



PUBLICATIONS OF THE MINISTRY OF AGRICULTURE AND FORESTRY 2023:8

# Development Programme for School Meals

Ministry of Agriculture and Forestry Helsinki 2023

#### **Publication distribution**

Institutional Repository for the Government of Finland Valto

julkaisut.valtioneuvosto.fi

#### **Publication sale**

Online bookstore of the Finnish Government

vnjulkaisumyynti.fi

Ministry of Agriculture and Forestry CC BY 4.0

ISBN pdf: 978-952-366-576-7

ISSN pdf: 1797-397X

Layout: Government Administration Department, Publications

Photos: Mikael Kuitunen

Illustrations: Niina Silvasti, Visual Monkey

Helsinki 2023

#### **Development Programme for School Meals**

Publications of the Ministry of Agriculture and Forestry 2023:8					
Publisher	Ministry of Agriculture and Forestry				
Group author	Ministry of Agriculture and Forestry				
Language	English	Pages	68		

#### Abstract

Despite our long experience and the numerous strengths of Finland's internationally quite unique school meals system, there are also needs for reform and further development. The Ministry of Agriculture and Forestry appointed a working group in October 2021 to prepare the Development Programme for School Meals, as stated in the current Government Programme.

The objective of the Programme is to increase the appreciation of school food and participation in school meals and develop practices related to school meals. Solutions have been sought to also include snacks in the system. In addition, the Programme aims to increase the domestic content, healthiness and eco-friendliness of school meals and develop equitable and communal meals.

This publication summarises the key elements of school meals that require further development. The Programme analyses the development needs related to school food and school meal practices and gives proposals for their development.

Developing school meals is important for the work to promote health and wellbeing and for activities that support the objectives of teaching and education. In international contexts, the development work promotes Finland's position as an expert in school meals.

Keywords	s school food, school meals, food education, food sector				
ISBN PDF	978-952-366-576-7	ISSN PDF	1797-397X		
URN address	https://urn.fi/URN:ISBN:978-952-366-576-7				

#### Kouluruuan kehittämisohjelma

#### Maa- ja metsätalousministeriön julkaisuja 2023:8

Julkaisija Maa- ja metsätalousministeriö

Yhteisötekijä Maa- ja metsätalousministeriö

Kieli englanti Sivumäärä 68

#### Tiivistelmä

Kansainvälisesti ainutlaatuiseen kouluruokailujärjestelmäämme liittyy pitkästä kokemuksesta ja monista vahvuuksista huolimatta uudistus- ja kehittämistarpeita. Maa- ja metsätalousministeriö asetti lokakuussa 2021 työryhmän valmistelemaan hallitusohjelman mukaisen kouluruuan kehittämisohjelman.

Kehittämisohjelman tavoitteena on lisätä kouluruuan arvostusta ja kouluruokailuun osallistumista sekä kehittää kouluruokailuun liittyviä käytäntöjä. Ohjelmassa on etsitty ratkaisuja, joiden pohjalta välipala voidaan tuoda osaksi kouluruokailua. Lisäksi ohjelmalla pyritään parantamaan kouluruuan kotimaisuusastetta, terveellisyyttä ja ekologisuutta sekä kehittämään tasa-arvoista ja yhteisöllistä kouluruokailua.

Tähän julkaisuun on kiteytetty valmistelutyön aikana esille nousseet keskeisimmät kouluruokailun kehittämistä vaativat osa-alueet. Ohjelma käy läpi kouluruokaan ja kouluruokailukäytäntöihin liittyvät kehittämiskohteet ja ehdotukset niiden kehittämiseksi.

Kouluruokailun kehittäminen on tärkeää terveyden ja hyvinvoinnin edistämistyötä sekä opetuksen ja kasvatuksen tavoitteita tukevaa toimintaa. Kehittäminen edistää myös kansainvälisessä kontekstissa Suomen asemaa kouluruokailun asiantuntijamaana.

Asiasanat kouluruoka, kouluruokailu, ruokakasvatus, elintarvikeala

**ISBN PDF** 978-952-366-576-7 **ISSN PDF** 1797-397X

Julkaisun osoite https://urn.fi/URN:ISBN:978-952-366-576-7

#### Programmet för utveckling av skolbespisningen

#### Jord- och skogsbruksministeriets publikationer 2023:8

**Utgivare** Jord- och skogsbruksministeriet

**Utarbetad av** Jord- och skogsbruksministeriet

Språk engelska Sidantal 68

#### Referat

Vårt system för skolmat är unikt internationellt sett. Trots den långa erfarenheten och de många styrkor systemet har, finns det behov av att reformera och utveckla det. I oktober 2021 tillsatte jord- och skogsbruksministeriet en arbetsgrupp för att bereda ett program för utveckling av skolmaten i enlighet med regeringsprogrammet.

Målet med utvecklingsprogrammet är att göra skolmaten mer uppskattad och öka deltagandet i skolmåltiderna samt utveckla praxis inom skolbespisningen. I programmet har man letat efter lösningar för att införa mellanmål som en del av skolmåltiderna. Avsikten är dessutom att genom programmet öka andelen mat av inhemskt ursprung och göra skolmaten hälsosammare och mer ekologisk. Dessutom strävar man efter att skolmåltiderna ska kännetecknas av jämlikhet och skapa gemenskap.

I den här publikationen sammanfattas de viktigaste delområden som kräver att skolmaten utvecklas och som lyfts fram under beredningsarbetet. Programmet går igenom de utvecklingsobjekt som hänför sig till skolbespisningen och till praxis för skolmåltiden och förslagen om att utveckla dem.

Utvecklandet av skolmaten är en viktig del av det arbete som främjar hälsa och välbefinnande samt av den verksamhet som stöder målen för undervisning och fostran. Utvecklandet främjar även Finlands ställning som expert på skolmat i en internationell kontext.

**Nyckelord** skolmat, skolbespisning, matfostran, livsmedelsbranschen

**ISBN PDF** 978-952-366-576-7 **ISSN PDF** 1797-397X

**URN-adress** https://urn.fi/URN:ISBN:978-952-366-576-7

# Contents

	Pre	face			
1	Bac	Background of school meals			
	1.1	Legislation			
	1.2	Purpose of school meals			
	1.3	Provision of school meals			
2	Evolution of school meals				
	2.1	School lunch			
	2.2	Snacks			
	2.3	Municipal appropriations for school meals			
	2.4	Development proposals			
3	Development of school meal practices				
	3.1	Mealtimes			
	3.2	Meal environment			
	3.3	Guidance for school meals			
	3.4	Food education			
	3.5	Development proposals			
4	lmp	roving the responsibility of			
	sch	ool meals			
	4.1	Strategies, programmes and recommendations that guide school meals			
	4.2	Ecological responsibility			
		4.2.1 Addressing environmental impact in menu planning			
		4.2.2 Criteria for responsible food procurement			
		4.2.3 Food waste			
	4.3	Social responsibility			
	4.4	Financial responsibility			
		4.4.1 Degree of domestic content of food, food security and the security of supply			
	4.5	Nutrition and health promotion as part of responsibility			
	16	Davidonment proposals			

5	Other development areas	
	5.1 Consulting pupils and students	51
	5.2 Marketing and communication related to school meals	53
	5.3 Monitoring school meals	55
	5.4 Finland's school meals in an international context	57
	5.5 Development proposals	58
6	Summary of development proposals	59
	Appendices	62
	Appendix 1. School Meals 2.0 working group for the Development Programme for	
	School Meals	62
	Appendix 2. Strategies, programmes and guides to be considered in the provision of	
	school meals and in food procurement	64
	Appendix 3. Glossary	66

#### **PREFACE**

You are looking at a historical document. Even though Finland is a pioneer in providing school meals for everyone, Finland has not previously had a Development Programme for School Meals.

The school meal is an excellent social innovation which for decades has given food free of charge to students and increased nutritional equality. The school meal has always followed trends and adapted to societal changes and needs. School food and meals have been developed throughout their existence, and Finland's system is globally considered to be a prime example of a well-functioning school meal programme.

Recently, the significance of school meals has been emphasised due to the changed global situation and the increase in food costs. While the aim is to launch school meal programmes in various countries to provide children and young people with healthier nutrition, Finland's extensive experience and expertise in school meals is unprecedented. It is also used in the UN's international School Meals Coalition led by Finland and France.

For national development, it is important to identify the significance and broad impact of school meals in advancing health and wellbeing, and in supporting teaching and education. School meals respond to the UN's Sustainable Development Goals. Furthermore, school meals increase the sense of community between pupils and students and offers a moment of refreshment during the school day. Municipal decision-makers should identify the various effects of school meals on wellbeing in society at large and allocate sufficient resources to them.

This Development Programme presents the current state of school meals and highlights key impacts and meanings. In addition, this Development Programme presents a group of development proposals, the implementation of which requires the input of everyone – every municipality and every school.

This Development Programme was prepared in close cooperation with practical operators, while closely listening to their opinions. This Development Programme was also prepared in interaction with the actual target group – pupils and students. Furthermore, a broad working group whose members showed excellent professionalism and commitment helped prepare and write this Development Programme. I would like to thank everyone who was engaged in the preparation process!

#### Minna-Mari Kaila

Chair of the working group
Director General, Ministry of Agriculture and Forestry

# Introduction

Finland has offered school meals free of charge for pupils since 1948. Legislation lays the foundation for school meals, and all pupils in pre-primary and basic education and all students in upper secondary education are equally entitled to them. Every day, some 900,000 children and young people have a school meal<sup>1</sup>.

Despite our long experience and the numerous strengths of Finland's internationally unique school meals system, there are also needs for reform and further development. The Ministry of Agriculture and Forestry appointed a working group in October 2021 to prepare the Development Programme for School Meals. The objective of the Programme is to increase the appreciation of school food and participation in school meals and develop practices related to school meals. Solutions have been sought to also include snacks in the system. In addition, the Programme aims to increase the domestic content, healthiness and eco-friendliness of school meals and develop equal and communal meals.

The Programme was prepared by a multidisciplinary working group in cooperation with stakeholders, including schools, food service operators, associations and the food industry. Pupils and students were consulted during workshops held for young people in cooperation with the Youth Work Centre of Expertise for Participation and Influencing, through targeted surveys, at stakeholder meetings and during Timeout discussions.

This publication summarises the key development areas of school meals identified during the preparation. The Programme analyses the development needs related to school food and school meal practices and gives proposals for their development. Responsibility is discussed in a separate section, as its dimensions are closely linked to each area of school meals. The publication also includes practical examples of measures that promote school meals. Their objective is to encourage municipalities and schools to implement the development measures as practices suitable for them. The local development of school meals comprises an important activity promoting national health and wellbeing and supporting the objectives of teaching and education. It also advances Finland's position as a specialist in school meals in an international context.

<sup>1</sup> Finnish National Agency for Education. https://www.oph.fi/fi/koulutus-ja-tutkinnot/kouluruokailu-kuuluu-kaikille

The Development Programme covers themes related to school meals in basic education and upper secondary education.

Target groups of the Development Programme for School Meals include municipalities, education providers, basic and upper secondary schools, food service operators providing municipal food services, pupils and students, parents and guardians, and other key stakeholders for school meals, including the central government and companies.

The development proposals presented in the Development Programme for School Meals and related measures will be implemented within the scope of appropriations and annual work units in accordance with general government fiscal plans and the government budget.



