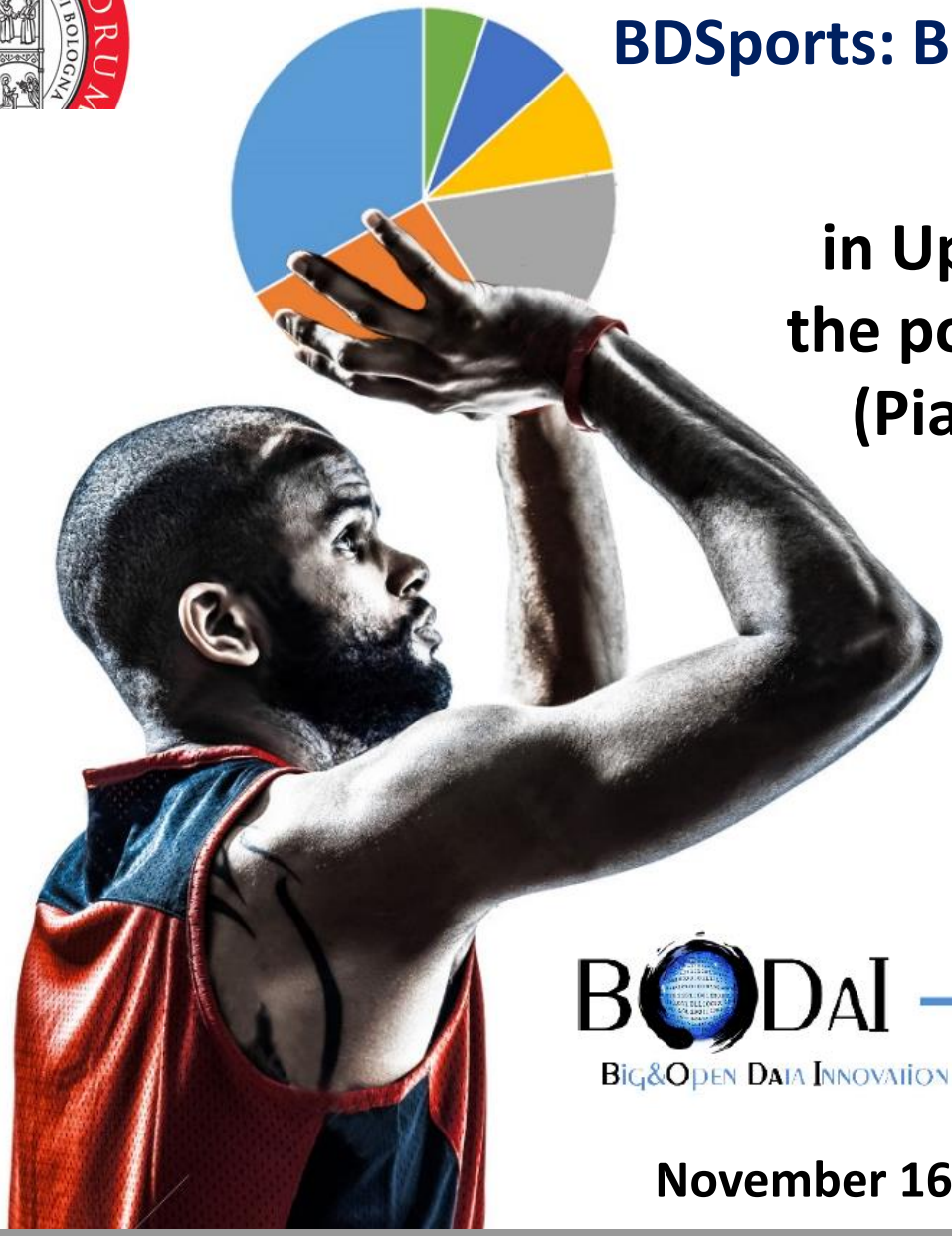

WORKSHOP
BDSports: BIG DATA ANALYTICS IN SPORTS

Teaching Statistics in Upper Secondary School: the positive experience of PLS (Piano Lauree Scientifche)

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BODAI - LAB
BIG&OPEN DATA INNOVATION LABORATORY

November 16, 2017 – Università degli studi di Brescia

Teaching Statistics

- Make Statistics interesting and appealing
- Maintain high attention and concentration during frontal lessons
- The type of interaction between teachers and students has changed completely respect to the past
- The process is evolving continuously

The Project

- Show simple examples
- Give to the students material on which they can reflect on and provide an own interpretation

Tool

- Graphs representing the progression of the world record in some disciplines
- Teachers could easily use similar tools making connections with other disciplines

