

NEW APPROACHES TO ECONOMIC CHALLENGES: A PRIMER

The New Approaches to Economic Challenges (NAEC) initiative develops a systemic perspective on interconnected challenges with strategic partners, identifies the analytical and policy tools needed to understand them, and crafts the narratives best able to convey them to policymakers.

This document outlines NAEC objectives, outputs and influence.

William Hynes – william.hynes@oecd.org

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NAEC provides a necessary “challenge” function at the OECD...

Modern crises arise out of complex interactions of factors. During the Global Financial Crisis, the ability to correctly identify mounting risks was hindered by inadequate analytical approaches, a high degree of groupthink, intellectual capture, and a general mind-set that a major crisis in large advanced economies was unlikely (IEO, 2011). Weak internal governance, lack of incentives to work across units and raise contrarian views, and a review process that did not “connect the dots” compounded these problems. The OECD created the New Approaches to Economic Challenges (NAEC) Initiative in 2012 to respond to these problems offering a space to debate, critique and discuss different policy alternatives, systems thinking to break down silos, new approaches and techniques to build buffers, safeguards and resilience.

...keeping the OECD ahead of the curve...

The [2019 NAEC Conference Averting Systemic Collapse](#) and its report [Systemic Thinking for Policy Making](#) concluded, “a new crisis could emerge suddenly, from many different sources, and with potentially harmful effects”. The COVID crisis confirmed many of the predictions about how complex systems work and are subject to cascading failure. The pandemic has revealed deep fissures in the socio-economic system, which have been developing for a long time.

...advancing fundamental action on systemic global challenges...

The 2020 [NAEC annual meeting on Confronting Planetary Emergencies](#) urged fundamental action on a range of systemic challenges. Irish President Michael D Higgins said the meeting had the potential “to offer real, transformative and even emancipatory solutions to so many of the economic and indeed social problems we face today, through your examination of alternatives that present a radical departure”. The [2021 NAEC’s Systemic Recovery conference](#) with Mark Carney, Gita Gopinath and Kenneth Rogoff was characterised as a [world summit on economics](#).

...through inter-disciplinary analysis...

NAEC inter-disciplinary analysis involving engineers, scientists, medical doctors, economists and lawyers has featured in some of the world’s leading scientific journals. Articles on the economy have been published in non-traditional venues such as *Nature*, *Nature Physics*, *Nature Energy*, *Molecular Psychiatry* and *Neuron* and extensively profiled in media outlets such as the *Financial Times*, *The Atlantic*, *Forbes*, and *The Economist*. Martin Wolf wrote that NAEC had created much controversy, but it was “admirable that any international organisation is daring to do so at all. The crisis shows us why”.

...new approaches and techniques...

NAEC is working with leading partners to develop innovative approaches applying insights and methods from agent-based modelling, behavioural neuroscience, contagion dynamics, network science, econophysics, and mathematics to policy questions spanning public health, economics, inequality, conflict, and other volatile dynamics. This contributes to a better understanding of the complexity and interaction of our economic, financial, social and environmental systems.

...through an extensive and influential network

NAEC has launched initiatives on systems thinking (with the International Institute of Applied Systems Analysis [IIASA] and the Santa Fe Institute), systemic resilience (with researchers from the US Army Corps

of Engineers), neuroscience inspired policy and new analytical tools and techniques (with New York University, Institute for New Economic Thinking, Fields Institute, Rebuilding Macroeconomics and Ecole Polytechnique).

NAEC is unique in the international policy architecture ...

An Oxford Said Business School assessment found that NAEC was “unique and important on the International policy landscape”. Forbes called it “the OECD’s illustrious think tank”, while Paul Krugman described it as a “skunkworks for economics and policy”. NAEC has engaged many of the world’s leading economists, including Nobel prize winners James Heckman, Robert Shiller, Michael Spence and Esther Duflo as well as other innovative thinkers from other disciplines.

...improving policy advice...

NAEC has catalysed a debate across the OECD and beyond on revising, updating, and improving policy thinking and action. Involving OECD Committees, Directorates and representatives of Member Governments the Initiative develops a systemic perspective on interconnected challenges with strategic partners, identifies the analytical and policy tools needed to understand them, and crafts the narratives best able to convey them to citizens and policymakers.

...by providing new conceptual frameworks...

NAEC has developed a systemic resilience framework beginning in 2018 by reviewing activities in the OECD. This approach has been widely applied by policy communities. For instance, responding to the Covid Emergency, the OECD Health Committee is currently analysing health system performance “using a resilience framework used successfully at the OECD as part of the New Approaches to Economic Challenges initiative, which considers the stages in a cycle of disruption”. The report for G7 on international systems used a modified version of the framework and it has been used and cited elsewhere in multiple Directorates. The systems approach developed through the OECD-IIASA Task Force has also influenced much OECD work including the climate and economic resilience horizontal project.

...on Member country priorities...

Policymakers throughout the OECD are now acutely aware of the need for new approaches to the deep economic problems the world faces today. Over the last decade, NAEC has helped develop and disseminate much new and innovative economic thinking. An analysis of citations of NAEC publications in OECD analysis and flagship publications highlights considerable use and influence of NAEC.

...such as shock-proofing value chains...

NAEC has worked with the Open Markets Institute (OMI) to discuss approaches to shock-proof human-made systems. This work has been informed by academics sharing their [lessons from the Covid-19 pandemic](#), on issues such as disruptions in supply chains, semiconductor shortages, state aid, and surging geopolitical tensions. Enhanced competition can help stabilise complex economic systems, support democratic frameworks, and strengthen national security policies. Through more effective forms of co-operation, democracies can work together to manage common risks better and boost innovation and technological advances to benefit all.

