Derwent Data Analyzer

Professional data mining technology driving confident commercial decisions

Business Challenge

With more than 100M patent documents and 16.1 zettabytes of data to analyze, the role of today's IP professionals is challenging. The quantity of raw data far exceeds a human being's ability to assess, analyze and extract actionable intelligence from the resulting information in a timely fashion.

Technical patent data can be complex and requires subject matter expertise to ensure that it is correctly filtered and interpreted. Software solutions are certainly helpful, but selecting the right tool for your patent analytics from a complex portfolio of data mining and intelligence tools is not easy.

The ideal solution should be capable of seamlessly blending subject matter expertise with machine-based intelligence to deliver commercially-ready insights to decision makers.

Introducing Derwent Data Analyzer

Derwent Data Analyzer (DDA) allows you to combine your own subject matter expertise and internal data with the patent and scientific literature search outputs of industry-leading tools such as *Derwent Innovation* — transforming complex patent datasets into actionable intelligence.

Put simply, DDA turns technical data into insight to help drive your IP, R&D and business strategies. The binding strength of DDA is its ability to automate a number of labour intensive, manual processes using machine-learning technology, plus a library of import filters, thesauri and macros to accelerate the path to results.

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Derwent
Powering IP Innovation

Clarivate
Analytics

The DDA Engine

The 3-step, intuitive workflow represented by Figure 1 showcases the real essence of DDA's power.

Figure 1: The DDA workflow engine

Refine

Automate

Analyse

Report
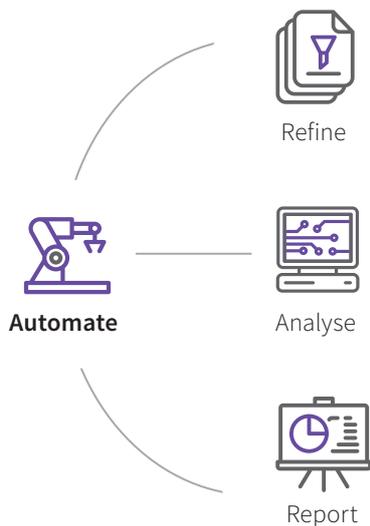
Step 1: Refine

- Combine human-based research with tool-based search results into a fully integrated dataset

- Structure and categorize patent expert research to achieve data validation

- Allow experts to imprint their knowledge onto data

Step 2: Analyze

- Reduce the number of unknown variables from search results

- Conduct analyses from different global perspectives

- Improve clarity of "hidden" competitive movements

- Gain true IP insight by combining analyst knowledge and machine intelligence

Step 3: Report

- Translate analyst expertise into commercially relevant visual insights

- Actionable reports turn the concept of inter-departmental collaboration and rapid commercial responses into reality

What makes DDA so compelling?

- Its ability to transform large volumes of patent search results into powerful insight

- Combining human-based and machine-based patent search outputs on one platform to perform advanced data mining — producing results that are "commercially ready", every time

- Using machine learning, an information professional's methods are both augmented and continuously improved in a repeatable manner, thus delivering analytics workflow efficiencies

- Manual analytical processes are automated, thus returning valuable time back to a busy patent expert's day

- Experts can impart their knowledge onto raw data — allowing dynamic analysis to be made possible that combines the best of machine and human intelligence

- Replicating the "machine to human" feedback learning loop consistently within the platform allows the local, "hands on" knowledge of experts to combine seamlessly with the world of patent information to drive more relevant results rapidly

DDA allows you to combine your own subject matter expertise and internal data with the patent and scientific literature search outputs of industry-leading tools.

Product Overview

DDA is a desktop-based data mining and visualization platform. It equips expert users with sophisticated tools to slice, dice, join and manipulate data, converting it into information intelligence using an intuitive reporting structure.

In this way, business-critical insights from the wealth of information available in *Derwent Innovation* and *Web of Science* patent and literature databases can be extracted and presented to business decision makers.

