

# Google's Impact in Spain - 2023

## Fact Sheet

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*Google's products and services are a key enabler of businesses, workers, and consumers. From online search to the AI Transformer model, Google's innovations have helped organise and unlock the power of information.*

Spanish consumers named Google Search, Google Maps, Android, and YouTube among the ten most helpful innovations of the last thirty years.

### The economic impact of Google in Spain in the last 20 years

- In total, Google products supported **€151 billion in economic activity in Spain in the last 20 years**, which in turn supported an average per year of **121,000 jobs in Spain**.
- In total, Google products have supported an average per year of **55,000 jobs for women in Spain in the last 20 years**.
- In total, we estimate that Google Search and Workspace are creating **€750 billion in business time savings in the last 20 years**.

### The economic impact of Google in Spain in 2022

- In total, we estimate Google products supported **€19 billion** in economic activity in Spain in 2022. Measured on a like for like basis, that is over a 40% increase over the last three years.
- In total, Google products supported **over 400,000 jobs** in Spain during the last year.

### How Google products help users to take more informed decisions

*Through steady iteration, Google's core products have continued to evolve and improve, saving time and money for people. By providing more affordable and open options, Google helps create greater choice and increases digital inclusion. Google's technology also has a significant societal impact: supporting people, businesses and cities as they improve their sustainability; increasing accessibility by making technology available to everyone; and supporting healthier living and fitness.*

- Every month, **25 million** Spanish people use Google Maps to **find a local business**.
- **70%** of users said Google's products - e.g. through eco-routing, or eco-certified label for hotels - makes it easier **to make more informed, sustainable choices**.
- By helping people **find more cost effective options**, Google Search and Maps help save the average person in Spain **€115 a year**.
- **71%** of Shopping or Search users say they regularly use Google Shopping to compare the prices of products and services, with **92%** of those saying they find it helpful.
- **30 million people in Spain** have used Google Maps or Google Business Profiles or Google Search to **find out if local shops or businesses are open**.
- Over **25 million users** in Spain have used Google Maps to **find responsible stores** (local products, bulk stores, repair stores, thrift shops, recycled products stores).

## How Google helps users to acquire digital skills and have more jobs opportunities

*From primary school to on-the-job skills training, Google's products and services have created new ways for people to learn and build new skills throughout their lives.*

- The 1.3 million people **trained in digital skills by Google in Spain** have had an indirect impact of **€700 million** in the economy per year. (From program launch in 2014 to 2022)
- Every year, the **digital skills people have learned through Google Search** boosts the economy in Spain by **€19 bn**.
- **73%** of users use Google Search to **learn a new skill** and continue their lifelong learning, and **39%** to **look for a new job** in the last year.
- **29%** of people with only a **secondary school background** say they find it easier to learn through video and tools such as YouTube rather than through text.
- Every year **67% of unemployed individuals** use Google Search to **learn a new skill**, and **64%** to **look for a new job**.
- Every year, **70% of women** use Google Search to **learn a new skill**, and **40%** to **look for a new job**.

## How Google helps companies in their digitization journey

*Google's products are helping drive the competitiveness of European companies: increasing productivity for ordinary workers, enabling businesses of all sizes to compete and reach customers across the world, providing new platforms for independent creators to earn a living through, and supporting innovation in some of Europe's most dynamic firms.*

- Google Search and Ads have supported **€5.3 billion in exports** for the Spanish economy in the last year.
- Google Ads contributes €7.8 billion to the economic growth potential of SMBs.
- In total, we estimate that Google Cloud is creating at least **€1.1 billion a year** in business time savings for the Spain economy.
- Google Cloud contributes **€3 billion** in economic productivity improvements for SMBs.
- **56%** of businesses say that paid search advertising is one of the most important ways **they reach new customers.**
- **63%** of businesses say that one of Google's free of charge channels (eg reviews, Shopping, Google Business Profiles, organic search, Maps) is one of the **most effective ways they connect with customers.**
- In total we estimate that by creating a widely used open source platform Android has saved developers in Spain **over 865,000 development days** - the equivalent of **€130 million** in reduced development costs.
- In 2022, we estimate that the Play store generated **€150 million** in revenue for **developers in Spain.**
- **63%** of start-ups or **61%** of the fastest growing businesses say Google products have helped **accelerate their growth.**
- **43%** of small businesses say that the costs of starting a business have reduced substantially or dramatically because of internet tools such as Google Workspace or Google Business Profile.

