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Expert Meeting on Statistical Data Collection and Sources

22-24 May 2024, Geneva, Switzerland

REPORT OF THE EXPERT MEETING

1. The Expert Meeting on Statistical Data Collection and Sources 2024 was organized as part of the Conference of European Statisticians' work programme for 2024, within the context of the High-Level Group for the Modernisation of Official Statistics (HLG-MOS). It was held in Geneva, Switzerland from 22 to 24 May 2024, with a total of 76 participants from 46 organisations, including national statistical organizations such as Belgium, Canada, Croatia, Cyprus, Denmark, Estonia, Germany, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, Netherlands (Kingdom of the), Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Türkiye, United Kingdom of Great Britain and Northern Ireland, Australia, New Zealand, and South Africa, as well as international organisations, such as United Nations Habitat, United Nations Statistics Division, International Monetary Fund (IMF). The meeting was also attended by academia, and non-profit organizations and private sector such as Esri and Unimarconi.

2. The Steering Committee consisted of Ian O'Sullivan (Office for National Statistics, UK), Rock Lemay (Statistics Canada), Paulo Saraiva dos Santos (Statistics Portugal), Pasquale Papa (Istat, Italy), Leonne Hollanders and Susan Oudshoorn (Statistics Netherlands), and Önder Değirmenci (Turkstat, Türkiye).

3. The agenda included the following substantive sessions during which a total of 39 presentations were given:

- Session 1: Alternative Data Sources and Process Automation;
- Session 2: Approach to Multi-Mode and Mixed Source Collection;
- Session 3: Future of Interview Modes and Interviewers.

4. Points raised during the presentations and Q&A include the following (see Annex I for more details):

- Prioritizing non-survey data to reduce direct survey needs is essential to lowering the response burden on businesses. Some surveys have been discontinued in favour of alternative data sources.
- Analyzing response times and device usage helps understand how device type influences response speed and data quality. Strategies to address non-response emphasize encouraging participation through various means rather than imposing penalties.
- Artificial intelligence (AI) techniques can enhance data quality and efficiency. AI implementation for response routing and categorizing assistance requests improves efficiency and accuracy. AI integration is expected to evolve, with continuous improvements in performance and accuracy.

- The use of multiple channels (e.g., web forms, paper, extensible markup language (XML) files) shows varying response rates, with web forms being most common. Challenges remain in digitizing complex surveys. While solutions for simpler surveys are in place, efforts focus on integrating business-specific data and communicating with legacy systems.
- Offering multiple survey modes (computer-assisted web interview (CAWI), computer-assisted personal interview (CAPI)) addresses respondent preferences, with younger generations favoring online methods over face-to-face interviews. Engagement strategies, including nudges and pre-contact methods, improve participation rates. Co-designing surveys with clients through dress rehearsals, field tests, and concept testing enhances relevance and usability.
- Incentives can boost survey participation, though their effectiveness varies. General Data Protection Regulation (GDPR) compliance is crucial, particularly with personal data use.
- Engaging young respondents requires relevant and accessible survey design, minimizing parental involvement to ensure genuine responses. National apps, like Italy's public administration app, facilitate efficient communication with citizens, depending on adoption rates.
- Combining CAPI and CAWI methods, clustering addresses to reduce travel time and costs, is of interest. Ensuring data consistency across methods remains a challenge. Effective outsourcing requires robust protocols and monitoring, with AI (e.g., chatbots) handling routine survey tasks to improve data quality and respondent experience. Regularly updating contact details is essential, especially for businesses where staff changes can lead to outdated information.

5. In the small group discussion "Navigating the landscape - sharing risks and opportunities in data collection and sources" of Session 1, following challenges were highlighted:

- Balancing costs and data quality is a significant concern for NSOs, especially given the risk that market organizations might outperform them in these areas. This necessitates a careful consideration of the cost-quality trade-off to ensure that data remains both affordable and accurate.
- Engaging hard-to-reach demographics, such as younger generations, presents a significant challenge. Effective communication strategies are essential, which means using appropriate channels and language tailored to these groups. The complexity of survey concepts can also be a barrier, highlighting the need for simplification to improve both participation and understanding among diverse demographics.
- The decline in response rates, particularly in rural and remote areas, poses a significant risk. Shifting public perception is vital, emphasizing the value of participation and building trust in government data collection efforts. Exploring rapid survey methods and community-based data collection may provide innovative solutions to these challenges. Fostering a sense of civic duty and forming partnerships with other organizations can also help improve response rates.
- Adhering to regulatory constraints becomes increasingly difficult as response rates decline. Social changes, such as higher mobility and a growing number of immigrants, impact data collection efforts. Telephone surveys, once a staple of data collection, now face significant challenges. However, opportunities arise from promoting automation, AI, and the use of new data sources, including administrative data.

