Sustainable Development Goals

The Value of RDA Outputs and Recommendations

The RDA for the Sustainable Development Goals IG

RDA for SDG IG: Introductions




RDA P12: BOF along with presentations for International Data Week in Botswana

RDA P13: SDG in Philadelphia, including Data for Sustainable Development Plenary Panel

RDA P14: Community Input on potential group alignment

October 23, 2019: Approval of IG Group Status

2019-2020: Co-chair RDA Ambassador for the SDGs: RDA Disciplinary page https://www.rd-alliance.org/rda-disciplines/rda-and-sustainable-development-goals-sdgs

RDA P16: Session for feedback from Council and Community

RDA P17: Today's Session, Council Prioritizing SDGs & **Adoption Session Tomorrow**, **8-9:30 UTC**

Open Call next Wednesday, April 28th at 2pm UTC!

Survey SDG Alignment of IG members

Prior to the 16th RDA Plenary in Costa Rica (virtual) the co-chairs of the RDA for the SDGs IG sent out a survey amongst members of the IG. **The aim was to get feedback on groups alignments with the SDGs.**

Questions included:

1.Basic personal information, **professional background**

2.Affiliations and activities in RDA

3.**Alignment of IG and WG activities** with the UN Sustainable Development Goals (SDGs)

4.Additional **organizations within or outside of RDA** would also be crucial for informing and supporting our Interest Group activities?

5.**Value of the RDA** for supporting the SDGs?

Feedback

Disciplines: health, development studies, education, bioinformatics, environmental sciences, data science, gender, climate research,air quality, forecast, food

External partners: UN,EU, CODATA; specific national and disciplinary networks

Value: data collection, collaboration, cross-disciplinary-cross-national activities, research data management, training, recommendations, guidelines, collaborative model of RDA

→ many cross-cut several SDGs/cooperate with external partners

→ Limitation - low response rate

→ Ongoing/future plans: reach out to chairs & analyze RDA IG and WG outputs applying multiple sources

Aligned Adoption Examples


Managing Nation & Stakeholders
SUSTAINABLE DEVELOPMENT GOALS
Goal Focused WG & IG
RDA
RESEARCH DATA ALLIANCE
Indicator Data Source
SDG Target & Indicator
Output or Recommendation of impact
RDA
RESEARCH DATA ALLIANCE
miro

Global Health

Measuring and Monitoring the SDGs

Table 1 – Number of SDG Indicators by Tier
Source: Derived from IEAG-SDG [14]

Tier Classification	December 2016		December 2017		May 2018	
	Number	*%*	*Number*	*%*	*Number*	*%*
1	81	35	93	40	93	40
2	57	25	66	28	72	31
3	88	38	68	29	62	27
Multiple	4	2	5	2	5	2
Total	230	100	232	100	232	100

Source: Derived from IEAG-SDG [14]

Selected SDG targets and proposed indicators linked to infectious diseases, by type of indicator

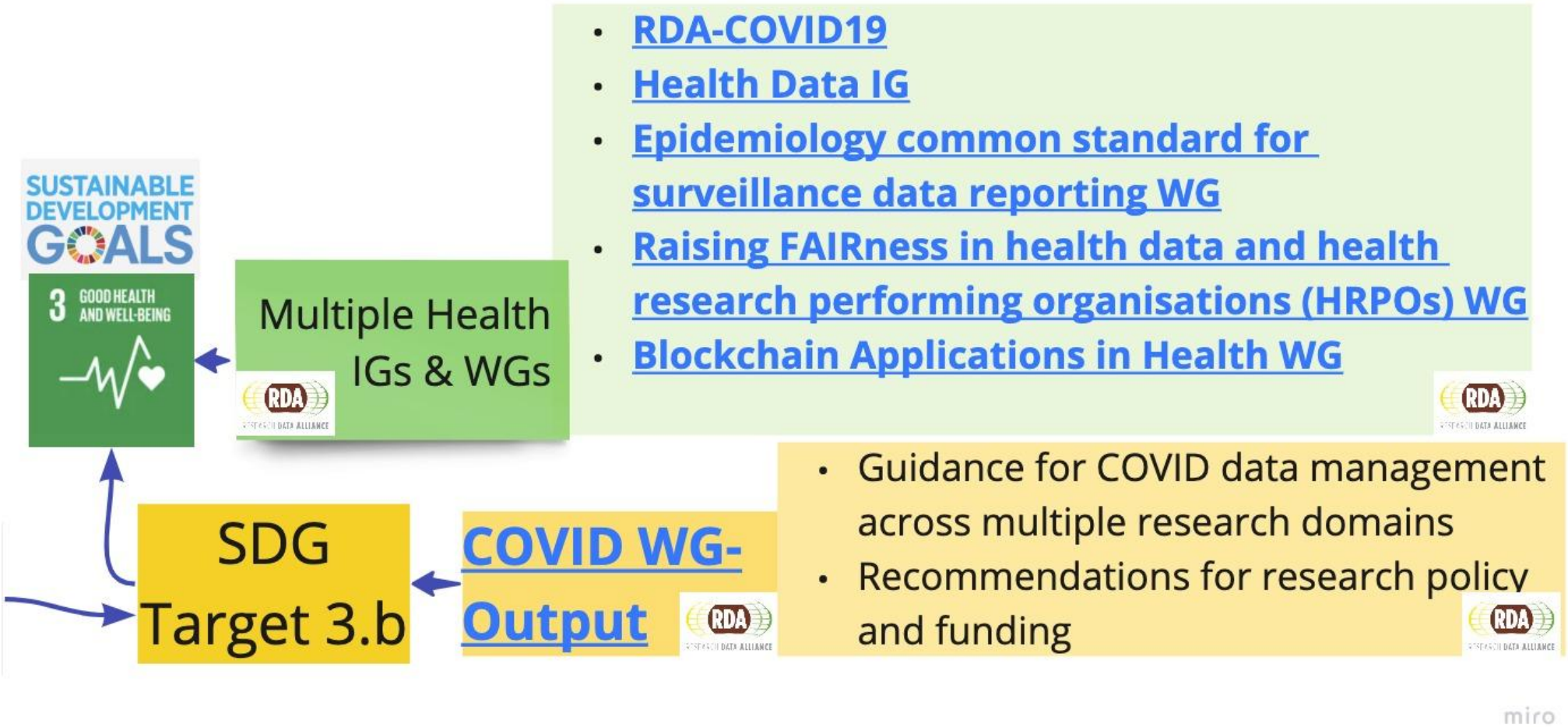
Type of indicator	SDG target	Proposed indicator
Impact	3.3	HIV incidence
	3.3	Tuberculosis incidence
	3.3	Malaria incidence
	3.3	Hepatitis B incidence
	3.3	People requiring interventions against neglected tropical diseases
	3.9	Mortality due to unsafe water, sanitation and hygiene; mortality due to air pollution (household and ambient)
Coverage/ system	3.8	UHC: infectious diseases tracer (ART coverage, tuberculosis treatment, use of insecticide-treated nets, access to safely managed drinking-water source and sanitation)
	3.d	International Health Regulations (IHR) capacity and health emergency preparedness
Risk factors/ determinants	6.1	Access to safely managed drinking-water source
	6.2	Access to safely managed sanitation
	7.1	Clean household energy
	Other	Part of targets in goals on poverty, education, cities, climate change etc.

Inter-Agency and Expert Group on Sustainable Development Goal Indicators (2018). Tier Classification for Global SDG Indicators. Available at: https://unstats.un.org/sdgs/iaeg-sdgs/

Target 3.b: Support the **research and development of vaccines and medicines** for the communicable and non-communicable diseases that primarily affect developing countries

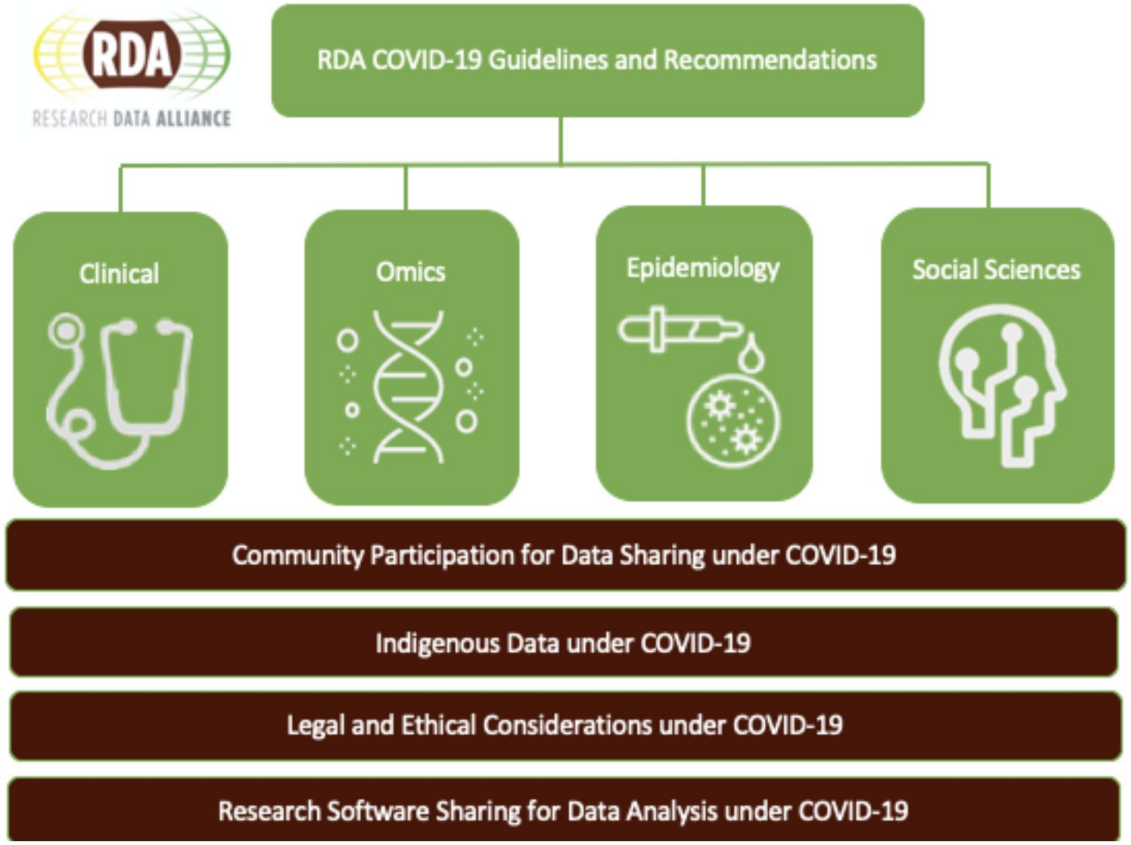
3.1 - Proportion of population vaccinated
3.2 - Assistance to medical research and basic health sectors
3.3 - Proportion of health facilities with relevant essential medicines available *and* affordable

