

# Citizen science and SDGs: A conceptual model to facilitate project interoperability and data interchange

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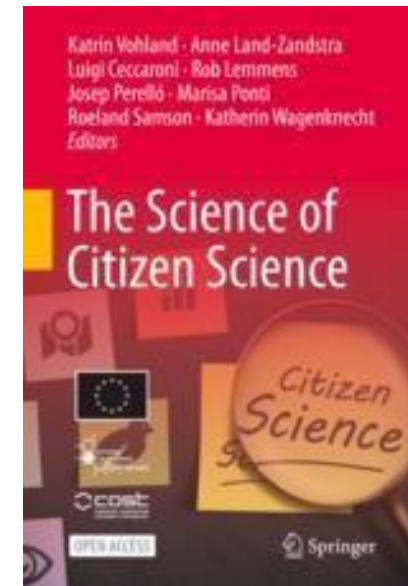
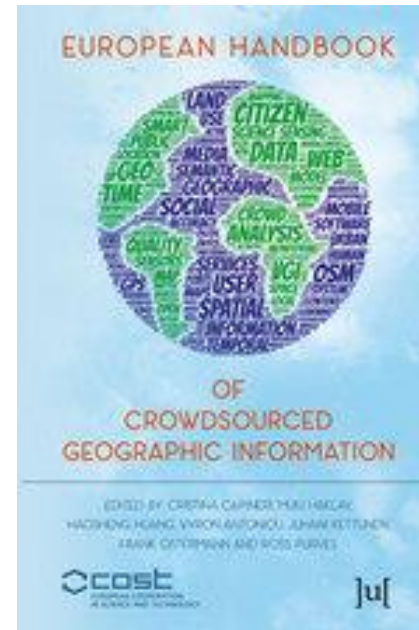
Knowledge Engineering Group

# Context

ENERGIC – Exploring research into Geospatial Information Crowdsourcing

Citizen science to promote creativity, scientific literacy, and innovation throughout Europe

Working group : Ontology of citizen science



# Citizen science and SDGs

## Citizen scientist

Interest in some SDG  $\Rightarrow$  Choice of a CS project

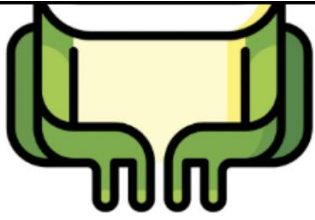
$\Rightarrow$  Project descriptions should be linked to the SDGs

## SDG-related activities

Need data

$\Rightarrow$  CS project output (data) must be linked to the SDGs

zooniverse  
project  
catalogue



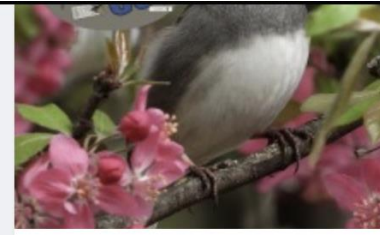
FROG FIND



WESSELMAN WOODS  
WILDLIFE WATCH



SPYFISH AOTEAROA



NEST QUEST GO: VIREOS AND  
JUNCOS



ACTIVE ASTEROIDS



THE INDY WILDLIFE WATCH:  
AN INITIATIVE OF THE CUES



STORIES OF ST JAMES'S  
BURIAL GROUND



SEABIRD SOUNDSCAPES

Join our team of citizen-  
scientists and help us explore  
the marine soundscapes of  
wild seabirds by listening to  
and classifying the sounds