Data Collection

- Many data available on the web
- Not so simple to collect
- Good skills needed to create a dataset

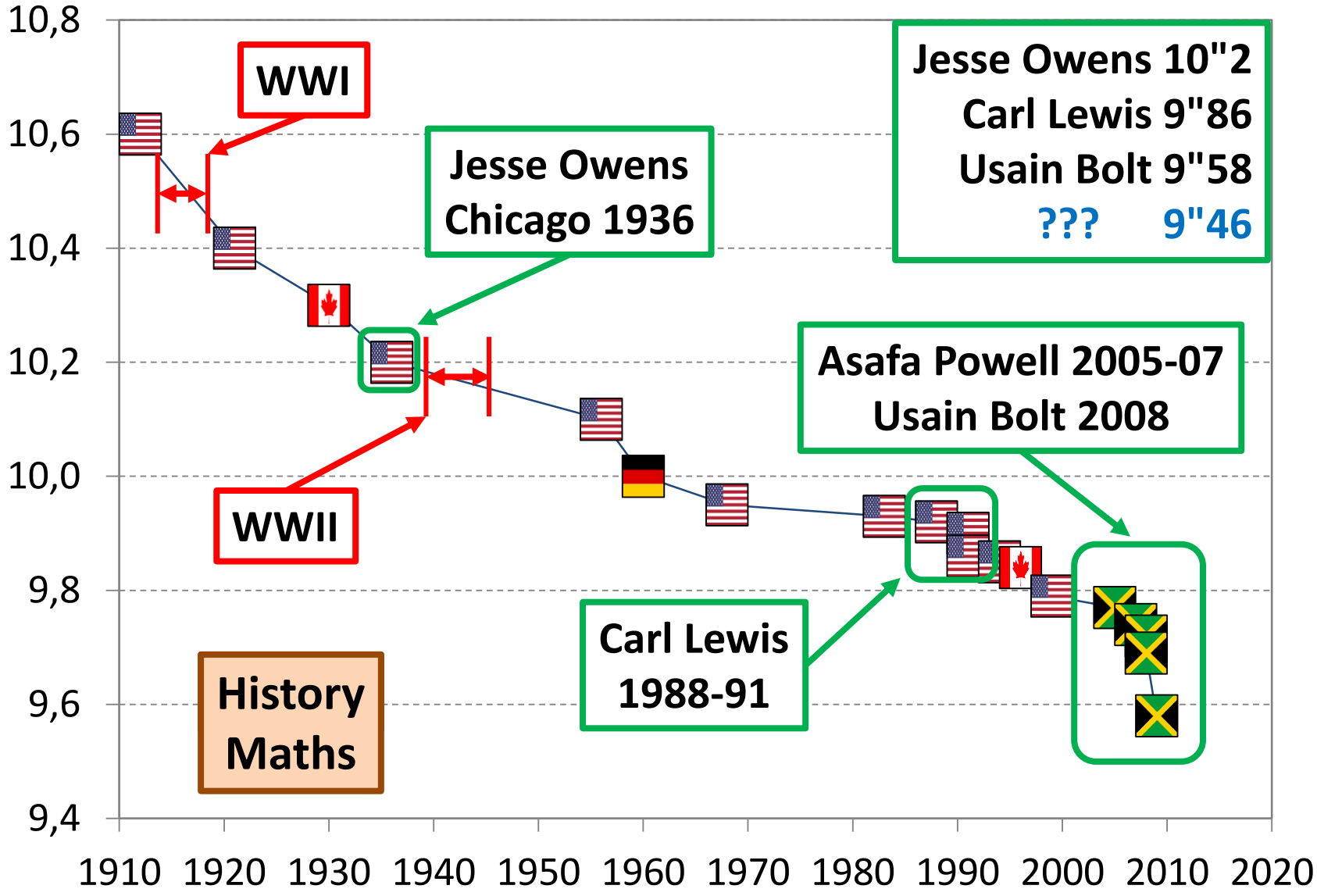
The Examples

- Underlining some particular aspect in the trend of the graphs
- Some remarks are obvious (for adults)
- Some other remarks require a little knowledge on sports history and on technical aspects (easy to find)