- Survey fatigue is a growing issue. There is a need for flexibility in adapting from traditional survey methods to mixed data sources to alleviate this fatigue. Privacy and security remain ongoing concerns that must be continuously addressed to build and maintain public trust. The shift towards involving individual partners and co-authors in social surveys, as well as accountants in business surveys, signifies a move towards more collaborative data collection methods.

6. Throughout the workshop, a Slido poll had been open for collecting ideas for future works. The top 9 ideas are listed in descending order below (see Annex II for the full list):

- Reducing response burden
- AI in data collection
- Analysis of survey and administrative data
- Enhancing use of paradata
- Machine-to-machine (M2M) techniques for data collection in businesses
- Engaging businesses in data collection
- Integrating citizen-generated data
- Promoting survey participation
- Data collection performance indicators and dashboards

7. All abstracts, papers and presentations from the meeting are available on the UNECE website (https://unece.org/statistics/events/DC2024).

Annex I. Summary of proceeding and discussion

Session 1: Alternative Data Sources and Process Automation

8. This topic was organised by Rock Lemay (Statistics Canada) and Paulo Saraiva dos Santos (Statistics Portugal). It included the following presentations and interactive activities:

- Tapping into web data for European statistics – challenges and experiences of the ESSnet Web Intelligence Network - Klaudia Peszat (Statistics Poland)
- Use of non-survey data in production of official statistics - Roger Jensen (Statistics Norway)
- System-to-System Data Collection in business surveys applied to an agricultural survey: small-scale pilot results - Ger Snijkers (Statistics Netherlands)
- Data donation of personal physical activity trackers - Maaike Kompier (Statistics Netherlands)
- Investigating paradata for one of the largest surveys in Sweden - Andreea Bolos, Viktor Dahl and Sofia Holsendahl (Statistics Sweden)
- Citizen-generated data and machine learning: an innovative method to study violence against women - Claudia Villante (ISTAT, Italy)
- SORS Case: Performance Indicators in Population and Agricultural Censuses - Marija Hinda and Nebojsa Tolic (Statistical Office of the Republic of Serbia)
- Revision of the UN Handbooks on Household Surveys: seeking input from the ECE region - Haoyi Chen (Inter-Secretariat Working Group on Household Surveys, UNSD)
- Use of A.I. to use Linkedin as a new source of data - Simona Cafieri (ISTAT, Italy)
- Mobile Phone Data for Enhanced Tourism Statistics in Italy: Insights from Vodafone-Istat Project Foundation - Lorenzo Cavallo (ISTAT, Italy)
- Tourism Data: Integrated Information System (S2S), sharing data and Official Statistics - Rui Martins (INE Portugal)
- Reforming Travel & Tourism Statistics - Tracy Davies (ONS, UK)
- Designing a multichannel assistance service integrated with AI solutions for respondents - Paola Bosso (ISTAT, Italy)
- Smart manufacturing and opportunities for Official statistics, a focus on SMEs - Pasquale Papa (ISTAT, Italy)
- Workshop: State of the 5.0 transition at SMEs and statistical opportunities - Pasquale Papa (ISTAT, Italy)
- Small group discussion: Navigating the Landscape: Sharing Risks and Opportunities in Data Collection and Sources

9. In addition to several clarification questions, the points raised during the discussions include:

- The priority is to use non-survey data whenever available to reduce direct survey needs, lowering the response burden on businesses. Some surveys have been discontinued in favor of these alternative data sources.
- Online prices are part of the data collection process but often represent indicative prices rather than final transaction prices, presenting challenges in accuracy.

