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**Nutritional implications of organic conversion in large scale food service preliminary results from Core Organic research**

*Preliminary results from Core Organic research*

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# Foods for Health Workshop

Foods for Health Institute (FFHI), UC Davis  
Centre for Advanced Food Studies (LMC),

**June 20 – 22, 2010**

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Aalborg University

**Nutritional implications of organic  
conversion in large scale food service**  
preliminary results from Core Organic research



**CoreOrganic**

# Abstract

- The discussion about nutritional advantages of organic consumption has traditionally focused on the properties of the food it self. Studies have shown however that change of consumption patterns towards organic food seems to induce changed dietary patterns. The current research was a part of the iPOPY study and was conducted to investigate if such changes can be found in school food settings. In other words does organic food schemes at school and related curricular activities help to create environments that are supportive for healthier eating among children? The research was carried out among school food coordinators in public schools in Denmark, Finland, Germany, and Italy. A questionnaire was adapted to fit the different languages and food cultures in the countries.. The data suggest that schools with organic supply tend to develop organisational environments that a more supportive for healthy eating than their non organic counterparts. However the results were only significant for Denmark and Italy, In Germany results were significant in some cases where as for Finland there were no differences or results were contradictory. The findings suggest the changes in school food services seems to be driven by different agendas but that awareness raising on nutrition and sustainability issues seems to be an important feature of many change processes. Findings also suggest that the two agendas although separated in the scientific literature is more integrated in the everyday life perspective of school practitioners

# Hypothesis

Attitude (school)

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graph TD; A[Attitude (school)] --> B[Environment/policy/praxis (school)]; B --> C[Behaviour (students)];
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The diagram consists of three horizontal bars stacked vertically. Each bar has a solid blue top half and a light blue, textured bottom half. The text is centered in the blue top half. A blue arrow points from the bottom of the first bar to the top of the second bar, and another blue arrow points from the bottom of the second bar to the top of the third bar.

Environment/policy/praxis (school)

Behaviour (students)

# Methodology

- Cross sectional, stratified sampling
- WBQ methodology
- Respondents: school food coordinators (SFC)
- Selfreporting of praxis, attitude & intention
- 1st study Denmark
- 2nd study
  - IT: 174 completed the WBQ/39 partially completed/ 1153 distributed
  - FI : 205 completed/46 partially completed/ 999 distributed
  - DE survey respondent: 45 completed/ 61 partially completed/ 133 distributed

# What do we already know

## Previous studies

- Health reasons are the one most important reason for consumers to buy organic. Torjusen et al (2004)
- Health reasons are more important than concerns for environment and nature. Beckmann (2002)
- Introduction of organic foods seems to induce a changed dietary pattern. O'Doherty et al (2001)
- Consumption of meat and meat products, sweets & alcoholic beverages was lower among heavy-users (compared to the average of the German population). (Brombacher & Hamm 1990)
- Consumption of vegetables and cereals was higher among heavy-users (Brombacher & Hamm 1990)
- Green caterers serve more healthy meals than their non green counterparts. (Mikkelsen et al, 2007)

Torjusen H, Sangstad L, O'Doherty Jensen K & Kjærnes U. European consumers' conceptions of organic food: A review of available research. Professional Report no. 4, Oslo: National Institute for Consumer Research, 2004. URL [http://news.xinhuanet.com/english/2008-05/28/content\\_8265891.htm](http://news.xinhuanet.com/english/2008-05/28/content_8265891.htm) (visited 2008, July 2).

Beckmann, S. ØKO foods revisited - Danish consumers demand for organic food at the turn of the century. In: Farhangmehr, M. eds: Proceedings of the 31st EMAC Conference Braga: University of Minho, 2002.

Mikkelsen, BE, Bruselius-Jensen, M, Andersen, JS & Lassen, A Are green caterers more likely to serve healthy meals than non-green caterers? Results from a quantitative study in Danish worksite catering. *Public Health Nutrition*, 2007, Vol – 9, no- 07, p 846 – 850