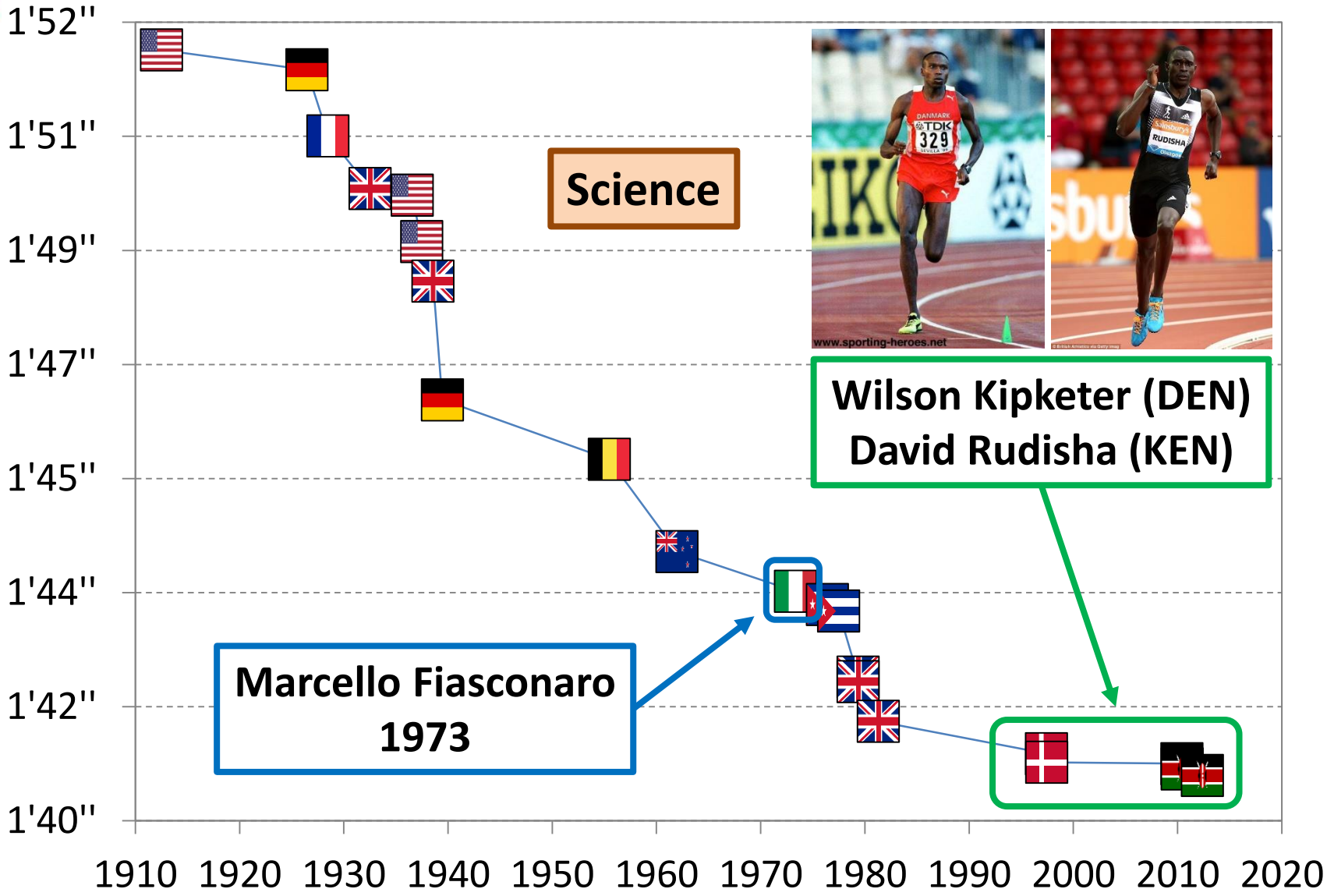
The Reasons of These Choices

- Data easy to find
- Presence of elements recognizable by the students (events and athletes)

