

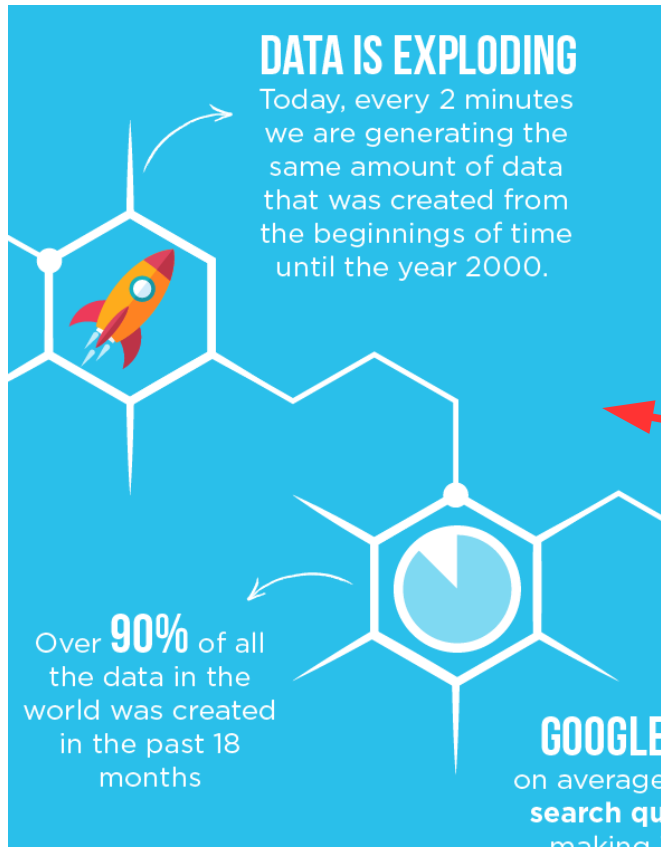
BIG GNSS DATA

Philipp Mitterschiffthaler

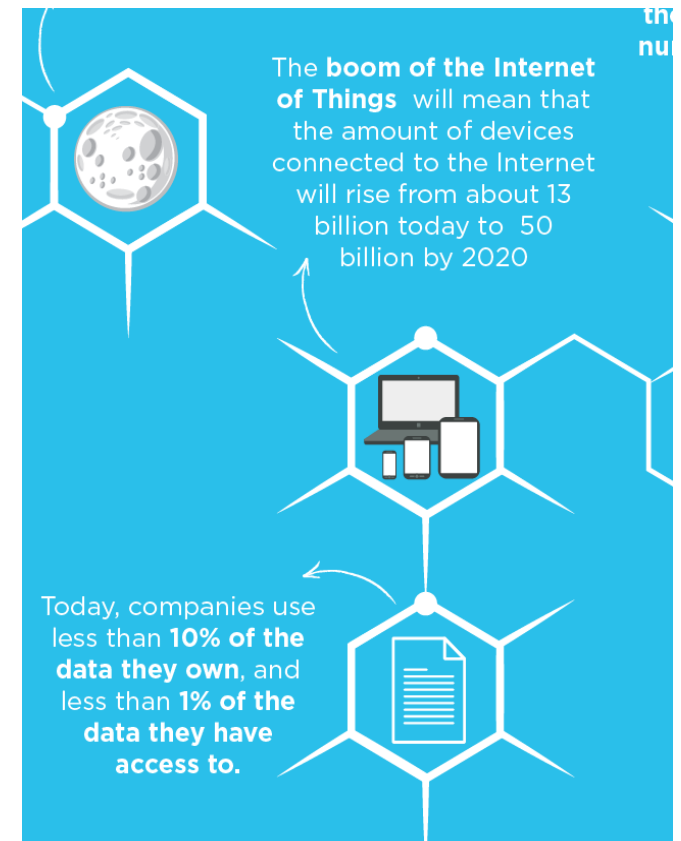
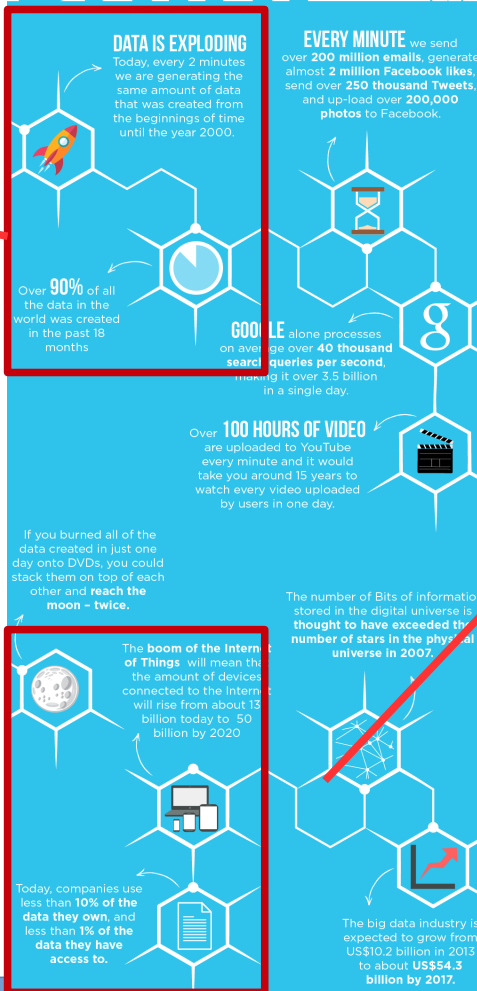
BEV - Bundesamt für Eich- und Vermessungswesen



