Institutional and Resource Economics

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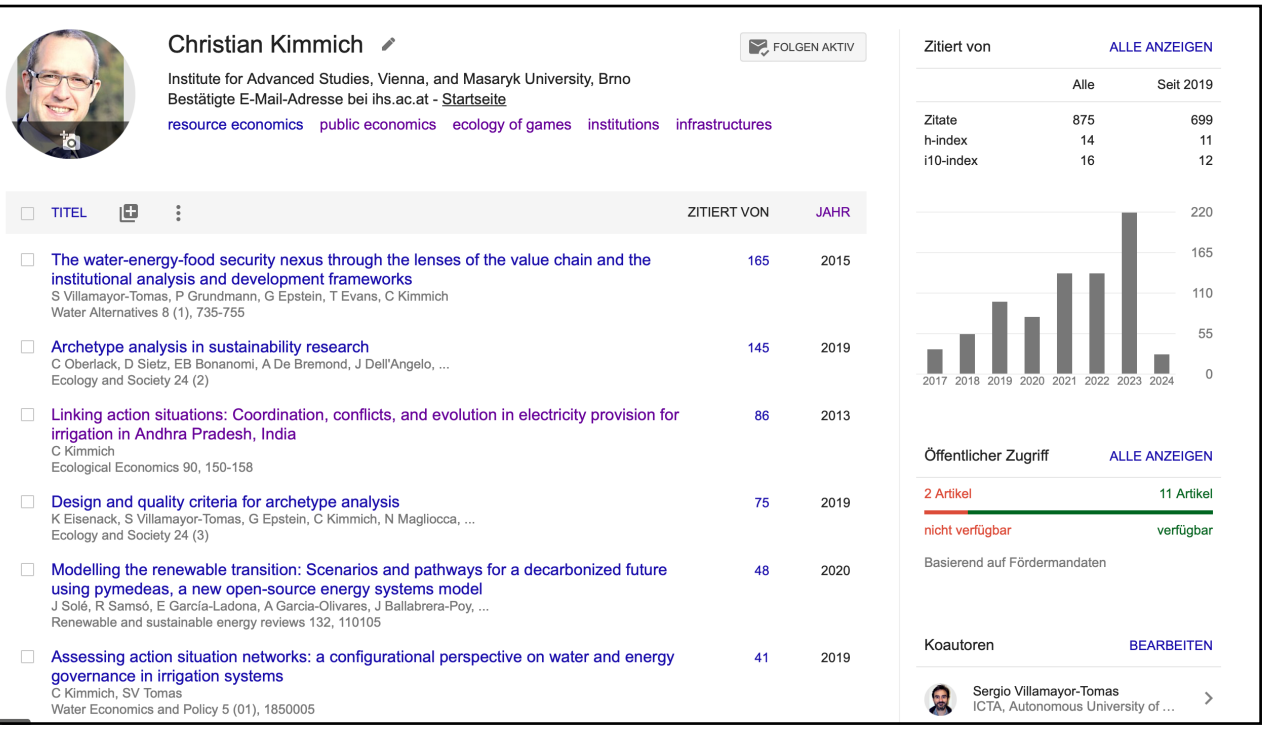

Christian Kimmich

FOLGEN AKTIV

Institute for Advanced Studies, Vienna, and Masaryk University, Brno
Bestätigte E-Mail-Adresse bei ihs.ac.at - Startseite

resource economics public economics ecology of games institutions infrastructures

TITEL	ZITIERT VON	JAHR
The water-energy-food security nexus through the lenses of the value chain and the institutional analysis and development frameworks S Villamayor-Tomas, P Grundmann, G Epstein, T Evans, C Kimmich Water Alternatives 8 (1), 735-755	165	2015
Archetype analysis in sustainability research C Oberlack, D Sietz, EB Bonanomi, A De Bremond, J Dell'Angelo, ... Ecology and Society 24 (2)	145	2019
Linking action situations: Coordination, conflicts, and evolution in electricity provision for irrigation in Andhra Pradesh, India C Kimmich Ecological Economics 90, 150-158	86	2013
Design and quality criteria for archetype analysis K Eisenack, S Villamayor-Tomas, G Epstein, C Kimmich, N Magliocca, ... Ecology and Society 24 (3)	75	2019
Modelling the renewable transition: Scenarios and pathways for a decarbonized future using pymedeas, a new open-source energy systems model J Solé, R Samsó, E García-Ladona, A Garcia-Olivares, J Ballabrera-Poy, ... Renewable and sustainable energy reviews 132, 110105	48	2020
Assessing action situation networks: a configurational perspective on water and energy governance in irrigation systems C Kimmich, SV Tomas Water Economics and Policy 5 (01), 1850005	41	2019