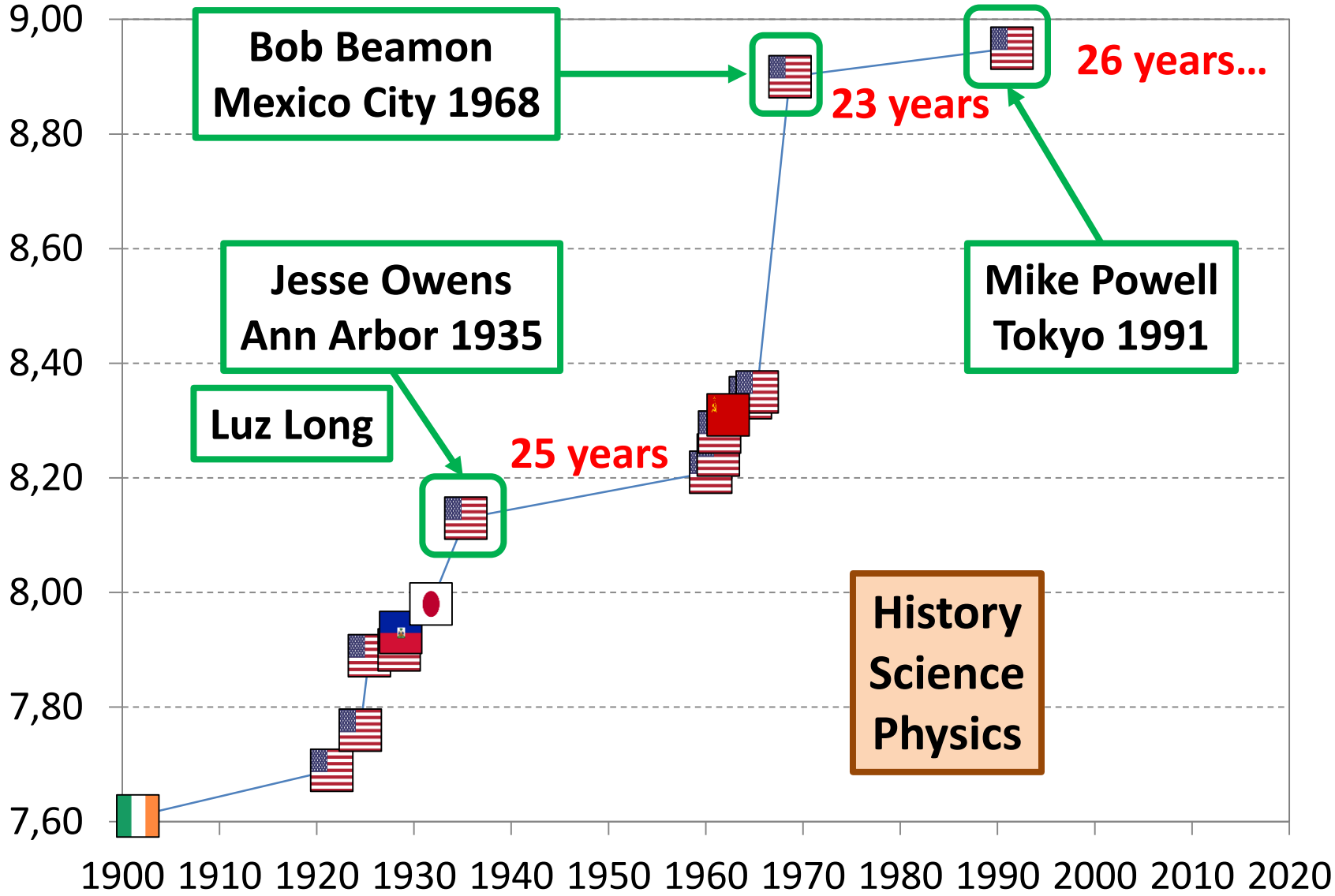
Men's 100 metres World Record Progression



