



## **OECD-IIASA Strategic Partnership on Systems Approaches**

SPTF1/18/10.4

9<sup>th</sup> April 2018

### **Task Force on Systems Thinking, Anticipation and Resilience**

*(1<sup>st</sup> Meeting, Château de la Muette, Wednesday 31<sup>st</sup> January 2018)*

#### ***Conclusions and Recommendations***

*Prepared by Martin Lees, Chairman*

The first meeting of the joint OECD/IIASA Task Force was held at OECD on 31<sup>st</sup> January 2018. The principal purpose of the Task Force meeting was to draw on the remarkable expertise of its Members, designated by IIASA and OECD, so as to clarify the modalities of cooperation and to identify areas of mutual interest and specific activities for joint action to implement the Strategic Partnership. The Task Force made good progress in a short time as shown in its Report, (SPTF1/18/9)

These conclusions and recommendations were first prepared by the Chairman, Martin Lees, to facilitate the discussions and decisions of Secretary-General Angel Gurría and Director-General Pavel Kabat at their meeting at IIASA on 5<sup>th</sup> and 6<sup>th</sup> March. They have then been revised following these discussions and will now be circulated to the Members of the Task Force for comment. They will be finalised for submission by the end of March.

The Task Force should encourage wide interest within OECD in the role and potential of systems thinking to achieve a better cross-fertilisation of the enormous expertise and experience available in the various OECD Directorates. In parallel, it should stimulate greater awareness within the high-quality scientific programmes at IIASA, of the economic and policy considerations which can enhance the impacts of their analyses and proposals.

Members agreed broadly on two key points: first, there is a clear need for new ideas and approaches to provide a sound basis for better-informed decisions to manage the intensifying economic, environmental and social challenges we face; second, as these challenges are systemic, interconnected and dynamic, systems thinking, coupled with improved anticipation and strengthened resilience, provides a coherent methodology and the necessary tools to develop the new approaches which are so urgently required to formulate and implement more coherent and effective policies.

## Conclusions

1. The main themes outlined in these Recommendations are intended to provide an overall framework for the development of the Strategic Partnership. Within this framework, the wide range of ideas and proposals made during and after the Task Force meeting will be narrowed down, rationalised and further developed to create a convincing and coherent Programme of activities.
2. The Programme will be organised through a systems approach, such that the different activities to be implemented will be mutually reinforcing within a clear overall theme and purpose.
3. The activities should be of interest to, and engage the participation of Member Countries and Institutions, Partners and Donors.
4. Besides advancing collaboration on agreed joint projects, from the top down, the Strategic Partnership should be a catalyst to promote direct, bilateral collaboration between the experts and programmes of IIASA and OECD, from the bottom up.
5. The joint projects should include the range of fields where the application of systems thinking has proven to be effective, including: policy research and the formulation of policy proposals; the development of methodology, modelling and tools; innovation in governance, decision-making and institutions; and systems leadership.
6. The Task Force should encourage a strong emphasis on “messaging”, using the opportunities offered by modern techniques of presentation and communication. It should communicate the potential and results of systems thinking through the development of innovative briefing materials and presentations for policy makers and OECD Committees. It should stimulate interest in systems thinking, anticipation and resilience widely within OECD. And, through networks and partnerships with institutions of learning and research, it should disseminate its insights and ideas to a wider public.
7. It was proposed that the Strategic Partnership should develop a multi-year programme. This should generate major substantive proposals for strategies to contain critical global issues drawing on innovative methodologies, models and tools for research and policy analysis. A major output should be a “ground-breaking” OECD-IIASA publication defining and consolidating new systems approaches to policy.
8. The Strategic Partnership should establish a network for wide collaboration with prestigious partner organisations so as to benefit from their knowledge, influence and expertise and to achieve the greatest impact for its results and proposals.
9. As time is short to resolve and contain the critical issues which threaten the future, the Strategic Partnership should move rapidly to produce influential results.

