions per capita
global: (+3%) **-77%** EU (-28%) **-80%**
- ▶ Growth of CO2-Emissions (in absolute terms)
global: (+32%) **-70%** EU (-26%) **-87%**
- ▶ Cumulative CO2-Emissions 2018-2050
global: (≈1.300 Gt) **≈ 690 Gt** EU: (119 Gt) **64 Gt**

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What if: EU goes ahead



- ▶ EU pursues a **low-carbon** and **resource-efficient** economy, non-EU countries introduce climate policies of low ambition
- ▶ **Resource efficiency** is key to boosting Europe's competitiveness and protect against potential climate change impacts.
- ▶ All Europeans live in **comfortable, zero-carbon homes**
- ▶ **Zero carbon urban transportation** by 2050
- ▶ **Electrification of the energy system** (generated almostentirely by low- and zero-carbon sources) is widespread
- ▶ Appropriate **price signals** and clear **eco-labelling** show citizens the most resource-efficient products & services

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POLFREExperience if “EU goes ahead”

- ▶ A **combined “Ressourcen- und Energiewende”** in the EU alone would be
 - an **overall benefit for growth and jobs in Europe**

GDP:  + 50% (until 2050 compared to **2015**)

Jobs:  + 3.7 Mio. (until 2050 compared to **BAU**)

- ▶ **But:**
Some (usually well-organized) sectors would lose

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POLFREE experience if “EU goes ahead”

- ▶ A combined “Ressourcen- und Energiewende” in the EU would be

- an overall benefit for the environment

CO₂:	 -76% (by 2050 compared to 1990)
RMC:	 from 12 to 5 tonnes per capita (until 2050 compared to 2000)
Cropland use:	 -31% (until 2050 compared to 2000)

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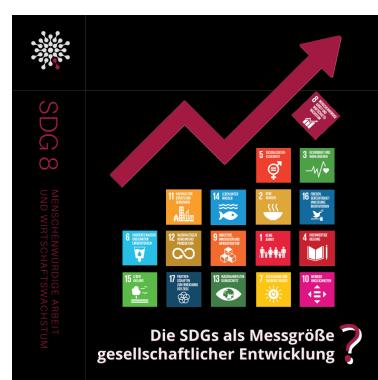
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& **WIRTSCHAFT**
vereinen?

SDG 8 MENSCHENWÜRDIGE ARBEIT
UND WIRTSCHAFTSWACHSTUM

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Danke, Thank you, Gracias, Millegrazie ...

di:^l'Angewandte

Universität für angewandte Kunst Wien
University of Applied Arts Vienna



Club of Rome - Austrian Chapter
Verein zur Förderung des Club of Rome - Austrian Chapter



<http://fritz.hinterberger.com>

I look forward
to our discussion!



Fritz Hinterberger - Nachhaltigkeitsstrategieberatung

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