WWWforEurope: Welfare, Wealth and Work for Europe

WWWforEurope started in April 2012 as a four year research project within the 7th Framework Programme funded by the European Commission.

The objective of this 4-year project is to provide the analytical basis for a socio-ecological transition in Europe: the change to a new growth path with smart, sustainable and inclusive growth as is envisaged in the EU 2020 strategy. In order to support the transition, the project analyses the need, the feasibility and best practice for change, specifying the institutional changes needed at all policy levels to implement these options. The old and new challenges Europe is facing define the starting point: globalisation, new technologies and postindustrialisation, demographic change and ecology in the context of welfare systems that have come under stress due to high public deficits. The vision is that Europe will become a role model for a "high road growth path" which actively incorporates social and ecological goals, employment, gender and cultural aspects in an ambitious, forward looking way while continuing to be competitive in a globalised world.

To achieve these objectives, the consortium will carry out and synthesise robust research in research areas covering the challenges to the welfare system, the biophysical dimension of socio-economic development, the identification of drivers towards socio-ecological transition, the role of governance and institutions on the European as well as the regional level.

5 central questions

1. Can the EU at the same time participate more strongly in world growth, guarantee a maximum well-being of its population and reduce energy and material input?
2. How can regional cohesion and social inclusion be achieved in such a growth strategy minimising risks of detrimental effects on incentives and maintaining the openness of society?
3. How can social and technological innovations be supported (and the focus of technological trends be shifted) so that they contribute to social and ecological sustainability?
4. How can institutions of modern market economies be changed so as to internalise the current social and ecological externalities and to decrease volatility and divergence in Europe?
5. How can the general public, third sector actors and vested interests be motivated to support reforms towards a new growth path?

The project will be carried out by a consortium of 33 partners from universities and research institutes with international and interdisciplinary expertise. It represents 12 member states. High level Scientific and Policy Boards will monitor the analysis and the policy conclusions to guarantee the impact and dissemination of the results.

Duration: 04.2012 - 03.2016
Scientific Researcher: Syed Ali Asjad Naqvi, Armon Rezai, Manuel Wäckerle
Project Leader: Sigrid Stagl
Sponsor: European Union (FP7)

More Information: http://www.foreurope.eu/


Financialization, Growth, and Biophysical Limits

Over the past decades, we have gained a sound understanding of how the real economy interacts with its environmental basis. Concurrently, a growing literature has developed which investigates the interactions between financial markets and the real economy. In this project we aim at combining the two bodies of knowledge to understand how finance can serve a just, resilient, and sustainable economic system that improves lives and at the same time respects biophysical limits. Specifically, this project analyzes the interactions between the financial, the real, and the "real-real" side of the economy to explore avenues toward a financial system that channels resources into socially useful, productive, and environmentally sustainable activities. Businesses are powerful agents for innovation and must be part of the solution to the most pressing environmental issues the world is facing today.

Duration: 04.2013 - 03.2015
Scientific Researcher: Armon Rezaim Klara Zwickl
Project Leader: Sigrid Stagl
Sponsor: OeNB Oesterreichische Nationalbank (Jubiläumsfonds)


ALTECS - „Knowledge exchange in the framework of alternative economic systems for the promotion of sustainable regional development“

The objective of the ALTECS project is to set first steps of a sustainable regional development based on knowledge exchange between companies and students and using knowledge to pursue and implement a responsible and resource conserving economic way.
In order to advance ecological, economic, and social sustainability, regional know-how based on the important pillars science and economy has to be used. In the framework of a summer university, knowledge as regards the issue sustainability will be generated among the participating target groups. In this context, co-operation will be sought with small and medium-sized enterprises (SMEs) that want to follow a socially, ecologically, and economically exemplary manner or already represent best practice and can thus give valuable advice.
Economy students from Austria and the Slovak Republic will be involved from the sector of science. They will enlarge and also share their knowledge in the field of sustainability in order to elaborate new perspectives for sustainable regional development in the framework of peer group projects together with the companies.