Users can analyze trends and profile competitor IP activity in specific technology areas more easily than ever before.

Advanced analytics that predict future competition

Known as "Emergence", this great feature in DDA analyzes the last 10 years of data and uses it to calculate emerging technologies. Based upon four primary categories — Novelty, Community, Persistence, and Growth, users start the process by searching in *Derwent Innovation* for a technology that they are interested in and then export the results into DDA. At this point, the "Calculate Emergence" indicator takes over to identify both emerging technologies and major players in the field of interest.

Figure 2: Emergence example output report
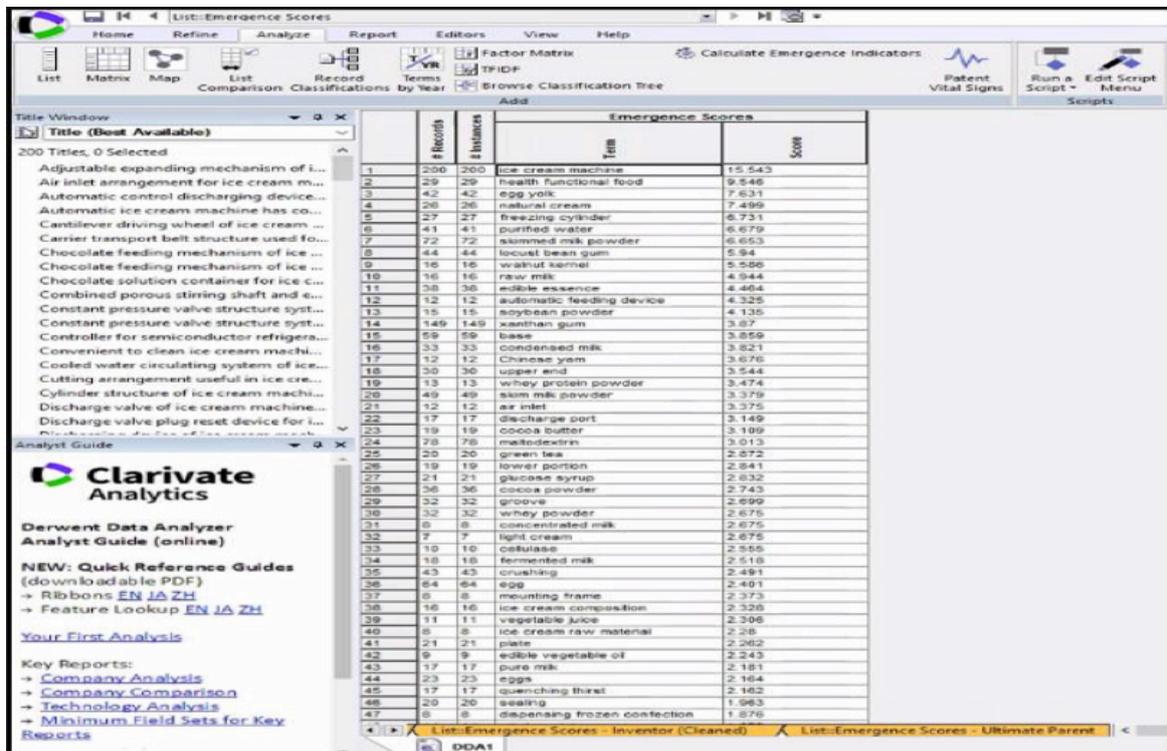
Commercially ready visualizations driving confident decisions

Accurate interpretation of complex information is best achieved when results are displayed visually. DDA produces some of the most complete, graphical reports on the market today. A typical set of report samples is illustrated below, taken from a study that used patent data to uncover commercial and technical trends occurring within the Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) domain. CRISPR is a bacterial gene-splicing mechanism that can be harnessed to target and edit genomic data.