SDG 3.b Input from COVID 19 WG



Fostering global data sharing: highlighting the recommendations of the Research Data Alliance COVID-19 working group

- Produced and reviewed by an **international community of experts**
- Over **450 members**
- Eight sub-topics and cross-cutting themes
- **Guidelines** for research and **recommendations** for funders and policy



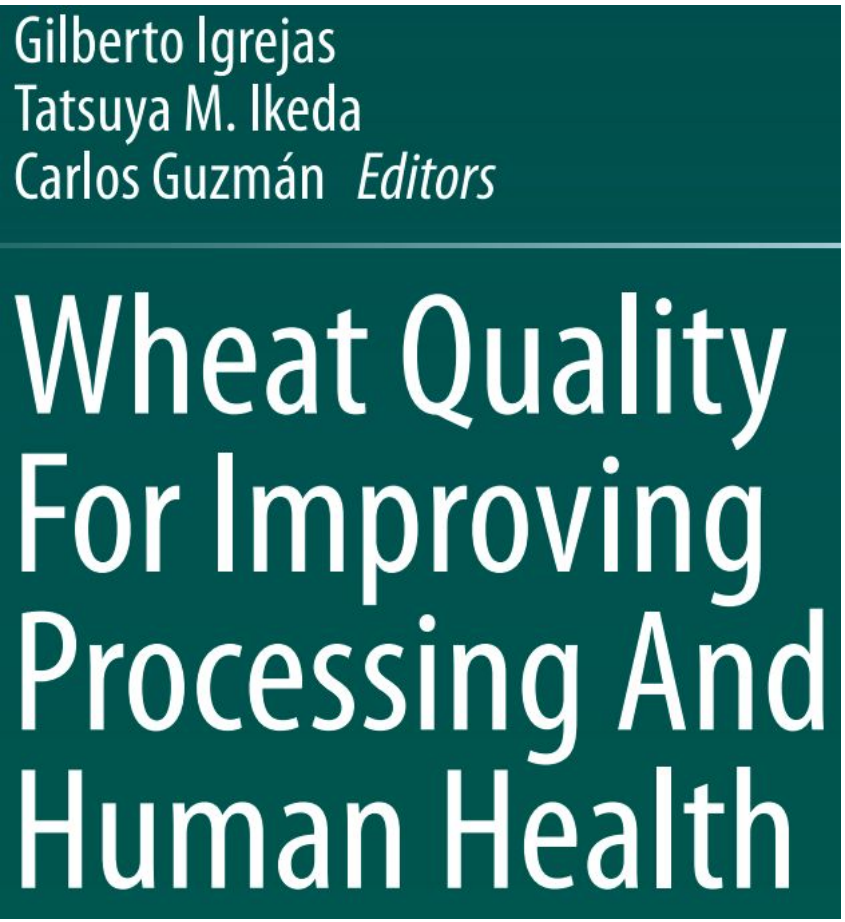
https://doi.org/10.15497/rda00052

https://doi.org/10.12688/wellcomeopenres.16378.1

Agriculture & Climate


RDA
RESEARCH DATA ALLIANCE
As a participant to groups and meetings from almost the beginning of RDA, INRA became a natural adopter of recommendations from agricultural related working groups and several others. In fact, RDA has contributed to many aspects of INRA's Open Science policy either directly or indirectly.
SOPHIE AUBIN, MICHAËL ALAUX, ESTHER DZALÉ, ODILE HOLOGNE AND CYRIL POMMIER - INRA FRANCE
Image: Sean McGee on Unsplash

RDA Outputs Supporting SDG 2: Zero Hunger



- Wheat Data Interoperability Guidelines.
- Agrisemantics Working Group
- Data Fabric's "Recommendations for Implementing a Virtual Layer for Management of the Complete Life Cycle of Scientific Data".
- "23 Things: Libraries for Research Data"
- The FAIRsharing Registry and Recommendations
- Data Citation of Evolving data

Research Infrastructure & Capacity

SDG Target 9.5: Enhance scientific research [and] upgrade the technological capabilities of industrial sectors in all countries...

9.b - Support **domestic technology development**, research and innovation in developing countries, including by ensuring a **conducive policy environment** for, inter alia, industrial diversification and value addition to commodities

9.c - Significantly increase **access to information and communications technology** and strive to provide universal and affordable access to the Internet in least developed countries by 2020

1. Structural (central contract)
2. Hosting Support (indirect or direct support through institutional hosting)
3. Annual Contract (from depositing institution)
4. Data Deposit Fee (may be paid by researcher, RPO or publisher; may originate with funder)
5. Access Charge (for the data or for value-adding services)
6. R&D Projects (to develop infrastructure or value-adding services)
7. Private Contracting (services to parties other than core funder)

Income Streams for Data Repositories
https://zenodo.org/record/46693#.YHOw4RNKhhE

Business Models for Sustainable Research Data Repositories
https://doi.org/10.1787/302b12bb-en

BUSINESS MODELS FOR SUSTAINABLE RESEARCH DATA REPOSITORIES

OECD SCIENCE, TECHNOLOGY AND INNOVATION
POLICY PAPERS
December 2017 **No. 47**

ICSU CODATA

OECD
BETTER POLICIES FOR BETTER LIVES

WORLD DATA SYSTEM

FAIR data maturity model

IAEG-SDGs

Improving data flows and global data reporting for the Sustainable Development Goals

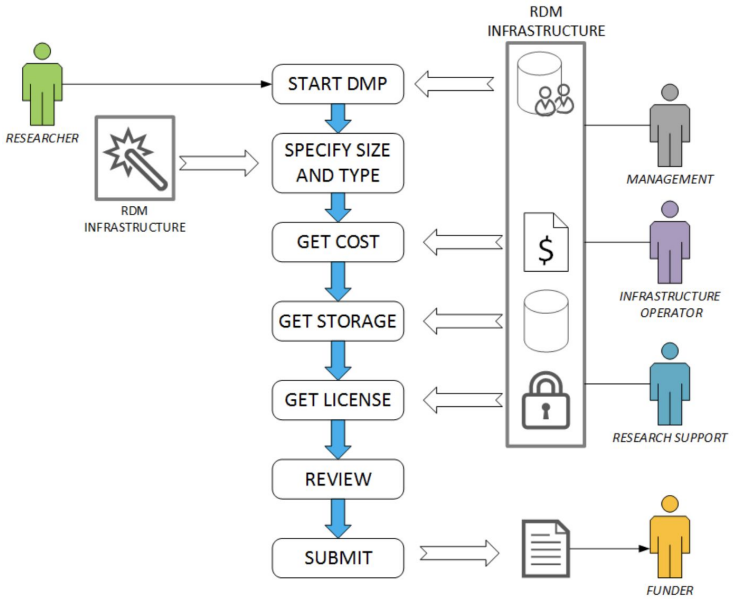
	Principle				
Priority	Findable	Accessible	Interoperable	Reusable	Grand Total
Essential	7	8	0	5	20
Important	0	3	7	4	14
Useful	0	1	5	1	7
Grand Total	7	**12**	**12**	**10**	**41**

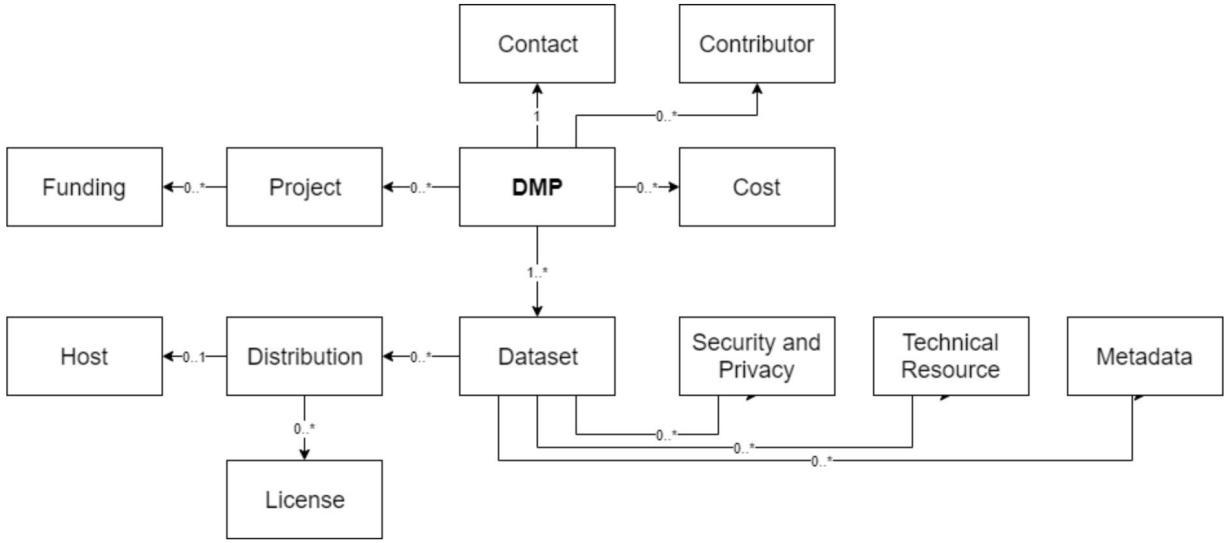
Essential: such an indicator addresses an aspect that is of the utmost importance to achieve FAIRness under most circumstances, or, conversely, FAIRness would be practically impossible to achieve if the indicator were not satisfied.
Important: such an indicator addresses an aspect that might not be of the utmost importance under specific circumstances, but its satisfaction, if at all possible, would substantially increase FAIRness.
Useful: such an indicator addresses an aspect that is nice-to-have but is not necessarily indispensable.


CARE
Collective Benefit
Authority to Control
Responsibility
Ethics


TRUST
Transparency
Responsibility
User focus
Sustainability
01010
10101
01010
Technology

DMP Common Standards





Problem: Data management plans are currently static objects which cannot evolve throughout the course of a research data lifecycle.

