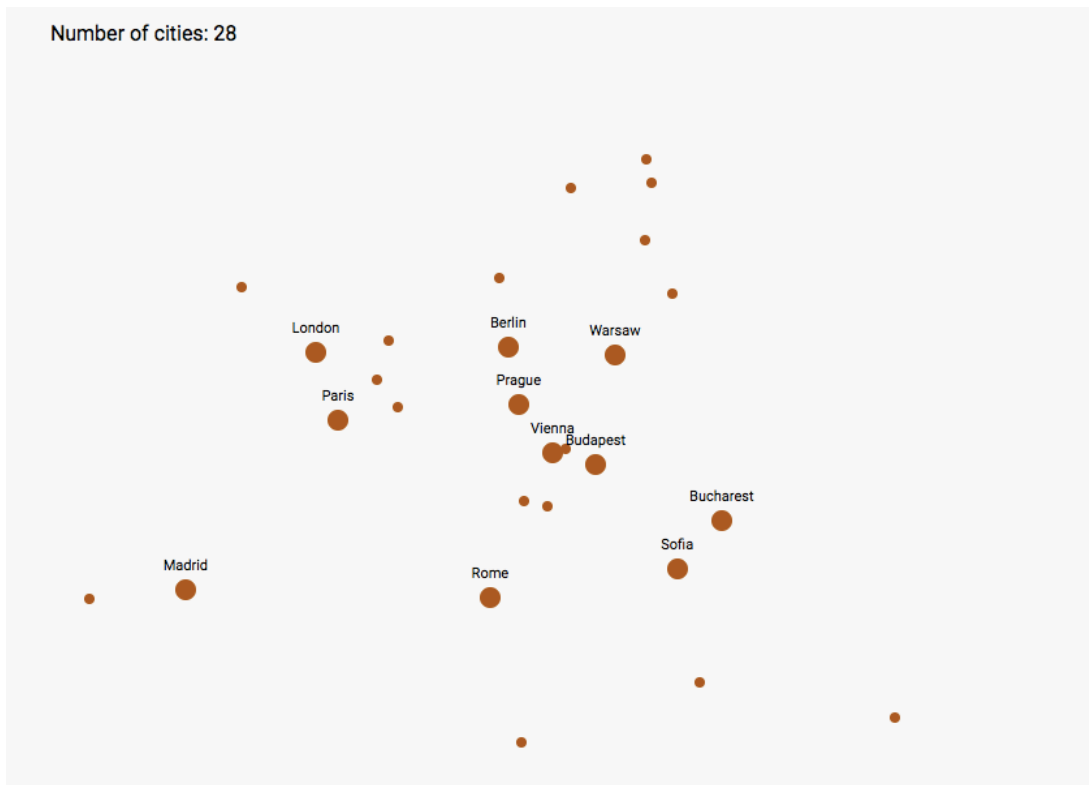


## Lab 3

### Dynamic circle properties



```
// 1) LOAD CSV FILE
d3.csv("data/cities.csv", function(data){

// 2) INSPECT DATASET IN THE WEB CONSOLE
console.log(data);

});

// 3) FILTER ALL CITIES WHICH ARE PART OF THE EUROPEAN UNION
data = data.filter(function(d){ return d.eu == "true" });

// 4) GET THE LENGTH OF THE DATASET AND APPEND IT TO THE WEBPAGE
d3.select("body")
.append("p")
.text("Number of cities: " + data.length);

// 5) PREPARE THE DATA (CONVERT NUMERICAL VALUES TO NUMBERS)
data.forEach(function(d){
d.population = +d.population;
d.x = +d.x;
d.y = +d.y;
});
```

```
// 6) APPEND SVG CONTAINER & CIRCLES
// 7) USE ANONYMOUS FUNCTIONS TO ACCESS OBJECT VALUES AND TO CREATE DYNAMIC
PROPERTIES
```

```
var svg = d3.select("body").append("svg")
  .attr("width", 800)
  .attr("height", 550)
  .attr("class", "d3-chart");
```

```
var circles = svg.selectAll("circle")
  .data(data)
  .enter()
  .append("circle")
  .attr("r", function(d){
    if(d.population >= 1000000)
      return 8;
    else
      return 4;
  })
  .attr("cx", function(d){ return d.x; })
  .attr("cy", function(d){ return d.y; });
```

```
// 8) APPEND TEXT LABELS
var labels = svg.selectAll("text")
  .data(data)
  .enter()
  .append("text")
  .attr("class", "city-label")
  .attr("opacity", function(d){
    if(d.population >= 1000000)
      return 1;
    else
      return 0;
  })
  .text(function(d){ return d.city; })
  .attr("x", function(d){ return d.x; })
  .attr("y", function(d){ return d.y - 15; });
```