Duration: September 2013 - December 2014
Project Team: Katarzyna Gruszka, Andreas Havelka, Christian Rammel, Daniel Schmelz
Sponsor: European Union (Cross-border co-operation programme Slovakia - Austria 2007-2013), Vienna Chamber of Commerce and Industry
Mehr Information
More Information: http://www.rce-vienna.at/altecs/

SHARE VIENNA

Share Vienna is a project focusing on collaborative economy, placed within the broader framework of transformation towards more sustainable consumption and production. Collaborative economy in Vienna is mainly visible in larger scale initiatives, e.g. car sharing (Car2Go), Zipcar), and bike sharing (Citybike Wien), leaving smaller scale initiatives unnoticed. Share Vienna starts with building a database of collaborative economy initiatives in the Austrian capital, and aims at reaching the following objectives: 1) building a local definition of what collaborative economy means in the context of Vienna, 2) increasing the visibility of collaborative economy and fostering the engagement of Viennese citizens in collaborative economic activities, 3) rendering ideas for translating the concept through online and offline channels, thus increasing the knowledge on sharing and non-ownership based fact of more sustainable consumption.

Share Vienna places collaborative economy on the intersection of smart economy and smart people. As such, it feeds into the need for less technological focus in smart city research. The project is realized in partnership with Umweltdachverband.

Project Duration: September 2014 – September 2015

Project Leader: Christian Rammel

Scientific Researcher: Katarzyna Gruszka

Sponsor: Jubiläumsfonds der Stadt Wien für die Wirtschaftsuniversität

More Information: http://sharevienna.com/

http://www.rce-vienna.at/activities/share-vienna2/

EMAH - „Eco-mobility in the Austro-Hungarian border region"

The objective of the EMAH project is to understand the mobility behaviour of commuters and to stimulate measures worked out with employers in favour of more environmentally friendly mobility. This will be underpinned with research on travel habits and surveys which provide exact data on motivation, needs, and behaviour. The research is the basis for measures that promote a more environmentally friendly mobility behaviour (improvement in utilisation of public transport, awareness raising on eco-mobility, financial support, travel planning, promotion of cycling, car pooling, limitation of parking possibilities at the working premises etc.).

Packages of measures will be implemented whereby their effect is analysable. A “tool kit eco-mobility” to be used on a long-term basis will be created that enables a further use of project results. The goal of the project is the analysis of demand, the promotion of eco-mobility, and a more effective use of the infrastructure.

Duration: September 2012 - January 2015
Project Team: Andreas Havelka, Reinhard Jakits, Stefanie Peer, Michael Soder, Sigrid Stagl
Research Partners: Vienna University of Technology, Institute of Transportation, Research Center of Transport Planning and Traffic Engineering; KTI - Institute for Transport Sciences
Sponsor: European Union (Cross-border co-operation programme Austria - Hungary 2007-2013), Ministry of Environment
More Information: http://www.wu.ac.at/ruw/emah/en

Land Targets

Land is increasingly recognised as a non-renewable limited natural resource that needs to be used efficiently to be able to ensure that it can provide all its functions in the future. In this context, the European Commission will issue a Communication on land as a resource in 2015. The Land Communication needs to propose a vision of where the EU should go in terms of land and soil management by 2020 and beyond, and for that purpose, a robust set of indicators is required. Moreover, the implementation of targets based on some of these indicators could be considered by the EC.

This study assesses the feasibility of setting up a suitable framework for measuring and tracking the status and progress towards a more sustainable use of land as a resource. Indicators, targets, monitoring processes and knowledge base improvement actions are discussed. The study identified and assessed possible indicators and targets to promote the multi-functionality of land and preserve its environmental functions, and to reduce the impacts of EU demand on global land degradation. Consequently, the study covers the following main aspects:

- Land take
- Land recycling
- Land degradation
- Land use functions
- Global impacts of EU demand for land-based products

Duration: 2013-2014

Scientific Researchers: Liesbeth de Schutter, Stefan Giljum

Project Leader: Martin Bruckner

Sponsor: European Union


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CLIMA Land

This service contract with the European Commission aims to propose a policy framework for land use related climate mitigation for the European level. The Commission is committed to tackle the challenges of climate change while ensuring economic development and continued progress in well-being. Agricultural and forestry land use provides essential natural resources to society, but at the same time play a key role in both the emission of greenhouse gases (GHG) and removal of atmospheric carbon. Encompassing and coherent policy frameworks exist for energy and GHG emissions in the EU, but at present there is no corresponding overarching framework for EU policies for land use related climate mitigation to steer policy towards the climate targets. The main challenge is to reduce the GHG emissions and other negative environmental impacts of land use practices while maintaining (and even increasing) the socio-economic benefits.

