Non Solus

TECHNOLOGY

Three decades of innovation - Reaxys turns 30

by Prima Sung
3 September 2018

Reaxys turns 30 this year and we couldn't be prouder of the legacy it represents. We're sharing that story with colleagues and customers as we get ready for the next stages in the evolution of this innovative chemistry research solution. We kicked off the celebration at the ACS 2018 meeting in Boston with a cupcake party, and we're promoting the anniversary via social media, on the blog and in an exclusive new article that's coming soon.

Innovation in chemistry

What makes Reaxys innovative? The true mark of an innovation is its impact on our behavior. All the great innovations of history, big and small, have changed how people have approached tasks in their personal and professional lives. The history of Reaxys perfectly illustrates this principle: at every stage in its development, chemistry researchers and educators embraced it and worked it into their daily routine.

As you may know, the roots of Reaxys lie in the works of forward-thinking German chemist Leopold Gmelin and Russian-born German chemist Friedrich Konrad Beilstein. They changed how chemistry data was classified, recorded and researched when they published their Handbooks in 1817 and 1881, respectively. Even today, the principles of Gmelin and Beilstein are used to organize chemistry data, and the databases that began with them are still used in Reaxys today.

The start of Reaxys' story

The point when Reaxys' story really starts is 1988. The Structure and Reference Analyzer (SANDRA) and Gmelin Formula Index (GFI) were released that year. These added a small element of searchability to the digitized versions of *Beilstein Handbook* and *Gmelin Handbook*, respectively, allowing users to quickly find the volume and page number that contained the facts they needed.

The first truly searchable database came just a year later. In 1989, information specialists built on the concepts of SANDRA and GFI, created versions that could be searched for specific information, not just for locations on information. Only available to users of the Scientific & Technical Information Network (STN) and Dialog, they were not easy to use, but they were still a revolutionary innovation.

The idea that one could create a query and get an answer was very popular. Researchers quickly adopted the idea of asking institute librarians and information specialists to perform searches. However, there was also a hunger for something more: a database that they could search on their own.

They only had to wait till 1993, when the CrossFire database was launched. This client/server-based application could access locally hosted versions of the databases built up over the existence of Beilstein and Gmelin's incredible works. With minimal training, chemists could conduct searches themselves rather than needing to ask an information specialist for help.

When Reaxys became Reaxys

The name Reaxys was first used in 2009 but SANDRA, GFI and CrossFire were all earlier forms of the research solution. The developers took the best features of those solutions and combined them with the game-changing possibilities granted by the commercial Internet to create the online, user-friendly chemistry research solution we're celebrating now.

Reaxys has developed considerably since then, adding more databases, streamlining its user interface in response to user need, and redefining what a research solution can be. In 2018, Reaxys accepts natural language-, parameter- and structure-based queries in versatile combinations unimagined in the days of the first online Gmelin and Beilstein databases. It takes users directly to the requested answer and works within a larger informatics environment to ensure a seamless workflow.

Reaxys has completely changed the usage barrier for chemistry research solutions. Its newest iteration can be used by any chemist and requires minimal training. It has made chemistry research something that anyone can approach with confidence.

An integral part of research development

While Reaxys has only gone by that name for 9 years, 2018 marks its 30th birthday because SANDRA, GFI and CrossFire are integral stages in its development. And in those 30 years, chemistry research moved with technology: from print to digitized document to shared, locally hosted database to online research solution; and chemists had moved with the possibilities, learning how to efficiently use each innovation. And Reaxys has evolved along with the research trends, incorporating the latest technology to make research even easier.

It's going to be absolutely fascinating to see how Reaxys develops further as complex informatics environments supporting artificial intelligence, deep learning and predictive modelling come into their own.

Happy Birthday!

So here's to both Reaxys — Happy 30th Birthday! — and to the next stages of development for cheminformatics. It's certainly going to be a bright future!

Sumita Singh, NewYork, says:
Congrats Reaxys!
4 September 2018 0 | I like this | Reply

Roy Smith, Dayton06, says:
Another great Elsevier product reaches a milestone. Congratulations!!
5 September 2018 0 | I like this | Reply

Tom Williams, Philadelphia, says:
Happy Birthday Reaxys
5 September 2018 0 | I like this | Reply

Cecile Delclos, Barcelona, says:
Very good story, thanks for sharing!
6 September 2018 0 | I like this | Reply

Carol Leedy, Dayton06, says:
Happy Birthday Reaxys!
6 September 2018 0 | I like this | Reply

Ramadurga Muthu, Chennai, says:
Happy Birthday Reaxys
7 September 2018 0 | I like this | Reply

Edda Schmid, No Seat Required, says:
another wonderful story of growth and success... congratulations
14 September 2018 0 | I like this | Reply

Ethan Liu, Beijing, says:
Happy Birthday Reaxys!
20 September 2018 0 | I like this | Reply

Xiao Xiao, Shanghai, says:
Thinking to make localized page of this story for external audience in APAC for Reaxys!
21 September 2018 0 | I like this | Reply

Leave a comment

Kaviarasu Sekar, Chennai

E-mail me other people's comments about this article

Submit comment