

**Proposition de labellisation d'un projet de thèse  
pour une Allocation de Recherche 2018**

**1. Title of the Thesis**

*Stimulating engagement and ensuring accountability of the European food industry to create healthier children's food environments: Benchmarking commitments and performance and piloting potential solutions*

**2. Direction de thèse**

Dr Allais, Olivier (INRA-ALISS) will be the main supervisor of the thesis.

Dr Stefanie Vandevijvere (Scientific Institute of Public Health Belgium (Sciensano)) will co-supervise.

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### **Nom de l'Unité – Equipe d'accueil :**

The candidate will be welcomed in the research unit Aliss, and be based at the Scientific Institute of Public Health in Brussels.

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### **3. Last five publications of the thesis directors**

#### [Mandatory labels, taxes and market forces: An empirical evaluation of fat policies.](#)

Allais, O., Etilé, F. et Lecocq, S., (2015).  
Journal of Health Economics 43, 27-44.

#### [Front-of-package nutrition labelling policy: global progress and future directions.](#)

Kanter R, Vanderlee L, **Vandevijvere S**.  
Public Health Nutr. 2018 Mar 21:1-10. doi: 10.1017/S1368980018000010.

#### [Modelling the cost differential between healthy and current diets: the New Zealand case study.](#)

**Vandevijvere S**, Young N, Mackay S, Swinburn B, Gahegan M.  
Int J Behav Nutr Phys Act. 2018 Feb 9;15(1):16. doi: 10.1186/s12966-018-0648-6.

#### [Measuring and stimulating progress on implementing widely recommended food environment policies: the New Zealand case study.](#)

**Vandevijvere S**, Mackay S, Swinburn B.  
Health Res Policy Syst. 2018 Jan 25;16(1):3. doi: 10.1186/s12961-018-0278-0.

#### [Towards healthier supermarkets: a national study of in-store food availability, prominence and promotions in New Zealand.](#)

**Vandevijvere S**, Waterlander W, Molloy J, Nattrass H, Swinburn B.  
Eur J Clin Nutr. 2018 Jan 18. doi: 10.1038/s41430-017-0078-6. [Epub ahead of print]  
PMID:

#### [Declaration of nutrition information on and nutritional quality of Thai ready-to-eat packaged food products.](#)

Pongutta S, Chongwatpol P, Tantayapirak P, **Vandevijvere S**.  
Public Health Nutr. 2018 Jan 10:1-9. doi: 10.1017/S1368980017003792. [Epub ahead of print]

## 5. Abstract of the proposal

Tackling child obesity requires a comprehensive societal response, including government policies, community support, and wide-scale action from the food industry. The World Health Organization has identified a number of actions that the food industry can take to improve population nutrition and create healthier food environments, including among others reformulating products to reduce nutrients of concern (sugar, saturated fat, trans fat, sodium), ensuring that healthy and nutritious choices are available and affordable to all consumers and restricting marketing of foods high in sugars, sodium and saturated fats, especially those foods aimed at children and teenagers. This PhD will contribute to stimulating engagement and ensuring accountability of the European food industry to create healthier children's food environments. This work will be based on the INFORMAS (International Network for Food and Obesity/NCDs Research, Monitoring and Action Support) framework for monitoring and benchmarking food environments and policies internationally. Using the Business Impact Assessment on Obesity and Population Nutrition (BIA-Obesity) tool and process, commitments and disclosure practices of the biggest (and most relevant) European food companies (including non-alcoholic beverages, packaged foods, supermarkets and quick service restaurants) will be scored and compared. About 4-5 European countries with good branded food composition databases will be selected and the healthiness of the portfolios of the 25 selected food companies in those countries will be assessed using different nutrient profiling models. In addition, the potential impact of 4 pilot projects conducted by food companies to improve the healthiness of children's food environments (primarily focused on food reformulation but can be broader such as improving in-store food environments within supermarkets) will be evaluated.

## 6. Disciplinary fields of the thesis and keywords

Nutrition policy, accountability, public health nutrition, food reformulation, children's food environments

## 7. Introduction and context of the subject

Childhood obesity has grown to become one of the most dramatic features of the global obesity epidemic, with dire long-term consequences on health, social and economic outcomes (1). An exponential increase in the number of obese boys and girls worldwide since the 1980s means that more children may be obese than moderately or severely underweight by 2022 (2).

