


Institutional and Resource Economics

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Christian Kimmich ✎

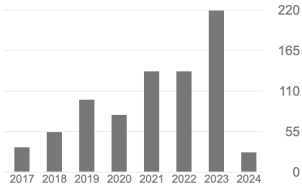
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[resource economics](#) [public economics](#) [ecology of games](#) [institutions](#) [infrastructures](#)

[FOLGEN AKTIV](#)

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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<input type="checkbox"/>	TITEL	ZITIERT VON	JAHR
<input type="checkbox"/>	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
<input type="checkbox"/>	Archetype analysis in sustainability research C Oberlack, D Sietz, EB Bonanomi, A De Bremond, J Dell'Angelo, ... Ecology and Society 24 (2)	145	2019
<input type="checkbox"/>	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
<input type="checkbox"/>	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
<input type="checkbox"/>	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 García-Olivares, J Ballabrera-Poy, ... Renewable and sustainable energy reviews 132, 110105	48	2020
<input type="checkbox"/>	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

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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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Umweltpolitik
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➤ Institutions as “rules of the game“ (Douglas North)

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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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R. QUENTIN GRAFTON,
WIKTOR ADAMOWICZ, DIANE DUPONT,
HARRY NELSON, ROBERT J. HILL,
AND STEVEN RENZETTI

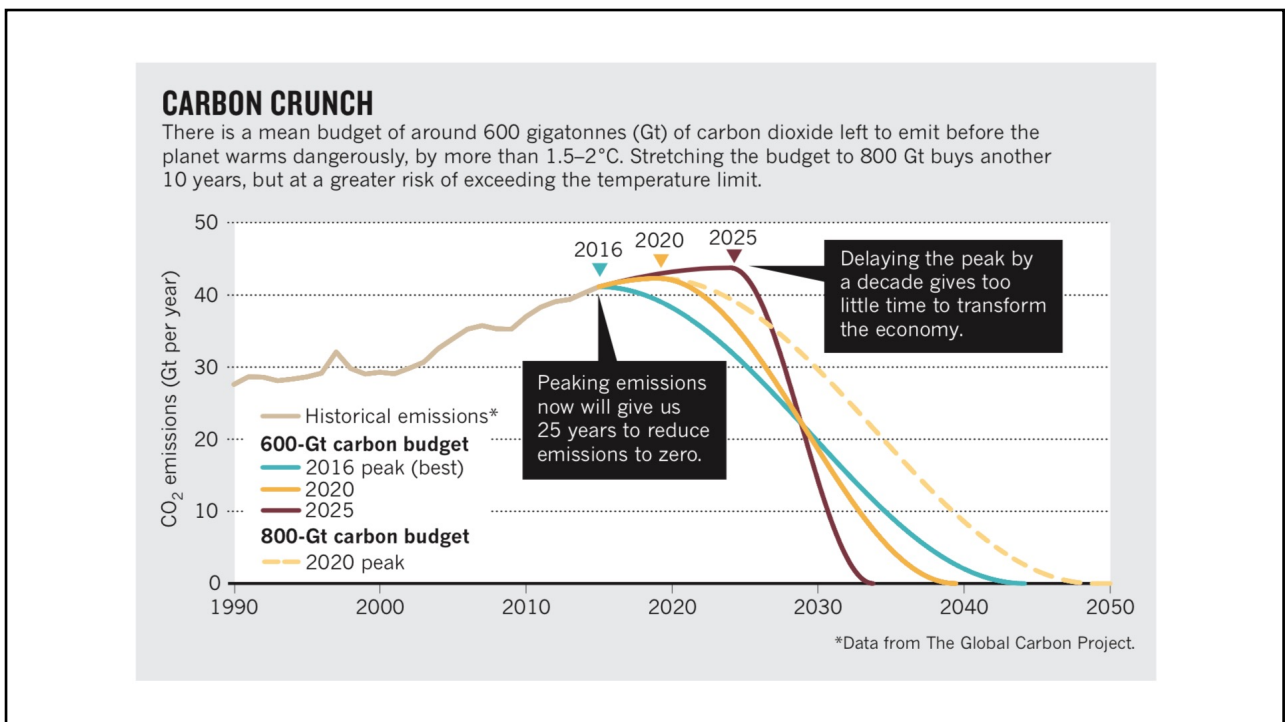
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THE

