

ACTION PLAN FOR 2021

The Institute of Political Economy and Governance (IPEG) has become a Research Center in Political Economy at the highest international standard. We aim at being an institution of reference for our signature research lines, generating new solutions to achieve prosperity by analyzing the conditions for growth, good institutions and peaceful societies. We believe we fill an important gap in social science research by investigating these topics using innovative analytical tools, and new data sources. The interdisciplinary character of the center should promote creative approaches, and produce innovative solutions that can be transformed into policy recommendations.

This approach requires the collaboration of a complex and multidisciplinary team of researchers, including data engineers, economists, political scientist, etc. The application of this type of multidisciplinary methodology to the study of the central topics of research of IPEG is its greatest novelty. The application of this methodology also implies that it is a center of great frugality in relation to the beneficial effects that it can have for modern societies.

Our plan for 2021:

1. Keep our current structure with four research lines.
2. Keep our governance procedures.
3. Consolidate and create new specific laboratories associated with our signature projects to improve visibility.
4. Improve our reach by collaborating with other top research center in our specialties.
5. Enlarge our research community to strengthen the multidisciplinary approach. Start hiring process to apply for ICREA.
6. Promote training in our methodological approach.
7. Continue with our visitors' program.
8. Continue with our program of research activities and conferences with high academic impact.
9. Improve sustainability by a campaign of fund raising

The following pages develop some of the previous points.



Keep our structure

In 2019 we made some changes in our internal structure. We organized the structure of IPEG into several Research Lines. In particular, we merge several initiatives to gain scope economies and interdisciplinarity. The final structure that we started in 2019 is based on 4 research lines:

- Political Economy of Media
- Political Economy of Poverty, Inequality, Redistribution and Social Mobility
- Political economy of Conflict and Globalization
- Political Economy of Urbanization and Climate Change.

Each Research Line has a Principal Investigator (PI) and several researcher associates.

The PI is responsible for leading the Research Line and Projects, providing strategic views on the research to be developed, and encouraging interdisciplinary research between Research Lines.

The center also encouraged the design of data projects that could be of interest for policy makers, and decision makers in general.

Keep the current governance

We created an Advisory Committee to help the Director in taking decisions related to hiring, rules for affiliation of new researchers, collaboration with other centers, etc.

Creation of Policy Laboratories

In 2021 we have two laboratories which are active. One (on Inequality) that started operations during 2019 and a second one (on conflict) that was planned to start in 2020.

We plan to enlarge the laboratory on inequality given the new projects developed during 2020 and especially due to COVID-19.

We have postponed the development of the Conflict one due to COVID-19, moving resources to the development of COVID-19 related projects. Therefore we plan to start consolidating the laboratory of conflict during 2021 or 2022.

And we plan to define a strategy for the future development of the Climate change laboratory. (third one)

Each Laboratory is directed by two researchers that are fully involved in the projects.



Laboratory on Inequality: 2 projects

This Laboratory is in charge of two big projects: Satellite imagery for measuring inequality and Tracking Real time Inequality.

Satellite imagery for measuring inequality

Given the objectives of IPEG, we created the "Laboratory on Inequality", which produce inequality measures using satellite information, using both night lighting and daylight images. This project will produce and keep updated a very detailed vision on poverty, inequality, etc. for very small areas worldwide.

In 2021, we will concentrate of the platform that will make data available to researcher and policy makers. We will also concentrate in measuring within and between measures using different regional dimensions: Nuts 1, ethnic homeland...etc., north-south...etc.

The work produced up to now has used night light images. We are now moving into a more complex type of data which is satellite day images. For this purpose, we are in contact with Planet and Digital Globe, who is the firm that provides the images to Google Earth.

Our engineers are already working on potential algorithms to deal with these images. This is a very difficult task since, opposite to nightlight data, day light images are very heterogeneous in terms of the structures to be measured for proxying economic development. One way of attacking this problem is to use information on nightlight, which we know very well, to approximate rich and poor areas. Using this benchmark we can try to identify the specific characteristics of those areas in terms of structures like type of roofs, height of the buildings, etc.