# 1 Background of school meals

## 1.1 Legislation

#### **Basic education**

According to the Basic Education Act<sup>2</sup>, a pupil attending basic education must be provided with a balanced and appropriately organised and supervised meal on every school day. In addition, if a municipality arranges supervised before- and after-school activities, a child participating in such activities must be offered a snack, which may be included in a possible fee<sup>3</sup>.

#### **Upper secondary education**

School meals have been free of charge in upper secondary education as in basic education since 1983<sup>4</sup>. The act on general upper secondary education<sup>5</sup> and the act on vocational education<sup>6</sup> lay down provisions on the right of students attending upper secondary education to a free of charge school meal. In a basic vocational degree programme, preparatory education for a degree programme, preparatory education for work and independent life, general upper secondary education and other education intended for children of the compulsory education age, students are entitled to a meal free of charge.

<sup>2</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>3</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>4</sup> Lintukangas Seija & Palojoki Päivi. School Dining in Finland. Learning and Well-Being. Porvoo 2016.

<sup>5</sup> Act on general secondary education, 10 August 2018/714. https://www.finlex.fi/fi/laki/ajantasa/2018/20180714

<sup>6</sup> Act on vocational education 531/2017. https://www.finlex.fi/fi/laki/alkup/2017/20170531

**Photo 1.** All pupils in pre-primary and basic education and all students in upper secondary education are equally entitled to a school meal.



# 1.2 Purpose of school meals

#### **Basic education**

According to the national core curriculum for basic education, the purpose of school meals is to advance and support the healthy growth and development of children and young people, their ability to study, and provide food education. The school lunch and any supplementary snacks consumed in before- or after-school activities ensure sufficient energy levels during each school day. School meals also offer significant refreshment for children and the school community as a whole. School meals foster sustainable living, cultural competence, and the objectives of nutritional education and the learning of manners.<sup>7</sup>

<sup>7</sup> Finnish National Agency for Education: Perusopetuksen opetussuunnitelman perusteet (National core curriculum for basic education) 2014. Helsinki 2016.

#### **Upper secondary education**

In general and vocational upper secondary education, the objective of a free of charge school meal is to advance students' ability to study and work, and their health and wellbeing, and to support cultural competence and sustainable living. Food provided at school is an integral part of the students' daily rhythm and a healthy diet, and offers good support when young people have to consider their food choices when becoming independent.<sup>8</sup>

## 1.3 Provision of school meals

School meals are part of the public food service, and municipalities and education providers are responsible for their provision. A school's food service can be provided by the food service unit of a municipality or a municipal education and training consortium, an in-house company or a private food service company selected by a public organisation through competitive bidding.

The provision of school meals are guided by "Eating and learning together – recommendations for school meals" (2017)<sup>9</sup> and "Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools (2019)"<sup>10</sup>, age group-specific recommendations prepared on the basis of Finnish nutrition recommendations. The recommendations include guidelines for the nutritional quality of food and practical arrangements for meals.

The provision of school meals is also guided by the national public procurement strategy, which includes objectives for sustainable and responsible food product and service procurement, as well as service descriptions and agreements between municipalities and food services.

<sup>8</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>9</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>10</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

# 2 Evolution of school meals

## 2.1 School lunch

School meals have a long history in Finland. Over the years, public food service operators have accumulated significant competence in food preparation and nutrition. In addition, food service operators have been engaged in long-term cooperation in the development of food products for healthy meals for a large group of people. Competence in special diets and food safety are also high in Finland. National nutrition and food recommendations act as key tools in the provision of school meals.

Photo 2. A school meal following the plate model.



#### **Balanced school meals**

According to the Basic Education Act, the school meal must be balanced and cover roughly a third of the daily energy expenditure of children and young people. According to school and student meal recommendations<sup>11</sup>,<sup>12</sup>, a balanced school meal has a sufficient amount of energy and a high nutrient density, and it should consist of the elements defined in the plate model: hot main dish, an energy source (potato, barley, cereal mix, whole grain pasta or whole grain rice), a vegetable side dish (salad, vegetable component or hot vegetable component), oil-based salad dressing, beverage (skimmed milk, buttermilk or a fortified plant-based drink), whole grain bread, and plant-based margarine or spread.

In practice, the recommendations are met when pupils and students enjoy the whole meal with additional components. According to the "Balanced school lunch and smart snacks"<sup>13</sup> report that describes the current state of school meals, pupils and students rarely eat a balanced school meal that includes all the components required. As a result, the recommended daily nutrient intake is not met. During school lunch, pupils and students often eat the main dish, but they often ignore the salad, bread or beverage included in the school meal.

Providing several main dish options, hot vegetable components, an attractive and rich salad buffet, and a selection of breads often help enjoy a balanced and sufficient school and student meal. Offering salad as separate components increases the use of vegetables<sup>14</sup>. In addition, guidance related to school meals and food education, and correct and sufficient mealtimes must be ensured (Section 3).

#### Choosing the main dish from the available options

While most pupils and students eat a school meal, older students in particular skip their school meal from time to time. According to the School Health Promotion study (THL 2021)<sup>15</sup>, roughly a third of pupils in grades 8 and 9 and students in upper secondary education do not eat school meals every day. Engaging students in eating a school meal is one of the most important development areas in Finnish school meals.

<sup>11</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

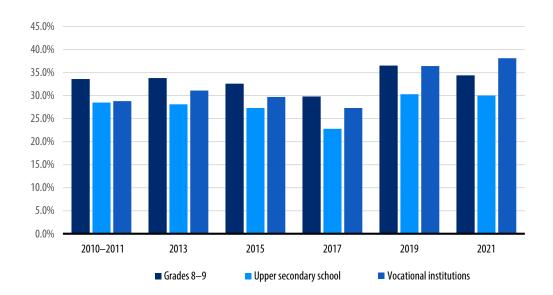
<sup>12</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>13</sup> Tilles-Tirkkonen Tanja et al. 2021: Balanced school lunch and smart snacks. School dining today and tomorrow. Publications of the Government's analysis, assessment and research activities 2021:31. Helsinki 2021.

<sup>14</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>15</sup> Finnish Institute for Health and Welfare (THL). School Health Promotion study. https://thl.fi/en/web/thlfi-en/research-and-development/research-and-projects/school-health-promotion-study.

**Photo 3.** Pupils in grades 8 and 9 of basic education, students in grades 1 and 2 of general upper secondary education and vocational school students who do not eat a school meal every day (%). Source: Finnish Institute for Health and Welfare. School Health Promotion study 2021.



Participation in school and student meals can be improved by offering a free choice of main courses at lunch. According to the food recommendations<sup>16</sup>,<sup>17</sup>, at least two main course options should be available every day, one of which contains fish, white or red meat, while the other is recommended to be a vegetarian dish, in which a sufficient protein content is ensured using legumes, other sources of plant proteins, dairy products or eggs<sup>18</sup>. Two to three optional main courses are recommended for students in upper secondary education, one of which is a vegetarian dish or full salad<sup>19</sup>.

Free choice of main course options and the availability of vegetarian dishes not only make meals more attractive, but also introduce pupils and students to new foods and flavours. Many respondents to the pupil and student surveys conducted during the preparation of the Development Programme considered diversity and free choice of vegetarian options

<sup>16</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>17</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>18</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>19</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

the strengths of school meals<sup>20</sup>. Free choice of main dish options also increases the responsibility of school meals (Section 4).

According to a study<sup>21</sup>, several municipalities a free choice of meat-based and vegetarian main courses every day, but they are not offered equally at all schools and educational institutions. Several municipalities require skills development and more resources to provide main dish and vegetarian options. The goal is that each school and educational institution follows the food recommendations<sup>22</sup>,<sup>23</sup>regarding the provision of a free choice of main course options and meal components.

#### 2.2 Snacks

#### **Basic education**

According to the school meal recommendation<sup>24</sup>, pupils and students should be provided with access to free and nutritious snacks if lessons continue for more than three hours after the school lunch. Trips between the home and school and the time spent on waiting for school transport extend the school day which should be taken into account in the planning of mealtimes and the provision of snacks.

Snacks in accordance with the school meal recommendation<sup>25</sup> are part of education and school meals, and the principles of the nutrition recommendations must be followed when planning and providing snacks.

<sup>20</sup> Ministry of Agriculture and Forestry: Pupil and student surveys for the Development Programme for School Meals. 2022.

<sup>21</sup> National Nutrition Council, THL, Association of Finnish Local and Regional Authorities, and the health promotion division of the Association of Clinical and Public Health Nutritionists in Finland (RTY). Municipal survey "Nutrition in promoting health and wellbeing in municipalities". Amma Antikainen's presentation at the RTY division's seminar on 14 October 2022.

<sup>22</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>23</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>24</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>25</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

**Photo 4.** To develop and harmonise snack practices in basic education, free and nutritious before- or afterschool snacks should be provided in addition to the free school lunch in accordance with the criteria of the school meal recommendations.



According to the "Balanced school lunch and smart snacks" <sup>26</sup>report, 25% of all municipalities provide free afternoon snacks for pupils and students whose lessons continue for more than three hours after lunch. Of all municipalities, 56% do not offer any free snacks, while 7% offer free snacks for all pupils and students. Snacks sold at schools are more common in upper than lower levels of education. According to the report<sup>27</sup>, there are reasons for not offering snacks at schools. For example, snacks are not entered in the service agreement, there is a lack of financial and personnel resources, demand is low, and the rector can decide on their school's snack policy. During the preparation of the Development Programme, it was also discovered that several municipalities have tested the provision of snacks, but the practice has not stabilised due to the reasons above. The report<sup>28</sup> emphasises that, due to variation in snack policies between different

<sup>26</sup> Tilles-Tirkkonen Tanja et al. 2021: Balanced school lunch and smart snacks. School dining today and tomorrow. Publications of the Government's analysis, assessment and research activities 2021:31. Helsinki 2021.

<sup>27</sup> Tilles-Tirkkonen Tanja et al. 2021: Balanced school lunch and smart snacks. School dining today and tomorrow. Publications of the Government's analysis, assessment and research activities 2021:31. Helsinki 2021.

<sup>28</sup> Tilles-Tirkkonen Tanja et al. 2021: Balanced school lunch and smart snacks. School dining today and tomorrow. Publications of the Government's analysis, assessment and research activities 2021:31. Helsinki 2021.

municipalities and schools, students and their families are in an inequal position, which is why snack policies should be harmonised.

The Finnish Model for Leisure Activities, which is currently in progress, is linked to the reform of the school day<sup>29</sup>. Its objective is to enable enjoyable and free leisure activities for children and young people during the school day. Longer school days increase the need to develop snack policies at schools.

During the stakeholder discussions held during the preparation of the Development Programme, it was discussed whether snacks could potentially reduce participation in school meals. However, there is no evidence of such an outcome. Supporting learning, promoting health and improving enjoyment and the sense of community at schools are regarded as advantages of snacks. The possible participation of pupils and students in the provision or arrangement of snacks also supports diverse inclusion in the provision of school meals.

To develop and harmonise snack practices in basic education, free and nutritious before- or after-school snacks should be provided in addition to the free school lunch in accordance with the criteria of the school meal recommendations<sup>30</sup>. Snacks must be provided as a separate part of the study day, and they cannot reduce the amount or quality of lunch. It is also important to define the responsibilities associated with catering and supervision between different personnel groups. In the future, the obligation to provide snacks could be integrated into the provisions on free basic education.