ECONOMICS OF THE ENVIRONMENT AND NATURAL RESOURCES

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Timeline

Date		
23.2.	Course introduction / Institutions	
1.3.	Institutions II	
8.3.	Doughnut 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



Seven ways to think like a 21st century economist

Seven Ways to Think:	From 20th-Century Economics	To 21st-Century Economics
1. Change the Goal	GDP	the Doughnut
2. See the Big Picture	self-contained market	embedded economy
3. Nurture Human Nature	rational economic man	social adaptable humans
4. Get Savvy with Systems	mechanical equilibrium	dynamic complexity
5. Design to Distribute	growth will even it up again	distributive by design
6. Create to Regenerate	growth will clean it up again	regenerative by design
7. Be Agnostic about Growth	growth addicted	growth agnostic

April 2011 | Doughnut Economics Action Lab | For licensing visit doughnuteconomics.org/license

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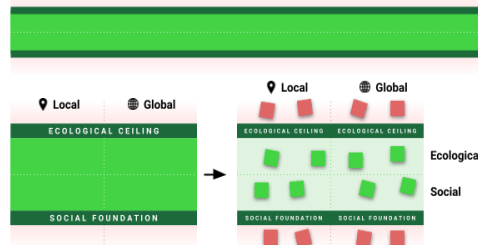
March 15th: what if we wanted to apply Donut Economics to a city? Unrolling the Donut and five tools to work on it

How can this place help bring humanity into the Doughnut?

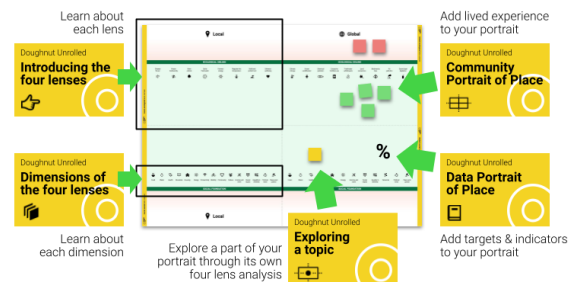


If we unroll it...

We can create a space for exploring possible futures we want, through four lenses



How the tools work together



Derived from DEAL doughnuteconomics.org

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March 22nd: what have we done in Barcelona?

GLOBAL ECOLOGIC

- Ús d'aigua: 0.86
- Canvi climàtic: 4.04
- Ús fèrtil P.: 7.10
- Ús fèrtil N.: 2.10
- Canvi usos del sòl: 1.50
- Petjada ecològica: 2.70
- Petjada material: 4.80

GLOBAL SOCIAL

- Qualitat Democràtica: 0.78
- Super Social: 0.76
- Accés a l'energia: 0.79
- Ingressos: 0.53
- Salut: 0.65
- Nutrició: 0.93
- Esperança de vida: 0.88
- Satisfacció de vida: 0.60
- Igualtat en divers.: 0.91
- Equitat social: 0.60
- Vot polític: 0.94
- Pau política: 0.81
- Pau política: 1.00
- Pau política: 0.95

LOCAL SOCIAL

- Ocupació: 0.85
- Salut: 0.85
- Habitatge: 0.85
- Alimentació: 0.89
- Aigua: 0.90
- Comunitat: 0.92
- Cultura: 0.95
- Esports: 0.95
- Equipament: 0.55
- Equipament: 0.85
- Equipament: 0.77
- Equipament: 0.95

LOCAL ECOLOGIC

- Qualitat aire: 3.90
- Regulació cicle C: 1.50
- Regulació T° aire: ?
- Consum i cicle de l'aigua: 1.06
- Consum i producció d'aliments: 2.93
- Consum i cicle materials: 1.45
- Consum atmosfèric: ?
- Contam. noves partícules: ?
- Ozó estratosfèric: ?
- Petjada ecològica: 2.70
- Petjada material: 4.80