Goal: Develop best practices and tools for **non-static, machine-readable data management plans**

Target 9.5 Enhance scientific research [and] upgrade the technological capabilities of industrial sectors in all countries…

- Business Models for Sustainable Research Data Repositories
- Recommendation on PID Kernel Information
- Data Management Plan Common Standards

Target 17. 6 Enhance…international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms…

- C.A.R.E. & T.R.U.S.T. Principles
- FAIR Data Maturity Model: specification and guidelines
- Scholix Metadata Schema for Exchange of Scholarly Communication Links
- CODATA/RDA Summer School in Data Science and Cloud Computing in the Developing World WG Recommendations

Aligned Organization Mission and Incentives

HG

Repository Audit and Certification DSA–WDS Partnership WG

Taxonomy:

WG

RDA/WDS Scholarly Link Exchange (Scholix) WG

Taxonomy:

WG

RDA / TDWG Metadata Standards for attribution of physical and digital collections stewardship

WG

RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World WG

WG

RDA/FORCE11 Software Source Code Identification WG

Taxonomy: Social Sciences, Natural Sciences, Engineering and Technology, Medical and Health Sciences, Agricultural Sciences, Humanities


SCHOLIX
Australian Research Data Commons
CCDC
advancing structural science
CHORUS
Crossref
DataCite
ELSEVIER
ICPSR
IEDA
INTERDISCIPLINARY EARTH DATA ALLIANCE
OpenAIRE
RDA
RESEARCH DATA ALLIANCE
RMap
SPRINGER NATURE
STM
WDC CLIMATE
ICSU
WORLD DATA SYSTEM

Partnerships for the Goals

American Geophysical Union

COPDESS

ESIP

RDA RESEARCH DATA ALLIANCE

Community Commitments

Scholarly Publishing

Domain Standards

Enabling FAIR data

Stall, S., E. Robinson, L. Wyborn, L. R. Yarmey, M. A. Parsons, K. Lehnert, J. Cutcher-Gershenfeld, B. Nosek, and B. Hanson (2017), Enabling FAIR data across the Earth and space sciences, Eos, 98, https://doi.org/10.1029/2017EO088425. Published on 08 December 2017

Global Equity & Inclusion

CODATA/RDA Data Science Summer Schools
&
Education and Training on Handling of Research Data IG

SDG IG Working Materials

How can we most effectively define and communicate the value of your work for the Sustainable Developments Goals?

Google Drive

- Previous group presentations and writings
- Data for mapping outputs, recommendations, WGs, and IGs
- Templates for framing value and impact for the U.N.

Upcoming IG meeting on April 28th: Time: 28.Apr..2021 04:00 PM Amsterdam, Berlin, Rom, Stockholm, Wien (14-15 UTC)
https://uni-koeln.zoom.us/j/93658237226?pwd=TEVHTXV0MHNHK3paK2l3eUoveDkzdz09 meeting-ID: 936 5823 7226, Passwort: 195460

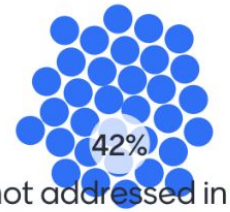
Outside of your RDA involvement, have you ever engaged with the UN SDGs in your everyday work?

Mentimeter

i.e., in your primary role as a researcher, in research support, as policymaker, funder, etc.

Explicitly incorporated into everyday work

Indirectly incorporated into everyday work



Relevant but not addressed in everyday work

Not relevant to everyday work

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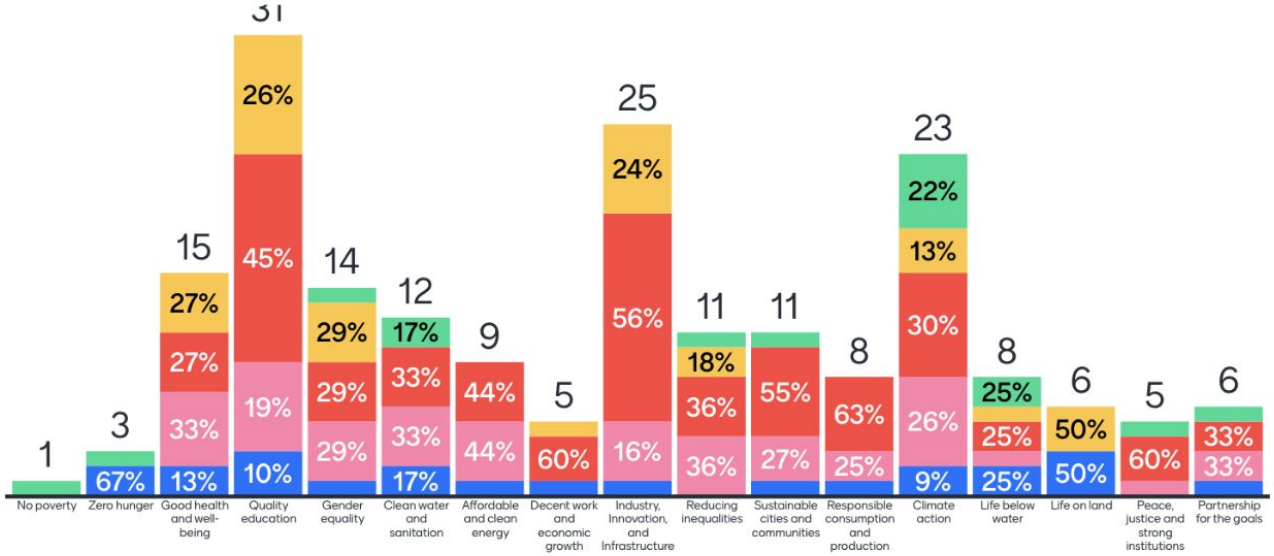
Again outside of your RDA involvement, which of the SDGs align with your specific area of work?

Mentimeter

You can select up to three SDGs relevant to your work



Outside of your RDA involvement, have you ever engaged with the UN SDGs in your everyday work?

- Explicitly incorporated into everyday work
- Indirectly incorporated into everyday work
- Relevant but not addressed in everyday work
- Not relevant to everyday work
- Unknown

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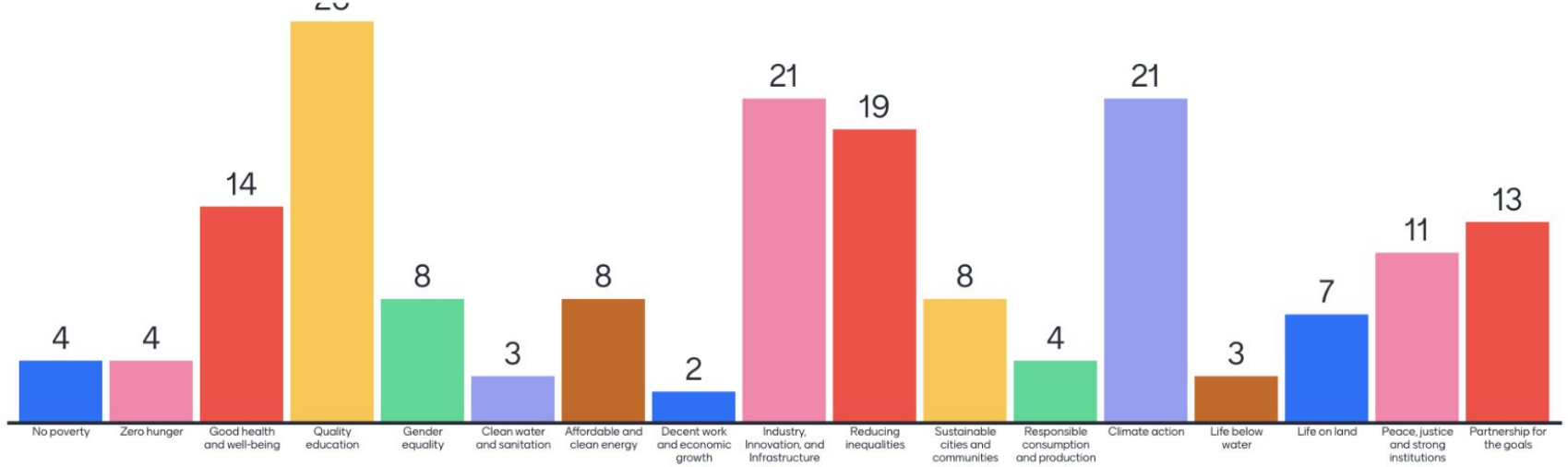
Considering your involvement in the RDA, which of the SDGs do you think would be relevant to you?

Mentimeter

You can select up to three SDGs relevant to your involvement in RDA.



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OntoSDG

Ontology for Sustainable Development Goals

- Devika Madalli

About OntoSDG

- OntoSDG presents a semantic infrastructure for representation of the UNSDGoals, targets and indicators.
- OntoSDG enables interlinking the goals with respective projects, initiatives, labs, organizations and researchers in any related domain that contributes to the UNSDGs.
- The objective is semantic analysis of data to help assess extent of implementation and the impact of SDGs.
- OntoSDG solicits inputs in a simple interactive interface. The interface will be augmented with the necessary tools and drop-down menus to help users populate data.