The Science and Technology in childhood Obesity Policy (STOP) European Horizon2020 project, which starts in June 2018, aims at expanding and consolidating the multi-disciplinary evidence base upon which effective and sustainable policies can be built to prevent and manage childhood obesity. The STOP project also aims at creating the conditions for evidence to translate into policy and for policy to translate into impacts on the ground. The primary focus of STOP is on the cumulative impacts of multiple and synergistic exposures in vulnerable and socially disadvantaged children and their families, which must be a priority target for the fight against childhood obesity in Europe to reach a tipping point and succeed. STOP will identify critical stages in childhood (starting from prenatal exposures) at which interventions can be most effective and efficient.

In one of the work packages, the STOP project will benchmark and develop opportunities for improving children's food and food choice environments. The project will seek to identify ways of effectively promoting the supply and delivery of healthy foods through appropriate food reformulation and formulation programmes and through a redesign of key aspects of food environments to make them conducive to healthy food choices. This will include the mapping of nutrients of concern (sodium, saturated fat, added sugar) and energy in specific food product categories and an assessment of the role of sensory perceptions vs. other drivers of demand as determinants of dietary choices and behaviour, which will provide further guidance to support food reformulation efforts.

This PhD in particular will contribute to **stimulating engagement and ensuring accountability of the European food industry to create healthier children's food environments**. This work will be based on the INFORMAS (International Network for Food and Obesity/NCDs Research, Monitoring and Action Support) framework for monitoring and benchmarking food environments and policies internationally(3). One of the INFORMAS modules focuses on measuring the commitments, performance and disclosure practices of the biggest food companies (including non-alcoholic beverage, packaged food companies, food retailers and fast food companies) to improve population nutrition and prevent obesity(4) using the Business Impact Assessment on Obesity and Population Nutrition (BIA-Obesity) tool and process. The approach is based on the Access to Nutrition Index (ATNI) (5) which measures commitments and disclosure practices of the 25 biggest food companies globally every two years. The key aim of the BIA-Obesity is to stimulate industry engagement and ensure accountability through comparisons across companies and countries.

The three key aims of the PhD are as follows:

- I. Measuring and scoring commitments and disclosure practices of the biggest (and most relevant) European food companies (including non-alcoholic beverages, packaged foods, supermarkets and quick service restaurants) according to the BIA-Obesity tool and process*
- II. Selecting 4-5 European countries with good branded food composition databases and measuring the healthiness of the portfolios of the 25 selected food companies in those countries*
- III. Selecting and evaluating potential impact of 4 pilot projects conducted by food companies to improve the healthiness of children's food environments (primarily focused on food reformulation but can be broader such as improving in-store food environments within supermarkets)*

## **8. Methods**

The INFORMAS BIA-Obesity tool consists of a range of indicators across 8 action areas (corporate population nutrition strategy, relationships with external organizations, policy positions (in relation to government policies), product formulation, nutrition labelling, health and nutrition claims, marketing to children and product pricing, distribution and availability), with tailored measures for food and beverage manufacturers, chain restaurants and supermarkets. For each indicator, there are graded assessments to enable benchmarking at a sector, country and global level. The criteria take into account the nature of policies as well as the extent of public disclosure of those (6;7). The most prominent European food companies (aiming for 25) in each sub-sector will be included, primarily selected on the basis of market share (i.e. from Euromonitor), but potentially taking into account other factors, i.e. the company supplying products in the countries selected for the second objective.

### Objective 1.

Preliminary data on commitments will be collected based on publicly-available information and send to companies for them to verify and add any additional information (they will need to provide evidence for each addition). Results will be fed back to each company prior to public release and include a company scorecard as well as benchmarking against other companies within each sub-sector. The BIA-Obesity tool and process will be evaluated with food company representatives.

