

Session 1: Session 1: Building trust and brand

Cooperating with other institutions to increase trust in official statistics (and statistical literacy)

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ABSTRACT

Disseminating official statistical data through partnerships, both formal (i.e. subscribed through formal agreements between different institutions) and informal (that is without formal agreement and for one-shot projects) has proven for Istat to be a successful way to make users grow in quantity and in the level of statistical literacy, so as to make them aware of the importance of statistical data.

Cooperating with other agencies is useful to make users understand how the value of statistics can be a support to larger projects. Partnerships also represent a relevant element for enhancing corporate reputation and trust in official statistics.

The paper will present an overview of statistical projects being carried out at Istat with the cooperation of other bodies. Projects under examination will focus on different kinds of partnerships. Some are the result of a structured and formal cooperation, for which Istat plays a precise role, such as the case of a school project going on from over 6 years. Others will show how a partnership based on a single edition of a competition can add value based on a shared topic and reach larger audiences, or a cooperation with other Research bodies can help to have a better overview of one's own and others' activities devoted to external users (Third Mission Activities).

Finally it will concentrate on the strategic value of partnerships to make users better understand how statistics can add value to projects, and how it can serve to better frame projects in the real world, that which is "measured" by official statistics.

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1. Introduction

The role of partnerships to develop statistical literacy

In line with the concept of official statistical literacy as a key to better understand the world around us and in line with what is written in Istat Statute, Istat cooperates with other institutions for statistical literacy projects, basically in two ways:

- 1) within a general framework of a large project or
- 2) upon occasional basis depending on opportunities or for specific topics.

An example of the first case is the Memorandum of Understanding with the Ministry of Education “to develop joint initiatives for quantitative-statistical literacy and to develop statistical analysis in the training and education Italian system, involving students”.

On the other hand examples of the second type are several initiatives established on an informal basis, the most recent of which are projects to be developed for activities involving students of the secondary school level called “Percorsi per le competenze trasversali e l’orientamento (PCTO- Pathways for transversal skills and orientation” having the aim to make students experience contacts with the labour market and future professions, also with universities as mediators.

Istat is developing more and more opportunities for partnerships as it considers that linking the value of official statistics to projects having not exclusively statistics as its aim is a chance to add value and significance to those projects.

This approach goes hand in hand with the core function of statistics as a science, that is not to work separately but to work as a “serving/supporting science” for other sciences.

2. Corporate principles to develop statistical literacy

According to the guidelines to develop statistical literacy at corporate level, Istat is actively engaged to foster the use of statistics in scholastic disciplines and, more generally, in the development of a quantitative approach to everyday life.

The **development of statistical literacy** is implemented through actions aimed at increasing the critical sense of the users through the correct understanding of statistical data and information. Basic elements of this process are:

- the promotion of the paradigm of statistical research (fundamental in the process of acquiring knowledge through the empirical observation of reality);
- the orientation to the use and application of data and information produced by official statistics to a plurality of cognitive, decision-making and evaluation contexts;
- the development of a method for decision-making, especially in conditions of uncertainty, through the use of official statistics;
- the knowledge of the set of criteria that guide the activity of the statistician and of the researcher;
- the promotion of metadata culture;
- the attention to quality and its “certification”.

On these bases, Istat's proposal on the development of statistical culture is based on four pillars:

1. to disseminate the pervasive and reasoned use of statistics within the curriculum disciplines, oriented to humanistic subjects and social sciences, as well as to the Stem disciplines (sciences, technologies, engineering, mathematics);
to equip the learners with a “statistical toolbox” and to develop the critical sense, the recognition of regularities (patterns), the capacity for synthesis (statistics) and the habit of interpreting reality through models;
2. to reach boys and girls outside the scholastic channel, through familiar and fun activities and methods (gamification);
3. to develop the quantitative and statistical interest and literacy of adults.

3. Projects overview

Hereunder there is an overview of collaboration projects presented in the following order, first the national projects, and then the one-shot projects, that is projects based on single occasions.

Formal National projects

3.1 Memorandum of Understanding with the Ministry of Education

Memorandum of Understanding with the Ministry of Education: the memorandum is the general framework within which, more or less, all the activities are included. It is a broad scope to develop statistics and quantitative literacy in the whole educational system in Italy and it is extremely useful to keep an alert on all activities Istat organizes at school levels, at all levels. One of the most effective actions is to bring notice of the activities to all Italian schools of that level through official channels, such as the Ministry of Education weekly newsletter.