Big Data



WHAT IS BIG DATA?



Bernard Marr, 16.2.15

Philipp Mitterschiffthaler

BROUGHT TO YOU BY THE
BESTSELLING AUTHOR OF...



Volume
Velocity
Variety

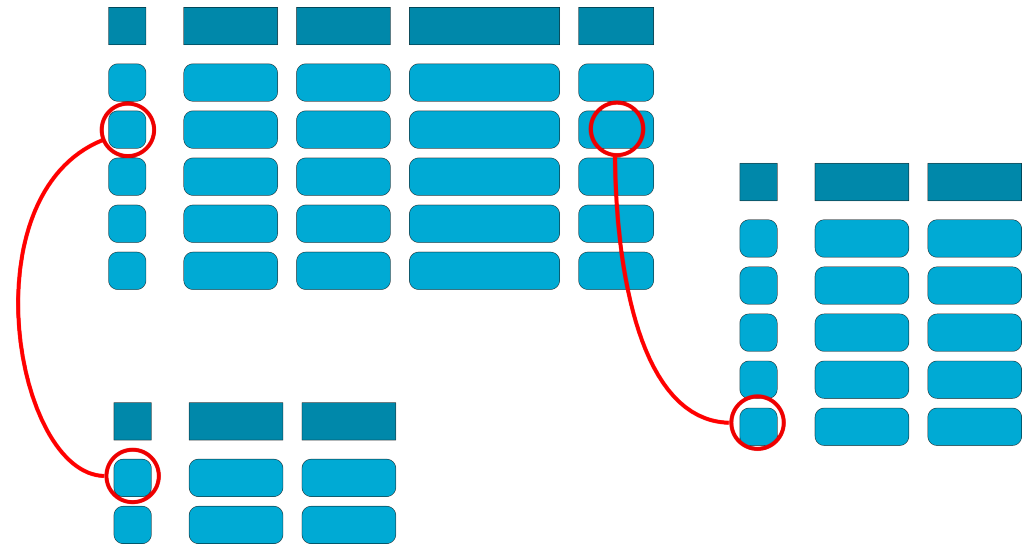


established in business

very well for isolated systems

changes in data model are very time-consuming

Joins will get very complex and confusingly



Simply structured!

