Finland – Country Report on national food waste policy

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Helsinki, 03.02.16
Definitions and abbreviations

Glossary

**National strategies on food waste prevention** are a method, strategy or plan specifically addressing food waste prevention as required by the 2008 Waste Framework Directive. Key sectors addressed in the plan should include local authorities, households, the hospitality industry, the retail supply chain, businesses and institutions (such as schools and hospitals).

**Market-based instruments** are policy tools that encourage behavioural change through market signals rather than through traditional regulations. Examples include environmentally related taxes, charges and subsidies, emissions trading and other tradable permit systems, deposit-refund systems, environmental labelling laws, licenses, and economic property rights.

**Regulations and regulatory instruments** are governmental or ministerial orders having the force of law. Regulatory instruments are sometimes called "command-and-control"; public authorities mandate the performance to be achieved or the technologies to be used.

**Voluntary agreements** are alternative courses of actions such as self-regulations developed by the industry generally aimed to deliver the policy objectives faster and/or in a more cost-effective manner compared to mandatory requirements.

**Technical reports and main scientific articles** refer to publications that report results of experimental and/or theoretical scientific investigations to enhance the body of scientific knowledge (in this case about food waste and losses).

**Communication and campaigns include** national “umbrella” campaigns; campaigns; short campaigns and festivals; education and training activities; contests and competitions; exhibitions, whose aim is to raise awareness on food waste. Communication include seminars and lectures; vocational trainings; books and manuals.

**Projects and other measures** refer to initiatives like neighbourhood projects, food sharing platforms, platform/networks, labelling, applications, etc… that contribute and/or are connected to food waste reduction.

**Food waste policy mix highlights** refers to negative and positive highlights and analytical data emerging from the analysis of the policies of each country.
**Abbreviations**
FWM = Food waste management
FWG= Food waste generation
FWR= Food waste reduction
OFU= Optimization of food use

**Legenda**

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<thead>
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<tr>
<td>A1</td>
<td>Primary production pre-harvest</td>
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<td>A2</td>
<td>Primary production ready for post-harvest</td>
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<td>A3</td>
<td>Processing and manufacturing</td>
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<td>A4</td>
<td>Wholesale, retail and marketing</td>
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<tr>
<td>A5</td>
<td>Food preparation and consumption</td>
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</table>
Structure of the country report

A) National strategy on food waste prevention  
B) Market-based instruments  
C) Regulations and regulatory instruments  
D) Voluntary agreements  
E) Technical reports and main scientific articles  
F) Communications and campaigns  
G) Projects and other measures  
H) Food waste policy mix: highlights

References
A) National strategy on food waste prevention

Finland has no national plan specifically addressing food waste, however food waste is addressed in the National Waste Plan and in the National Programme which promote sustainable consumption and production.

The plan was launched in 2009 by the Ministry of the Environment. Its aim is to achieve a decline in the amount of municipal waste by the year 2016. Furthermore, the aim is to achieve a situation in which 50% of all municipal waste is recycled as material and 30% used as energy. A maximum of 20% of the waste would end up in landfills. The Plan also proposes that industrial sectors would in their sector-specific material-efficiency agreements set targets for reducing specific waste volumes and increasing recycling rates.

Additional targets concern the recovery of all manures from farming activity, the treatment of 90 % of sludge originating in sparsely populated areas in sewage treatment plants and 10 % in biogas plants of farms, the 100% recovery of municipal sewage sludge.

It aims at food waste prevention by promoting material efficiency and increasing recycling. It involves all the food supply segments and the subsectors and types of activities involved are

Types of implications: food waste reduction, food waste management.
Food supply segments involved/addressed: all.
Subsectors and types of activities involved: fishing, production, manufacture, processing, preparation, treatment, packaging, transport or holding of food.

More From Less - wisely 2012
It is Finland’s national programme to promote sustainable consumption and production (Kestävän kulutuksen ja tuotannon ohjelma - KULTU).

It was launched in 2012 by the Ministry of the Environment. It aims to reduce the environmental impacts and greenhouse gas emissions of households and the public sector. It proposes that the state and the municipalities set an example by creating the preconditions for more-sustainable solutions. This will also create new jobs and opportunities for the green economy.

According to the proposal under preparation, the programme aims to promote energy smart and comfortable living, high-quality food without waste and environmental friendly transport.

Eight innovative projects have so far been set up under the national programme to test new ways to reduce the environmental impacts of transport, buildings, food consumption and public sector procurements. One project is “License to Eat” for reducing food waste.

Types of implications: food waste reduction.
Food supply segments involved/addressed: food preparation and consumption.
Subsectors and types of activities involved: fishing, production, manufacture, processing, preparation, treatment, packing, packaging, transport or holding of food, households, canteens and restaurants, public procurement.

