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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-19 pandemic as a trigger of change – the case of Statistics Poland

**Prepared by Poland**

### *Summary*

This document discusses the challenges related to the Covid-19 pandemic faced by Statistics Poland, and selected measures taken to address them. They were associated with an increased demand for the data to observe the effects of the pandemic in various socio-economic domains in the shortest possible time. This, in turn, called for the changes in a number of organisational arrangements during different phases of the Covid-19 crisis. The article outlines the findings from a project currently underway at Statistics Poland with the assistance of PricewaterhouseCoopers. It builds on an innovative and agile approach, to help the organization prepare for potential disturbances in the future.

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



## **I. Introduction**

1. Over the past year, the pandemic has posed a significant challenge in nearly every aspect of National Statistical Institutes' daily work. In a very short time, Statistics Poland had to change the organization of its research, maintain the continuity of performed tasks and respond to new information needs of data users. This process can be divided into three phases. The initial one can be called the "first shock". It took the first few weeks of the pandemic when the country was put under the lockdown. Never before had the organization had to adjust to a completely new reality in such a short time. In the second phase, after experiencing the first shock, balance was restored. At this stage, it was necessary to deal with the most urgent needs, maintain the continuity of work and look for solutions to respond to the new information requests. The third stage, which began in the second half of 2020 and is still ongoing, is stabilization. It is the latter stage, where the actual actions are being taken to prepare the organization to react swiftly and build resilience to unforeseen situations in the future.

## **II. Challenges and reactions in the three phases of the process**

### **A. The first shock phase**

2. The first shock caused the necessity of a sudden reorganization of Statistics Poland, in particular in terms of the form of work and the methods of data collection. A significant challenge was a sudden need for all staff to move to a remote working mode, introducing appropriate legal regulations and maintaining workflow. Another equally important issue was ensuring the continuity of statistical surveys under the new conditions, i.e. identifying the ways to implement them while maintaining the timeliness and, above all, the quality of the results. It was also necessary to find opportunities to reach respondents in the shortest possible time, without the possibility of conducting direct interviews.

3. In fact, the decision to shift most of the employees to remote work was taken immediately. The implementation of the so-called mobile office which had started before the Covid-19 pandemic, provided technical tools that enabled the employees to work from home. Using company hardware, the staff gained the access to all resources (software, applications, databases). New or changed internal ordinances laying down the provisions on the remote work were drafted and proceeded relatively quickly and efficiently. Statistics Poland has been using the electronic document circulation system for many years, so there was no need for direct contact between employees in order to regulate formal matters. For formal office business, which was previously executed in paper form, adjustments to shift it to electronic form were done (for example for some of HR and financial issues). In terms of conducting surveys, their implementation by telephone contact was expanded, and direct interviews with respondents were suspended.

4. Besides being a huge challenge in every aspect of our daily work, Covid-19 has also tested our ability to swiftly adapt to changes, to work in a more agile way and explore potential and creativity of our staff. The best example can be the fact that Statistics Poland succeeded in carrying the 2nd Pilot Population Census in full lockdown, in April 2020, in 16 chosen communes. The trial census made it possible to test different interview methods, especially CATI and CAWI, which are now being successfully used in the Population and Housing Census 2021.

5. Moreover, from September to November 2020, the Agricultural Census 2020 was carried out in Poland, as planned. Before its start, a remote training was conducted for all groups of people involved in census work in order to prepare employees of official statistics services and candidates for census enumerators for the census implementation. The development of the Covid-19 pandemic also forced the verification of the method and schedule of data collection in the Agricultural Census 2020. Actions have been taken to increase the share of the Internet self-census method. The method of reporting on request has been introduced. At the same time, field enumerators were able to conduct telephone interviews using mobile devices, in addition to direct interviews.