Zitiert von ALLE ANZEIGEN

	Alle	Seit 2019
Zitate	875	699
h-index	14	11
i10-index	16	12

Öffentlicher Zugriff ALLE ANZEIGEN

2 Artikel 11 Artikel
nicht verfügbar verfügbar

Basierend auf Fördermandaten

Koautoren BEARBEITEN

Sergio Villamayor-Tomas
ICTA, Autonomous University of ...

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Home > Energy, Environment, and Sustainable Economic Structures

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- European Governance, Public Finance and Labor Markets
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- Macroeconomics and Business Cycles
- Energy, Environment, and Sustainable Economic Structures

Energy, Environment, and Sustainable Economic Structures

Climate change has serious ecological, social, and economic impacts. Meeting global and national targets to limit global warming can only succeed with sustainable structures in all sectors of the economy. This applies to agriculture, industry, transport, and buildings, among other things. Here, both the private sector, i.e., companies and households, and the government are called upon. In general, the government sets the framework, for example by an ecological design of the tax system or via market interventions to correct market failures, for example by assigning a price to environmental use or pollution.

The government's options for action may involve public infrastructure to enable sustainable mobility and a renewable energy supply or ensuring the availability of critical raw materials. It can also mean accelerating the diffusion of energy and environmental innovations to make companies at the same time more climate-friendly and competitive. A particularly important aspect here is making households and companies resilient to shocks. This applies to climate- and environment-related events such as

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- Institutions as “rules of the game“ (Douglas North)

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"The real problem of humanity is the following:

we have Palaeolithic emotions; **medieval institutions**; and god-like technology"

(sociobiologist E.O. Wilson, interview in 2009)

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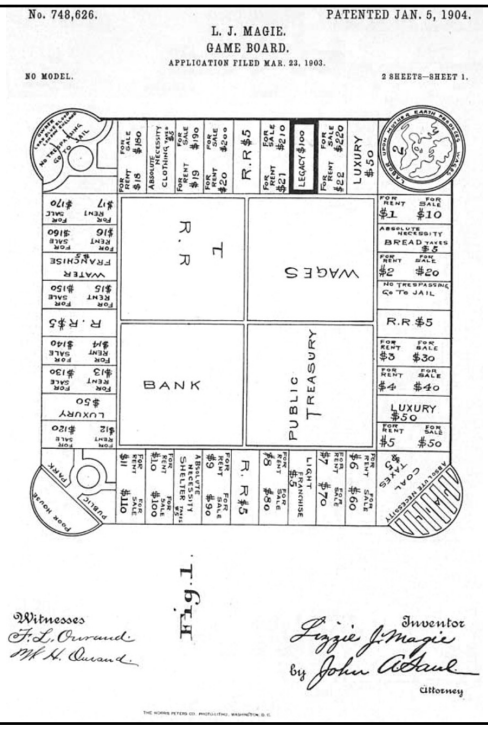
➢ The Landlord's Game - Henry George



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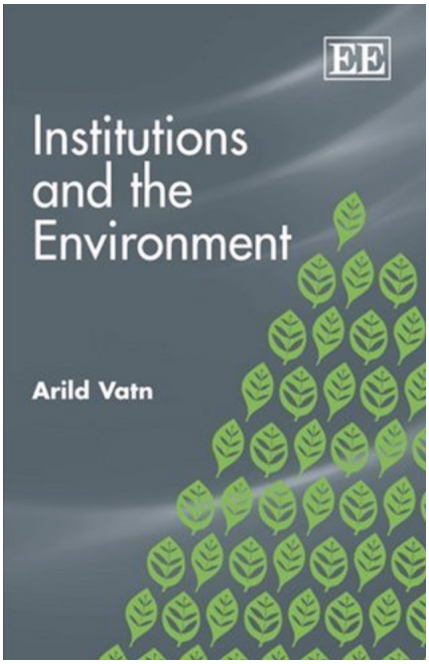

