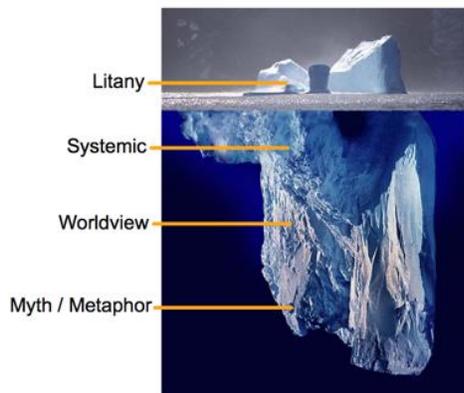# A CLA game on neo-carbon energy scenarios

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The Finland Futures Research Centre (FFRC) is a multidisciplinary academic research, training, and development organization affiliated to the Turku School of Economics. In addition to researching alternative futures to help build a responsible and sustainable future, they develop associated tools to improve decision making and encourage public debate in the creation of those visionary futures.

An example of FFRC work demonstrated the use of the Casual Layered Analysis (CLA) futures method. In June 2015, the conference *Futures Studies Tackling Wicked Problems* was organized by the Finland Futures Research Centre. One conference activity was a Casual Layered Analysis game session exploring future energy alternatives.

Causal Layered Analysis is a technique for exploring what is "behind the news" and the reason that things are the way they are. It encourages people to think of society in four layers –
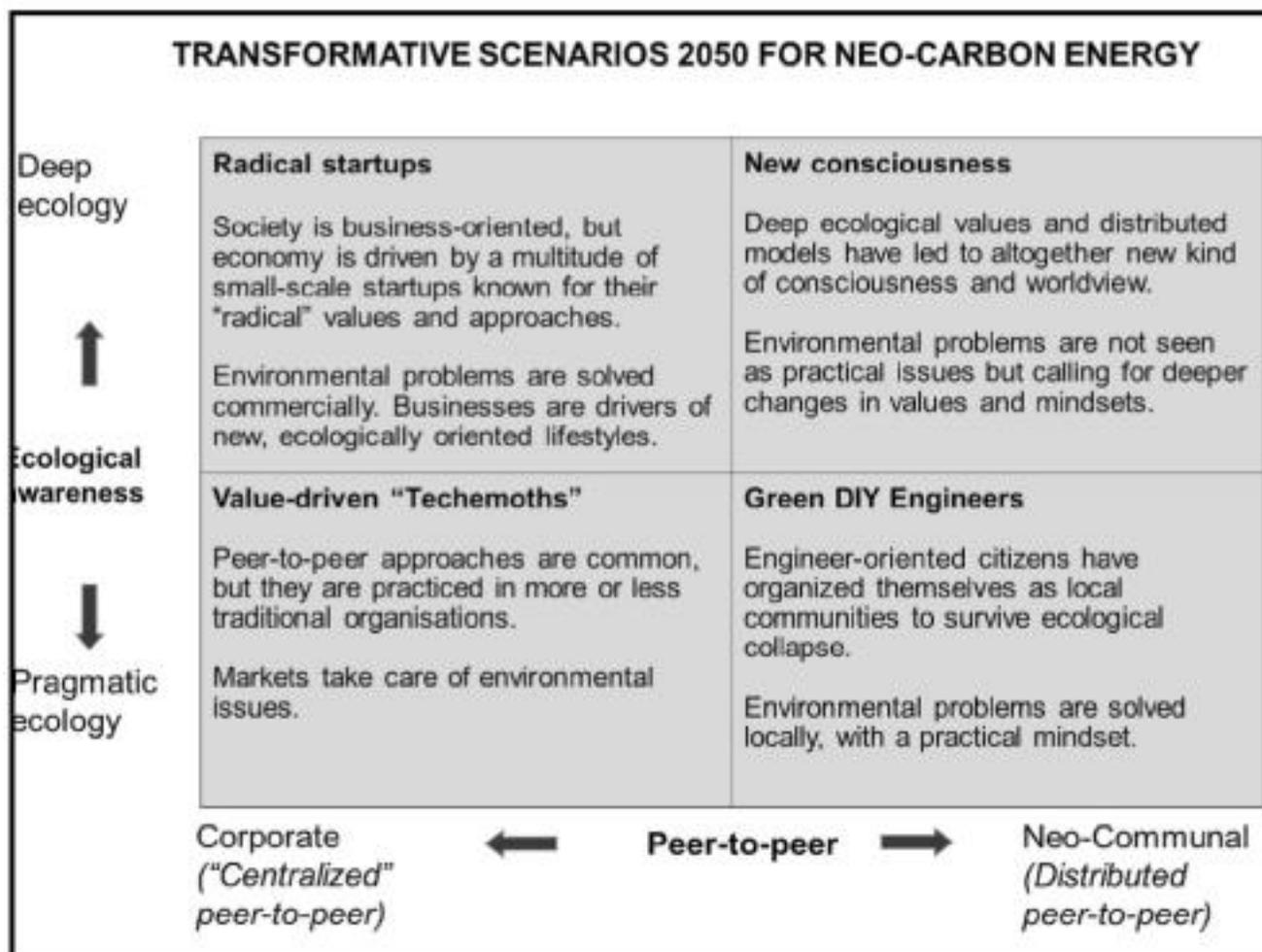
1. Observations, Data – what we see going on around us; what is reported as news in the media; what agencies and think tanks collect as statistics. For instance, NPR reports that approximately 100,000 deaths in the U.S. are due to medical mistakes.
2. Systems, Mechanisms – the underlying relationships that make up the structure that produces the data. For instance, doctors who work 36-hour shifts are prone to make mistakes—i.e., the relationship between overwork and mistakes.
3. Worldviews, Paradigms – fundamental values, beliefs and assumptions. For instance, "do what the doctor says."
4. Myths, Metaphors – images and narratives (stories) that teach and reinforce the worldviews, usually in non-linguistic ways. For instance, doctors on television are almost always heroes and rarely make mistakes.