#### **Upper secondary education**

Guidelines for providing before- and after-school snacks are defined in food recommendations for general and vocational upper secondary education. According to the recommendations, student restaurants or cafés should offer a variety of healthy snacks that are appealing to students.<sup>31</sup>

Various vocational schools have trialled free or low-cost breakfast or porridge, which has been popular among students. Free before- or after-school snacks can promote students' wellbeing and support learning if the school day is long or it is extended by possible double degree studies.

<sup>29</sup> Finnish Model for Leisure Activities. https://harrastamisensuomenmalli.fi/en/

<sup>30</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017

<sup>31</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019

The food recommendation for general and vocational upper secondary education applies to the provision of school meals in upper secondary education<sup>32</sup>. Unlike the Basic Education Act<sup>33</sup>, the act on general upper secondary education<sup>34</sup> and the act on vocational education<sup>35</sup> do not include any obligation to appropriately provide or supervise a balanced meal. To ensure equality and the nutritional quality, the opportunity to amend legislation should be investigated so that it would consistently correspond to the provisions of the Basic Education Act on school meals. Snack policies in upper secondary education should also be investigated, and the obligation to provide snacks could be added to provisions on the right of upper secondary education students to free meals, if the investigation deemed this possible.

## 2.3 Municipal appropriations for school meals

The main task of municipalities is to provide basic services, to which school meals are linked through teaching and education services. Municipalities are responsible to promote the residents' health which also applies to school meals. According to the Local Government Act<sup>36</sup>, municipalities must promote the wellbeing of their residents and the vitality of their respective areas, and arrange services for their residents in a way that is financially, socially and environmentally sustainable. Meals that promote health are part of sustainable living and environmentally friendly solutions that produce far-reaching vitality for municipalities. Proper nutrition is the basis of the healthy growth, development and learning of children and young people. Municipalities are obligated to provide pupils and students with balanced school meals, also from the perspective of the Basic Education Act.

<sup>32</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019

<sup>33</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>34</sup> Act on general secondary education, 10 August 2018/714. https://www.finlex.fi/fi/laki/ajantasa/2018/20180714

<sup>35</sup> Act on vocational education 531/2017. https://www.finlex.fi/fi/laki/alkup/2017/20170531

<sup>36</sup> Local Government Act, 410/2015, section 1. https://www.finlex.fi/fi/laki/ajantasa/2015/20150410

**Photo 5.** Proper nutrition is a significant foundation for the healthy growth, development and learning of children and young people.



Any increase in food, personnel or other expenses cannot reduce the rights of basic education pupils and upper secondary education students to balanced school meals. Municipalities and education providers must allocate sufficient food appropriations to the provision of meals that are in accordance with nutrition recommendations and are produced sustainably (Section 4). In addition, the skills of the food service personnel must be ensured through additional and supplementary training.

#### **Service agreement**

It is important to agree upon the content and provision of school meals in a service agreement between the client and food service operator or other document that defines the service content. The intended service and its volume should be described as clearly as possible so that the service is financially sustainable and the agreement period can be fulfilled. All key quality, responsibility and nutrition requirements related to the provision of school meals and the food offered must be defined clearly. The provisions entered in the service agreement must be monitored as agreed, and school meals must be developed between the client and food service operator. The agreement must accurately and unambiguously define any price adjustment mechanisms and dates. More

information about responsible procurement is presented in Section 4. The procurement guide for responsible food services<sup>37</sup> prepared by the Ministry of Agriculture and Forestry provides more information and examples regarding the content of the service agreement.

#### **Subsidies and incentives**

#### EU school fruit, vegetables and milk scheme

Municipalities and private educational institutions can receive the EU's school milk, fruit and vegetable subsidies intended to develop healthy eating habits. The subsidies are intended for early education children, i.e. pre-primary and basic education pupils and upper secondary education students. Their purpose is to promote the consumption of milk and dairy products, vegetables, fruit and berries amongst children and young people. In Finland, an additional subsidy is paid for organic products. The subsidy is implemented by the Finnish Food Authority, and supported products and subsidy amounts are published per school year.<sup>38</sup> The school distribution system includes associated activities that support food education, and provide more information about healthy diets, food production and agriculture<sup>39</sup>.

#### **HYTE** coefficient

Municipalities can receive financial support based on the promotion of health and wellbeing using the HYTE multiplier<sup>40</sup> to be introduced at the beginning of 2023. In the future, the percentage of state subsidies from funding provided for municipalities will partly be determined according to municipalities' activities aimed to advance health and wellbeing. One of the indicators of such activities is the provision of school lunch and snacks in basic education following the principles of the school meal recommendations.

<sup>37</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>38</sup> Finnish Food Authority: School milk subsidy and school fruit subsidy, school year 2022–2023, application guide.

<sup>39</sup> Ministry of Agriculture and Forestry: News, 21 June 2017.

https://mmm.fi/-/koulujen-maitotuotetuen-ohelle-tulee-eu-n-hedelma-ja-vihannestuki

<sup>40</sup> THL: HYTE multiplier – an incentive for municipalities. https://thl.fi/fi/web/hyvinvoinnin-jaterveyden-edistamisen-johtaminen/hyvinvointijohtaminen/hyvinvointijohtaminen-kunnassa/hyte-kerroin-kannustin-kunnille

# 2.4 Development proposals

- Offering a free choice of main course options and meal components to choose from at each school and educational institution in accordance with the food recommendations.
- Providing basic education pupils with free of charge and nutritious beforeor after-school snacks in accordance with the criteria of the school meal recommendations.
- Municipalities and education providers must allocate sufficient
  appropriations to the provision of high-quality food services, including meals
  that follow the nutrition recommendations and are sustainable, and promote
  the food service personnel capacity building.



#### See examples of the development of school meals

mmm.fi > Kouluruokaohjelma (School meal programme) > Kouluruokaohjelman kiinnostavimmat (Key parts of the school meal programme)

# 3 Development of school meal practices

#### **Basic education**

School meals are based on the needs of pupils and students. According to the Basic Education Act<sup>41</sup>, children's best interests must be addressed when planning and providing education and when deciding on it.

School meals give pupils and students novel food experiences, give advice on sustainable life, and are an important part of the school day. According to the national core curriculum for basic education, <sup>42</sup> education providers must describe, in the curriculum, the guiding principles of school meals, the objectives related to food and health education, the learning of good manners and sustainable living, and the ways to address any special dietary needs of pupils and students.

#### **Upper secondary education**

In upper secondary education, school meals are part of education providers' teaching and education responsibility and operating culture. Mealtimes are an important part of the school day and support students' ability to study and work, health, wellbeing and refreshment. Lunch breaks are an opportunity to improve inclusion, listen to students and engage everybody. In addition, school meals can be integrated into various subjects or themes.<sup>43</sup>

The objective of student meals is to advance young people's regular meal rhythm, and develop food-related knowledge and skills, as well as promote sustainable choices. Student meals offer an excellent opportunity to have an impact on healthy eating habits and give lifestyle support, as students gain independence from their childhood home.<sup>44</sup>

<sup>41</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>42</sup> Finnish National Agency for Education: Perusopetuksen opetussuunnitelman perusteet (National core curriculum for basic education) 2014. Helsinki 2016.

<sup>43</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>44</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

## 3.1 Mealtimes

The Basic Education Act<sup>45</sup> requires the appropriate provision of school meals. The national core curriculum for basic education defines that students must be able to eat their meals at the correct time in peace and quiet without any rush by providing and scheduling appropriate and timely school meals. Mealtimes must be set so that they divide the school day into suitable parts, fitting the Finnish daily rhythm. According to the meal recommendations<sup>46</sup>,<sup>47</sup>, the minimum duration of a meal is 30 minutes.

This minimum duration (30 minutes) is also important because the hormonally transmitted feeling of fullness takes at least 20 minutes to develop. Therefore, gobbling up food quickly under a time pressure reduces the development of the feeling of fullness and the ability to sense hunger and fullness so that a child may eat too little or too much relative to their needs.

**Photo 6.** The lunch break, including serving and enjoying the meal, requires a sufficient amount of time to meet the objectives of school meals, including health education and the learning of good manners.



<sup>45</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>46</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>47</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

Too early lunch time (before 10 am or earlier) or an insufficient time reserved for the meal (15 minutes or less) have been challenges at several schools. The reasons can be that the lunchroom is too small in relation to the number of pupils or students, or there may be other problems in meal time schedules. According to the pupil and student surveys<sup>48</sup> conducted during the preparation of the Development Programme, school meals provide an important opportunity for children and young people to spend time together. Many respondents regarded this as the best part of school meals. Other research evidence<sup>49</sup> supports this finding.

While lunch breaks can be enjoyable, they can also be restless. Queues, noise and overcrowding were described as reasons for skipping school meals in the Development Programme's pupil and student surveys<sup>50</sup>. The workshops for hearing the voice of children and young people held by the Ministry of Agriculture and Forestry and the Youth Work Centre of Expertise for Participation and Influencing<sup>51</sup> also emphasised the significance of enjoyable and quiet eating situations. Children and young people appreciate a peaceful and relaxed atmosphere, as school meals offer a break from the school day, during which they have enough time to eat and unwind. According to young people, they are equal to adults in the eating situation, while adults enable the school meal and are responsible for the safety and smooth flow of the situation<sup>52</sup>.

#### 3.2 Meal environment

According to the school meal recommendations<sup>53</sup>, the lunch room and the whole meal environment has a significant impact on the popularity of school meals by either increasing or reducing it. In a rushed, noisy and uncomfortable environment, "supervision" takes precedence over guidance. It is important that the meal conditions are comfortable, allowing pupils, students and the school staff together to enjoy their meals in peace.

<sup>48</sup> Ministry of Agriculture and Forestry: Pupil and student surveys for the Development Programme for School Meals. 2022.

<sup>49</sup> Janhonen, Kristiina: Adolescents' Participation and Agency in Food Education. Doctoral dissertation (articles). University of Helsinki, Faculty of Educational Sciences, 2016.

<sup>50</sup> Ministry of Agriculture and Forestry: Pupil and student surveys for the Development Programme for School Meals. 2022.

<sup>51</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

<sup>52</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

<sup>53</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

A suitable lunch area is large enough for the number of users and the logistics facilitate the smooth flow. The age and physical abilities of users should be addressed in the design of the eating area and its furniture.<sup>54</sup>

While there are no separate provisions or recommendations governing the design of eating areas at schools, separate provisions on learning environments are laid down in educational regulations which education providers must follow. Section 29, subsection 1 of the Basic Education Act<sup>55</sup> defines that a pupil participating in education must be entitled to a safe learning environment, which supports individual growth and growth in the community, learning and interaction, and advances healthy growth and development in accordance with the individual's age and capabilities.

Currently, not all schools and educational institutions have appropriate meal areas. The suitability of facilities for their intended use must be ensured when building new schools and educational institutions and renovating existing ones. Members of the food service and teaching staff must be engaged in the design process, and the opinions of pupils and students must be heard, if possible.

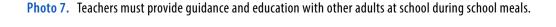
## 3.3 Guidance for school meals

The Basic Education Act defines that school meals must be supervised. This provision is supplemented by the national core curriculum for basic education<sup>56</sup>, according to which teachers must provide guidance and education with other adults at school during school meals.