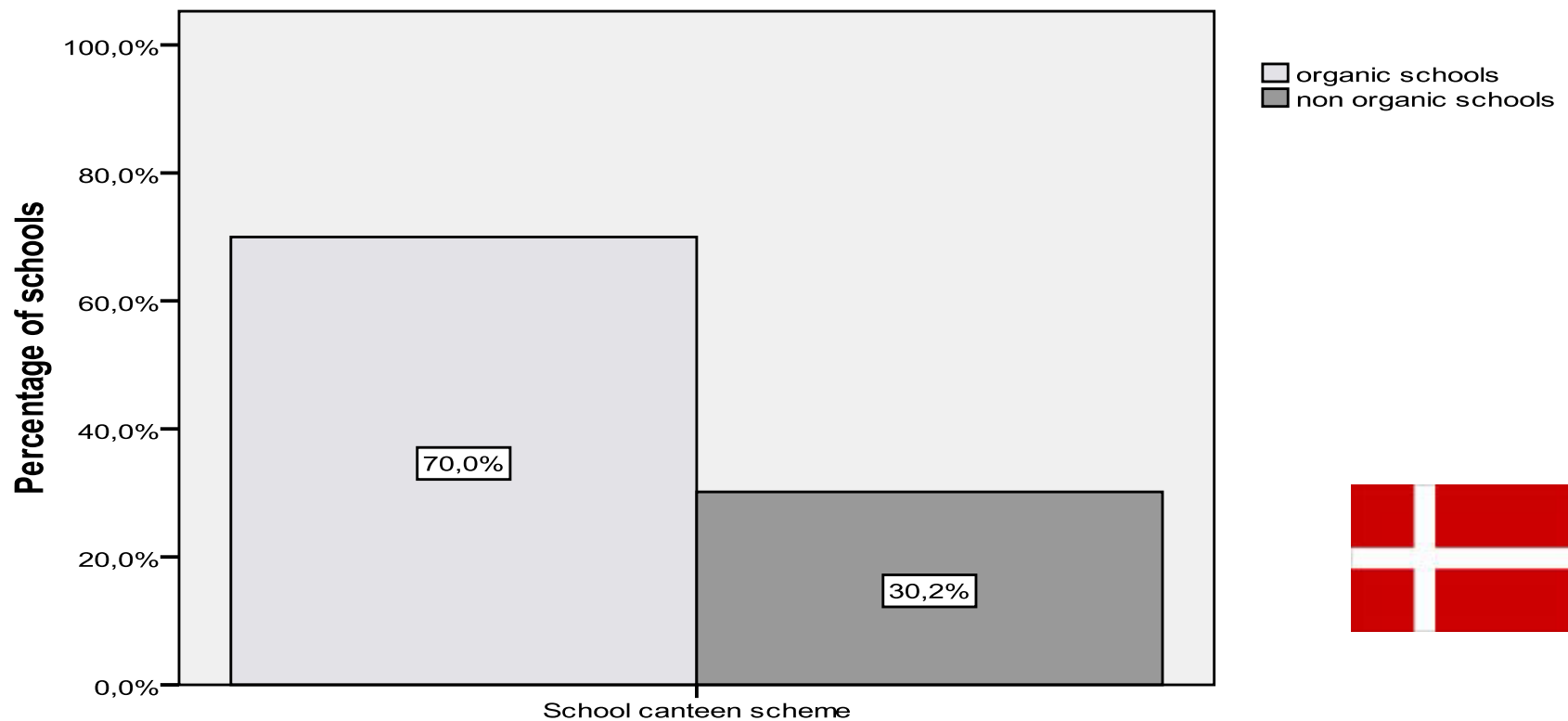
Brombacher, J. & Hamm, U (1990): So kaufen Bio-Haushalte ein. In "Schule und Beratung", Jg. 1990, Nr. 9/10, S. V11-V15.

# **Outcome measures - the proxies**

**”close to the real thing”**

- **Meeting nutritional guidelines?**
- **Having a nutrition committee?.**
- **Integrating nutrition in curricula?**
- **Having a food and nutrition policy?**
- **Providing eating facilities?**
- Availability of FV
- Availability of water
- Non availability of fizzy drinks
- Non availability of cocoa milk

