

# The European Commission's science and knowledge service

Joint Research Centre

## Joining up tools for optimal school food provision

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JRC Unit F.1 - Health in Society

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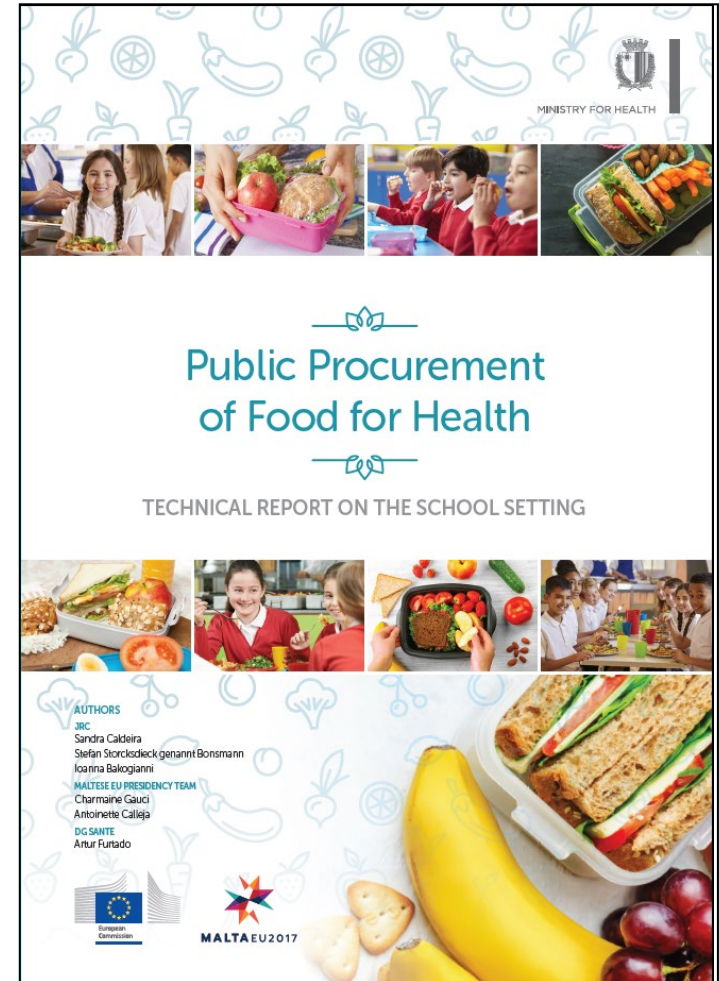
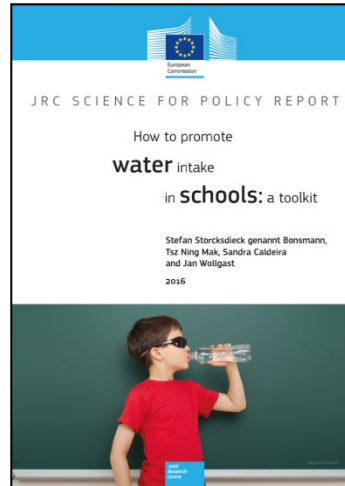




## **Food matters. Children matter. Schools matter.**

- (Nearly) all EU children go to school (50 million 5-14yr olds in EU)
- Many school aged children eat at least one daily meal in school (lunch 35% daily energy + snack? > 50%!)
- Messages, behaviours, and preferences learnt at school can be taken home
- Schools are protected environments

