

# Milestone 2 (18 April – 17:00)

## 10 % of the final grade

We concentrate the whole experience around an interactive world map, leveraging many of the techniques introduced in **Lecture 8 – Maps** and **Lecture 11 - Tabular data**.

**Core idea** – Use a single map-centric view to reveal how Nobel laureates move around the globe, and let users slice the data by year and category via lightweight control panels. In short, we aim to provide an intuitive understanding of past Nobel Prize winners through a user-friendly interactive experience, exploring the data from temporal, geographical, and categorical perspectives.

## 1. Main Visual modules (M→F: must-have → future)

ID	MODULE	PURPOSE	STATUS
M1	Choropleth world map	Show <i>where</i> laureates are born / affiliated per year.	Prototype ready ✓
M2	Year slider	Animate evolution 1901-2023; scrub or autoplay.	Ready ✓
M3	Category toggle	Facet the map by Physics⇌Peace⇌... or “All”.	Ready ✓
F1	Migration flow arcs	Draw birth→-award country arcs for the selected year / laureate.	In progress
F2	Proportional-symbol overlay	Map color intensity reflects the number of laureates, toggleable via legend.	In progress

## Interaction logic

- *Hover* → tooltip with laureate info.
- *Click* country → locks selection, activates side-cars.
- *Shift-Click* second country → shows bilateral flow comparison.
- Legend acts as a *mutually exclusive* category filter.

## Visualize Nobel prize winners on the world map

### World Map



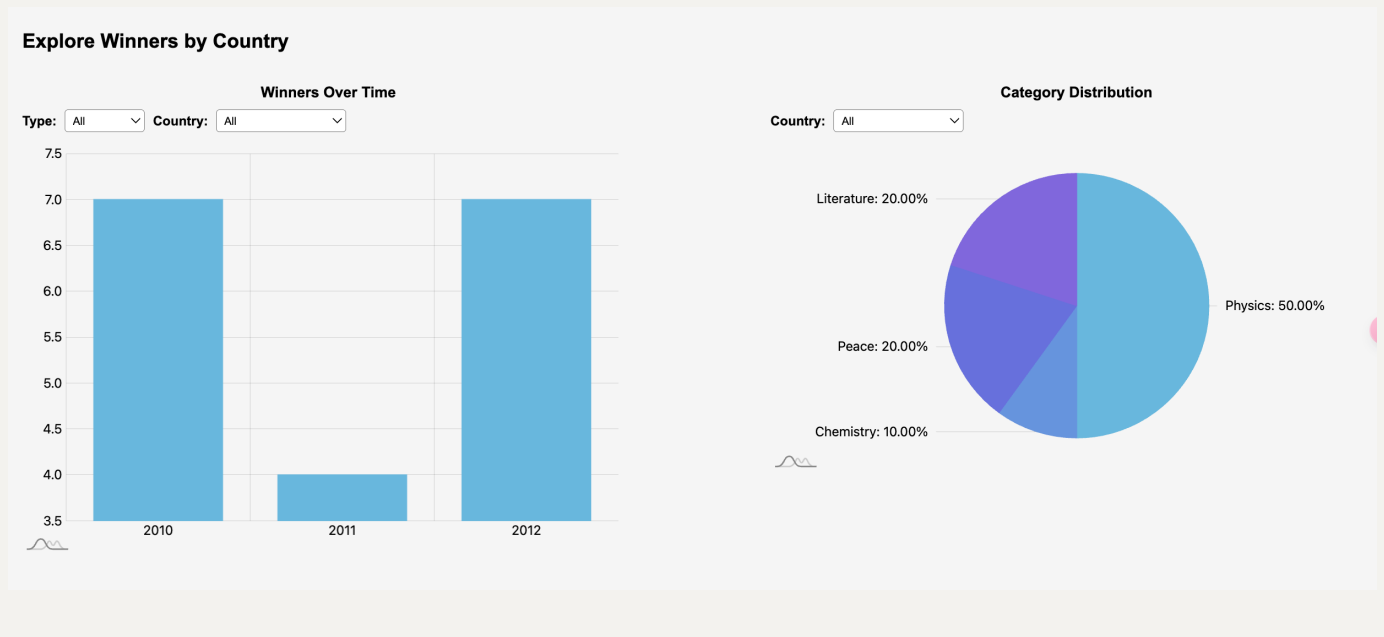
## 2. Auxiliary Visual modules

While the map holds centre stage, two compact panels provide detail-on-demand and shows the number of Nobel laureates per year. Users can filter the data by:

- **Type** (award category)
- **Country**.

It supports interactive exploration of how Nobel awards fluctuate over time, either globally or for a specific country or category.

