# KnowING IPR project
# Fostering Innovation in the Danube Region through Knowledge Engineering and IPR Management

## Output 4.1 KnowING HUB web portal

Project co-funded by European Union funds (ERDF, IPA, ENI)
Http://www.interreg-danube.eu/approved-projects/knowing-ipr

# Document Reference

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# Table of Contents

# Introduction – KnowING HUB online web portal

The following document "Output 4.1. KnowING HUB online web portal" describes the main elements of the online web application as divided into two parts. *First part* describes the technical potential of the queries, in terms of emphasizing the strongest and most sophisticated part of the platform – the queries potentials. *The second part offers* very brief overview of why the KnowING HUB solution is more elaborated than compared solutions around the world.

**The KnowING HUB platform can be accessed at: https://knowing-ipr.fis.unm.si/**

The Output feeds from the deliverables of the Activity A4.1 (UxD activities), and Activity 4.2 (Development activities). The present Output 4.1. can serve as guiding document on the potentials of KnowING HUB and can serve participants of the KnowING HUB initiative to have a full guidance through the potentials of KnowING HUB.

KnowING HUB represents a transnational platform, providing online access to enriched data and supporting information for an efficient innovation processes supported by tools for an efficient IPR management. This collaborative online platform links providers of enriched data and information relevant for innovations, business and innovation support organizations and enterprises (especially SMEs and HEI&RI) from the Danube region.

## KnowING HUB web portal and contribution to EUSDR

The featured Output contributes to PO2 of the DTP (number of tools for improving the institutional and infrastructural framework conditions for research and innovation), and more importantly it contributes to three Priority areas of the EUSDR.
Firstly, it contributes to PA7 since it provides access to patent data and provides knowledge on how to understand patent data. Additionally, it rases awareness on importance of IP, contributing to one of the key PA7 targets (to increase number of EPO and PCT patent applications in the Danube region). The Output and activity targets also PA9 targets in contributing improved educational outcomes, in the fields of innovation and entrepreneurship. Most importantly, the Outcome also contributes to PA8, due to support to enterprises through high performing training and is improving framework conditions for SMEs in areas where competitive infrastructure is missing.

# Query services of web platform

## How to start the query? - Help

Prior to starting any query a quck 'help' button is available at the right side of the query bar.


*Photo 1: Basic search through patents*

## Basic search through patents

Basic search is available from the landing page of the KnowING HUB website.


*Photo2: Basic search through patents*

The most basic action/functionality every user (anonymous or registered) can perform is submitting a search query to the Knowledge Generation Core and retrieving information about it.

Technically, the Web application prepares a query in a JSON format, sends it to the Knowledge Generation Core, and retrieves the information (the report), which is generated by the Report Generation Module, again in a JSON format.

## Basic search through publications


*Photo 3: Basic search through publications*

## Basic search through patents and publications simultaneously


*Photo 4: Basic search through all*


*Photo 5: Basic search possibilities*

## Structured query

### For basic users

Structured queries are offering three filters that enable retrieving and analysing information. Two are available for online users, where the second one is available for offline users. Among those available for online users the first one offers the following filters for query for basic users:

- Title
- Abstract
- Author
- Data source
- Language
-

The filters can be elected either individually on all together in different constellations.

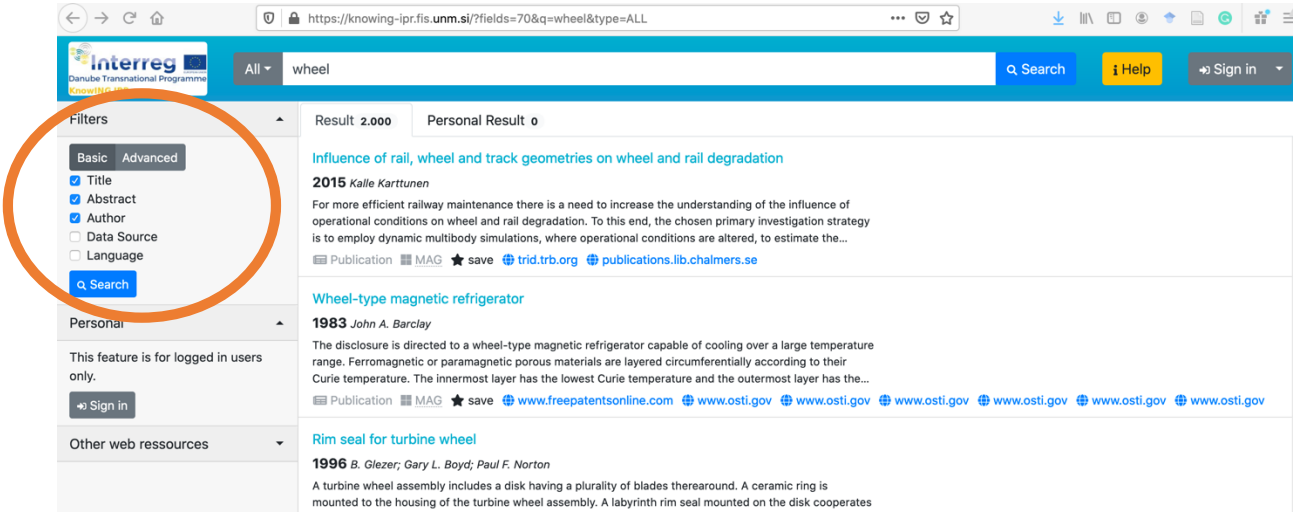


*Photo 6: Filtering for Basic search*

## For advanced users

Structured queries for advanced users are offering queries with two operators of Boolean algebra: AND and OR. Advanced users can browse different combinations using AND and OR and selecting different key words in the below listed filters

