

# How to support political decision making in times of crisis

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## Abstract

At the beginning of the Covid-19 pandemic in Germany, high-level political decision makers realized: Statistical data, which they urgently needed, was scattered across various websites and databases, in different formats and without consistent quality standards. There was no single point of access to the most relevant indicators from different data sources to enable decision makers to improve the management of crises. As a result, the Federal Statistical Office of Germany (Destatis) was commissioned to develop a tailor-made digital product based on the requirements of political decision makers. Destatis launched the Dashboard Deutschland after a few months of development in winter 2020. The product is closely built around the needs of the target group and is therefore unique on the German data market. It is strictly focused on crisis-relevant and frequently updated key-figures (mostly economic indicators) whether official data or data from other sources, compiled by the Federal Statistical Office. As a dashboard it is focussed on interactive visualizations and short texts – without tables. Users can also create customized personal dashboards. It contains a feature called Pulse-Check to compare time series of economic indicators from different sources to identify connections in the development.

The presentation shows how an NSO can be responsive to the needs of a strategic relevant target group during times of crisis and how to increase relevance and trust. But the new product required a fundamental mind-set-change within the NSO. The Federal Office took the role of a curator for data from different sources for the first time. The presentation provides an insight regarding the challenges that the NSO faced during the conception and development. How does the NSO ensure high data quality? How is the product embedded in established publishing processes? How does the NSO measure the success? How is the product developed further? Do political decision makers have influence on the development of the product?

**Keywords:** dashboard, politicaldecisionmaking, highfrequentdata, howtostayrelevant, mindsetchange

## 1. Introduction

In December 2020, during the Covid-19 pandemic, the Federal Statistical Office of Germany (Destatis) launched the Dashboard Deutschland, a new innovative data portal – strictly focused on visualizations of crisis-relevant, short-term indicators. It is accessible to the public, but was closely built around the needs of German political decision-makers in a short period of development time. Unlike other dashboards it combines indicators from official and non-official sources as well as Destatis experimental data. It has therefore a unique position on the German data market and in the product range of Destatis. The launch of the product required a mind-set-change because the Federal Office took the role of a data curator for the first time. It also required an agile mind-set and a different organizational approach to realize a first version in only a few months of development time. Two years after the launch of Dashboard Deutschland, Destatis added the comparison-tool “Pulse-Check” as part of the Dashboard. A graphical tool for comparing economic indicators from different sources over time.

## 2. What do politicians need?

At the beginning of the Covid-19 pandemic, political decision makers in the German government realized: Statistical data, which they urgently needed for an effective crisis-management, was scattered across various websites and databases, in different formats and without consistent quality standards. There was no single point of access (which was not guided by commercial or political interests) to the most relevant and high frequent updated indicators from different data sources. As a result, the Federal Statistical Office of Germany (Destatis) was commissioned to develop a tailor-made digital product based strictly on the requirements of political and administrative decision makers. Representatives and experts from different ministries, first of all the Ministry of Economic Affairs and the German Chancellors Office consulted Destatis in spring 2020 for different strategic briefings to concretize the requirements for a dashboard to support data-driven crisis management.

The group identified six main requirements for the new product, which should be available within a few months of development time.

- Daily, monthly and quarterly updated data (strict focus on high frequent updated indicators)
- Official data as well as data from other sources – for the big picture

- Focus on selected topics related to recent, crisis-relevant developments
- Focus on visualizations (dashboard) to support faster and better understanding
- Possibility to create a personal/individual set of topics
- mobile use first

The requirements showed, that their understanding of quality was different compared to common quality standards for digital publication products at Destatis so far. Products like for example the Destatis database called GENESIS offer the whole range of the statistical program – regardless of the frequency of updates or relevance for a certain target group. Neither the Database nor other products cover official data together with data from non-official sources.

Table 1: Comparison 2020 – needs of political decisionmakers compared to existing digital products

	Database	Website/Apps
Quarterly, monthly real-time data	partially	no
Other data sources	no	no
Selected topics	no	no
Dashboard	no	yes
Personalized content	yes	no
Mobile first	no	yes

The available products obviously did not fit most of the requirements. It was clear that it would be more meaningful to develop a new product with the financial support of the Ministry of Economic Affairs instead of adapting other products who are focused on other target groups.

### 3. How to create a product that matches the needs

The work on this new product required a mindset-change within the organization because it had to take over the role of a data curator for the first time. Under the lead of an agile project management an interdisciplinary team with members from different areas of the FSO was formed. Because of the tight schedule they had an outstanding position. They worked outside the common organizational structure – closely together with external software developers.