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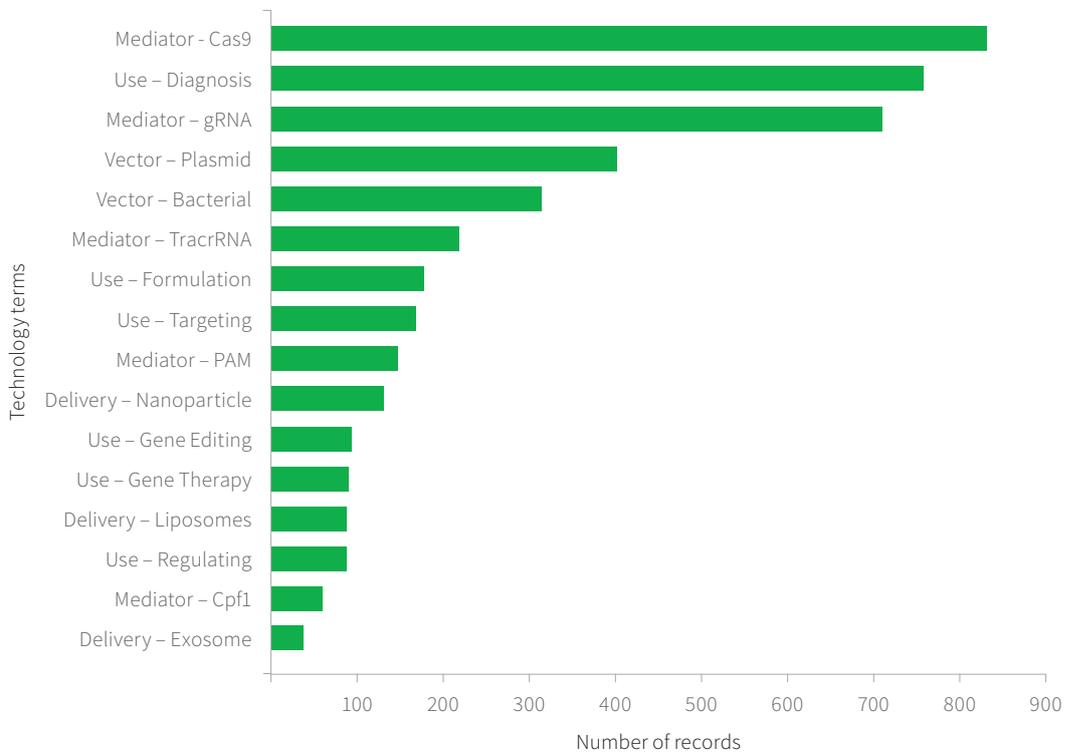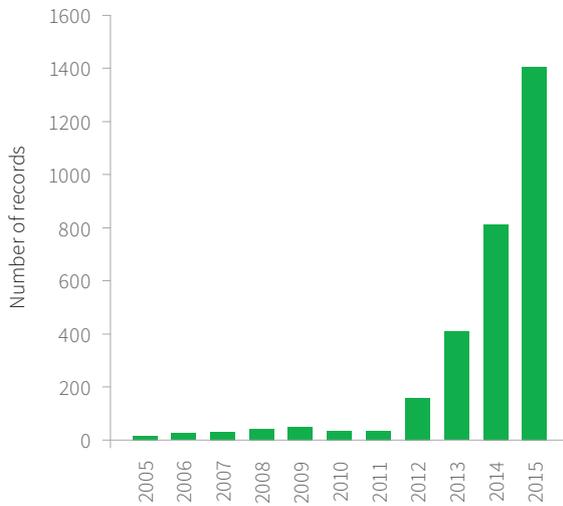**Figure 3: Invention volume by category**

Figure 4: Innovation activity growth rates highlighting inventive activity by priority (2005–2015)