ONTOLOGY FOR SUSTAINABLE DEVELOPMENT GOALS

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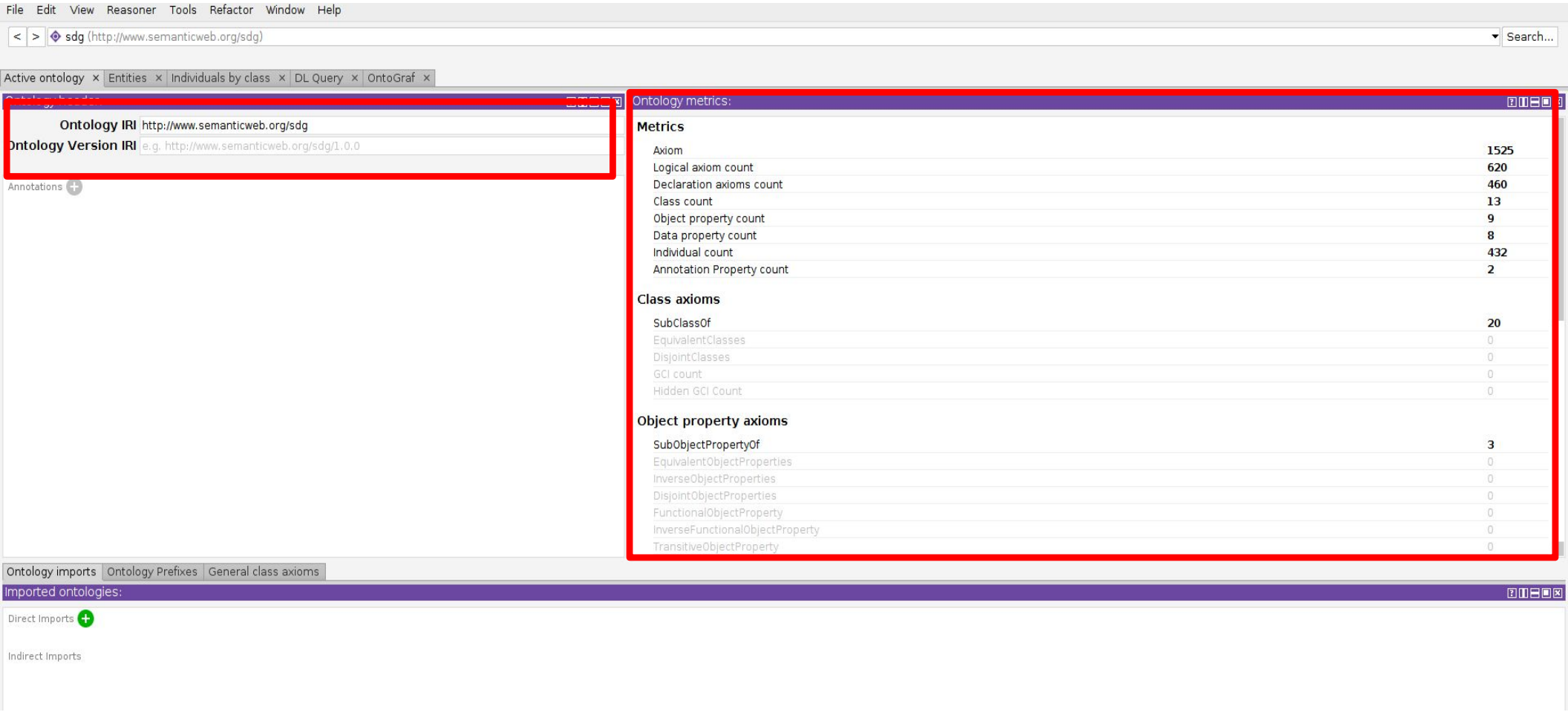
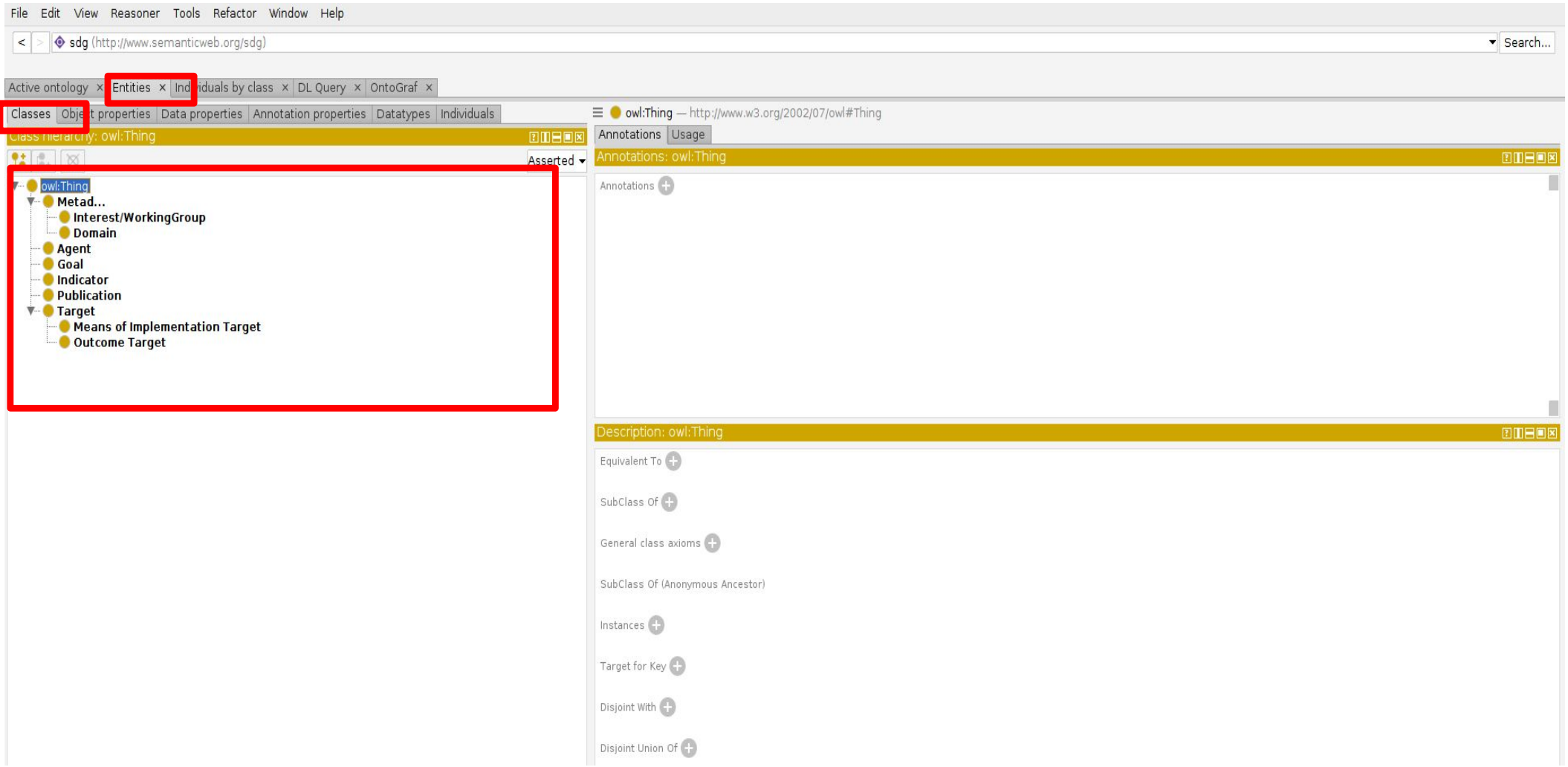
OntoSDG Input Interface

