

Geodata on the Web **a Linked Data perspective**

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Geodata on the Web Seminar 2016-02-10

Smart

Smartness

Smart cities

Smart organizations

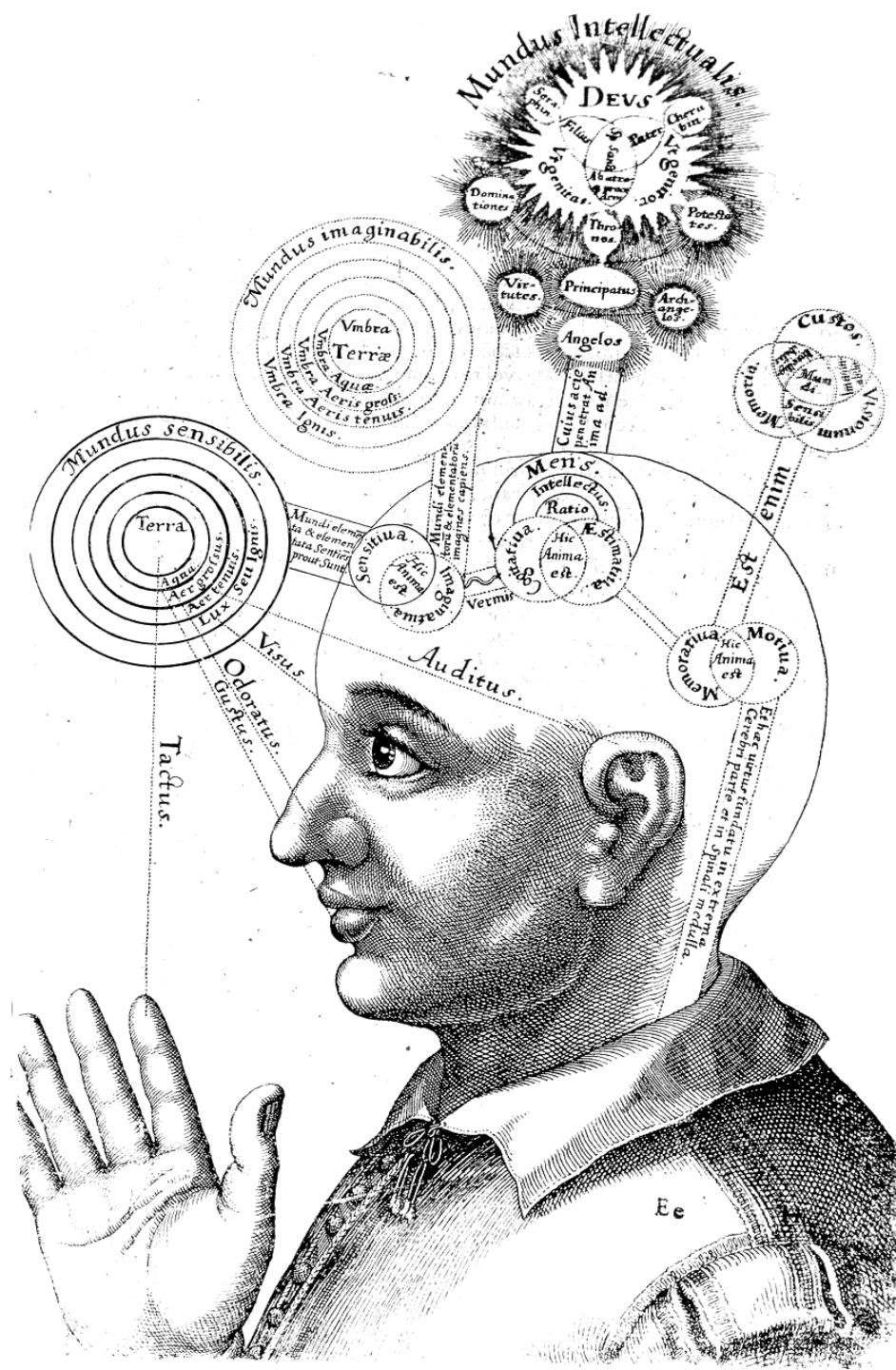
Smart personal devices

Smart buildings

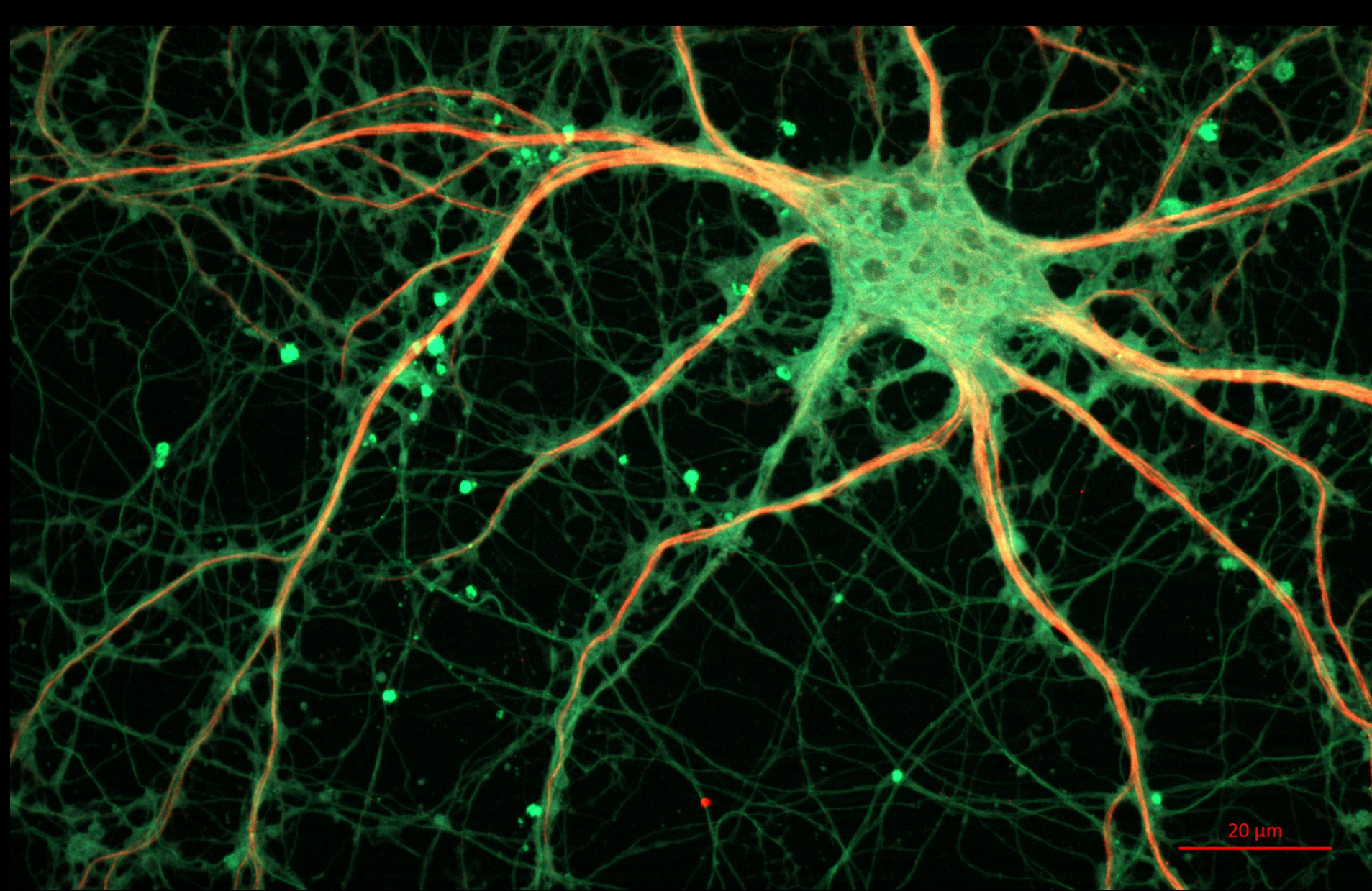
Smart infrastructures

Smart government

Why?