- Title: *insert keyword*

AND/OR

- Abstract: *insert keyword*

AND/OR

- Author: *insert keyword*

AND/OR

- Data source: *all, USPTO, PATSTAT, MAG, Springer*

AND/OR

- Language: *insert keyword*

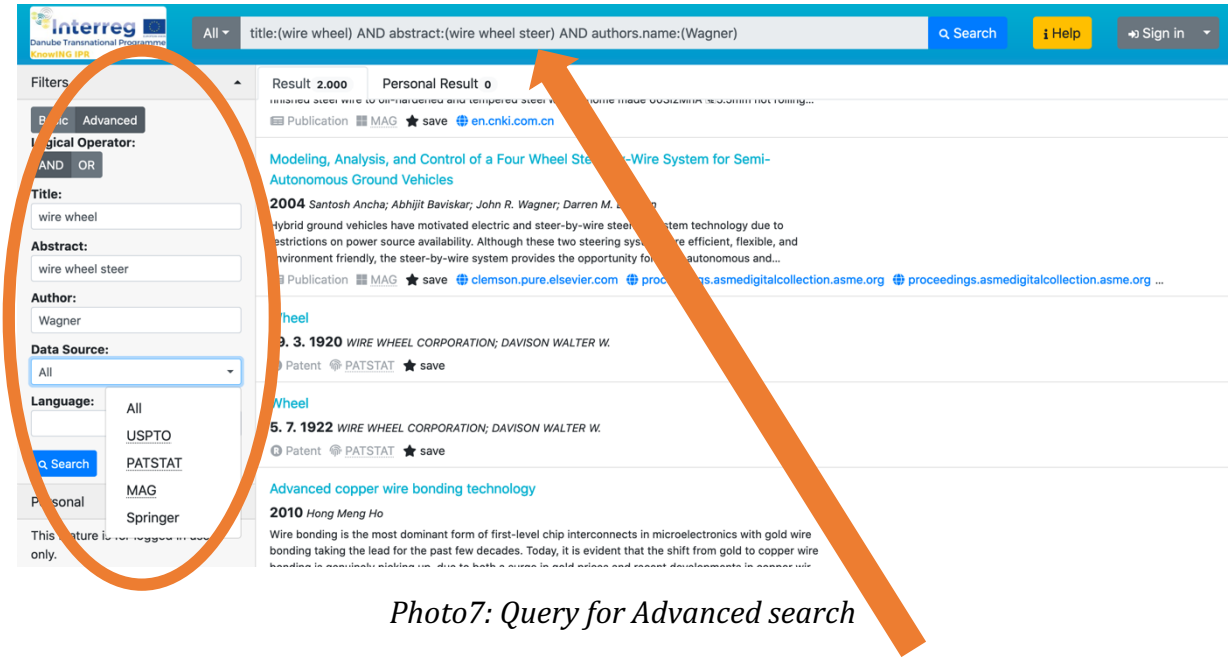


*Photo7: Query for Advanced search*

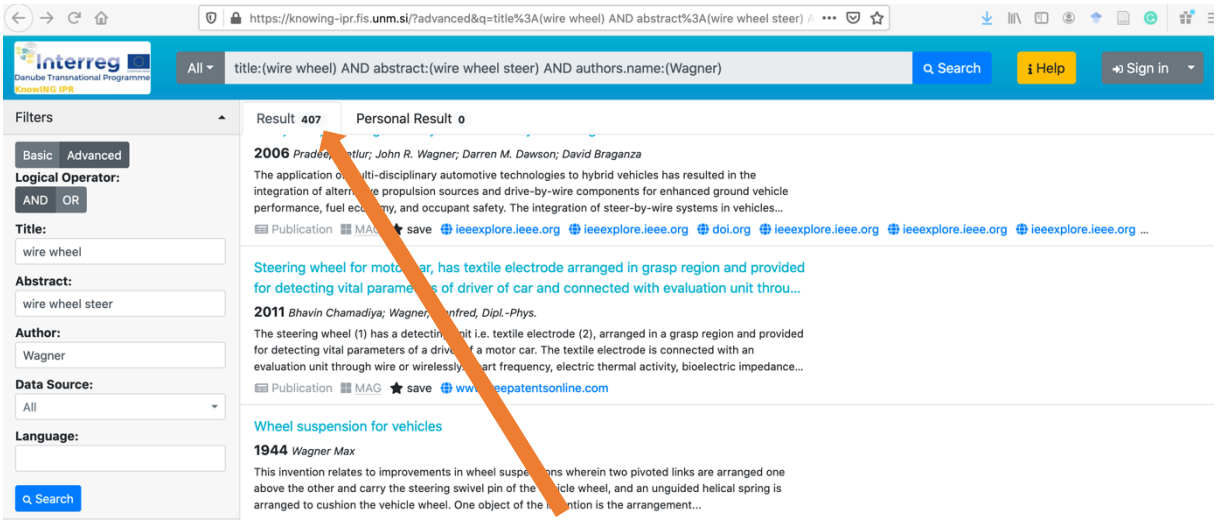


*Photo 8: Query for Advanced search, reduced number of hits*

Similar to other common search engines, the Web application allows users to construct *advanced queries*. By advanced queries we mean queries comprised of simple queries combined with Boolean operators *AND*, *OR*, and *NOT*, together with eventual *filtering information*. Filtering is performed on the Knowledge Generation Core side, and the user applications only send the data about it. The fields by which a query results can be filtered will be determined during the development process. There are different types of filters: excluding/including a specific field, limiting the field value by some values (e.g. the year field by min and max year, etc.), allowing also for truncation of search query words.

## Search Results of Basic and Advanced search

The result of a query is the *report*, which represents a collection of information gathered by the Knowledge Generation Core. The report is comprised of two parts: a short text (*abstract* or *summary*) with basic information found for the given query, and a collection of (enriched) documents related to the given query (the *result set*). Each of the documents in the result set is called a *response*. A response can be a metadata about a single patent document, a (scientific) publication, or some other document type. In this sense, responses are divided into categories (patents, publications, other), so that visual representation of documents of different types can be adjusted accordingly. For instance, when a patent document is shown in a web page, it will contain a field priority, which will not be present in scientific publications.