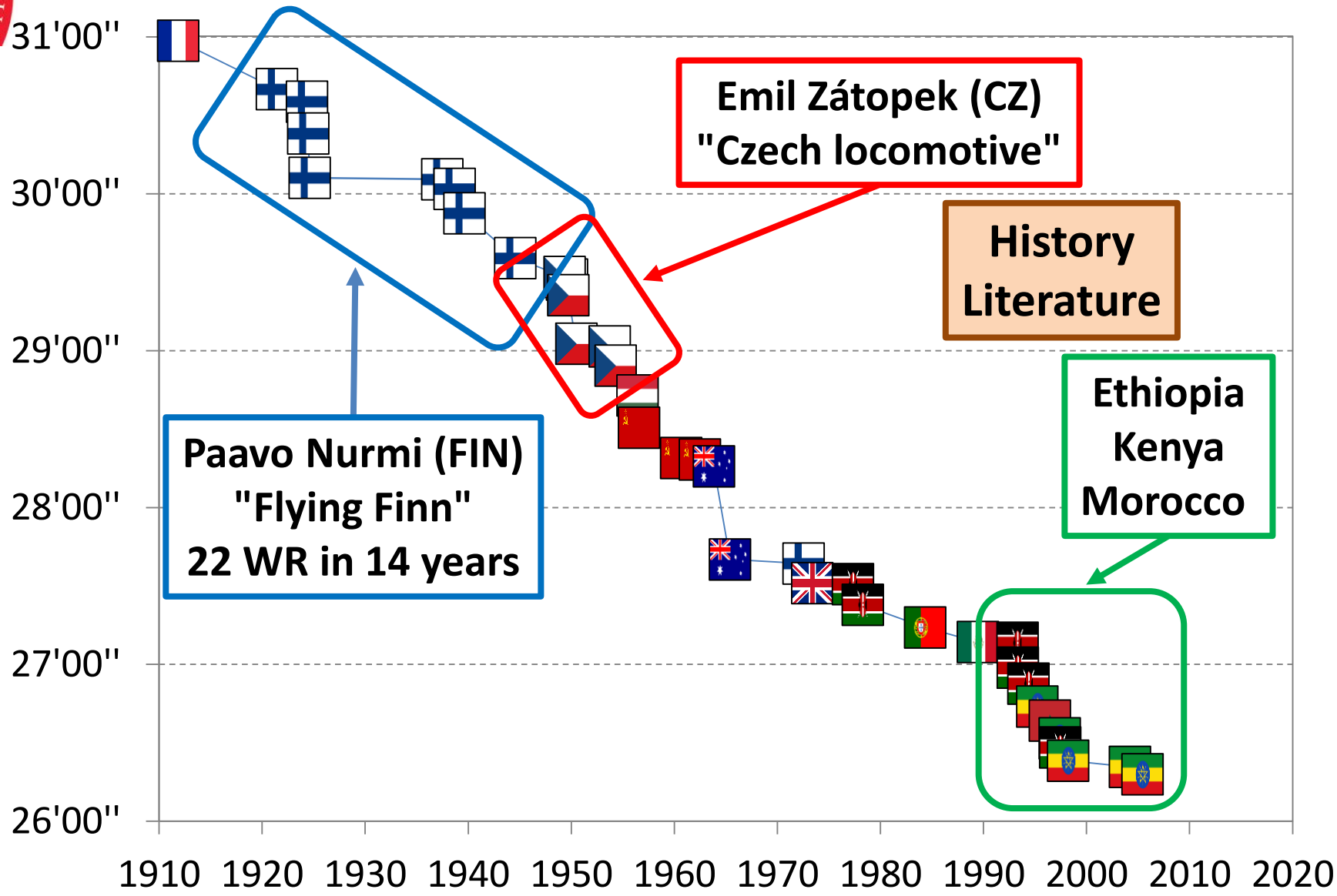
Men's 800 metres World Record Progression



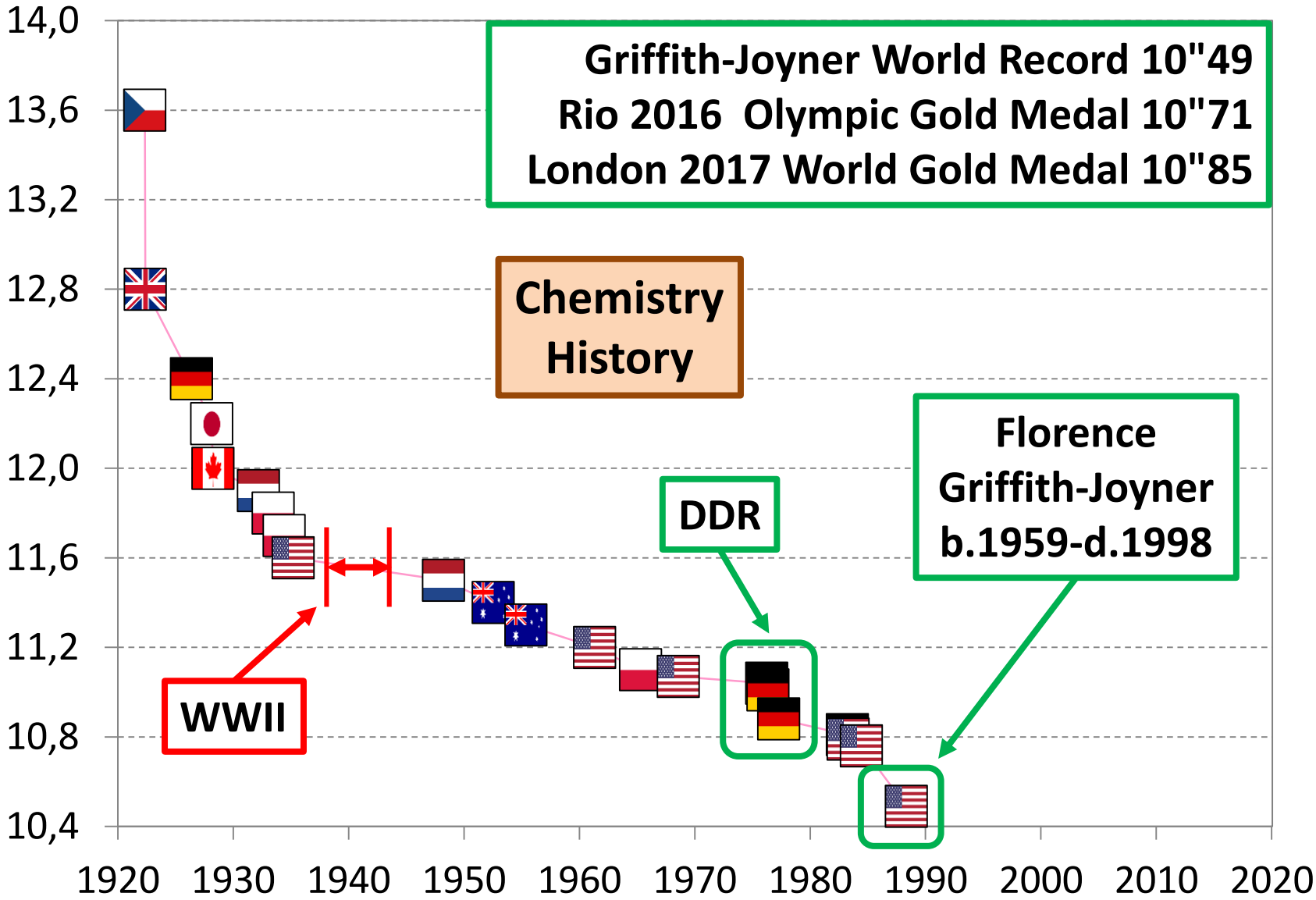
Men's Long Jump World Record Progression



