

# Common Vocabularies

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# HOW STANDARDS PROLIFERATE: (SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:  
THERE ARE  
14 COMPETING  
STANDARDS.

14?! RIDICULOUS!  
WE NEED TO DEVELOP  
ONE UNIVERSAL STANDARD  
THAT COVERS EVERYONE'S  
USE CASES.



SOON:

SITUATION:  
THERE ARE  
15 COMPETING  
STANDARDS.

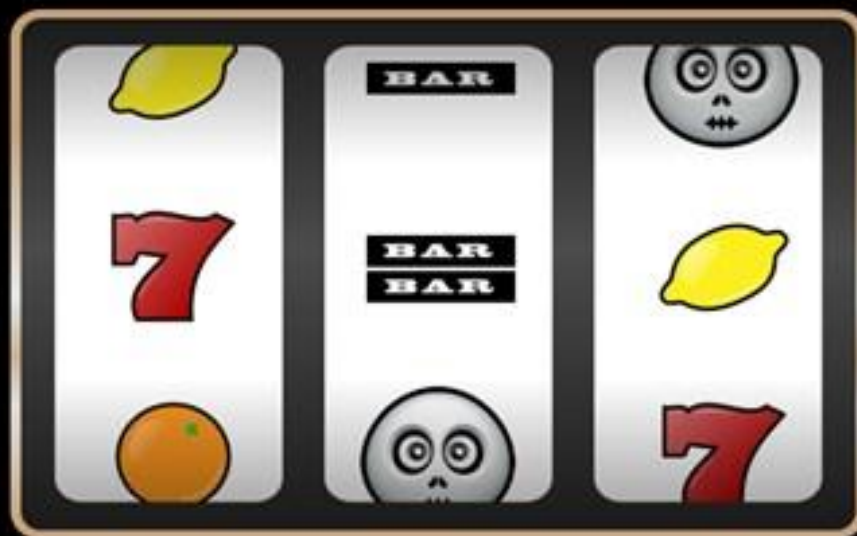
# Status

- NERC Vocabulary Server remains live 24/7
  - <http://vocab.nerc.ac.uk/>
  - <http://vocab.nerc.ac.uk/sparql>
- Content
  - 4,000 new codes added since September 2013
- Usage
  - 730,000 calls from 2,070 IPs in last twelve months
  - c.f. 639,000 calls from 1,146 IPs for previous year



**Concentration of tributyltin  
cation {tributylstannyl TBT+ CAS  
36643-28-4} per unit dry weight  
of biota {Mytilus galloprovincialis  
(ITIS: 79456: WoRMS 140481)  
[Subcomponent: flesh]}**





CAS 36643-28-4

Concentration per unit dry weight



flesh

biota

WoRMS: 140481





# Progress

- Controlled vocabularies in place for
  - Matrix
  - Taxon
  - Organism specifics
  - Technique



# EMODnet Chemistry

- Products for EMODnet
  - Derived by mapping P01 > P35 > P36
  - Implemented in ODV



# EMODnet Chemistry

- 131 entries in P35
  - Maps to 711 P01 concepts
  - Maps to 5 P36 concepts
    - Chlorophyll
    - Dissolved gases
    - Fertilisers
    - Heavy metals
    - Silicates



# Stations Vocabulary

- Required for SeaDataNet & EMODnet
  - Other interested users
    - EEA, MicroB3, WHOI (BCO-DMO)
- ICES & BODC have designed a stations vocabulary
  - Agreed station definition
  - Station and Platform can be equivalent in certain circumstances