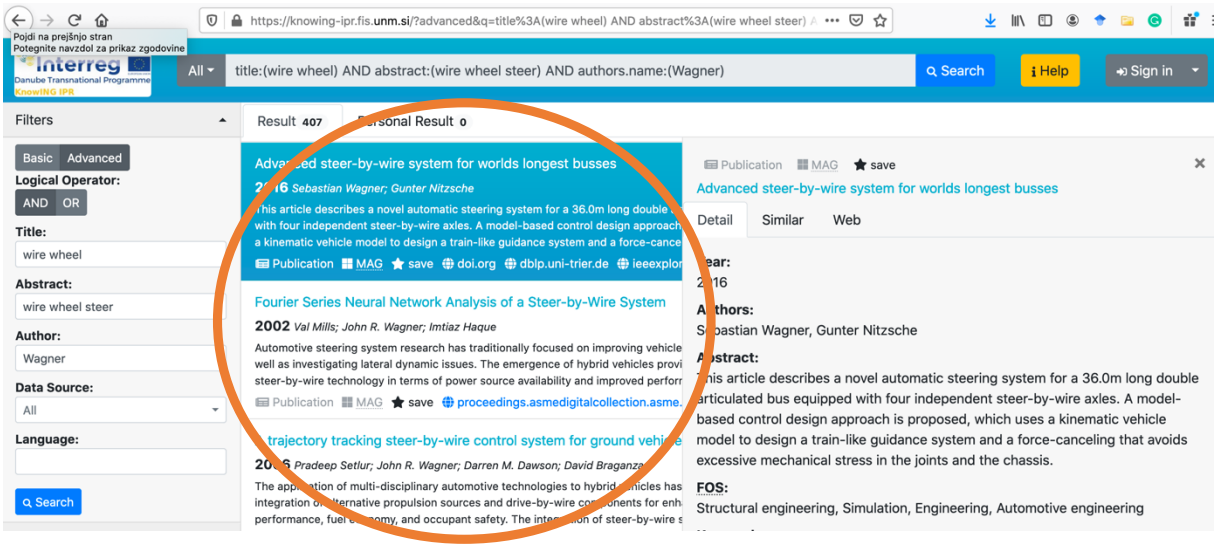


*Photo 9: Display of results, report set*

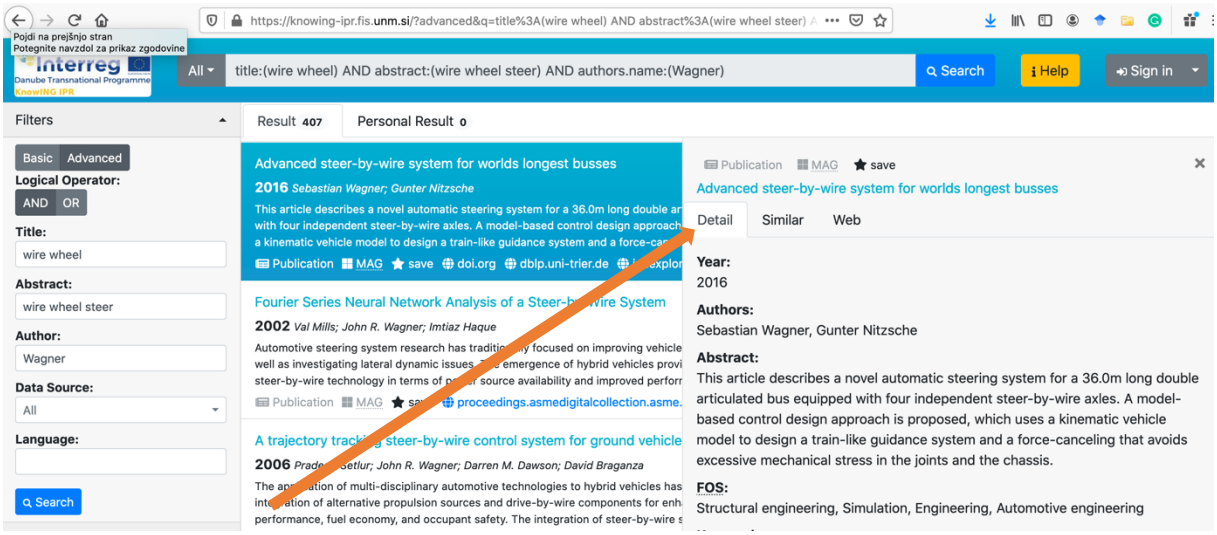


*Photo 10: Display of results, detail*

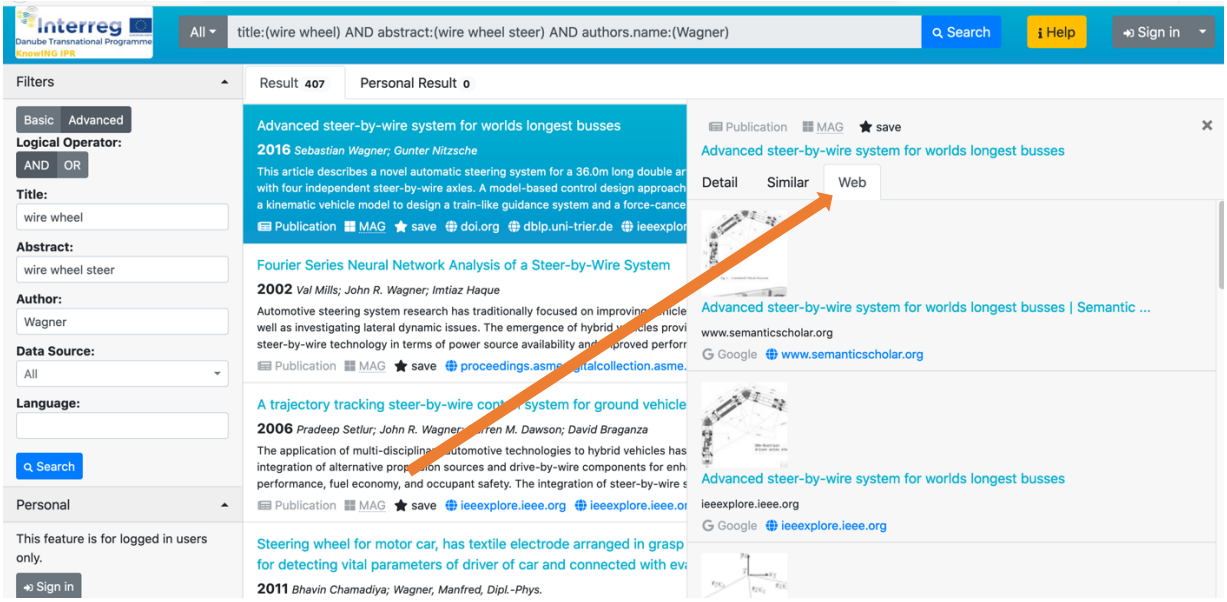


*Photo 11: Display of results, web results*

The content of a report for a given query is presented to a user on a web page. In particular, there is a frame for the summary and a frame for the list of responses (which are grouped by categories, e.g. patent documents together). Clicking each of the responses presents details about the response in another frame. If a response contains links to related responses, these links redirect the user to the details of those. If a response contains external links, these are also clickable and details open a new window with the given URL.

## Retrieving patent information

While querying the patents basic and advanced users can obtain different information about a patent. Below we emphasize a few:

- Information about owner of the patent (patent ownership evolution, category of patent the owner has patented in)
- Information whether patent is licensed
- Information whether patent is potentially licensed

