THE PROBLEM ADDRESSED

Today, publication and patent data are mainly used for day-to-day IP management. CaRD aims to optimise technological innovation strategy through diagnosis, comparison and prediction using these data.

CaRD is a software prototype designed to break through the glass ceiling that séparates information-rich S&T data from strategic decisions about technological innovation.

Didier Lebert develops original methods for qualifying nodes and links in complex networks. He founded a UEA spin-off called GMT (2020). GMT offers its clients the ability to define knowledge corpora combining scientific publications and patents. CaRD provides other functionalities, including tools for predicting technical change in the short run.

TECHNOLOGY

- Construction of weighted multi(di)graphs using large-scale patent data.
- Development of analysis indicators based on economic dominance theory. Some of these indicators have already been applied to use cases with industrial and institutional actors for mapping R&D processes, analysing technological diffusion trajectories and identifying paradigmatic shifts in invention paths.

COMPETITIVE ADVANTAGES

The patent analytics (PA) market is dominated by a few platforms (e.g. Questel, Clarivate, Anaqua). As soon as actors get closer to an innovation strategy, these solutions become unaffordable for many of them. As a result, they are rarely used for this purpose. And the tools they offer are outdated and can only be interpreted with the help of business experts. CaRD opens up the market for strategic analysis of innovation to new users (innovation clusters, local authorities, support, financing and development structures for deeptech projects, etc.).

APPLICATIONS

CaRD helps to:

- Diagnose R&D processes
- Manage innovation ecosystems
- Estimate the value of inventions
- Predict short-term technical change
- Script the "R&D to markets" transition

DEVELOPMENT STATUS

- TRL 4-5
- All the algorithms have been developed and a large number of use cases have been performed on test data (Cordip, Regpat) for each of the CaRD functionalities, in addition to some real use cases.

INVENTORS & CONTACTS

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PUBLICATIONS

- Technovation
DOI:10.1016/j.technovation.2023.102746

- Regional Studies
DOI: 10.1080/00343404.2019.1619923

- Theory and Decision
DOI: 10.1007/s11238-025-10061-z

LOOKING FOR

- Expending to new real use cases (innovation clusters)
- Co-development partners, active CEA
- Investissors