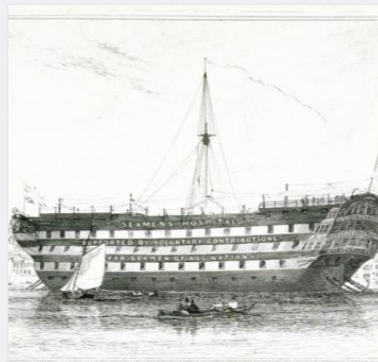
AGENTS OF ENSLAVEMENT



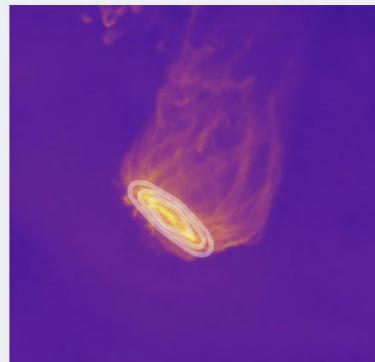
PROJECT RATTLECAM



NASA GLOBE CLOUD GAZE



HMS NHS: THE NAUTICAL  
HEALTH SERVICE



COSMOLOGICAL JELLYFISH



WHOOPING CRANES!



WOODPECKER CAVITY CAM

# Developing a conceptual model of CS

## Existing models

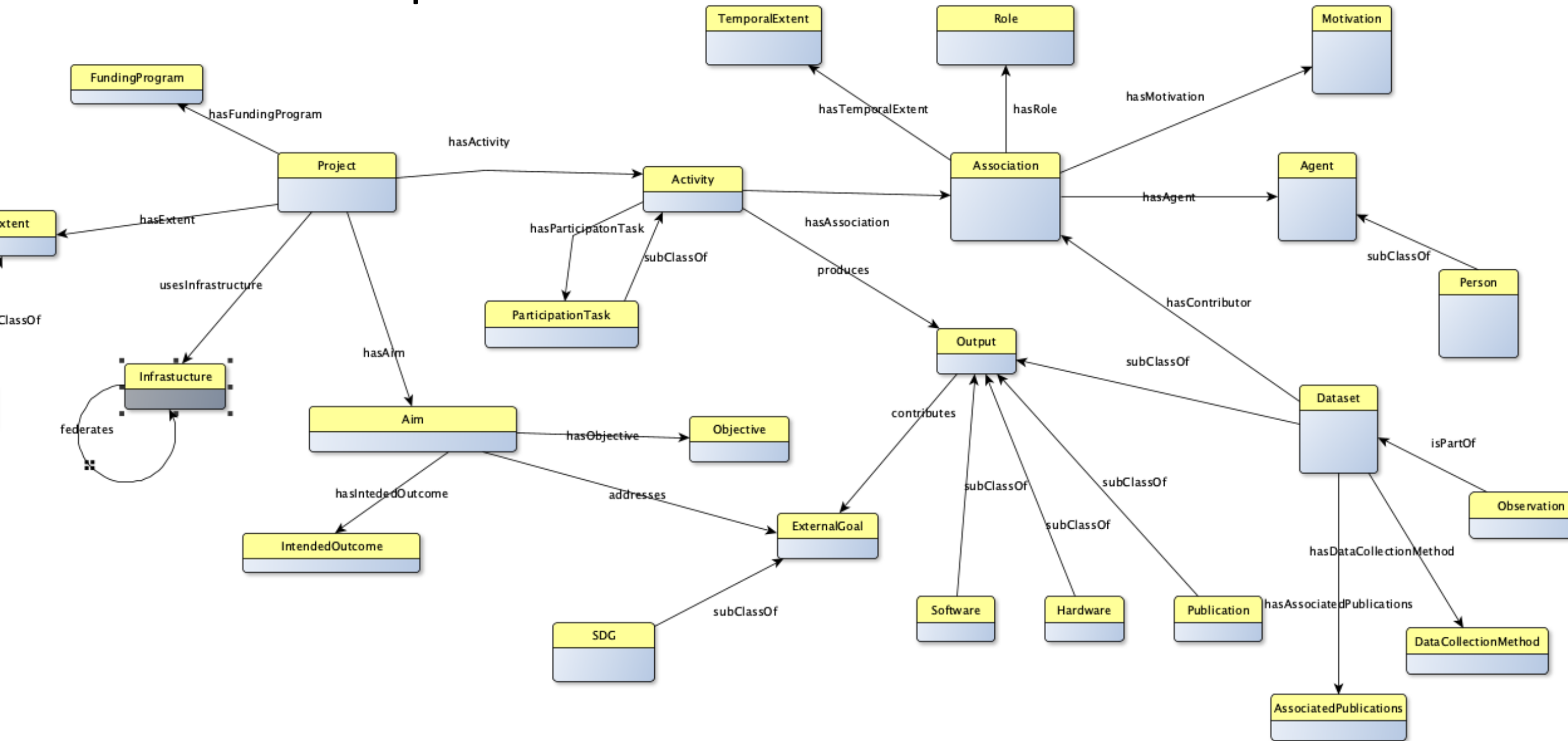
- PPSR core
  - project, output, dataset (not specific to CS)
  - low level (detailed attributes)

