

**MICA**

Minerals Intelligence Capacity Analysis

FACT SHEET

Back-Casting

Scope (conceptual model & main characteristics)

A preferable future is envisioned, and then the necessary steps are identified that are needed to reach that future.

The term 'Back-casting' was coined by Robinson (Robinson, 1982) as a futures method to develop normative scenarios and explore their feasibility and implications. Back-casting is a method to develop normative scenarios and explore their feasibility and implications. It is as a tool with which to connect desirable long term future scenarios to the present situation by means of a participatory process.

After creating a vision of a desirable future, alternative solutions are set out, with the participation of important stakeholders. Those alternative solutions are explored, and decisive factors and properties identified. Back-casting is used in complex situations with many stakeholders where, although there is a desired future vision, it is unclear how to reach it. It leads to research plans for implementation of the actions needed and participation is an essential feature. It can be characterised as a social learning process and the long term perspective makes it possible to let go of the present way of meeting certain specific social needs.

The method is used in situations where there is a normative objective and fundamentally uncertain future events that influence these objectives. The knowledge about the system conditions and the underlying social dynamics can also have a powerful impact on the environment, but are unpredictable. The need for participation of stakeholders is strong and the future vision can not be realised by a hierarchical approach, or limited stakeholders. The desired future cannot be achieved

by simply extrapolation from the present arrangements, but need a fundamental different approach of fulfilling the social need.

The main characteristic of the Back-casting approach is to involve stakeholders at an early stage in the foresight process and develop a future long term vision of the desired scenario. Then all participants can translate this back to actual actions.

A positive aspect of the method is the ability to freely discuss problems with stakeholders who have conflicting interests (because of the long term perspective). Also content and process is integrated in a practical approach. The negative side to Back-casting is the somewhat long project time needed. This leads to the possibility that the representatives change, leading to delays. Also the technological character can sometimes be too dominant, "scaring" representatives, and the budget needed is relatively high. A very important aspect often forgotten is the follow up monitoring and evaluation of progress.

Range of relevant applications or topics

Back-Casting can be applied to any system.

Data needs, databases

Not applicable.

Model used (if any, mathematical, geological...)

None.

System and/or parameters considered

Back-Casting can be applied to any type of system.

Time / Space / Resolution / Accuracy

Not applicable.

Indicators / Outputs / Units

Outputs will be narratives/scenarios that describe the route(s) to a desirable future.

Treatment of uncertainty, verification, validation

Not applicable.

Main publications / references

http://forlearn.jrc.ec.europa.eu/guide/4_methodology/meth_backcasting.htm

Robinson, J. (1982): Energy backcasting: a proposed method of policy analysis.- Energy Policy, 10(4): 337–344.

Robinson, J. (2003): Future subjunctive: backcasting as social learning.- Futures, 35(8): 839-856.

Related methods

Causal Layered Analysis (CLA)

Morphological Analysis

STEEP(LED) Analysis

Operational tools

Not applicable.

Key relevant contacts

Not applicable.