3.2 At the School of Open Cohesion

At the School of Open Cohesion: At national level the oldest project developed in cooperation with external bodies, excluding competitions such as the Statistical Olympiads and the Statistical Poster Competition (ISLP), is the “At the School of Open Cohesion” (A Scuola di Open Coesione – Asoc), which is based with the Cohesion Policy Department of the Italian Presidency of the Council.

Since the 2018/2019 school year, Istat has been collaborating with the civic monitoring project [At the School of Open Cohesion](#) (Asoc), aimed at upper secondary school students. The collaboration follows the [agreement](#) between Istat and the Cohesion Policy Department of the Presidency of the Council of Ministers, which as one of its objectives has “to foster the dissemination of statistical literacy, to provide an adequate in-depth study of research methodologies and the construction of synthetic indicators and to enrich students’ training during their educational path”. The agreement is currently being renovated for the third time.

ASOC is an innovative [didactic programme](#) aimed at promoting and developing in Italian schools principles of active and aware citizenship, through research and civic monitoring activities of the European and national public fundings. It started on an experimental basis in the 2013/2014 school year with seven schools, and in the in the whole period up to now it has involved 300 schools, about

3,000 supporting teachers, nearly 35,000 students, more than 1,400 monitored projects.

The programme is recognised as a Pathway for Transversal Skills and Orientation (“Percorso per le competenze trasversali e per l’orientamento” – PCTO) and provides training credits to teachers who follow some modules, including the Statistical Literacy+ module.

The project is composed of four lessons, having the aim to make students in small teams monitor projects based on their territory and funded with Cohesion Funds. During the school year the teams have to choose a project, design their way of acting to effective monitoring, analyze the territorial data and design simple statistical indicators to make clearly understandable the importance of completing the project, explore on the fields the status quo of the project and, last but not least, tell the story of their work, that is they have to measure themselves with the communication of data and statistics.

The plan of the project is the following:

Lesson 1: design

Lesson 2: analyze

Lesson 3: explore

Lesson 4: tell the

story

Lesson 2 is the virtual space where Istat’s expert contribution is more visible, since students are supported by statisticians to find and analyze data, as well as guided to which data would be the most suitable to monitor their project.

In the 2019-2020 school year, a [European experimentation](#) started in Bulgaria, Croatia, Greece, Portugal and Spain, and in the 2021/2022 school year the experimentation within Italy-Croatia, Italy-France Maritime, Italy-Austria cross-border cooperation. From 2021-2022 school year the experimental project for primary schools run as ordinary, as the other types.

2022/2023 school year

During the 2022/2023 school year, the collaboration with ASOC has continued. The agreement includes a dual training channel, on the one hand, support for schools through the intervention of territorial experts, and on the other, teacher training through the Statistical Literacy+ program, carried out by Istat thematic experts and recognized by the Ministry of Education.

The Statistical Literacy+ 2022-2023 course, consisting of four lessons, can be accessed as a webinar, with related supporting slides and any further insights.

3.3 Agreement with the Association of European Economics Education

Agreement with the Association of European Economics Education: The agreement is currently discontinued but it was first signed in 2019 with the Association of European Economics Education (Associazione europea per l’educazione economica – AEEE Italia).

The agreement was aimed at developing statistical literacy in schools and it was addressed to the training of teachers in secondary schools, mostly of the economic type.

The agreement is consistent with the framework of Istat's institutional objectives with regard to the development of statistical literacy. It has the goal of supporting the demand for statistical information through the dissemination of the Institute's heritage of information and the use of tools and methods useful for the correct understanding of official statistics data, with training activities aimed at the school system, including in digital mode.

The joint initiatives are intended for upper secondary school teachers and students, and aim to strengthen the different areas of economic education using data and methodologies of official statistics.

The most relevant deliverables of the projects were the learning units regarding the 2030 Agenda

Didactic Learning Units on the Sustainable Development Goals of the 2030 Agenda

It is a section on Istat corporate website which contains Didactic Learning Units – (Unità didattiche di apprendimento - UDA) created for upper secondary school students on some sustainable development indicators on economic theme.

The aim is to offer modular learning paths in civic education that enhance students' statistical literacy and knowledge.