6. Taking into account the Covid-19 pandemic, Statistics Poland amended the Act of Population and Housing Census twice – in 2020 and 2021. The 1st amendment focused on a swift adapting the already established organization of the census and the work mode to the new conditions of a total reduction of face to face contacts. The 2nd amendment was about extending the time of census by extra three months until September 30, 2021 (from 1 April to 30 September 2021). The Population and Housing Census 2021 is currently ongoing, in its extended version, as planned.

## B. The phase of rebalancing

7. The rebalancing phase was characterized by the stabilization of the activities of Statistics Poland in all aspects of its functioning. One of the concerns was carrying out traditional surveys, where all surveys based on personal interviews have been replaced by computer-assisted telephone interviewing (CATI). Due to the cooperation with telecommunications service providers and developed data integration skills, a database containing the most up-to-date contact details has been created. This improvement resulted in better data retrieval from respondents. Moreover, at this phase the preparations for the Agricultural Census became more intense. The training courses for census enumerators and representatives of the local governments were held via videoconference platforms and all efforts were made to conduct the census mostly without direct contact with respondents.

8. The most pressing challenge that occurred at this stage was a quick response to the new and growing needs of data users. In order to meet their expectations, selected forms for statistical surveys have been altered by adding new questions related to the impact of the Covid-19 pandemic.

9. The main step taken to provide relevant information on the state of the society and the economy in relation to Covid-19 pandemic was to modify some of the currently existing surveys (voluntary for respondents as such or with questions voluntary to answer) by adding new questions in the areas of:

- **Economic Situation** - Business tendency survey
- **Industry** - Report on production and stocks of industrial products (monthly survey). Report on production (annual survey)
- **Information society** - The use of information and communication technologies in households and enterprises,
- **Labour market** – Labour demand research and Labour Force Survey
- **Living conditions/Consumer tendency** – Household Budget Survey
- **Situation of business entities** Quarterly statistical statement of financial assets and liabilities
- **Social Economy** – Associations, foundations, faith-based charities, professional and business associations survey
- **Tourism** – Survey on participation of Polish citizens (residents) in trips and Report on the occupancy of tourist accommodation establishments
- **Culture Statistics** Quarterly report on the finances of cultural institution.
- **Health care in households** – module survey conducted every 3-5 years
- **Report on the financial results of an investment fund company**
- **Specialised Segments of Financial Market** – Activity of leasing companies, Factoring activity of financial enterprises Activity of credit intermediation companies, Specialized segments of financial market.
- **Financial Instruments of Non-financial companies**
- **Sport** – Participation in sports and physical recreation - household questionnaire
- **Innovation** – Survey on innovations

- **Research and development** – Report on R&D
- **Biotechnology** – Biotechnology activity report in enterprises.

10. The use of such an approach made it possible to obtain the results to monitor a changing situation within a short period of time. The first results demonstrating the impact of the pandemic on the economic and consumer situation were recorded in the second half of April 2020. Most of data from additional questions added to the surveys was made available in the first half of last year.

11. In addition, a dedicated Covid-related website<sup>1</sup> was launched, with up-to-date statistics related to Covid-19 presented by thematic areas. Links to the information about Covid-19 in other countries can be found there too.

12. Moreover, Statistics Poland developed an analytical tool assisting different user groups in their work with data by giving them the opportunity to analyse the economic situation of the country. The ‘Economic dashboard’<sup>2</sup> was launched in May 2020, and immediately captured the attention of the public who appreciated its user-friendly interface and data visualization functionalities for CPI data, GDP data, business tendency, consumer tendency, labour market, foreign trade and retail sale data. Besides economic data mentioned above, it also includes a section exclusively covering Covid-19 health data, i.e. data on people infected, persons in quarantine, as well as Covid-related deaths.

13. Another activity by Statistics Poland was participation in a joint project of the government administration, academia and research institutes, aiming at launching a system which utilizes Geographic Information Systems (GIS) software to monitor the spread of the epidemic in Poland (GisCovid-19). The project coordinator was the Government Centre for Security. The system enabled building predictive models of the spread of the virus depending on the decisions made regarding the introduced restrictions and limitations. It was created to support the activities of the government at the central and regional level, in particular decision-making processes regarding the next steps in counteracting the epidemic. Statistics Poland sourced the system with the necessary data.