This study assists the European Commission in understanding the impacts of different policy options on land use related climate mitigation and develops a policy framework suited to efficiently minimise land use related GHG emissions while maximising carbon removals.

Duration: 2013-2014

Scientific Researcher: Liesbeth de Schutter

Project Leader: Martin Bruckner

Sponsor: European Union

UBA Land

Robust land footprint indicators can potentially extend the consumption-based resource use indicator of the German sustainability strategy, which focuses on abiotic resources including fossil fuels, metals, and construction and industrial minerals and decidedly excludes biotic resources.

This study provides a review of the current state of the art in measuring land footprints and gives clear recommendations for the further development of land flow accounting methods, particularly highlighting the advantages of hybrid accounting approaches as a framework for the robust and transparent assessment of land footprints associated with global biomass flows. We set up an accounting model according to the derived recommendations and apply it to calculate land footprint indicators for Germany and Europe. The study furthermore discusses and evaluates options of impact-oriented land footprint indicators (measuring e.g. biodiversity loss related with the land footprint) and calculates selected indicators for Germany.

Duration: 2013-2015

Scientific Researcher: Stefan Giljum

Project Leader: Martin Bruckner

Sponsor: German Federal Environment Agency (Umweltbundesamt)


DESIRE (Development of a System of Indicators for a Resource efficient Europe)

DESIRE develops and applies an optimal set of indicators to monitor European progress towards resource-efficiency. A combination of time series of environmentally extended input output data (EE IO) and the DPSIR framework to construct the indicator set is proposed. This approach will use a single data set that allows for consistent construction of resource efficiency indicators capturing the EU, country, sector and product group level, and the production and consumption perspective including impacts outside the EU. The project significantly contributes to the further development of multi-regional input-output (MRIO) analysis.

Role and responsibilities of the WU team in the project:

- Analysis of resource efficiency policies
- Development of an indicator framework for resource efficiency
- Calculate material and land footprint indicators with MRIO methods

Duration: 2012-2015

Scientific Researcher: Martin Bruckner, Stephan Lutter, Mirko Lieber, Hanspeter Wieland

Project Leader: Stefan Giljum

Sponsor: European Union / FP7

More information



UNIDO EQuIP

In the EQuIP project, UNIDO is setting up a toolkit to measure, monitor and guide the process of industrial development in developing countries to ensure that their development path is implemented in an inclusive and sustainable way. In environmental terms, the key questions addressed are how to advance modern industrialization through the greening of existing industries as well as how to develop new green products and technologies. This shall support economic growth and increase competitiveness of the respective countries, while at the same time respecting the environmental limits both on the national and the global level ("planetary boundaries").

The toolkit does not consist of sophisticated models or complex evaluation procedures, but of simple analytical tools based on available and – to the extent possible – quantitative indicators. The toolkit is designed in a way to be easily implemented by members of public administrations and other stakeholders in developing countries.

Experts from WU's research group "Sustainable Resource Use", notably Stefan Giljum and Stephan Lutter, assist UNIDO in setting up the toolkit and training manual for the areas of resource efficiency and environmental impacts.

Duration: 2014-2015

Scientific Researcher: Stefan Giljum

Project Leader: Stephan Lutter

Sponsor: UNIDO


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www.materialflows.net – MFA VII

www.materialflows.net is an online portal for material flow data, providing access to material flow data sets on the national level. The website is based on the worldwide first comprehensive database on global resource extraction - the SERI/WU Global Material Flows Database, set up and administrated by SERI (Sustainable Europe Research Institute) and the Vienna University of Economics and Business (WU Vienna), in cooperation with the Institute for Energy and Environmental Research (IFEU) and the Wuppertal Institute for Climate, Environment, Energy. The database

comprises data for more than 200 countries, the time period of 1980 to 2010, and more than 300 different materials aggregated into 12 categories of material flows.