Robert Fludd, *Utriusque cosmi maioris scilicet et minoris [...] historia*, tomus II (1619), tractatus I, sectio I, liber X, *De triplici animae in corpore visione*.



neuron photo by ZEISS Microscopy
<http://flickr.com/photos/zeissmicro/24327909026>

Smart = Linked



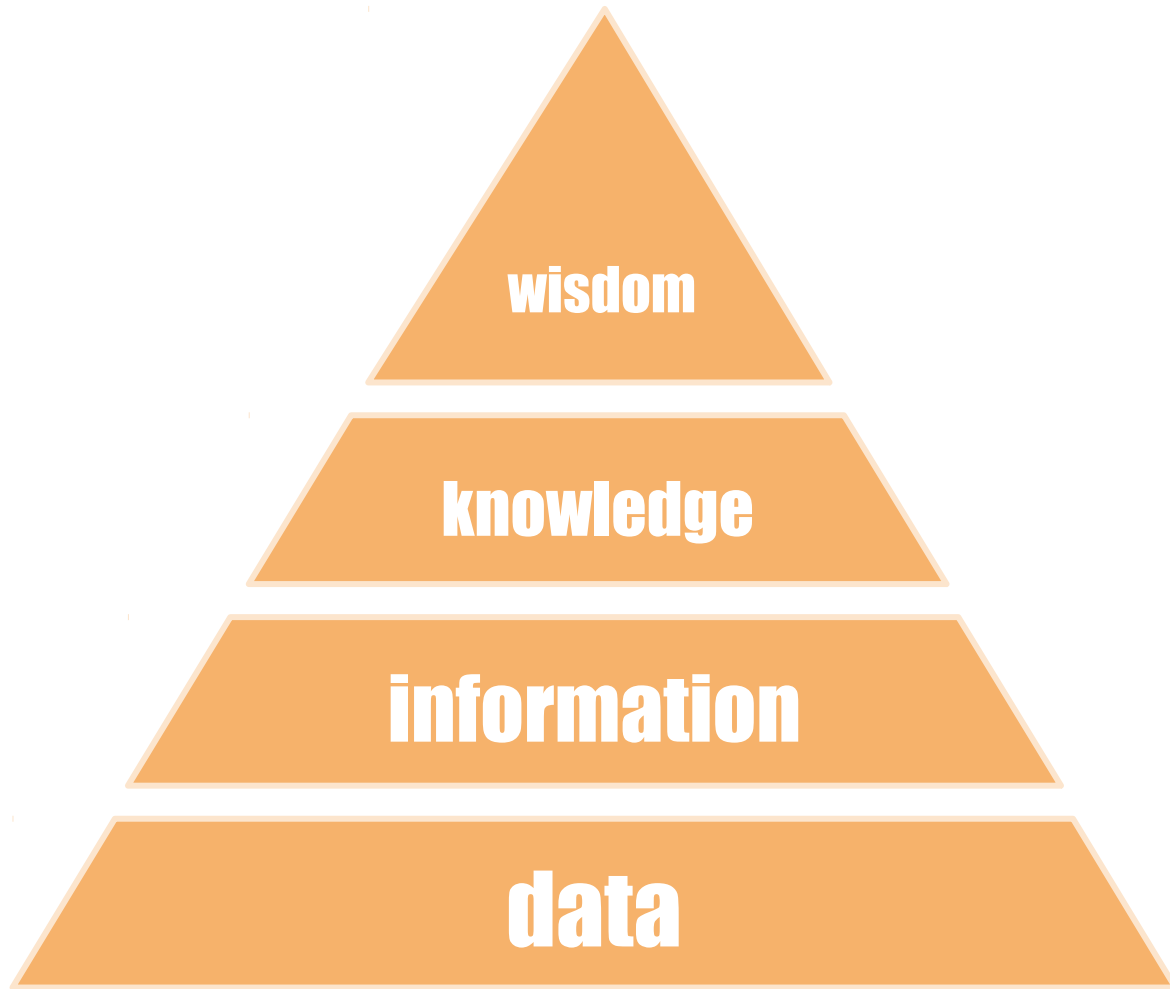
<http://myorg.org/dataset27/fact109575>

