**Brief Report on Grenoble Research Activity 2009 – 2018**

**(Grenoble4Research)**

The main objective of this exercise was to explore research activity in Grenoble during the last 10 years (2009 -2018). For this purpose, 5886 publications of Grenoble from HAL open repository were analyzed through different steps of data cleaning and processing data, as well as texts tokenization, a LDA model and Countvectorizer and Gridsearchcv methods.

Regarding the results, the number of publications in Grenoble increased over the years but showed significant fluctuations every two years period, reaching a peak in 2018 (with 973 publications). Therefore, given that one of the purposes was to analyze local actors for Grenoble4Research initiative, we observed that the governmental research organization called Centre of National Scientific Research was the institution with the highest production of publications (3837) in Grenoble. Such institution displayed different areas of research as department, laboratory, and research team, but most publications would have been developed as 'institution'.

On the other hand, the analysis on the relevant fields of publications illustrated that 'Human Sciences and Society' has been the main domain in Grenoble during the decade in analysis, with 2220 publications, while 'Non-linear Sciences' was at the bottom of the overall production with only 3 publications. However, regarding the specialization index, 'Nonlinear Sciences' in Grenoble occupied an important role in the production of publications comparatively to France. Considering this index, 7 of 12 domains reviewed in Grenoble showed a comparative advantage production of publications regarding the whole production in France.

According to the collaboration network analysis, most of the publications were realized in collaboration (97%): 5,665 were done in networks, while only 167 publications (3%) were done by just one institution. This result displays a high level of networks among local research institutions in Grenoble. Notably, the Centre of National Scientific Research highlights as the leading actor in research relationships in Grenoble since it has produced most of its publications (3264/3837) in co-authorship with other institutions.  Finally, the abstracts analysis allowed us to classify publications in ten relevant topics, where the most common were related to Data analysis models (topic 7) and Social and political research (topic4).