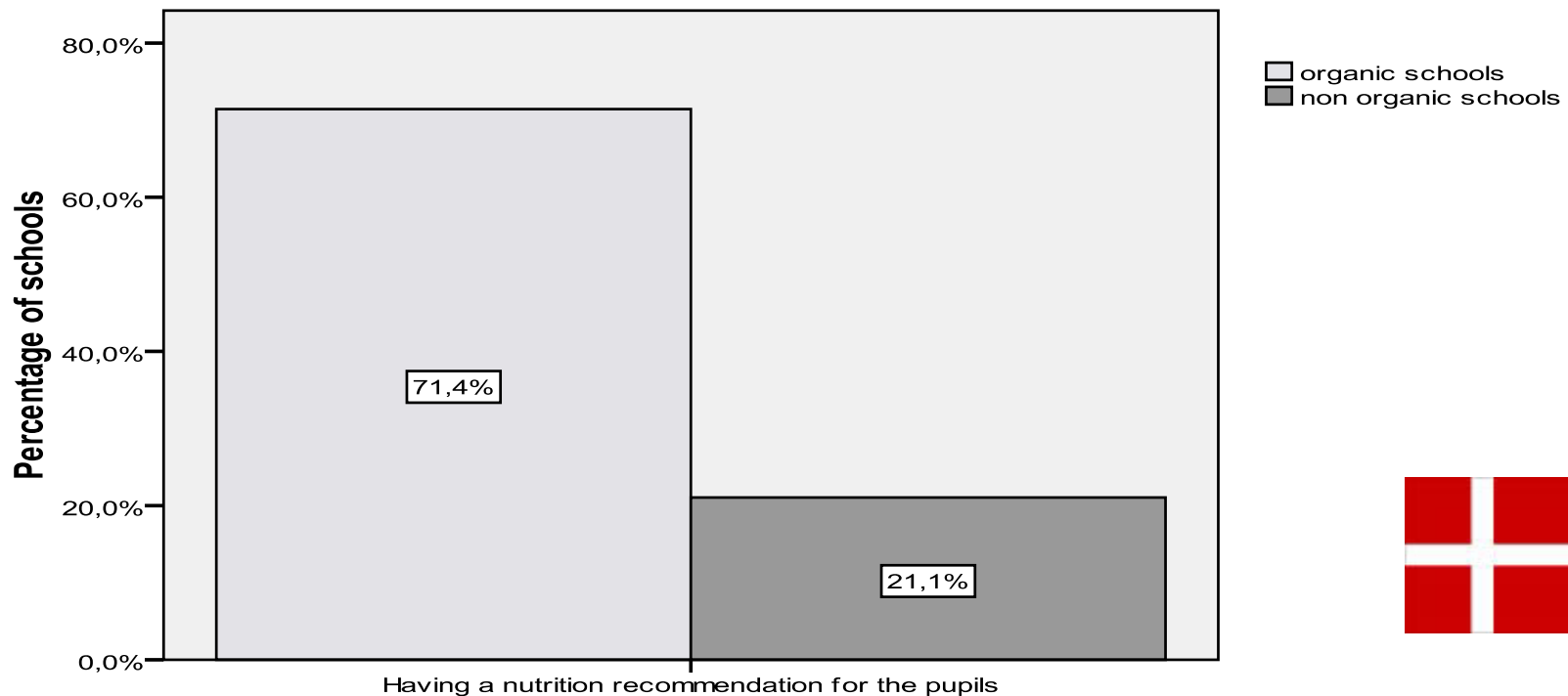
# Do organic schools provide better eating environments?