### **Supporting Businesses during Covid-19**

- By helping businesses **shift to online sales for the first time during 2020**, Google helped support **€2 billion** in economic activity.
- **430,000 businesses** started **selling online for the first time** as a result of the pandemic.
- **66%** used Google Search to **keep up to date with the latest Government advice on Covid-19.**

## The potential of AI to help solve societal and economic challenges

*New and developing digital technologies such as AI, AR and the cloud have the potential to unlock the power of the world's information still further, helping tackle some of our largest economic and societal challenges. Google pioneered technologies are likely to remain at the centre of this.*

- AI tools are widely supported to help solve societal challenges:
  - a. By deploying AI across businesses to help with pre-emptive risk monitoring and upskilling workers in cybersecurity, Spain **could mitigate €1.9bn worth of cybersecurity risks.**
  - b. **68%** of people say they support AI tools being used to **help reduce their energy usage or increase their personal sustainability**
  - c. **49%** of people say they support AI tools being used to **eliminate/reduce mindless tasks at work**
  - d. **75%** of people say they support AI tools being used to **unlock advancements in drug discovery and development**
  - e. **70%** of people say they support AI tools being used to **monitor agricultural health to ensure food supply availability**
  - f. **76%** of people say they support AI tools being used to **help people/governments reduce the risks they face from extreme weather events** e.g. wildfires, flooding, heatwaves, etc.
  - g. **76%** of people say they support AI tools being used to **monitor and manage water use and quality**
  - h. **75%** of people say they support AI tools being used to **reduce carbon emissions by managing energy use in households**
- Generative AI could increase the size of GVA in Spain by **€100 billion or the equivalent of 8% of GVA<sup>1</sup>**, while generative AI tools could save the average worker over **70 hours** a year.

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<sup>1</sup> Following the methodology of Goldman Sachs, we assumed no productivity improvements to types of tasks other than those identified by them. In addition, we assume capital intensity remains constant.

## Appendix: Methodology

Google commissioned independent consultancy Public First to explore and quantify how its products are helping workers, businesses, content creators and consumers in Spain. Building off new polling of over 1,000 consumers and 500 senior business leaders, Public First used traditional economic modelling built upon third-party estimates of Google's market size, and standard returns on investment (ROI) to measure the economic activity driven by Google's core products (Search, Ads, Android, AdSense, YouTube and Cloud). While Google commissioned this modelling from Public First, all economic estimates are derived from official, third party and Public First's proprietary information.

### Economic Impact

#### *Google Ads*

Following the precedent of past Google impact reports, we use third-party data to estimate the total size of the EU-27 Google Ads market, combining PWC and Statista data on the total EU-27 paid search market with Statcounter estimates of Google's market share.

Following the methodology of the US [Google Economic Impact Report](#), we then scale this revenue by an assumed Return on Investment (ROI) factor of 8, from:

- [Varian \(2009\)](#) estimates that businesses make on average \$2 for every \$1 they spend of AdWords.
- [Jansen and Spink \(2009\)](#) estimate that businesses receive 5 clicks on their search results for every 1 click on their ads.
- Google estimates that search clicks are about 70% as valuable as ad clicks.
- Total ROI is then  $2 * \text{spend} + 70\% * 5 * 2 * \text{spend} - \text{spend} = 8 (\text{spend})$ .

This growth is similarly scaled by the ROI factor of 8 and divided by GDP.

More information on this methodology is available at <https://economicimpact.google.com/methodology/>

#### *AdSense*

In order to estimate total EU-27 AdSense revenues, we combined:

- Google's published 2022 Network Revenue

- an assumption on Traffic Acquisition Costs as a % of Network Revenue, based on past published TAC data.
- EU-27's share of non-video display spending and growth in overall market since 2022, derived from PWC and Statista data.

### *Android*

We draw on:

- [Deloitte](#) data on the overall size of app store and contract revenue in Europe
- Statcounter data on Android market share
- [PPI data](#) on the number of jobs supported in EU-27 by Android

This allowed us to estimate Google Play revenues for developers in EU-27.

To calculate the overall cost and time savings for developers we:

- Use [42Matters](#) data to estimate total number of Android apps offered by EU-27 developers
- Apply [AlphaBeta estimates](#) of average developer day time savings created by Android
- Glassdoor data on average developer salary in EU-27

### **Consumer Benefits**

#### *Consumer Surplus*

As part of our polling, we asked participants the following single discrete binary choice questions:

“Imagine you had to choose between the following options. Would you prefer to keep access to GOOGLE PRODUCT or go without access to GOOGLE PRODUCT for one month and get paid PRICE?”

The price offered was randomised between 1.25, 2.50, 5, 10, 20, 50, 100, 200 and 500 euros and we asked variants of this question for Google Search, Google Maps, YouTube, Gmail and Google Workspace.

We then regressed the results of this poll to derive a demand curve and used this to calculate median consumer surplus per user per product.