The Dashboard Deutschland was not embedded in the regular publication process during the development. The team had the mandate to develop the new portal and the content almost without coordination with other areas and experts in the NSI to speed up the process. This was an advantage in the initial phase to speed up the development and create something new without the organizational boundaries. After the product was established it was transferred and embedded in the regular publication process.

### **3.1 Scope of the product**

The first version of Dashboard Deutschland was launched in December 2020 and started with a set of indicators from official and non-official data sources that covered the topics economy, finance, mobility, energy consumption and health. Later when the war in the Ukraine started and inflation increased, the topics changed accordingly to different issues administrative and political decisionmakers had to face. Decisions about adjustments of the scope of content are discussed between the statistical experts and an editorial team following the demands of political decisionmakers.

The product is based on a cloud infrastructure with multiple technology layers. With the creation of a complete IT-stack, with components like data platform, a tool for the curation of content, it has the advantage to provide a blueprint for the creation of other products to provide data driven content. Today the product contains about 110 Indicators, of those 30 with non-official data and structured in in seven topics:

- In the spotlight (editors choice)
- Labour market
- Building manufacturing and housing
- Energy supply
- Finance
- Economy
- Ukraine (Indicators related to the war between Ukraine and Russia)

The indicator update frequency is often daily, weekly and monthly and for some data quarterly or yearly. The following table provides a list of selected indicators ordered by update frequency:

Table 2: Selection of indicators by update frequency

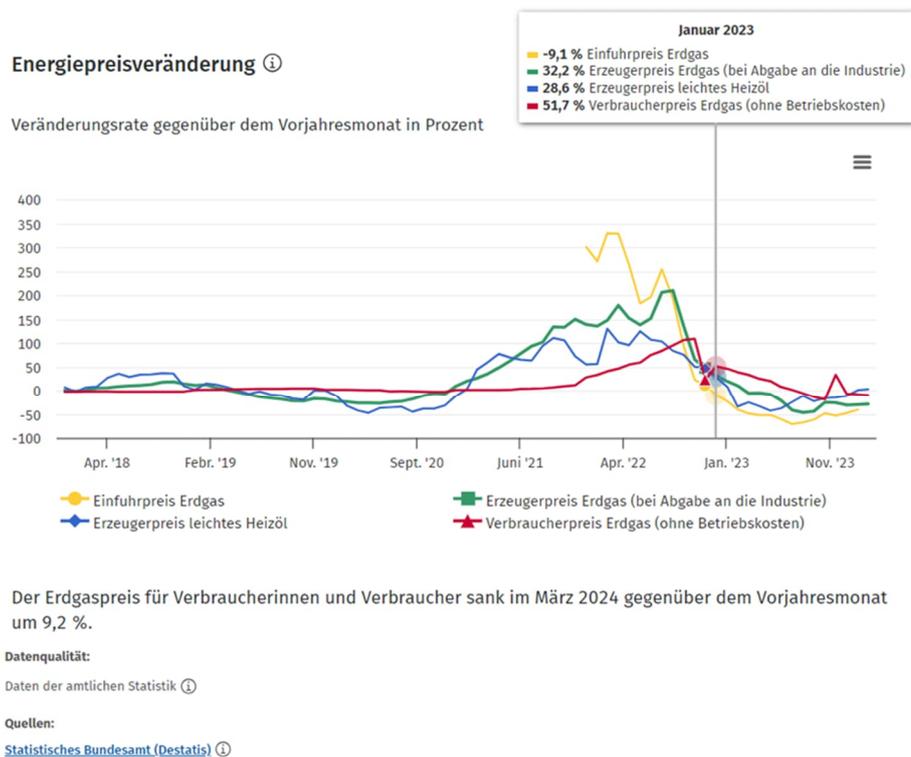
Daily	Weekly	Monthly	Quarterly
<ul style="list-style-type: none"> <li>&gt; Baltic Dry Index</li> <li>&gt; Passantenfrequenz</li> <li>&gt; Tischreservierungen über OpenTable</li> <li>&gt; Entwicklung des deutschen Arbeitsmarktes</li> <li>&gt; Aktienindizes</li> <li>&gt; Wechselkurse</li> <li>&gt; Flugverkehr weltweit</li> <li>&gt; Ölpreis</li> <li>&gt; Kraftstoffpreise</li> <li>&gt; HWWI- Rohstoffpreisindex</li> <li>&gt; Nettostromerzeugung</li> <li>&gt; Gasimporte nach Deutschland</li> <li>&gt; Täglicher Lkw-Maut-Fahrleistungsindex</li> <li>&gt; Füllstand deutscher Erdgasspeicher</li> <li>&gt; Gold- und Kupferpreis</li> <li>&gt; Strompreis</li> <li>&gt; Pegelstände am Rhein</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Bonitätschecks von Wohnungssuchenden</li> <li>&gt; Neue Hypothekenverträge</li> <li>&gt; Kreditvergaben und Online-Transaktionen</li> <li>&gt; Wöchentlicher Aktivitätsindex</li> <li>&gt; Stromverbrauch</li> <li>&gt; Flugverkehr Deutschland</li> <li>&gt; Absatz von Warengruppen im Lebensmitteleinzelhandel</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Lkw-Maut-Fahrleistungsindex</li> <li>&gt; Ifo Indikatoren: Knappheitsindikator, Produktionserwartungen, Geschäftsklima</li> <li>&gt; Auftragseingang im Bauhauptgewerbe</li> <li>&gt; Dienstleistungsproduktion</li> <li>&gt; Produktion im Baugewerbe</li> <li>&gt; ZEW Konjunkturausblick</li> <li>&gt; Produktion im Produzierenden Gewerbe</li> <li>&gt; Umsatz im Verarbeitenden Gewerbe</li> <li>&gt; HCOB Einkaufsmanagerindex</li> <li>&gt; Auftragseingang Verarbeitendes Gewerbe</li> <li>&gt; LinkedIn Hiring Rate</li> <li>&gt; Arbeitslosigkeit &amp; offene Stellen</li> <li>&gt; Erwerbstätigkeit</li> <li>&gt; Automobilindustrie (Exporte, Neuzulassungen und Produktion von Pkw)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; DIW Konjunkturbarometer</li> <li>&gt; Entwicklung des Bruttoinlandsprodukts</li> <li>&gt; Entwicklung ausgewählter Aggregate des Bruttoinlandsprodukts</li> <li>&gt; Außenhandel nach dem Konzept der Volkswirtschaftlichen Gesamtrechnungen</li> <li>&gt; Baupreisindizes</li> </ul>