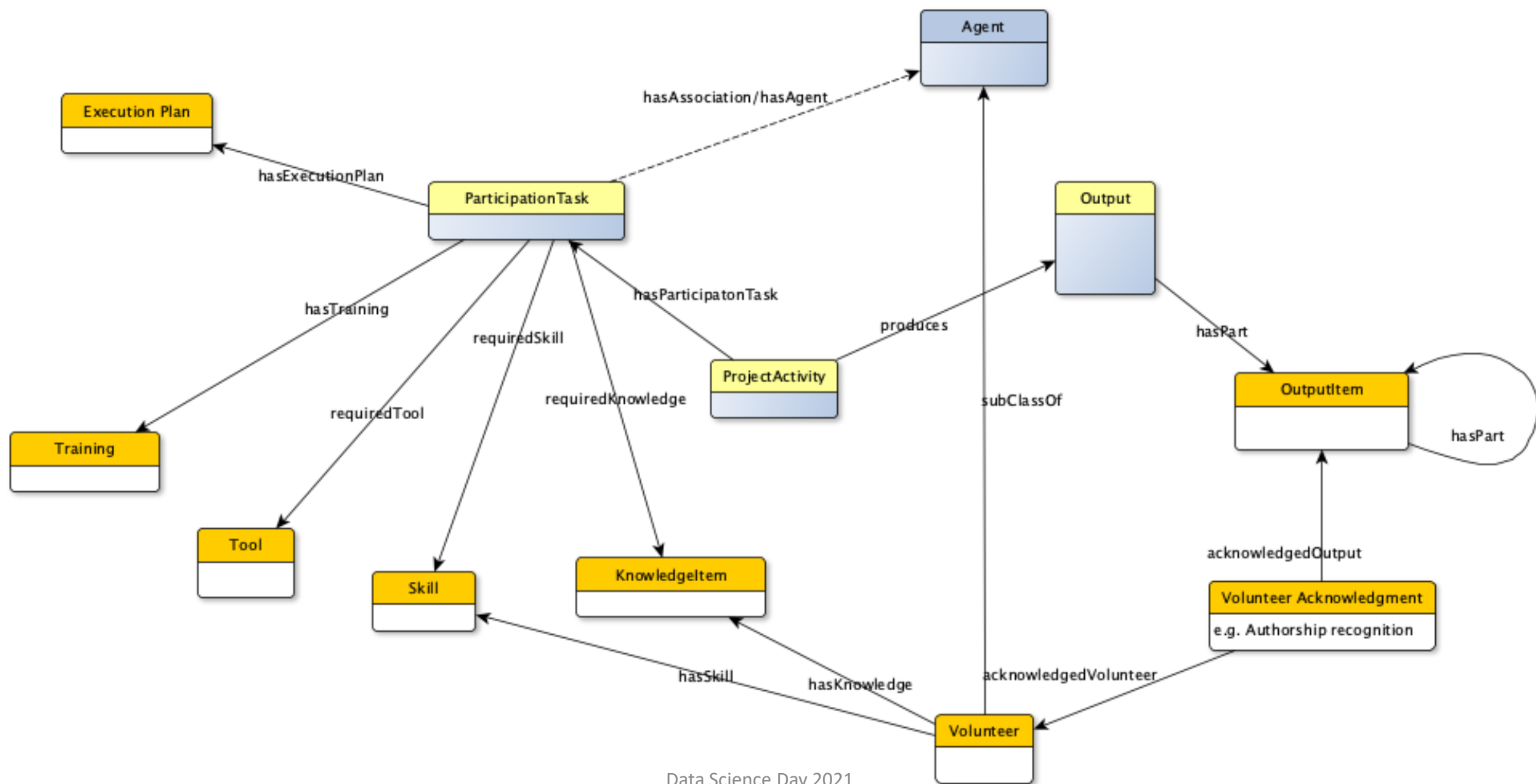
## CS ontology

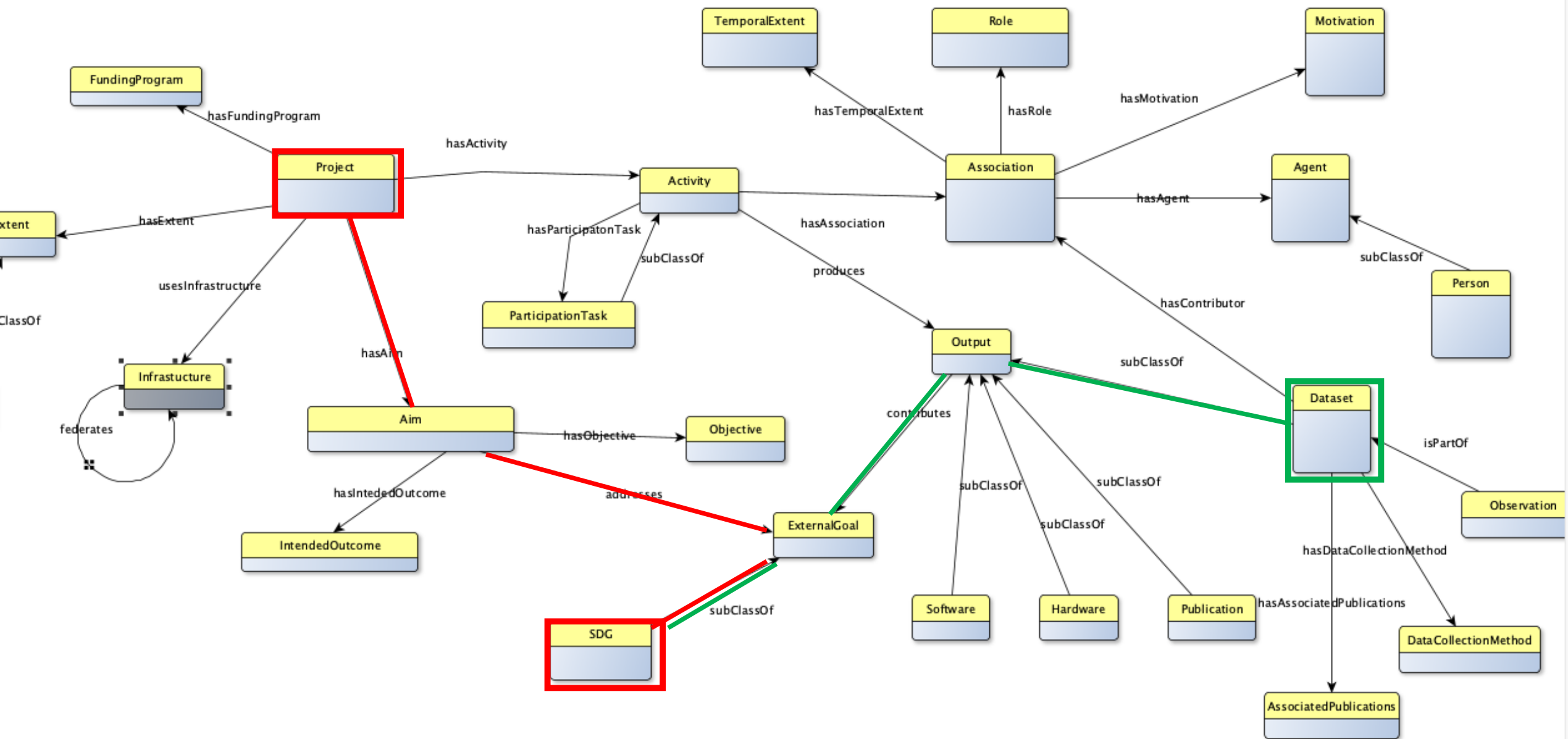
- include the notion of participation
- more abstract



