

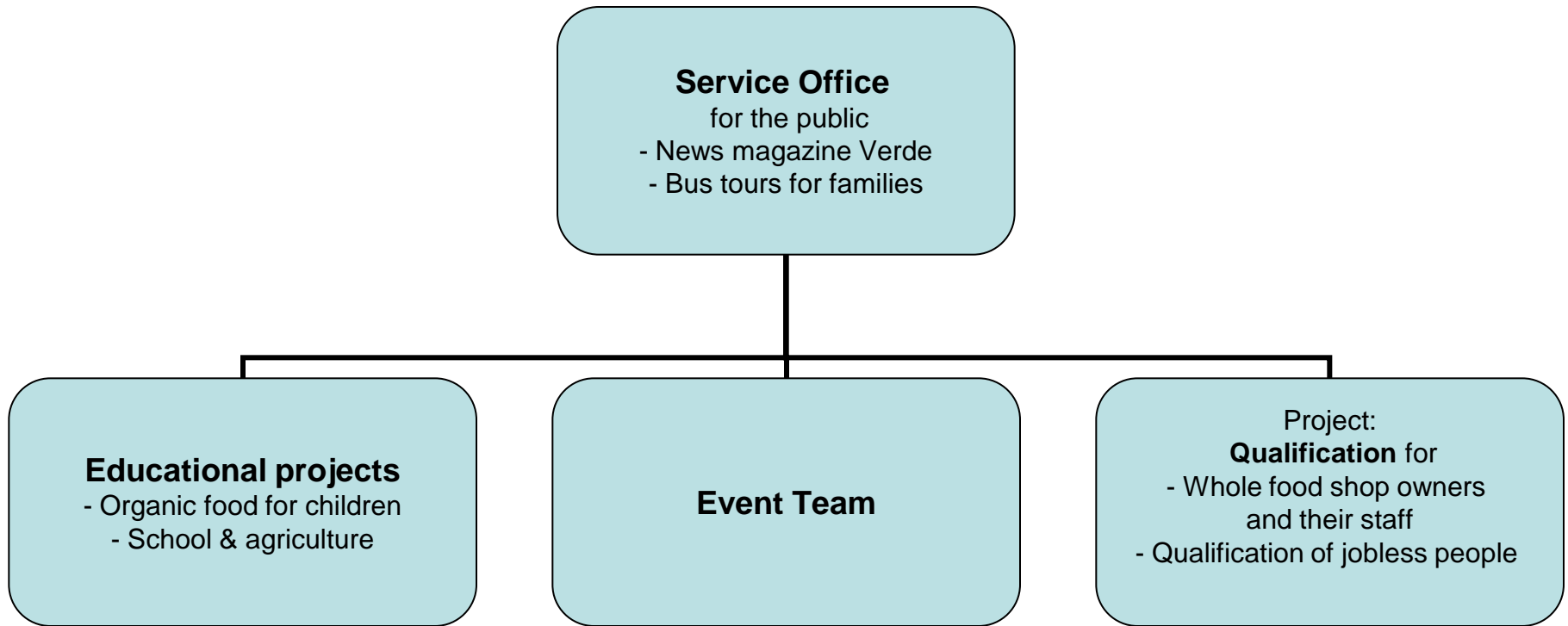


Organic food for kids Healthy food in schools and kindergartens

**Experiences from a research and development project
in Hamburg, Germany**

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Copenhagen November 2009

Consumer and Agricultural Extension Agency (project funded NGO) = 20 years of experience in organic agriculture...



- Since 1989
- Board + 14 part-time employees

Educational Project “School & Agriculture” (1995/2005)

Organic food along the value added chain

7.000 participants/year visiting organic farms and businesses

**production
country**

processing

trade



Project “Organic food for children” (2004-2006) **Research and development project** in cooperation with the University of Applied Sciences Hamburg

Hypothesis

The introduction of organically produced, balanced and age adapted food in schools and kindergartens will only be successful if required changes are supported by educational programs, so that the offered healthy food is accepted by prospective consumers (students and teachers).