### C. The stabilization phase

14. The next phase, referred to as stabilization, started in the second half of 2020 and is currently ongoing. At this stage, the past activities were assessed and the elements which had not been functioning properly were identified. The stabilization phase is not only an adaptation to new conditions. More importantly, it aims to lay the foundations for the leaner statistical production, improved anticipatory capabilities, and organizational resilience to unexpected occurrences in the future. The search for new solutions in this respect coincided with the implementation of the EU-supported project “Stat!UP – Modernisation of the national data-information infrastructure”, assisted by PricewaterhouseCoopers (PwC) company.

15. A particular focus of the project is the so-called non-standard statistical production, i.e. the one which involves swift and timely reactions to newly defined information needs of data users. Within the project, statistical production processes are being reviewed, in order to identify deficiencies and bottlenecks, to be followed by the change scenarios and road maps. Concurrently, the experience gathered in the earlier stages of the process, indicated the need to implement a system of rapid response to the information needs of data users that appear ad hoc. These needs may concern both new thematic areas as well as selected aspects of the areas that have already been studied. The added value of the project is the creation of a concept of non-standard statistical production process which will be developed alongside traditionally conducted statistical research. The essence of the development of custom statistics is the search for new data sources and data sources integration in order to explore new thematic areas. Increased use of administrative registers, the inclusion of big data and the ability to combine ad hoc data already available from surveys conducted by official

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<sup>1</sup> <https://stat.gov.pl/en/COVID>

<sup>2</sup> <https://dashboard.stat.gov.pl/>

statistics will allow faster delivery of results tailored to the needs of recipients. Non-standard statistics will be designed to quickly respond to user needs, combine previously unused data or use new data sources.

#### D. Evaluation of remote work

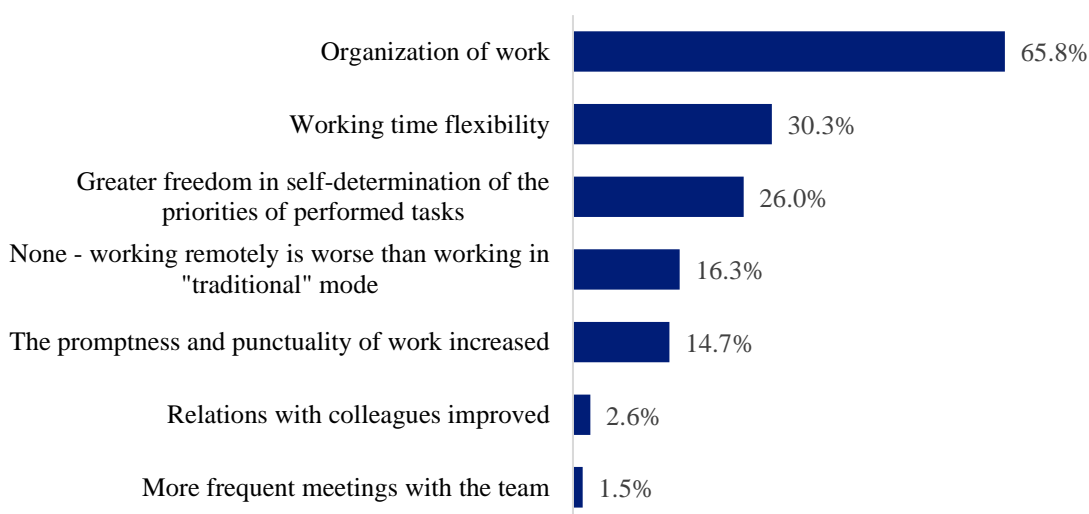
16. An important aspect for the functioning of the organization during the pandemic is the assessment of the remote working mode. The experience of Statistic Poland demonstrates that this form of work allows for effective implementation of tasks and projects that have been carried out so far only stationary. After over a year of switching to this mode of work, the employees were asked to evaluate several aspects of this work system.