Small Arms and Ammunition — Imports & Exports

An interactive visualization of government-authorized small arms and ammunition transfers from 1992 to 2010.

+ - GERMANY SEARCH
ABOUT







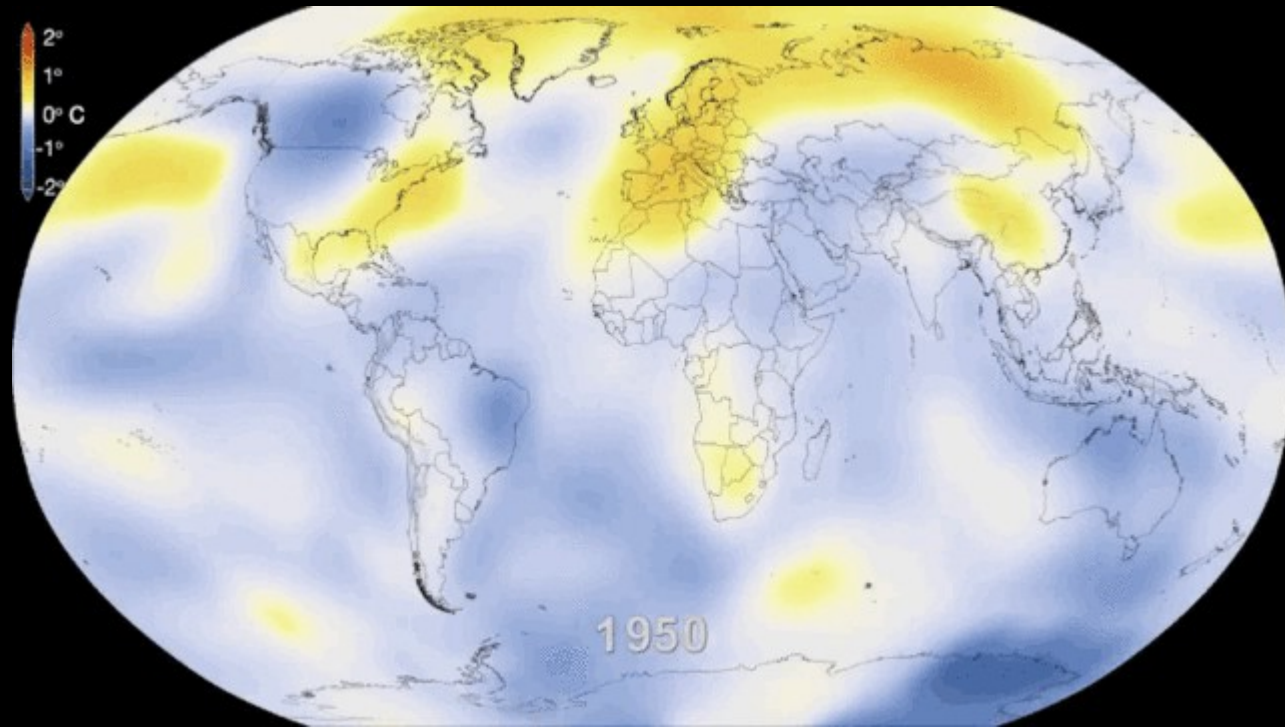
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Why does the world need geodata on the web?