This part although is very well define, requires more resources to be able to start implementing it.



Measuring Inequality in real time

The Inequality Tracker is a pioneering project that aims to track developments in inequality and the role played by the welfare state in Spain in real time using techniques based on big data. It is a novel initiative carried out by a team made up of researchers from the Institute of Political Economy and Governance (IPEG) and CaixaBank Research that shows the enormous potential of the collaboration of researchers of private companies and research centers.

This project relates to a number of new initiatives, triggered by the COVID-19 crisis, which use big data to track economic activity in real-time.

In particular, many of these approaches use bank transactions data (usually credit/debit cards, and PoS) to track spending by sectors at very high frequency. This analysis helps to fine-tune economic policies. However, there is substantial heterogeneity, given the novelty, on the treatment of seasonality, criteria to select the sample, sectoral classification, etc. The project BTID tries to homogenize the information of 11 countries. The information will be included in a dashboard where interested researcher will be able graph the magnitudes of interest and download them. This project is a joint initiative with the CEPR and LSE.

Laboratory on Conflict measurement and prediction.

We are developing new algorithms (AI) with some data engineers with whom we have been working for one year. The work of the laboratory will allow obtaining more accurate predictions than the traditional methodologies. The large volume of data will also require the use of the Marenostrum Supercomputer.

For the prediction idea we are exploring different lines of research: text analysis, sentiment analysis and Google searches. During 2019 and early part of 2020 we have focused on text analysis. We have a team of 5 people (3 data engineers and 2 researches) involved in this project.

To advance in this project we need access to large datasets like Factiva. Compare with 2020, we have now access to more data. In 2020 we bought FACTIVA data sources. Moreover in order to get access to PROQUEST dataset, we have applied to a very competitive program to get free access to this data and our proposal has been one of the five research projects to be awarded a 6 months access to TDM studio. The access to this data had started in 2021. During 2021, we plan to explore these dataset and try to advance in the development of this laboratory.

This is the laboratory whose development we had to be postpone due to COVID-19, and that we plan to develop in 2021 and 2022.

Laboratory Climate Change

In the future, we would like to create the 'Climate Change Lab', also giving a new focus to existing laboratories on this subject. We plan to use high-resolution satellite images with high temporal variability. The initial objective would be to be able to locate and track the migratory movement of people caused by climate change, and its consequences. This is an issue that is considered very important but there have been little advances until today. This project, which is still at its initial stages, will be a joint collaboration with the founders of Data-Pop Alliance (Núria Oliver and Emmanuel Letouzé). The Data-Pop Alliance is a global Big Data development and data coalition created by the Harvard Humanitarian Initiative, MIT Connection Science, and Overseas Development Institute, which brings together researchers, experts, professionals and activists to promote a people-centered Big Data revolution through the collaboration research, capacity building and community engineers.

We plan to define a strategy for this project during 2021-2022, which will seriously consider the limit resources we have. We wanted to start in 2020, but due to Covid-19 Pandemic, we devoted resources to the study of COVID-19.

International visibility and Increasing collaboration with other research centers

We have contacted some institutes and research centers that have complementary objectives, in order to establish potential collaborations, with the idea of increasing our visibility among the academic and policy world:

1) We have a new website, which gives much more visibility to the "IPEG message", especially internationally.

<https://barcelona-ipeg.eu/>

2) Secondly, the World Bank is considering us to make the presentation in Europe of the "World Development Report 2021: Data for better lives". In fact, the proposal was made to us recently, and everything seems to indicate that we will do it in June, if there are no contingencies.

They believe that our center and what we do, despite being very new, fit perfectly with the idea of the report and the Bank on how we should address the world's social problems if we want to find new solutions. But there are centers with a long tradition, very powerful in Europe (for example, those of Oxford and Paris) on Development, which have been working with the World Bank for many years, which must be pressing to be the presentation platform in Europe by 2021. They are not at all



innovative but they have all the connections at the political level. If we succeed it will be an opportunity to make ourselves known.