# Stations Vocabulary

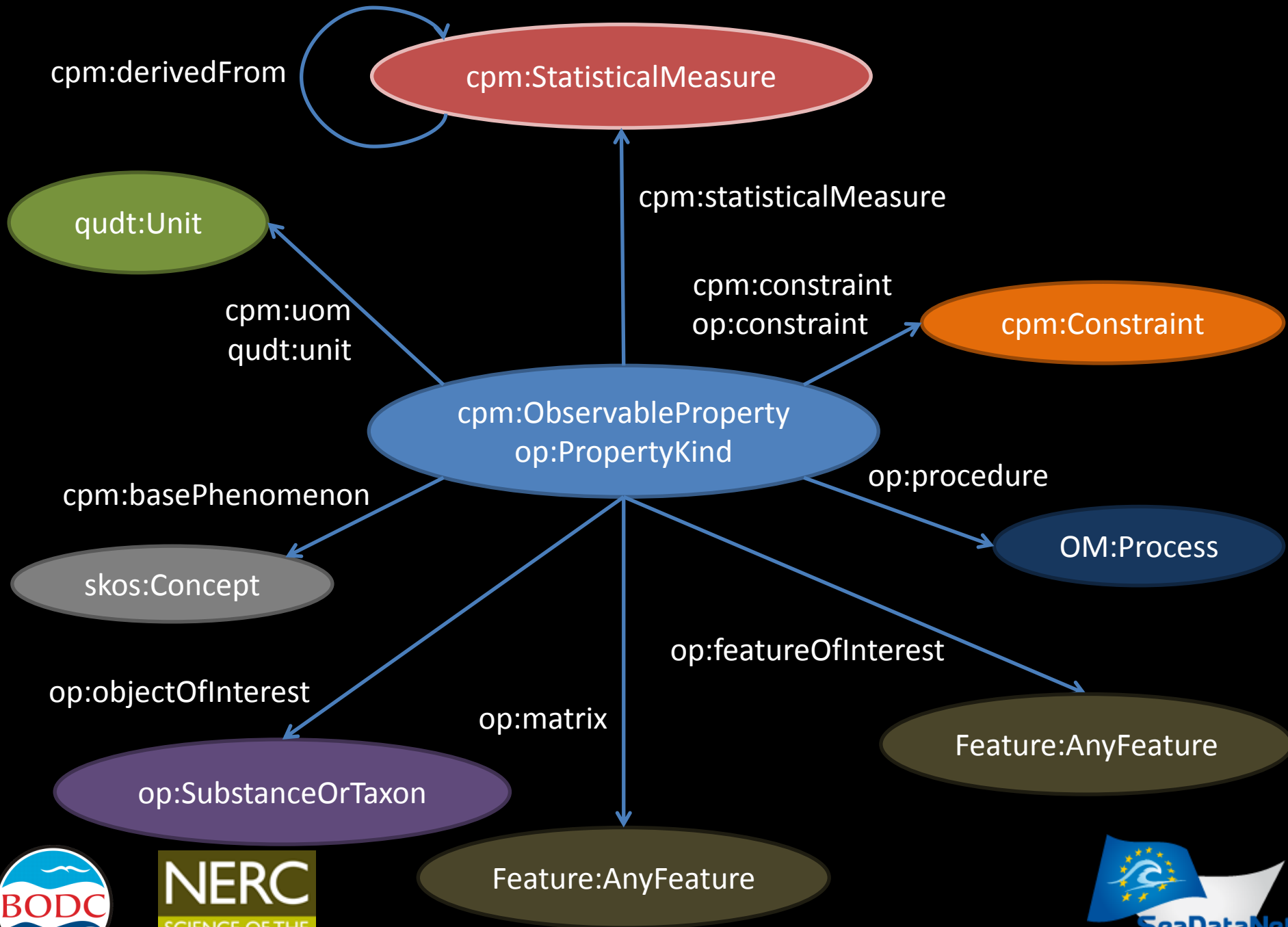
- Agreed station definition (in brief)
  - A station indicates a geographical position of a series of sampling events; this is distinct from the platform on which the sample is taken from.
  - A fixed station is not, for example, an Argo float or a ship of opportunity.



# ODIP

- P01 model exposure in W3C standards
  - With CSIRO & AODN
- Will also fit with INSPIRE as a MonitoredProperty in the Environmental Monitoring Facilities schema







# ODIP

## Semantics Smackdown 2014

JUNE 10 - 13<sup>th</sup>

RPI/Tetherless World Constellation

".. an Agile exercise in Smacking down, and Marking up, Ocean Science research data"

### TUESDAY

9:30 **Triplestore, SPARQL Review**  
Noon *Lunch (catered)*  
1:30 Review cont'd  
3:30 **Geospatial Linked Data**  
4:30 **Schema.org Dataset**  
7:00 *Dinner at Dinosaur BBQ*

### FEATURING



Ocean Data Interoperability Platform  
(ODIP) Student Fellows

### WEDNESDAY

9:30 **SAMOS Linked Data** by Nkem Dockery (FSU)  
10:00 **Harmonizing Use of Common Vocabularies for Ocean Data**  
Noon *Lunch (catered)*  
1:30 Harmonizing cont'd  
3:30 **Prizms & PROV Pingback**  
4:30 **Linked Data APIs** by Linyun Fu (RPI)  
7:00 *Dinner at Finnbar's Pub*