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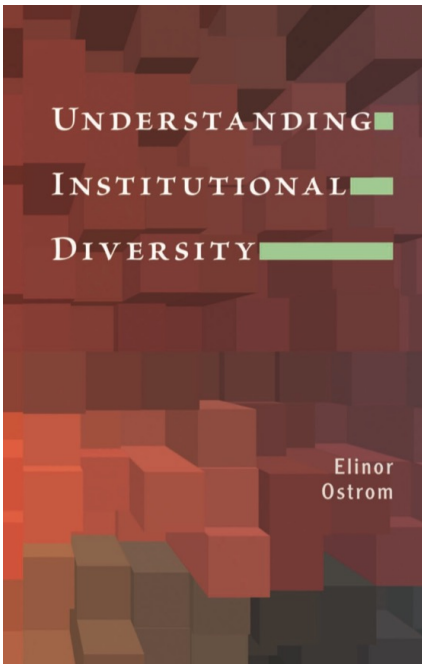

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Elinor Ostrom received the 2009 Nobel Memorial Prize in Economic Sciences
"**for her analysis of economic governance, especially the commons**"

She entitled her Nobel Address
"The Polycentric Governance of Complex Economic Systems"

Available here:
https://www.youtube.com/watch?v=T6OgRki5SgM

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A short introduction to her work:
https://vimeo.com/121608252

A full-length documentary:
https://polisci.indiana.edu/news-events/news/2020-ostrom-documentary-barbara-allen.html

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THE
ECONOMICS OF THE ENVIRONMENT AND NATURAL RESOURCES

CONTENTS

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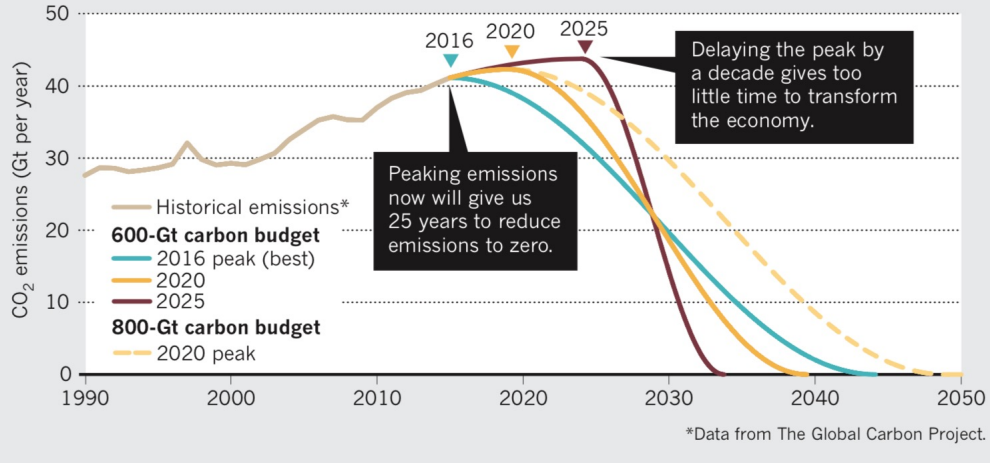
CARBON CRUNCH

There is a mean budget of around 600 gigatonnes (Gt) of carbon dioxide left to emit before the planet warms dangerously, by more than 1.5–2°C. Stretching the budget to 800 Gt buys another 10 years, but at a greater risk of exceeding the temperature limit.



*Data from The Global Carbon Project.

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Timeline

Date		
23.2.	Course introduction / Institutions	
1.3.	Institutions II	
8.3.	Doughnot Economics: From Planetary Boundaries to thinking how an economy can be regenerative by design (Claudio Cattaneo)	
15.3.	Application of the doughnut at the city scale (Claudio Cattaneo)	
22.3.	Barcelona as an example (Claudio Cattaneo)	
29.3.	[Easter – Great Friday]	
5.4.	Classical Institutionalism and New Institutional Economics, Property rights and resource regimes, Commons	
12.4.	Ecological Resource Economics	
19.4.	Applications: water, forests, fisheries Case study: The Water–Energy–Food Nexus in India	
26.4.	Q&A, discussion of your assignments	
3.5.	Case study II: Forestry	
10.5.	Presentations I	
17.5.	Presentations II and Debate, Open Space, Experiment (4 hrs)	

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Outline: Institutions

1. Introduction. Basic concepts, course outline, relevance, and applications.

2. Institutions: The individual, the society, and the environment. Definitions and language. Formal and informal rules, rules in-use versus rules in-form, conventions, strategies, motivation, interests, rationality, heuristics, norms, and values. Sociological, economic and political perspectives.