<https://www.worldbank.org/en/publication/wdr2021>

3) Third, we are organizing with the director of the World Global Indicators Group at the World Bank, Norman Loayza (<https://www.worldbank.org/en/about/people/n/norman-loayza>), a joint project to map indicators of “doing business, investment climate....” at subnational level, among other long-term projects.

4) Finally, we have a joint project with CaixaBank. Inequality monitoring is a pioneering project that aims to monitor the evolution of inequality and the role played by the welfare state in Spain in real time using techniques based on big data. <https://inequality-tracker.caixabankresearch.com/en/>

As a result of this project we have promoted the Bank transactions international dashboard (BTID). The BTID project seeks to homogenize information from 11 countries. The information will be included in a control panel where the interested researcher can draw the quantities of interest and download them. This project is a joint initiative with the CEPR and LSE.

5) “Data Pop Alliance” (<http://datapopalliance.org/>). Data-Pop Alliance is a global coalition on Big Data and development created by the Harvard Humanitarian Initiative, MIT Media Lab, and Overseas Development Institute that brings together researchers, experts, practitioners, and activists to promote a people-centered Big Data revolution through collaborative research, capacity building, and community engagement.

With them we will design the projects involved in the Laboratory of “Climate Change”

Institutions for future collaboration:

Pearson Institute for the Study and Resolution of Global Conflicts. (Directed by James Robinson) At University of Chicago) <https://thepearsoninstitute.org/>

UC Global Institute on Global Conflict and Cooperation (Eli Berman: IGCC Research Director for International Security Studies) <https://igcc.ucsd.edu/research-and-programs/research/development-conflict/deterrence-with-proxies/index.html>

IS Global (<https://www.isglobal.org/ca/>) with climate change Research Group.

Enlarging research community affiliated with IPEG.

Also, we would like to continue with the hiring with ICREA, although it is not clear. One important shortcoming we have observed with this strategy is the fact that our ICREA feel a bit frustrated because despite being ICREA and having ERC, they cannot be part of the BGSE community.

Communicating research

As any academically oriented institution we communicate and discuss our research in seminars and conferences.

Regular meetings and seminars:

Seminar series (mostly weekly or bi-weekly).

Reading group in Political Economy.

The Brainstorming Meeting in Political Economy

Supporting IPEG Ph.D. students' projects and initiative. Some examples are:

- buying datasets they use for the PhD thesis and the data will be owned by IPEG.
- Initiate the design of construction of datasets.

Workshops 2021:

The 17th Matching in Practice workshop on May 10 and 11, 2021

The 8th Annual Workshop on Political Economy of Development and Conflict

May 20-21, 2021

Barcelona GSE Summer Forum Workshop on Advances in Micro Development Economics

June 2021

There are other workshops which are still not confirmed due to the uncertainty due to COVID-19

Improving long run sustainability

IPEG resources come from research grants of its researchers and, most importantly, from funding from La Caixa-Generalitat and directly from the Generalitat. Unfortunately, there is high degree of uncertainty about the future commitment of the fund provided by la Caixa-Generalitat after the actual agreement that finalizes at the end of 2021. We were informed about this situation at the "comissió de



seguiment” that took place on the first week of April 2020. If this view consolidates and translates into budgetary decisions then the plans to expand the activities of IPEG could be jeopardized. Given this uncertainty we should try to diversify the sources of finance.

In that respect we have been very competitive with Competitive grants that will be spent during 2021 and 2022.

This could be a problem from 2022. We have already started working on this.

It would be possible, although hard, to find an international sponsor. Some of the topics of the IPEG are of interest for large international organization and potentially some sponsors. An example of a similar initiative is the recent creation of the Pearson Institute for the Study and Resolution of Global Conflicts in the Harris School of Public Policy of the University of Chicago. The Pearson Family Foundation donated 100 million Dollars for the creation of this institute.