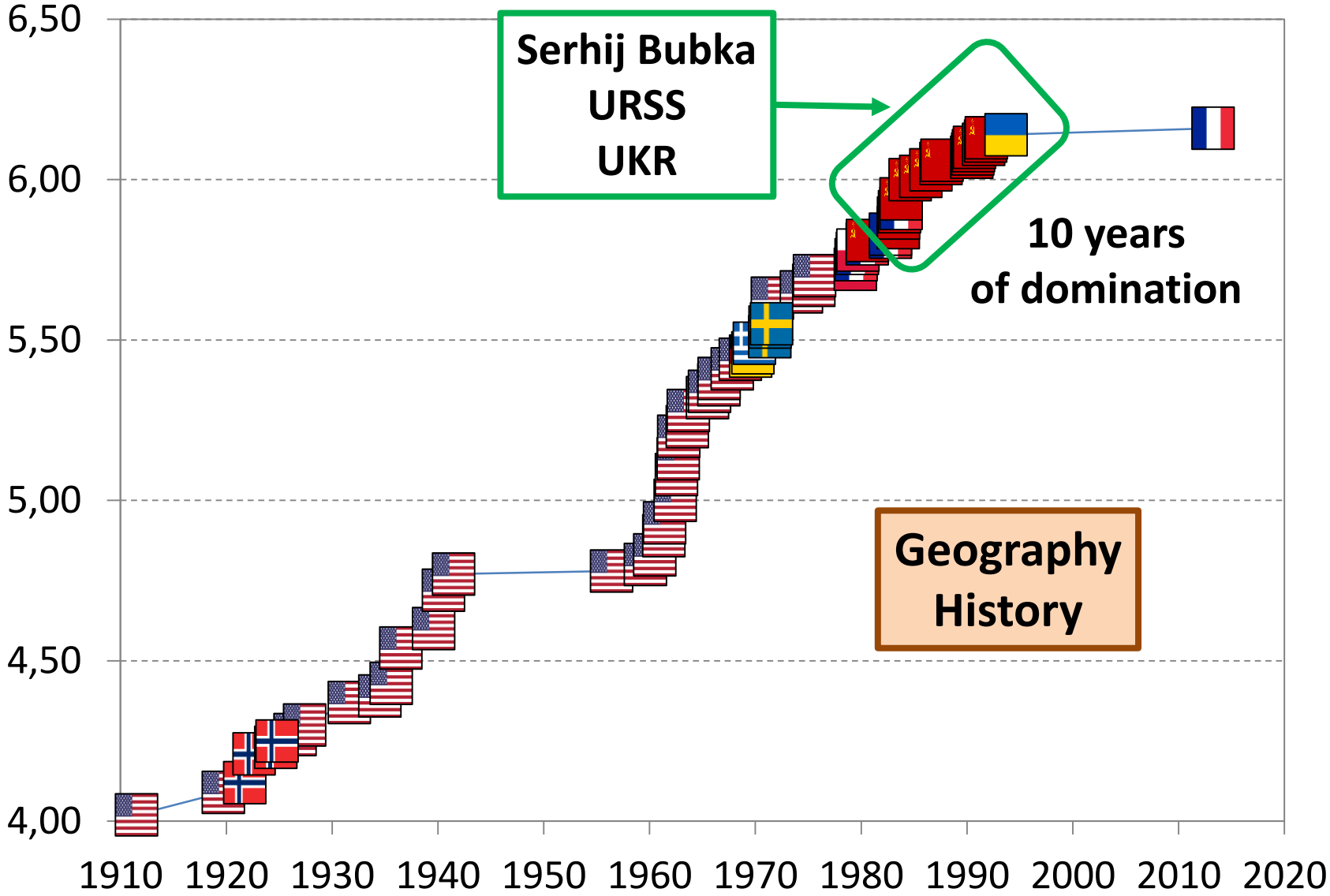
Men's 10000 meters World Record Progression



