

Recommendations

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Transition to a low carbon society

Recommendations developed as part of a scientific workshop organized by Lund University to advice the Clean Energy Ministerial meeting and the Mission Innovation meetings held in Malmö/ Copenhagen on 23-24 May.

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A call for action!

The transition to a low carbon society is urgent. The Paris Agreement and the Sustainable Development Goals have set a new agenda, but at the current level and pace of action there is a high risk that global warming will escalate and exceed 2 degrees Celsius. We also face the threat that the Sustainable Development Goals may have a limited impact. Although great advances have been made in new energy supply technologies, the transition to a low carbon society is pressing and requires a profound and just societal transformation - a transition that based on transformative innovations can fight climate change and energy poverty, and at the same time promote sustainable development.

The need for game changing efforts is more critical than ever. The Mission Innovation meeting in Malmö, on 22 May, gathers energy ministers and high-level delegates, and provides an opportunity to leverage high-level political will and private sector leadership to drive clean energy innovation. To support the high-level ministerial meetings with credible and vital directions, Lund University organised the scientific workshop "Transition to a low carbon society".

Recommendations

The transition to a low carbon society is founded on a societal transformation, on system innovations and on transformative innovations. Zero emissions are needed across all sectors in society: energy, buildings, transport (including shipping and aviation), industry (including energy intensive basic industries), food and consumer practices. New emerging energy technologies are imperative but so are changes in social norms, institutional capacity, policy efforts and finance. The public sector, businesses and citizens need to be aligned in coalitions for such societal change. Visions and roadmaps can inspire but need to be translated into strategies and bold missions.

Transformative change entails the support of risk taking and the exploration of bold ideas. This in turn will require technical, societal and institutional experimentation and learning. Learning can be strengthened by international collaboration but need to take into account local and context specific conditions in technology, finance and policy. There is also an urgent need to collect information and data, so that progress can be evaluated and impact measured.

In all, the transformation and acceleration towards a low carbon society will require long-term and broad-based commitment and support of well-designed and coherent policies to speed up and direct the transition. Moreover, it is of importance to phase out the old systems. The transition to a low carbon society will go faster if the direct and indirect support to carbon intensive technologies and practices is removed.

Priority Actions

STRATEGIES AND BOLD MISSIONS

- Transform visions and roadmaps into concrete strategies and bold missions, and find the ways forward
- Engage multiple actors representing politics, public sector, businesses, financial institutions and civil society on equal terms in the development of strategies

EXPERIMENTATION AND LEARNING

- Allow exceptions in standards, permits and legislation to test innovations
- Support pre-commercial procurement as a tool to secure first buyers and new markets
- Provide incentives and support for entrepreneurs, venture capitalists and private equity firms to invest in experimentation and to take risks

TRANSFORMATION AND ACCELERATION

- Encourage governments at various levels to act as facilitators of early markets. Governments can catalyze new concepts and early cost reductions and assure long-term conditions, reliable and stable funding and incentive mechanisms
- Develop expertise and capacity for qualified government staff to steward investments in system and transformative innovations
- Enhance local capacity and capture international flows by supporting local coalitions in cities and municipalities
- Strengthen institutional capacity and alignment through regulatory policies, public-funding programmes and innovation alliances to accelerate the transition to a low carbon society

Moving from mission to acceleration

Transformative innovations for a low carbon society



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