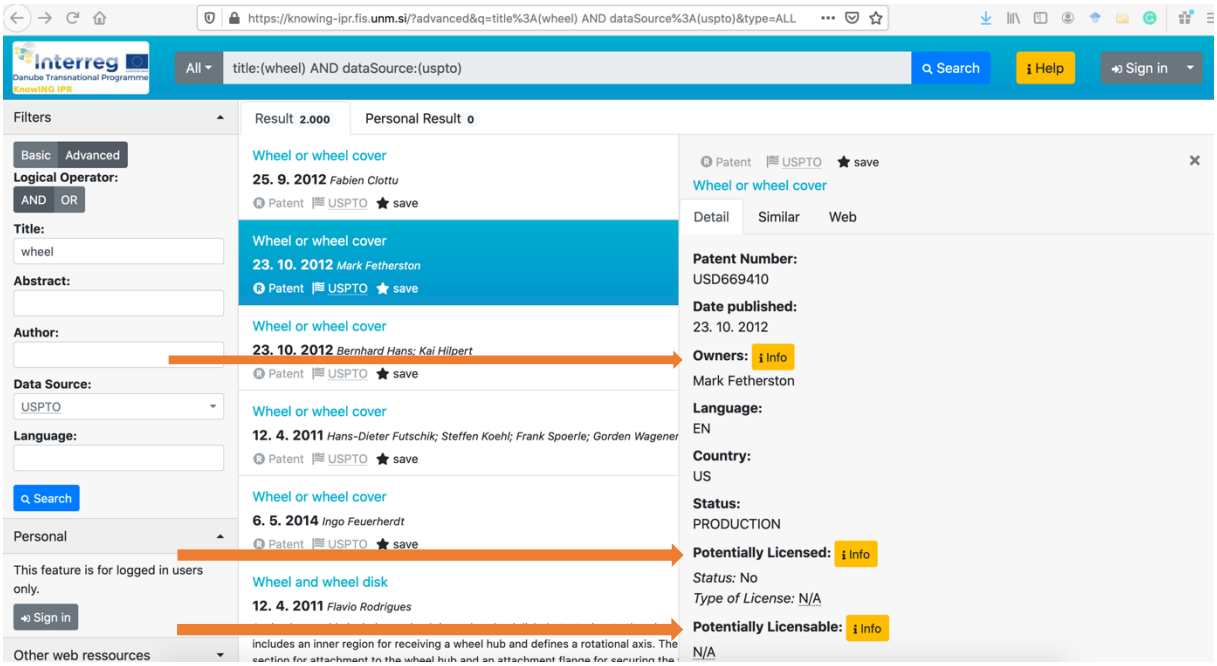


*Photo 12: Display of results, patent details on owner, and potentials for licensing*

