Research market trends in a technology space

Is this space heating up? Should we invest money in this technology? Are there new markets for our existing technologies?

With a result set focused on a specific technology and Derwent Innovation’s Results Dashboard and Charts, you can easily analyze trends in a particular technology space and find answers to questions like these.

Simple steps to your answers
1. Run a patent search for the particular space you need to analyze
2. Use the filters to narrow the results
3. Analyze your results for answers

Find your technology space

Use Smart Search to find records related to a document.

Tips for smarter searches
• Find a document representative of the space you want to analyze and paste it into Smart Search
• Text from a patent’s title, abstract, and claims often provides good results
• The editorially enhanced DWPI title and abstract are particularly effective, because they highlight the main use and invention in standardized language

Note: Add classification codes (IPC, CPC, or DWPI) to your search to focus on specific, related technology areas. Use the Browse button to find exactly the codes that describe your space.

Review and refine your results

Review your results and, if necessary, use filters to focus on the technology or market areas you want to see.
• Use IPC-4 Character (Category) to focus on a particular technology field
• Subsearch for specific classification codes to focus on those areas
• Filter by Assignee to focus on a selection of industry leaders
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Analyze your results for answers

Results Dashboard provides an immediate overview

The Results Dashboard in Derwent Innovation provides immediate visualizations of the data in your results. These visualizations can provide an overview of the market trends in a technology space.

Priority Year-Earliest—How active is this field?

Priority Year-Earliest shows you the earliest known filing date for an invention, so you can see the peaks of innovation and get a sense of the rate of discovery. If the line trends down, it may be that fewer new discoveries worth protecting were made in the past few years.

For more established fields, it may be beneficial to create a work file with only one preferred document per family. Then, review the Results Dashboard for that work file to see the trend of new innovations in your field. See Collapse Your Results by Family in the Tips section for instructions on this.

Country Code—What are the markets like globally?

Country Code shows you the global market place. See where innovations originate and how established each market is to identify possible development opportunity.

Select specific countries/regions and filter your results to see:
• Market trends in the selected parts of the world (Publication Year)
• Rate of discoveries in countries/regions (Priority Year-Earliest)

Publication Year—Are protections still being sought?

Look at Publication Year to see if patent holders are seeking broader protection. If protection is still being sought, Publication Year will trend upward.

Select specific years to see where protections are being sought (Country Code).

Count of Citing Refs—Research & development trends

Count of Citing Refs helps you find the most influential inventions that have been cited many times.

Note: Bars to the right have a greater count of citing references than bars to the left.

Select the highest patent citation ranges (furthest right) to see:
• The most innovative, successful records in your result set
• How recent the most important discoveries are (Publication Year)
Charts provide further analysis

Derwent Innovation provides several chart templates to better help you review market trends over time. Additionally, you can create your own custom charts to focus on specific information. To create charts, click **Charts** on your result set, then choose the chart template or chart type you want to create.

**Top Assignee by Year**

**Top Assignees by Year** (on the Assignees tab) creates a stacked bar chart with the top 5 assignees that had patents published over the past 15 years. This helps you get a sense of the rate of patent activity, who sought protection, and when they entered or exited the market.

**Tips**
- Click **Edit** and select **DWPI Assignee/Applicant** as your Primary Field to make use of standardized DWPI data
- Use **Priority Year-Earliest DWPI** as your secondary field to get a sense of the rate of discovery

**Top IPCs by Year**

**Top IPCs by Year** (on the Classifications tab) creates a stacked bar chart with the top 5 IPC-4 character codes for from the past 15 years. This helps you see evolutions in the technology space over time and may potentially reveal emerging applications for a technology.

**Tips**
- Click **Edit** and select **DWPI Manual Codes (5 characters)** as your Primary Field to use of standardized DWPI data
- Collapse your chart by DWPI or INPADOC family to review trends at the invention level

**Document Pace of Filing**

**Document Pace of Filing** (on the General tab) creates a list that automatically calculates the percentage of documents filed (applied for) each year for up to the past 100 years. This can help reveal overall trends in filing activity, and it can help identify periods of increased or decreased activity.

**Tip:** You can add up to two additional fields to analyze within a specific year; e.g., analyze each year by the top 5 assignees for that year to see when players enter or exit the space

**Create your own charts for custom analysis**

Create custom charts to reveal trends for fields that are not part of the Results Dashboard or the default chart selections.

1. Click **Analyze, Charts** on the result set you want to analyze
2. Under Create Custom Chart, select a **Stacked Bar** or **Line chart**
3. Select the field you want to analyze (e.g., **Priority Country Code** or Inventor) for the Primary Field
4. Select a year field (e.g., **Application Year**) for the Secondary Field and set the number of items to view (e.g., Top 15)
5. Click **View Chart**
Use Charts (Beta) to analyze technology trends

Charts (Beta) provides interactive charts that let you quickly analyze trends in a technology space.

