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Post-Covid: sustaining organisational and product innovation in national statistical offices.

Innovation in national statistical offices organization and working arrangements

Covid crisis – lessons learned*

Prepared by Germany

Summary

The paper presents the experience of the German Federal Statistical Office during the Covid pandemic: measures taken to ensure a safe working environment and continuity of statistics production, innovations addressing new user demand and lessons learnt from the crisis.

The document is presented to the Conference of European Statisticians' session on "Post-Covid: sustaining organisational and product innovation in national statistical offices - Innovation in national statistical offices organization and working arrangements" for discussion.

* The present document was submitted late due to resources constraints.

I. Background and challenges in the context of the Covid crisis

1. The environment in which official statistics are produced changed rapidly during the Covid crisis. The pandemic created many new challenges for official statistics and fostered new information needs. The German Federal Statistical Office (Destatis) had to cope with the new situation to produce statistics under more difficult working and data collection conditions. Furthermore, Destatis had to meet new data needs that have emerged during the pandemic and are aimed at measuring and counteracting it. Moreover, new communication channels had to be implemented and Destatis had to face increasing business nonresponse rates and a variety of methodological and conceptual challenges.

2. However, especially in times of crisis, reliable information is a crucial base for fact-based decisions. Therefore, Destatis had modernised internal organisational structures and found new innovative solutions to meet new information needs and maintain the statistics production. As a result of the crisis, the relevance of official statistics for robust and quick decision-making has come even more into focus.

II. Modernise internal organisational structures

3. Our first priority during the Covid crisis was to create a safe working environment for all employees and ensure our statistics production. We had to reorganise our everyday work and quickly modernise our internal organisational structures.

4. At the beginning of the pandemic, Destatis – like many other organisations – was not yet technically set up to enable working from home on a large scale. This situation has been continuously improved and now up to 80 % of all employees work from home. This included equipping employees with the essential hardware, such as laptops and mobile phones, to ensure an efficient working environment at home.

5. Consequently, to prevent the pandemic from spreading further, we cancelled all physical meetings and had to develop new communication channels. We quickly modernised our video conference systems to ensure efficient internal and external communication channels.

6. At the beginning of the crisis, Destatis established a dedicated pandemic unit. The pandemic unit continuously evaluates the ever-changing Covid situation and develops measures according to the current situation. The aim is to regularly adapt our Covid measures to the current situation and to keep all employees informed. The pandemic unit also operates a Covid hotline, which responds to all questions and worries employees may have in the context of the Covid situation.

7. Furthermore, we have developed a Covid test centre on our premises. It provides the opportunity for every employee, who does not completely work from home, to get tested regularly.

8. Besides many steps already taken, we are continuously working to further improve and modernise our internal organisational structures and use new opportunities in the context of the digitalisation. Our aim is to further ensure the safety and well-being of all employees and develop mechanisms, like internal communication campaigns, to ensure the motivation of all employees even during these difficult times. We understand the well-being and motivation of our employees as the crucial foundation to maintain a reliable statistics production.

III. Maintain statistics production

9. In addition to the challenge of reorganising internal work organisation and communication, our focus was on maintaining the statistics production. In this context, we also had to develop efficient communication channels with data suppliers and users, for example regarding data quality and comparability.

10. Furthermore, we had to develop alternatives to personal interviews and therefore fostered the conduction of online surveys. In general, we are developing alternative data collection tools, whereby our focus is on fostering online modes. Furthermore, we are developing innovative methods, such as the use of apps.

11. As a reaction to increasing business nonresponse rates, we have increased the share of estimates and used innovative methods, such as web scraping in price statistics.

12. Despite the challenges during the Covid crisis, we have been able to continue our core activities and to provide reliable statistics to the general public and political decision-makers.

IV. Lessons learned

13. During the Covid crisis, the focus was on providing relevant indicators as efficiently and early as possible. Thereby, access to new data sources and innovative products plays a major role in meeting the demand from policymakers and the general public for early data provision.