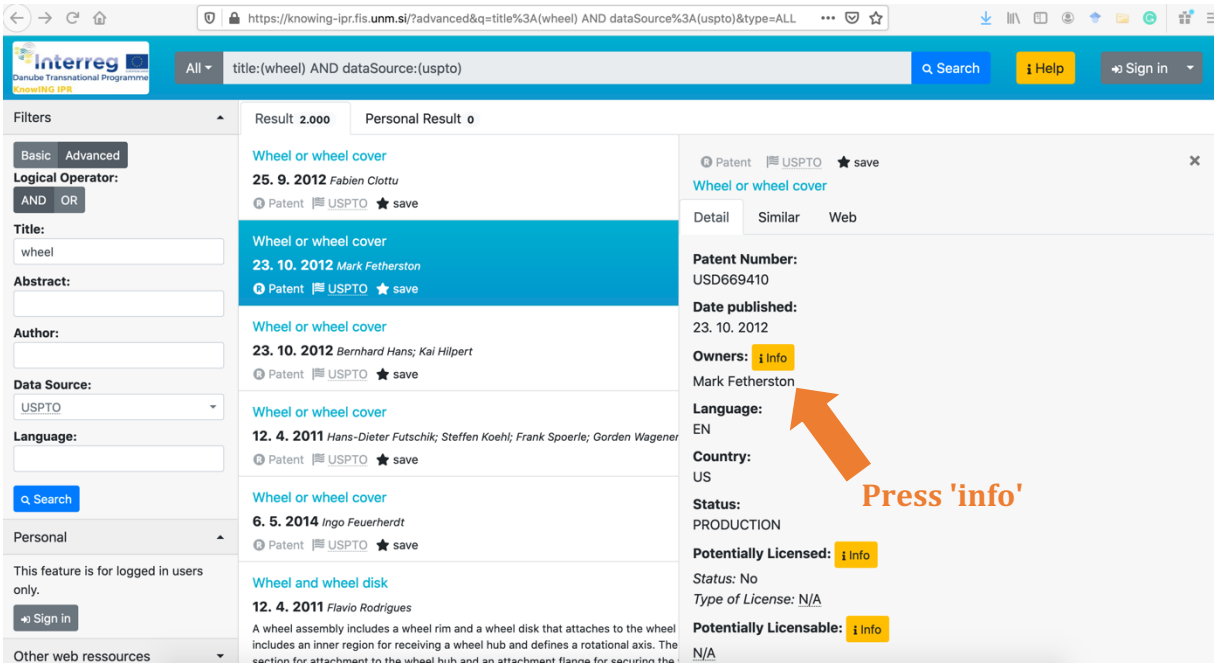


*Photo 13: Display of results, obtaining more info on ownership*

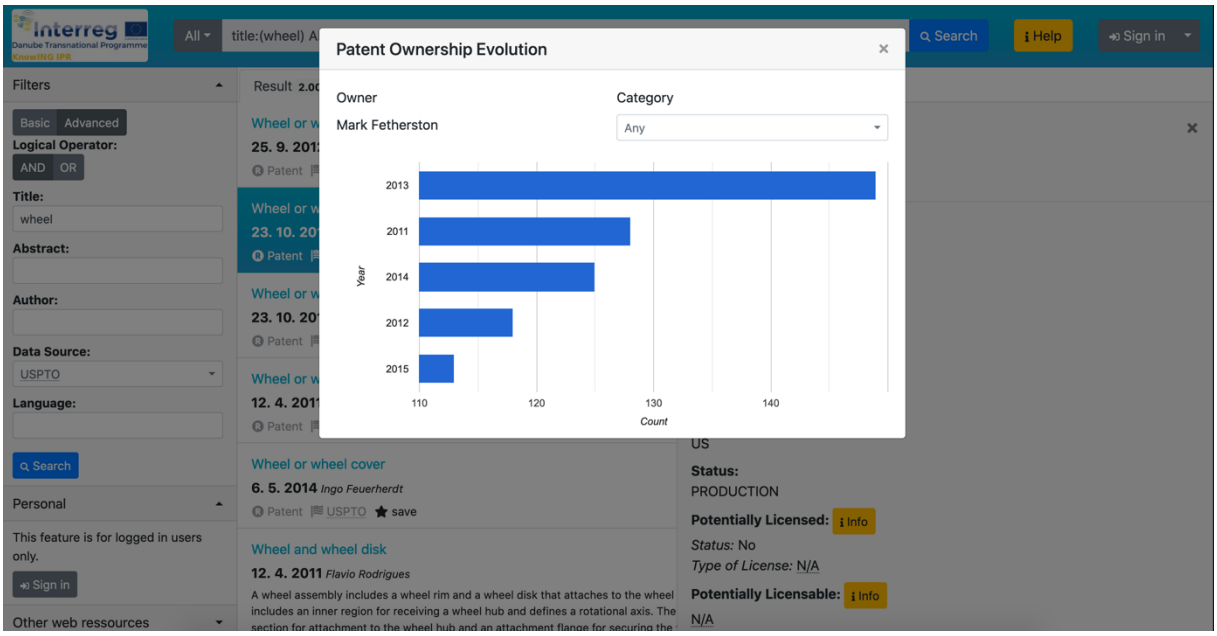


*Photo 14: Display of results, patent ownership evolution*

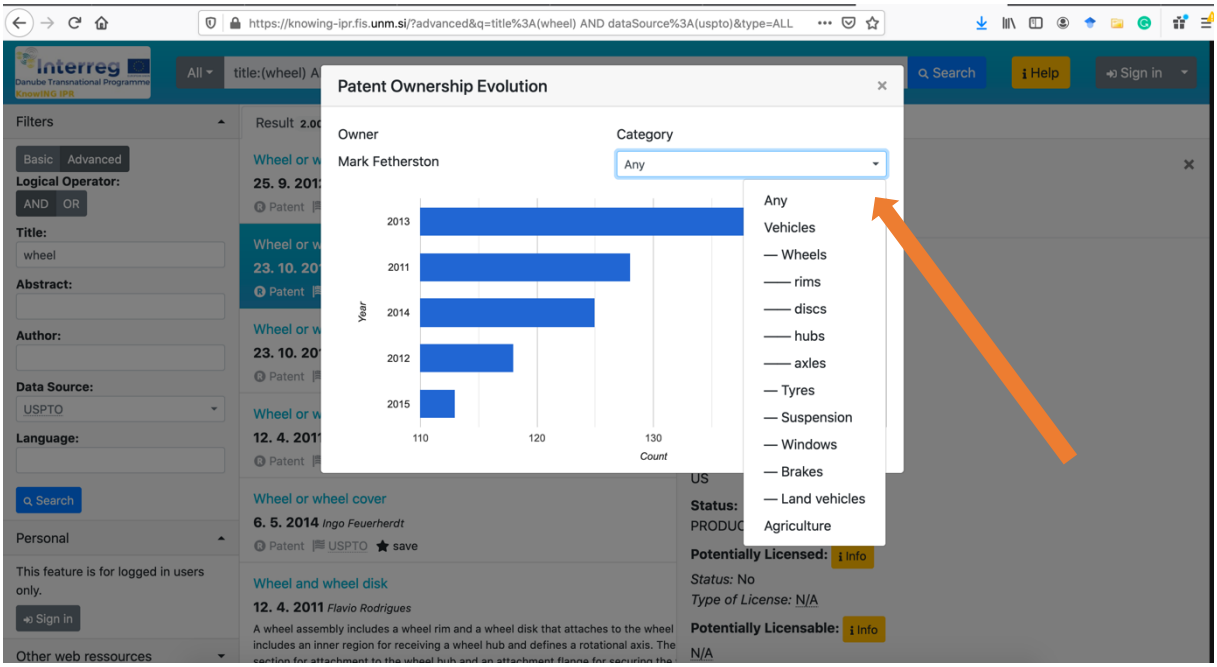


*Photo 15: Display of results, patent ownership evolution, browsing by patent category of the patent owner, part 1*

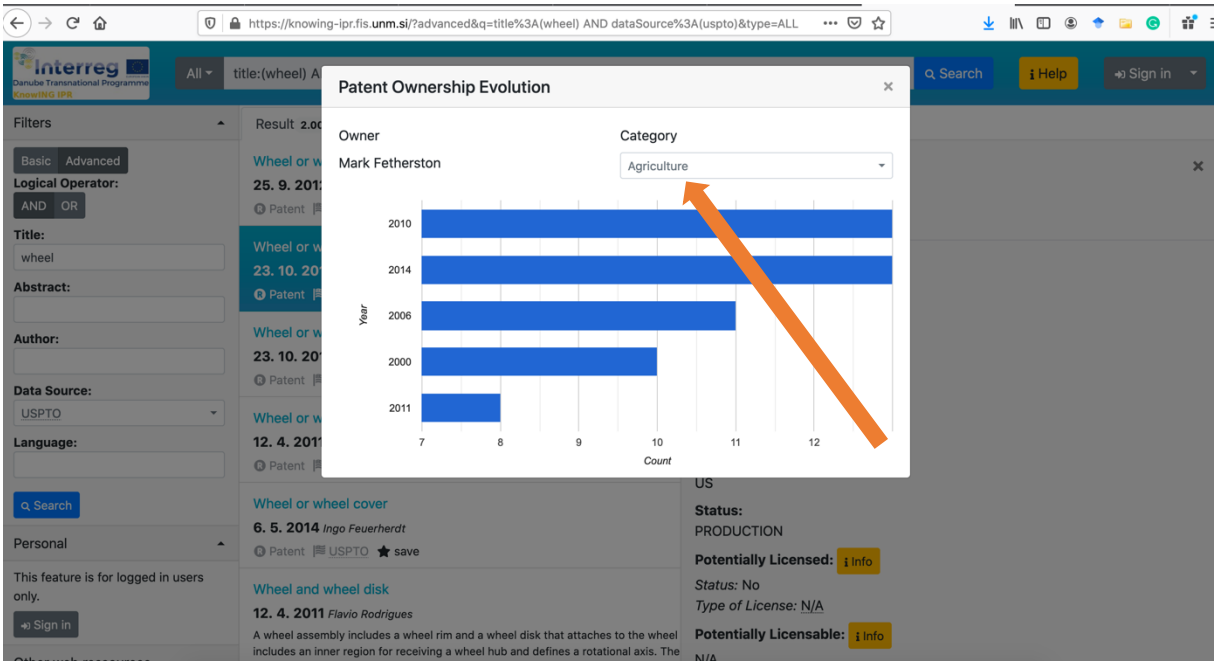


*Photo 16: Display of results, patent ownership evolution, browsing by patent category of the patent owner, part 2*

## Search through national patenting databases

The KnowING HUB application offers potentials to conduct queries through different national databases. Few examples are below.

