

## **The Belgian Online Probability Panel (BOPP) 2022 - 2026**

### **Description of BOPP**

The Belgian Online Probability Panel (BOPP) is an advanced data collection infrastructure based on an online probability-based panel co-owned by all Belgian universities and intended to facilitate, boost and integrate high-quality survey research in various scientific disciplines. BOPP will recruit a representative panel of approximately 4,000 citizens residing in Belgium (16y+) based on a probability sample drawn from the National Register. Panelists will take part in short surveys (15-20 minutes each) at regular intervals (6 to 10 times per year). The data collection has a mixed-mode design combining online questionnaires and paper-and-pencil self-administered questionnaires for the offline population. On the one hand, BOPP will field a yearly core questionnaire to longitudinally collect basic information among all panelists (e.g. economic situation, household composition, work, social and political attitudes, health, personality traits). These longitudinal data stemming from the core questionnaire will be available to all researchers. On the other hand, for the remaining questionnaire space, researchers from all scientific disciplines can apply to buy survey time slots. The infrastructure will apply an open data policy: All public use files will be archived and disseminated via the BOPP archive, as well as deposited with a repository.

### **Advantages of BOPP**

The proposed permanent online probability panel is an attractive data collection strategy for four reasons. First, the integrated panel data is providing an infrastructure to employ cross-disciplinary studies and experiments on a wide array of topics. Second, collecting survey data via an online panel is cost-effective. Convincing respondents to participate is a time-intensive and expensive stage in the survey cycle. However, once recruited, providing additional surveys to a panelist has a low marginal cost – especially if the survey is conducted online. BOPP offers the opportunity to conduct fast data collection without conceding data quality. Once the panel is recruited, a survey can be set up and fielded in a short timeframe. Third, the panel's approach results in longitudinal data collection, opportunities to include experimental design in a probability-based sample, and possibilities to enrich survey responses by linking survey responses to external data sources. Importantly, BOPP will facilitate linkage with data from various Administrative Data Producers, opening new avenues for research. Fourth, BOPP combines the advantages of online survey, while maintaining the possibility for off-liners and harder-to-reach populations to fill in postal surveys. BOPP will allow the Belgian research community to join in on the tendency towards the increasing prominence of online probability panels (e.g., LISS in the Netherlands, GIP and GESIS in Germany, ELIPSS in France, CRONOS in 12 EU countries, FIRIPO in Finland), and provide to the community of social and behavioral scientists with novel opportunities for high-quality quantitative research in Belgium.

### **Goals of BOPP**

To improve the efficiency, quality, and timeliness of survey research by designing a representative probability-based panel of 4,000 Belgian residents, accessible to and highly valued by the whole (inter)national academic community.

- 1) To improve data cross-linkage by connecting the longitudinal basic data (core questionnaire) with data collection commissioned by the research teams.
- 2) To stimulate interdisciplinary research and facilitate connections between different studies and topics across disciplines, by attracting applications from a wide variety of disciplines
- 3) To organize novel forms of linkage between high quality probability-based survey data with administrative records and context data.
- 4) To drastically increase the possibilities for quantitative social and behavioral analysis, by archiving and disseminating the data collected by BOPP, and providing reliable and easily accessible open source (meta)data (open science)

## **PRESENTATION OF BOPP**

BOPP will be a permanent online probability panel composed of at least 4000 citizens (2000 Dutch-speakers and 2000 French-speakers) residing in Belgium and aged of at least 16 years. Panelists will be invited to remain in the panel for a long period and will be invited to take part to 6 surveys per year. They will receive incentives to join the panel and to take part to each survey. At this moment, various task groups are elaborating the infrastructure. The principal investigators of the project are: Prof. dr. Bart Meuleman (KU Leuven) and Jean-Benoit Pilet (ULB). Koen Abts is research manager. All Belgian universities are represented in the consortium and infrastructure.

### **Panel of at least 4000 panelists**

The first major step in the construction of BOPP is the recruitment of the 4000 panelists. The Belgian National Register will be used as a sampling frame. Anticipating a recruitment rate of 50pc (based on recent large-scale surveys conducted in Belgium such as the European Social Survey), the Task Group Recruitment of BOPP will file an application to the National Register (in association with the Belgian Statistical Office – STATBEL) to draw a probability sample of 8000 persons (stratified by region). A mixed-mode recruitment procedure – push-to-web + face-to-face - will then be implemented (Bosnjak et al. 2018). All 8000 individuals will receive an invitation letter to join the panel, an unconditional recruitment incentive, and a card with a QR code to connect to the panel platform and to register online. We anticipate, again based on recent surveys, that 15% of the 8000 individuals will register online. For respondents who would not have registered online after 2 weeks (and 1 reminder), we will start a face-to-face recruitment phase. A total of 100 trained interviewers will be recruited via a survey company. They will be sent to the addresses received from the National Register to recruit for the panel with a standardized procedure of minimum 5 contact attempts over 2 weeks. We anticipate a response rate of 25pc. Then, a last phase of recruitment will start with 40 interviewers who will receive an extra training on the recruitment of hard-to-reach citizens. It should allow to recruit an extra 10% of the sample drawn from the National Register. Every individual recruited by interviewers to join the panel will be offered the choice between registering online for the panel or opting for being an offliner – meaning that they will receive all communication and surveys via postal mail. Finally, it should be mentioned that this mixed-mode recruitment procedure will be implemented for the first recruitment of the 4000 panelists, but the same procedure will be applied every year for a refreshment of the panel (anticipating 10% of attrition), and for possible expansions of the panel.