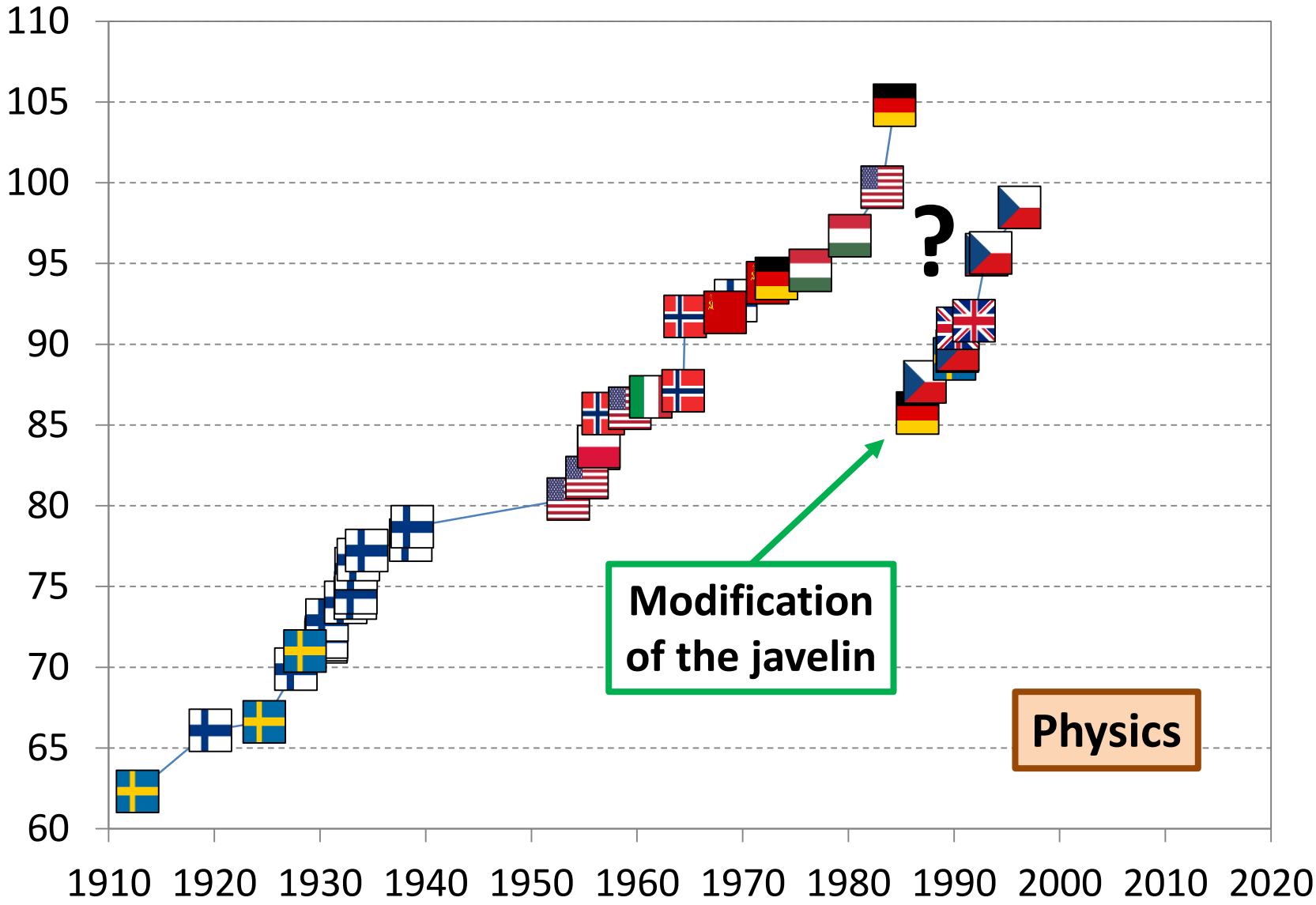
Women's 100 metres World Record Progression