flexible for data

flexible regarding to
the data scheme

interoperability

loosely coupled system



Is designed to be read by computers

Is written in xml

Can be queried with SPARQL

So called Triplestores

subject	predicate	object
San Sebastian	Is part of	Spain
San Sebastian	Is	cultural capital
San Sebastian	has population of	180.000

RDF – Ressource Description Framework

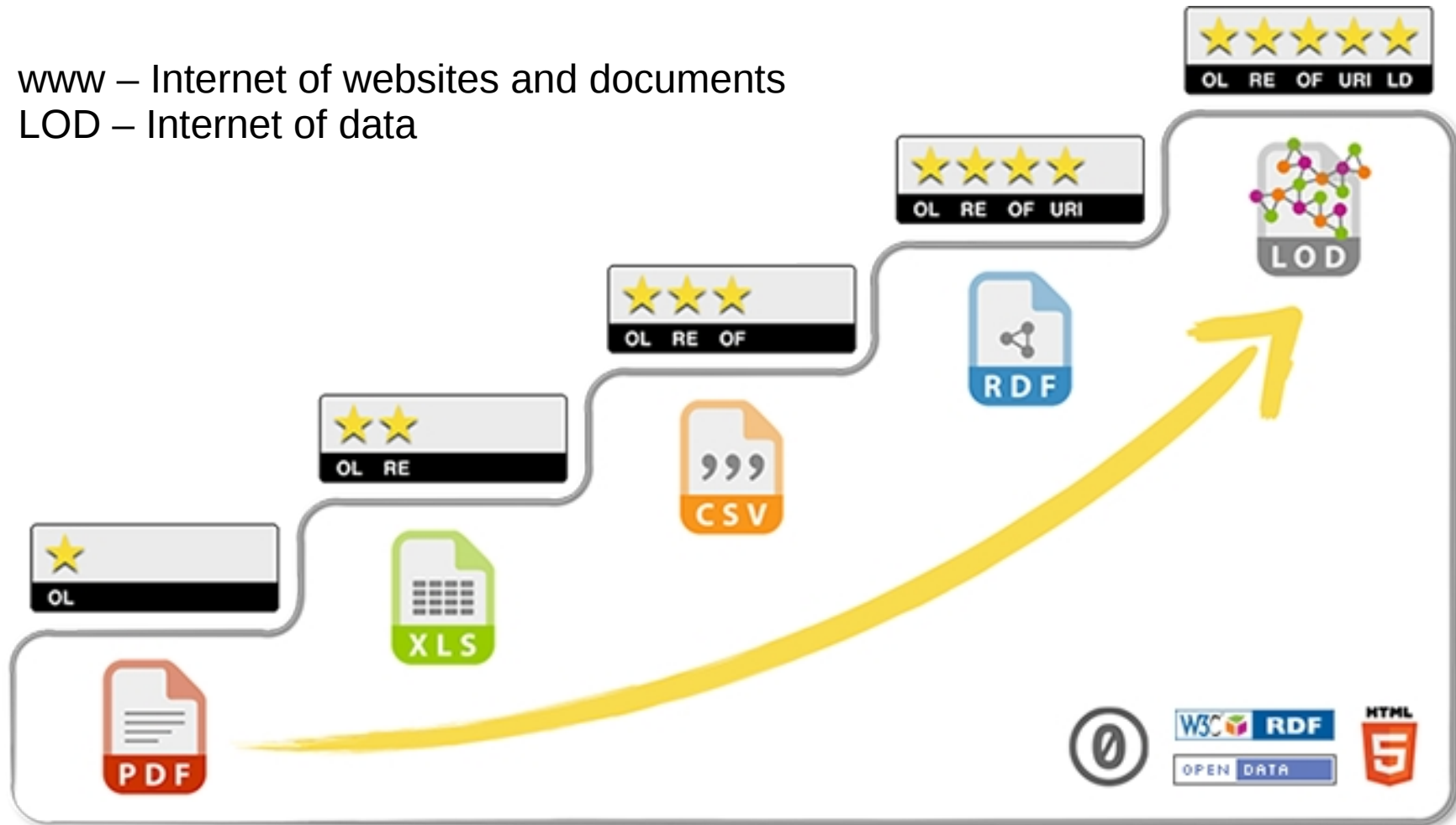
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1 <?xml version="1.0" encoding="UTF-8" standalone="no"?>
2 <rdf:RDF xmlns:cc="http://creativecommons.org/ns#" xmlns:dcterms="http://purl.org/dc/terms/" xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:gn="http://www.geonames.org/ontology#"
3   <gn:Feature rdf:about="http://sws.geonames.org/3110044/">
4     <rdfs:isDefinedBy rdf:resource="http://sws.geonames.org/3110044/about.rdf"/>