<sup>54</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>55</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>56</sup> Finnish National Agency for Education: Perusopetuksen opetussuunnitelman perusteet (National core curriculum for basic education) 2014. Helsinki 2016.





According to the school meal recommendation<sup>57</sup>, the key objective of guidance is that pupils and students obtain positive experiences, and are motivated and used to choosing meals that follow the recommendations and are sufficient for them and match their energy expenditure. Good guidance is based on the needs of the pupils and students, and is illustrative, practical and goal-driven.

According to the food recommendation for upper secondary education<sup>58</sup>, all communication related to student meals is part of meal guidance, including example dishes and menu entries. The suitability of meal components for various diets, a serving line that guides pupils and students to make good choices, and an enjoyable and appealing environment are also part of meal guidance<sup>59</sup>.

<sup>57</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>58</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>59</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

The school staff should guide pupils and students to make good choices based on healthy nutrition. Teaching good manners is also part of educational objectives. The participation of adults in the eating situation is a practical and natural way to convey good manners.

The food service operator is responsible for providing healthy, safe and diverse food. In addition, the food service operator is responsible for displaying the food attractively in the serving line. The food service operator also supports meals with example dishes and customer communication. Friendly customer service customised for each age group also contributes to successful meals and is an important part of the job description and professional skill requirements of food service professionals.

Pupils and students also need guidance and support during changes, such as changing to a new school and trying new dishes. The Development Programme's pupil and student surveys<sup>60</sup>, the young people's workshops<sup>61</sup>, the Timeout discussions<sup>62</sup> and stakeholder discussions pointed out concerns experienced by pupils and students regarding the eating situation, such as the fear of eating alone, anxiety related to queueing and the fear of "messing up" during the eating situation. Young people wish they do not have to eat alone at school. Schools can seek solutions through tutor activities. According to young people, respecting privacy is important: food is a personal choice and should not be judged or intervened by others. Interactive eating situations are also part of the social responsibility of school meals (Section 4).

#### 3.4 Food education

Food education at schools means pedagogical activities related to food and eating, including guidance and teaching<sup>63</sup>.

<sup>60</sup> Ministry of Agriculture and Forestry: Pupil and student surveys for the Development Programme for School Meals. 2022.

<sup>61</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

<sup>62</sup> Ministry of Agriculture and Forestry: Timeout discussions at the 2022 Well Said discussion festival.

<sup>63</sup> Talvia S, Lindholm T, Karhunen L, Helkkola L, Räsänen S, Ollilainen K, Kinnunen H, Anglé S. Ruokasuhteen pedagoginen viitekehys ruokakasvatuksen näkökulmana (The pedagogical frame of reference of the food relationship from the perspective of food education). Ainedidaktiikka 2021;5(3):71–89.

**Photo 8.** School meals can be used pedagogically as a theme during lessons or various projects.



School and student meals offer a daily learning environment for food education and competence. While food education and cooperation related to school meals can take place during school meals, they can also be used pedagogically as themes during lessons or various projects or, for example, in the activities of school meal juries and agents<sup>64</sup>. Safeguarding children's best interests also requires close cooperation between adults in food education.

Teachers must provide guidance and education with other adults of the school during school meals.

National responses to the evaluation of the current state of school meals and food education<sup>65</sup> show that food education should be integrated more closely and more diversely into schools' pedagogical activities, and its objectives should be entered more often in school year plans. In addition, the evaluation shows that the school staff rarely participate in supplementary food education training. In Finland, class teachers consider

<sup>64</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>65</sup> Finnish Society for Food Education (Ruukku), University of Eastern Finland, and Finnish Heart Association: Current state of school meals and food education. https://nykytila.fi/

their role and that of their school to be important in providing food education, while they feel that especially the lack of time hinders the practical arrangement of food education<sup>66</sup>.

#### **Cooperation in food education**

The national core curriculum for basic education and the school meal recommendations<sup>67</sup> underline the importance of cooperation with pupils and students, the adults at school, and homes. The food recommendations for upper secondary education also encourage homes and educational institutes to engage in active cooperation<sup>68</sup>.

School operators evaluate that cooperation in food education between different parties is not sufficiently effective at present. Furthermore, school operators are not often familiar with the municipal welfare report<sup>69</sup>.

The ability to engage in cooperation is reduced by such factors as strict time limits, the allocation of personnel resources and teaching objectives to areas other than food education, experiences of insufficient competence, and the content of the national or school-specific curriculum or food service agreements, for example<sup>70</sup>. More information is required about what obstacles and opportunities there are in cooperation in food education at different levels of education, including grades 1–6 or 7–9 in basic education and upper secondary education.

Considering constructive and effective cooperation in food education, identifying the strengths of different occupational groups and subjects more clearly than at present is key. In addition, more focus needs to be placed on strengthening the food education skills of adults at schools as part of basic and supplementary training.

The role of rectors in enabling and supporting cooperation in food education has been highlighted in international studies<sup>71</sup>. This is also supported by practical observations

<sup>66</sup> Laitinen AL, Antikainen A, Mikkonen S, Kähkönen K, Talvia S, Varjonen S, Paavola S, Karhunen L, Tilles-Tirkkonen T. The "Tasty School" Model Is Feasible for Food Education in Primary Schools. Journal of Human Nutrition and Dietetics. 2022;1–11. https://doi.org/10.1111/jhn.13071

<sup>67</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>68</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>69</sup> Finnish Society for Food Education (Ruukku), University of Eastern Finland, and Finnish Heart Association: Current state of school meals and food education. https://nykytila.fi/

<sup>70</sup> Janhonen, K. & Elkjaer, B. (2022). Exploring sustainable food education as multiprofessional collaboration between home economics and school food services, Journal of Education for Sustainable Development, Accepted for publication/In press.

<sup>71</sup> Berggren, L. (2020). "It's not really about the food, it's about everything else": Pupil, teacher and head teacher experiences of school lunch in Sweden. Doctoral dissertation. Department of Food, Nutrition and Culinary Science, University of Umeå.

made in Finland. The rector defines values for school meals and enables discussions and activities, including early guidance for school meals. Pedagogical leadership should be highlighted more than at present in the development of food education and school meals. To reinforce it, school rectors should be provided with targeted training and communication regarding their role in enabling food education at school. For example, teachers' ability to have an impact on school meal practices and meal benefits given to them are important ways to engage the teaching staff in school meals.

Homes play an important role in promoting school meals and food education. According to the national core curriculum for basic education<sup>72</sup>, the inclusion of parents and guardians, and their opportunity to participate in school activities and their development are an integral part of the operating culture at schools. The objectives and arrangement of school and student meals (including dish options, before- and after-school snack policies) must be discussed with homes, and the benefits of school and student meals for learning and health must be communicated. In addition, parents and guardians should be provided with guidance regarding how they can support children and young people in participation in school and student meals. Parents and guardians also provide significant support for smaller schoolchildren who may not know how to express their opinions.

According to the Parents' Barometer (2018)<sup>73</sup>, only roughly 15 per cent of parents felt that the objectives and arrangements of school meals have been discussed with them. More information is required about the opportunities to engage in even more diverse cooperation with homes and families.

Various tools have been developed to strengthen food education and cooperation in food education at schools and educational institutions, including the school meal agent (ruokatieto.fi), the school lunch diploma (kouluruokadiplomi.fi), the tasty school model (maistuvakoulu.fi), the current state evaluation (nykytila.fi), and the food radar (ruokatutka.fi). The national and school-specific curriculum, the establishment of a working group for food education in a municipality, a service agreement with food services, and welfare reports and plans of municipalities and wellbeing services counties can also be seen as tools that help agree upon the framework of cooperation in food education and the distribution of responsibilities in more concrete terms.

<sup>72</sup> Finnish National Agency for Education: Perusopetuksen opetussuunnitelman perusteet (National core curriculum for basic education) 2014. Helsinki 2016.

<sup>73</sup> Finnish Parents' League: Koululaisten vanhempien näkemyksiä lapsen koulunkäynnistä sekä kodin ja koulun yhteistyöstä (Opinions of schoolchildren's parents on children's school attendance and cooperation between the home and school). 2018. https://vanhempainliitto.fi/wp-content/uploads/2018/11/Vanhempien-Barometri-2018\_raportti.pdf

# 3.5 Development proposals

- School mealtimes follow the school meal recommendations, and guarantee a sufficient minimum time for enjoying a meal in accordance with the recommendations.
- Clarifying and strengthening the objectives, content and role of food education as part of future national and education providers' curricula for basic education and general upper secondary education.
- Entering cooperation in food education more clearly in the municipal welfare reports and plans and wellbeing services counties, as well as service agreements entered into with food services.
- Ensuring sufficient resources for long-term activities to support food education in municipalities and at schools, the inclusion of pupils and students, and the use of practices and tools that strengthen cooperation in food education.
- Increasing basic and supplementary training related to food education for the teaching and food service staff.
- Increasing the abilities of adults at schools to provide guidance and be engaged in school meals by offering harmonised meal benefits for staff members who eat with pupils and students.
- When building and renovating schools and educational institutions, ensuring
  appropriate and enjoyable kitchen and eating areas. The opinions of the food
  service and teaching staff must be addressed in the design process.



See examples of the development of school meal practices

mmm.fi > Kouluruokaohjelma (School meal programme) > Kouluruokaohjelman kiinnostavimmat (Key parts of the school meal programme)

# 4 Improving the responsibility of school meals

School meals promote sustainable living, inclusion, non-discrimination and equality in health<sup>74</sup>. Engaging children and young people in a sustainable lifestyle is an investment in the wellbeing of children, young people and the school community as a whole. The different dimensions of responsibility are closely linked to and intersect each area of school meals.

School meals are part of the public food service. Their provision addresses not only tasty meals that fulfil the need for nutrition and advance health, but also the goals set for promoting sustainable development and mitigating climate change<sup>75,76,77</sup>.

In addition to legal provisions and the nutrition and meal recommendations<sup>78</sup>,<sup>79</sup>, the provision of responsible school meals is guided by the goals of ecological, financial and social sustainability set out in the public procurement strategy<sup>80</sup> and food programmes (Appendix 2).

Key parts of assessing the overall responsibility of school meals include the production methods of raw materials, public procurement criteria for food, food preparation methods, the provision and serving of meals, the selection of serving and packaging material, transport, the reduction of food waste, and the use of leftover food.<sup>81</sup>

<sup>74</sup> Finnish National Agency for Education: Education system. Basic education. School meals – integral part of national core curricula. https://www.oph.fi/en/education-and-qualifications/school-meals-finland

<sup>75</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>76</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>77</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>78</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>79</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>80</sup> Ministry of Finance: National public procurement strategy 2020. https://iulkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>81</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

Food is a concrete illustrator of the Sustainable Development Goals and everyone can have an impact on it. Knowledge of the food system increases understanding of food production and different aspects of sustainability and ethics. Food education can foster the sustainability transition. The school staff must discuss sustainability aspects with pupils and students, and their parents and guardians, and increase understanding of a sustainable future and how to achieve it.

# 4.1 Strategies, programmes and recommendations that guide school meals

#### International goals

Finland is committed to the global 2030 Agenda for Sustainable Development<sup>82</sup>, the goals of which are implemented in Finland through the Society's Commitment to Sustainable Development<sup>83</sup>. The commitment's goals guide the provision of school meals that are produced sustainably and advance health. The nutrition commitment<sup>84</sup> is part of the Society's Commitment to Sustainable Development. Food service operators and clients, including municipalities, can join the commitment voluntarily by defining their sustainability goals, the achievement of which they also commit to monitoring.

