

New Approaches to Economic Challenges (NAEC)

Update - December 2018

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 and citizens. At the NAEC Group meeting on September 13th, the outputs of NAEC ([Lessons from the Crisis \(videos, articles, podcasts and reports\)](#), [Systems Thinking](#), [Resilience](#), [NAEC Innovation LAB](#) etc.) and the reports on the [Growth Narrative](#) and the [Financial System](#) were discussed with Members, Committee Chairs and Directors. These outputs are generating a lot of interest and engagement from a number of Members.



The NAEC Group, chaired by the Secretary-General and composed of representatives of Committees, Members, Key Partners and accession candidates, was established to oversee NAEC. At the [NAEC Group meeting](#), the NAEC Innovation LAB and the work on systems thinking, anticipation and resilience received strong support. The meeting highlighted that much has already come out of NAEC in terms of specific ideas, policies, metrics, and approaches. But individual ideas are not enough. Real change requires that people see the bigger picture as well. Explanations for how the world works, visions for where they want to go, and shared narratives to help them work together to get there.

The [10 Years After conference](#) brought together some of the leading actors in the crisis to debate what caused it; its economic, social and political impacts; and how the financial system has changed, or should change. The state of economics after the crisis was also discussed. The considerable media interest in this conference confirms that this was a popular and fascinating topic for audiences inside and outside the Organisation (coverage included Bloomberg, BBC, Euronews and media outlets around the world).

The discussion centring around the likelihood of another financial crisis and the world's preparedness for it was worrisome. Willem Buiter from Citibank, John Llewellyn and Greg Medcraft, amongst others, highlighted that a financial crisis is likely if the macro 'breeding ground' is in a conducive state of expansion and excess; financial innovation is outpacing the understanding of regulators; and policymakers fail to grasp the interconnectedness of their systems. Vulnerabilities include levels of debt in the public sector and shadow banking asset management. It is not possible to predict exactly when a crisis will happen, nor the precise form it will take. But it is possible to identify pre-conditions and today these are not only serious, but intensifying. Former European Central bank President, Jean-Claude Trichet, was quoted extensively on the danger of future crises if current fragilities are not addressed (for instance in [Le Parisien](#) and [El País](#)). Risks of another crisis and the inherent instability of financial systems have been highlighted in NAEC before ([working with the Committee on Financial Markets](#)) by Rick Bookstaber and Jean-Philippe Bouchaud.



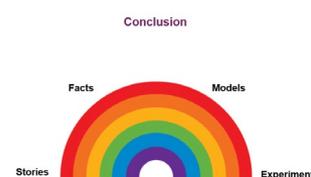
Maurice Obstfeld, Chief Economist of the IMF indicated that we have learned a great deal from the crisis in terms of economics and policy. He also supported the idea, as did Eric Beinhocker, Bill White and others, that we need to look at the economy as a complex adaptive system – a theme that NAEC has been developing for some time now.

NAEC Innovation LAB



On 23 October, a ‘Friends of NAEC’ meeting with Ambassadors and a NAEC seminar were held with Bank of England Chief Economist Andy Haldane. His presentation and webcast can be found [here](#). Andy came to launch the [NAEC Innovation LAB](#), a joint initiative of the Chief of Staff, Chief Economist and the Chief Statistician, to promote experimentation with new techniques at the OECD and collaboration between researchers taking innovative approaches across the OECD and with external experts, networks and partners (including from national governments).

He argued that the three traditional tools of the economist – stories, facts, and models – have to be complemented by a fourth: experiments. These four tools are not mutually exclusive, but interact with each other and enrich each other through their feedbacks. As a long-standing friend of NAEC, he was encouraged to see that the OECD is promoting such an evolution through the NAEC Innovation LAB, since the approaches the LAB is putting in place are important if we are to tackle the structural issues facing the global economy. The approach Andy advocates is [consistent with the NAEC agenda](#) with its emphasis on explaining growth in the new economy (Andy’s “Stories and Facts”); systems thinking, anticipation and resilience (“Facts and Models”); and the LAB (“Models and Experiments”). The interaction between these different parts will yield new analytical insights and policy solutions.