3. Institutions: Coordination and conflict, power, institutional stability, change and evolution. Institutional diversity and pluralism.

4. Classical and New Institutional Economics: different positions, values, and world views. Actor-centred institutionalism and situationism.

5. Property rights and typologies of resource regimes and governance: Private, Club, Common, Open Access, and Public Goods. Governance structures and externalities versus transactions.

6. The Institutional Analysis and Development framework and the Ostrom school of political theory and policy analysis.

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Outline: Resources

8. Resource Economics: The use and limitations of models. Stocks, flows, and funds. Exponential and logistic growth, Gordon-Schaefer models. Renewable and non-renewable resources: water, energy, land and climate change in agriculture, forestry, and fisheries.

9. Ecological Resource Economics: towards an intuition of complex system dynamics. Lotka-Volterra models, steady states, stability, tipping points, thresholds, leverage points, resilience and collapse.

10. Applications and methods of Institutional and Resource Economics: Selected cases on exploitation, degradation, erosion, and conservation in agriculture, forestry, and fisheries. Methodological reflection and interactive debate.

11. Group work presentation and discussion on applications selected by the students.

12. Towards Social-Ecological Systems and Sustainability Transformations.

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ESEE Vice-President:
Claudio Cattaneo

Professor of Ecological Economics
ICTA-UAB & Masaryk University, Spain
Founding member of the Research and Degrowth association

Claudio.Cattaneo[at]uab.cat

Claudio Cattaneo –PhD Ecological Economics

Doughnut Economics Consultant, Barcelona

March 8th – Intro to Kate Raworth "Doughnut Economics- 7 ways to think as a XXIst century economist"

March 15th – The Doughnut Economics Action Lab. An application of doughnut economics – The case of cities

March 22nd – The Barcelona council's early process towards doughnut economics.

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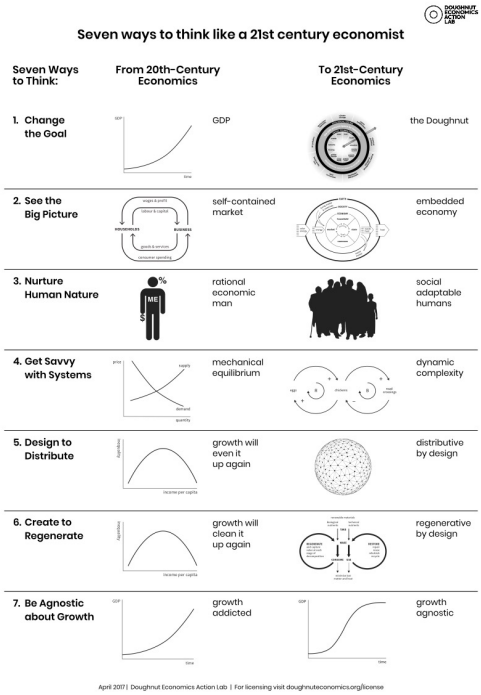
March 8th: short summary of K.Raworth's book, with her 7 ways to revert neoclassical economics



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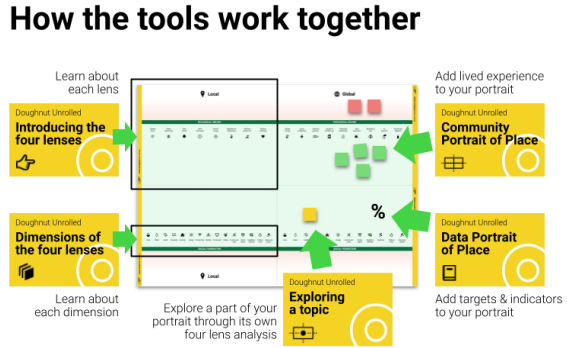
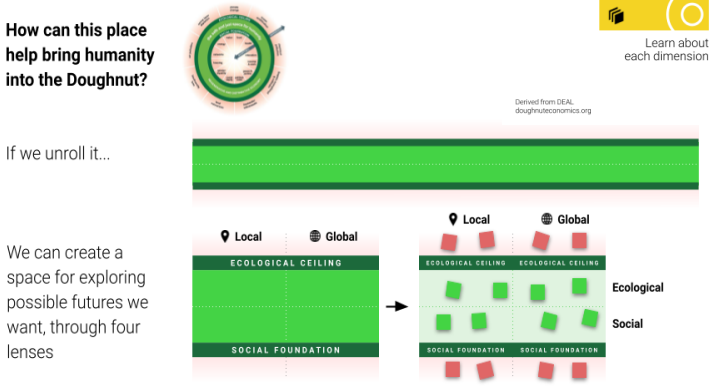
March 15th: what if we wanted to apply Donut Economics to a city? Unrolling the Donut and five tools to work on it





