



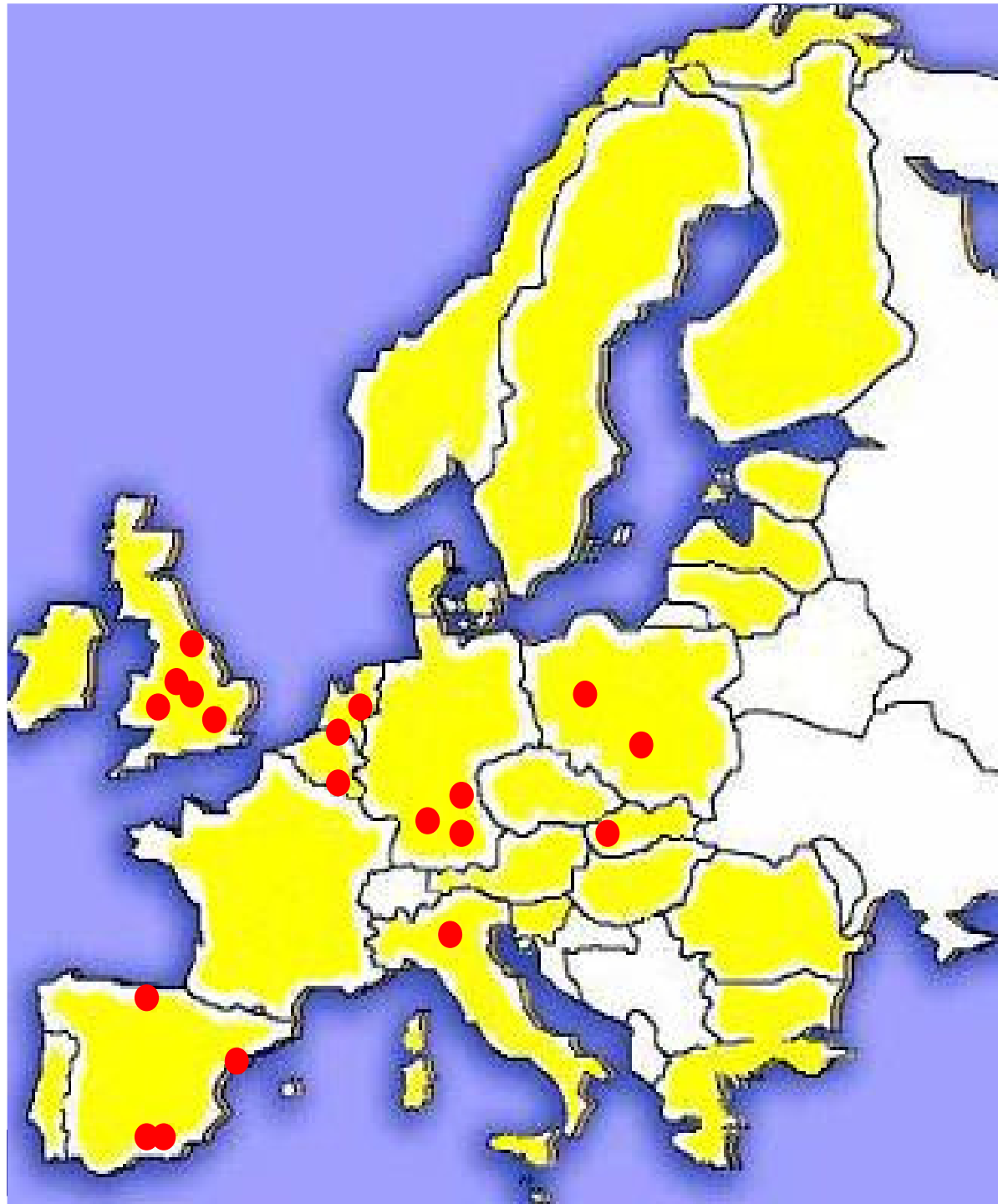
NUTRIMENTHE EU Project
“Effect of Diet on Mental Performance of Children”
FP7-KBBE-2007-1, GA: 212652





- EC-funded research project
- 5 years (February 2008- March 2013)
- Objective: to significantly improve knowledge about the role, mechanisms, risks and benefits of specific nutrients and food components on the mental performance of children
- Consortium – 20 partners (universities and research centres across Europe and US)

PARTICIPANTS



Participant No:	Participant Organisation Name
1	University of Granada (Coordinator)
2	University of Munich
3	UNILEVER
4	Erasmus University Medical Center
5	University Rovira I Virgili
6	University of Surrey
7	University of Pécs
8	University Degli study di Milano
9	University of Warsaw
10	Birmingham Children's Hospital
11	The Children's Memorial Health Institute. Warsaw
12	Research Institute Hospital Marqués de Valdecilla, Santander
13	Institute for Market Research, Strategy and Planning
14	Université Libre de Bruxelles
15	SHS International
16	University of Bristol
17	GSF National Research Centre, Munich
18	Beta Technology Limited
19	Martek Bioscience
20	Neuron BPh

OBJECTIVES (I)



- I. Quantify the effects of prenatal maternal diet on early programming, and subsequently on later cognitive development, mental and behavioural disorders
- II. Understand the role and mechanisms of how specific nutrients affect mental performance, by virtue of genetic polymorphisms, in genes encoding fatty acid and 5-methyl-tetrahydrofolate metabolism
- III. Understand how nutrition/diet of the mother, infant and child influence the child's neurodevelopment, mental performance and behavioural disorders
- IV. Explore the quantitative requirements and role of some nutrients in improving mental performance in children and their subsequent outcomes

OBJECTIVES (II)



- VI.** Develop an appropriate standard neuropsychological battery to improve a comparable methodology for cognitive assessment of children in the EU
- VII.** Explore how increasing knowledge about the links between diet and mental development, influences consumer behaviour and impacts upon public health
- VIII.** Quantify, on a European scale, the economic impact of improving mental function through specific nutrients
- IX.** Provide access to research results, deliver training and learning opportunities across all EU Member States, and accession countries

School-aged children



Objective: What do parents think about the role of diet in the mental performance of children?

- Qualitative, semi-structured interviews in UK, Germany, Hungary and Spain
- n = 140 parents, children aged 4 - 10
- Parents most often used general expressions such as academic performance or mental development when describing 'mental performance'
- A healthy balanced diet was perceived to have positive effects (physical, mental and behavioural) whereas foods high in sugar and fat were perceived to have negative effects.
- Parents most often mentioned attention and concentration as aspects of mental performance affected by foods
- Also referred to tangible effects of foods being manifested by changes in a child's mood and behaviour

Egan et al, 2010

Adolescents' perception of impact of breakfast on mental performance and cognition



- n = 42, 11-14 years old, Guildford UK
- Adolescents do have some understanding that food can effect their mental performance.
- A majority feel that missing breakfast in the morning does not effect their concentration but makes them feel more tired
- Attitudes towards breakfast do have some impact upon frequency of breakfast consumption.
- Food choices during the school day were partly impacted by the effect food may have upon concentration and ability to learn