**Project:
Organic food for kids –
healthy food in kindergartens and
schools**

Since 2004- 2007 educational programs for schools and kindergartens + advice for caterers funded by a foundation and by health insurance institutions



**Organic food is feasible for
everybody!**

- Regional partner of a federal campaign of the Ministry of Food, Agriculture and Consumer Protection
- 40 Workshops for schools and kindergartens in HH and S-H (2004-2009 /2010+2011)



(www.biokannjeder.de)

Federal program to increase the number of all-day schools in Germany (IZBB)/situation in Hamburg

- 16 federal states, in every state the school system is different
- roughly 170 all-day schools in Hamburg of which 70 are high schools (grade 5 to 12)
- price per warm meal 2,- Euro to 4,- Euro, financial contribution of the city (2 Euro/meal) for students from poor families
- **school kitchens are built for heating up meals, not for doing the cooking**
- **school directors are responsible, not the school bodies**
- **no central call for tenders**
- Caterer-market is flexible and not very transparent
- **no budget for personnel distributing meals to students (service must be included in the meal price)**
- organizational problems dominate the introduction of school nutrition, mandatory standards for food quality are missing
- Eating in school is not very popular. Only 1/3 of students is using the warm meal offered.

No standards
- individual solutions only



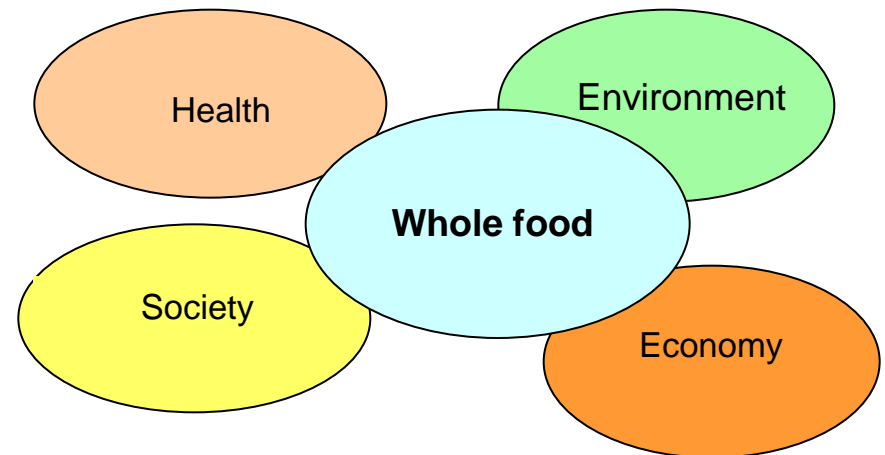
What does healthy and sustainable nutrition for children mean? Optimix versus wholemeal food (adapted from Körber u.a.)



Recommendations of the **Research Institute for Child Nutrition (FKE)** = Optimix

Standards for meals in schools and kindergartens from the **German Society of Nutrition (DGE)** 2007. New Edition in 2009.

„Let our food remain as natural as possible“



- 10 rules of the whole food concept
- Sustainability
- Interactions between eating behaviour, consumption patterns, world trade and ecology for teaching purposes.

(v. Körber, Mändle, Leitzmann 2004)