1. Spatial data have an enormous untapped potential, in both quality and quantity



"63 years of climate change by NASA" by NASA -

http://svs.gsfc.nasa.gov/vis/a000000/a004100/a004135/http://www.youtube.com/watch?v=gaJtS_WDmlen:YouTube. Licensed under Public Domain via Wikimedia Commons -

https://commons.wikimedia.org/wiki/File:63_years_of_climate_change_by_NASA.gif#/media/File:63_years_of_climate_change_by_NASA.gif

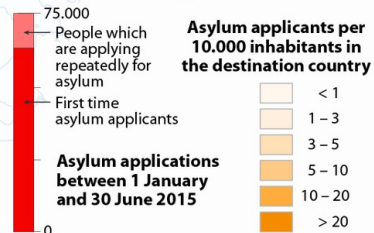
European Migrant Crisis 2015



Top Countries of Origin



Number of Refugees



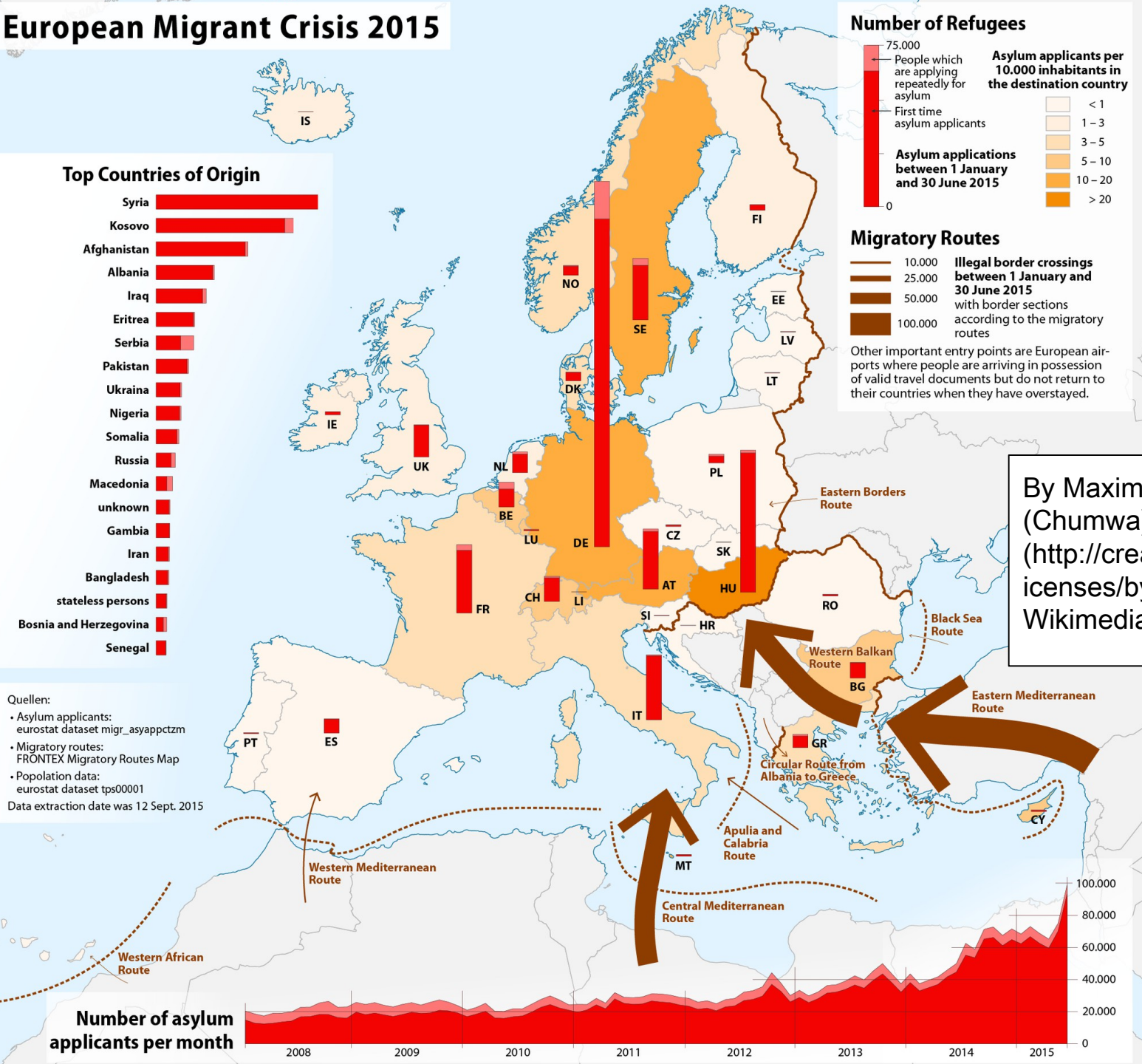
Migratory Routes