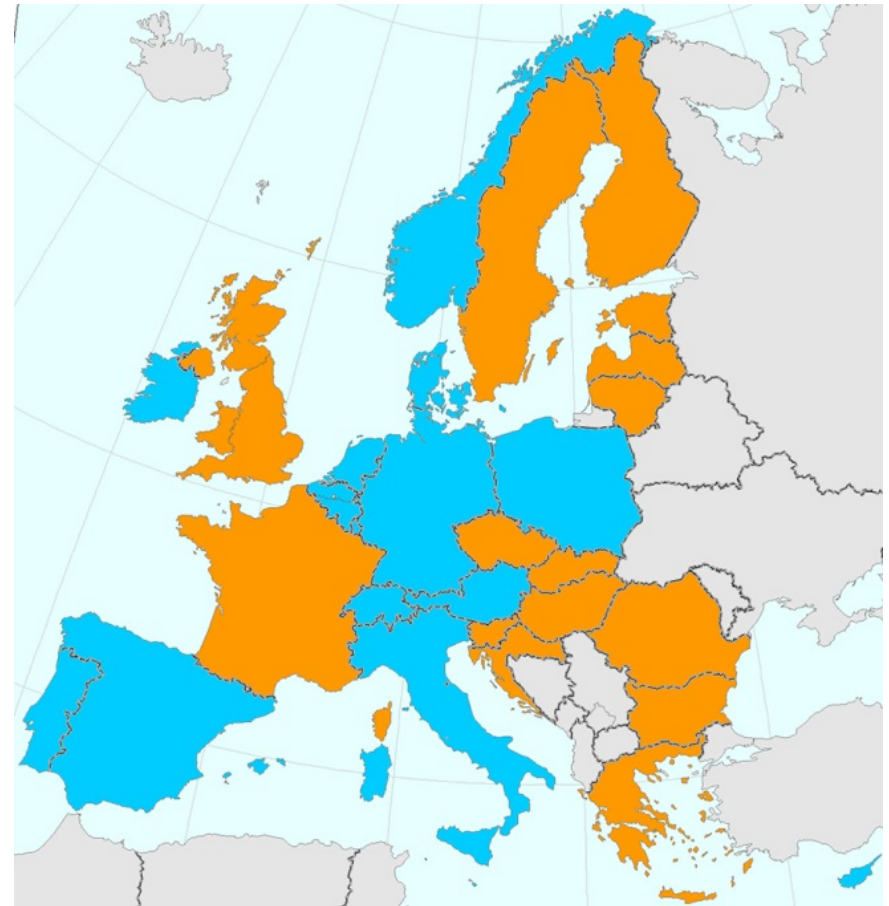
# School food policies & procurement of food



# School food policies across the EU

- Data from 2014 -

- All MS have school food policies / guidelines / recommendations
- Mandatory school food standards in 18 out of 34 policies



**EU28 plus Norway and Switzerland**



# Public procurement of Food for Health: technical report on the school setting



## WHY?

- To make the case for considering health aspects in food-related public procurement

## HOW?

- Offer best practice and operational guidance for translating existing healthy school food standards into appropriate procurement specifications

# Policy Toolkits – why and what?

## Why?

Explore schools as a protected environment  
Reach out to "all" children  
Teach healthy diet and lifestyle habits  
Promote good nutrition for optimal performance

## What?

1. Key components from effective school-based interventions to promote F&V
2. Implementation issues associated with conducting such interventions
3. Evaluation considerations when designing and implementing interventions




# Categorising intervention components

## - Education -

Classroom-based learning	Experiential learning	Games and competitions (± rewards and incentives)	Behaviour change approaches
<b>Dedicated lessons</b> Explicitly teaching children about nutrition, healthy eating and the importance of FV	<b>School gardens</b> Learning about FV through planting seeds and plants, maintaining school gardens	<b>Board and computer games</b> Interactive games to learn about healthy eating	<b>Role models</b> Including peers and cartoon characters
<b>Cross curricular</b> Embedding healthy eating topics when teaching other subjects	<b>FV tasting sessions</b> Encouraging children to try new FV by tasting variety of FV	<b>Quizzes</b> Testing children's knowledge on healthy eating/FV learned from lessons	<b>Goal setting</b> Targets set by children/teachers/parents to improve FV intake
<b>Homework</b> Reinforcing healthy eating messages from lessons	<b>Food preparation/creating recipes</b> Learning to prepare snacks and meals with FV	<b>Music</b> Singing, rapping and song writing competitions	<b>Individual feedback</b> Receiving feedback on FV eating behaviour using web-tools or diary
<b>Videos/movies/DVDs</b> Delivering healthy eating messages using multimedia	<b>Food shopping</b> Learning to shop for healthy foods, including FV and reading food labels	<b>Shopping games</b>	
<b>Printed materials</b>			

# Categorising intervention components

## - Environment -

Availability of FV	Education of school staff	Changes at point of purchase (POP) or consumption (POC)
<p><b>Free distribution of FV</b> At lunch or break</p> <p><b>Subscription to FV</b> Paid for by parents</p> <p><b>Increase variety, choice and attractiveness of FV offered</b> Provide wide range of options; include unusual FV to stimulate children's curiosity; FV cut up and served in age-appropriate portion sizes</p> <p><b>Modification of school meals</b> Increase FV content of meals</p>	<p><b>Teachers</b> Training teachers to deliver lessons on healthy eating to children through seminars, workshops (train the trainer model); encouraging teachers to promote a healthy eating environment for children beyond the lessons and continue lessons post intervention</p> <p><b>Catering staff</b> Educating catering staff on the importance of healthy eating and ways to incorporate more FV into school meals and to engage children</p> 	<p><b>Additional information at POP and POC</b> To raise awareness of healthfulness of meals/food products</p> <p><b>Audit and evaluation of food/catering services</b> For example on nutritional quality of meals and snacks provided to children</p> <p><b>Content modification of vending machines and tuck shops</b> To reduce or eliminate snacks high in fat, salt and sugar and include (more) FV or foods made thereof</p> <p><b>Architectural changes</b> Modify the display of products to enforce positive behaviour</p>