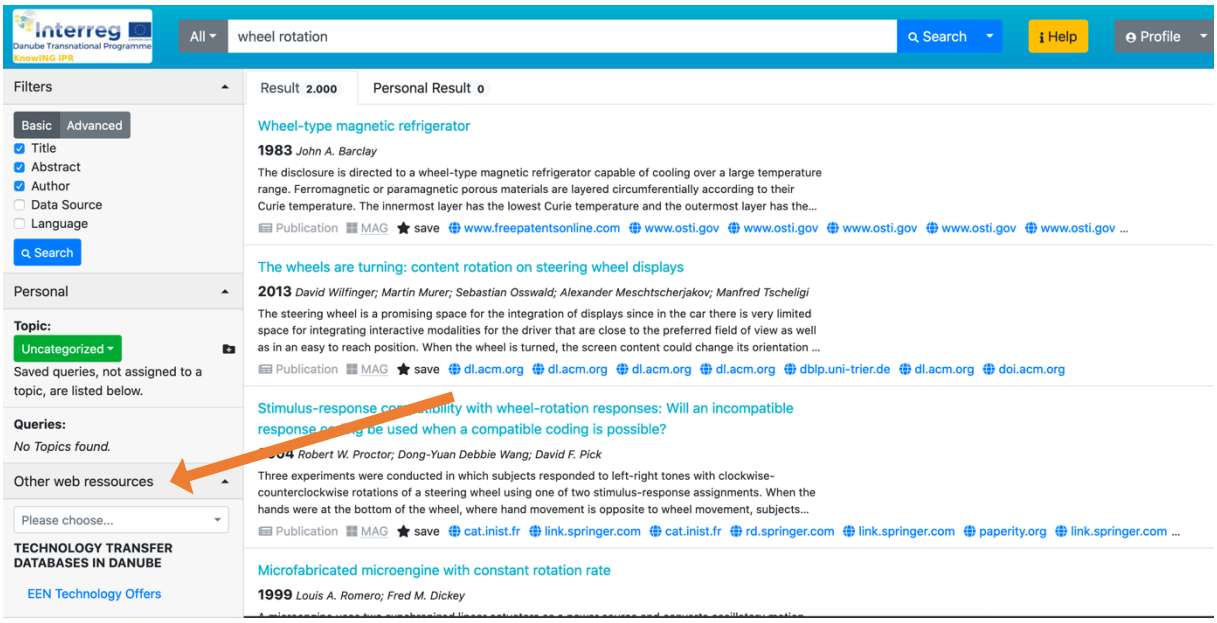


Photo 17: Searching through 'other web resources'