14. The Covid crisis has changed our users' needs and especially increased the demand for short-term indicators in many areas. To react to this new demand, we provided more experimental statistics from new administrative and private data sources to meet the short-term data needs. We focus on the following areas:

(a) Increase timeliness of statistical results: Statistical facts are essential to map developments both during and after the Covid-19 pandemic and to provide a robust basis for decision-making. Therefore, it is important to further develop nowcasts/flash estimates.

(b) Close statistics gaps and develop innovative statistics: The Covid-19 pandemic demonstrated the need to fill data gaps using new innovative statistics to provide policy makers with relevant data on the impact of crises. Especially in times of crisis we want to provide important information. Therefore, we must stay flexible while decreasing burden on respondents.

(c) Cover needs through new methods of official statistics: Official statistics must respond to changing needs at very short notice, also by adapting the methods used in official statistics. Intelligent estimation methods, artificial intelligence and machine learning offer innovative possibilities in this context.

V. New user needs – innovative products

15. Destatis has developed many innovative products to meet the new demands. Some are described below:

- In the context of our Hotspot monitor, the mobility of the population in coronavirus hotspots¹
- can be studied for every single day. It demonstrates the potential of mobile phone data in the context of official statistics and provides an opportunity to show politicians the added value of using private data.
- Based on the existing user needs, Destatis developed the Dashboard Germany, which is an innovative open data portal for the general public, policy makers, public authorities, the media, business and the scientific community. The aim is to provide access to timely and high-frequency data in an aggregated form independently of location, time and terminal device. In addition to the user-oriented preparation of data including meta information and the provision of sound quality statements, the actuality of the data is a core element of the Dashboard Germany.

¹ Administrative districts and towns not attached to an administrative district where more than 50 new infections per 100,000 inhabitants have been registered over the last 7 days are considered as coronavirus hotspots.

- The Federal Office for Goods Transport has developed the truck toll mileage index, which is calculated from digital process data of truck toll collection, and Destatis has taken it as a basis to produce a seasonally adjusted short-term indicator. This indicator reflects the monthly development of the mileage of large trucks (with four or more axles) on German motorways and provides an early indication of how industrial production is developing in Germany. During the Covid-19 crisis, the index is updated every working day and provides a very early picture of the mileage of heavy goods vehicles, which are subject to toll charges, on German motorways and trunk roads, with a time lag of five to nine days.
- Destatis provides an experimental early indicator on the overall economic development that is based on the monthly advance turnover tax returns.
- Furthermore, a cooperation with a German information provider allows short-term evaluation of information on loan agreements.
- We developed a GDP flash estimate, which is published 30 days after the end of the quarter and thus about two weeks earlier than before.

VI. The way forward

16. The gained experience during the crisis shows that established production, coordination and communication processes of official statistics have to be further developed so that relevant statistics can be provided reliably and in a timely manner also in situations of crisis. Thereby, the focus is on using opportunities of the digitalisation to further improve and modernise our processes and products.

17. In the context of the lessons learned of the pandemic and to get prepared for future crisis, the “network of statistical offices²” developed a crisis protocol, which defines framework conditions for processes and concerned participants for official statistics in the event of a crisis. The aim is to ensure even more efficient and agile action by the statistical network in Germany in the future. Core aspects of the crisis protocol are the establishment of a crisis team, clear internal processes and communication structures and the provision of information. All measures serve the purpose of minimising the organisational need for regulation and the associated loss of time in the event of a crisis, while at the same time maintaining the necessary flexibility in responding to diverse crisis scenarios.

18. Gaps in the statistical programme can be closed through the use of experimental data and through legal changes. In the future, the legal foundations should, if possible, be designed in such a way that the statistical network can react more flexibly to new data needs.

19. In general, the key to solving the challenges during the Covid crisis was close cooperation, continued communication and using the opportunities of the digitalisation. In the future, we are planning to continue this path, strengthen our cooperation and building new ones as well as continuously developing innovative products and methods to continuously improve our products and processes.

² Federal statistics are a joint product. They are produced mainly by the 14 statistical offices of the Länder and the Federal Statistical Office, which together form the network of statistical offices.