The indicators are structured in a tile with standardized components. The following figure provides an overview about the structure on an indicator in the Dashboard Deutschland.

Figure 1: Structure of an indicator

Data Source:

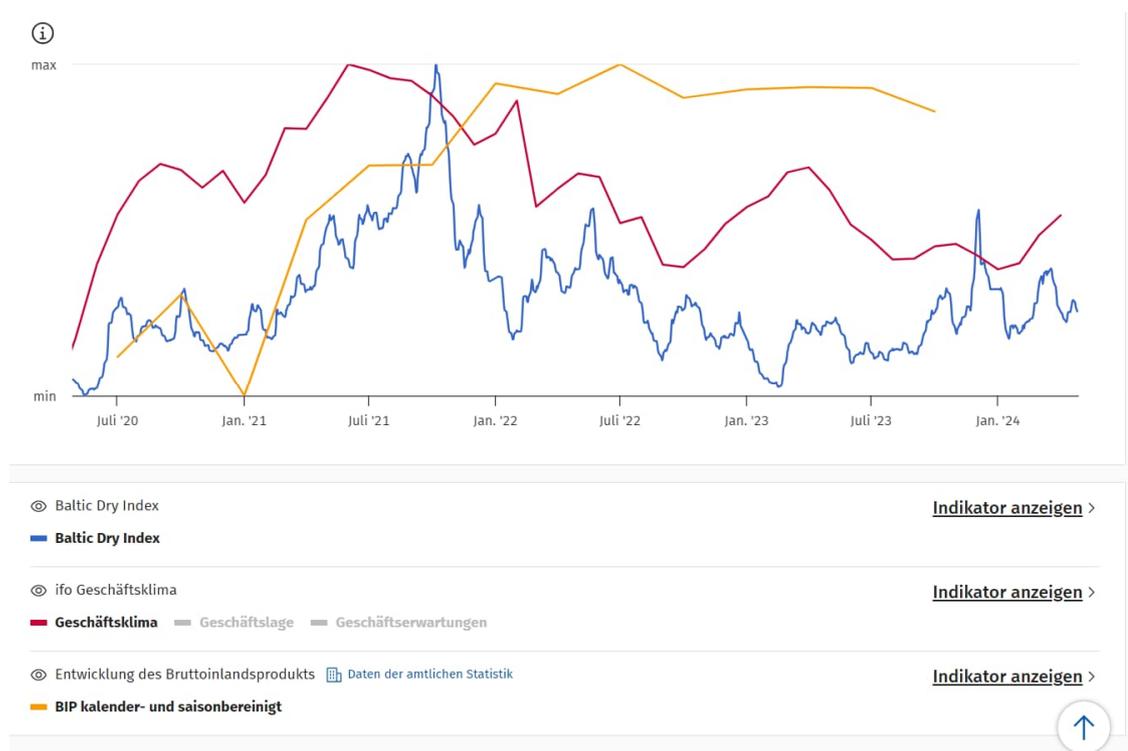
[https://www.dashboarddeutschland.de/indicator/tile\\_1667826504852?origin=startpage](https://www.dashboarddeutschland.de/indicator/tile_1667826504852?origin=startpage)