Differences in food quality are often unknown, details are important



chocolate-Croissant ----wheat flour rolls

--- grain rolls

---- whole grain rolls ---

organic whole grain rolls

249 kcal /15,7 g fat
roll which

153 kcal / 1 g fat

are
tasty for children

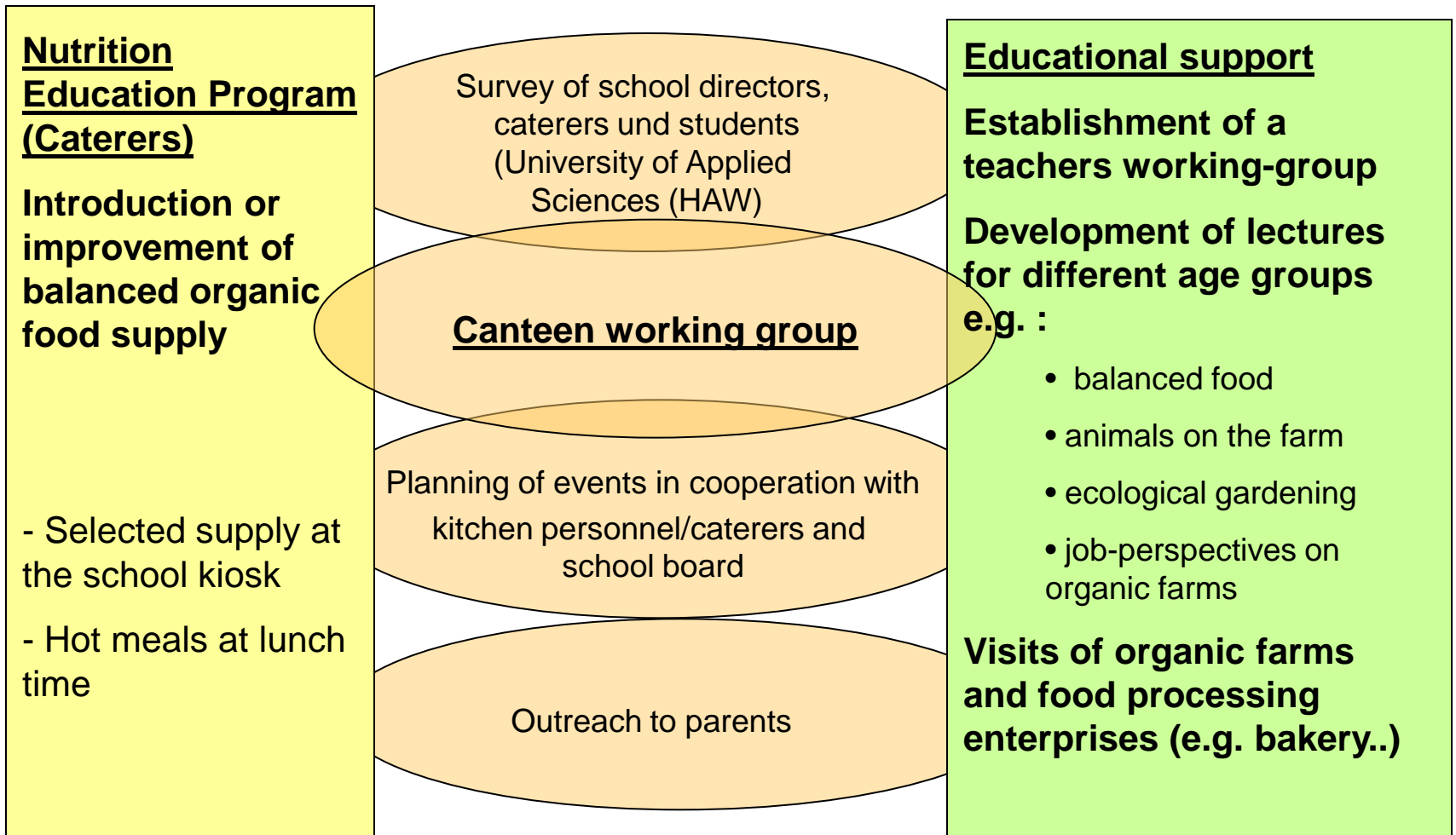


Soft Drink --- fruit juice drink -- juice without sugar --- organic-juice --- organic juice/water mix



Research project : **Developing strategies for introducing balanced, age differentiated and (partly) organic food supply in schools and kindergartens**

(10 case studies in Hamburg: 7 schools/ 3 kindergartens)