The provision of school meals addresses the UN's Sustainable Development Goals (SDGs)<sup>85</sup>, with school meals advancing at least the following SDGs in Finland: no poverty; zero hunger; good health and well-being; quality education; decent work and economic growth; reduced inequalities; responsible consumption and production; climate action; life on land; and partnerships for the goals.

<sup>82</sup> United Nations Department of Economic and Social Affairs: The 2030 Agenda for Sustainable Development. https://sdgs.un.org/goals

<sup>83</sup> Finnish National Commission on Sustainable Development: The Finland we want by 2050. Society's Commitment to Sustainable Development (2016). https://kestavakehitys.fi/en/commitment2050

<sup>84</sup> Finnish National Commission on Sustainable Development: Commitment2050. Nutrition commitment. https://sitoumus2050.fi/en\_US/web/sitoumus2050/tietoa-ravitsemussitoumuksesta#/

<sup>85</sup> United Nations Department of Economic and Social Affairs: The 2030 Agenda for Sustainable Development. https://sdgs.un.org/goals

**Photo 9.** School meals advance several of the UN's Sustainable Development Goals.



The European Green Deal<sup>86</sup> and the related Farm to Fork Strategy<sup>87</sup> and Biodiversity Strategy<sup>88</sup> aim to maintain biodiversity and guide Europe towards climate neutrality. The objective is to accelerate the transition to a healthy, fair and sustainable food system from primary production to consumer tables through sustainable food production methods and food procurement, and by halving food waste by 2030.

<sup>86</sup> European Commission, European Green Deal 2019.

 $https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\_en$ 

<sup>87</sup> European Commission: Farm to Fork Strategy. 2020. https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\_en

<sup>88</sup> European Commission, Biodiversity Strategy (2020).

https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030\_en

#### **National goals**

The Government resolution on the national Public Procurement Strategy<sup>89</sup>,<sup>90</sup> defines goals for sustainable and responsible food service and product procurement. Food service and product procurement for school meals can be developed systematically to achieve the goals. As a rule, food procurement criteria must foster environmentally friendly farming methods, food safety, healthy nutrition and animal welfare and health, and therefore promote a sustainable food security.

There are also other national strategies, programmes and recommendations that define goals for food and nutrition, as well as public food services and procurement. These include organic and local food programmes, the circular economy programme, the bioeconomy strategy, the programme to promote Finnish fish, and national nutrition and dietary recommendations. More information is available in Appendix 2.

#### **Local goals**

Municipal strategies and guidelines, as well as other commitments, guide the provision of school meals. They can define more detailed goals for the quality and sustainability of school meals, such as using local and organic food, and reducing the carbon footprint of meals.

# 4.2 Ecological responsibility

Ecologically responsible school meals address the impact of food production on the environment and climate. Key development areas include reducing the carbon footprint of meals and their adverse impact on biodiversity, applying responsibility criteria to food procurement, controlling food waste, and providing training on sustainable development. Other key factors considering the environment include monitoring and reducing the consumption of energy and water, and sorting and recycling waste.<sup>91</sup>

<sup>89</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>90</sup> Finnish Government: The Government's decision-in-principle on the national public procurement strategy. 2020 https://valtioneuvosto.fi/paatokset/paatos?decisionId=0900908f806d890d

<sup>91</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

## 4.2.1 Addressing environmental impact in menu planning

The most significant environmental impact of food can be monitored through the carbon footprint, biodiversity loss, the eutrophication of waterbodies, and the water footprint<sup>92</sup>.

It is estimated that food production accounts for a quarter of Finland's greenhouse gas emissions, being a production sector that has a significant impact and dependence on biodiversity. As the carbon footprint of plant-based proteins, such as legumes, and domestic inland water and sea fish species, such as common roach, vendace and Baltic herring, is relatively small, the number of dishes based on them should be increased at schools<sup>93</sup>,<sup>94</sup>. It is also recommended that a vegetarian meal option should be offered for everyone in accordance with the school meal recommendations<sup>95</sup>,<sup>96</sup>. Offering fish and vegetarian dishes is part of food education and guidance towards sustainable meals.

Fish and vegetarian dishes made from sustainable fish species and responsibly produced plant proteins are also a good option for promoting biodiversity<sup>97</sup>. The country of origin of raw materials is also an indication of responsibility and the food production methods used.

The carbon footprint of a menu can be reduced using hybrid recipes, in which several different protein sources, including meat and plant proteins, are used<sup>98</sup>. In addition, the carbon footprint of a menu and food services can be calculated, and goals can be set to reduce the carbon footprint of the dishes served, the menu and the recipes used. Other measures to increase the sustainability of school meals start from the development of menus and recipes to include responsible choices and domestic organic and local products, for example. In the future, the most significant environmental impact of food production can also be measured and addressed using the environmental footprint.

<sup>92</sup> Consumers' Union of Finland: Vastuullinen kuluttaminen. Ruokavalinnat (Responsible consumption. Food choices). https://www.kuluttajaliitto.fi/materiaalit/vastuullinen-kuluttaminen-ruokavalinnat/

<sup>93</sup> Frans Silvenius, Jari Setälä, Tapio Keskinen, Jari Niukko, Tapio Kiuru, Markus Kankainen, Kaija Saarni and Kirsi Silvennoinen: Climate impact of Finnish fish products. Natural resources and bioeconomy studies 13/2022. Natural Resources Institute Finland (Luke) 2022. https://jukuri.luke.fi/bitstream/handle/10024/551647/luke-luobio\_13\_2022.pdf?sequence=7&isAllowed=y

<sup>94</sup> Kortetmäki Teea, Pudas Taneli, Saralahti Ilja. Kouluruoka 2030: näin ilmastovaikutukset puolitetaan (School meals 2030: how to halve the climate impact). https://jyx.jyu.fi/handle/123456789/74027#.YCN8dCfh9\_4

<sup>95</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>96</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>97</sup> Gaia Consulting Oy and PTT: Luonnon monimuotoisuuden huomioiminen elintarvikehankinnoissa (Addressing biodiversity in food procurement). 2022.

<sup>98</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

## 4.2.2 Criteria for responsible food procurement

Responsible food service and product procurement increases with the use of responsibility criteria. Responsibility criteria can be used to source meat, egg and dairy products as well as vegetables, also the selection of local produce can be improved<sup>99</sup>, <sup>100</sup>.

#### **Organic production**

Organic production can be used as a criterion for food procurement, and a quantitative target can be set for the use of organic products in food services or for the Steps to Organic level, the national programme to promote the use of organic produce, required <sup>101</sup>, <sup>102</sup>. Organic production has various positive impacts on the environment and biodiversity <sup>103</sup>. The national public procurement strategy <sup>104</sup> and Finland's National Programme for Organic Production <sup>105</sup> set 25 per cent as the target for the use of organic products in public kitchens by 2030.

<sup>99</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>100</sup> Motiva: Opas vastuullisiin elintarvikehankintoihin (Guide to responsible food procurement). 2020. https://www.motiva.fi/files/18215/Opas\_vastuullisiin\_elintarvikehankintoihin\_-\_suosituksia\_vaatimuksiksi\_ja\_vertailukriteereiksi.pdf

<sup>101</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>102</sup> Motiva: Opas vastuullisiin elintarvikehankintoihin (Guide to responsible food procurement). 2020. https://www.motiva.fi/files/18215/Opas\_vastuullisiin\_elintarvikehankintoihin\_-\_suosituksia\_vaatimuksiksi\_ja\_vertailukriteereiksi,pdf

<sup>103</sup> Gaia Consulting Oy and PTT: Luonnon monimuotoisuuden huomioiminen elintarvikehankinnoissa (Addressing biodiversity in food procurement). 2022.

<sup>104</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>105</sup> Ministry of Agriculture and Forestry: Organic 2.0 – Finland's National Programme for Organic Production 2030. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163286/MMM\_2021\_13.pdf?sequence=4&isAllowed=y

**Photo 10.** Criteria that increase responsibility in food service and product procurement help procure food products for school meals more responsibly.



#### **Local food**

Locally produced food increases the social and financial sustainability of food procurement. The use of local food has a positive impact on the local economy, employment and vitality. Local food advances the region's food security and promotes the knowledge of local specialties, it enables the use of seasonal fresh food, and improves the product traceability. 106

### **The Heart Symbol**

To promote healthy nutrition, the Heart Symbol, the national front of pack health claim, criteria and minimum requirements set for the nutritional quality of components are used in food procurement and food service agreements<sup>107</sup>, <sup>108</sup>.

<sup>106</sup> Ministry of Agriculture and Forestry: Local food – but of course! The Local Food Programme and local food sector development objectives for 2025. Helsinki 2021.

<sup>107</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

 $<sup>108\,</sup>Finnish\,Heart\,Association.\,https://ammattilaiset.sydanmerkki.fi/elintarviketeollisuus/\,and\,https://ammattilaiset.sydanmerkki.fi/ammattikeittiot/$ 

#### Fair trade

The social responsibility of food procurement can be increased by using social responsibility certifications, such as the fair trade certification, if foodstuffs originate from high-risk countries<sup>109</sup>.

#### 4.2.3 Food waste

In addition to sustainable ingredient choices, reducing food waste is a significant measure to reduce the environmental impact of food<sup>110</sup>. Roughly a fifth of food prepared in food services ends up as waste. The majority of food waste is generated in the serving line.

Food service operators must ensure that they generate as little food waste as possible in their activities<sup>111</sup>. The new waste decree obligates food operators, including food service operators, to release any unused edible foodstuffs for redistribution, primarily for human consumption, if this is possible without endangering food safety and with reasonable costs<sup>112</sup>.

School communities can reduce food waste using an effective order, logistics and information system that helps address any variation in the number of service users and any significant pre-defined absences. Monitoring practices for food waste and concrete goals for reducing waste must be defined in the service agreement between the client and food service operator. The use and distribution of any unused food should also be agreed. Reducing waste should be the common goal of the food service operator, client and customers.

# 4.3 Social responsibility

Social sustainability and responsibility improve wellbeing, equality and safety in the school environment.

<sup>109</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>110</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>111</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>112</sup> Ministry of the Environment: Waste/Waste Act. Waste Act and decrees – What has changed? What do I do? https://ym.fi/jatteet/jatelaki

Enabling Ensuring the inclusion of the wellbeing, food Advancing non-discrimination pupils and students security and health and their ability to of pupils and and diversity. have an impact on students, staff members and other the development of school meals. stakeholders. Communicating Complying with Advancing the sustainability regulations and interactive eating of school meals recommendations situations. and responsible related to school

**Photo 11.** Promoting social responsibility is part of school meals.

choices.

School meals play an important role in building social responsibility and promoting inclusion in the school environment.

meals.

Furthermore, school meals provide equal access to nutritious food for children and young people from different family backgrounds. Good nutrition reduces health inequalities, therefore promoting a healthy diet during childhood should be supported at a societal level<sup>113</sup>. School meals are a tool to increase health equality of children and young people. The provision of balanced nutrition for children and young people at schools is supported by offering before- and after-school snacks in addition to school lunch and by using all excess food. Before- and after-school snacks provided in accordance with the recommendations are particularly important for children and young people in the most vulnerable groups.

