

# Using trusted data to inform strategic direction

How the University of Lille and the University Hospital Center use trusted data and analytics to advance and demonstrate excellence.

#### Customer

The University of Lille

#### Solution

InCites Benchmarking & Analytics<sup>™</sup>, Web of Science<sup>™</sup> data

#### Challenge

The University of Lille and its partners need trusted data and tools to make confident decisions about their research programs and maximize their impact on a national and international level.

#### Outcome

Using InCites Benchmarking & Analytics and Web of Science data, the joint bibliometrics unit, shared between the University of Lille and the University Hospital, can generate data-driven analyses and reports to inform strategic planning, secure funding, set the university up for success in rankings and more.



With 3,300 researchers and professors and 64 research units, the University of Lille is among the 15 top French research universities. In partnership with the University Hospital Center (CHU) of Lille, the National Center for Scientific Research (CNRS), the French National Institute of Health and Medical Research (INSERM), the Pasteur Institute of Lille and many more, the University of Lille produces high quality research that contributes to major scientific projects.

Lillometrics is a bibliometrics entity serving the University of Lille and the CHU; its structuring, involving different services from both institutions, is rather original in France.

Lillometrics is coordinated by Patrick Devos (CHU), under the direction of the steering committee. It is staffed with five bibliometricians from the University of Lille and the CHU devoting part of their time to this entity. The role of Lillometrics is to provide analyses to inform the strategic direction for research in both institutions. Devos also publishes **reports** about the state of medical research in France, as part of his remit within the National Comity for Research Coordination (CNCR). To achieve their mission, Lillometrics needs trusted data and flexible tools enabling granular analyses.

### Informing strategic planning

Devos and the Lillometrics team use InCites Benchmarking & Analytics as well as Web of Science data, through an API, to develop analyses and help the institutions to build up their research strategy.

"Like every research university, the University of Lille has teaching missions and research missions; there comes a time when these missions need to be looked at objectively and need to be enhanced."

#### Patrick Devos,

Statisticien, Direction de la Recherche et de l'Innovation, CHU de Lille & Plateforme Lillometrics, University of Lille.

#### Benchmarking against peers

Lillometrics often works on benchmarking the University of Lille's research output against other universities in France. For example, a positioning analysis for the health biology area analyzed what research topics differentiate the University of Lille from five other major universities; it showed that Lille was strongly specialized in oncology and clinical neurology, with normalized citation indicators above the national average.

#### Driving research forward

For internal analyses, Lillometrics developed a software called **Sampra** that is powered by Web of Science data delivered through an API. Sampra enables granular reporting at the research department level using bibliometric data, such as top 1%, top 10 %, CNCI (Category Normalized Citation Impact), national and international collaborations, research areas and topics based on various classifications provided by InCites. This provides department heads with a holistic view of their department, which is indispensable for five-year evaluations carried out by Hcéres — an external evaluation body of all research units in France — among other things.

The CHU and University are developing a new project focused on cancer research, with a special department called ONCOLille. Lillometrics supplied ONCOLille's director with a series of bibliometric indicators to show their progress over the last five years and assess how ONCOLille is positioned on a national and international level. When the international Scientific Advisory Board for ONCOLille met, they used this data to make their recommendations for the future.

#### **Optimizing collaborations**

Using InCites, Lillometrics is able to identify potential international partnership opportunities. Recently, the University of Lille has been looking to develop strategic partnerships in the United States, so Devos and team have searched for American institutions with common or complementary research areas, often applying the use of Citation Topics in InCites, which is a well-recognized categorization methodology founded in collaboration with the Centre for Science and Technology Studies (CWTS) – Leiden.

Using InCites, Lillometrics is able to identify potential international partnership opportunities.

## Aiming for research excellence

Lillometrics supported the University of Lille in their application for the national I-Site label (Initiatives Science/ Innovation/Territory/Economy), using InCites to supply indicators that were showcasing the institution and future partnerships identified with the platform.

"Lillometrics clearly highlighted the strengths and weaknesses of the University of Lille and its partners to the international board. We were transparent about the weaknesses in social sciences but showed that we had identified institutions in Belgium that the University of Lille could approach with a partnership offer. It wasn't just down to bibliometric indicators," says Devos.

After a very competitive selection, the University of Lille obtained the label—accessing the top league of 18 'Excellence' French research universities and ensuring important and stable state funding for the future.

## Preparing for rankings

Global Ranking of Academic Subjects (GRAS) is available as a schema within InCites Benchmarking & Analytics, allowing for a prebuilt set of metrics that mimics those used within the Shanghai Ranking, for easier assessment predictions. Using the GRAS schema, Devos and team were able to identify what research areas the University of Lille had to develop for a chance to enter the ranking in the future.

Another way to set the university up for success in rankings is to enforce adherence to the publications signature policy. Using Sampra, Lillometrics provides a yearly report by department measuring the compliance with the signature policy. Devos underlines that on average, 15% of publications are currently not affiliated to the University of Lille because of signature issues (including an estimated 45% of Highly Cited Papers). Department heads can then use this data to raise awareness among their researchers and work to reduce the gap.

"Doing a GRAS analysis used to be complicated. Now with the GRAS schema available in InCites, it's far easier."

#### Patrick Devos,

Statisticien, Direction de la Recherche et de l'Innovation, CHU de Lille & Plateforme Lillometrics, University of Lille.

### **Examining data options**

France has been a leader in open data for several years — the country was ranked number one in Europe in the 2023 Open Data Maturity Report, and number two in the world in the 2023 OURdata Index. In that context, institutions use more and more open source data. How relevant and useful are they today for the bibliometric analyses carried out by Lillometrics?

Devos explains that the open source options currently available to the research community for bibliometric analyses are not always sturdy enough, as of today. For example, Crossref or OpenAlex now offer raw metadata that are not consistently unified (affiliations) and standardized (indicators). Standardizing the data is time consuming and requires a lot of human and computer resources. A trustworthy, high-quality dataset is essential for carrying out reproducible, reliable bibliometric analyses.

What Devos likes about Web of Science data and the way it is available in InCites is the standardization, especially for countries and institutions and more recently for funding, as well as journal classifications (for instance the Essential Science Indicators<sup>™</sup> that use 22 broad disciplines to rank journals and identify top-performing papers categories). He also appreciates the wide choice of classifications (e.g. Citation Topics) and the variety and sturdiness of indicators (e.g. Category Normalized Citation Impact) that are available in InCites.

## "When we know how citations are distributed, normalized indicators are essential. Working on data that isn't normalized is not reliable."

#### Patrick Devos,

Statisticien, Direction de la Recherche et de l'Innovation, CHU de Lille & Plateforme Lillometrics, University of Lille.

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