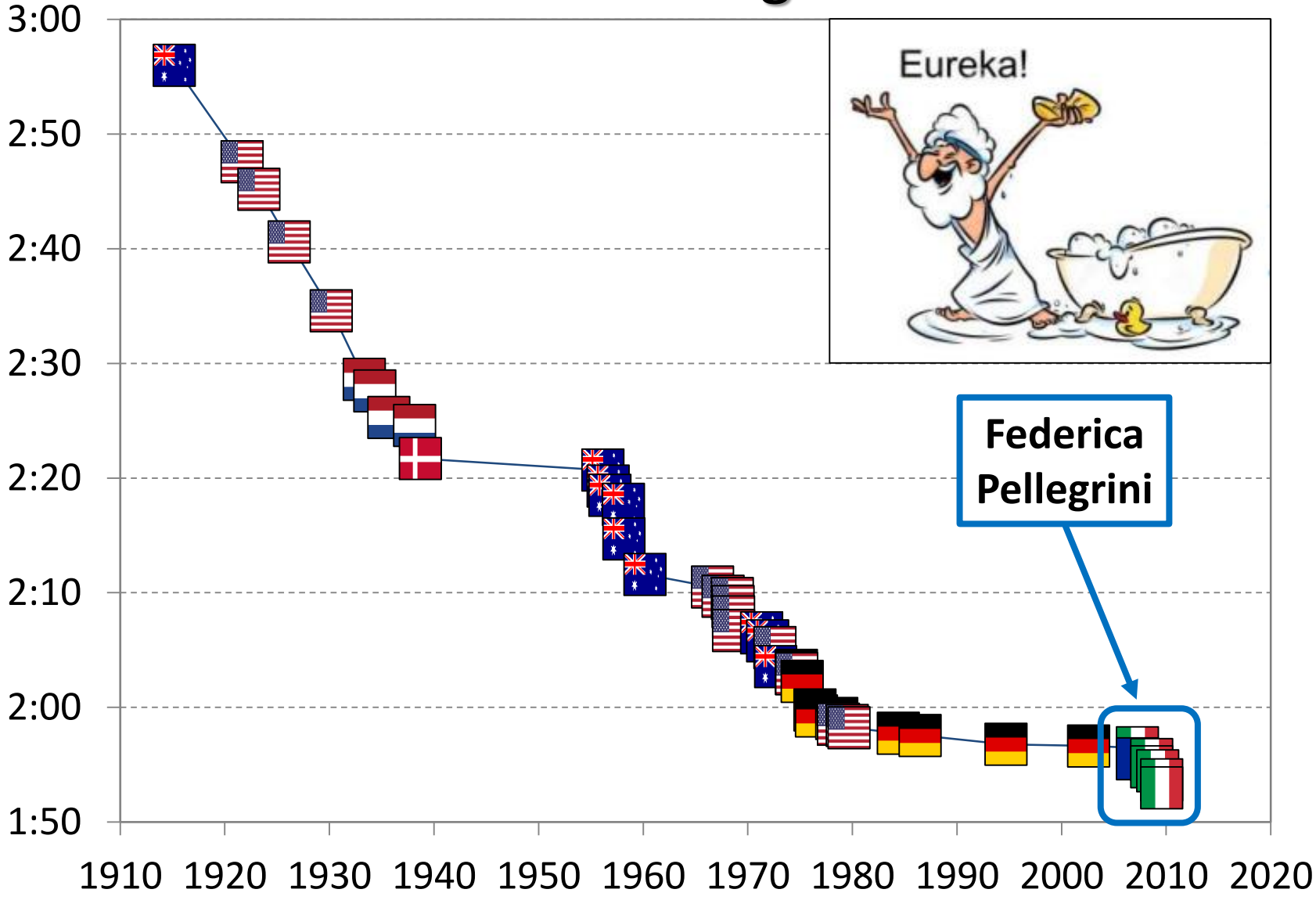
Men's Pole Vault World Record Progression



Men's Javelin World Record Progression



Women's 200 meters freestyle World Record Progression



Conclusions

- With simple data representation it is possible to talk about almost everything
- Students can be stimulated in finding reasons on why a trend goes in that way
- Students showed big interest in the connection between data representation and the world where they live in
- Funny and successful experience