### with SPECIAL GUESTS

**Patrick West &  
Stephan Zednik**

### THURSDAY

9:30 **Semantic Entity Matching** by Yu Chen (RPI)  
10:00 **O & M / PROV / EarthCube-OceanLink / Ocean Data Ontology**  
Noon *Lunch (Red & Blue Chinese Restaurant)*  
1:30 **Linking actual oceanographic data** (not just metadata)  
3:00 **R2R Vocabulary term matching** by Renata Ferreira (SIO)  
3:30 **Persistent IDs for People & Organizations**  
4:00 Closing: Wrap-up & Documentation  
7:00 *Dinner at Jose Malone's*

### FRIDAY

9:00 **S2S • BCO-DMO**

For more  
information, see:



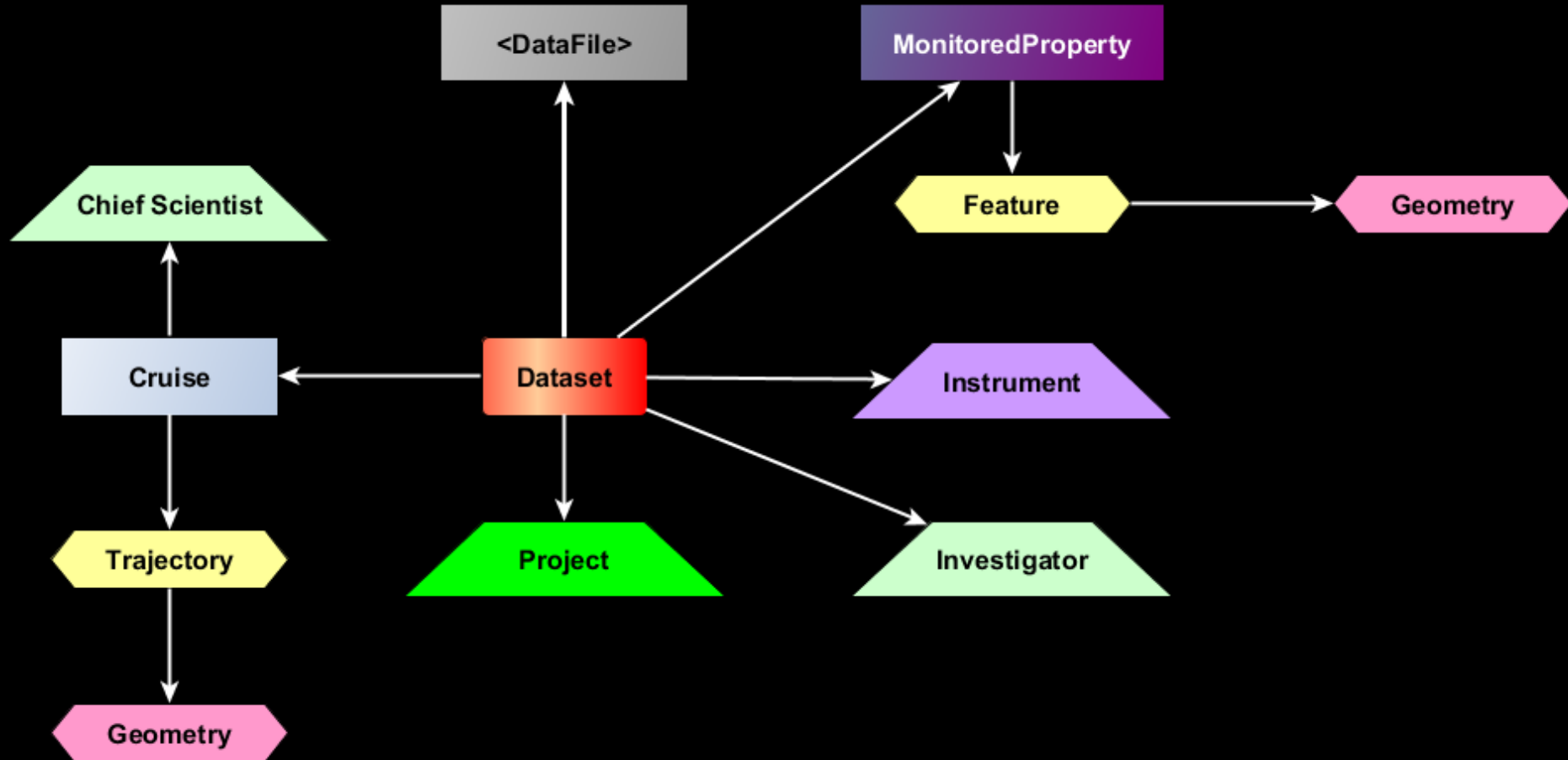
All are welcome

Presented by ODIP R2R BCO-DMO BODC TWC LDEO FSU SAMOS SIO WHOI



[http://www.bco-dmo.org/sites/default/files/page\\_files/POSTER\\_2.pdf](http://www.bco-dmo.org/sites/default/files/page_files/POSTER_2.pdf)