**Figure 3.** Having a school canteen.

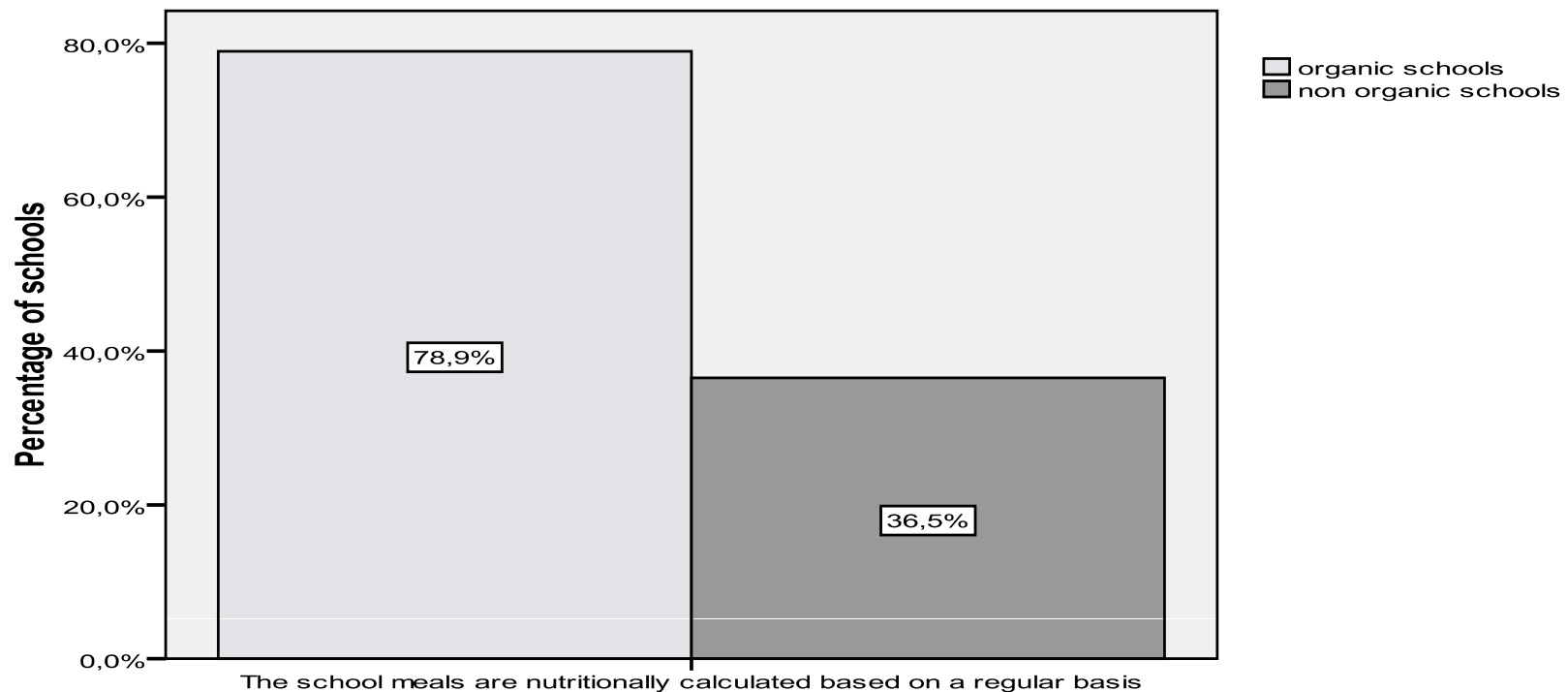


# Are organic schools more efficient in using nutritional recommendations?



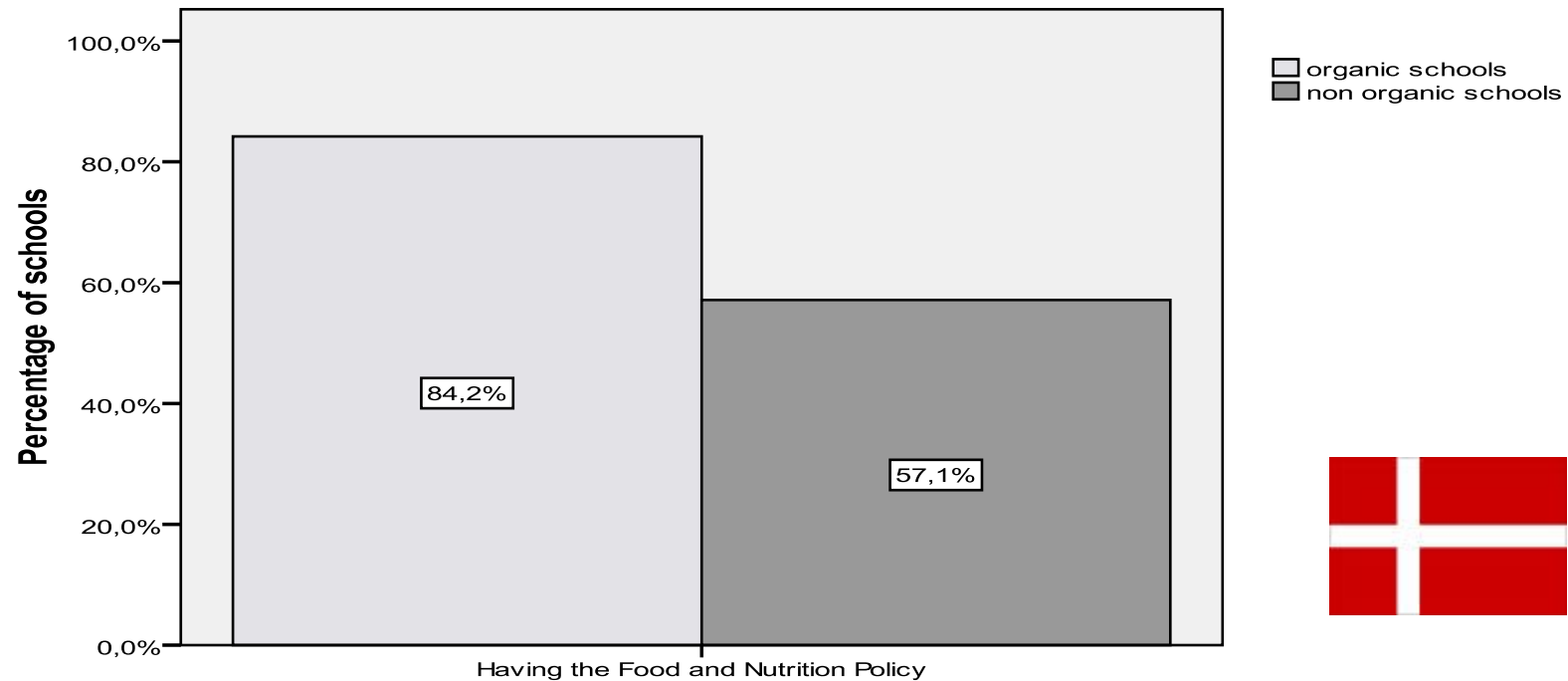
**Figure 4.** The comparisons between the organic/non organic schools in regard to the issues of using nutritional recommendations for pupils.