17. According to the survey conducted by PwC, 84% of employees of Statistics Poland and regional statistical offices agree with the opinion that adjusting to the remote working mode was very quick. Such a result proves high ability of the institution to adapt to the new situations. The biggest challenges faced by employees during the remote work are, above all, insufficient working conditions at home (separate work space, internet connection speed, etc.) and technical problems. Analysis of the answers by the seniority level and staff age groups shows that the greatest difficulties with the technical conditions of remote work are indicated by people with longer work experience (42%). These are intuitive conclusions which suggest that in general younger people can adapt more easily to technological changes. The biggest advantage of remote work, indicated by 75% of employees, is no need to travel to work, which translates into time savings. Furthermore, greater possibility of maintaining work-life balance was pointed out by 33% of employees.

18. In terms of the aspects of work that function better in the remote model, the respondents primarily indicated better work organization (66% of responses) and flexibility of working time. Fifteen percent of them stated that remote work translated into the speed and timeliness of the work performed. Interestingly, contrary to the popular opinion that remote work has a negative impact on relationships, some employees even indicated an improvement in relations with colleagues. It may be related to the fact that remote work makes it easier to organize team meetings (on-line).

Figure 1.

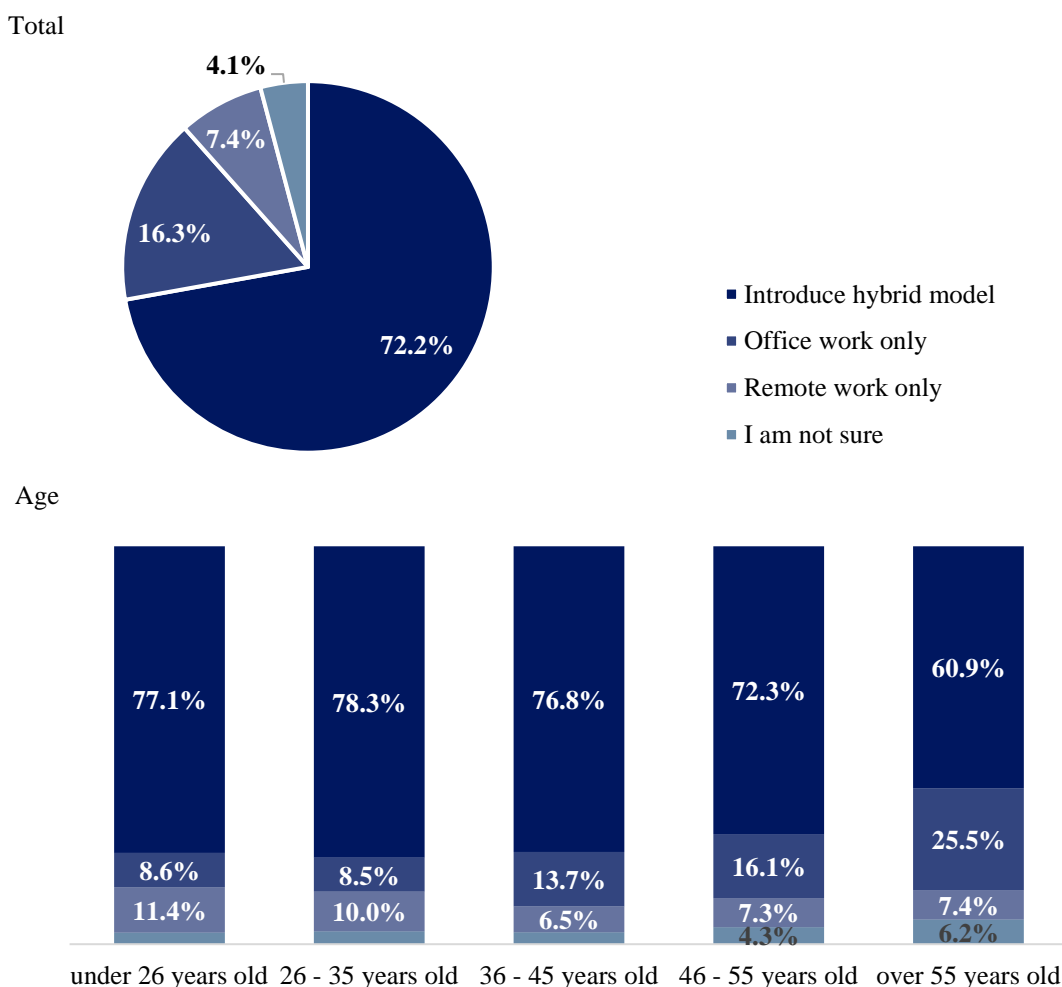
**Aspects of work that, according to employees, function better in the form of remote work than in the „traditional” mode – top 7 answers (based on the percentage of respondents who indicated a given option) – Multi select Multiple Choice Question**