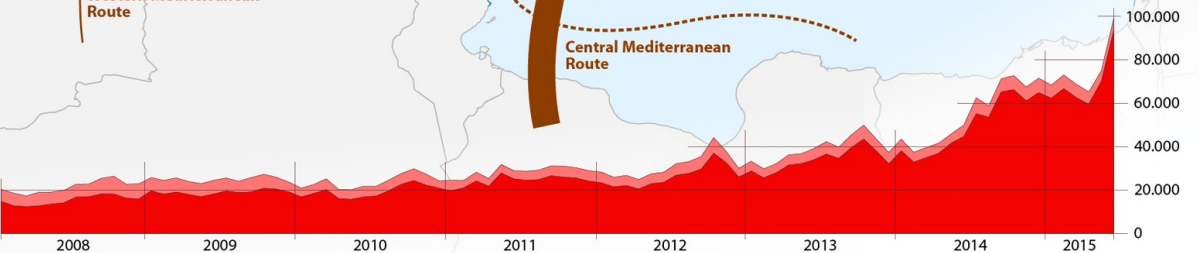
Other important entry points are European airports where people are arriving in possession of valid travel documents but do not return to their countries when they have overstayed.

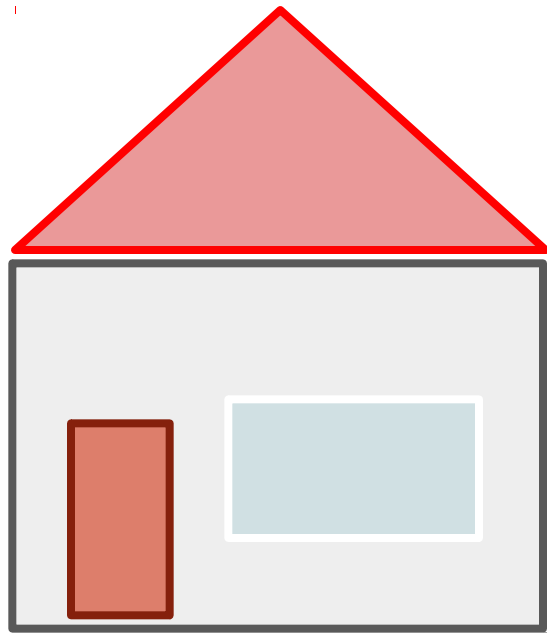
By Maximilian Dörrbecker (Chumwa) [CC BY-SA 2.0 (<http://creativecommons.org/licenses/by-sa/2.0>)], via Wikimedia Commons

Quellen:
 • Asylum applicants: eurostat dataset migr_asyappctzm
 • Migratory routes: FRONTEX Migratory Routes Map
 • Population data: eurostat dataset tps00001
 Data extraction date was 12 Sept. 2015



