

# **C**ollective **A**wareness **P**latformS for **E**nvironmentally-sound **L**and management based on data techno**L**ogies and **A**grobiodiversity

## Support food choices against Childhood Obesity

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## Who suffers from Overweight & Obesity?

- Epidemic in children
- Worldwide doubled between 1980 and 2008
- 5% to 25% (11-13 years old)



In the WHO European Region

**1 in 3**  
11-year-olds is   
**overweight**  
or  
**obese**

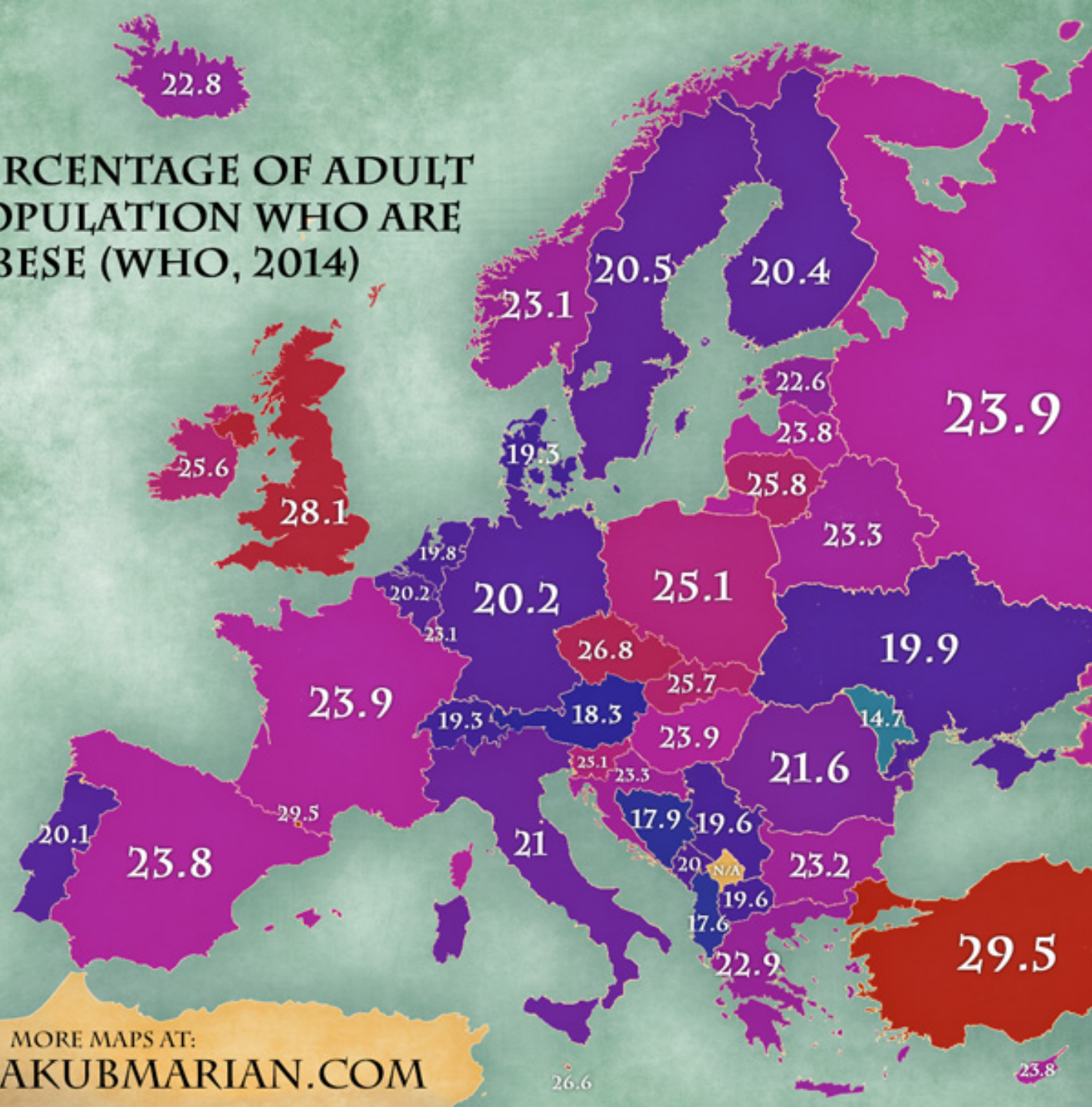


**over 50%**  
of people are  
**overweight** or **obese**



**over 20%**  
of people are  
**obese**

PERCENTAGE OF ADULT  
POPULATION WHO ARE  
OBESE (WHO, 2014)



MORE MAPS AT:  
[JAKUBMARIAN.COM](http://JAKUBMARIAN.COM)

A large, stylized green graphic on the left side of the slide. It depicts a person's silhouette, with the head and torso filled with a pattern of white binary code (0s and 1s). The person's arms are raised, and a green arrow points downwards from the bottom of the figure.

## COST BURDEN

**\$3,976** PER ADULT WITH OBESITY  
ANNUAL MEDICAL SPENDING PER CAPITA<sup>4</sup>

MEAN 10-YEAR TOTAL MEDICAL COSTS FOR US ADULTS<sup>5</sup>

**\$40,873** vs. **\$33,010**

WITH METABOLIC  
SYNDROME

NO METABOLIC  
SYNDROME

1 Source: NHANES 2011-2012

2 Source: NHANES 2009-2010

3 Source: NHANES 1999-2004

4 Source: Medical Expenditure Panel Survey, 2001

5 Source: Curtis et al., 2007





## Challenge #4

How can CAPSELLA generate Open Data driven services to children and their parents, in order to be able to better monitor their **daily metabolic activity**, considering calories, nutrient uptake and exercise?

## Participants

Develop a tool that estimates and visualises daily kCal budget for children (4-18 years old). The application should calculate caloric values for given recipes and portions consumed, matching them against the daily nutritional allowances of each target group and against daily physical activity.



## Datasets

- USDA Food Composition Databases
- API information
- Database on Daily Values (DVs) & nutritional allowances
- WHO Child Growth Standards
- WHO Integrated Nutrition Global Databases
- Global Database on Body-Mass Index
- Database on kCal consumption per activity
- 4 Recipes