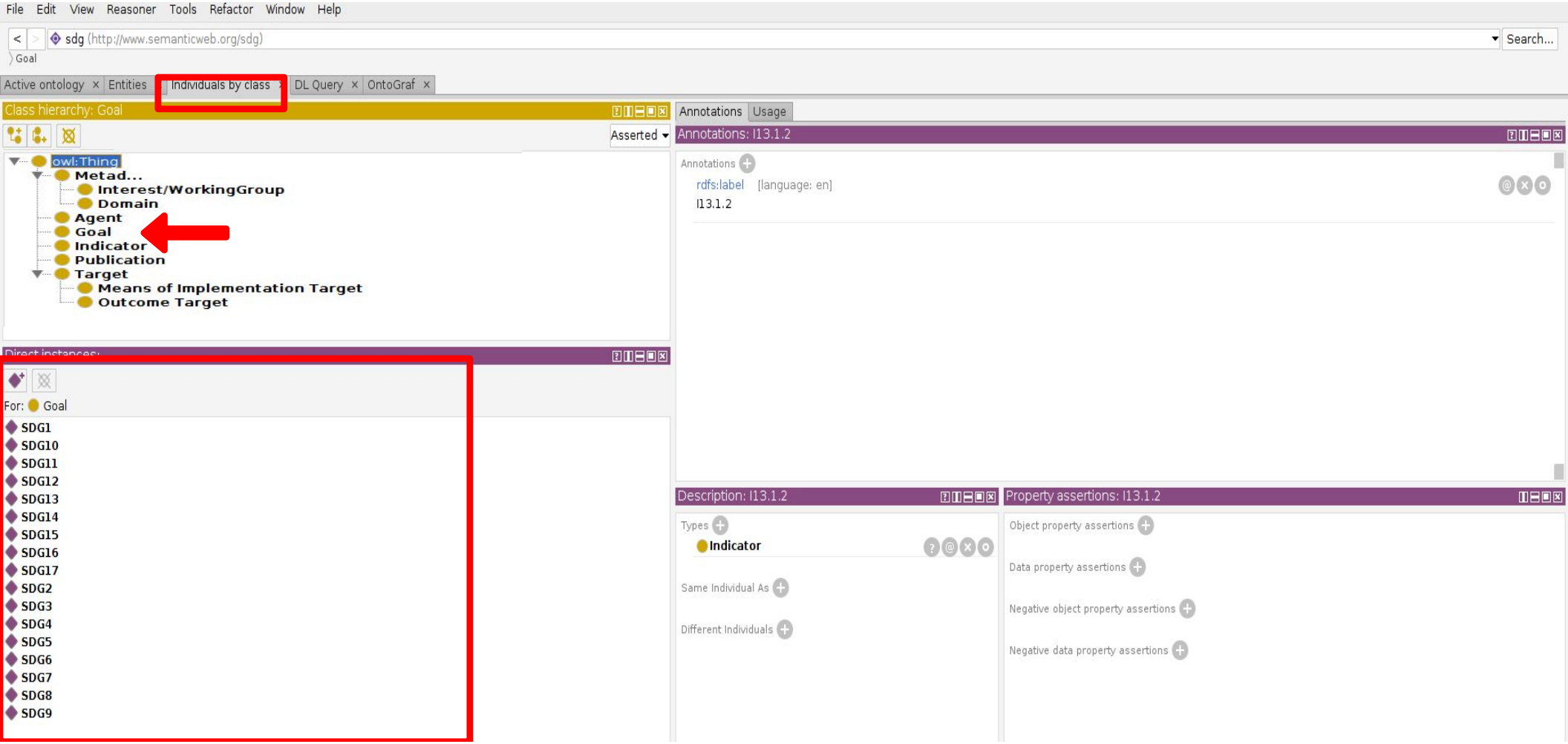
OntoSDG Axioms



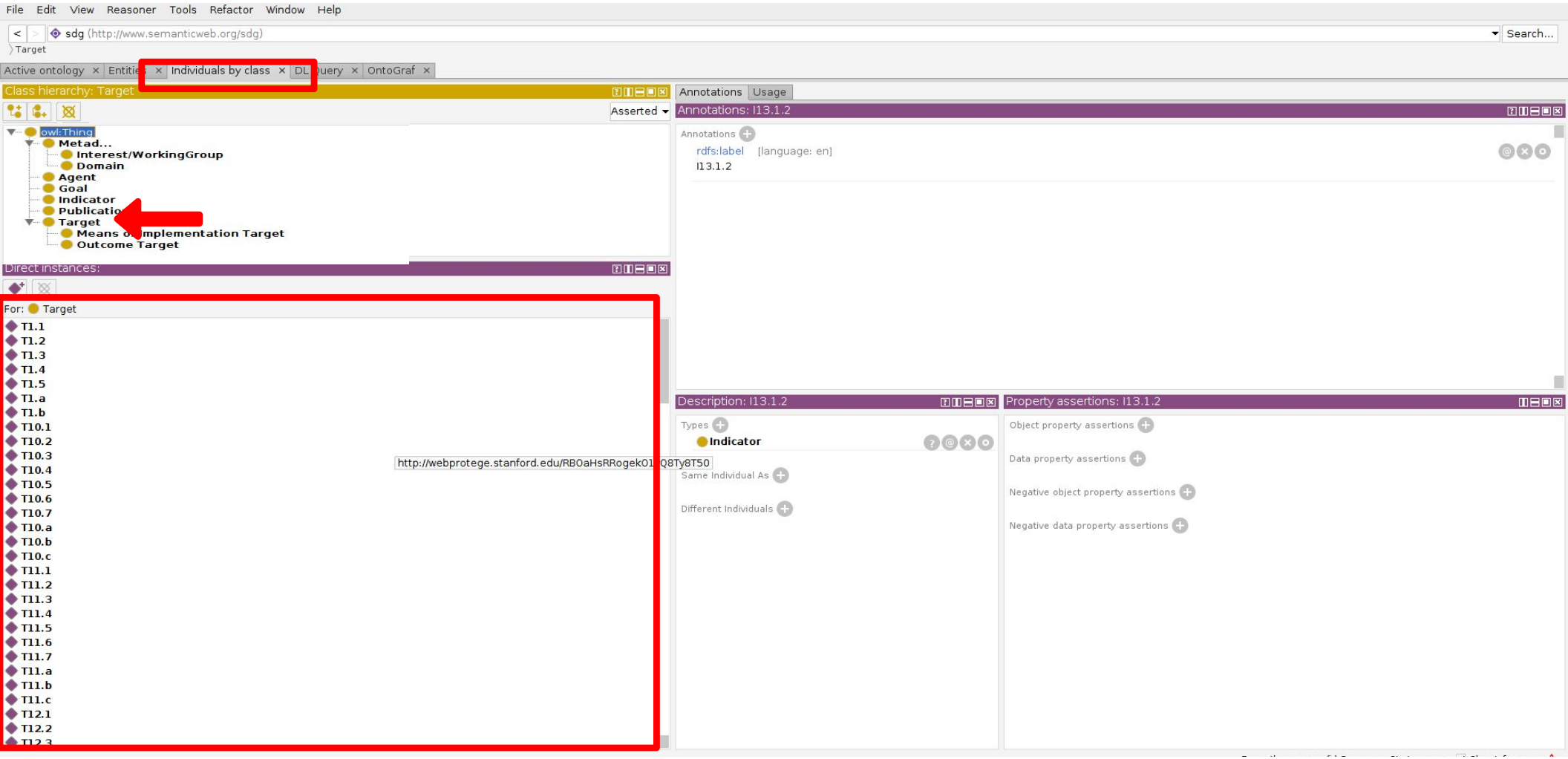
Entities By Classes



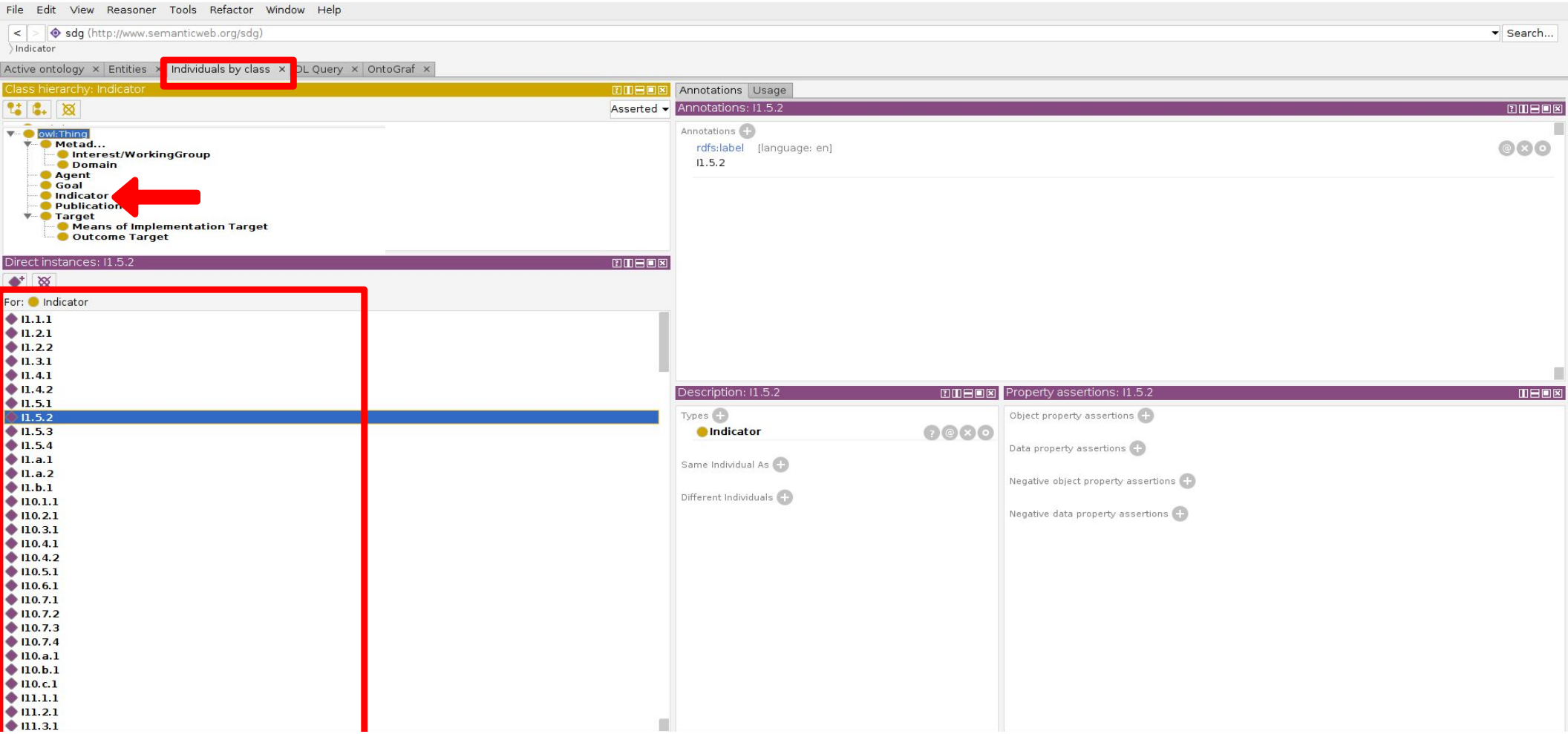
Class : Goal


File Edit View Reasoner Tools Refactor Window Help
sdg (http://www.semanticweb.org/sdg)
Search...
Goal
Active ontology
Entities
Individuals by class
DL Query
OntoGraf
Class hierarchy: Goal
Asserted
owl:Thing
Metad...
Interest/WorkingGroup
Domain
Agent
Goal
Indicator
Publication
Target
Means of Implementation Target
Outcome Target
Direct instances:
For: Goal
SDG1
SDG10
SDG11
SDG12
SDG13
SDG14
SDG15
SDG16
SDG17
SDG2
SDG3
SDG4
SDG5
SDG6
SDG7
SDG8
SDG9
Annotations
Usage
Annotations: I13.1.2
Annotations
rdfs:label [language: en]
I13.1.2
Description: I13.1.2
Types
Indicator
Same Individual As
Different Individuals
Property assertions: I13.1.2
Object property assertions
Data property assertions
Negative object property assertions
Negative data property assertions