Number of asylum applicants per month



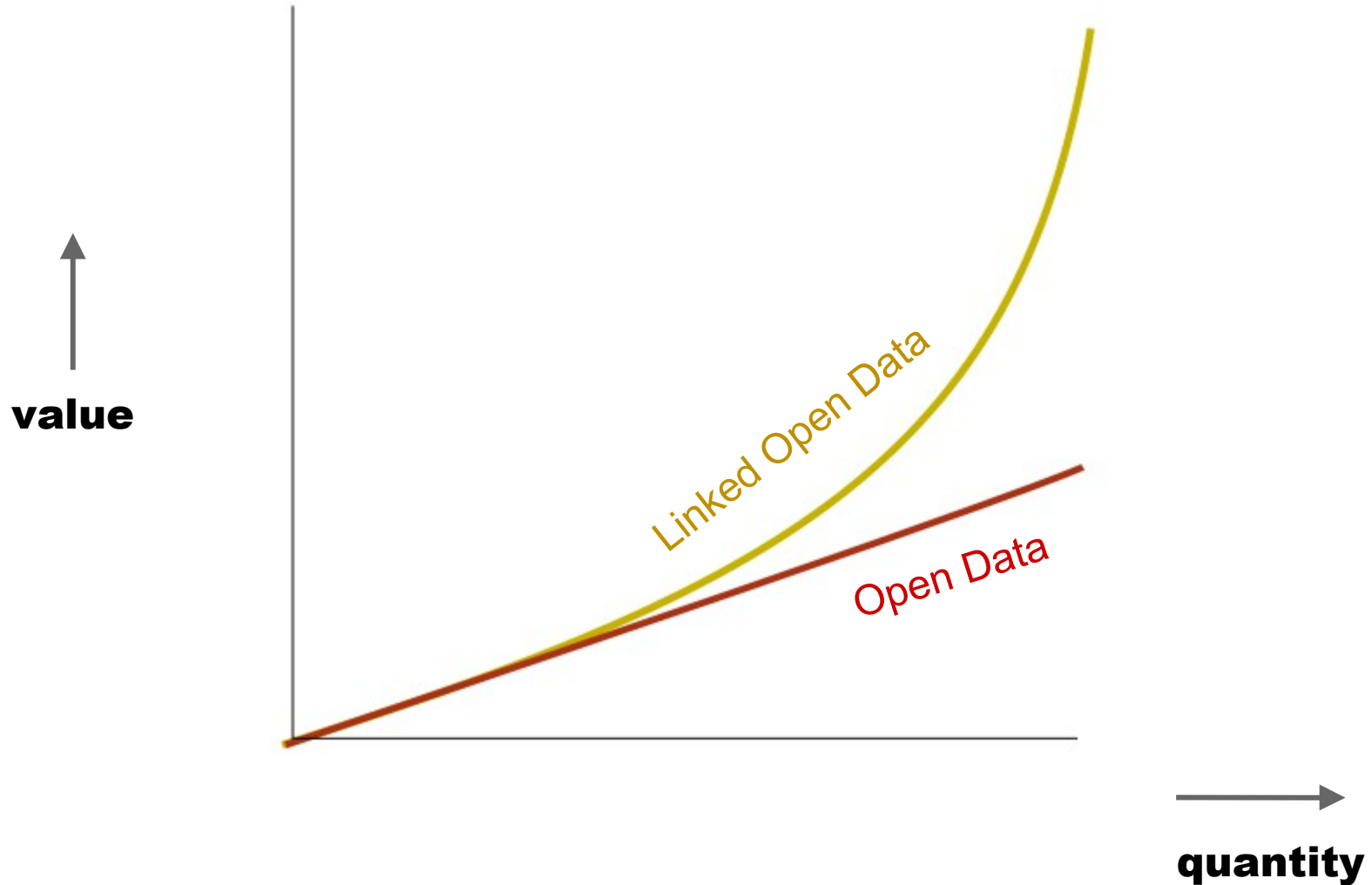


Where are
my keys !!??