#### *Cost Savings from Google Maps and Search*

The cost savings for Google Maps were estimated using our consumer survey data on Google Maps usage in EU-27, estimates from TomTom on time savings from using GPS devices and statistics on car ownership rates and average distances travelled by car per year. This allowed us to estimate the reduction in distance travelled from using Google Maps. Combining that with vehicle fuel economy and fuel price data allowed us to estimate the cost savings from this.

Cost savings from Google Search drew on our survey data on use of Google to compare prices and statistics on the size of the e-commerce market in EU-27. For those that said that they found Google “very helpful” for comparing prices we assumed savings of 10% and for those saying it was “somewhat helpful” we assumed savings of 5%.

## **Skills and Productivity**

### *Digital Skills learned through Search*

In order to do this, we:

- Undertook a review of estimates of the wage premiums associated with digital skills. Drawing on this, our calculations assumed:
  - A 6% wage premium from acquiring basic digital skills
  - A 15% wage premium from acquiring more advanced digital skills.
- Asked adults, through our consumer survey, whether they had used self-directed internet research to learn a range of digital skills from scratch (e.g. advanced spreadsheet skills, programming, computer aided design etc)
- For those that had done so, we asked them whether Google played an important role in this self-directed research.
- This allowed us to estimate the share of adults in work that had used self-directed internet research, through Google, to learn digital skills.

Combining this with our estimates of the wage premium (and Eurostat data on wages) allowed us to arrive at a salary uplift across the whole economy.

### *Workplace time savings and productivity gains*

Using the [approach of Hal Varian](#), and estimates of Google Search usage in EU-27 from our survey, we quantified the aggregate working time saved from Google Search being used to answer questions.

Eurostat data on hourly labour costs allowed us to express the value of these time savings in monetary form.

We also used data from our survey on Google Workspace usage, and [Forrester estimates](#) of productivity gains, to estimate the impact of greater collaboration and efficiency through Google Workspace.

## **AI**

### *Potential Economic Impact of Generative AI*

In order to do this, we:

- Drew on the US O\*Net occupation database, which contains information on 51 different types of work activity for around ~800 types of occupation.
- Based upon Goldman Sachs' [identification](#) of the types of tasks exposed to automation by generative AI, we classified the proportions of tasks in each occupation that were susceptible to automation.
- We aggregating this into broader economic categories based on their overall share of US employment and average wage bill, and then created our own crosswalk to convert the results from each occupation to the corresponding occupation in ISCO-08
- Aggregate by wagebill, occupation and sector to produce an estimate of the total possible improvement in labour productivity.
- Assumed capital intensity remained constant, and converted this labour productivity improvement into an overall improvement in GVA.

### *AI Cybersecurity Savings*

To assess the potential savings derived from AI cybersecurity, we asked businesses questions on whether they had experienced a cyber attack and at what cost, as well as on their current utilization of AI-based cybersecurity solutions. We also drew on data from the Global Cyber Security Index, Hiscox and Norton on cybersecurity risk, costs and awareness of how to protect from cyber crime.

We drew on IBM's Cost of a Data Breach Report 2022 to obtain the average percentage savings achieved through the implementation of AI in cybersecurity practices.

By combining these multiple data points with Eurostat data on the number of businesses, we constructed a model that estimated the potential savings that could be attained if non-adopters of AI cybersecurity were to implement such solutions.

## **Benefits of Google Cloud**

*Value of business time savings for the Spanish economy.*

This estimate drew on [IDC](#) research on cloud-related efficiency savings (in particular staff cost savings), [estimates](#) of time spent by the average worker dealing with IT-related issues (22 minutes per day), Eurostat data on employment by businesses and [Public First survey](#) data on Google Cloud usage to quantify time savings to businesses.

The time lost measure relates to the average worker, not just those working in technology – so it will reflect things like software and hardware problems eroding productivity in a typical office job.

Drawing on the IDC study, we estimate that cloud reduces time spent on IT-related issues for typical workers by about 9 minutes per day. Based on an eight hour working day this amounts to a productivity increase of about 2%. We translated this into an aggregate monetary figure drawing on Eurostat employment data.

*Value of economic productivity improvements for SMBs.*

To calculate this, Public First drew on [existing research](#) on the impact of cloud computing on company productivity – this shows productivity gains of up to 20% when combined with best management practice, or 2% with poorer management practice. To arrive at an average productivity uplift, taking into account variations in management practice, we drew on [research](#) suggesting that the best managers are only selected about 18% of the time. This gave us an aggregate productivity uplift of 5%.

Combining this with [Public First survey data](#) on SMB business usage of Google Cloud, and Eurostat data on economic output (GVA) produced by SMBs, we were able to arrive at what this 5% productivity uplift translates to in euros.