EXTERNAL INDICATORS

- Canvi climàtic: 4.04
- Ús fèrtil P.: 7.10
- Ús fèrtil N.: 2.10
- Cicle nutrients: 1.34
- Acollir biodiversitat: 1.40
- Captació ús de l'energia: 6.84
- Benestar urbà: 1.08
- Qualitat aire: 3.90
- Regulació cicle C: 1.50
- Regulació T° aire: ?
- Consum i cicle de l'aigua: 1.06
- Consum i producció d'aliments: 2.93
- Consum i cicle materials: 1.45
- Consum atmosfèric: ?
- Contam. noves partícules: ?
- Ozó estratosfèric: ?

Barcelona for Climate

The transition cycle: Debates for a new economy

During the month of June, there will be a series of conferences with internationally renowned experts, involving the general public in the debate on the main socio-environmental crises we are facing as a society, mainly due to the current economic model, as well as the transition we need to overcome them and place them at the centre of the cultural agenda, identifying local challenges and opportunities.

These sessions have various goals, so there are different moments planned for each one:

- A conference open to all city residents in a public space to take the debate to the people and increase social knowledge about the global crisis and the need for new values and lifestyles in order to tackle and ameliorate it.
- A debate with local experts, municipal specialists and a small number of organisations, focusing the debate on the city of Barcelona and specifying the main challenges we face and how to tackle them.

The sessions:

NOTICE: Due to agenda issues, discussion with Saskia Sasson scheduled for 6/24 has been suspended

Kate Raworth - Doughnut Economics
Saturday 22 June, 12 am - 12 noon (Plaça de la Barceloneta, as part of the "Get Moving for the Climate" festival)
Kate Raworth is an ecological economist and the creator of the Doughnut concept, which she developed in the book she published in 2012, translated into over 20 languages. "Doughnut Economics: Seven Ways to Think Like a 21st Century Economist" in which she proposes a new economic model instead of seeking endless financial growth, it aims to meet the needs of all people within the limits of the planet.

Alejo José G. Sison - Planetary Health
Monday 20 June, 6 pm - 7 pm (Institute of Catalan Studies)
Senior Researcher and Former Scientific Director of ISSGlobal and Medicine Professor at UPF, Hospital del Mar.
Since 2019, he has led a strategy for Planetary Health at both ISSGlobal and the UPF, in order for this new concept to be internationally disseminated and adopted. He is co-director of the ISSC-UPF-ISSGlobal inter-university Planetary Health Masters, which was launched in 2022. He is

Georgia Kallis - Culture of Limits
Wednesday 22 June, 6 pm - 7 pm (Institute of Catalan Studies)
A degree in Chemistry and a Masters in Environmental Engineering from Imperial College, a PhD in Environmental Policy from the University of the Algarve, and a second Masters in Economics from the Barcelona Graduate School of Economics. He is a professor at ICEG, where he teaches classes on Ecological Economics and Ecological Policy and Instruments.
In his book "Limits: Why Healthier Was Wrong and

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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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INTERVIEW

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TELEVISION 25/2012/E

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”

with a structured, organized 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

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

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.