The social responsibility of school meals is further advanced by interactive eating situations, student inclusion, and students' ability to have an impact on the content of school meals. Loneliness and study-related stress, for example, can threaten the psychological health of children and young people. At best, the entire growth and learning environment offers an opportunity for the positive development of psychological

<sup>113</sup> Skaffari Essi, Erkkola Maijaliisa, Korkalo Liisa, Lehto Reetta, Nissinen Kaija, Ray Carola, Roos Eva, Vepsäläinen Henna: Link between the family's income, the experienced lifestyle and children's diets. Sosiaalilääketieteellinen aikakauslehti 2022: 59: 121–138.

resources<sup>114</sup>. Taking care of the wellbeing, food safety and health of pupils, students, the school staff and other stakeholders is also part of social responsibility. It also includes promoting non-discrimination and diversity, communicating the sustainability of school meals and complying with regulations and recommendations when providing school meals. The social responsibility of food procurement is discussed briefly in Section 4.2.2 (Criteria for responsible food procurement).

# 4.4 Financial responsibility

Financially sustainable procurement supports a balanced public economy and the client organisation's cost-effective activities<sup>115</sup>,<sup>116</sup>. For example, combating the shadow economy and cartels, and safeguarding the tax responsibility and security of supply have an impact on financial sustainability. Cost effectiveness can be advanced by using joint and impact-based procurement and by developing the evaluation of the economic lifecycle.

Financially sustainable school meals take into account the multiplicative effect of service provision on such factors as employment and the regional economy<sup>117</sup>,<sup>118</sup>. Decisions on school meals have an impact on the wellbeing of customers and the environment, and food security. It is important that all dimensions of responsibility are examined equally in conjunction with procurement.

The significance of school meals should be understood broadly, and the development goals set for school meals should be entered in the strategy of the municipality or education provider. Concrete measures must be defined for the achievement of the development goals and entered in the local curriculum and the food service agreement or description. The education providers must monitor the fulfilment of the measures comprehensively. In addition, procurement competence must be developed as part of the use of procurement criteria that increase responsibility. Sufficient resources and appropriations must also be allocated to the provision of school meals (Section 2.3).

<sup>114</sup> Vorma Helena, Rotko Tuulia, Larivaara Meri, Kosloff Anu. National Mental Health Strategy and Programme for Suicide Prevention 2020–2030. Publications of the Ministry of Social Affairs and Health 2020:6. http://urn.fi/URN:ISBN:978-952-00-4139-7

<sup>115</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>116</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://iulkaisut.valtioneuvosto.fi/handle/10024/164611

<sup>117</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>118</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

# 4.4.1 Degree of domestic content of food, food security and the security of supply

An independent and effective food system is important for Finland and Finnish people, as only it can safeguard food security and livelihood for people working in the system<sup>119</sup>. Climate change, biodiversity loss and crises may significantly reduce food security, also in Finland<sup>120</sup>. A high security of supply ensures the self-sufficiency in food production required during crises.





Public food procurement plays a significant role in the security of supply<sup>121</sup>. According to studies, the degree of domestic content of food in food services is 70–80%<sup>122,123</sup>. There

<sup>119</sup> Ministry of Agriculture and Forestry: Food security. https://mmm.fi/ruokaturva

<sup>120</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>121</sup> Ministry of Finance: National public procurement strategy 2020. https://julkaisut.valtioneuvosto.fi/handle/10024/162418

<sup>122</sup> Viitaharju Leena, Kujala Susanna, Hakala Outi and Trogen Ada. 2020. Local food in words and deeds – the change in the use of local foods in public kitchens between 2013 and 2019. University of Helsinki. Ruralia Institute. Reports 201.

<sup>123</sup> Motiva: Comparison of the domestic content in food procurement 2018 vs. 2022.

are significant differences in the degree of domestic content between municipalities and product groups and, for example, the domestic content of fish and plant proteins should be increased <sup>124</sup>, <sup>125</sup>. Increasing the degree of domestic content of food improves national food security. The production of domestic legumes and the use of domestic inland water fish species also improve self-sufficiency in proteins.

In Finland, food safety, food hygiene and product safety are ensured through food legislation and monitoring<sup>126</sup>. Food safety is an important aspect of food security. The 'smiley face of Oiva', a national food safety monitoring system, shown in the school cafeteria is an indication of compliance with food legislation<sup>127</sup>.

Public food procurement must address the security of supply, including preparation for disruptions and exceptional circumstances<sup>128</sup>. The procurement unit can set minimum requirements and comparison criteria in the invitation to tender that advance the opportunities of domestic or local companies in the bidding process. For example, responsibility can be requested as a minimum requirement in food procurement.

# 4.5 Nutrition and health promotion as part of responsibility

Nutrition and health promotion are an important part of school meal responsibility, and they are linked to other areas of responsibility, including the ecological responsibility.

<sup>124</sup> Motiva: Comparison of the domestic content in food procurement 2018 vs. 2022.

<sup>125</sup> Motiva: Food and food service procurement in the public sector. Survey summary. 2018.

<sup>126</sup> Finnish Food Authority: Food safety in Finland 2021-.

<sup>127</sup> Finnish Food Authority. https://www.ruokavirasto.fi/en/foodstuffs/instructions-for-consumers/oiva---system-for-publishing-food-control-report-information/

<sup>128</sup> Finnish Government. Government report on security of supply. Publications of the Finnish Government 2022:59. Helsinki 2022. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164329/VN\_2022\_59. pdf?sequence=1&isAllowed=y

Photo 13. A high nutritional quality can be ensured using profiles, such as the Heart Symbol criteria for foodstuffs and food services, as well as the minimum requirements set for the nutritional quality in the nutrition recommendation.



Raw material choices for school and student meals must follow the recommendations for providing children and young people with better diets, including the increased use of vegetables, legumes, fruit, berries and fish, and the decreased use of salt, red meat, cold cuts and sausages<sup>129,130</sup>. In addition to the nutritional quality, these measures promote sustainability goals<sup>131,132</sup>.

<sup>129</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>130</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>131</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>132</sup> Ministry of Agriculture and Forestry: Procurement guide for responsible food services. Helsinki 2021. https://julkaisut.valtioneuvosto.fi/handle/10024/164611

It is recommended that a vegetarian option be offered every day for everyone <sup>133</sup>, <sup>134</sup>. It can be lacto-ovo-vegetarian or vegan, depending on the customer group's requests and needs. The popularity of vegetarian dishes has increased especially among secondary and upper secondary school students and staff members, and many want to add variation to a meat-containing diet by selecting vegetarian options. The share of plant-based ingredients in meat dishes can also be increased by replacing part of animal-based proteins with plant-based proteins.

The aim is to increase the use of vegetables, fruit and berries during the school lunch by offering a salad table, in which different components are available separately<sup>135</sup>. A varied range of salad components is based on seasonal products, and domestic options should be offered whenever possible.

Legumes, including domestic peas and broad beans, and legume-based products are recommended sources of proteins for the health of people and the environment <sup>136</sup>, <sup>137</sup>. Choices that support sustainable development also include potatoes and cereal-based components in place of rice. In Finland, the use of Baltic herring, inland water fish species and other under-used domestic fish species further improve the sustainability of the diet.

Students with special diets for health reasons are provided with suitable and safe food at schools, acknowledging sustainability; for example, vegetarian options can be used 138,139. Students who require special diets due to illnesses must be addressed equally in menu planning, and all foods must meet the requirements for the nutritional quality of school meals.

Ethical reasons and religious dietary needs that differ significantly from the basic diet must be addressed in accordance with the education provider's guidelines. Respecting and addressing students' ethical beliefs and multicultural backgrounds promotes inclusion and equality, and is part of the social responsibility. According to the Basic Education

<sup>133</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>134</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>135</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>136</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>137</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

<sup>138</sup> National Nutrition Council, Finnish National Agency for Education, and Finnish Institute for Health and Welfare: Student meals benefiting health and communities – Food recommendations for vocational institutions and general upper secondary schools. Helsinki 2019.

<sup>139</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

Act<sup>140</sup>, children's best interests must be addressed primarily when planning and providing education and when deciding on it.

The nutritional quality of food must be monitored to ensure the quality of school meals in accordance with the food recommendations. According to the nutrition recommendations, a high nutritional quality can be ensured using profiles, such as the national Heart Symbol criteria<sup>141</sup> for foodstuffs and food services, as well as the minimum requirements set for the nutritional quality in the nutrition recommendation.

# 4.6 Development proposals

- Addressing the impact of food on health, climate and the environment in raw material choices for school meals and in menu planning.
- Offering vegetarian options to everyone as an additional option to choose from in accordance with the Sustainable Development Goals. Placing main dishes equally in the serving line.
- Using procurement criteria that increase the responsibility of food in food procurement. Ensuring sufficient procurement competence as part of the use of procurement criteria that improve responsibility.
- Regularly monitoring and assessing the quality of food, including the sensed quality (appearance, scent, flavour, serving temperature, structure and aesthetics), nutrition and responsibility, by the school or education provider and the food service operator.
- Preparing straightforward monitoring practices for food waste and concrete goals for minimising waste accordingly to halve food waste by 2030.
- Ensuring the sufficient competence of the food service and teaching staff in sustainable development and the environment through basic and supplementary training.
- Increasing the degree of domestic, organic and local food in food services.
   Regularly monitoring the development of the usage rate municipally and nationally.

<sup>140</sup> Basic Education Act, 21 August 1998/628, section 31 – Free education. https://www.finlex.fi/fi/laki/ajantasa/1998/19980628

<sup>141</sup> Finnish Heart Association. https://ammattilaiset.sydanmerkki.fi/elintarviketeollisuus/ and https://ammattilaiset.sydanmerkki.fi/ammattikeittiot/

 Preparing a service description or agreement between the client and food service operator to define key quality, nutritional and responsibility requirements and monitoring practices related to the provision of school meals.



See examples of the development of the responsibility of school meals mmm.fi > Kouluruokaohjelma (School meal programme) > Kouluruokaohjelman kiinnostavimmat (Key parts of the school meal programme)

# 5 Other development areas

# 5.1 Consulting pupils and students

Consulting pupils and students, and advancing inclusion and the ability to have an impact are parts of development of school and student meals. They are also part of the social responsibility of school and student meals.

Secondary education pupils and upper secondary education students were consulted on ideas of future school and student meals and how to affect them during the young people's workshops held by the Youth Work Centre of Expertise for Participation and Influencing. The results revealed that the most important way to participate would be easy to conduct a survey that, for example, identifies favourite dishes. They also proposed that the student body or youth council should be included in the planning of school and student meals. They also proposed that the student body or youth council should be included in the planning of school and student meals.

<sup>142</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

<sup>143</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

**Photo 14.** Consulting pupils and students is a key part of the development of school meals.



Young people would like to give feedback personally to the kitchen staff from time to time, but this would often require stronger interaction between the staff and young people. The implementation of the means is the responsibility of the school staff, young people's influencing bodies and young people themselves, depending on the proposed action. For young people, the development of school meals is everyone's task.<sup>144</sup>

Pupils and students participated actively in workshops and surveys during the preparation of the Development Programme<sup>145</sup>. This is also an indication that they want to be heard and have an impact on school meal matters. The voice of pupils and students should be heard in the organisation of meals and the meal range, including improving the eating area cosiness and the introduction of new dishes. Participants in the Timeout discussions held by the Ministry of Agriculture and Forestry<sup>146</sup> were unanimous that pupils and

<sup>144</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

<sup>145</sup> Ministry of Agriculture and Forestry: Pupil and student surveys for the Development Programme for School Meals. 2022.