Module Name	Chart Type	Key User Question Addressed	Status
Winners Over Time	Bar chart	How does the number of winners change over time?	Ready✓
Category Distribution	Pie chart	Which fields dominate a given country's Nobel record?	Ready✓



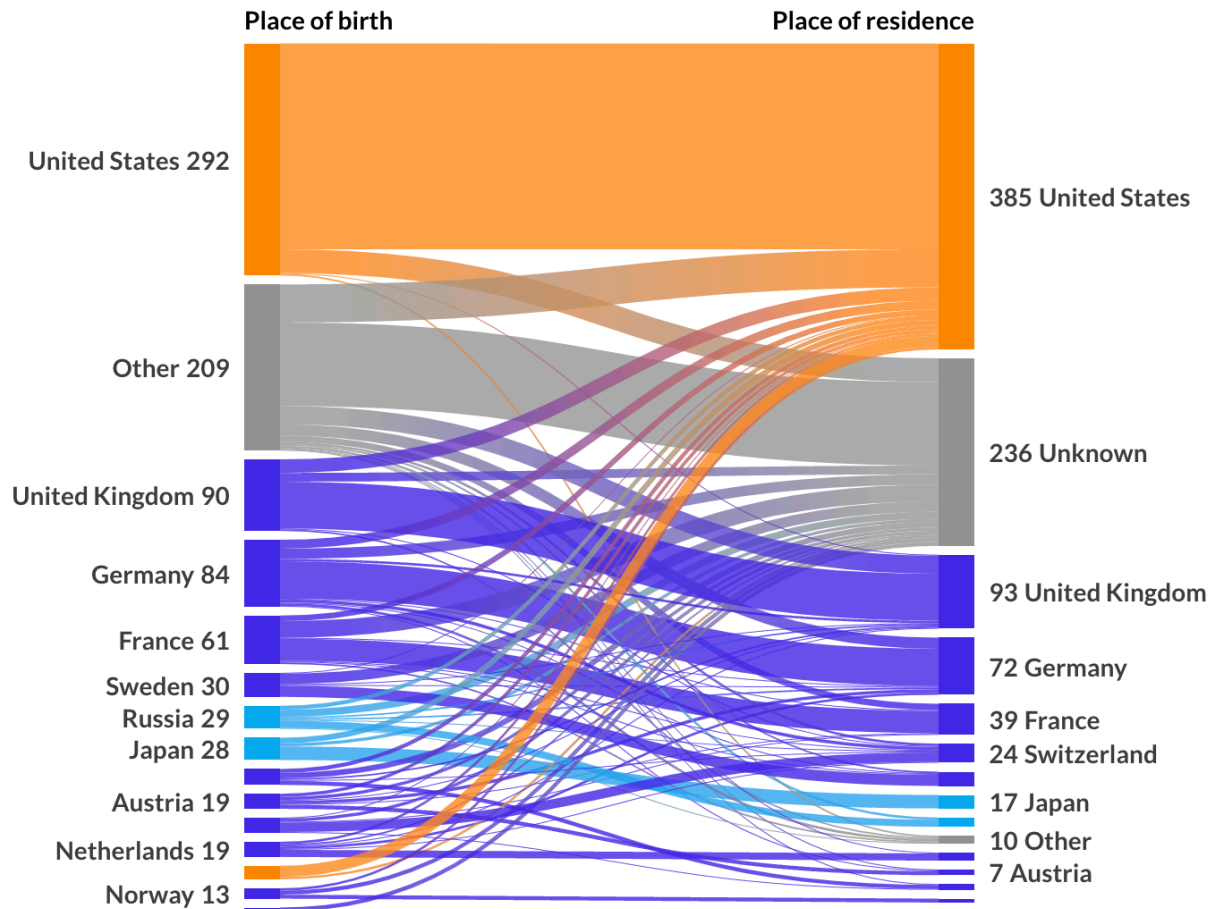
### 3. General Statistics & Comparative View

Beyond map-centred exploration, we provide a **global dashboard** that merges all laureates into aggregated views, allowing quick comparison across time, categories and migration status.

For instance, a birth-to-residence plot shows the migration flows of Nobel laureates. Each vertical bar lists the top birth countries on the left and the corresponding residence countries on the right; ribbons are coloured by world region.

## Most winners are from the **United States**

**Region** ■ America ■ Europe ■ Asia ■ Oceania ■ Africa



## 4. Technical stack summary

- AmCharts 5 (Map、Flow、XY/Percent)
- Vanilla JS + ES Modules
- Build & deploy: Vite → GitHub Pages (CI)