Learning Unit 1 - Goal 1 - End poverty in all its forms everywhere

Sheet for the use of UDA Goal 1 in teaching activities

1. Historical background to the 2030 Agenda
2. Introduction to the interdisciplinary concept of overcoming poverty | Notes
3. Goal 1 indicators.
4. How to read Goal 1 indicators

Learning Unit 2 - Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

Sheet for the use of UDA Goal 11 in teaching activities

1. Historical background to the 2030 Agenda
 - Introduction to the interdisciplinary concept of inclusive, resilient and sustainable human settlements | Notes
2. Goal 11 indicators.
3. How to read Goal 11 indicators

Learning Unit 3 - Goal 12 - Ensure sustainable consumption and production patterns

Sheet for the use of UDA Goal 12 in teaching activities

1. Historical background to the 2030 Agenda
2. Introduction to the interdisciplinary concept of sustainable consumption and production patterns
3. Goal 12 indicators
4. How to read Goal 12 indicators

The agreement produced other deliverables, upon the occasion of joint presentations between Istat and the association:

a) *Finance, Economy, Enterprise: teaching in the European context*

Istat's activities for the development of statistical literacy in schools (14 October 2019)

b) *Teaching materials from the Treviso Festival of Statistics and Demography 2019*

Statistical analysis of economic data: some operational

proposals Understanding and analysing the business

confidence

Human capital and

employability

The business confidence index

Linear regression for time series analysis

Teaching ideas for analysing economic data: How much do we really know about data? | Some relevant aspects of the Istat website.

3.4 Italian Statistical Society

Italian Statistical Society: this is perhaps the longest cooperation with Istat, at several levels, of which promotion is a part.

As far as promotion is concerned the Italian statistical society cooperates for the statistical competitions.

It is helpful in many ways: to organize the competitions, to check the scientific correctness of the questions, to revise them, to set the topic on which the questions are to be prepared (a topic of the official statistical releases: for the next edition it will be materials of the second chapter of Istat Annual Report, namely the value of educational attainments, tertiary education and human capital) to assess the team phase (which is the answer to a research question in the form of a presentation with official statistical data), to disseminate activities to school and to universities, to plan seminarial activities.

LE OLIMPIADI ITALIANE DI STATISTICA 2023



Per l'anno scolastico 2022/23 Istat e [SIS](#) organizzano la tredicesima edizione delle Olimpiadi Italiane di Statistica.

Le Olimpiadi si propongono di avvicinare gli studenti al ragionamento statistico, di suscitare il loro interesse verso l'analisi dei dati e la probabilità, di metterli in condizione di saper cogliere correttamente il significato delle

informazioni quantitative che ricevono ogni giorno.

L'iniziativa è rivolta agli studenti che frequentano le classi I, II, III e IV degli istituti di istruzione secondaria di secondo grado.

Informal National projects

This type of cooperation is very fruitful as well, even if not tightly structured, the projects involved have proven to be extremely successful over time since they depend on particular occasions where statistical literacy and statistical figures are needed.

4. International Statistical Literacy Project

International Statistical Literacy Project-ISLP: this project, regarding the creation of statistical posters for different school levels, has traditionally been carried out together with the Italian Statistical Society.

For the 2022/2023 edition, which has recently finished with prizes awarded at the 64th International Statistical Conference held in Ottawa, an additional partnership regarding the topic chosen in Italy has been that with the Council for Research in Agriculture-CREA (the research body of the Ministry of Agriculture).

Istat decided to assign Agriculture as a topic so as to enhance the knowledge and use of agricultural data just released from the 7th Agricultural Census and also proposed to use the data produced by CREA, which is part of the National Statistical System, regarding the economic results of agricultural businesses. CREA provided data and assisted the teams for information. Researchers from CREA also took part in the jury assessing the posters.

5. European Researchers' Night

European Researchers' Night: the initiative is based at European level through the EU Commission level and it is held in the month of September every year. It is an opportunity for people working in public research bodies to share the results of their work with citizens and students in many towns all over the country. At Italian level there are seven agencies working with the grants of the European Commission and Istat collaborates with them on a demand-basis with lot of events.

EVENT

ISTAT AT THE 2023 EUROPEAN RESEARCHERS' NIGHT

Disseminate statistical culture and promote Science, technology, engineering, and mathematics (STEM) disciplines to the public at large: these are the goals of Istat's participation in the [2023 European Researchers' Night](#).

The initiative, promoted by the European Commission, involves thousands of researchers and institutions in EU countries, with the aim of bringing the world of research closer to the public, raising awareness of excellent research and innovation projects in Europe and stimulating young people's interest in scientific careers. It also aims to show, in an engaging way, the impact of researchers' work on people's daily lives.