The LAB will focus particularly on big data, machine learning, agent-based modelling (ABM) and experimental approaches. A [number of projects have been developed](#) and are under discussion with Directorates and Committees. Andy described similar work the Bank is promoting, including big data, semantic analysis to better understand consumer sentiment and behaviour, ABM ([the Bank’s model of the housing market was presented by Bank colleagues at a LAB event in June](#)), and the use of random-controlled trials.

The Committee on Financial Markets (CMF) kindly invited NAEC to present an update at their meeting on October 26th, including the NAEC Innovation LAB and the forthcoming [publication on the financial system](#). DAF and ECO are proposing a LAB project using agent-based modelling (ABM) to analyse financial interactions and network effects in the global economy based on a stylised representation of the financial system and the behaviour of key agents. As the Chair of the CMF requested, this would help Members understand how the financial system works, highlight policy spillovers and how policies and institutions affect resilience.

A related NAEC discussion focusing on [modelling the financial system will take place at the Fields Institute in Toronto](#), Canada on 14-16 January 2019, with representatives of the Canadian Treasury.

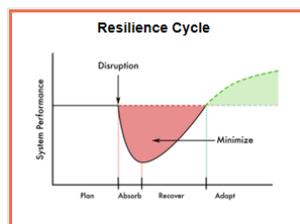
Systems Thinking, Anticipation and Resilience

Governments worldwide increasingly realise that the systemic threats afflicting modern societies, such as natural hazards, ageing populations, and digitalisation are compounded by their potential to disrupt interconnected cyber, information, societal, and infrastructural systems with lasting consequences. This has heightened the importance of building greater systemic resilience.

The Slovak Republic has kindly agreed to make a voluntary contribution to this work.

Respective chapters of the NAEC co-ordinated OECD-IIASA publication *Systems-based Strategies for Sustainable Development: The potential of systems analysis for addressing global policy challenges in the*

21st century, will be presented in relevant Committees (the concept note features considerable collaboration across the OECD Directorates). The objective of the publication is to demonstrate the potential of systems analysis and systems-based strategies to address critical global issues and guide policy options, drawing on innovative methodologies, models and tools for research and policy analysis. Discussing the work in EPOC, ELSAC and the DAC would be particularly useful. A second meeting of the OECD-IIASA Task Force, to be attended by the OECD Chief of Staff and Sherpa, will meet in January in Vienna, Austria.



The NAEC unit has been working with the US Army Corps of Engineers, and in particular Dr Igor Linkov (Former Science Fellow at the US delegation to the OECD) to assess resilience activities at the OECD. A draft paper benefited from your comments and contributions late last year and at inter-Directorate discussions on resilience in October 2018 and April 2019. It was also discussed at the NAEC Group with Members and Committee Chairs.

The article has been accepted for publication in the *IEEE Engineering Management Review*, a peer-reviewed "journal of practice" that serves those who manage technology, engineering and innovation (including non-engineers); engineers who hold strategic leadership responsibilities (even if outside of the practice of engineering); and upward-bound engineers with an interest in management as a profession. The editor of the journal and reviewers felt the article is an important contribution in assessing how complex organisations understand and manage resilience.

NAEC will continue to explore if the resilience framework outlined in the paper could be used to better appreciate how OECD policy communities are taking a systemic, anticipatory approach to reinforcing resilience as a response to the interconnected challenges facing modern societies. Traditional approaches focus primarily upon system hardness and the ability to absorb threats before breaking. The new approach to resilience will focus on the ability of a system to anticipate, absorb, recover from, and adapt to a wide array of systemic threats.