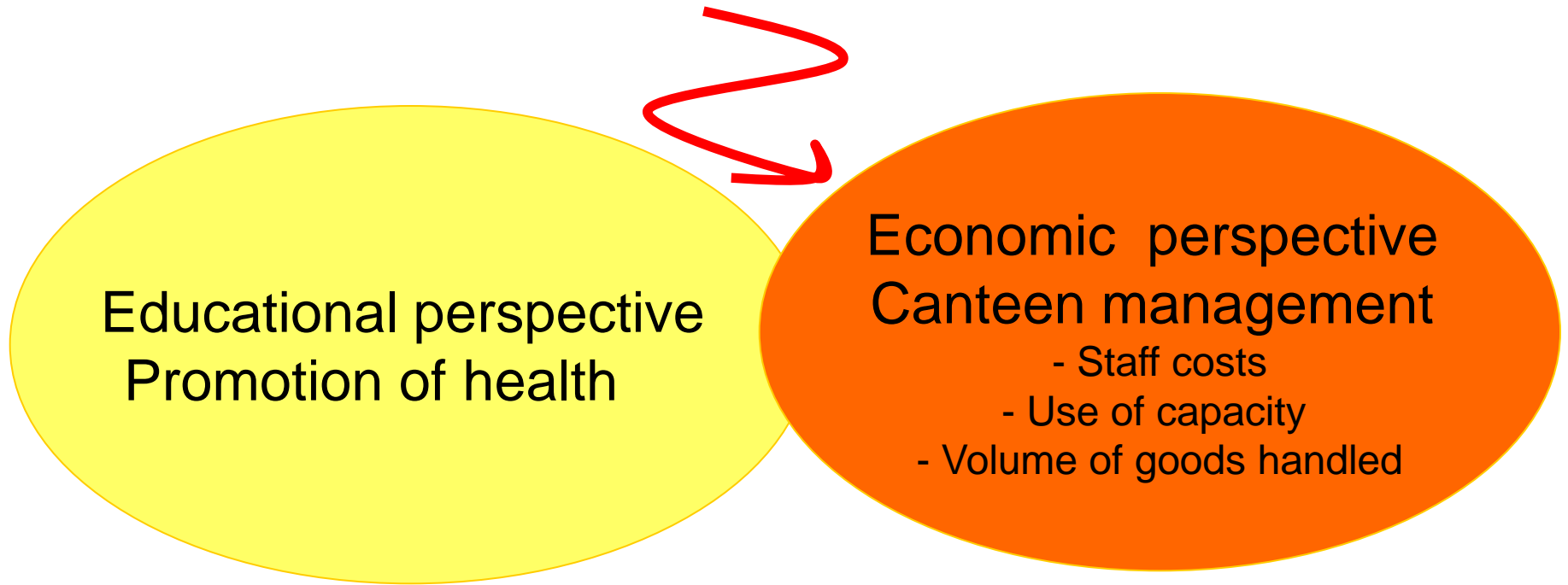


Development and improvement of logistics in the organic food sector

Main results of Case Studies

- Health questions – and not the idea of organic food – are the motivation of school board members to contact the project
- Participation in the projects' educational programs has been different with regard to schools and kindergartens. Where teachers and kitchen personnel have used the project offers frequently the change from conventional to organic food has been very successful.
- The introduction of organic food in kindergartens and schools depends upon the qualification of involved personnel
- Up to 80% introduction of organic food has been achieved by case study participants without going beyond food budget limits
- Changes are easier to achieve in kindergartens than in schools
- A canteen – working group (school board, kitchen, teachers, parents, students) is a very valuable support instrument

Who carries the financial risk.....



.....if nobody knows the prices!



hot lunch




Ready made snacks



freshly prepared snacks

Properly related nutrition concepts are still missing.....

Vendor machines	Morning break Ready made snacks	Morning break freshly prepared snacks	Prepared hot lunch
Soft drinks, chocolate, potato chips	simple rolls, soft drinks, chocolate, chips	Self made yoghurt & fruits, rolls with sausage and cheese etc.	Selection of one or two meals after booking
No hygienic problems, easy logistics, often questionable with regard to health	No hygienic problems, easy logistics, often questionable with regard to health	Hygienic standards are more difficult to match, <u>financial risk is higher</u> , can support a healthy diet	Hygienic standards are more difficult to match, <u>financial risk is higher</u> , quality depending upon catering system
Frequently used 	Frequently used	Frequently used	More often used for younger children grade 1-7 (usually 1/3 of the school community)

How to cope with sweets?



The supply at the school kiosk

Recommended food for the school kiosk / cafeteria



Food stuff group	Proposals for the school kiosk
Drinks	Mineral-, tapwater, fruit juice with mineral water , herbal tea, cafeteria for higher classes: fair trade tea / coffee
Bread, cereals. supplements,	Whole grain rolls, -bread, cereals
Vegetables, salad	Vegetables, coloured salad / raw fruits and vegetables with bread / rolls, vegetable sticks for dipping , raw salads
Fruits	Seasonal fresh fruits , fruit pieces, fruit salad
Milk, yoghurt, cheese	Milk, buttermilk, mixed milk drinks (without sugar), yoghurt, sour milk, curd, bread and cheese
Meat, fish, eggs	Eggs, low-fat sausages with a salad component
Sweets / snacks (only tolerated, not required)	Dried fruits, nuts, only small portioned and fair trade chocolate, whole grain biscuits

Strategies for the school shop / kiosk

Differences in food quality are often unknown,
details are important

- Development of a list of healthy food items
- Exclusion of unhealthy products
- Sweets contingent (e.g. 20 croissants per day)
- Sweet days/ healthy days (change in product range)
- No offer of food items which compete with new organic products (unique, tasty, right size, not too expensive)
- Unhealthy food items should be subsidized by healthy food items



Students are „conservative“ customers

-> Changes will be achieved only slowly

- Free tasting / provision
- Questioning of students / parents
- Participation of students



Connecting education and food supply e.g. organic & fair trade products



✓ Students visit organic farm and fair trade NGO

✓ Students select organic and fair trade products for the school canteen



✓ Organization of an information day



✓ School community is asked to taste and to judge

✓ School canteen starts to sell selected sweets as well as coffee and tea from fair trade

Connection of education and food supply e.g. whole food - snack tasting

- 1) Theoretical lesson: nutrition with whole food
- 2) Class prepares whole food snacks by itself
- 3) Students evaluate snacks
 - taste
 - appearance
 - most likely prices at the school kiosk
- 4) Test week at the school kiosk
- 5) One wrap day per month



Healthy, balanced diet: 4 quality regulators

A) Quality of used food commodities

→ Organic / conventional commodities, regional, seasonal products, convenience-products, genetically modified food etc.