...and addressing the climate crisis

NAEC explores the interlinkages between economic systems and climate stressors and recently published papers on [resilience and sustainability in Post-Glasgow Economies](#), the [trade-offs between resilience and](#)

[efficiency](#) in energy system design in response to climate shocks and [digital technologies can enhance climate resilience of critical infrastructure](#). It contributes these insights to the horizontal project on climate and economic resilience led by the Environment Directorate. It also examines restructuring systems for a just transition to sustainability; and managing the financial implications of the transition to low-carbon economies.

NAEC represents good value for money for Members...

NAEC has delivered considerable output on a relatively small budget of less than EUR 300,000 per year in part one funding. Several countries, including Sweden, Netherlands, Austria and Switzerland, have provided additional support on specific priorities. High-level political leaders including heads of state have joined NAEC discussions from Ireland, Estonia, New Zealand, Spain and the EU. NAEC has explored linking NAEC discussions to the networks and structures of policymaking through the [Government Economists for New Economic Systems \(GENESYS\)](#).

...but requires unorthodox governance

While Members agreed to eliminate formal governance for NAEC in 2016 in order to transform it into an “essential function” to provide the space for critique, debate and experimentation, the Friends of NAEC, co-chaired by Ambassadors from Greece, Mexico and Japan, continues to guide the initiative and link it to Member priorities.

For more on NAEC:

[NAEC papers and publications](#)

[Media Coverage of NAEC](#)

[NAEC Information Note](#)

Annex 1

NAEC reports

A Systemic Recovery (forthcoming)

The Financial System (OECD, 2020)

Beyond Growth - Towards a New Economic Approach (OECD, 2020)

[Jenseits des Wachstums - Auf dem Weg zu einem neuen ökonomischen Ansatz (German translation by Heinrich Böll Foundation)]

Systemic Thinking for Policy Making - The Potential of Systems Analysis for Addressing Global Policy Challenges in the 21 Century (OECD, 2020)

Articles in Journals

Systemic Resilience in Economic Systems: By Design or by Intervention?

William Hynes, Alan Kirman, Benjamin D. Trump, Andrew Haldane, Igor Linkov (forthcoming at *Nature Physics*)

Digital technologies can enhance climate resilience of critical infrastructure

Climate Risk Management (2022)

Exploring the Convergence of Resilience Processes and Sustainable Outcomes in Post-COVID, Post-Glasgow Economies

Sustainability (3 December 2021)

Building resilience will require compromise on efficiency

Nature Energy (20 October 2021)

Deep Institutional Innovation for Sustainability and Human Development

World Futures: The Journal of New Paradigm Research (24 June 2021)

A Systemic Socio-ecological Recovery from Covid-19

Global Social Policy (6 June 2021)

Building Brain Capital

Neuron (5 May 2021)

The Brain Economy

RSA Journal (December 2020)

Resilient Financial Systems Can Soften the Next Global Financial Crisis

Challenge (October 2020)

A Brain Capital Grand Strategy: toward economic reimagination

Molecular Psychiatry (26 October 2020)

Bouncing forward: a resilience approach to dealing with COVID-19 and future systemic shocks

Environment Systems and Decisions (25 May 2020)

Blogs, Short articles

[The Brain of an Entrepreneur](#), *Neo.Life* (December 2021)

[Closing the Brain Health Gap: Addressing Women's Inequalities](#), Oxford University Press (21 August 2021)

[Preparing for Future Shocks](#), *Politeia* (7 May 2021)

[Buyer Beware: Why Investors and Mental Health Practitioners Must Sit on the Same Side of the Table](#), *Psychiatric Times* (18 May 2021)

[Highlighting Brain-Based Inequalities for Women: From Bedside and Boardroom to Policy](#), *Psychiatric Times* (5 May 2021)

[Our Brains Are Accelerating the Climate Catastrophe](#), *Psychiatric Times* (6 April 2021)

[A Brainier Approach to ESG Investing](#), *Psychiatric Times* (26 March 2021)

[Feeling Lucky? Convergence Mental Health as a Mechanism for Serendipitous Innovation](#), *Psychiatric Times* (23 March 2021)

[Smart Growth: the Case for Measuring Brain Capital](#), *Psychiatric Times* (18 February 2021)

[Smarter Competition, More Resilient Economies!](#), *Politeia* (12 February 2021)

[Boosting Global Confidence amid Covid-19](#), *RSA Comment* (1 February 2021)

[Move over Data, Brain Capital is the New Oil](#), *Psychiatric Times* (14 January 2021)

[Combine resilience and efficiency in post-COVID societies](#), *Nature* (8 December 2020)

[Systemic Resilience as a Response to Covid-19](#), published in [MigResHub](#) at the Migration Policy Centre, RSCAS, European University Institute (September 2020)

Selected media coverage

[New Approaches to Economic Challenges \(NAEC\): The Critical OECD Think Tank](#), *Forbes* (8 October 2021)

[NAEC and Neuroscience-inspired Policy](#), Megan Greene, *Bloomberg* (2 July 2021)

[Wanted: a resiliency tsar for the US government](#), Rana Foroohar, *The Financial Times* (23 May 2021)

[Joe Biden's experiment could revolutionise economic thinking](#), Megan Greene, *The Financial Times* (6 May 2021)

[The Pandemic is Revealing a New Form of National Power](#), Uri Friedman, *The Atlantic* (15 November 2020)

[Covid-19 drives leaders to make unprecedented interventions but what next?](#), Larry Elliott, *The Guardian* (13 September 2020)

[Economists need to abandon their comfort zones to deal with Covid-19](#), Rana Foroohar, *The Financial Times* (3 May 2020)

[Coronavirus crisis lays bare the risks of financial leverage, again](#), Martin Wolf, *The Financial Times* (28 April 2020)