# Key stakeholders - Education

Stakeholders	Resistance/issues	Gaining their support
Kindergarten and school staff: including teachers and headmasters	<ul style="list-style-type: none"> <li>• <b>School staff role is not to teach nutrition</b> or healthy eating habits to children and <b>may lack basic training on nutrition</b></li> <li>• <b>Lack of time and resources</b></li> <li>• <b>May not see the importance of teaching kids healthy eating over e.g. maths, reading and writing</b></li> <li>• Sometimes <b>moral dilemma</b> of talking about healthy food and knowing children have little access to it or not being able to provide it</li> </ul>	<ul style="list-style-type: none"> <li>• Provide time and competence by having <b>externals to educate both the teachers and children, and allow them to do fun activities together</b>. Barrier is starting such an initiative, but once over the first hurdle it will become easier</li> <li>• <b>Administrative burden needs to be low</b></li> <li>• <b>Communication strategy</b> between project leader (e.g. nutritionist) and teachers</li> </ul>
Ministry of Education/ School Education Board	<ul style="list-style-type: none"> <li>• <b>Challenge of introducing additional information</b> in an already overcrowded curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Best thing would be for national education authorities to run intervention; they have best channels and dialogue with schools</b></li> <li>• <b>Use other subjects (e.g. languages, mathematics, etc.) to integrate FV education</b></li> <li>• <b>Programme details need to link with school and national education priorities</b></li> <li>• <b>Financing staff and school facilities</b></li> </ul>
Health professionals: including school doctors, nurses, nutritionists and dieticians	<ul style="list-style-type: none"> <li>• <b>Lack of time</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>School nurses could deliver education sessions on healthy eating and nutrition to children</b> (with agreement between Ministries of Health and Education).</li> </ul>

# Features of effective interventions to promote F&V consumption in children

## Work at multiple levels

- Education, environment, parental

## Combine multiple components

- Classroom lessons, games, experiential learning, POP/POC modifications, behavioural theory, whole family activities

## Identify and engage key stakeholders

- Understanding their needs, strengths and interactions

## Anticipate barriers and strategies to overcome them

- Including adverse side effects and equity issues

## Monitor and evaluate processes and outcomes

- To assess impact and optimisation potential

# Food-Based Dietary Guidelines

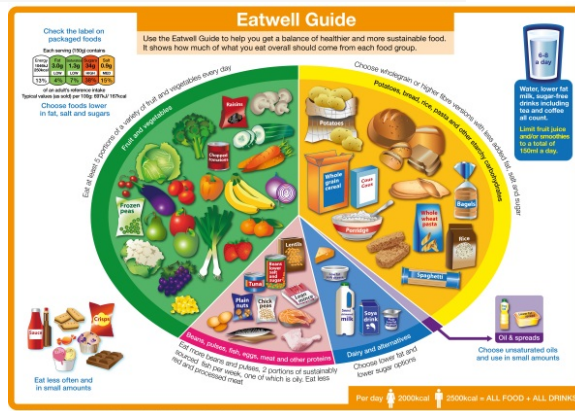
- plain-language expression of principles of nutrition education mostly as foods, intended for use by general public
- important tool for implementing nutrition policy



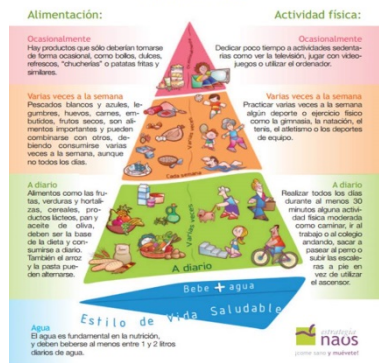
## TOITU MITMEKESISELT:

- ✓ Söö iga päev mitmeid viiest põhitoidugrupidist!
- ✓ Varieeri toite toidugrupidest seest!