The scientific community as well as policy makers increasingly demand analyses that go beyond the pure presentation of MFA data and indicators. Thus, the basic intention of this online portal is to provide easy access to MFA data to be applied in further policy-oriented analyses, as well as background information, trend analyses and visualisation tools for a better comprehension of MFA data and the conclusions to be drawn. In this project the research group Sustainable Resource Use is updating the database to the year 2011. Furthermore, the website content is revised, trends and figures adapted and the whole website content updated.

Duration: 2013-2014

Scientific Researcher: Stefan Giljum

Project Leader: Stephan Lutter

Sponsor: Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management


Material- und Rohstoffinputindikatoren (Raw Material Input Indicators)

The over-arching goal of this project is to support the German Federal Government in the further development of indicators of raw material usage and resource efficiency on the European level. This goal must be understood in relation to the Roadmap to a Resource Efficient Europe and ProgRess – the German programme for resource efficiency. Both of these initiatives aim to increase resource efficiency in production and consumption. Indicators are essential for performance measurement and communication of goal achievement.

The goals of this research project are:

- The facilitation of methodological harmonization through greater exchange between researchers and official statistics offices.
- The investigation of existing indicators and their underlying methodologies for their need for further development.
- The harmonization of available datasets and through it the reduction of existing data-related inconsistencies between the individual raw material input metrics.
- The establishment of a process of increased cooperation among relevant stakeholders with the goal of reaching harmonisation and quality improvement regarding applied calculation methodologies and resource use indicators.

Duration: 2014-2015

Scientific Researcher: Stefan Giljum

Project Leader: Stephan Lutter

Sponsor: German Federal Agency for the Environment

UWD Wassergebühren (Water fees)

In this project the research group Sustainable Resource Use is contributing to a project targeting the design of fees for water use in the context of Article 9 of the Water Framework Directive, which states that “Member States shall take account of the principle of recovery of the costs of water services, including environmental and resource costs […] in accordance in particular with the polluter pays principle.

The research group is responsible for the compilation and illustration of data regarding water use in Austria and its development over time. This will be done by means of case studies such as the industry sector, agriculture, and energy industry. Further possible models for cost-benefit analyses of different fee systems will be analysed and applied to the case studies with the aim of supporting related policy making.

Duration: 2014-2015

Scientific Researcher: Stefan Giljum

Project Leader: Stephan Lutter

Sponsor: Austrian Environmental Bureau

Carbon-Cap (Carbon emission mitigation by Consumption-based Accounting and Policy)

Climate policies so far mainly focused on production sectors, applying territorial emission reduction approaches. However, growing consumption is a main driver behind rising greenhouse gas (GHG) emissions. Against this background, the Carbon-Cap project aims at stimulating innovative demand side oriented climate policies by improved shared insight in consumption emissions and thus realize a more effective policy mix for achieving the objectives of the EU policy packages.

WU contributes to several work packages within Carbon-Cap. The WU team leads the work on identifying options for consumers to reduce their carbon footprints across a large number of product groups and consumption areas, with a focus on indirect GHG emissions along international supply chains. The WU team also leads a task performing comparative assessments of carbon footprints on the product level with several existing carbon footprint models (so-called multi-regional input-output models). Finally, WU also contributes to the analysis of policy options and identifies barriers and drivers for its implementation through qualitative interviews with key stakeholders.

Duration: 2013-2017

Scientific Researcher: Karin Schanes, Stephan Lutter, Hanspeter Wieland

Project Leader: Stefan Giljum

Sponsor: European Union / FP7


IntRESS (Exploring options for global resource use)

The IntRESS project develops new insights, options and recommendations for international sustainable resource use policies through engaging the scientific community and relevant stakeholders. This should further strengthen the profile of resource efficiency and sustainable resource use issues on the European and international policy agenda.