### Objective 2.

About 4-5 European countries with good branded food composition databases will be included. The data will be merged and the healthiness of the company portfolio for each of the 25 companies (for supermarkets only own brand products included and for quick service restaurants using data from online available sources) in each of the countries will be determined using different EU nutrient profiling models. It will be assessed whether companies with better EU commitments also have better performance on food reformulation and whether there are important differences between countries, even if commitments at the European level are the same. Similar as in objective 1, the approach will be evaluated with industry representatives.

### Objective 3.

The STOP Consortium will fund up to 4 pilot projects selected through an open call for proposals. The general aim of the projects will be to develop innovative solutions to tackle childhood obesity by changing important aspects of the food and food choice environment that children and their families face, such as for example projects on food formulation and reformulation, changes in the food retail environment, reducing marketing pressure of unhealthy foods to children, etc. The projects will be run for 1.5 years and then potential impact and scalability will be evaluated.

## **9. Expected results and perspectives**

This PhD will contribute to providing key insights into the commitments and performance of the European food industry and will pilot key potential solutions to create healthier children's food environments. It is anticipated that the PhD can lead to up 6 high impact peer reviewed publications: 1 for objective 1, 2 for objective 2 and 3 for objective 3.

## 10. Planned schedule

Year	Tasks
1	<ul style="list-style-type: none"><li>• Selection of European food companies and seeking engagement with them</li><li>• Selection of countries with good branded food composition databases</li><li>• Collecting and collating publically available information on commitments and disclosure practices of the selected EU food companies</li><li>• Sending preliminary scorecards to the companies for feedback</li><li>• Launching the call for the pilot projects</li></ul>
2	<ul style="list-style-type: none"><li>• Improving scorecards and recommendations based on engagement with companies</li><li>• Collating information from countries and calculating healthiness of companies' product portfolio in each of the countries according to different EU nutrient profiling models</li><li>• Start of the pilot projects</li></ul>
3	<ul style="list-style-type: none"><li>• Final BIA-Obesity report on commitments, performance and disclosure practices of the European food industry</li><li>• Publications in relation to objective 1 and 2 of the project</li><li>• Evaluation of the pilot projects</li><li>• Finalization of PhD</li></ul>

## 11. Conditions of realization of the thesis (financial, technical, human resources) and professionalization opportunities for the PhD student (foreseeable professional opportunities).

The PhD student will have to share her/his time between the two institutions: one year in Aliss (Ivry-Seine, France) and two years in Sciensano (Brussels, Belgium). He or she will benefit from the logistical support (office, computer, software, etc.) of Aliss and Sciensano, and the support of engineers and researchers from both units. He or she will strengthen the team of PhD students of both units. His (her) involvement in the H2020 STOP will provide an extremely stimulating environment for reflection and exchange and strong financial support.

## 12. References

- (1) Sassi F, Devaux M, Cecchini M. Handbook of Global Health Economics and Public Policy. World Scientific; 2016.
- (2) NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults. The Lancet 2017;390(10113):2627-42.
- (3) Swinburn B, Sacks G, Vandevijvere S, Kumanyika S, Lobstein T, Neal B, et al. INFORMAS (International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support): overview and key principles. Obes Rev 2013 Oct;14 Suppl 1:1-12.

- (4) Sacks G, Swinburn B, Kraak V, Downs S, Walker C, Barquera S, et al. A proposed approach to monitor private-sector policies and practices related to food environments, obesity and non-communicable disease prevention. *Obes Rev* 2013 Oct;14 Suppl 1:38-48.
- (5) Access to Nutrition Foundation. Harnessing the power of the private sector to tackle the world's biggest nutrition challenges. 2018. 9-4-2018. Available from [www.accesstonutrition.org](http://www.accesstonutrition.org)
- (6) BIA-Obesity: Business impact assessment on Obesity and Population Level Nutrition: methods. 2018. 9-4-2018. Available from: <https://figshare.com/s/2f1dbb21aaeac3e89cef>
- (7) Vandevijvere S, Kasture A, Mackay S, Swinburn B. Committing to health: Food company policies for healthier food environments. Company assessments and recommendations using the Business Impact Assessment on obesity and population nutrition (BIA-Obesity) tool. New Zealand 2017. Auckland: The University of Auckland; 2018. Available from: <https://figshare.com/s/f29767b39641ffecd5f>