- Concerns about the accuracy of self-reported data from activity trackers have been raised. Investigations show minimal rounding issues, with future work focusing on integrating tracker data with traditional survey data.
- Farmers are hesitant to share full data access, preferring to fill in questionnaires. Innovative farmers see the value in data sharing for pre-filling questionnaires to ease the reporting burden.
- Combining administrative data from police with survey data provides a comprehensive picture of gender-based violence. Different data sources help address gaps and provide a more accurate understanding of violence.
- In the study on data donation from personal activity trackers, two methods were tested: uploading spreadsheets and manual data copying. Manual copying saw higher participation, while uploading was more challenging. Age and education influenced device ownership and willingness to donate data. Despite some social desirability bias, results were reliable. Future research should integrate data from different tracker brands and find alternatives for those without trackers. The study also assessed the accuracy of manually copied data, noting potential rounding inaccuracies. Some suspiciously rounded numbers were found, but they did not significantly affect the overall findings, maintaining data validity.Strategies to address non-response include encouraging participation through various means rather than imposing penalties. In Italy, penalties are imposed for non-response, but are limited to large companies. The effectiveness of penalties is debated, with some companies choosing to pay fines rather than comply.
- AI techniques, including supervised learning algorithms and vector machines, are used for data processing and model building. These methods aim to enhance data quality and efficiency.
- AI is implemented to improve response routing and categorization of assistance requests, enhancing efficiency and accuracy in addressing user queries.
- A 10% difference was revealed in a study comparing LinkedIn data and ISTA survey data for the same year, education level, and age group, as LinkedIn only reports work-related information. AI techniques such as supervised learning, vector machines, and decision trees were used for data processing and model optimization.
- AI integration is expected to evolve, with continuous improvements in performance and accuracy. Future presentations will showcase the progress and impact of these technologies.
- Mobile companies are hesitant about data sharing. Participation in Eurostat projects may facilitate discussions on power aggregation and data sharing.
- Mobile phone data help analyze tourism patterns, though challenges remain in distinguishing between business and private travel. Efforts to refine data accuracy are ongoing.
- Surveys conducted in departure lounges have received positive feedback due to the relaxed environment. Sampling methods are aligned with existing methodologies for consistency.
- Different channels like web forms, paper, and XML files show varying response rates, with web forms being the most commonly used, followed by XML files and paper.
- Istat's plan to launch an integrated assistance service with AI to optimize resources, streamline communication, and reduce waiting times and costs was discussed. The AI service, still in development, will classify and route requests, automate simple responses, and escalate complex queries to higher support levels.

10. Workshop “State of the 5.0 transition at small and medium-sized enterprises (SMEs) and statistical opportunities” was organised to disucssdiscuss statistical opportunities offered by the digitalisation of industrial processes (4.0 and 5.0 transition). In particular, it focuses effects in terms of burden on respondents, efficiency of data collection processes and quality of outputs produced. It proposes a set of specific topics for in-depth analysis, concerning the regulatory, technological, statistical and organisational areas. Below summarises the points raised during the group discussion:

- The assumptions underlying the experimental design were discussed, with an emphasis on the importance of data reliability, improving granularity, and the need for a quality framework for multi-source statistics. The necessity of cross-institutional data circulation and involving specialists from various sectors was addressed. The balance between burden and information detail was highlighted, along with the importance of improving the timing of short-term statistics.
- The need for partnerships and remote access, as well as managing expectations, was underscored. The importance of flexibility in dealing with changing data sources and definitions was stressed. Risks related to maintaining comparability over time, data definitions, and biases were identified. The dependency on external data sources and the challenges of controlling data from other organisations were discussed.
- Technological and organisational challenges, particularly with data cleaning and privacy concerns in enterprise resource planning (ERP) systems, were examined. Scalability through cloud infrastructure was suggested, and real-time data possibilities were explored. The evolving role of data collection departments, with a shift towards data management and high-speed production, was highlighted. Generative AI was mentioned as a promising yet challenging technology.
- Organisational roles and customer journeys in the experimental design were examined. The skills required for large-scale implementation and the importance of considering public acceptance were discussed. The feasibility of scaling up the experiment and the potential risks of being perceived as too automated or sophisticated were considered. The need for a structured approach to manage large-scale changes and the evolving roles within organisations was emphasized.