<sup>146</sup> Ministry of Agriculture and Forestry: Timeout discussions at the 2022 Well Said discussion festival.

students have insufficient opportunities to impact school meals. School meals should be developed consulting young people<sup>147</sup>.

# 5.2 Marketing and communication related to school meals

In municipal services, including school meals, communication is a key part of the provision of services. School meal-related communication is often carried out by the food service operator that may act in cooperation with the municipal communication unit or communication officers.

**Photo 15.** Digital communication channels should be used in school meal marketing and communication.



At best, communication is goal-oriented with a plan including the communication tools, implementation, responsibilities and monitoring. The role of communication is highlighted in transformations and states of emergency, and preparations should be

<sup>147</sup> Ministry of Agriculture and Forestry: The engagement of children and young people in school meals was a hot topic at Yle's Well Said discussion festival. 6 October 2022. https://mmm.fi/-/lasten-ja-nuorten-osallistaminen-kouluruokailuun-puhututti-ylen-hyvin-sanottu-keskustelufestivaaleilla

defined beforehand. Communication planning related to school meals should also address the special characteristics of municipal communication.

According to the Local Government Act<sup>148</sup>, the municipality's website is the primary channel in municipal communication, and it must include information about all municipal activities. Residents must obtain information about services, regardless of the service provider. The municipal services and activities must be communicated using clear and understandable language<sup>149</sup>. Also digital communication channels, including the social media, can be used in communication related to school and student meals.

In addition to end users, the pupils and students, the communication target groups are the client, the school, and parents and guardians. In addition to the menu, communication must cover the content, quality and practical implementation of school meals, the purpose of activities, and general guiding principles and responsible persons.

School meals should be supported by activities, including brochures and events for parents and guardians, where school meal is offered. They are an effective way to increase appreciation of school meals. Explaining the benefits of school meals and highlighting the positive factors give support to the positive image of school meals.

Engaging pupils and students in communication with the teaching and healthcare staff and the food service operator through surveys and campaigns also supports inclusion and advances the goals of food education (Section 3). The forms and responsibilities of communication cooperation should be defined in the service agreement or description.

Daily customer service situations, in which the food service staff play a key role, are an important part of communication. The participants in the young people's workshops<sup>150</sup> pointed out the kitchen staff to be distant or even rude. The food service operator should allocate sufficient personnel resources to customer service and ensure a friendly customer service that addresses all age groups. This would advance the success of school meals, while being a key part of guidance related to school meals (Section 3.3).

<sup>148</sup> Local Government Act, 410/2015, section 1. https://www.finlex.fi/fi/laki/ajantasa/2015/20150410

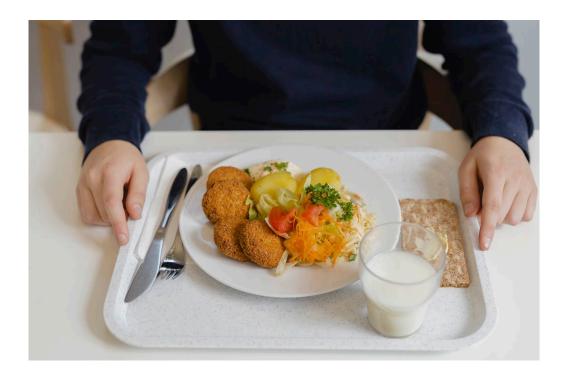
<sup>149</sup> Association of Finnish Local and Regional Authorities. Kuntaviestinnän opas. Ohjeet kunnan ja kuntapalveluja tuottavan yhteisön viestintään ja markkinointiin (Guide for municipal communication. Instructions for communication and marketing for municipalities and providers of municipal services). Helsinki. 2016. https://www.kuntaliitto.fi/sites/default/files/media/file/viestintaopas\_ebook.pdf

<sup>150</sup> Youth Work Centre of Expertise for Participation and Influencing and the Ministry of Agriculture and Forestry: Report on young people's opinions on future school meals in the spring of 2022. https://api.hankeikkuna.fi/asiakirjat/3e412f29-992d-4603-9cef-7b3b7a60f9a6/484e9e55-8578-4207-b2b2-6886142bd932/KIRJE\_20220623062810.PDF

# 5.3 Monitoring school meals

According to the national core curriculum for basic education<sup>151</sup>, the quality of school meals and participation in them should be monitored and assessed regularly. It is important to identify the factors that support participation in school and student meals and those that reduce it to improve enjoyable participation.

**Photo 16.** The quality of school meals and the participation rate should be monitored and assessed regularly.



According to the school meal recommendation <sup>152</sup>, it is important to monitor the consumption of the dishes and components offered, the participation of the school staff in school meals, cooperation between the school and homes, and the amount of food waste. Developing the daily monitoring of participation in school meals also helps the food preparation and food waste management.

<sup>151</sup> Finnish National Agency for Education: Perusopetuksen opetussuunnitelman perusteet (National core curriculum for basic education) 2014. Helsinki 2016.

<sup>152</sup> National Nutrition Council. Eating and learning together – recommendations for school meals. Helsinki 2017.

The School Health Promotion study conducted by THL<sup>153</sup> and the TEAviisari tool which describes how municipalities develop health and wellbeing<sup>154</sup> collect national information about school meals. Food service operators typically conduct customer satisfaction surveys that can be used in the development of recipes and menus.

The Organisation for Economic Co-operation and Development (OECD)<sup>155</sup> studies the impact of policy measures, including school meals. In Finland, the assessment of the impact of school meals should be developed by adopting indicators, including comparable cost information between municipalities (€).

National data collection should include indicators of the nutritional quality of food, the offering/usage rate of vegetarian options and snacks. Also the food consumption and nutrient intake of schoolchildren and young people must be monitored. It is important that Finland can present information about the impact of school meals based on research data.

In addition, measures that improve sustainability, including the achievement of the national goals set for the use of organic and vegetarian food and the reduction of food waste, can be part of impact monitoring. Impact indicators defined for school meals would enable a more targeted development of school meals in the future.

Responsibilities for school meals have been distributed to various bodies in central and local government. In Finland, the permanent and persistent development and coordination of school meals should be strengthened nationally. To implement and monitor the measures proposed in the Development Programme for School Meals, and to coordinate the development of school meals and food education, it is important to appoint a national development and coordination group for school meals. In addition, it must be ensured that the key ministries (the Ministry of Education and Culture, the Ministry of Agriculture and Forestry, and the Ministry of Social Affairs and Health) and agencies operating under them have officials responsible for school meals, nutrition and food education.

<sup>153</sup> Finnish Institute for Health and Welfare (THL). School Health Promotion study. https://thl.fi/en/web/thlfi-en/research-and-development/research-and-projects/school-health-promotion-study

<sup>154</sup> TEAviisari. https://teaviisari.fi/teaviisari/en/index?

<sup>155</sup> https://www.oecd.org/agriculture/events/howtomakebetterpoliciesforschoolmeals.htm

## 5.4 Finland's school meals in an international context

Finland's long-term development of school meals and expertise in school food attract interest internationally, as school food is an investment in learning and wellbeing, and a productive economy of the future. Various international organisations (including the UN, the World Bank<sup>156</sup>, the OECD<sup>157</sup>), identify the benefits of school meals and encourage the parties concerned to carry out policy measures that advance school meals. The World Bank points out that various countries should focus on learning results instead of the provision of educational opportunities, and that school meals offer a cost-effective tool from the perspective of the national economy.

Several of the UN's 17 Sustainable Development Goals (SDGs)<sup>158</sup> are linked to school meals (Section 4). At the World Food Systems Summit, the School Meals Coalition was established in 2021 to advance these goals. The School Meals Coalition aims to advance sustainable national school meal programmes to give every child an opportunity to a healthy and nutritious meal at school by 2030. The World Food Programme (WFP) acts as the School Meals Coalition's secretary. The coalition is co-chaired by Finland and France.<sup>159</sup>

The OECD promotes knowledge-based policy solutions and encourages countries to develop school meals. It emphasises that evidence of the impact of school meals is a key argument for the development of national policy measures for school meals. School meals improve learning and especially help children of the most vulnerable groups to adopt a healthier diet. A healthy diet protects from a global health problem (obesity), which reduces the GDP of the OECD countries by 3.3%<sup>160</sup>. More evidence is required especially of the cost impact of school meal programmes.

Finland's expertise in school meals and the marketing of solutions benefit Finland in many ways. It is important to continue to develop school meals so that we maintain and strengthen our competence and expertise in school meals internationally. Profiling Finland as an expert in school meals strengthens the image of Finland as a country that fosters equality and equal opportunities. Moreover, Finland's image as a specialist in school meals strengthens the export of innovative services, as companies with digital solutions that support the planning of school meals are provided with a strong frame of

<sup>156</sup> Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies (wfp.org)

<sup>157</sup> https://www.oecd.org/agriculture/events/howtomakebetterpoliciesforschoolmeals.htm

<sup>158</sup> United Nations Department of Economic and Social Affairs: The 2030 Agenda for Sustainable Development. https://sdgs.un.org/goals

<sup>159</sup> School Meals Coalition. https://schoolmealscoalition.org/

 $<sup>160\</sup> https://www.oecd.org/agriculture/events/howtomake better policies for school meals. htm$ 

reference. In general, school meal programmes improve food security especially in fragile countries and stabilise the country conditions, which will also be reflected in Finland.

# 5.5 Development proposals

- Promoting the opportunity of pupils and students to be heard and have an impact in municipalities and at schools and educational institutions as part of the development of school and student meals.
- Regular monitoring of customer satisfaction with school meals.
- Communicating the principles and practical implementation of school meals to customers and other stakeholders.
- Monitoring the rate of participation in school meals and identifying the factors that support participation and those that reduce it at a municipal and national level.
- Developing indicators for assessing the impact of school meals.
- Ensuring that the key ministries (the Ministry of Education and Culture, the Ministry of Agriculture and Forestry, and the Ministry of Social Affairs and Health) and agencies operating under them have officials responsible for school meals, nutrition and food education.
- Setting up a national development and coordination group for school meals.
- Promoting the export of school meals by improving and developing national school meal competence and expertise, and by advancing national and international cooperation in school meals.



See examples of development measures for school meals

mmm.fi > Kouluruokaohjelma (School meal programme) > Kouluruokaohjelman kiinnostavimmat (Key parts of the school meal programme)

# 6 Summary of development proposals

#### **Evolution of school meals**

- Offering a free choice of main course options and meal components to choose from at each school and educational institution in accordance with the food recommendations.
- Providing basic education pupils with free of charge and nutritious beforeor after-school snacks in accordance with the criteria of the school meal recommendations.
- Municipalities and education providers must allocate sufficient appropriations to the provision of high-quality food services, including meals that follow the nutrition recommendations and are sustainable, and promote the food service personnel capacity building.