## **1. Practical Aspects**

1. The Task Force should meet twice per year, at OECD and IIASA.
2. As activities develop, a minimum level of staff support will be required to ensure continuity, to preserve momentum and to process and exchange information.
3. A Programme of Work should be agreed together with a financing plan to provide a sound basis for approaching donors. *(April 2018)*
4. Information about the activities and results of the Task Force should be disseminated within the two organisations to encourage wider understanding and interest in systems thinking, anticipation and resilience.
5. The gender balance of the Task Force Membership should be improved and additional Members on the OECD side should be included, from the fields of education and of international development.

## **2. Major Themes for the Development of Joint Projects**

The themes suggested below are not separate but would be mutually reinforcing within a defined overall purpose of the Strategic Partnership. *(This was the approach adopted in 1974 by the OECD InterFutures Project which had as its central theme: "The Future Development of the Advanced Industrial Societies in Harmony with that of the Developing Countries. Its Report was a best seller of OECD for many years.)*

The programme of the Strategic Partnership can be organised around the following major themes:

1. Systems-based Strategies to address Global Issues
2. Improved analytical methods
3. Governance and institutional innovation
4. Extension and outreach
5. Systems leadership

### ***Systems-based Strategies to address Global Issues***

Drawing on the discussions of the Task Force, valuable joint projects could be developed on the following topics. *(See Report SPTF1/18/9, Part 2.1: Systems-based strategies to address global issues.)*

- 1. New systems-based strategies to guide the trajectory of human progress on to a sustainable path by reconciling human needs and aspirations within the real boundaries of the natural world.**

Economic progress is now increasingly conditioned by anthropogenic, environmental impacts as rising aggregate consumption, pollution and waste overwhelm incremental improvements in resource efficiency. Also, the crucial ecological and climate threats we face are essentially linked to the present models and strategies for economic growth as the main driver of emissions and environmental degradation.

A coherent overall strategy to integrate and re-balance the economic, environmental and social facets of policy is needed to guide human progress on to a sustainable path. It was proposed that a joint, multi-year project could be undertaken to develop integrated, cross-sectoral strategies and tools and models of transformative change to address this complex of issues.

## **2. Concerted policies for the climate, ecosystems, energy, and water nexus**

Systems thinking is essential to understand the behaviour and interactions of climatic and ecological systems which are essentially linked to energy and water, particularly the risks of non-linear behaviour of the climate system driven by positive feedbacks and synergies. The further destabilisation of the climate, the degradation of ecosystems and the 6<sup>th</sup> mass extinction of species now in progress threaten the future of our civilisation. A cross-cutting, systemic policy approach is essential to develop corrective policies.

## **3. Longer-term strategies for employment as a primary objective of progress**

Employment is a central factor for well-being, human dignity, equity, political stability and social justice in all countries, and especially to reduce hunger, and poverty and improve livelihoods in developing countries. All these facets would be considered in a systems approach, attaching a higher explicit priority to employment as a policy goal to reduce inequality in income and wealth and to strengthen social cohesion.

## **4. Managing the interactions between technological innovation and economic progress, taking account also of the UN Sustainable Development Goals.**

The rapid technological developments associated with the disruptive technologies of the “4th Industrial Revolution” will have profound, transformative impacts on employment, well-being, inequality and distributive justice and the attainment of the SDG’s. Also, the dissemination and application of innovative technologies on a global scale will be essential to create economic and employment opportunities, to meet the basic needs and aspirations of a growing world population and to preserve a stable climate and a viable environment.

## **5. A concerted approach to water, food and trade.**

Water is becoming central to Human well-being, and to economic progress, poverty and hunger, migration, political stability and peace as rising temperatures and extreme weather events, coupled with mismanagement and pollution, increase stress on water availability and quality for a growing global population.

## **6. Strategies and governance to assess and manage systemic risk.**

As the complexity of modern societies and economies increases, systemic risk, vulnerabilities and uncertainty are on the rise. Policy makers will be increasingly challenged to understand complexity and to manage rising levels of risk under conditions of uncertainty in an interconnected, non-linear, systemic world. As scale increases and crucial variables pass safe boundaries and thresholds, the risks of irreversible destabilisation rise. An understanding of systems thinking will be essential for policy makers to intervene successfully to guide the behaviour of complex systems to meet the economic, social and environmental goals of their citizens.