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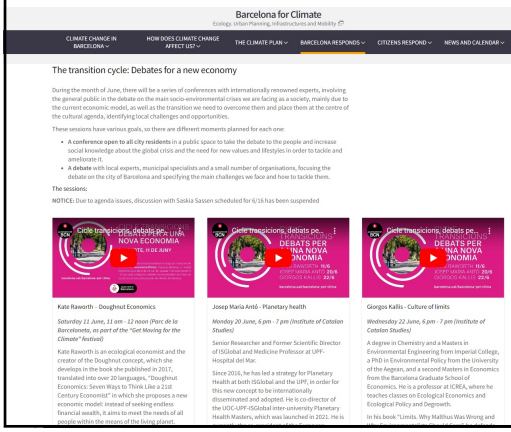
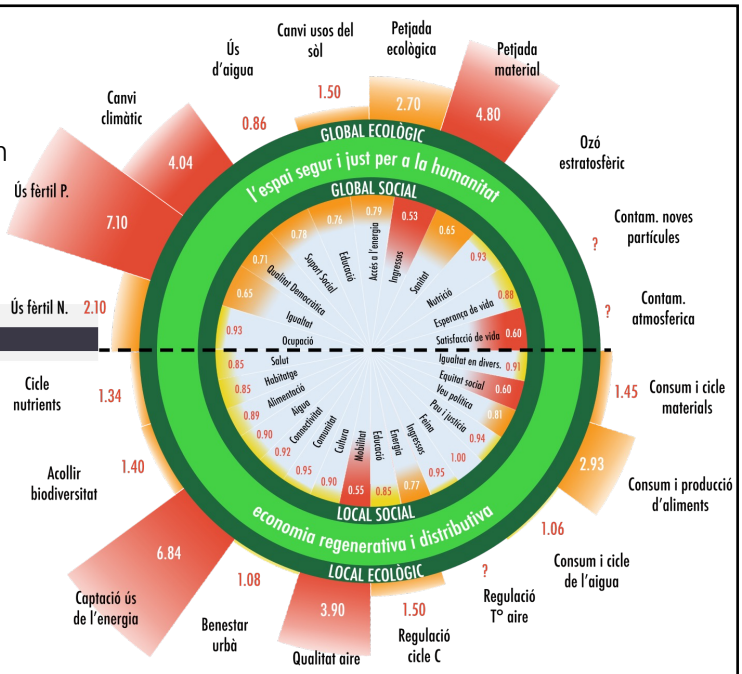
March 22nd: what have we done in Barcelona?





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Your background?

Environmental Studies, International Relations, other?

Your interests?

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Course requirements

- **Essay / short paper** (2000-2500 words): 50%
- **Presentation** (15min): 25%
- **Oral exam** (15min discussion based on essay & presentation): 25%

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Learning enthusiastically

A conversation with Prof. Dr. Gerald Hüther*

How do people learn?

Generally speaking, we think "learning" means cognitive, formal learning. We tend to associate "learning" ized society. Picture yourself how you felt as a small child when, after trying many times, you eventually managed to haul yourself up by the

You mention the "power of inner images" in your publications. What are inner images?

As a biologist I am naturally excited

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Thesis topics

https://enviro.fss.muni.cz/bc/zaverecne-prace

Ing. Zbyněk Ulčák, Ph.D.

Mgr. Péter Szabó, Ph.D.

Christian Kimmich, Ph.D., M.Sc.

1) Organizing food/textiles/wood provision sustainably: How are local or global food/textiles/wood value chains structured and organized? How are sustainable value chains organized differently? Which difference can organization make in production behavior? Can global value chains be sustainable? Can they be resilient? A related thesis topic and research question should focus on one specific natural resource and related value chain within an empirical case study. A related thesis could use theories and qualitative or quantitative methods from political economy and ecology, qualitative game theory, or actor-centered network and institutional analysis, among others.