### **Development of school meal practices**

- School mealtimes follow the school meal recommendations, and guarantee a sufficient minimum time for enjoying a meal in accordance with the recommendations
- Clarifying and strengthening the objectives, content and role of food education as part of future national and education providers' curricula for basic education and general upper secondary education.
- Entering cooperation in food education more clearly in the municipal welfare reports and plans and wellbeing services counties, as well as service agreements entered into with food services.
- Ensuring sufficient resources for long-term activities to support food education in municipalities and at schools, the inclusion of pupils and students, and the use of practices and tools that strengthen cooperation in food education.
- Increasing basic and supplementary training related to food education for the teaching and food service staff.
- Increasing the abilities of adults at schools to provide guidance and be engaged in school meals by offering harmonised meal benefits for staff members who eat with pupils and students.

When building and renovating schools and educational institutions, ensuring
appropriate and enjoyable kitchen and eating areas. The opinions of the food
service and teaching staff must be addressed in the design process.

#### Improving the responsibility of school meals

- Addressing the impact of food on health, climate and the environment in raw material choices for school meals and in menu planning.
- Offering vegetarian options to everyone as an additional option to choose from in accordance with the Sustainable Development Goals. Placing main dishes equally in the serving line.
- Using procurement criteria that increase the responsibility of food in food procurement. Ensuring sufficient procurement competence as part of the use of procurement criteria that improve responsibility.
- Regularly monitoring and assessing the quality of food, including the sensed quality (appearance, scent, flavour, serving temperature, structure and aesthetics), nutrition and responsibility, by the school or education provider and the food service operator.
- Preparing straightforward monitoring practices for food waste and concrete goals for minimising waste accordingly to halve food waste by 2030.
- Ensuring the sufficient competence of the food service and teaching staff in sustainable development and the environment through basic and supplementary training.
- Increasing the degree of domestic, organic and local food in food services.
   Regularly monitoring the development of the usage rate municipally and nationally.
- Preparing a service description or agreement between the client and food service operator to define key quality, nutritional and responsibility requirements and monitoring practices related to the provision of school meals.

#### Other development areas

- Promoting the opportunity of pupils and students to be heard and have an impact in municipalities and at schools and educational institutions as part of the development of school and student meals.
- Regular monitoring of customer satisfaction with school meals.
- Communicating the principles and practical implementation of school meals to customers and other stakeholders.

- Monitoring the rate of participation in school meals and identifying the factors that support participation and those that reduce it at a municipal and national level.
- Developing indicators for assessing the impact of school meals.
- Ensuring that the key ministries (the Ministry of Education and Culture, the Ministry of Agriculture and Forestry, and the Ministry of Social Affairs and Health) and agencies operating under them have officials responsible for school meals, nutrition and food education.
- Setting up a national development and coordination group for school meals.
- Promoting the export of school meals by improving and developing national school meal competence and expertise, and by advancing national and international cooperation in school meals.

# Appendix 1. School Meals 2.0 working group for the Development Programme for School Meals

#### Chair

Minna-Mari Kaila, Director General, Ministry of Agriculture and Forestry

#### Vice chair

Anna-Leena Miettinen, Head of Unit, Ministry of Agriculture and Forestry

#### **Members**

Mari Erho, Finnish teacher, Jyväskylä Educational Consortium Gradia (subject teachers' association)

 $Kirsi\ Hanski, food\ service\ manager,\ municipality\ of\ Tuusula$ 

(professional kitchen expert's association (AMKO))
Marjut Huhtala, director, AMKO

Auvo Huotari, rector, city of Oulu (Finnish rectors' association)

Minna Huttunen, Ministerial Adviser, Ministry of Agriculture and Forestry

Kaisa Isotalo, rector, town of Seinäjoki (Finnish rectors' association)

Kari Jaakkola, food service manager, Raisio Regional Education and Training Consortium,

Raseko (Finnish Association for the Development of Vocational Education and Training (AMKE))

Kristiina Janhonen, Senior Researcher, THL/Docent, University of Helsinki

Jyrki Karppinen, production manager, Kymijoen Ravintopalvelut Oy (AMKO)

Heli Kuusipalo, senior specialist, THL

Marjaana Manninen, Counsellor of Education, Finnish National Agency for Education

Sari Nissinen, food service director, Jyväskylä Educational Consortium Gradia (AMKE)

Niina Pasanen, class teacher, municipality of Kuortane (Finnish class teachers' association)

Jouni Pynnöniemi, Senior Officer, Ministry of Agriculture and Forestry

Elina Särmälä, food service director, Saimaan Tukipalvelut Oy (VRN)

Sanna Talvia, university lecturer, University of Eastern Finland / Kokoava project

Tarja Tenkula, senior specialist, Association of Finnish Local and Regional Authorities

Aila Vuorikoski, home economics teacher, town of Valkeakoski

(home economics teachers' association)

Auli Väänänen, Senior Officer, Ministry of Agriculture and Forestry

# Secretary

Virpi Kulomaa, School Meal Coordinator, Ministry of Agriculture and Forestry

# **Vice secretary**

Kirsi Viljanen, Senior Officer, Ministry of Agriculture and Forestry

# Appendix 2. Strategies, programmes and guides to be considered in the provision of school meals and in food procurement

The national public procurement strategy seeks to develop the impact of public procurement in cooperation with central and local government and service providers. The procurement strategy has been issued as the Finnish Government Resolution on the national Public Procurement Strategy. In addition to the strategy, the resolution guidelines and measures for the strategy regarding innovation and responsible food procurement.

The goal of the National Programme for Organic Production is to increase the use of organic products in professional kitchens. In the national public procurement strategy, the goal is that the use of organic products accounts for 25% of all food products by 2030.

The Local Food Programme offers encouragement to use local food production and seasonal products in food procurement by improving procurement competence, qualitative criteria and procurement requirements.

The programme to promote Finnish fish aims to increase the use of Finnish fish in food services and especially to develop the availability and use of under-used fish species, including minnows and carps and Baltic herring, in professional kitchens. The increased use of fish has a number of positive impacts on health and ecological sustainability.

The Climate Food Programme seeks to support society's transition towards a climate-sustainable food system. The climate-sustainable food system takes into account all dimensions of sustainability: social, economic, cultural and environmental sustainability. Being currently under preparation, the programme will implement the following goal set in the Government programme: Increasing the use of domestic plant-based products and fish in public procurement and food services in accordance with nutrition recommendations and low-carbon goals.

The procurement guide for responsible food services offers guidance for the ecologically, socially, financial and nutritionally responsible provision of school meals. The guide includes several development proposals for clients and food service operators to increase the sustainability of school meals.

The guide to sustainable food procurement offers guidance for the responsible and sustainable procurement of raw materials and foodstuffs for school meals by presenting product group-specific procurement criteria and by describing key responsibility questions for various product groups.

The local food guide offers guidance for the use and procurement of local food in food services by providing various procurement examples regarding food services of different sizes.

# **Appendix 3. Glossary**

**Ecological sustainability** means the preservation of biodiversity and the adaptation of people's financial and material activities to the sufficiency of natural resources and ecological tolerance. The achievement of ecological sustainability enables the other dimensions of sustainable development.

Climate impact means the impact caused by people's activities on the climate.

**Sustainable living** is described through ecosocial education (dignity, ecosystems, climate change, global responsibility), the necessity to change our ways of consumption (production methods, raw materials, energy and material choice that cause biodiversity loss), and social responsibility. It is considered to entail all dimensions of sustainable development (ecological, financial, social and cultural). Sustainable living is a key concept in the curriculum. The goal of basic education as a whole is that teaching advances sustainable living.

**Cultural sustainability** is one of the four dimensions of sustainable development. It guarantees the development and preservation of cultures from one generation to the next. From the perspective of cultural heritage, cultural sustainability means preserving and forwarding languages, traditions and customs, appreciating diversity, and respecting all rights. In addition to preserving cultural heritage, the goal of cultural sustainability is to advance co-existence between different cultures.

**Organic production** is a food production method defined by EU law, combining the best production methods for the environment, high requirements for animal welfare, and consumers' wishes of high-quality natural products. Organic production is the only officially supervised production method in Finland, in which stricter requirements than those set in legislation are defined to protect the environment and animal welfare.

**Local food** especially means food produced locally in accordance with the national local food programme that advances the local economy, employment and food culture, is produced and processed using local raw materials, and is marketed and consumed in the local area. In the programme, the term "local area" means the local region or a corresponding or smaller area.

**The Oiva system** is a publication system for food safety audit information coordinated by the Finnish Food Authority. Audit results are indicated on restaurant walls by the Oiva smile.

**Protein self-sufficiency** measures how large a proportion of the proteins required is of a domestic origin.

The nutrition commitment is a Finnish operating model which helps and encourages food industry operators and stakeholders to improve the nutritional quality of diets and to promote responsible nutritional operating methods. The goal-driven and measurable commitment offers a range of excellent measures for the development of nutritional responsibility by companies and organisations. The nutrition commitment can cover eight different content areas, for which key change-related goals have been set in the nutrition recommendation. All of these are parts of product or service design significant for improving the population's nutritional quality.

**Food education** is a pedagogically guided activity and means comprehensive learning. It aims to increase the understanding, skills and motivation of children and young people relating to food and eating. For example, the dimensions of health, the environment, culture, food production and trade, community and food choices, and personal experiences are ultimately intertwined into considerations of broadly understood sustainable development and justice. In practice, food education means the broad study of factors, beliefs and attitudes through discussions, examples and experiences, taking into account the students' age, abilities and individual needs. Food education takes place through school meals, while school meals can act as a learning theme at different levels of education, during lessons and various projects.<sup>161</sup>

**Food competence** means knowledge and skills related to the routes and quality of food, food preparation methods, and the food and eating culture. In the eating situation, pupils and students apply their knowledge of nutrition and food culture background to food choices and eating, and learn information, skills and values for their daily lives. The eating situation offers an environment for learning food competence. <sup>162</sup>

**Social responsibility** means comprehensive physical, psychological and social wellbeing which enables a high-quality and meaningful life every day. Social responsibility covers

<sup>161</sup> Laitinen A, Talvia S, Tilles-Tirkkonen T. Puheenvuoro: Ruokakasvatus on osa alakoulun pedagogiikkaa (Address: Food education is part of pedagogy at primary schools). Finnish Educational Research Association: Kasvatus 1/2022. 162 Finnish National Agency for Education: Education system. Basic education. School meals – integral part of national core curricula. https://www.oph.fi/en/education-and-qualifications/school-meals-finland

the factors that no-one should be left without. Social fairness and inclusion are at its core, as implemented by municipalities in their activities.

The Heart Symbol is a labelling system for nutritionally high-quality food products and dishes that helps communicate healthy choices to consumers. Separate criteria have been defined for each meal component, paying attention to the amount and quality of fat and the amount of salt. In addition, the fibre content is a key factor in cereal-based meal components.

**Financial sustainability** lays the foundation for all other dimensions of sustainability. It means balanced economic growth that is not based on indebtedness or the destruction of natural resources. Financial responsibility means a balance between short-term profit and long-term benefits. It means achieving good results by responsible means.

Appropriately provided school meals are timed and scheduled so that each pupil and student can enjoy a school meal at the correct time. An appropriate eating area is sufficiently large and enjoyable relative to the number of users and the smooth flow of the eating situation. Appropriately guided school meals mean food education and communication, while addressing the age and abilities of pupils and students, to support positive experiences of school meals.

**Environmental impact** usually means the adverse impact caused by people's activities on the environment. Impact can be direct or indirect, or local, regional or global.