All indicators contain a graphic component with mainly line charts, but also area and bar charts. Further information is available via a button, mainly on the methodology and details of the statistics shown. If data used in the graph has been revised, data rows are excluded until the data is correct (e.g. yellow data row in fig. 1). A descriptive text provides more details on the development of the data over the available time period. Information on source and data quality provides transparency on the origin and quality of the data used. All information is curated by colleagues in the specialist statistics department and is checked regularly to ensure the accuracy of the data.

The Pulse-check comparison-tool comes with a similar layout to compare multiple indicators with different data frequencies in one tile. An example with multiple data sources to describe the economic development in Germany is provided in the following figure.

Figure 2: Pulse-Check comparison-tool  
 Data Source: [https://www.dashboard-deutschland.de/comparative-analysis/pulsmesser\\_wirtschaft](https://www.dashboard-deutschland.de/comparative-analysis/pulsmesser_wirtschaft)



To make data sources with different scaling comparable, the data rows in figure 3 are normalized automatically by the comparison-tool. It is possible for users to add and delete more data rows.

In the Dashboard Deutschland and Pulse-Check aside of official data are also non-official data sources included:

- Macrobond (purchased economic and financial data)<sup>1</sup>
- Administrative data from other authorities
- Associations
- Destatis experimental data

Important criteria for the selection of non-official data (besides the high frequency and relevance for the target group) is the reliable availability for updates and the comprehensive documentation of the quality of the data. Most of the data in the dashboard are updated via API.

How about Open Data? Open data was not a requirement for the target group but of course it is an important matter for the work of FSOs in general. There is no coherent solution for the whole product yet – it depends on the data source and the data licences. Indicators based on official data can be downloaded according to Open Data standards. Purchased data from Macrobond and other sources are not available according Open Data standards because they are not appropriately licensed.

Although the public is not the target group of Dashboard Deutschland it was accessible to the public from the beginning. According to the European Statistics Code of Practice it is important that all users have equal access to statistical releases. To fulfil the Code of Practice (CoP) is an important quality aspect in the Destatis publication policy. An aspect that was neglected is an english version of Dashboard Deutschland – because of the German speaking target group – but it is part of the product backlog and will be realized in the future.

### **3.2 Role in the Destatis product range**

Compared to other products the Dashboard Deutschland was developed for the demands of small target group of political decisionmakers with specific needs. The outstanding characteristic of the product is the combination of official, non-official and experimental data on one platform. The coverage of the product in numbers of users is small compared to the other products. But the Dashboard fills an important strategic gap in the Destatis product range.

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<sup>1</sup> Macrobond is data broker based in Sweden (<https://www.macrobond.com/>). The data from Macrobond is transferred in the Dashboard Deutschland via data API.

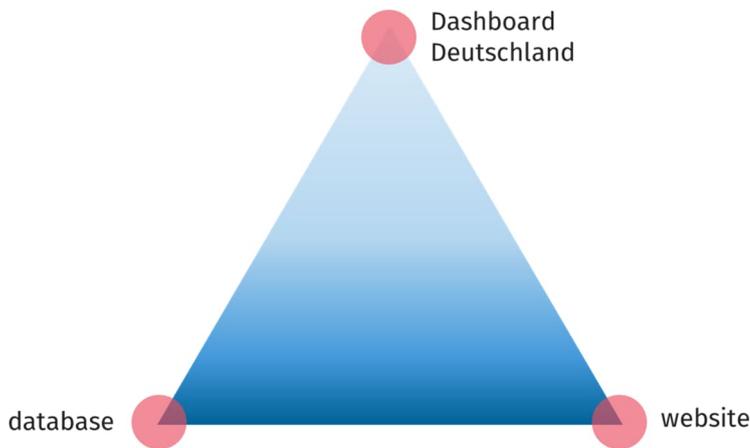
Table 3: Comparison 2024 – needs of political decisionmakers compared to existing digital products

	Database	Website/Apps	Dashboard D.
Quarterly, monthly real-time data	partially	no	yes
Other data sources	no	no	yes
Selected topics	no	no	yes
Dashboard	no	yes	yes
Personalized contend	yes	no	yes
Mobile first	no	yes	yes

It strengthened the reputation and the trust in official statistics and the FSO among the target group. The Dashboard with the comparison-tool Pulse-Check was one of the flagship products of the digital summit hosted by the Chancellors Office in 2022 and is a door opener in almost every consultation with ministries, federal and governmental Institutions. New products based on the Dashboard technology stack are initiated and contribute to the further development of Destatis products at a high technological level.