2) Water and energy in agricultural systems: How energy- and irrigation-dependent are agricultural systems? How can organic or permaculture differ with respect to energy and water input and related organization? Which difference can renewable energies make? A thesis related to this topic could cover selected climate-specific agricultural systems from Europe or Asia and related governance structures for the provisioning of natural resources for food production. The thesis could use theories and methods from political economy and ecology, game theory, network and institutional analysis.

3) Understanding cooperative governance and public goods provisioning: What characterizes entrepreneurship and collective action in the context of eco-social co-operatives? How does cooperative entrepreneurship differ from other forms? Which role do co-operatives play in public utilities? This thesis should contain an empirical part that could focus on recently founded co-operatives, for example. The thesis could employ any suitable theory and qualitative or quantitative empirical method, including qualitative comparative analysis.

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Thesis topics

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4) Board games, complex experiments, and ecological economics: Who were the inventors of the board game Monopoly? Which ideas were behind this invention? Which role could board games and experiments play in social–ecological transformations? As an MA thesis, this topic could include an experiment, or an empirical study about perceptions of the game narratives and related beliefs, or related questions concerning games in society, economics, and the environment.

5) Drivers and constraints of climate and energy policies: Which factors support or constrain the renewable energy expansion and energy transition that is so urgently needed for climate mitigation? Which role does the labor market play? This thesis could build on theories from ecological economics and conduct an input-output analysis for a selected country.

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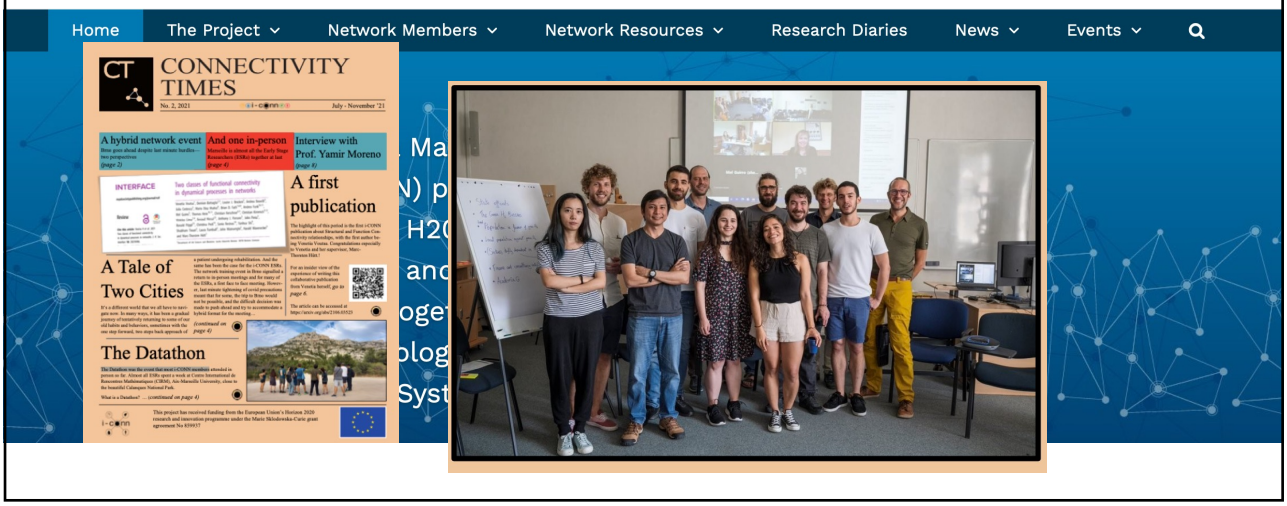

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https://sunrise-europe.eu

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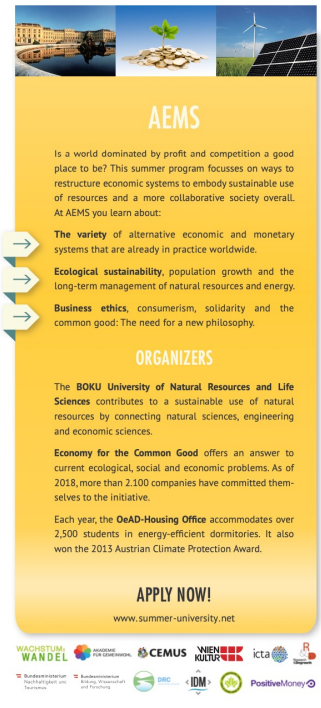

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