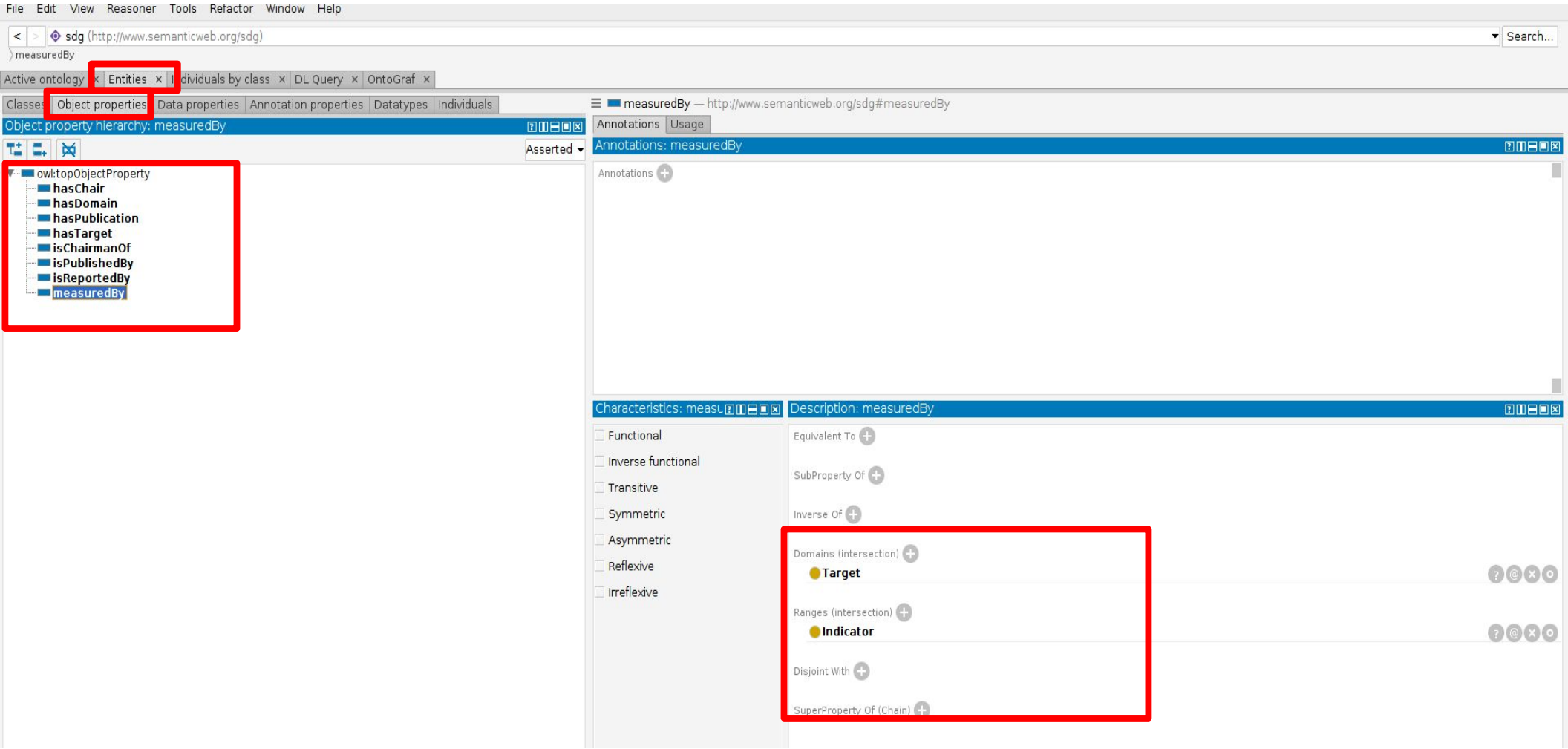
Class : Target



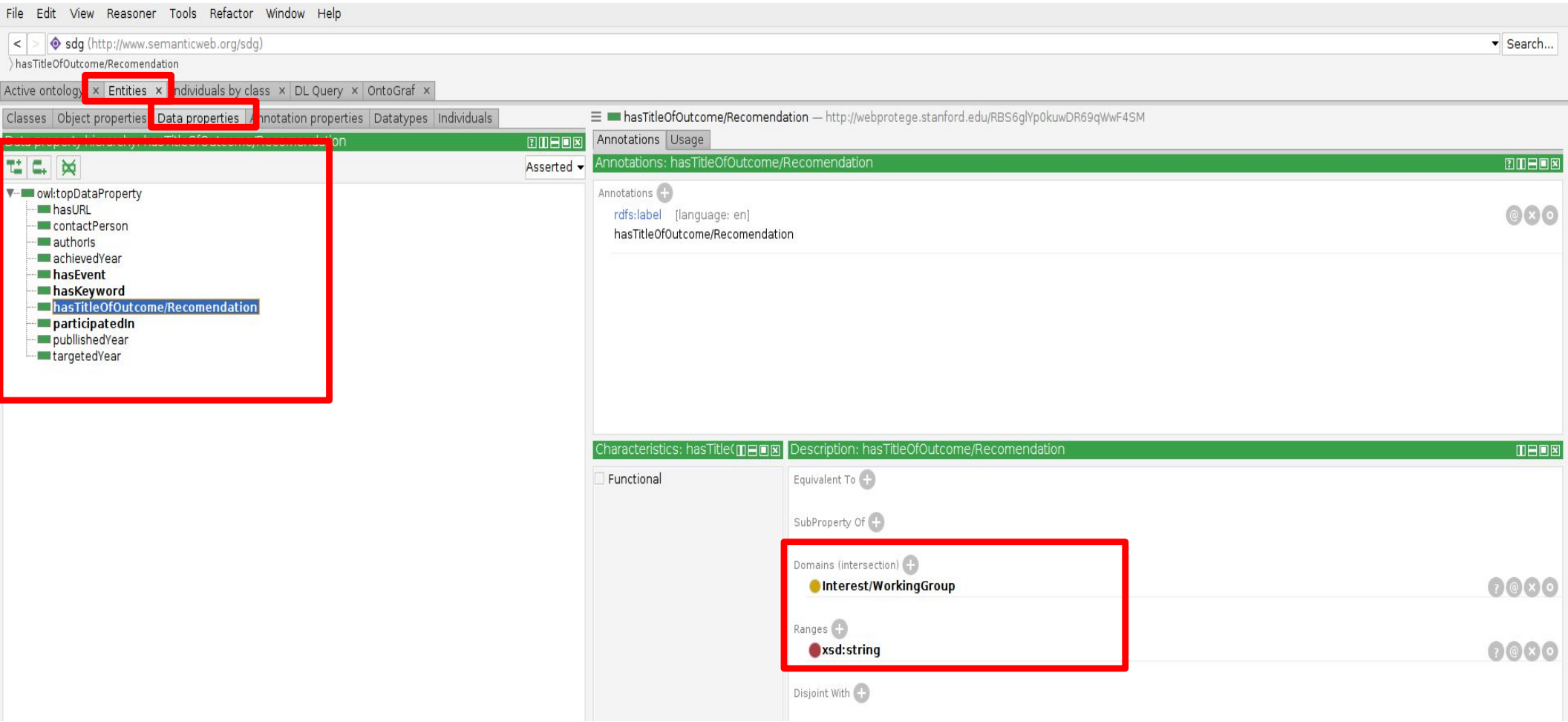
Class : Indicator



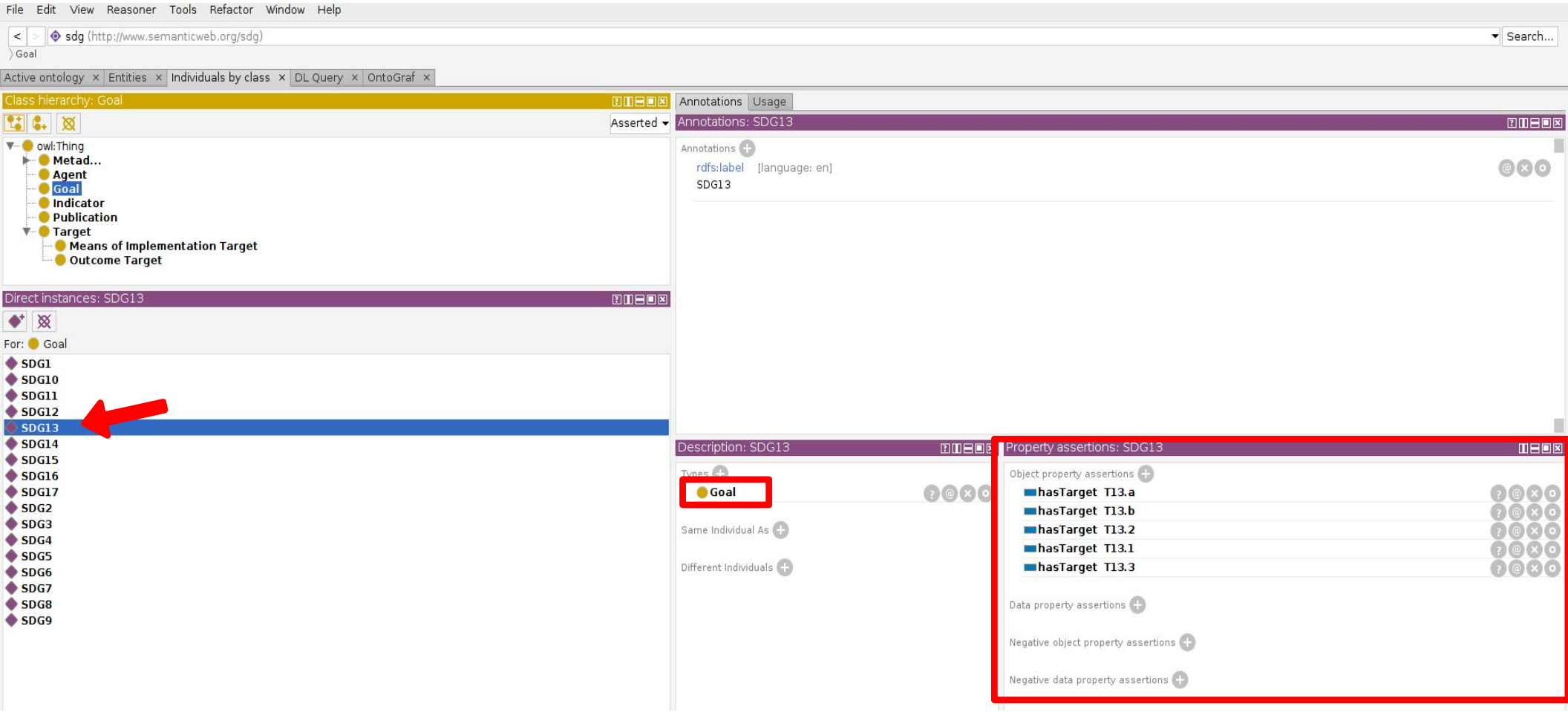
Entities By Object Properties