11. Small group discussion “Navigating the landscape - sharing risks and opportunities in data collection and sources”. Below summarises the points raised during the group discussion:

- **Costs, Competition, and Proxy Problems.** Balancing costs and data quality is a significant concern for NSOs, especially given the risk that market organisations might outperform them in these areas. This necessitates a careful consideration of the cost-quality trade-off to ensure that data remains both affordable and accurate. The proxy problem is another issue, relating to who responds to surveys and how representative the collected data is. Ensuring the right respondents are engaged is crucial for the validity of survey results. Additionally, penalties for non-response in social surveys have been discussed, with Serbia noted for its successful implementation of such measures. These penalties aim to improve response rates, though their effectiveness varies across different contexts.
- **Reaching Hard-to-Reach Groups.** Engaging hard-to-reach demographics, such as younger generations, presents a significant challenge. Effective communication strategies are essential, which means using appropriate channels and language tailored to these groups. This involves evaluating the risks and opportunities associated with

joining popular platforms like social media. The complexity of survey concepts can also be a barrier, highlighting the need for simplification to improve both participation and understanding among diverse demographics.

- **Maintaining High Response Rates.** The decline in response rates, particularly in rural and remote areas, poses a significant risk. The increasing costs associated with running surveys and maintaining the necessary technology exacerbate this issue. Shifting public perception is vital, emphasizing the value of participation and building trust in government data collection efforts. Balancing technological advancements with the maintenance of public trust in data integrity and privacy is crucial. Exploring rapid survey methods and community-based data collection may provide innovative solutions to these challenges.
- **Regulations and Societal Changes.** Adhering to regulatory constraints becomes increasingly difficult as response rates decline. There are inherent trade-offs between reducing the burden on respondents and maintaining high data quality. Social changes, such as higher mobility and a growing number of immigrants, impact data collection efforts. Telephone surveys, once a staple of data collection, now face significant challenges, particularly in reaching respondents and serving as effective reminders. However, opportunities arise from promoting automation, artificial intelligence, and the use of new data sources, including administrative data.
- **Similar Risks and Technological Opportunities.** Declining response rates are a common concern across various groups, with significant challenges in engaging different age demographics using uniform methods. Technology presents both risks and opportunities in data collection, necessitating a balanced approach to leverage its benefits while mitigating potential downsides. The importance of shorter, more relevant surveys is emphasized, along with the need to effectively communicate their value. Fostering a sense of civic duty and forming partnerships with other organisations can also help improve response rates.
- **Survey Fatigue and Mixed Sources.** Survey fatigue is a growing issue, with respondents becoming increasingly weary of multiple surveys. There is a need for flexibility in adapting from traditional survey methods to mixed data sources to alleviate this fatigue. Privacy and security remain ongoing concerns that must be continuously addressed to build and maintain public trust. The shift towards involving individual partners and co-authors in social surveys, as well as accountants in business surveys, signifies a move towards more collaborative data collection methods.
- Effective engagement and communication strategies tailored to different demographics are crucial for improving participation and response rates. Integrating technology and automation offers significant opportunities but also presents challenges in terms of cost, scalability, and maintaining public trust. Adhering to regulatory and ethical considerations while managing the quality and burden of data collection is a persistent challenge. Building and sustaining trust in statistical systems requires transparent communication and collaboration with stakeholders. NSOs must continuously adapt to social, technological, and methodological changes to remain relevant and effective in their data collection and analysis efforts.

Session 2: Approach to Multi-Mode and Mixed Source Collection: Navigating Challenges and Leveraging Advantages

12. This topic was organised by Ian O'Sullivan (ONS, UK), Pasquale Papa (ISTAT, Italy), and Önder Değirmenci (Turkstat, Türkiye). It included the following presentations and interactive activity:

- Polish experiences in statistical data collection including the use of mixed and multi-mode approaches - Marcin Szymkowiak and Janusz Dygaszewicz (Statistics Poland);
- Successes and challenges of moving from a paper, to an online, based data collection mode for business surveys - Kate Thorsteinsson (ONS, UK);
- Optimizing Collection Strategy- Labor Force Survey - Sylvie Cyr (Statistics Canada);
- Implementing an Adaptive Survey Design (ASD) for the Transformed Labour Force Survey (TLFS) - Michalina Siemiatkowska (ONS, UK);
- Conflation of Maps for the Integration of Geospatial Data and Enhancement of Building Registry Quality - Gianluigi Salvucci (ISTAT, Italy);
- Data collection of the environmental survey in cities: data validation - Paolo Francescangeli (ISTAT, Italy);
- Quality of Survey and Administrative Data: Two New Applications of Representativity-Indicators - Nina Sommerland (ONS, UK);
- Working towards a business-centered vision on data collection - Anita Vaasen-Otten and Leanne Houben (Statistics Netherlands);
- ONS business-centred approach to research recruitment methods to understand business engagement needs – challenges and successes - Inara Dorsett and Kate Thorsteinsson (ONS, UK);
- Use and Role of Administrative Records/Data In The Modern Turkish Official Statistics Production Process - Önder Değirmenci (Turkstat, Türkiye);
- Redesigning the Dutch Holiday Survey into a smartphone friendly questionnaire - Rachel Vis-Visschers (Statistics Netherlands);
- Use the Blaise 5 system to implement multi-mode surveys - Gina Cheung (Statistics Netherlands);
- Mixing data collection modes to achieve response rates above 70% - Results of a mixed-mode experiment at the Hungarian Central Statistical Office - Mátyás Gerencsér (Statistics Hungary);
- Make it easy to refuse - Marie Fuglsang and Bo Bilde (Statistics Denmark);
- Three experimental insights for strengthening response rates - Viktor Dahl, Sofia Holsendahl and Andreea Bolos (Statistics Sweden);
- 10 years of communication experiments at Statistics Netherlands - Jelmer de Groot (Statistics Netherlands);
- Workshop - Leonne Hollanders and Jack Mommers Statistics (Statistics Netherlands) - Future of interview modes: Multilanguage data collection and Interviewer working conditions including interviewer safety.

13. In addition to several clarification questions, the points raised during the discussions include:

- There are challenges in digitising complex surveys. Existing solutions have been implemented for simpler surveys, but complex survey data remains an issue. Efforts are underway to create systems that interact with legacy systems to gather data for complex surveys, including integrating business-specific data and communicating with older systems.
- Real-time data collection through interactive applications allows for immediate updates on completed questionnaires, reducing the need for additional collection

methods. Enumerators use smartphones for real-time data collection and monitoring, enhancing data quality and operational efficiency.

- Online surveys incorporate validation checks to ensure timely and accurate responses, improving data quality compared to paper-based surveys. Integrating online banking with survey applications has been successful, enabling respondents to log in and complete surveys quickly and securely.
- The successful use of electronic data collection methods in the 2021 Polish Census was highlighted, with self-enumeration accounting for 60% of the data. Confidentiality concerns were addressed by explaining the secure integration with online banking and the use of trusted profiles for user verification. Unit-level data is not published; access is restricted to secure environments for researchers.
- Analysis of survey dropouts, especially with smartphone usage, aims to identify and address points where respondents drop out, ensuring data quality across different modes.
- Strategies to engage respondents include nudges and pre-contact methods. Businesses prefer an online solution with a central portal to manage their surveys and interactions with statistical agencies. Tailored communication strategies are being developed for different types of businesses, including a business portal for customised interactions and questionnaires. Evaluations of contact methods and response rates are ongoing, showing improvements from typical 3% to 10%.
- Attrition in survey participation, especially in longitudinal surveys like the Labour Force Survey (LFS), is a significant challenge. Efforts are focused on sustaining participation through improved engagement and shorter interview lengths. Ongoing work focuses on maintaining high data quality and sustaining participation across multiple survey waves, emphasising reducing respondent burden and improving the user experience.
- Administrative data from various authorities is used for national-level insights, with ongoing efforts to integrate this data more effectively into surveys. Institutions face penalties for non-compliance.
- Steps are being taken to consolidate multiple surveys into a single, comprehensive survey for businesses to improve efficiency in data collection. Various countries shared experiences with experimenting on survey methods, including using incentives and tailored communication strategies. The challenge lies in balancing reduced respondent burden with maintaining data quality and response rates.
- Framing of survey invitations and using persuasive techniques based on Cialdini's principles are important. Understanding the impact of framing on different subpopulations helps tailor messages effectively.
- Managing sequential mixed-mode surveys involves transitioning from one mode to another based on response rates and geographical considerations, using dashboards and real-time monitoring to make informed decisions.
- Discussion on the impact of making it easier to refuse voluntary surveys on the acceptance and response rates of mandatory surveys highlights the need to understand respondent behavior across different survey types.
- Experiments with reducing questionnaire length aim to improve response rates while maintaining the ability to generate reliable estimates. Results from these experiments inform future survey designs.