### ***Improved analytical methods***

There was strong interest in the Task Force for collaboration in the area of methodology:

## **7. New paradigms and approaches for sustainable and inclusive growth and well-being.**

New concepts, models and methodologies are needed to move beyond GDP so as to meet the concerns and challenges of sustainable, equitable development. Building on the work of NAEC, there is an important opportunity for OECD to play a leading role, with IIASA, in developing new, systems-based approaches for sustainable development.

## **8. Improved methodology and tools for modelling.**

A wide range of ideas were suggested to improve the coverage and relevance of modelling - as described in the report - an area of wide interest in the discussions. (See the Report, Part 2, Section II for details).

## **9. Collaboration on National Reviews**

The possibility was raised of collaboration between OECD and IIASA on National Reviews, and on reviews at the regional level, to strengthen the systems approach and integrate different facets of policy, such as ecological, energy and health factors, with the central economic analysis.

## ***Governance and institutional innovation***

### **10. Adapting institutions to systems thinking**

As conceptual frameworks and strategies change in the light of coherent, longer-term systems thinking, so must governmental and international institutions and the multilateral system as a whole adapt to new realities. Systems thinking provides a powerful, systematic and well documented approach for innovation in institutional structures and procedures to meet new challenges, to improve anticipation and to strengthen resilience. In particular, the multilateral system will have to adapt to meet systemic global challenges through more effective anticipation, wider participation and stronger cooperation. We cannot resolve the issues of the 21<sup>st</sup> Century with the institutions of the 20<sup>th</sup>.

## ***Extension and outreach***

### **11. The development of training courses in systems thinking for OECD officials.**

Training courses for professionals would help to disseminate systems thinking within the Organisation and its substantive policy committees. Once developed and tested, they could be of interest to Member Governments and to a wider range of institutions, officials and decision makers.

A programme on the advancement of systems thinking is now in progress at the University of Koblenz-Landau in Germany to develop and test modules, curricula and methodology for introduction into mainstream education, and into business education, urban planning and public administration. Experts from both OECD and IIASA are participating in this programme which could provide an important innovative focus for deeper cooperation between systems analysis, public policy and education.

Furthermore, the OECD Observatory of Public Sector Innovation is building a training module on public sector innovation for civil servants in order to bring systems thinking to decision makers, especially in advancing tools and capacity to take decisions under uncertainty.

## ***Systems leadership***

### **12. Building human capabilities to address emerging systemic challenges.**

The functioning of institutions and the formulation and implementation of policies depend essentially on the knowledge, skills and motivation of people at every level. The role of education and training will be central to produce a new generation of public and private sector leaders, experts and teachers – and an informed public – competent to understand and act on the systemic challenges of the modern world.

The Strategic Partnership can combine the substantive expertise and analytical capabilities of OECD and IIASA to produce targeted briefing materials for policy makers on major issues, based on the systems approach and adapt this to country needs, e.g. an OECD seminar held in December 2017 on senior leadership for systems change with Finland.

Competent systems leadership is also essential for the development of multidisciplinary teamwork and interdepartmental research strategies and programmes, supported by innovative modelling, scenario analysis and the tools of systems thinking.

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Building on IIASA's international network of partners at the highest level of science and on OECD's unique links to experts, policy makers and leaders across the world, the Strategic Partnership can mobilise the unique expertise and decades-long experience of OECD and IIASA to define innovative, practical proposals for policies and measures to improve future prospects and to face critical systemic challenges.

The Strategic Partnership between OECD and IIASA can thus help Member and Partner States and Institutions and other actors and citizens to understand the complexity of the issues we face and to manage rising levels of risk and vulnerability under conditions of uncertainty. It can provide an international focus and intellectual leadership for the evolution of the new ideas and approaches so urgently required to improve the prospects for inclusive, stable and sustainable progress and peace.