### **Every respondent: 6 to 10 surveys per year**

Once the panel of 4000 panelists will be constructed, surveys will start. Every respondent will be invited for 6 to 10 surveys per year. First, the BOPP scientific committee will field itself one or two yearly surveys collecting information about the core characteristics of panelists. The content of these core questionnaires is currently being discussed within the Task Group (TG) Measurement of the panel (see section 4) and will later be managed by BOPP scientific committee. The goal is to cover variables that are relevant for a variety of disciplines and on a diversity of topics. Looking at what other panels do across Europe, domain areas covered should be on the following topics: economic situation, household composition, work and schooling, social integration and leisure, media consumption, health, personality traits and social psychological measures, religion and ethnicity, political and social attitudes. Information on these aspects will be surveyed on a yearly basis (or less often for more stable variables). These core surveys of the panel will be fielded intensively in the first year of the panel, with more core questionnaires when the panelist is recruited, and then with one or two questionnaires per year in the following years for information that may change from one year to the other (job, household composition, political attitudes, values, personality, social integration, health,...). The second type of surveys will be surveyed proposed by (inter)national research teams emanating from academic and public research institutions. Research teams will apply to BOPP via a standardized application form asking information on the goals of the survey, the sample needed, the length of the questionnaire, and the list of questions. The application will be peer-reviewed by the BOPP scientific committee. Approved survey proposals will receive an indication of the costs to be paid for survey time. These costs should cover the financial incentives for participants, the costs of offliners, and will partly contribute to the fixed costs of the maintenance of the panel (staff, ICT infrastructure, yearly refresher recruitment, costs for offline survey costs). The research teams will also receive assistance from the panel staff before the survey is fielded. The BOPP staff will then field the surveys, and will clean and pseudonymize the dataset to be handed over to the research teams. Surveys from research teams could be fielded with subsamples of fewer than 4000 respondents (most often 1000 or 2000 respondents). A task group on sampling and weighting is currently working on defining the detailed procedure for the extraction of representative subsamples within the panel and for a good rotation of panelists. Survey experiments will also be made possible.

### **Data linkage: interdisciplinary research and register data**

BOPP also wants to introduce a new approach to data collection, whereby a lot of information is collected from the same respondents over a longer period of time, thereby achieving economies of scale and a richer environment for analysis. We expect that the large mix of information on the same people will stimulate research questions beyond the traditional disciplinary boundaries, and push for interdisciplinary research. This goal of integrated data collection and analysis will be achieved via three strategies. First, the core questionnaire surveys fielded yearly will be made accessible to the community of researchers in two ways. Research teams that want to field surveys within BOPP could ask for linking their survey data to some of the core variables already collected by the panel – reducing costs of data collection for them. A partial version of the longitudinal dataset will be accessible in open data, but due to privacy and anonymization issues, some variables would not be included in this version. Therefore, an online tool will be developed to allow for online browsing of data by topic, by concept, and by study. Scholars could then identify those variables that they would need for their own research. They could then file to BOPP scientific committee an application for accessing the relevant

variables. Second, BOPP will apply a general open data policy. Every survey fielded within the panel (by the panel itself or by research teams) will be stored on a secured server of the panel, will be pseudonymized and will be published in open access (with the relevant metadata) one year maximum after the end of data collection. Finally, the Task Group Data Linkage is currently developing and negotiating a new procedure with relevant public services (STATBEL, Crossbank for social security, E- Health) to construct and store records containing administrative data on panelists. To link the survey data with the administrative records we uphold the principle that the personal identifiers remain strictly separated from the response data. The Belgian law allows micro-data linkage with the system of *Trusted Third Party (TTP)* (Law of July 30th 2018). Currently, Statbel, Crossroads Bank for Social Security and E-Health can act as TTP. This implies that BOPP deposits the non-pseudonymised final user files at the TTP, who will link its administrative data to them (according to the principles of proportionality) and pseudonymize the file for the researchers. In Belgium, citizens have a unique personal identification number that covers the whole population, making the data linkage technically trivial and secure. As such, researchers only have access to a strictly pseudonymized data file, safeguarding the privacy and anonymity of the respondents. The goal is to negotiate for creating those records of administrative data with TTPs and to establish a standardized procedure that research teams fielding a survey with BOPP could follow to ask for linking their survey data with the relevant variables in the administrative records. When joining the panel, panelists will be asked for informed consent on linking their survey data to administrative data. This procedure that would facilitate data linkage within BOPP will be a great asset for the panel and would be attractive to researchers to use the panel for their surveys.

## **Planning**

All the above elements are still being developed carefully by the different scholars involved within the project. The goal is to start the recruitment in 2022, and to have the panel ready to start with the 4000 panelists in early 2023. Yet, the ambition is also to start working already on further developments for BOPP. In particular, discussions have started among academics involved and with public institutions about the extension of the size of the panel in Brussels-Capital Region. From the 4000 panelists, only about 500 would originate from Brussels. It is too few to allow for analyses per region, when we know that Brussels has a very specific population structure compared to Flanders and Wallonia. Extending the recruitment in Brussels is the first priority for 2023, once the panel of 4000 respondents is established.

**Chercheurs Cevipol : Jean-Benoit Pilet, Audrey Vandeleene, et Robin Lebrun.**

**Chercheur extérieur : Bram Vanhoutte (école de santé publique).**