14. Workshop "Future of interview modes" was orgnised to share experiences and discuss challenges around two emerging themes - multilingual data collection and interviewer working conditions and safety:

1. **Insights and Challenges from Countries with Diverse Linguistic Backgrounds**:
    - Countries with diverse linguistic backgrounds face similar problems, such as legal requirements for multilingual support and the need for targeted communication.
    - Multilingual products and services vary; countries with multiple official languages offer more comprehensive multilingual support compared to those with a single official language.
    - Engagement strategies are crucial, with a focus on addressing hard-to-reach groups like Aboriginal communities. Key success factors include using interpreters, multilingual interviewers, and monitoring open questions in surveys.
2. **Targeted Communication and Interview Modes**:
    - Effective engagement involves tailored communication strategies and employing technology like AI for future multilingual data collection.
    - Combining interviews with interpreters and multilingual staff enhances respondent engagement.
3. **Safety and Working Conditions for Interviewers**:
    - Interviewers face challenges such as hostile respondents, difficult environments, and safety risks including verbal and physical abuse.
    - Instituted safety measures include training, special ID cards, security discussions, use of GPS coordinates, and avoiding high-risk neighborhoods.
    - Insights on working conditions emphasize not sending young interviewers to risky areas, using ID badges, and engaging community leaders to announce visits.

Session 3: Future of Interview Modes and Interviewers

15. This topic was organised by Leonne Hollanders and Susan Oudshoorn (Statistics Netherlands). It included the following presentations:

- Experience on Multimode Data Collection in the NSI Spain. Challenges and Opportunities - Francisco Hernández Jiménez (INE, Spain);
- INS Romania's Experience with CAPI Data Collection for Household Statistical Surveys using Survey Solutions Platform - Ana-Maria Ciuhu (INS, Romania);
- Developments in Interviewing at Statistics Netherlands: The Challenges for Personal Interviewing in a Targeted Approach - Jack Mommers (Statistics Netherlands);
- Australia's Data Collection Modernisation - Jodie Stevenson (Australian Bureau of Statistics);
- New Modes of Data Collection for Gaining Cooperation from Young People: The Case of the Survey «Children and Young People: Behavior, Attitudes, and Future Projects» - Samanta Pietropaoli (ISTAT, Italy);
- Developments to Automate and Streamline Data Collection and Support Customers' Needs - Epp Karus (Statistics Estonia);
- Smart Surveys: How to Implement Smart Data Collection in Official Statistics? - Jelmer de Groot (Statistics Netherlands);
- A Fresh Start: Redesigning Our Field Operation – Including Roles, Contracts, and Casework Allocations – at the ONS - Dulcie Wyatt (ONS UK);
- Applying Workforce Management Principles to Personal Interview Modes - Martijn van de Riet (Statistics Netherlands).

