



SDG Policy mapping: a text mining approach to map EU policies to Agenda 2030 goals and targets

European Commission (Intergovernmental organization)
#SDGAction33645

DESCRIPTION

SDGS & TARGETS

DELIVERABLES & TIMELINE

RESOURCES MOBILIZED

PROGRESS REPORTS

FEEDBACK

Intro

The practice shows how European Union's (EU) policies address SDGs: policy documents are processed using text mining and language processing techniques to identify relevant SDG and targets within the text, through the use of specific keywords. The tool identifies the number of EU policies that address each goal and target, and provides details on which goals and targets are connected to each policy, allowing to identify more crosscutting initiatives (policies addressing more goals). Early beneficiaries of this practice are policymakers, but it delivers to multiple stakeholders including citizens, organizations and civil societies that are enabled to monitor how legislative initiatives are delivering on SDG.

Implementation of the Project/Activity

A first exercise to link EU policies to SDGs was developed in 2018, applied to policy initiatives in the main planning documents of the EU Commission from 2014 to 2018. That mapping was carried out manually by policy analysts, scanning relevant policy documents for respective goals and targets. The results were then validated in cooperation with each Commission's service. In 2019, a requested update of the mapping led to the development of an automated approach based on text mining techniques and a set of keywords describing each goal and target (243 keywords for Goals and 2760 for targets). The methodology, developed in 2020, addressed all EU policies in the period 2016-2020, with a more detailed screening of the policy initiatives delivered by the current European Commission (from December 2019 onwards). In 2020, the method was also used to provide a thorough analysis of the set of policies proposed by the Commission to recover from COVID-19 pandemic, giving insights on how it relates to the SDGs framework. In 2021, an automated web-version of the tool will be made available to allow any users to run the mapping themselves, and apply it to any kind of text data. One ongoing extension of the tool aims at tracking EU actions in development cooperation, identifying SDGs and their interlinkages in development cooperation community's projects and programmes. JRC SDGs team is made of a group of six people, including software developers, data scientists and the project leader. We estimate that about 40 person-months were dedicated to this project in 2020. The budget allocated in 2020 was 50,000€ (for IT and software development). In 2021, the Commission's Directorate General for International Partnership (DG INTPA) is supporting new development of the tool with EUR 100,000.

Results/Outputs/Impacts

This mapping considers a large set of EU actions, from 2016 until present, analysing more than 1.700 documents. The results revealed that all 17 goals are addressed by EU actions, with special emphasis on SDG 8, 16 and 3. The analysis deepens the results also at target level, unveils the interlinkages between policies, enabling policy coherence and SDG implementation. The tool was used also to analyse in detail 59 policy actions proposed by the Commission in 2020 to recover from COVID-19 pandemic, highlighting the strong link between the EU Recovery Plan and all SDGs, with 94 targets addressed in the documents. Most of the detected keywords relate to SDG 3 (with prevalence of target 3.d) and SDG 8, but the analysis identified targets pertaining to all other SDGs, among which higher numbers were in SDG13, SDG4, SDG16 and SDG9. The tool could be used to track how SDGs are addressed in policies over the time, highlighting shifting priorities towards sustainable development.

Enabling factors and constraints

The main enablers that facilitated the development of the tool have been: availability and accessibility to official policy documents, transparency and reproducibility of the practice, possibility to involve specific experts in designing and refining the keywords for improving the practice and apply it to different contexts. Alignment with EU highest policy priorities and endorsement by Commission's Secretariat General. The tool has been developed with a reasonable use of resources, and has high potentiality to be applied to in several different contexts, beyond the EU and in long term. The benefits relative to costs are thus very positive.

Sustainability and replicability

The practice is highly exploitable due to its computational approach based on established and developed technical features. It can be applied in different contexts and in every geographical area; it allows comparisons of policies and initiatives over the time and across territorial areas, and can be applied to any type of text, not limited to the policy analysis context. The automatized electronic version of the tool that will be available on JRC platform will allow to scale-up its use enlarging the audience of potential users. Furthermore, the low demand of hardware and software resources needed to run the tool allows the creation of an off-line version to be run on personal computers, further increasing its scale up.

Other sources of information

Results of the policy mapping are available on JRC KnowSDGs platform <https://knowsdgs.jrc.ec.europa.eu/>. The platform offers interactive tools to help explore how EU policies relate to the SDGs and how they are interlinked, in order to support policy coherence for sustainable development. The analysis of the EU Recovery Plan is published in the JRC report "A Sustainable Recovery for the EU: A text mining approach to map the EU Recovery Plan to the Sustainable Development Goals", Borchardt S, Barbero-Vignola G, Buscaglia D, Maroni M and Marelli L, EUR 30452 EN, doi:10.2760/519939

COVID-19 Impact

The development of the tool was not negatively impacted by Covid-19. It has indeed been used for tracking the implementation of the SDGs in the EU post-pandemic Recovery Plan, showing EU commitments to accelerate the transition towards a more sustainable and resilient EU. The Covid-19 pandemic is undoubtedly posing a threat to the implementation of the Agenda 2030, but our analysis indicated that the EU Recovery Plan covers all goals, with major emphasis towards the systemic elements (healthcare and economic productivity) that suffered the most during the early phase of the pandemic. This innovative and ambitious Plan puts the European Union in a good position to become a frontrunner in the global challenge of achieving sustainable development through a sustainable recovery.



This initiative does not yet fulfil the SMART criteria.

Share



Timeline



01 November 2019 (start date)



01 May 2021 (date of completion)

Entity

European Commission

Ongoing

No

SDGs



Other beneficiaries

The practice supports policymakers to design policies and initiatives aligned with UN 2030 agenda, enabling to monitor its implementation into new and amended legislations. With the automatized electronic version that will be available on JRC webplatform in 2021, any stakeholders (private or public sectors, civil societies, citizens etc.) can run the tool to link any kind of text (policy initiatives, projects proposals etc.) to SDGs framework.

More information



https://ec.europa.eu/info/index_en

Countries



Belgium

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