## PEA MEELES!



## Pirámide Naos



# Food-Based Dietary Guidelines

**Validated JRC database  
of recommendations from national FBDGs  
in the EU-28  
plus Norway, Iceland, and Switzerland**

**Database to be published on the**



<https://ec.europa.eu/jrc/en/health-knowledge-gateway>



# Access database with data by country

## DATABASE Food Based Dietary Guidelines



### General information

☒ General\_population

☐ Children

Country **Austria**

Graphic **Food pyramid**

if there is one, add it here

Please include information for the main aspects of the guidelines. If one aspect is not covered, please type n/a

Category	Are there quantitative recommendations? If so, tick the box and then describe.	Add here the qualitative recommendations	Add here the portion sizes
Grains	<input checked="" type="checkbox"/> 4 portions per day	Prefer whole grain products	ca. 50-70 g (whole grain) bread and bakery ware, ca. 50-60 g (or
Fruit	<input checked="" type="checkbox"/> 2 portion/day	Eat partly raw and regional/seasonal	125-150g of fruit, 200ml of fruit juice
Vegetables	<input checked="" type="checkbox"/> 3 portions/day	Eat a part of the vegetables raw and consider regional/seasonal produce in your selection.	cooked (200-300g), raw (100-200g), salad (75-100g), legumes
Potatoes	<input type="checkbox"/>		ca. 200-250 g (3-4 mid-size, or 2 fists) potatoes
Legumes	<input type="checkbox"/>		legumes raw (approx. 70-100g), legumes cooked (approx. 150-
Milk and dairy products	<input checked="" type="checkbox"/> 3 portions/day. Ideally 2 servings "white" (e.g. yoghurt, cottage cheese,	Prefer low-fat products.	milk (200ml), yogurt (180-250ml), buttermilk (200g)
Meat	<input checked="" type="checkbox"/> Max 3 portions/week of lean meat or lean sausage (up to 3 palm-sized thin	Eat red meat (e.g. beef, pork, lamb) and sausages rather rarely.	100-150g, 1 palm-sized finger-thick piece of meat, up to 3
Fish	<input type="checkbox"/> 1-2 portions/week.		150 g
Eggs	<input checked="" type="checkbox"/> Up to 3/week		1 egg
Oils and fats	<input checked="" type="checkbox"/> 1-2 tablespoons/day of vegetable oils, nuts or seeds.	Prefer high-quality oils: olive, rapeseed, walnut, soybean, linseed, sesame, maize, sunflower.	1 tablespoon oil, 1 tablespoon butter, margarine, 2
Nuts and seeds	<input type="checkbox"/>	NOTES included in oils and fats	2 tablespoons
Sweets and desserts	<input checked="" type="checkbox"/> Max 1 serving/day of foods high in fat, sugar, or salt and energy-rich	Consume sparingly, but then with pleasure and without a guilty conscience.	

### Die österreichische Ernährungspyramide



Are the following aspects included in the guidelines?  
If yes, describe what the recommendation is:

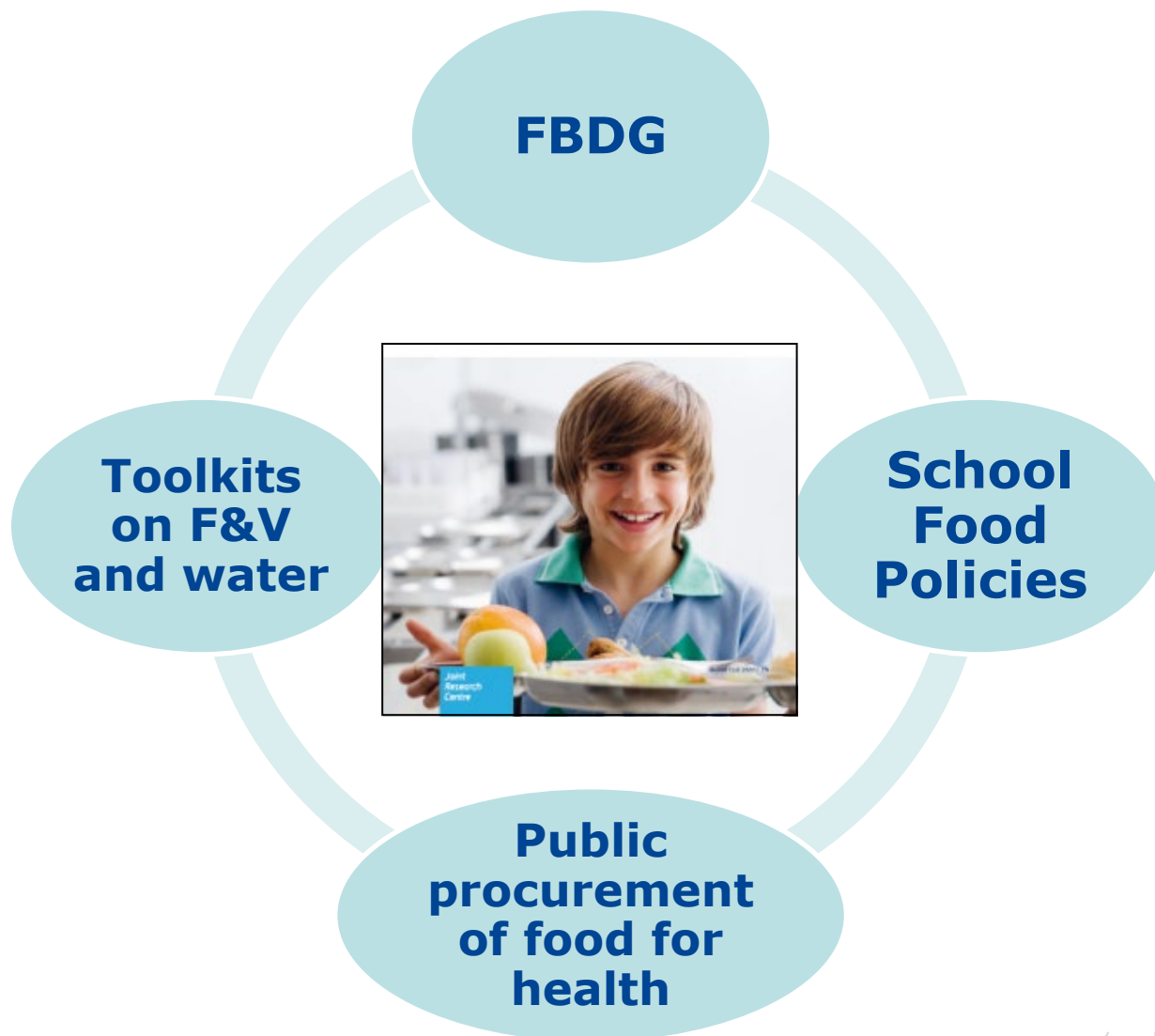
Water	<input checked="" type="checkbox"/>	at least 1.5L/day. Moderate consumption of coffee, tea, and other caffeinated beverages (3-4 cups). Prefer low-energy beverages such as (mineral) water, unsweetened fruit and herbal teas.
Alcohol	<input type="checkbox"/>	Acceptable intake according to DACH 2008: 30g/day for women, 20g/day for men.
Sugars	<input checked="" type="checkbox"/>	max. 50g sugar Eat rarely. Reduce the consumption of sugar grains.
Salt	<input checked="" type="checkbox"/>	max 6g/day Limit consumption of high-salt foods. Use herbs.
Physical activity	<input checked="" type="checkbox"/>	Ca. 150 minutes per week of intermediate intensity. Move as much as possible in the course of the day.
BMI	<input checked="" type="checkbox"/>	Maintain a healthy weight
Varied diet	<input checked="" type="checkbox"/>	Balanced and varied diet.
Lifestyle habits	<input checked="" type="checkbox"/>	Cooked particularly gently

### Citation information

Reference	The Austrian food pyramid – 7 steps to health (German: Die österreichische Ernährungspyramide – 7 Stufen zur Gesundheit) - by the Ministry of Health (2016)
URL_Link	<a href="http://www.bmgf.gv.at/cms/home/attachments/7/3/0/CH1046/CMS1290513144661/folder_erpyr_web.pdf">http://www.bmgf.gv.at/cms/home/attachments/7/3/0/CH1046/CMS1290513144661/folder_erpyr_web.pdf</a> <a href="http://www.hmof.gv.at/home/Gesundheit/Ernaehrung/Die_Ernaehrungspyramide_im_Detail_7_Stufen_zur_Gesundheit">http://www.hmof.gv.at/home/Gesundheit/Ernaehrung/Die_Ernaehrungspyramide_im_Detail_7_Stufen_zur_Gesundheit</a>



# Joining up the tools



# Health Promotion and Disease Prevention Knowledge Gateway



## Thank you!

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- **Co-authors Tsz Ning Mak, Sandra Caldeira, Jan Wollgast, Ioanna Bakogianni, Charmaine Gauci, Antoinette Calleja, Artur Furtado**
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- **Colleagues at DG SANTE C4**
- **Workshop participants**

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