# COST conceptual model









# Practical application of the model

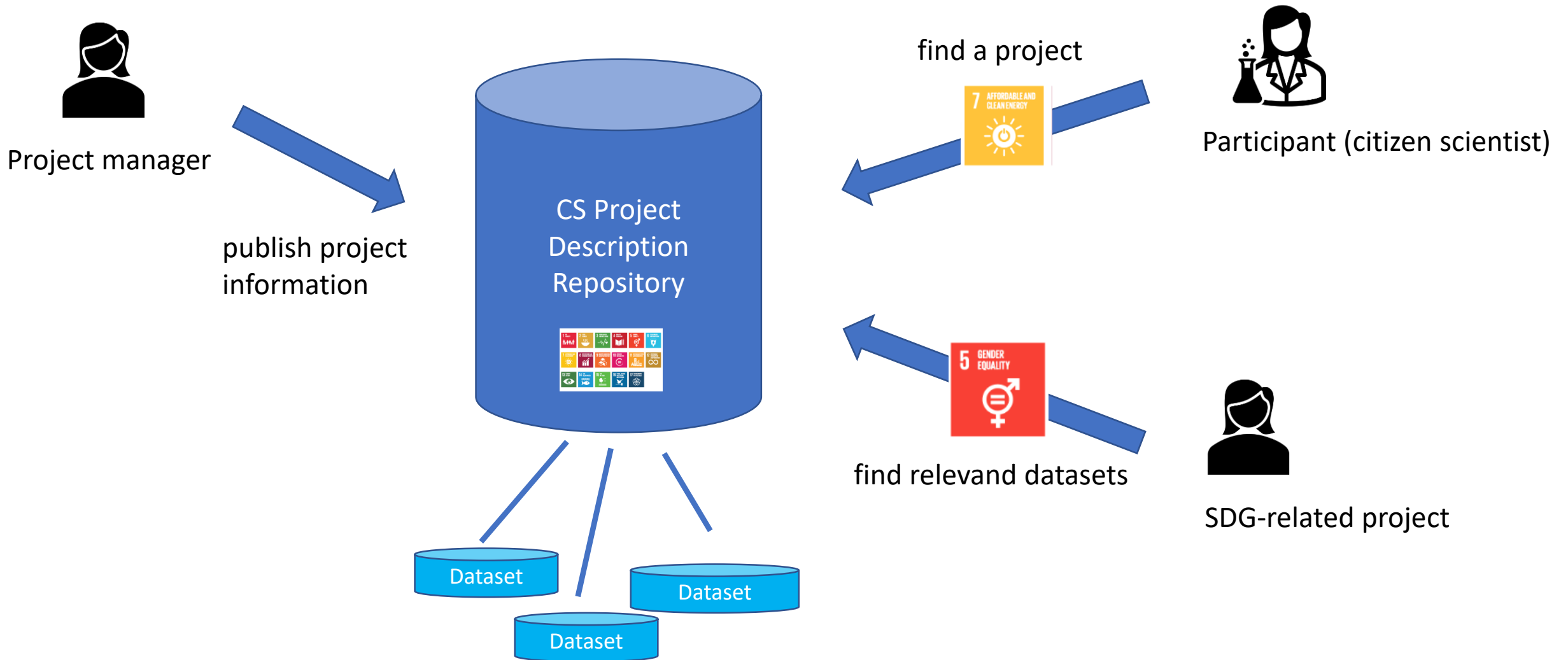
Expressed as a semantic web vocabulary (ontology in OWL)

A unifying scheme to

- publish CS project information on the semantic web

- create repositories of CS project descriptions

- create repositories of CS project output (datasets, etc.)



# Next Step: Towards a CS knowledge/data graph