# Are organic schools better in performing nutrient calculation?



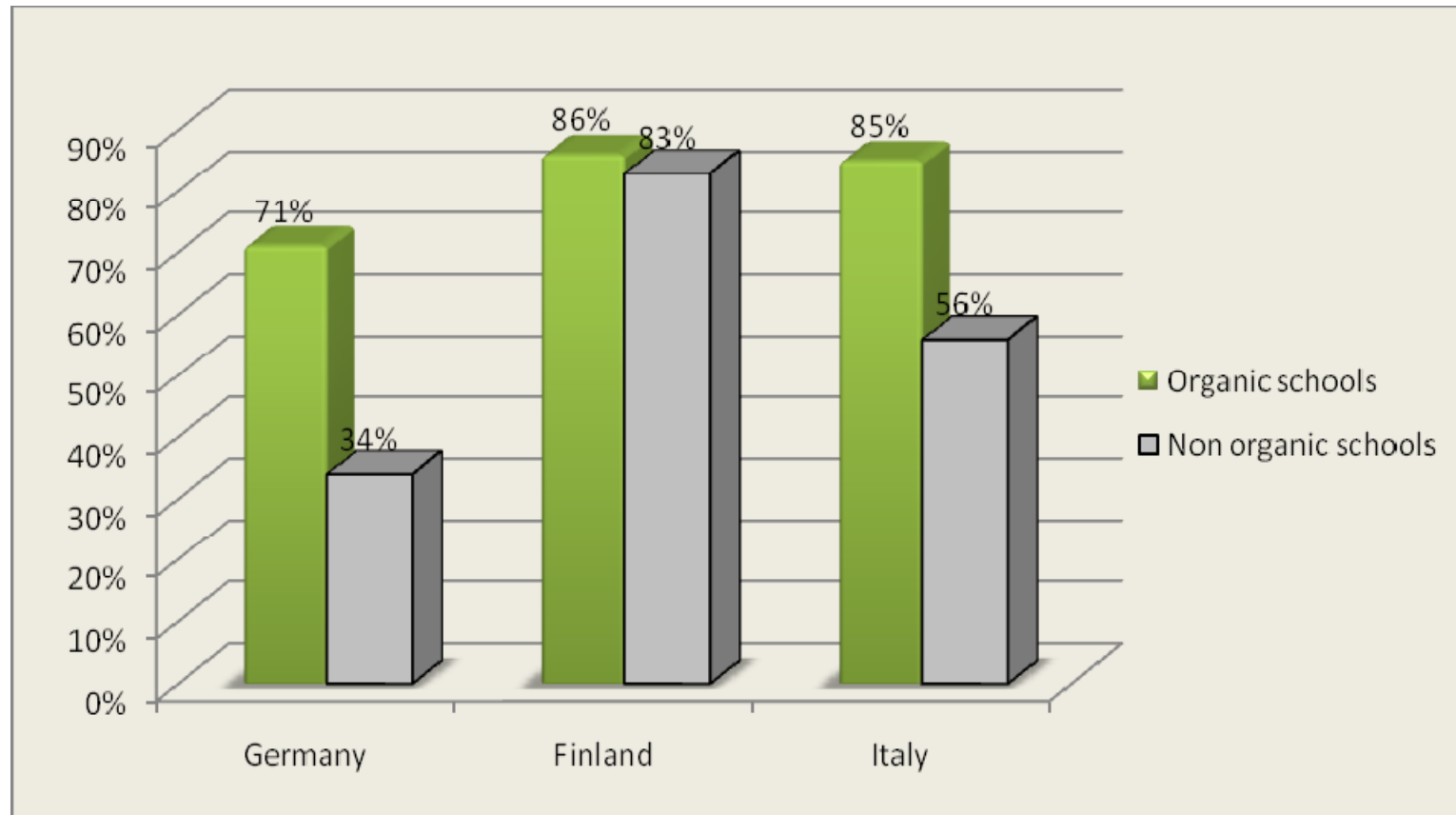
**Figure 5.** The comparison between POP schools and non POP schools with regard to the nutritionally calculated school meals.

