

UNITED NATIONS ENVIRONMENT PROGRAMME

Programme des Nations Unies pour l'environnement Programa de las Naciones Unidas para el Medio Ambiente Программа Организации Объединенных Наций по окружающей среде برنامج الأمم المتحدة للبيئة



联合国环境规划署

The Sustainable Development Goals Interface Ontology (SDGIO): Progress and peer review

Background

An ontology clarifies the meanings of terms used by researchers who need to share information within or between disciplines. Such an ontology can represent the precise differences between terms with logically coherent definitions, thus making its content machine-interpretable. Importantly, the relations among terms are also represented with increased precision.

Some of the motivating reasons for developing an ontology are:

- To externalise a common understanding of the structure of information thereby allowing sharing among people or software agents
- To enable reuse of knowledge within and between domains and disciplines
- To make assumptions and terminological ambiguity explicit, enabling structured interventions and traceable updates
- To enhance the discovery, mobilisation, and analysis of domain knowledge

Mandate

The Inter-Agency Expert Group on Sustainable Development Goals (IAEG-SDG) in its 2nd meeting (Bangkok, October 2015) requested UNEP to develop the SDG Interface Ontology (SDGIO). The SDGIO focuses on specifications of terms and their interrelations in the domain of the sustainable development goals, targets and indicators. This includes terms such as 'access', which occurs 31 times in the SDG Global Indicator Framework. The SDGIO will represent the various meanings and usages of this and similar terms, either by creating new content or coordinating content from existing ontologies.

Status

UNEP has been working closely with the SDGIO Expert Group¹ to develop the first draft of the ontology and connect it with existing and widely used ontologies. Currently, the SDGIO includes 102 terms with **draft** definitions and relations, and imports 10 external ontologies.

Next step: peer review of draft definitions and relationships

Experts in sub-domains of the SDG process are invited to review the draft definitions in SDGIO. The peer review process will also allow reviewers to request new content to be added to the SDGIO. UNEP will provide the details of the peer review process to all IAEG-SDG members and observers, with an invitation to participate. The process will begin in December 2016. UNEP will report back on agreed SDGIO terms to the 5th Meeting of the IAEG-SDG in March 2017.

¹ Members of the SDGIO Expert Group: Pier Luigi Buttigieg (Alfred-Wegener-Institut, Helmholtz Zentrum für Polar und Meereforschung), Mark Jensen (National Center for Ontological Research), Suzanna Lewis (Lawrence Berkeley National Laboratory), Chris Mungall (Lawrence Berkeley National Laboratory), Mark Schildhauer (National Center for Ecological Analysis and Synthesis; University of California Santa Barbara), Lynn Schriml (University of Maryland School of Medicine), Barry Smith (National Center for Ontological Research), Ramona Walls (Cyverse)