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Figure 5: Patent filing activity by priority year. Cas9, gRNA and Diagnosis patents indicate fast innovation rates during 2013–2015
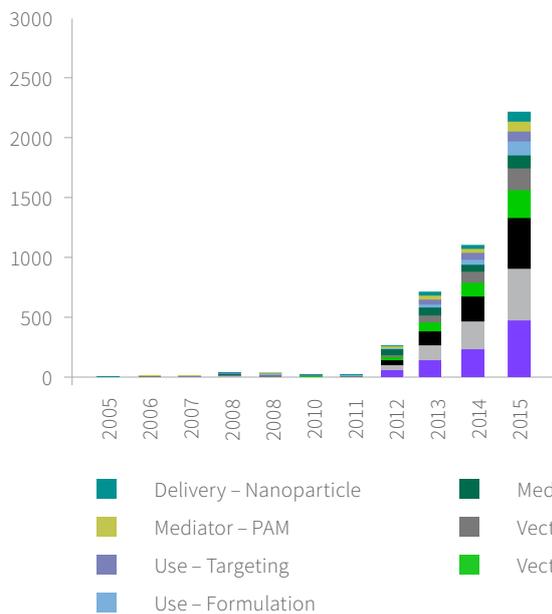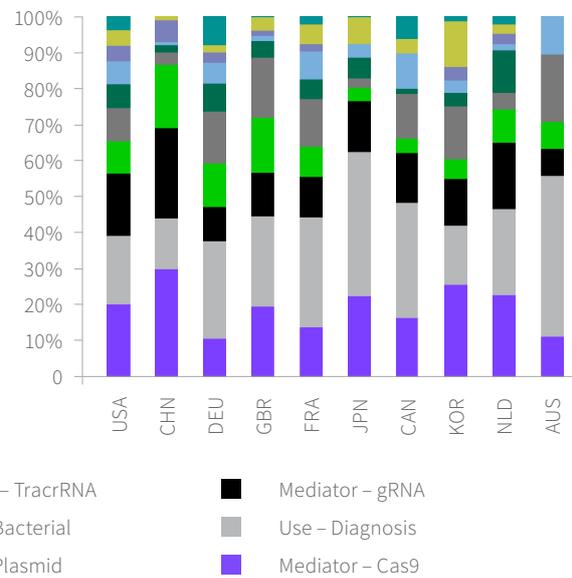

Legend:
- Delivery – Nanoparticle
- Mediator – PAM
- Use – Targeting
- Use – Formulation
- Mediator – TracrRNA
- Vector – Bacterial
- Vector – Plasmid
- Mediator – gRNA
- Use – Diagnosis
- Mediator – Cas9

Figure 6: Technical focus of the major patenting authorities within the CRISPR landscaper

Use the best data possible for great results

There is no secret to the fact that unclean source data usually delivers questionable results. *Derwent* provides a compelling offering to ensure that the data used for the first step of any IP project, patent search, is as clean as possible.

Called the *Derwent World Patents Index (DWPI)* — this value added patent data is used on a daily basis by 40+ of the leading patent offices globally, including the IP5, for their own patent work.

Read more about DWPI **here**.

About Derwent

Derwent powers the innovation lifecycle from idea to commercialization — with trusted patent data, applications and services including *Derwent Innovation, Derwent World Patents Index (DWPI), Derwent Patents Citation Index (DPCI), Derwent Data Analyzer* and a range of expert IP services. We build solutions for inventors, patent attorneys and licensing specialists at start-ups and the largest global innovators, legal professionals at the leading intellectual property practices and patent examiners at more than 40 patent offices. Our solutions are used to monitor technology trends and competitive landscapes, inform FTO opinions, prosecute patents, monetize and license assets and support litigation activities.

About Clarivate Analytics

Clarivate Analytics is the global leader in providing trusted insights and analytics to accelerate the pace of innovation. Building on a heritage going back more than a century and a half, we have built some of the most trusted brands across the innovation lifecycle, including *Web of Science, Cortellis, Derwent, CompuMark, MarkMonitor* and *Techstreet*. Today, *Clarivate Analytics* is a new and independent company on a bold entrepreneurial mission to help our clients radically reduce the time from new ideas to life-changing innovations.

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