# Are organic schools better in food & nutrition policies (FNP)



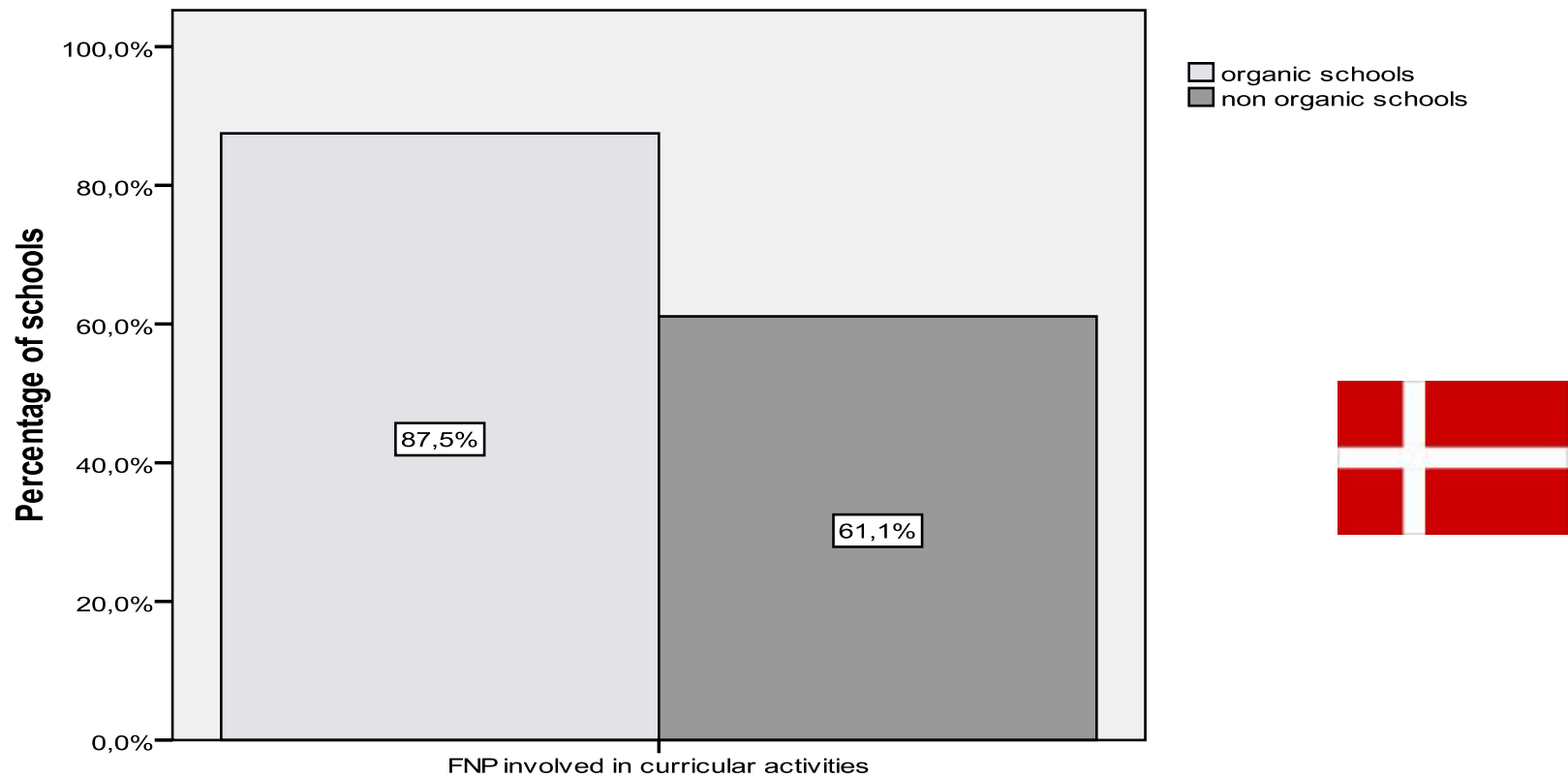
**Figure 1.** The share of organic and non organic schools with a food and nutrition policy, including organic food in the curriculum, (and more items).