Source: PwC, based on the survey conducted among Statistics Poland employees

19. In the survey, employees had the opportunity to comment on the desired work system after the pandemic. The results indicate that over 72% of employees expect the introduction of a hybrid model that will combine remote and traditional work forms, based on the preferences of an employee. Only 16% of the staff expressed the will to fully return to the traditional working model. Taking into account the age of the respondents, it can be noticed that the highest percentage of people who prefer this form of work is in the oldest group of employees (over 55 years of age). Every fourth person from this age group would prefer stationary work, which may be associated with the attachment to the way of working adopted during their professional career. Hence, with regard to the expectations of employees, the post-pandemic hybrid working model appears to be the preferred and targeted model at Statistics Poland.

Figure 2.  
Desired model of work after the pandemic



Source: PwC, based on the survey conducted among Statistics Poland employees

20. An important aspect of work performed in a remote system is skilful team management. Therefore, the opinions of the management of Statistics Poland were additionally examined. The difficulties in monitoring the work of individual employees (indicated by 36% of the managerial staff) and problems with adequately motivating employees (19%) were pointed to as the main disadvantages. On the other hand, among the advantages of remote work, the management underscored the speed and ease of adaptation of the team to remote work (51% of responses) and flexible coordination of the team's work (33%).

### III. Conclusions and recommendations

21. Current global challenges, more than ever before, have revealed the pressing need for the NSIs' shift towards the role of flexible and agile data stewards. It is precisely this ability to adapt, going beyond the beaten paths of traditional activity (defined in research plans), that turns out to be of strategic importance for the development of statistical offices.

22. Due to the appropriate technical capabilities, Statistics Poland reacted quickly to the challenges brought about by the Covid-19 pandemic.

23. Despite the positive results of the work carried out on an ongoing basis, it should be kept in mind that one should constantly seek new opportunities. It is particularly vital in terms of identifying and acquiring new data sources that will allow to generate more comprehensive and multidimensional information describing the pandemic and its effects. This data should be as much up-to-date as possible and available at the lowest possible levels of the territorial aggregation.

24. Therefore, Statistics Poland is working on the development and implementation of the mechanisms for the rapid launch of the new statistical outputs which will respond to the growing and ad hoc information needs of data users.

25. Despite the many positives that have become apparent during the activities related to the pandemic, there are also areas that require further improvement. It is primarily to maintain adequate motivation among employees in the long term, especially during a prolonged situation with limited contact with superiors and colleagues.

26. To conclude, Covid-19 pandemic added yet another challenge NSIs have to face in a dynamic data landscape. The ability to swiftly adapt to a changing environment has now proved even more urgent. In addition, the NSIs' role in supporting public and private institutions in addressing the issues caused by the pandemic and the subsequent return to normality is not to be underestimated. This task can be accomplished by providing reliable, up-to-date and high-quality statistics at the lowest possible levels of aggregation. To this end, NSIs are expected to adapt leaner data management, based on data integration from various sources, as well as flexible processes, work arrangements, and horizontal multi-domain cooperation.

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