The European Researchers' Night offers many science dissemination activities both in person and online, nationwide and with initiatives on the ground, creating opportunities to meet for researchers and citizens to spread scientific culture and knowledge about research professions.

This year it will take place in 26 countries on Friday 29 September 2023.

Also for the 2023 edition, Istat is participating in several projects promoted by consortia of scientific and territorial organizations throughout the country, with initiatives dedicated mainly to younger people (Istat's calendar of activities is available [here](#) – in Italian only).

6. Cooperation with universities

Cooperation with universities is active for several activities. The most recent opportunities have come for training activities devoted to students at secondary school level: this a brand new activity for which Istat cooperation is required with specific modules on official statistical data, how they are produced, the quality process, how to make them circulate in stories.

PCTO

The PCTO- “Pathways for transversal skills and orientation” are a cross-curricular activity introduced at secondary school level in 2016 with a general reform (the so-called Buona scuola) and, according to the guidelines¹ are intended to insert the labour experience in the last three years of secondary school with activities carried out for a given number of hours (from 90 to 200 depending on the school type²). In the guidelines they are intended to set the agenda for innovation and competitiveness of economic systems.

Istat is participating at both national and regional level at the project with several activities in Italian universities with the statistics departments. Learning to know official statistical data and statistical reasoning is one of the milestones set in the guidelines of the project as well as the practical problem-solving approach of statistical reasoning. At territorial level many courses are being held in different universities throughout the country with programmes equally divided between Istat and universities. Most of them have as a result the preparation of data-journalism articles by students, after they have learned to know the methods and output of official statistics, the wealth of official statistical data (from Istat part) and have learned how to manage those data and data sets with the

¹ <https://www.miur.gov.it/documents/20182/1306025/Linee+guida+PCTO+con+allegati.pdf>

² Between 90 at classical and scientific high school level and 200 hours at vocational school types,

basics of statistical programs such as R. For the current school year a new project with Sapienza university will be started together with the well-established collaboration programs with Florence university, Venice university, Naples university and Palermo university.

Examples of the



Figure 1 – Requisites and objectives of the PCTO- “Pathways for transversal skills and orientation”

Data journalism con la statistica ufficiale - in collaborazione con ISTAT

Anno

2023

Struttura

DIPARTIMENTO DI SCIENZE STATISTICHE

Descrizione

Il progetto, condiviso con l'ISTAT, prevede una prima parte in cui vengono trasmesse nozioni base per l'accesso, la lettura, il trattamento dei dati ufficiali disponibili online. Attraverso l'uso di software statistici (fogli di lavoro e R) gli studenti si cimenteranno in alcune semplici analisi, principalmente volte alla visualizzazione dei dati. Particolare enfasi verrà dedicata all'interpretazione dell'output grafico e al modo in cui le informazioni in esso contenute possono essere comunicate. Il prodotto finale dell'attività è un report o un articolo di stampo giornalistico.

Struttura organizzativa

DIPARTIMENTO

Tipologia posti


Coprogettazione totale


Facoltà

Ingegneria dell'informazione, informatica e statistica

Attivo

1

 Accedi

 Stampa scheda progetto

Ambito

[Altro]

Competenze trasversali

Attitudini al lavoro di gruppo

Capacità decisionali

Capacità di comunicazione

Capacità di gestione del tempo

Capacità di organizzare il proprio lavoro

Capacità di problem solving

Capacità di relazioni

Capacità nella visione di insieme

Capacità nelle flessibilità

Spirito di iniziativa

Metodologie

Competenze

Conoscenza dei dati messi a disposizione dall'Istat

Elementi base di analisi dei dati

Utilizzo di un software statistico per la produzione di tabelle e grafici

Interpretazione degli output

Costruzione di un report/articolo giornalistico

Metodologie

Competenze

Si alterneranno lezioni frontali / seminari e laboratori pratici, anche con attività di gruppo.