# Are organic schools better in food & nutrition policies (FNP)



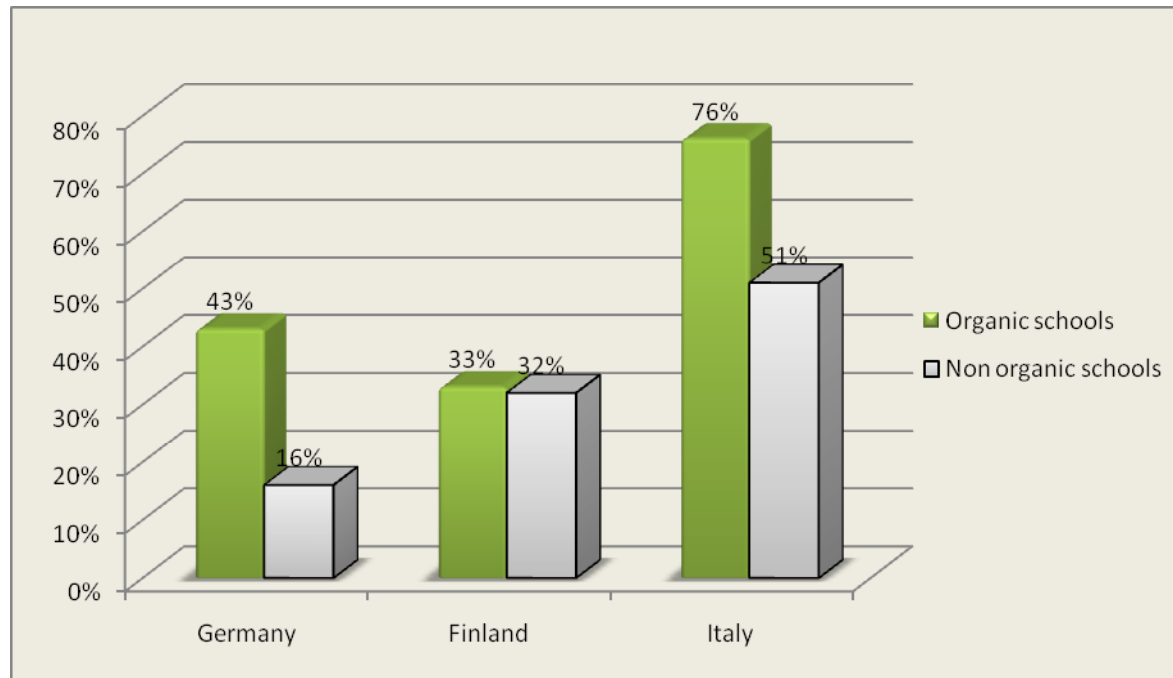
**Figure 8. Food and nutrition policy.** The figure shows the percentage of organic/non organic schools with the food and nutrition policy.