Figure 2. The Causal Layered Analysis pyramid (modified from Inayatullah 2004b).
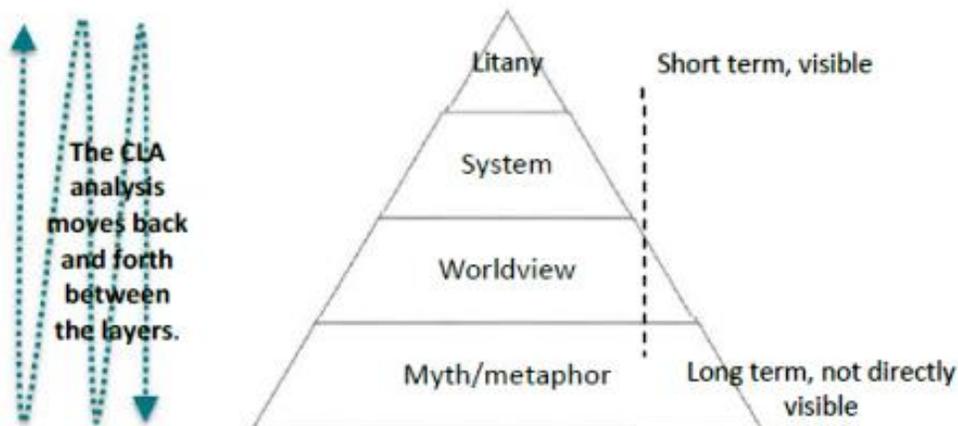
CLA can also be used to study change because change can occur at any of these layers. The changes at the top are fairly rapid; the system changes more slowly, and worldviews and narratives more slowly still. BTW Tom Graves (a.k.a. Tetradian) has posted another excellent description of CLA.

In this game, CLA was used to investigate the four layers in each of four different scenarios about the future of energy in society.

Instructions available at the conference provided the neo-carbon energy project participants the directions on how to use CLA to look at transformative energy futures in 2050 based on renewable energy. The foresight perspective dealt with socioeconomic changes (economics, governance and culture) in each of the transformational futures. The four neo-carbon scenarios were presented to the participants: 1) Radical Startups; 2) Value-Driven "Techemoths"; 3) Green DIY Engineers; 4) New Consciousness.

TRANSFORMATIVE SCENARIOS 2050 FOR NEO-CARBON ENERGY

Deep ecology

↑

Ecological awareness

↓

Pragmatic ecology

Radical startups

Society is business-oriented, but economy is driven by a multitude of small-scale startups known for their "radical" values and approaches.

Environmental problems are solved commercially. Businesses are drivers of new, ecologically oriented lifestyles.

New consciousness

Deep ecological values and distributed models have led to altogether new kind of consciousness and worldview.

Environmental problems are not seen as practical issues but calling for deeper changes in values and mindsets.

Value-driven "Techemoths"

Peer-to-peer approaches are common, but they are practiced in more or less traditional organisations.

Markets take care of environmental issues.

Green DIY Engineers

Engineer-oriented citizens have organized themselves as local communities to survive ecological collapse.

Environmental problems are solved locally, with a practical mindset.

Corporate ("Centralized" peer-to-peer) ← **Peer-to-peer** → Neo-Communal (Distributed peer-to-peer)

The game proceeded through the four CLA layers with questions and prompts about each layer for each group to answer for their scenario.

1. Participants were given the front page of a newspaper that reported news consistent with their scenario.
2. Participants were then asked for the systemic causes of the news items in particular and the scenarios in general.
3. Participants then select a role from a set of pre-selected roles and provide their perspective on the scenario from that role. The group also had to identify friends and foes among the roles depicted.
4. Participants then brainstormed the images, phrases or narratives that best described the scenario.

In December 2015, a report, summarized below, was produced by Finland Futures Research Centre documenting the outcome of the conference workshop.