# D3 Powersnack – GeoJSON with D3

From the Powersnack<sup>©</sup> tutorial series

(name subject to change)

by Khôi Tran

khoi.tran@iwi.unibe.ch



### What we won't talk about today

Relevant subjects, but not in todays scope:

- Theory about earth maps
- Map licensing



- Intricacies by working with maps and (historical) data
- Details about GeoJSON, TopoJSON

#### What we'll do today

- Where to get map materials for D3?
- Examples on <a href="https://sandbox.iwi.unibe.ch">https://sandbox.iwi.unibe.ch</a>
- Live coding a small example

## Where to get map materials for D3?

World:

• <u>https://github.com/mbostock/world-atlas</u>

Switzerland:

<u>https://github.com/interactivethings/swiss-maps</u>



These sources require you to generate the GeoJSON out of the sources from Natural Earth or SwissTopo

➔ Precompiled GeoJSON maps are on <u>ILIAS</u>

### Examples on <a href="https://sandbox.iwi.unibe.ch">https://sandbox.iwi.unibe.ch</a>

### Welcome to the IWI sandbox

#### Tran, Khôi (IWI)

Ready to deploy your application?



#### Sample applications:

- d3-beatbox.zip
- d3-jeopardy.zip
- d3-switzerland.zip
- · d3-worldmap-with-metadata.zip
- d3-worldmap.zip
- swissparliament.zip

### Examples on <a href="https://sandbox.iwi.unibe.ch">https://sandbox.iwi.unibe.ch</a>

#### Simple D3 web applications:

- d3-jeopardy.zip CSV data, Charts, axes, data nesting
- swissparliament.zip JSON data, Force layout, physics

#### d3-beatbox.zip

*Combine D3 with other libraries* (*drum sequencer and synthesizer*)

#### **GeoJSON web applications:**

- d3-worldmap.zip Basic world map
- d3-worldmap-withmetadata.zip Basic world map with beer statistics (CSV)
- d3-switzerland.zip Basic map of Switzerland with random data (CSV)

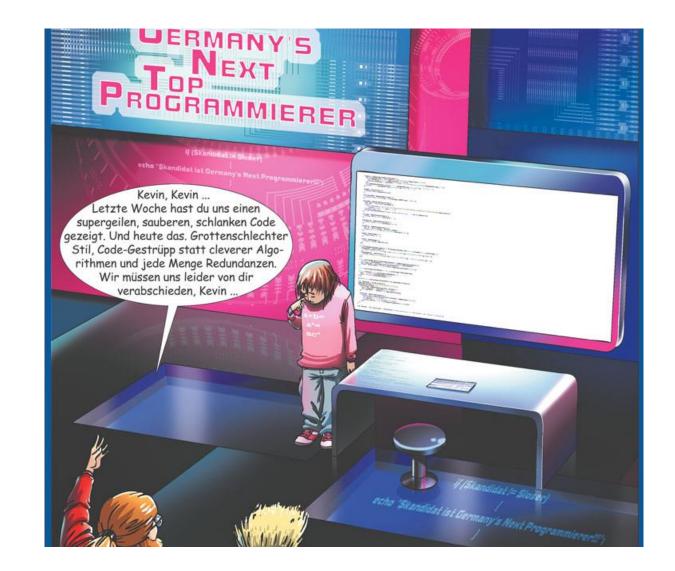
#### Steps to make an interactive map

- Load GeoJSON map data

   *→* Those from ILIAS should be ready to use.
- 2. Load YOUR data
  - → They must somehow stand in relation to the GeoJSÓN map
- 3. Alter / modify data to your needs → e.g. remove unneeded countries or other irrelevant stuff
- 4. Combine both data sets
- 5. Draw the map
- 6. Add interactions and fancy stuff
  - $\rightarrow$  e.g. gimmicks, colors, cosmetics



### Live coding



#### That's it... questions?

