Université de Genève, 66 Boulevard Carl-Vogt, 1205 Genève.
Tél : 022 379 06 46 | Web : www.unige.ch/sysener

SÉMINAIRE ÉNERGIE – ENVIRONNEMENT
Conférences 2025 - 2026

Is the future already here?
What history reveals about feasible climate action.

L'avenir est-il déjà là?
Ce que l'histoire nous apprend sur les mesures climatiques réalisables

Aleh Cherp
(Central European University & Lund University)

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Université de Genève
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L’orateur

Aleh Cherp is a professor at the Department of Environmental Sciences and Policy at Central European University (Vienna) and at the International Institute for Industrial Environmental Economics at Lund University (Sweden). His research focuses on the feasibility of climate change mitigation, energy transitions, and energy security. His work has been published in Nature Energy, Nature Climate Change, One Earth, and other leading journals. He led the energy security analysis in the Global Energy Assessment and is currently a Lead Author in the IPCC's Seventh Assessment Report on energy and climate mitigation scenarios.

La conférence

Effective climate action should be informed by meaningful projections of the future, but the ones currently available do not fully rise to the task. On the one hand, probabilistic forecasts answer the question "what is most likely going to happen" by extrapolating observed trends. While highlighting the risks of inaction, these projections are essentially deterministic and leave little space for human agency or transformative change. On the other hand, normative "mitigation pathways" answer the question "what should happen to achieve climate goals" by feeding exogenous assumptions into complex computer models. They reveal systemic interdependencies and the scale of necessary action, yet their solutions are often considered unrealistic, over-extending our ability to shape the future. Neither type tells us what is actually achievable.

In this talk I argue for a third type of futures — ones grounded in the feasibility of climate action. Feasible means "do-able under realistic assumptions." Drawing on Daniel Kahneman's distinction between the "inside view," which analyses a problem as unique, and the "outside view," which examines historical precedents, I propose that feasibility-based futures should be anchored in systematic analysis of historical analogies.

Historical analogies play three crucial roles in constructing feasible futures. First, they provide empirical evidence on the aggregate outcomes of mechanisms that drive and block climate action — including outcomes that mainstream models struggle to capture. Second, they reveal the range of outcomes under different circumstances, defining a "feasibility space" from the trivial to the unprecedented, which is structurally similar to probabilistic forecasts. Finally, they illuminate the actual choices made by real-life historical actors, offering benchmarks for future decisions.

I illustrate these principles with three cases: the feasibility of rapid coal phase-out, where political and economic constraints — including the enormous costs of compensating affected communities in Asia — limit the pace of action; probabilistic projections of global wind and solar growth using the new PROLONG model; and the prospects of small modular nuclear reactors in Europe, which test the limits of historical analogy for technologies with little deployment history. I conclude by discussing how feasibility-based projections can bridge the gap between baseline forecasts and aspirational scenarios.