To view these charts, click Charts (Beta) on your result set, then choose Competitive intelligence or Technology Landscape.

To see a quick overview of global trends, select the Where has this technology been developed? chart under Competitive intelligence.

Where has this technology been developed?

This chart explores the patents in your results filed with different authorities around the world. This comparison can help you identify centers of innovation, hot markets for a technology, or the primary markets for a company.

- A horizontal bar graph on the right helps you quickly compare the number of records filed with each of the top 10 authorities
- Click a country/region on the map to see details about the number of records filed in that country/region and the percentage of applications and grants filed in that country/region
- Click More Tools to switch between Origin of technology development and Publication countries/regions to compare where inventions originate, which may suggest market opportunities

Tip: You may want to collapse your results by application number and create the chart from one record per application number to easily compare pending applications to granted patents.

How is the technology trending?

This chart shows publication trends for top technology areas in your results. Select top technology areas to analyze how specific aspects of that technology evolved over time.

- Review the lines to see increases and decreases in published patent records for top technology areas
- Hover over a point on a line to see clear, concise Smart Themes descriptions of the technology area
- A timeline beneath the chart helps you focus on specific years; click and drag over a specific range to zoom in on those years

Smart Themes supplement dense IPC definitions with clear, concise key terms derived from actual patents for that technology.

The same powerful technology that extracts key terms for Smart Search analyzes the DWPI Titles from all patents classified with a specific IPC code. We take the top key terms and review them for clarity. Those reviewed terms become Smart Themes—clear, concise summaries of the technology described by an IPC code.
ThemeScape provides in-depth analysis

If you have access to Analyst features, ThemeScape can help take your analysis even further. Find ThemeScape under the Analyze button beneath your result set.

Create a ThemeScape map for your results

ThemeScape helps you visualize trends in the patents found by your search. With ThemeScape, you can overlay priority countries/regions and years onto a map of technology areas to see how those areas developed over time.

1. Click Analyze, ThemeScape
2. Enter a Name for the map
3. Click the Field Options tab
4. Move Priority Year Earliest - DWPI from Available Fields to Chosen Fields
5. Use the up arrow to make sure Priority Year Earliest is the first date field listed (so that it shows Time Slice after)

Tip: Click the icon and select Retrieve All Smart Search results before you create the map, as ThemeScape is especially useful with large data sets

Collapse your results by DWPI (or INPADOC) family to analyze market trends for inventions, not individual patents, which provides a better view of how the technology landscape changes over time

Review Time Slices to see technology evolution over time

Time Slices show all records from a specific time frame on the map. Review annual time slices to see how the technology space changed over time.

1. Open Time Slices and click New
2. Enter a Name for the time slice
3. Select the Automatic Slicing option and select Annual
4. Click Save
5. Expand the time slice group you created and click through years to review the evolution of the technology space

Explore centers of innovation

ThemeScape automatically creates groups for the authorities in your data. Review this information to see where innovation occurred and how research shifted over time.

1. Open Groups and expand Countries/Regions
2. Select the countries/regions you want to review
3. Review the countries/regions on the map to see how they contribute to the technology landscape
4. Open Time Slices and click through individual years to look for changes in where innovation occurs

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Export data for additional analysis

Derwent Innovation offers robust data exports in many formats, including Excel, so that you can:

- Clean and normalize assignee data provided by patent authorities
- Create pivot charts or detailed filters
- Analyze fields unavailable in the built-in analysis tools
- You can easily create data exports from selected data:
  - From result sets, work files, or charts, click the Export button or link
  - ThemeScape can export all records on the map, or currently selected records

On the export screen, choose the format for your export and the fields you want. There are several predefined field sets for convenience (e.g., Assignee Report).

Tips for effective analysis

Time and date fields

When looking at date fields like Priority Year-Earliest and Publication year, keep in mind that the current year will likely have fewer records than previous years, as the publication process is still ongoing.

Collapse your results by family

To get a better sense of industry trends in a more mature technology space, collapse your results by DWPI or INPADOC family and create a work file that includes one record per family. Then, review the Results Dashboard for that work file:

1. Click the icon and select Retrieve DWPI Families or Retrieve INPADOC Families
2. Click the menu, select Display and Sort Options, and set your Preferred Document to:
   - Basic Patent for DWPI families
   - Earliest Record for INPADOC families
3. Click OK to group your results by family
4. On the result set, click the collapse all icon ( ), then click the select all checkbox
5. Click Add To, New Work File and create a new work file that only includes the DWPI Basic or earliest INPADOC records
6. The Results Dashboard for that work file reflects information about the DWPI Basic or earliest INPADOC records. T
7. Click the Derwent Innovation logo to return to the Dashboard, then click Saved Work, Work Files
8. Click the Run icon ( ) to open the work file

Learn more with these tips & tricks

- Using Custom Fields for additional analysis options in Derwent Innovation
- Search smarter with automatic analysis
- Analyze and report on your results

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