5     <gn:name>San Sebastian</gn:name>
6     <gn:alternateName xml:lang="ja">サン・セバスティアン</gn:alternateName>
7     <gn:alternateName xml:lang="eu">Donosti</gn:alternateName>
8     <gn:alternateName xml:lang="ast">Donostia</gn:alternateName>
9     <gn:alternateName xml:lang="de">Donostia-San Sebastián</gn:alternateName>
10    <gn:alternateName xml:lang="eo">Donostio</gn:alternateName>
11    <gn:alternateName xml:lang="es">La Bella Easo</gn:alternateName>
12    <gn:alternateName xml:lang="fr">Saint-Sébastien</gn:alternateName>
13    <gn:alternateName xml:lang="es">Sanse</gn:alternateName>
14    <gn:officialName xml:lang="en">San Sebastian</gn:officialName>
15    <gn:alternateName xml:lang="ca">Sant Sebastià</gn:alternateName>
16    <gn:alternateName xml:lang="pt">São Sebastião</gn:alternateName>
17    <gn:alternateName xml:lang="ar">سان سباستيان</gn:alternateName>
18    <gn:alternateName xml:lang="he">סן סבסטיאן</gn:alternateName>
19    <gn:alternateName xml:lang="ru">Сан-Себастьян</gn:alternateName>
20    <gn:featureClass rdf:resource="http://www.geonames.org/ontology#P"/>
21    <gn:featureCode rdf:resource="http://www.geonames.org/ontology#P.PPLA2"/>
22    <gn:countryCode>ES</gn:countryCode>
23    <gn:population>185357</gn:population>
24    <gn:postalCode>20003</gn:postalCode>
25    <wgs84_pos:lat>43.31283</wgs84_pos:lat>
26    <wgs84_pos:long>-1.97499</wgs84_pos:long>
27    <gn:parentFeature rdf:resource="http://sws.geonames.org/6358157"/>
28    <gn:parentCountry rdf:resource="http://sws.geonames.org/2510769"/>
29    <gn:parentADM1 rdf:resource="http://sws.geonames.org/3336903"/>
30    <gn:parentADM2 rdf:resource="http://sws.geonames.org/3120935"/>
31    <gn:parentADM3 rdf:resource="http://sws.geonames.org/6358157"/>