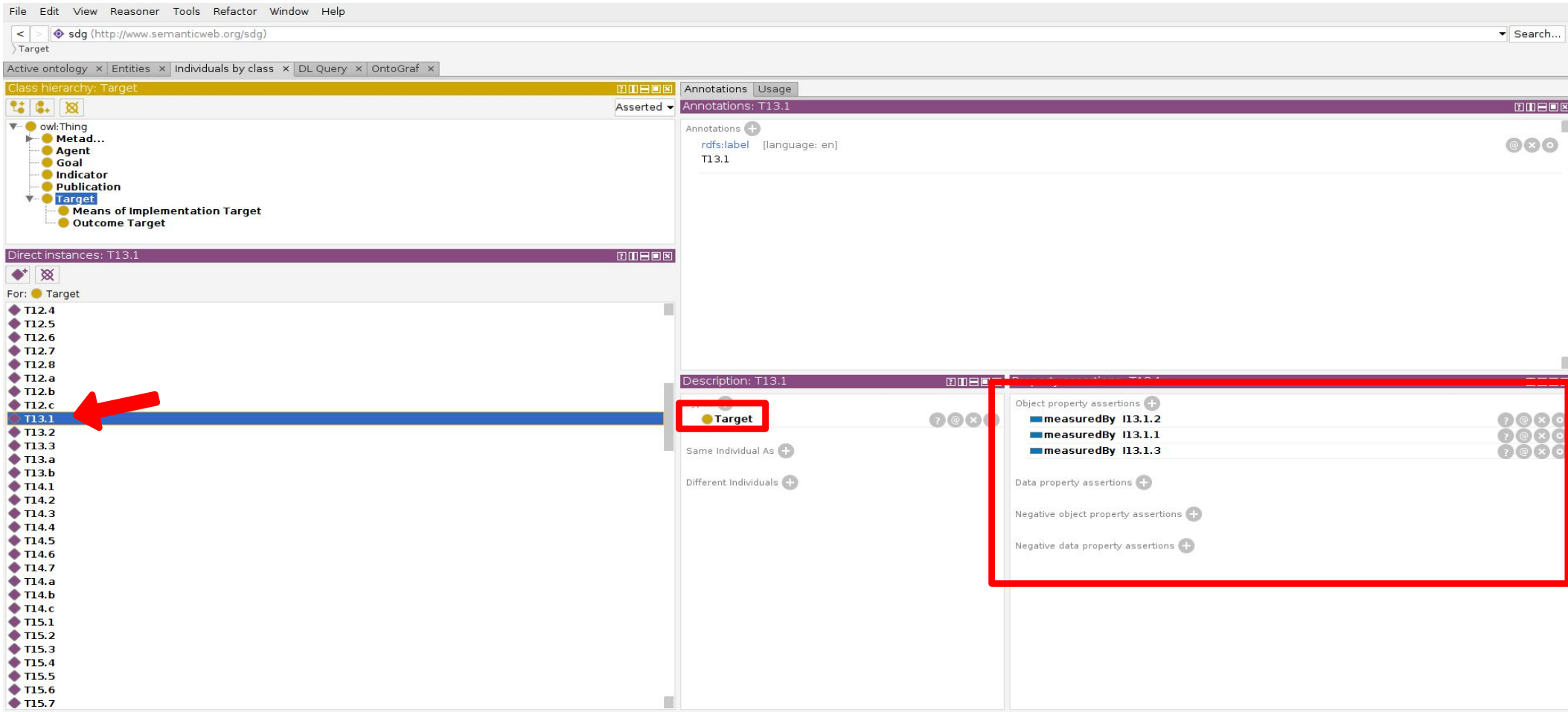
Entities By Data Properties



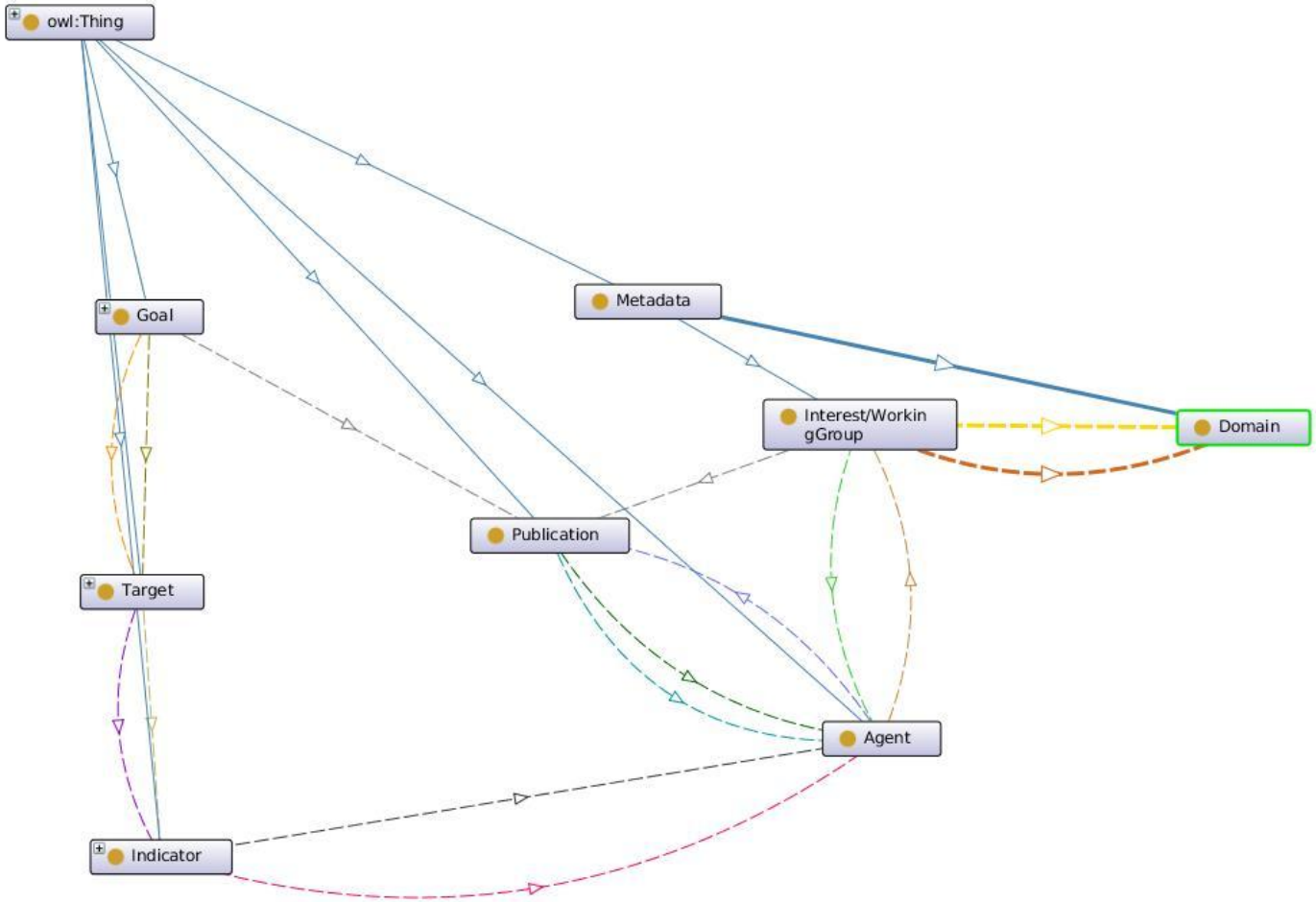
Example SDG13 with Properties



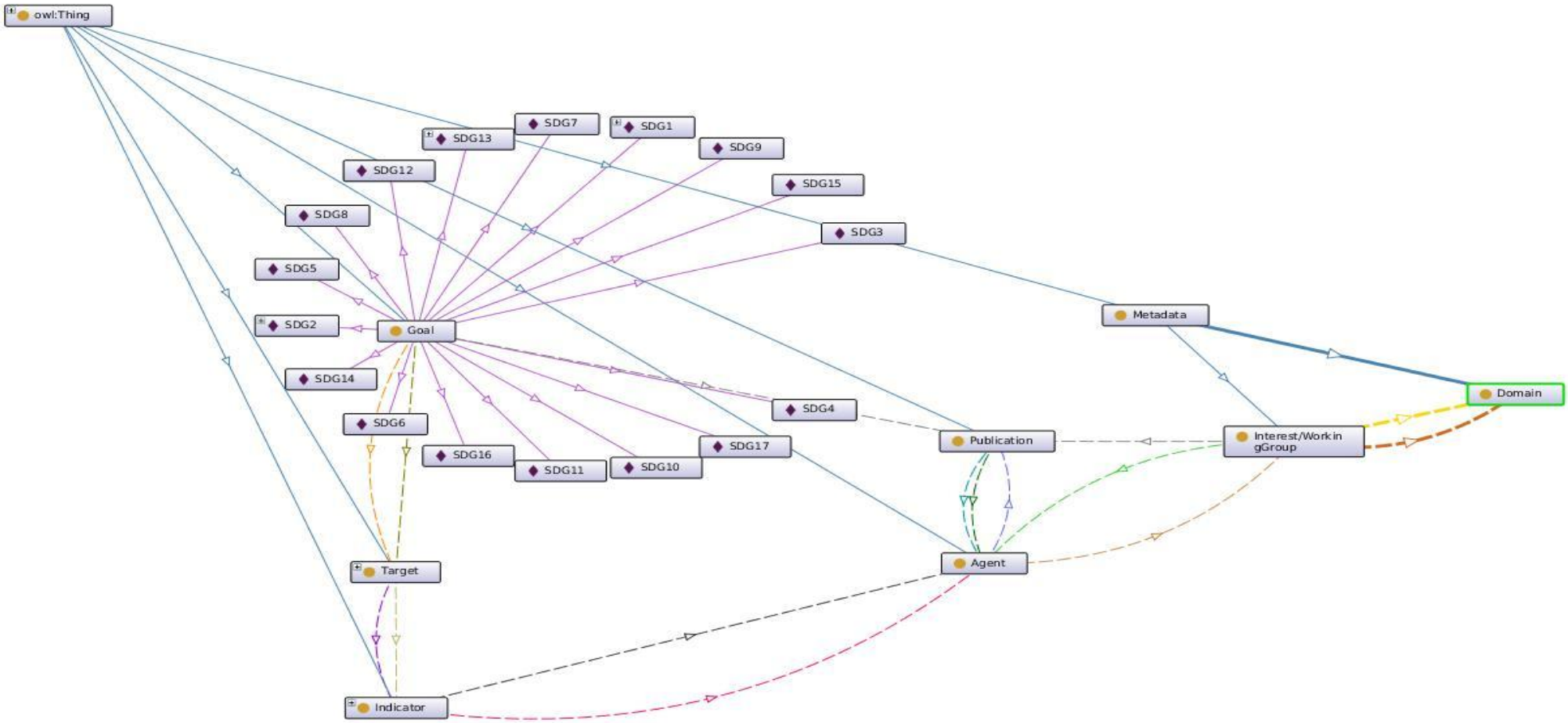
Example Target 1 of SDG13 with Properties