16. In addition to several clarification questions, the points raised during the discussions include:

- Mobile telephone numbers are critical for surveys. Access can be obtained during the initial survey cycle or through legal permissions. The key principle is proportionality—requesting only necessary information. Legal breakthroughs allowed access to mobile numbers from population registers, improving survey efficiency.
- There is interest in combining omputer-Assisted Personal Interviewing (CAPI) and Computer-Assisted Web Interviewing (CAWI) methods. Efforts include clustering addresses to reduce travel time and costs, especially in rural areas. Combining methods can enhance efficiency, but challenges include managing different interview techniques and ensuring data consistency.
- Effective outsourcing requires robust protocols and monitoring. AI, such as chatbots, shows potential for handling routine survey tasks. Using AI and paradata (data about the process of collecting survey data) can improve data quality and respondent experience.
- Regularly updating contact details, such as names, telephone numbers, and emails, is essential for maintaining accurate respondent information. This is particularly important for businesses, where staff changes can lead to outdated contact information. Different strategies are used to ensure databases are current and relevant.
- Offering multiple survey modes (e.g., CAWI, CAPI) flexibly helps address respondent preferences. Younger generations may prefer online methods, while face-to-face interviews are less favoured. Adapting to these preferences can improve response rates.
- Co-designing surveys with clients involvesfield tests, and concept testing with end users. This collaborative approach is applied to survey design and other elements like contact center tools and field interviewer technology. Engaging clients and citizens in the design process enhances relevance and usability.
- National apps like Italy’s public administration app (Io app) are used for efficient communication with citizens. An innovative strategy for reminders involved three postal notices and tailored messages via the Io app. This approach resulted in a good response rate from Italians and a moderately favourable rate from foreigners.
- Incentives can boost survey participation, but their effectiveness varies. GDPR compliance is crucial, particularly when using personal data for surveys. Strategies for using incentives must consider budget constraints and legal requirements.
- Engaging young respondents involves designing surveys that are relevant and accessible to them. Parental involvement is minimized to ensure genuine responses from the youth. Understanding their interests and preferences is key to successful engagement.

Annex 2. List of future works collected during the workshop

1. **Reducing Response Burden**
   - Implement shorter questionnaires and smaller sample sizes.
   - Explore pre-filling questionnaires to ease reporting for respondents.
2. **AI and Technology Integration**
   - Utilize AI techniques for data quality enhancement and efficiency.
   - Implement AI for response routing and assistance request categorization.
   - Use chatbots and AI tools for routine survey tasks.
   - Explore blockchain technology for enhancing data safety.
   - Use modern technologies such as R, Python, SAS, and others in data collection.
3. **Data Analysis and Integration**
   - Integrate survey and administrative data for comprehensive analysis.
   - Develop quality frameworks for multisource statistics.
   - Ensure data consistency between different sources.
   - Focus on standardizing data collection methods.
4. **Paradata and Performance Monitoring**
   - Use paradata to monitor and analyze production and response processes.
   - Create paradata-based KPIs and dashboards for performance tracking.
   - Develop performance metrics and dashboards for data collection.
5. **Business and Citizen Engagement**
   - Develop strategies to better engage businesses in data collection.
   - Invite business organisation representatives for collaborative discussions.
   - Improve and integrate citizen-generated data into official statistics.
   - Implement media campaigns and targeted outreach through social media and interest organisations.
   - Provide updates on innovations and trials in data collection software and methodologies.
6. **Survey Participation and Modes**
   - Encourage participation through tailored communication and mixed data sources.
   - Use Cialdini’s principles to tailor survey invitations effectively.
   - Offer multiple survey modes (CAWI, CAPI) to cater to respondent preferences.
   - Implement engagement strategies, including nudges and pre-contact methods, to improve participation rates.
   - Use incentives to boost survey participation while ensuring GDPR compliance.
   - Promote survey data on social media and other channels to make it fun and accessible.
7. **Managing and Improving Data Collection**
   - Apply M2M techniques in data collection from businesses.
   - Discuss experiences with automated data collection and system-to-system methods.
   - Develop and improve business data collection portals.
   - Implement quality frameworks for managing data from large enterprises.
   - Plan data collection processes effectively, outlining necessary steps and methodologies.
   - Explore sharing data collection software between countries.
   - Foster organisational agility for constant improvement and adaptation.
   - Regularly update contact details to maintain accuracy.

- Use feedback from respondents and interviewers to improve questionnaires and overall customer satisfaction.

8. Specific Areas of Focus

- Analyze response times and device usage to understand data quality.
- Balance response rates and the number of answers.
- Manage data collection from big companies with robust protocols.
- Combine survey methods (CAWI, CAPI) and clustering to reduce travel time and costs.
- Explore the use of non-probabilistic samples (voluntary answering) in surveys.
- Ensure data privacy and protection in all data collection efforts.