The OECD is well placed to help governments to manage, co-ordinate and better address threats that are international in scope, from financial contagion and ecological disasters to cyber-threats and disease epidemics. This would reinforce our efforts, in particular at the G20 where economic resilience was discussed under the Presidency of Germany and a broader resilience agenda is likely to be a key theme under the Japanese Presidency (indeed resilience was a central issue in MCM 2014, chaired by Japan). Resilience is also part of the OECD-International Institute for Applied Systems Analysis (IIASA) Task Force on Systems Thinking.

NAEC Seminar Series

The NAEC Seminar Series featured the likes of Professor Bob Allen from NYU Abu Dhabi who looked at the the future of work drawing on 300 years of technological change. Venture capitalist Nick Hanauer discussed how to redefine capitalism and Professor Will Kerr from Harvard Business School outlined his book on the Gift of Global Talent. Professor Dani Rodrik from Harvard University will bring the series to a close in 2018 with a timely discussion on *Technology, Globalisation and Inclusive Prosperity*.



Some of the key lessons from NAEC seminars during 2018 will be compiled in a volume on *Understanding the New Economy* due for completion in early 2019. It will complement the book on the *Financial System* mentioned earlier.

NAEC joint work with Partners



NAEC has also played a key coordinating role in cultivating a movement for new economic thinking and acting – at the moment this movement is fragmented and broad but there are a number of widely shared goals, values, policy ideas and narratives. NAEC is collaborating with Partners for a New Economy (P4NE) to federate and focus the energy of the movement arising in parts of academia, civil society, philanthropy and some parts of the policy community. The Initiative is also receiving funding from Vinnova (Sweden) and Baillie Gifford (UK) and is co-operating with the New Economic Paradigm Platform (Germany).

As Alan Kirman has argued, we are faced with an economic system which is increasingly complex and interdependent. The system is constantly evolving and is neither in, nor converging towards a steady state. Developing a model as clear, well-defined and simple as the neo-classical model is unlikely. Transforming the understanding of economics will involve greater complexity and realism which is not as easy to model or explain but there are already alternatives.

An important lesson from the crisis is that our socio-economic system is evolving fast and becoming more and more distant from our old basic economic model. It is therefore folly to think that making efforts to “reform” the economy so that it resembles the model more closely, through increasing flexibility and deregulation will be helpful. We need to develop better analysis of the system as it is and not as we might have liked it to be. A more radical transformation of our understanding of the economy is needed, rather than merely adapting existing frameworks to include more institutional and behavioural realism.

NAEC supported the development of the Stiglitz Report



NAEC were also involved in editing and commenting on the Stiglitz, Fitoussi, Durand report on going beyond GDP. The report supports the case being made in NAEC that to explain the economy you need to take a systems approach backed up by new models and techniques to integrate considerations beyond those that traditional economics thinks are important. The two volumes of the report respond to the challenges identified by the 2009 Stiglitz Commission such as how to include the environment and sustainability in our measurements. It also addresses questions raised by the financial crisis and Great Recession, including growing inequality and economic insecurity, and the relationship between the economic system and social factors such as trust.

The first volume, “[For Good Measure: Advancing research on well-being metrics beyond GDP](#)” is the so-called analytical volume, with 10 chapters by different authors (including NAEC Advisory Group member Nora Lustig) on specific aspects; the second, “Beyond GDP: Measuring what counts for economic and social performance” is the “chairs’ summary” that discusses the policy and political implications of the exercise.

The report was launched at the 6th OECD World Forum on Statistics, Knowledge and Policy in Korea in November. In addition to the report, NAEC has been working closely with the Statistics Directorate in developing Forum themes, suggesting speakers, and drafting background material, so “Governance in a complex world” is one of the four themes, and NAEC Chief Advisor Alan Kirman and Igor Linkov were among the speakers. The session on “Building resilience” in particular benefitted from NAEC input.

To find out more please visit the [NAEC website](#)

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