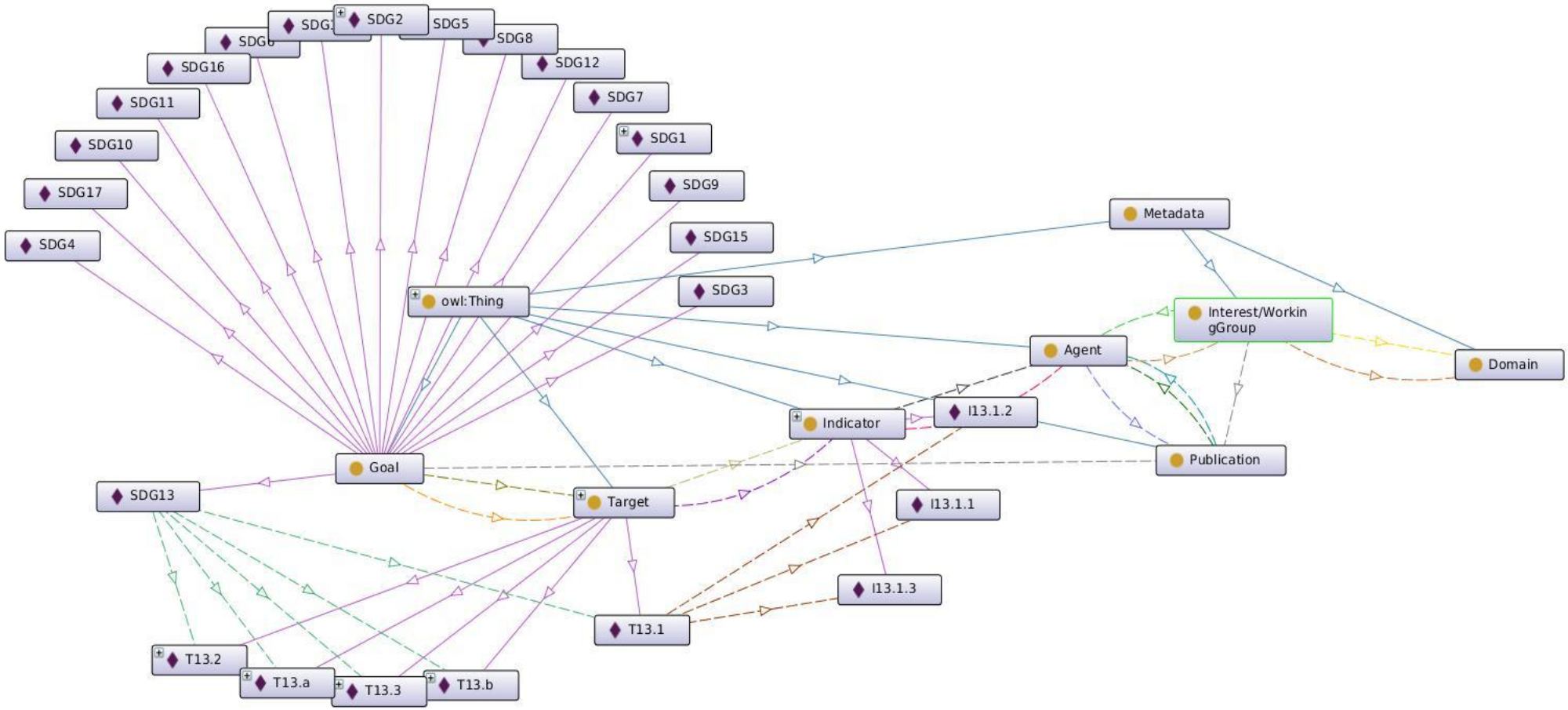
OntoSDG Schema



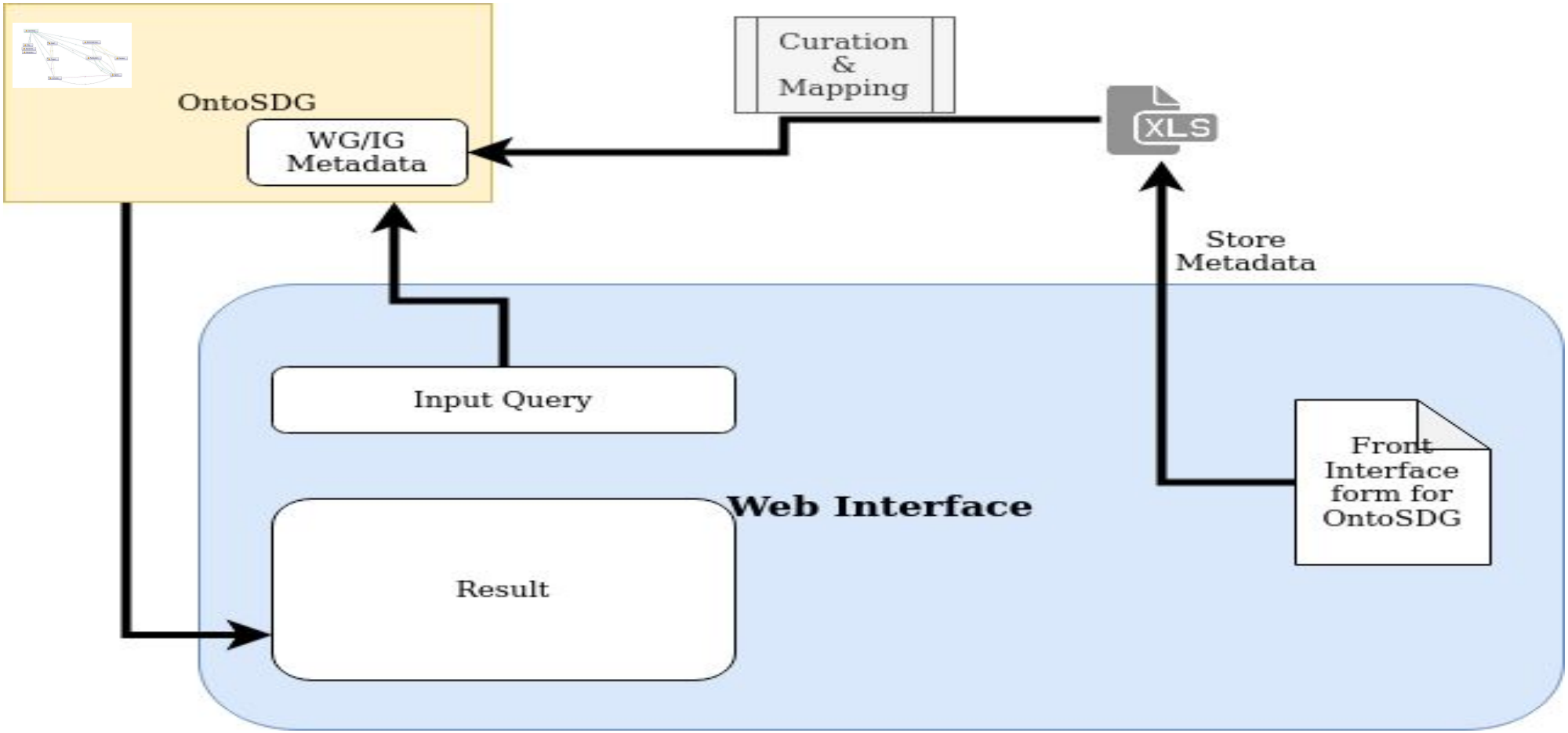
OntoSDG with Goal as Individuals



OntoSDG with Example SDG13

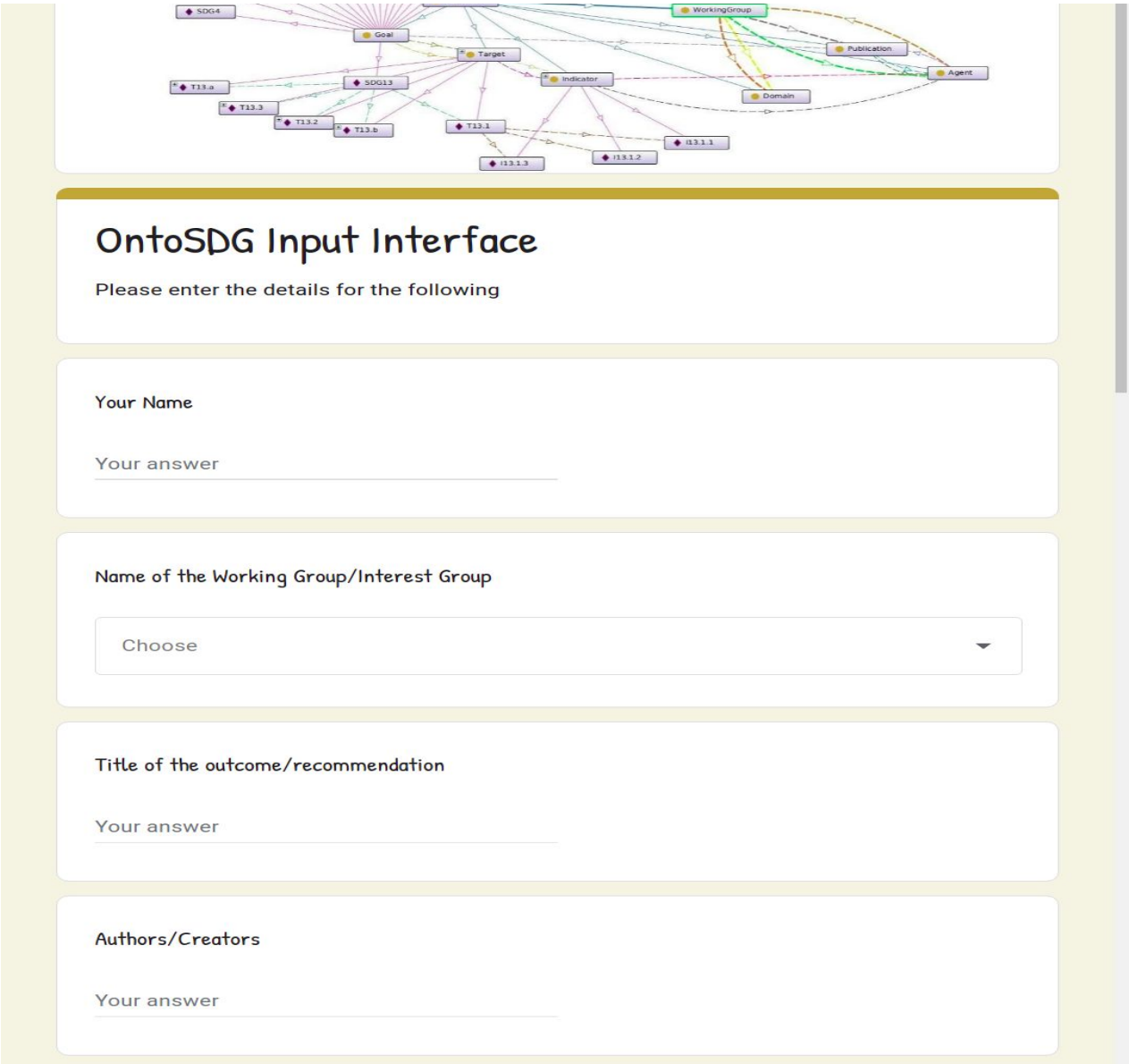


Workflow Block Diagram



Data collection through OntoSDG Input Interface

https://forms.gle/Zobgz2BAAD6wNK4D6



Domain

	Yes
Earth and Atmospheric Sciences	○
Mathematical Sciences	○
Biological, Physiological and Health Sciences	○
Social Sciences and Humanities	○
Physical Sciences, Engineering and Technology Resources	◉
Chemical Sciences, Engineering and Technology Resources	○
Water Sciences, Engineering and Technology Resources	○
Energy Sciences, Engineering and Technology Resources	○
Environmental and Ecological Sciences, Engineering and Technology Resources	○
Food and Agricultural Sciences, Engineering and Technology Resources	○
Human Resources Policy and Management	○
Natural Resources Policy and Management	○
Development and Economic Sciences	○
Institutional and Infrastructural Sciences	○
Technology, Information, and Systems Management Resources	○
Regional Sustainable Development Reviews	○

Clear selection

Keywords
Each keyword should be separated by symbol semicolon (;). e.g. DMP;AGRO;DATA INTEGRATION

Your answer

URL

Your answer

Contact Persons

Your answer

Contact Email/s (comma separated)

Your answer

The 17 sustainable development goals (SDGs) to transform our world:

- ○ GOAL 1: No Poverty
- ○ GOAL 2: Zero Hunger
- ○ GOAL 3: Good Health and Well-being
- ○ GOAL 4: Quality Education
- ○ GOAL 5: Gender Equality
- ○ GOAL 6: Clean Water and Sanitation
- ○ GOAL 7: Affordable and Clean Energy
- ○ GOAL 8: Decent Work and Economic Growth
- ○ GOAL 9: Industry, Innovation and Infrastructure
- ○ GOAL 10: Reduced Inequality

Contact Email/s (comma separated)

Your answer

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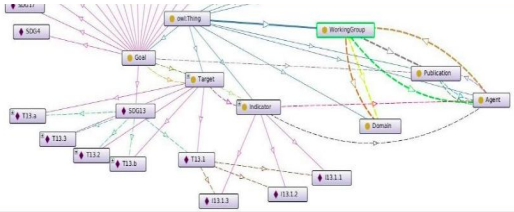
- GOAL 9: Industry, Innovation and Infrastructure
- GOAL 10: Reduced Inequality
- GOAL 11: Sustainable Cities and Communities
- GOAL 12: Responsible Consumption and Production
- (•) GOAL 13: Climate Action
- GOAL 14: Life Below Water
- GOAL 15: Life on Land
- GOAL 16: Peace and Justice Strong Institutions
- GOAL 17: Partnerships to achieve the Goal

Clear selection

Next



OntoSDG Input Interface

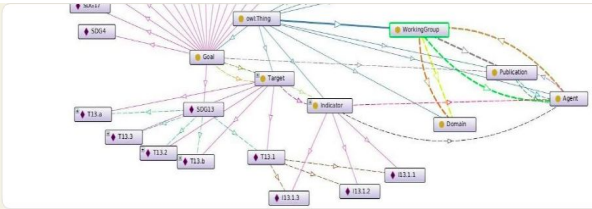
GOAL 13: Climate Action

Select Targets from this Goal

- (•) Target 13.1- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- ( ) Target 13.2- Integrate climate change measures into national policies, strategies and planning.
- ( ) Target 13.3- Improve education, awareness- raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
- ( ) Target 13.a- Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate fund through its capitalization as soon as possible.
- ( ) Target 13.b- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities.

Clear selection

Back Next



OntoSDG Input Interface

Target 13.1

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Choose the indicator which your WG/IG covers.

- [x] 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
- [x] 13.1.2 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030
- [ ] 13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies

Back Next

OntoSDG applications

- Landscape of the SDG related work globally
- Trace collaborations/project possible future collaborations
- Geographical distribution of SDG implementation
- Vizualizations
- SDG Impact: Metrics
- Domain specific applications

Thank you!

Join us for more discussion!

Data for SDGs call for all:

Wednesday, April 28th 2021 @ 2pm UTC
7:30pm IST (India) // 4pm CET (Germany) // 10am ET (U.S.)

Zoom:
https://uni-koeln.zoom.us/j/93658237226?pwd=TEVHTXV0MHNHK3paK2l3eUoveDkzdz09

Become a member of our group

https://www.rd-alliance.org/groups/rda-sustainable-development-goals-ig