Why does the world need geodata on the web?

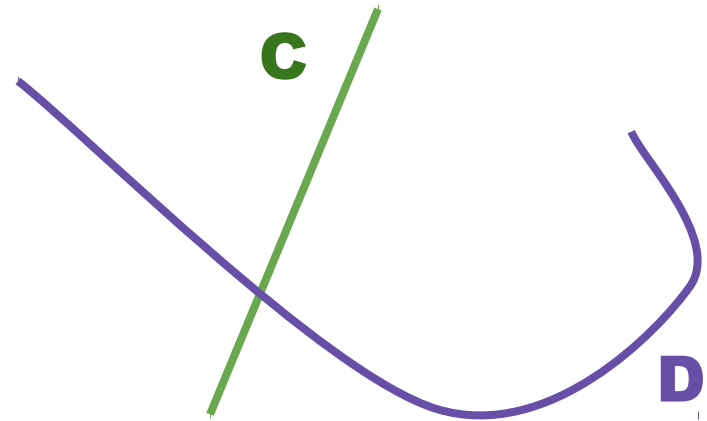
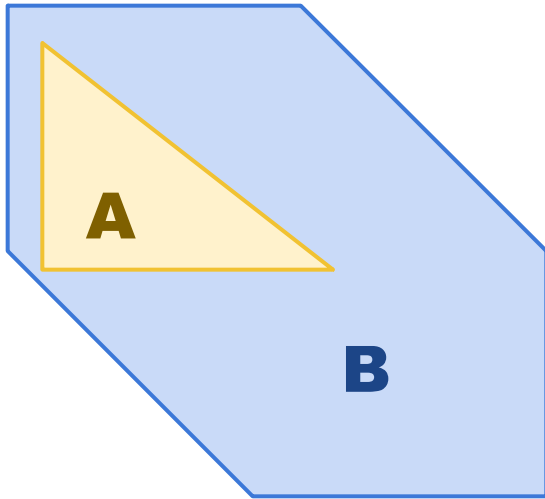
1. Spatial data have an enormous potential, in both quality and quantity
2. Geospatial data can have spatial relationships

Open Data versus Linked Open Data

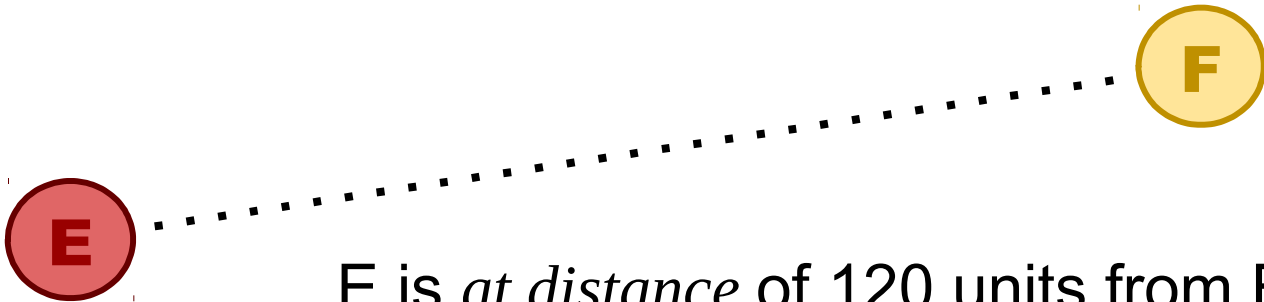


Examples of spatial relationships

A is *within* B



C *crosses* D



E is *at distance* of 120 units from F

Spatial relationships

... can be recorded as data:

“My house is next to the supermarket”

or be determined when data are queried:

“Give me a list of all school buildings within a 20 km radius of the fire”



Spatial Data on the Web Working Group





By NASA / Bill Anders [Public domain], via Wikimedia Commons