32    <gn:nearbyFeatures rdf:resource="http://sws.geonames.org/3110044/nearby.rdf"/>
33    <gn:locationMap rdf:resource="http://www.geonames.org/3110044/donostia-san-sebastian.html"/>
34    <gn:wikipediaArticle rdf:resource="http://en.wikipedia.org/wiki/San_Sebasti%C3%A1n"/>
35    <rdfs:seeAlso rdf:resource="http://dbpedia.org/resource/San_Sebasti%C3%A1n"/>
36    <gn:wikipediaArticle rdf:resource="http://ru.wikipedia.org/wiki/%D0%A1%D0%B0%D0%BD-%D0%A1%D0%B5%D0%B1%D0%B0%D1%81%D1%82%D1%8C%D1%8F%D0%BD"/>
37  </gn:Feature>
38 </rdf:RDF>
39
```



Linked Open Data

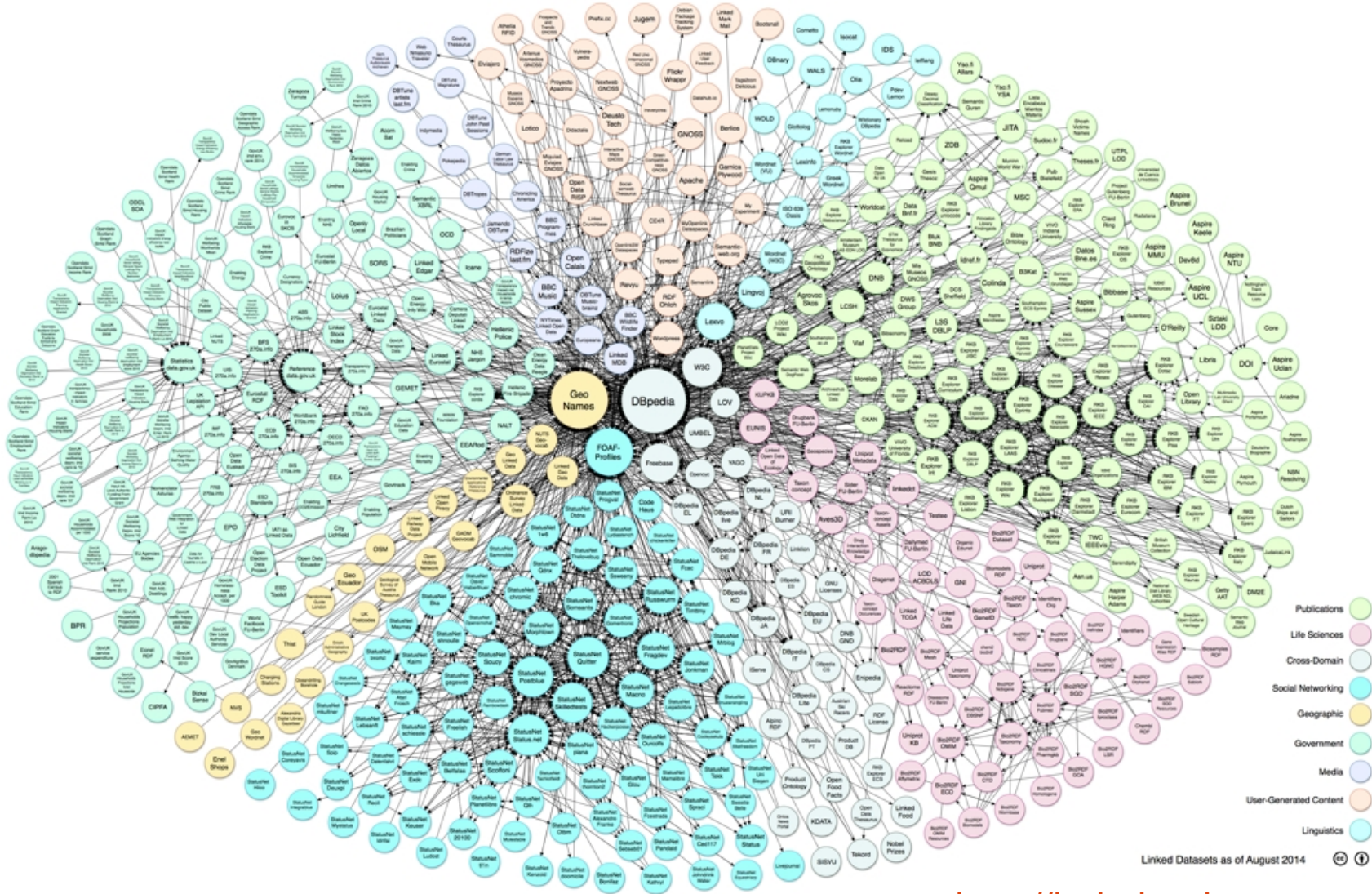
www – Internet of websites and documents

LOD – Internet of data

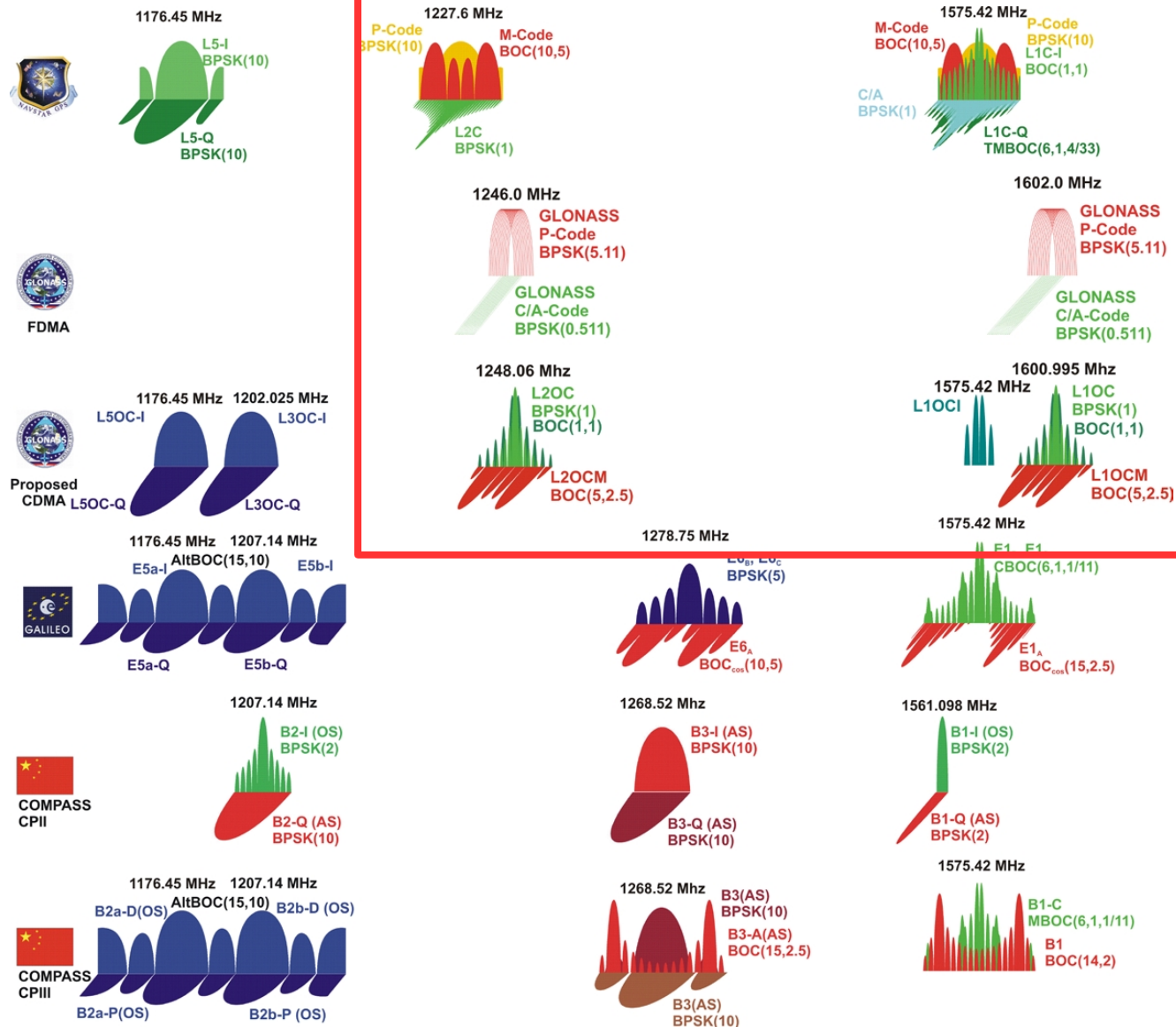


<http://5stardata.info> 11.1.2016

Linked Open data



<http://lod-cloud.net>



Acknowledgement



G-Nut/Anubis



Thank you!

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