B) Market-based instruments

Finland has one main market-based instrument.
It is the Waste Legislation/Waste Tax Act (1126/2010) that promotes the reasonable use of natural resources and prevents harm caused by waste. Waste tax applies to waste deposited in landfill sites when waste cannot be recovered on technical and environmental grounds.

Final disposal of waste onto or into land on a landfill site is subject to tax.
After 2016 there will be no possibility to disposal any organic material into a landfill.
Table 1. Finland’s market-based instruments and related implications on food waste along the food chain

<table>
<thead>
<tr>
<th>Law</th>
<th>Description</th>
<th>Types of implications</th>
<th>Main FSCS involved</th>
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<tbody>
<tr>
<td>Waste Tax Act (1126/2010)</td>
<td>Tax on waste is levied on waste deposited at public and private landfill sites, where waste classified as taxable waste can be deposited. Waste tax applies to waste deposited in landfill sites when it cannot be recovered on technical and environmental grounds.</td>
<td>FWR</td>
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C) Regulatory instruments/regulations trading schemes

Laws degrees and instructions have been divided in groups according to their implications: food waste management, reduction, generation and food use optimization. There is no specific regulation on food waste or food waste management in environmental or waste management legislation in Finland.

The laws, degrees and instructions addressed to food waste management are the Environmental Protection Act 86/2000, 527/2014, the Government Degree on landfill 331/2013, the Waste Act (646/2011), the Waste Decree (179/2012), the Degree for food hygiene of food premises 1367/2011, the Act on Food Hygiene of Foodstuffs of Animal Origin (1195/1996).

The laws addressing food waste reduction are the Government Degree on landfill 331/2013, the Waste Decree (179/2012), the Evira Instructions 16035/1.

Table 2. Finland’s regulations and related implications on food waste along the food chain

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<th>Law</th>
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<th>Main FSCS involved</th>
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<td>Food Act 23/2006, amendments up to 352/2011 included</td>
<td>This Act applies to food and the conditions in which it is handled and to food business operators and food control at all stages in the production, processing and distribution of food. Section 11 concerns the requirements for handling, storing and transportation of food: (1) Food must be handled, stored and transported in a way that does not endanger the high hygiene standard of food. (2) Further provisions are issued by the Decree of Agriculture and Forestry on handling and transportation of food.</td>
<td>FWG</td>
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<tr>
<td>Environmental Protection Act 86/2000, 527/2014</td>
<td>This Act applies to all activities that lead or may lead to environmental pollution as laid down below. This Act also applies to activities that generate waste and to waste disposal.</td>
<td>FWM</td>
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<tr>
<td>Law</td>
<td>Description</td>
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<td>Waste Act 646/2011</td>
<td>Its aims are to reduce the amount and harmfulness of waste, to promote the sustainable use of natural resources, to ensure functioning waste management, and to prevent littering.</td>
<td>FWR</td>
<td>A5, A1, A2, A3, A4, A5</td>
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<td>Waste Decree 179/2012</td>
<td>It sets rules for separate collection and recycling of municipal waste. The operator of an industrial service or other business activities or any other waste holders, and municipalities are obliged, subject to the conditions laid down in sections 8, 13 and 15 of the Waste Act, to organise the separate collection and recycling of paper, cardboard, glass, metal, plastic and biowaste for which the operator is responsible.</td>
<td>FWM</td>
<td>A3</td>
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<tr>
<td>Decree of the Ministry of the Agriculture and Forestry 1367/2011</td>
<td>Food served hot must be stored at a temperature of at least 60°C. When cold storage is needed easily spoiled products must keep up tp 12°C during serving. Highly perishable food maximum cold storage temperature is 6°C.</td>
<td>FWG</td>
<td>A3, A4, A5</td>
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<tr>
<td>Evira Instructions 16035/1 – Under Decree 1367/2011</td>
<td>Food donations can be permitted to operate in compliance with procedures that differ from commercial operations, but no compromises regarding food safety can be allowed. Both the companies that donate food and charity organisations that distribute it are responsible for ensuring this approach. The Finnish Food Safety Authority Evira and the Ministry of Agriculture and Forestry have jointly prepared guidelines for food donation to charities.</td>
<td>FWR</td>
<td>A4, A5</td>
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<tr>
<td>Decree of the Ministry of the Agriculture and Forestry &amp; 16088/5, 19.1.2013 Evira Instructions. 1192/2011 1193/2011</td>
<td>The Decree and Evira instructions for food that has been disposed by the retail sector. This concerns only food waste of animal origin (e.g. raw meat and fish) but not e.g. pastry. Retailers must document their amounts of animal origin food waste. For retails wasting more than 50kg/week (year 2015/20kg/week) waste must be collected and handled. Food can also be donated but not disposed of in the landfill. If not</td>
<td>FWM</td>
<td>A4</td>
</tr>
<tr>
<td>Law</td>
<td>Description</td>
<td>Types of implications</td>
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<td>donated it must be transported and handled in the waste plant. (see Evira Instructions 16035/1).</td>
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D) Voluntary agreements

Leftover lunch
It was promoted in 2014 by Sitra - the Finnish Innovation Fund. Jyväskylä city council started the trial to try and prevent overproduced food going to waste. The leftover lunch has been mentioned for people who would not otherwise eat two warm meals per day, e.g. siblings, parents and grandparents of the pupils, elderly people and unemployed. These people can benefit from these events also by getting useful opportunities to go out and having social contacts.