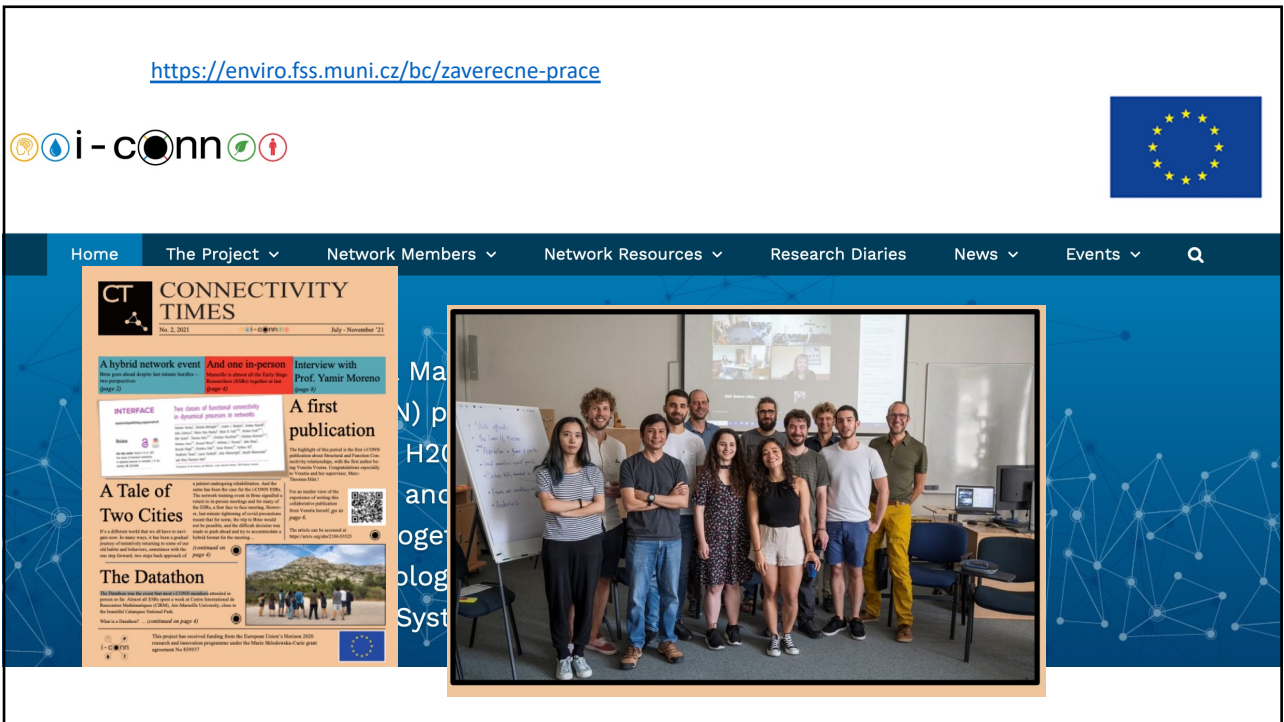
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<https://sunrise-europe.eu>

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Project

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41 Partners
€10m EU Funding

NEW SOLUTIONS TO BE DEVELOPED:

- > Facilitate **collaboration, cooperation, and unity** among public and private critical infrastructure (CI) operators and competent authorities across different critical sectors and across entire Europe, discouraging them to work in isolation.
- > Understand **interdependencies** between the CIs and the associated **risks and cascading effects** among them, enabling the definition of **effective measures** that are aligned with the needs of societies, economies, and climate, thereby providing for a better **preparedness and resilience** to future health crises.
- > **Minimize the exposure of essential workers** with a solution for a risk-based access control to critical facilities.
- > Better **forecast and manage rapidly changing demands for vital resources** (physical, digital, and human).
- > Increase **cyber-physical resilience** to ensure a reliable, robust, and continuous operation of digital services.
- > **Remotely inspect physical infrastructure** to ensure resilience and continuity of critical services during periods with less available skilled workers while addressing more frequent and more extreme natural disasters.

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oead BOKU ECONOMY FOR THE COMMON GOOD

ALTERNATIVE ECONOMIC AND MONETARY SYSTEMS

THE ECONOMY OF THE FUTURE

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Vienna, July 24 - August 9, 2019

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- Business ethics**, consumerism, solidarity and the common good: The need for a new philosophy.

ORGANIZERS

The BOKU University of Natural Resources and Life Sciences contributes to a sustainable use of natural resources by connecting natural sciences, engineering and economic sciences.

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Each year, the OeAD-Housing Office accommodates over 2.500 students in energy-efficient dormitories. It also won the 2013 Austrian Climate Protection Award.

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