



Conference on
**Remuneration
Statistics**
eurostat 

Structure

- Title** Transforming remuneration statistics to accessible insights via visual storytelling
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Abstract

The aim of this paper is to demonstrate how modern data visualisation can help present remuneration statistics at a more powerful way enabling the increase of their accessibility by their audience. Complex data can be visualised via advanced graphs allowing their readers to more easily identify patterns and make conclusions. Furthermore, visual storytelling is a way to present data and the results of numerical analysis in a way that can assist policymaking, especially those stakeholders that find it challenging to follow a long and complex table of statistical data. In our modern society that data and information flow rapidly, automated data visualisation can help informed and timely decision-making.

It is a common place that two thirds of the population are visual learners¹. The theory of cartography teach us the importance of using colours and cartographical elements to communicate geographical data more effectively. Colours in images stimulate the human optical nerve, which assisted by the human brain and the individual's experiences allows the identification of information and patterns. It appears in the recent literature that data visualization allows the increase of the readability of complex data sets, thus, is enables the "democratisation" of data sharing. The latter means that more people, especially non-experts and make sense of these data. The recent technological advances in open source data analytics software and computer hardware allow the development of data visualization projects at a marginal cost. The return of the necessary investment in human resources (training existing staff or hiring new) takes place almost immediately, as the proposed data visualization approach refers to automation and reusability. Indeed, especially in repeatable data analysis exercises, such as those of the remuneration team of Eurostat, the adoption of such techniques offers a significant level of efficiency. With a few hours of programming an expert in data visualization can produce numerous and powerful graphs of the complete dataset or several subsets of it. Data storytelling takes longer as it requires knowledge of the whole lifecycle of the subject matter and normally is part of the reporting exercise.

To demonstrate the power of data visualisation, we analysed data referring to the trends in market values of rents in several European Cities. The data series includes average rent for several types of property categories available for the period 2013-2019. The data come from annual rent surveys in cooperation with relevant real estate agencies. The purpose of their visualisation is to be able to compare the relative cost of living of international civil servants across Europe. This is important, as the housing cost is a significant part of the household budget affecting career and mobility decisions. In order to allow for comparisons over property type, location and time, the data have been transformed to current (as of 1 July 2019) prices in Euros.

¹ Bradford, W.C., Reaching the Visual Learner: Teaching Property Through Art (September 1, 2011). The Law Teacher Vol. 11, 2004. Available at SSRN: <https://ssrn.com/abstract=587201>