# Are organic schools better in integrating food & nutrition in curricula?



**Figure 2.** Teaching food and nutrition through pedagogical activities.

# Are organic schools better in integrating food & nutrition in curricula?

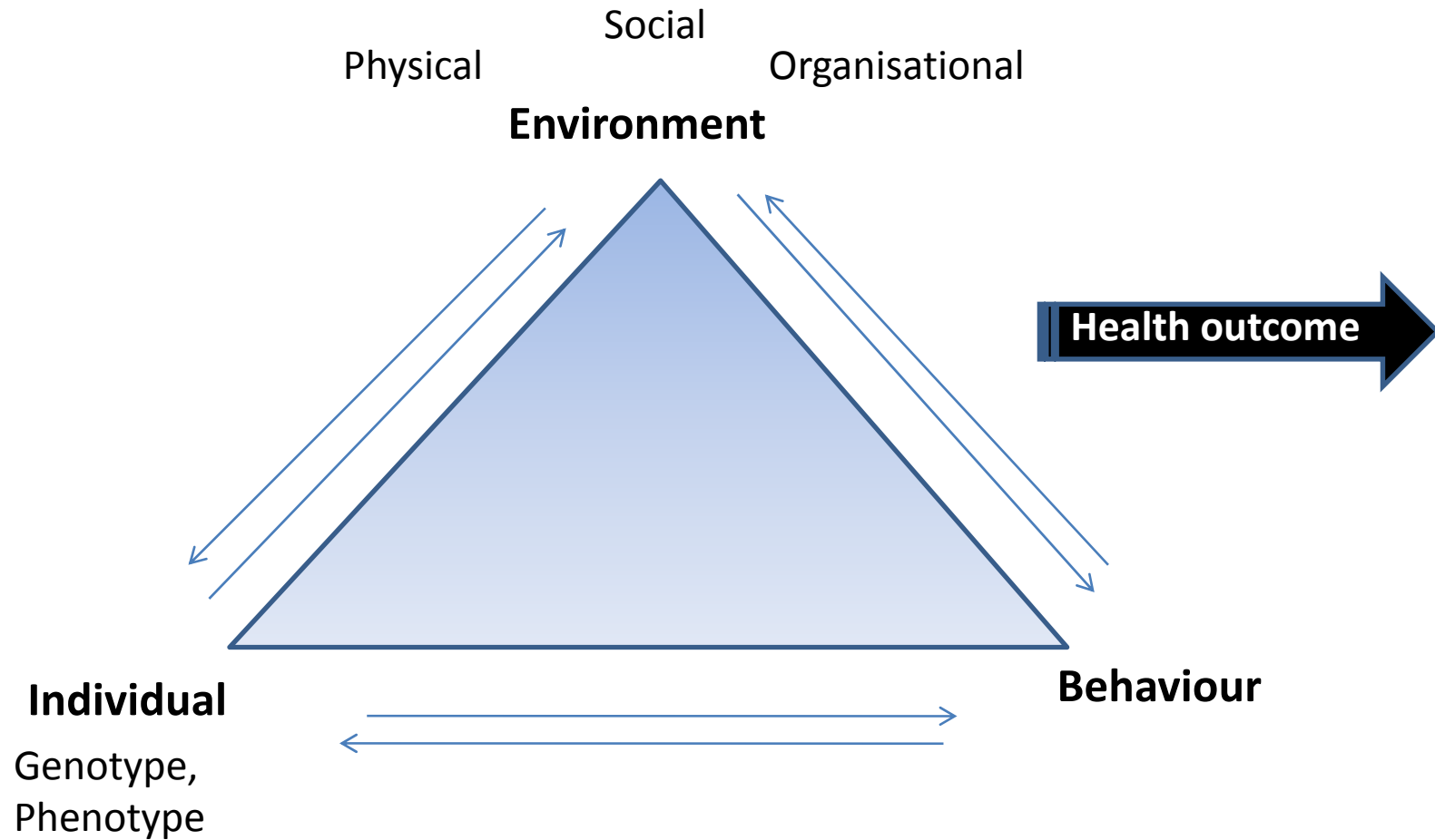


**Figure 9. Nutrition knowledge.** The figure shows the schools involved food and nutrition policy in teaching activities.

# Conclusion

- Organic provision seems to be interrelated with opportunities for healthy eating
- Healthy eating is not only a matter of healthy foods but of healthy environments
- "Settings" seems to be able provide environments for healthy eating
- "Settings" seems to be able to provide a good field lab for a "triangle experiment"

# Next stop`?



SCT, model adapted from Bandura





## **Read more:**

<http://ipopy.coreportal.org/>

### **My co-workers**

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