Using systems network thinking to inform climate change policy on alternative technologies: a case study on electric vehicles.

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Aligning climate change knowledges with the priorities and perspectives of other actors remains a key challenge at the scientific knowledge-policy interface. The actors this study has taken into consideration include but are not limited to industry, various publics formed around specific contexts and national / local media. This study uses a systems network thinking framework to explore how these different actors define their priorities regarding an alternative technology, the electric vehicle (EV). The priorities of the actors are contextually dynamic and are influenced by political, cultural, historical and socio-economic factors. Hence, forming a complex network of interrelated priorities which in turn has an influence on the knowledges the actors engage with. Systems network thinking can be used as a tool to communicate the scientific knowledges that are most relevant to the studied context. Systems network thinking recognises that multiple 'agents' are embedded within a dynamic system which needs to be understood in detail for the various actors forming the system to utilise science and technology in an efficient and emergent way.

A series of focus groups with the public, interviews with academic researchers and the qualitative context analysis of policy documents have indicated that this approach can achieve a higher level of public engagement with climate change and technological knowledges. A further proposed outcome is policy making that has a higher relevance to communities and can address the challenges brought about by the regional variance within a country. This is not to say that the proposed policy outcomes are isolated from other regions but take in to account a shift in priorities due to the nature of the systems network in a local setting.