B) Balanced recipes

- Nutrient density
- Vitamine- and nutrient content

C) Balanced daily and weekly diet planning

Diversity of used food commodities

- Daily and weekly diet sequence
(Bremer Checklist of BIPS quality standards)

D) Form of presentation

- Times for warm meals
- Composition of meals (meal with salad, water, (dessert/fruit))



Strategies for the introduction of organic food commodities

10% organic

- Exchange of satisfying side dishes to food of organic origin (rice, noodles, bread) usually without change of supplier
- Buying of fruits and vegetables seasonal / regional, usually with change of supplier

40-60% organic

- Change of supplier to organic wholesale trade, all food commodities excluding animal products (milk products, meat)
- Cost check and change of recipes
- Training of staff
- Information of teachers, students and parents

100 % organic

- Reduction of the share of meat and increase of the share of grains and pulses in the weekly planning of dishes

The organic food supply - chain can still be improved

- Discussions with **organic – producers**
- **Processing firms** (snack-production)
- **Caterers**



Conclusions:


















- Traders in organic food still have not discovered the market segment of schools and kindergartens food
- Organic-traders & caterers should improve their marketing with regard to the target group
- Minimum quantities of wholesalers of organic food are still not adapted to the requirements of schools
- Organic traders should improve their logistics, packing units and design (product development)
- Conventional food traders for schools enlarge their supply of organic food items

- tasty for children (3-6 years)
- optimiX (Concept of the Research Institute for Child Nutrition)
- 95% organic food commodities + seasonal + regional
- 5,- Euro per child per week for the food
- suitable for big kitchens



Example: weekly meal plan **autumn**



Monday	Tuesday	Wednesday	Thursday	Friday
Pumpkin lasagne with fruit-sticks	Chicken-nuggets + potato corners and turnip cabbage with radish-dip	Grandmas milknoodles with corn lettuce-apple-salad	Garfield-Soup und milkrice Trautmannsdorf	Captain Hooks favorite dish (fish with bananas and rice)
   	    	 	  	  
0,93 Euro 387 kcal	1,79 Euro 370 kcal	0,67 Euro 646 kcal	0,93 Euro 533 kcal	0,65 Euro 381 kcal

Average price: **0,99 Euro per meal**
 Average energy value: **463 kcal per meal**

There remains much to do....

- The improvement of the diet situation at schools has to be handled as a process which should be presented by specialists (many pressure groups at one school).
- For extension purposes a „common language“ for „healthy food for children“ has to be developed.
- Scientific extension for caterers and educational actions have to work hand in hand to stabilize the „system of school diet“ economically.
- Practical and scientific experiences are still missing with regard to cost calculations of „diet systems“, so that the costs connected with the introduction of organic food are often unknown.
- Politicians and administrators responsible for schools have to recognise that there exists a „public problem“ and not only „family worries“.
- Political, structural and economic preconditions are still missing to implement a „high standard school diet“.

Projects 2010

- Climate project: If we integrate 10% organic food in kindergartens and schools what is the effect in consideration of climate change? (funded by a foundation)
- Workshops within the campaign “organic is feasible for everybody” (until 2011) (funded by the federal government)
- Case study: Organic school fruit and vegetable project (funded by private sponsors)
- Special extension for different schools in Hamburg and one small city near Hamburg. They want to build a canteen and develop an innovative nutrition concept for their school.
- “Mensa Project”: Target group students. Information about the benefits of organic products for students (HH and S-H) (funded by the federal government)

Educational program of the project

Kitchens:

- Education of kitchen personnel
- Address list of caterers working in Hamburg
- Checklist of how to negotiate with caterers
- List of suppliers of organic food (conditions and minimum quantities)
- Checklist for supplies at the school kiosk (Recipes inclusive)

Improvement of supply of organic food:

- Discussions with owners of organic farms and traders of organic food
- Discussions with conventional traders who are likely to integrate organic food into their supply

Educational support:

- Lectures on agriculture and food for all age groups
- Visits to organic farms
- Planning and organization of canteen events
- Meetings with parents

Thank you for your attention!

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