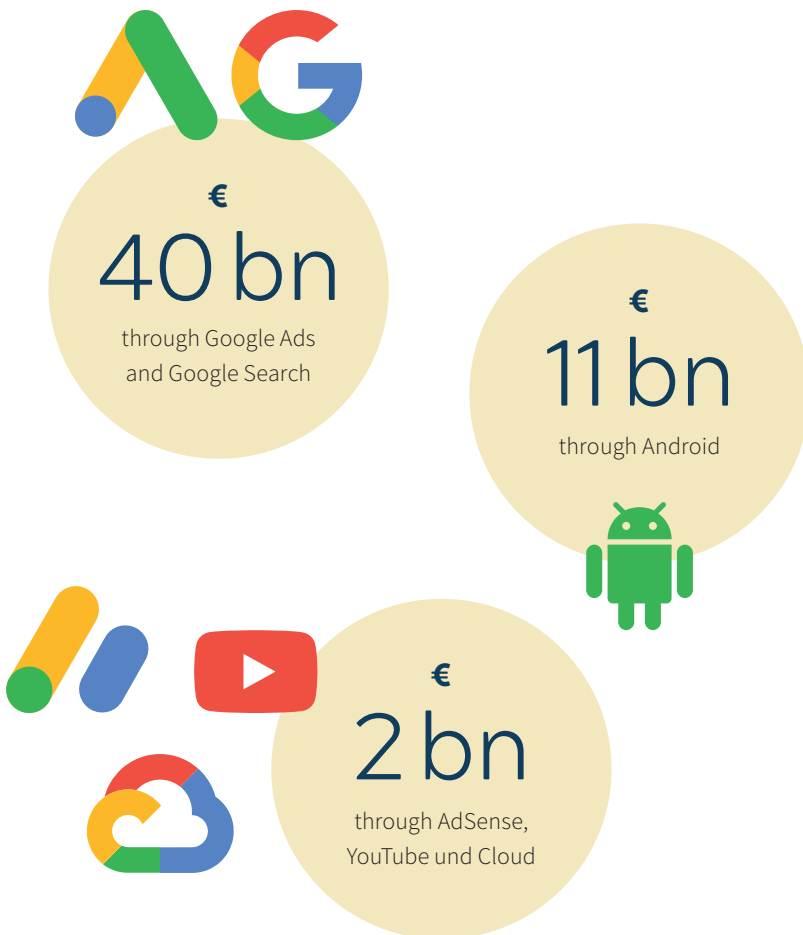


The digital factor - How Germany benefits from smart technologies

The Google effect for the German economy

€53 billion of gross value added

In 2023, it is estimated that at least €53 billion of gross value added in Germany will be attributable to the use of Google services.¹ This corresponds to 1.5 percent of total gross value added in Germany.²



Employment effects through the use of Google services in 2023

The value created through the use of Google services forms one supporting pillar for at least **860,000 jobs** in Germany in 2023.³

This corresponds to **2 percent of the German workforce.**



Learn more

The results presented here are excerpts from the study “Der digitale Faktor” (“The Digital Factor”) by IW Consult, commissioned by Google, and the business and population surveys conducted during this study. Information on the methodology and further results can be found at:



[der-digitale-faktor.de](https://www.der-digitale-faktor.de)

1) The gross value added is achieved through the use of Google Ads and Google Search, AdSense, Android, YouTube and Google Cloud. The calculations are based on the methodology of the US Google Economic Impact Report (Google Economic Impact, 2023), the results of studies on value creation through Google Cloud (Implement Consulting Group, 2023), and calculations by Oxford Economics on the economic, social, and cultural benefits of YouTube in Germany. Gross value added comprises the added value created in the production process after deducting intermediate inputs. Gross value added is valued at basic prices, i.e. excluding taxes payable on goods (taxes on products), but including subsidies on products (Federal Statistical Office (2023)). The calculations were carried out by Public First. A detailed description of the methodology can be found in the study at [der-digitale-faktor.de](https://www.der-digitale-faktor.de)

2) Since the data for total gross value added in Germany as a whole is so far only available up to the year 2022, the total gross value added of € 3.5 trillion in 2022 is used as a reference value.

3) The number of jobs for which the gross value added serves as a supporting pillar is based on the ratio of gross value added to employed persons in Germany (Federal Statistical Office, 2023). The results of Oxford Economics on the economic, social, and cultural benefits of YouTube in Germany, and the results of the study by Implement Consulting Group (2023) on the effect of using Google Cloud, are also used. The calculations were carried out by Public First.

Social impact of Google services

Google's services make everyday life easier, enable participation and help individuals develop their professional potential:

88%

of the users surveyed in Germany state that Google Search saves them time.

60%

of Google Search users also make use of the service to find opportunities to acquire new proficiencies and know-how, and thus to support their lifelong learning in private and professional terms.

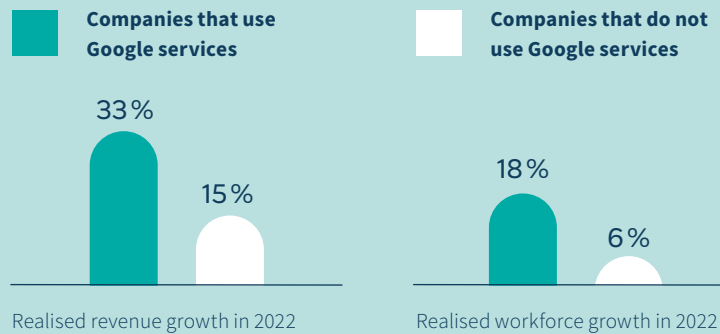
61%

of users of Google's usability tools and accessibility services state that these have improved their quality of life.

Google helps SMEs go digital

1 in 3 small and medium-sized enterprises say they have used Google to drive the use of digital technologies in their business. Through easier collaboration and more effective processes and workflows, a medium-sized company **can save an average of around €270,000** by using applications such as Google Workspace.

Companies that use Google are more successful



Economic impact of Google services

Google's services contribute to competitiveness, growth and innovation in the German economy:

On average, **a single euro spent** by companies on Google Ads will increase their revenue following this ad spend **by 8 euros**.⁴



Google Ads has stimulated an estimated **316 million store visits** in Germany and thus also supports local retail.



138,000 new businesses and start-ups used Google services in 2022..



€109
per month

That's what Google services are worth to users in Germany: it's how much they would need to be paid before they would be prepared to stop using these services.⁵

4) This 8:1 ratio represents the return on investment (ROI) from Google Ads. This means that one euro invested in advertising spending on Google Ads was subtracted from the revenue growth achieved. The methodology is based on the approach used in the US Google Economic Impact Report. The 8:1 ratio is made up of two components: additional company revenues achieved via Google Ads and those achieved via Google Search. For each euro invested, additional business revenue via Google Ads amounts to €2 and additional business revenue via Google Search amounts to €7. After subtracting the invested euro from the additional total revenue, the ROI is €8. These estimates are mainly based on scientific studies by Varian (2009) and Jansen and Spink (2009). The methodology section of the study and Google's own explanations (<https://economicimpact.google/methodology/>) explain the subject in more detail.

5) The consumer surplus for Google services was determined via the population survey. Respondents were asked to choose between using a Google service (Google Search, Google Maps, YouTube, Gmail or Google Workspace) and a random monetary amount (€1.25, €2.50, €5, €10, €20, €50, €100, €200 and €500). The results of the survey were regressed to derive a demand curve, which was used to calculate the mean consumer surplus per user and product. The calculations were carried out by Public First.