Figure 2 – Sapienza University Catalogue of PCTO offer for different departments

8. PCTO LUMSA

Even of a different kind, but with the common factor of the introduction of statistical data, Istat has just entered another PCTO project with another University- the LUMSA University in Rome. The University is particularly specialized in social sciences and communication and has asked Istat to prepare a brief for a communication project on the topic of “Population decrease and fall of birth rates”. The collaboration is enshrined within the framework of a Prize on ethical communication and training of students who will work in the advertising and marketing sector. For this reason students are asked to develop a given theme as a graphical and creative project. Being chosen as a partner for the topic of the decrease of birth Istat has presented the relevant section with demographic data and has given the details of the project and which medium has to be used for the output: in this case infographics could be prepared to be released on IG. Istat will be participating in the selection of the best project works.

Istat for the School: materials and tools supporting didactic activities(a cura di CIB-Sviluppo e promozione)

- Istat programmes for schools
- Learning materials (Olimpyads exercise as study materials to prepare for the competition)
- Statistical information through visualization and infographics
- The Moodle platform used for school

Official statistics and data literacy in current didactic activities: access, understanding, data treatment for possible use in the classroom

- How to search and organize data from official statistics (Surfing the corporate website)
- Istat data warehouses
- Telling stories from data
- Communicate and visualize statistical data with images
- Data journalism with official statistics

7. The Bank of Italy – Cooperation for “The Adventure of Money exhibition”

The Bank of Italy – Cooperation for “The Adventure of Money exhibition”: this is an ongoing activity for a forthcoming exhibition prior to the opening of the physical Money Museum of the Bank of Italy, which currently is virtual only.

The exhibition will be opening at the end of October and will last about six months. Istat collaboration has been requested to organize seminars on topics such as inflation, purchasing parity power, household consumption, in short themes which are of interest in this period of highinflation and connected with money and income.

'The Adventure of Money' exhibition

31 October 2023 - 28 April 2024



Share    

The Adventure of Money provides a fascinating preview of the upcoming Bank of Italy Money Museum and its displays (MUDEM). The exhibition was created by Paco Lanciano and Giovanni Carrada, and takes visitors on a journey through time to find out about the main events in the history of money and finance. Digital animation and interactive technologies create an immersive experience for visitors that tries to answer questions they might have and satisfy their curiosity, especially regarding the modern age.

A series of nine rooms are used to map out the birth and evolution of the main monetary and financial instruments and events, using the best narrative techniques for popularizing science.

The journey begins with the story of modern economic systems.

The next five rooms guide visitors along a historic route from ancient Mesopotamia to the twentieth century, from the first coins to digital transactions and modern payment systems.

Our collaboration will consist in monthly conversations with the general public, on the themes described above. Selected thematic experts will be involved for the monthly events together with the promotion staff, that will be planning and organizing the whole activity also preparing playful activities and quizzes to prepare for the conversation. The intended audience will be most probably tertiary education level people interested in the topic of money for their everyday life.

9. INDIRE cooperation (Scopri di più sul mondo che ti circonda)

The cooperation to the project with INDIRE was an enthusiastic activity carried out in the first period of the lock-down due to the COVID-19 pandemic in April 2020. Even without a formal agreement the activity was strongly sponsored by the presidents and directors-general of the Italian public research bodies and was coordinated by INDIRE-the research body of the Ministry of Education.

The communication departments of the research bodies cooperated to select, collect and put at disposal their materials for study for schools, teachers, students and their families. A specific page of the website was prepared in the Istat section for the data of the pandemic period, which collected all materials that could be useful for school activities.

NOTIZIA**L'ISTAT PER STUDENTI, INSEGNANTI E FAMIGLIE**

A partire da aprile 2020 l'Istat aderisce al progetto "Scopri di più sul mondo che ti circonda – Gli enti di ricerca per studenti, insegnanti e famiglie", che rende disponibili online, in un'unica piattaforma, i migliori contributi del mondo della ricerca pubblica italiana, sotto il coordinamento dell'Indire ([comunicato stampa](#)).

Conclusions

From the different projects discussed above it is possible to see that working with other institutions is possible at both levels: formal and informal.

Substantially there is no difference when working.

Formal activities are normally more difficult to start because of the formal agreement which needs to be approved at all hierarchical levels, i.e. it has to be approved by the governing bodies, "scanned" from a legal point of view and so on but, when approved and signed from both parties it acts as a general framework for activities at several levels and for longer periods without no need of further approval and run smooth.

Informal activities most often go forward and progress with the enthusiasm and urgency of something not previously provided. Nevertheless, the results are good.

Institutions do not refuse to collaborate when Istat asks for collaboration, even without formal agreements because they know what Istat produces. Cooperations are milestone to make statistics and statistical literacy to penetrate in society.