The Dashboard Deutschland is part of a publication triangle: The database delivers tables for a broad range of expert users/data journalists, the website delivers content for the public and the Dashboard Deutschland offers visualizations for political and administrative decisionmakers.

Figure 3: Role of Dashboard Deutschland in the digital publication program



#### 4. Further development

Currently a new dashboard is in development. Destatis was mandated by the German Integration Commissioner to create a product based on the appearance of Dashboard Deutschland. Under the working title of Dashboard Integration, this product also uses the same technology stack and the existing interface to display several indicator tiles. In 12 thematic areas, such as labour market and demography, more than 100 graphs on integration are displayed. The product complements the Dashboard Deutschland family with structural data and is expected to be publicly available in early 2025.

Particularly for the economic part of the Dashboard Deutschland, events with ministries and government agencies are planned in 2024 and beyond. The main goal is to gain further input from the primary target group for further development and opportunities for improvement. Increasing the awareness of the product among the target group is also an important stated goal.

#### Results and Conclusions

To build a product that fits exactly the needs of one important target group is first of all a strategic decision that should be made on a high management level not only in the field of communication and dissemination. In the case of the Dashboard Deutschland there were implications on a larger scale and also risks who had to be considered. A strategic change regarding the future role of the FSO towards a data manager/curator became visible in a digital product and needed to be explained and accompanied with change management and internal

communication processes. Another risk that had to be taken was the fast agile development of the product without being established in regular publication processes. The integration of the product in the regular organizational structure should have been realized earlier after the development phase to avoid incoherences with other products and processes regarding the technological stack, visualization guidelines and the development of the content.

Despite all the risks and challenges: The development of the Dashboard Deutschland turned out as a great success. It is a door-opener for other projects, increased the trust of political decisionmakers in the FSO and strengthened its position on the German data market. On the other hand Destatis took the opportunity to improve its skillset to support political decisions in times of crises.

## Acknowledgements

Dashboard Deutschland: <https://www.dashboard-deutschland.de/#/>

Pulse-Check: [https://www.dashboard-deutschland.de/comparative-analysis/pulsmesser\\_wirtschaft](https://www.dashboard-deutschland.de/comparative-analysis/pulsmesser_wirtschaft)

## References

Stern, M., Gerhard, M., Czerniak, F. (2024). Konjunkturbeobachtung mithilfe innovativer Veröffentlichungsformate: Das Dashboard Deutschland und der Pulsmesser für die Wirtschaft. *Wirtschaft und Statistik* – 1/2024, 15-24. [https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2024/01/wista-012024.pdf?\\_\\_blob=publicationFile](https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2024/01/wista-012024.pdf?__blob=publicationFile)

Eurostat (2017). The European Statistics Code of Practice. <https://ec.europa.eu/eurostat/web/quality/european-quality-standards/european-statistics-code-of-practice>

Vorgriemler, Daniel/Decker, Jörg. Die Rolle der amtlichen Statistik innerhalb des Daten-ökosystems. In: *WISTA Wirtschaft und Statistik*. Ausgabe 3/2021, S. 17ff. [https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2021/03/amtliche-statistik-datenoekosystem-032021.pdf?\\_\\_blob=publicationFile](https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2021/03/amtliche-statistik-datenoekosystem-032021.pdf?__blob=publicationFile)

Hagenkört-Rieger, Susanne. Zukunft gestalten mit amtlicher Statistik – Möglichkeiten aus der Perspektive des Datenproduzenten. In: *WISTA Wirtschaft und Statistik*. Ausgabe 6/2023, Seite 42 ff. [https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2023/06/zukunft-gestalten-mit-amtlicher-statistik-062023.pdf?\\_\\_blob=publicationFile](https://www.destatis.de/DE/Methoden/WISTA-Wirtschaft-und-Statistik/2023/06/zukunft-gestalten-mit-amtlicher-statistik-062023.pdf?__blob=publicationFile)