WU's Sustainable Resource Use research group contributes particularly to the work on identifying policy targets for sustainable resource use in the area of water consumption. Based on existing approaches to identify environmental thresholds in the area of water, such as the Water Exploitation Index or the Water Stress Index, the WU team further specifies targets building on work on global flows of water calculated with global, environmental-economic input-output models. Part of WU's task is also to organize an international expert workshop ….

Duration: 2013-2017

Scientific Researcher: Karin Schanes, Stephan Lutter, Hanspeter Wieland

Project Leader: Stefan Giljum

Sponsor: European Union / FP7

UNEP MFA

In this project the research group Sustainable Resource Use collaborates with partner institutions in Germany and Australia to set up a global database on worldwide material extraction. The data compilation builds on the principles of economy-wide material flow analysis (EW-MFA). The dataset comprises data for all countries of the world and the years 1990-2010. In the second part of the project, on the basis of the dataset a UNEP report on global resource sue and efficiency will be compiled.

Duration: 2014-2015

Scientific Researcher: Mirko Lieber, Stephan Lutter

Project Leader: Stefan Giljum

Sponsor: UNEP

WWF

In this project the research group Sustainable Resource Use carries out a study for the WWF Austria on sustainable diets and land use and greenhouse gas (GHG) emissions related to Austrian diets. In this context, the land and GHG intensities of different food products and diets are evaluated, key supply chains identified and the historical development of Austria's land footprint described: Land use and land use change in relation to Austrian biomass demand: food, feed (meat), energy, other non-food; e.g. between 1990 and 2012. A further focus is set on healthy diets and the issue of food waste.

Duration: 2014-2015

Scientific Researcher: Stefan Giljum, Martin Bruckner

Project Leader: Liesbeth de Schutter

Sponsor: WWF Austria

G.B.S. – Green.Building.Solutions. Summer University

The Green.Building.Solutions. Summer University in Vienna (G.B.S.) is an intensive three week training program in the field of sustainable building design and energy efficiency. Coordinated by the RCE-Vienna, situated at the Vienna University of Business and Economics, it results from a joint effort from 6 different Austrian universities and institutes to offer an interdisciplinary expertise through lectures, discussion periods, practical workshops and field excursions.

On the academic side, the program primarily targets architecture and engineering students but also welcomes students of related disciplines such as urban planning, economy and management. GBS is also intended for professionals from diversified fields who have interest in the sustainable built environment to deliver innovative knowledge and solutions to their clients. The learning methodology creates a synergy where knowledge is acquired from lecturers as well as from participants.

Duration: December 2012 – November 2014
Project Team: Reinhard Jakits
Sponsor: OeAD-WohnraumverwaltungsGmbH

SHARE VIENNA

Share Vienna is a project focusing on collaborative economy, placed within the broader framework of transformation towards more sustainable consumption and production. Collaborative economy in Vienna is mainly visible in larger scale initiatives, e.g. car sharing (Car2Go), Zipcar), and bike sharing (Citybike Wien), leaving smaller scale initiatives unnoticed. Share Vienna starts with building a database of collaborative economy initiatives in the Austrian capital, and aims at reaching the following objectives: 1) building a local definition of what collaborative economy means in the context of Vienna, 2) increasing the visibility of collaborative economy and fostering the engagement of Viennese citizens in collaborative economic activities, 3) rendering ideas for translating the concept through online and offline channels, thus increasing the knowledge on sharing and non-ownership based fact of more sustainable consumption.
Share Vienna places collaborative economy on the intersection of smart economy and smart people. As such, it feeds into the need for less technological focus in smart city research. The project is realized in partnership with Umweltdachverband.

Project Duration: September 2014 – September 2015
Project Leader: Christian Rammel
Scientific Researcher: Katarzyna Gruszka
Sponsor: Jubiläumsfonds der Stadt Wien für die Wirtschaftsuniversität
More Information: http://sharevienna.com/
http://www.rce-vienna.at/activities/share-vienna2/