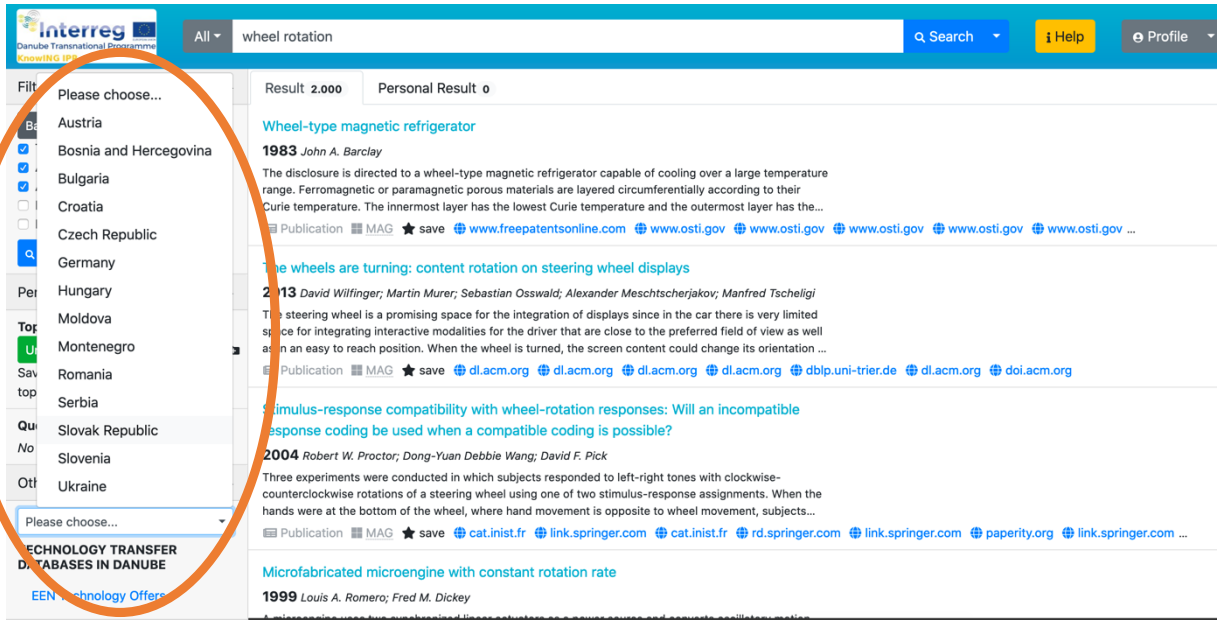


Photo 18: Choosing a country

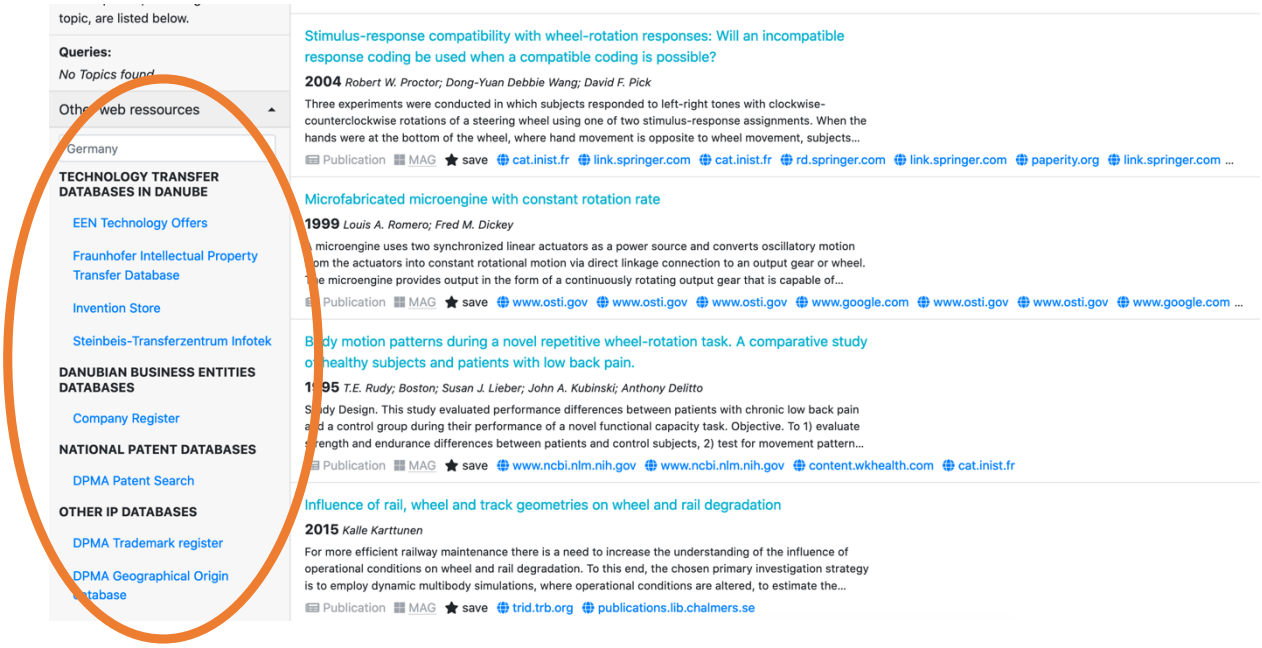


Photo 19: List of available databases from Germany

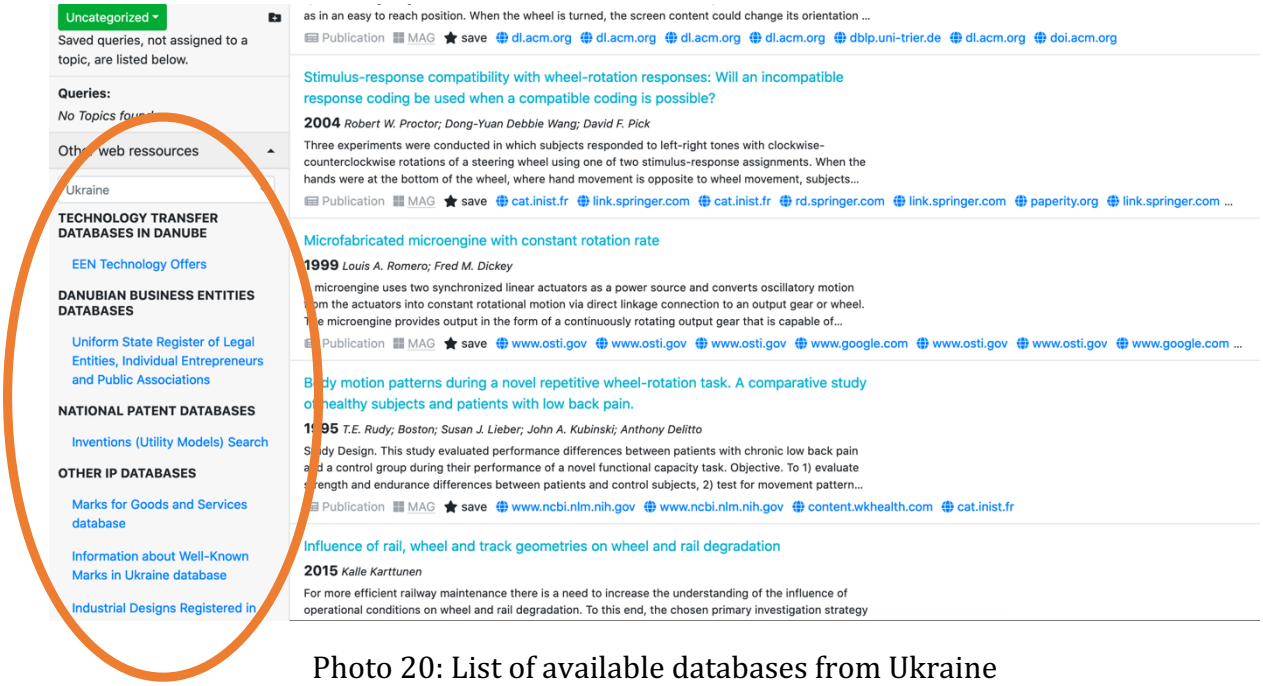


Photo 20: List of available databases from Ukraine

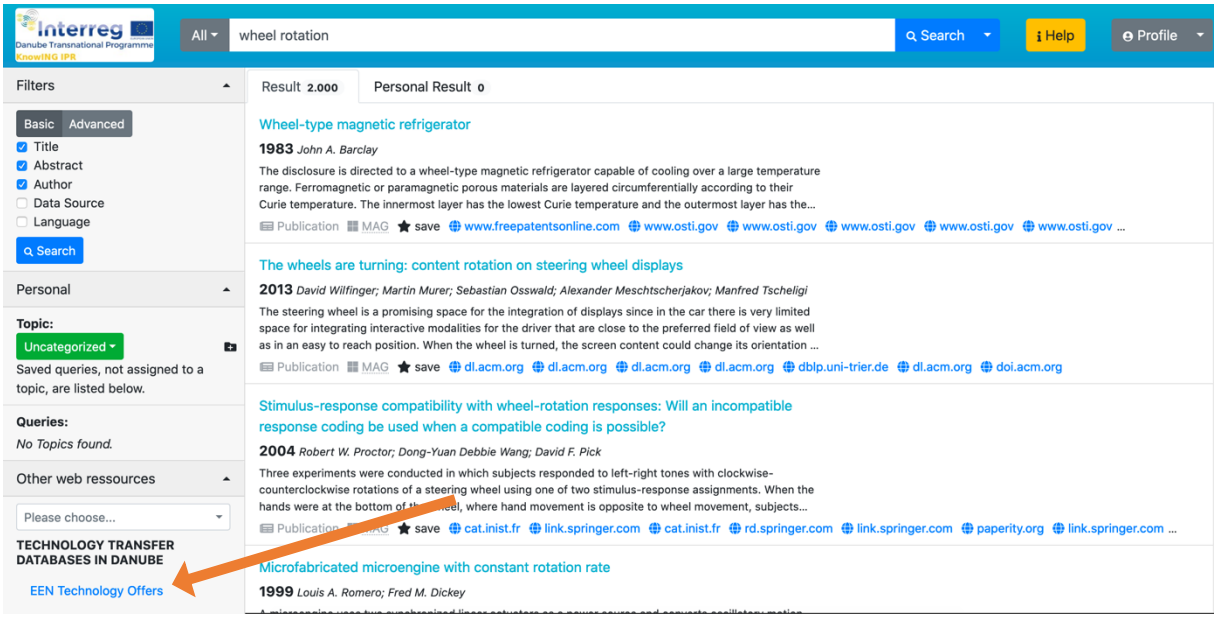


Photo 21: Access to EEN Technology offers

## What makes Knowing HUB platform so special

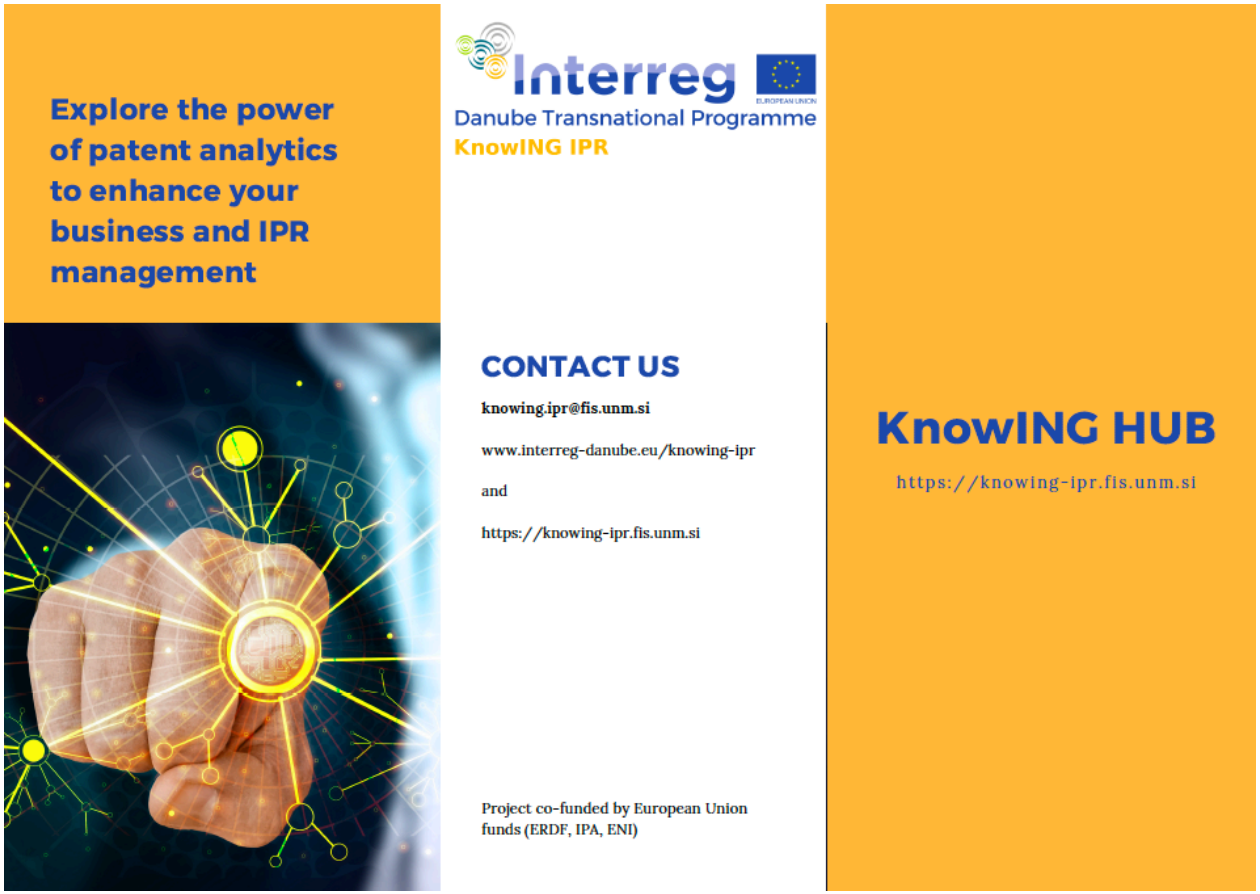


*Photo 22: What makes KnowING HUB so special, part 1*

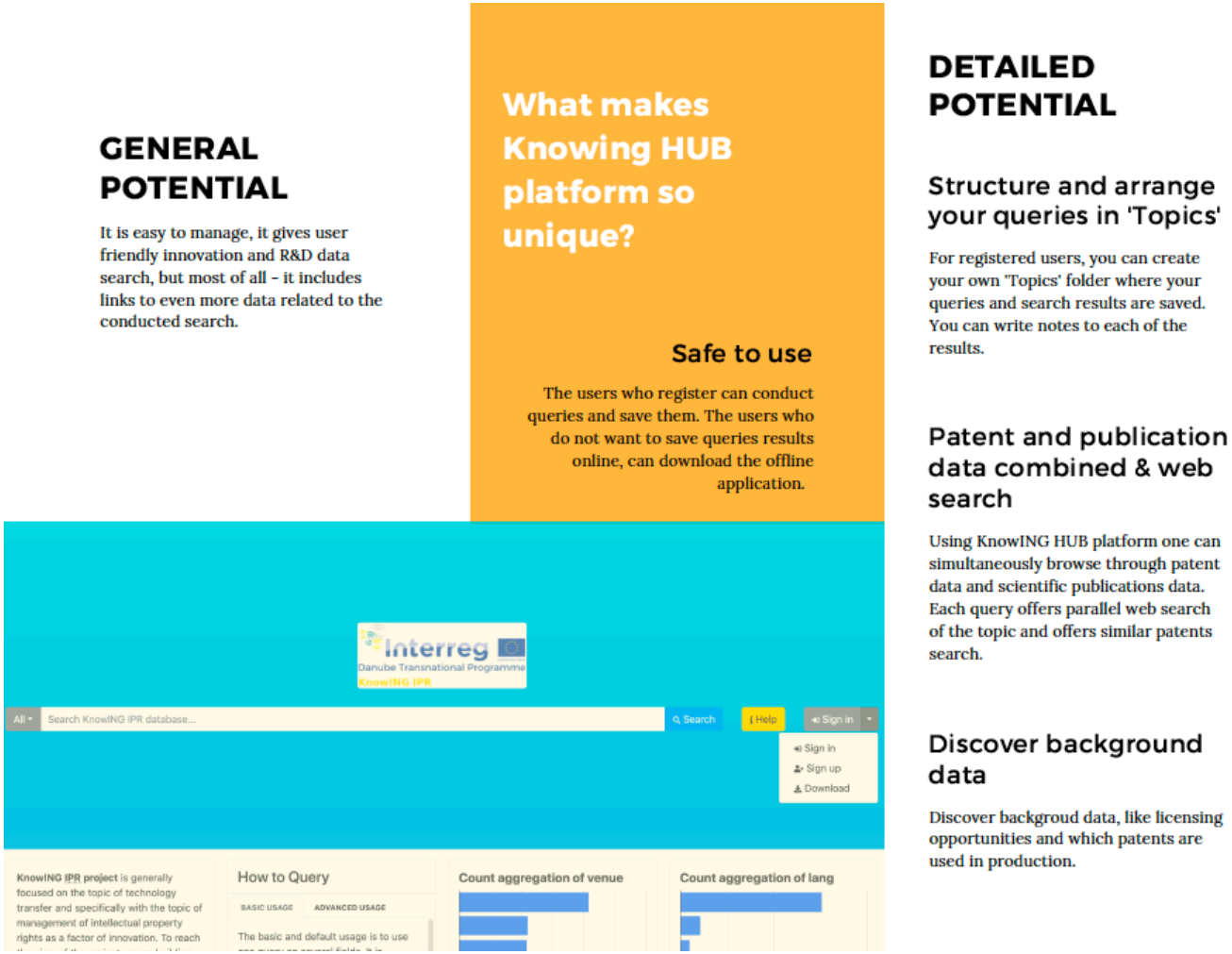


*Photo 23: What makes KnowING HUB so special, part 2*

## Conclusion

To sum up, the Output 4.1 KnowING HUB web portal offers elaborated and structured approach in exploitation of KnowING IPR results. The web portal will be hosted at the servers of the LP also after the projects end, ensuring the durability of the result. It is the complementary Output 4.3 that was elaborated to provide the path of ensuring the durability and exploitation of the results.

The Output feeds from the deliverables of the Activity A4.1 (UxD activities), and Activity 4.2 (Development activities). The present Output 4.1. can serve as guiding document on the potentials of KnowING HUB and can serve participants of the KnowING HUB initiative to have a full guidance through the potentials of KnowING HUB.