# ODIP



# NVS Developments

## Metadata parameters

<http://vocab.nerc.ac.uk/collection/P02/current/TMES/>

Show Search Form

alt label	Metadata_param
broader	Administration and dimensions theme
date	2004-08-17 11:46:57.0
dc_identifier	SDN:P02::TMES
dct_identifier	SDN:P02::TMES
definition	Data parameters that carry information relating to a measured parameter such as measurement temperatures, integration depths, quantities sampled and incubation durations
deprecated	false
narrower	Acceptable proportion of signal returns by acoustic doppler current profiler (ADCP) Acceptable proportion of signal returns by moored acoustic doppler current profiler (ADCP) beam 1 Acceptable proportion of signal returns by moored acoustic doppler current profiler (ADCP) beam 2

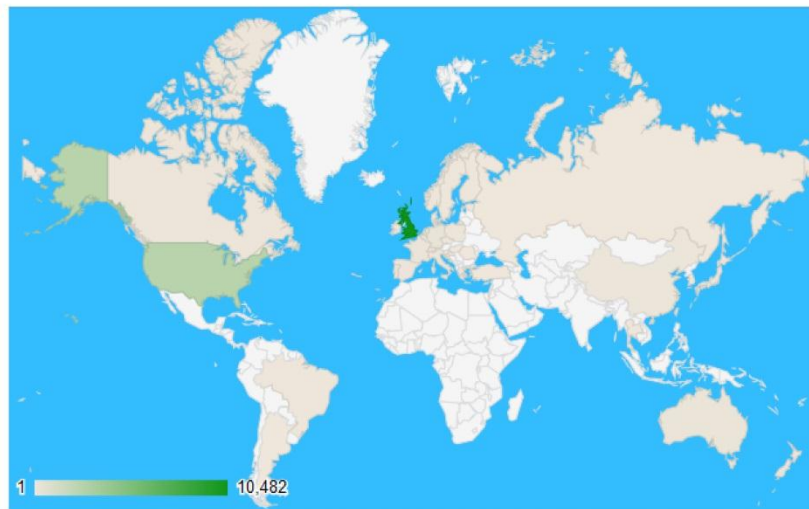
## View

?

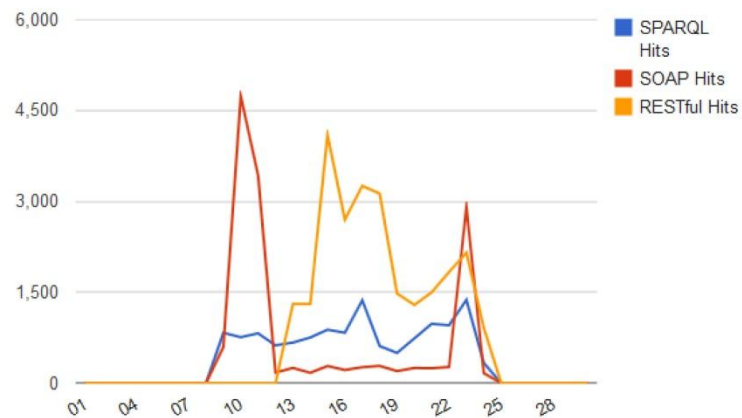
- ★ pref label
- ★ alt label
- ★ broader
- ★ date
- ★ dc\_identifier
- ★ dct\_identifier
- ★ definition
- ★ deprecated
- ★ narrower
- ★ notation
- ★ note
- ★ related
- ★ type
- ★ version info
- ★ in dataset

🔍

🔍



SPARQL hits (last 30 days)



	Country	Hits ▾
1	United Kingdom	10482
2	United States	2523
3	Netherlands	457
4	Germany	215
5	Australia	188
6	France	170
7	China	126
8	Poland	125
9	Canada	116
10	Italy	92

# NVS Developments

- Browser
  - Being developed at CEH (UK)
  - Should be delivered by December 2014
- Resilience
  - Implementing plan with CEDA (UK) to have a second instance of NVS
  - Should be operational soon
    - Then need to implement switching / failover



# Questions?