After school lunch time canteens open the doors for neighbourhood people who can have lunch at a very low price, food is sold at a bargain price of 1,5 €. The price was based on the cost of milk, bread and butter, the traditional side dishes of a Finnish school meal, with the main dish effectively free of charge.

Other municipalities, including Espoo, Oulu and Rovaniemi, are keen to try similar schemes. Today over 20 towns are selling food after lunch. Sitra has also made a guide slides show for school canteens and school managements on how to organize and inform about food left from the lunch.

*Types of implications*: optimization of food use, food waste reduction, food waste management.
*Food supply segments involved/addressed*: food preparation and consumption.

E) Main research and technical reports

Silvennoinen K., Pinolehto M., Korhonen O., Riipi I., Katajajuuri J. M, (2013) Reduction of consumer food waste as a part of food chain responsibility (Kuru, Kauppakassista kaatopaikalle), MTT Agrifood Research Finland [In Finnish]
The focus of KURU - “Reduction of consumer food waste as a part of food chain responsibility” research project is to produce detailed information on avoidable consumer food waste, its reasons and prevention methods in Finnish households. KURU-project explores consumers perceptions of food waste issue and conducts household waste analysis. It is a research made up of a food waste composition analysis, a consumer survey and group interviews.

*Types of implications*: food waste reduction.
*Food supply segments involved/addressed*: food preparation and consumption.

Foodspill – Food waste volume and composition in Finnish food chain started in 2010 and ended in 2012 promoted by the MTT Agrifood Research Finland.
The objective is to study the amount and quality of food waste and its sources, its environmental impacts and explores means to reduce waste.
The project focuses on Finnish food chain from food industry to consumers and catering companies including also food industry, transport, storing, distribution and retail.
The main purpose is to decrease the amount of food waste and to produce new knowledge so to support better information and communication.
It implied literature review, diary study for households (n400), food waste composition analysis for food services, waste information from food industry and retail sector.

*Types of implications:* food waste reduction.
*Food supply segments involved/addressed:* food preparation and consumption.

Hartikainen H., Timonen K., Jokinen S., Korhonen V., Katajajuuri J-M., Silvennoinen K., (2013), Ecopaf - The influence of food packaging sizes on household food waste and environmental impacts (Ruokahävikkij ja pakkauusvalinnat kotitalouksissa – Kuluttajan matkassa kaupasta kotiin : ECOPAF - hankkeen loppuraportti.) MTT Agrifood Research Finland Raportti 106: 42 P [In Finnish]

In this study the relationship between household food waste level and package size was investigated by analyzing data from a Finnish food waste diary study that involved 380 Finnish households; their shopping receipts were collected from the same period.

*Types of implications:* food waste reduction.
*Food supply segments involved/addressed:* food preparation and consumption.

Pulkkinen S., Sinisalo S. (2012), Quality and quantity of household mixed solid waste in the Helsinki area 2012, HSY - Helsinki Region Environmental Services Authority

The aim of the study was to produce an up-to-date information on the composition and quantity of municipal solid waste produced in households in the Helsinki metropolitan area.

*Types of implications:* optimization of food use, food waste reduction, food waste management.
*Food supply segments involved/addressed:* food preparation and consumption.

Toukola V., Sinisalo S., Sormunen K., Pulkkinen S. (2011), Properties of biowaste in Helsinki Metropolitan Area, HSY - Helsinki Region Environmental Services Authority

The purpose of the study was to determine the composition and quality of bio waste from different kinds of residential properties and different service areas. The study was a sorting study and a series of laboratory analysis.

*Types of implications:* food waste reduction, food waste management.
*Food supply segments involved/addressed:* food preparation and consumption.

Futupack EKO2010 (2011), Environmental effects of packing alternatives of food products, MTT Agrifood Research Finland

Issued in 2011 by MTT, this study presents the results of life cycle assessment based case studies of packed food products made in the Futupack EKO2010 Project. The focal starting point for the study was to compare the environmental impacts of different food packaging options and including also impacts from the management of waste generated at the consumer phase due to deficient packaging.

Environmental impacts of the entire production and consumption systems of three packed food products (ham, dark bread and a soy based yoghurt like product) and their packaging options were studied. Of the different environmental impact categories, climate change, eutrophication, and acidification impacts were considered in the LCA studies.

Special focus was laid on studying the amounts of consumer food waste as a function of the package size and material and on the assessment of the significance of the environmental impacts of the production and management of wasted food in relation to the production and the end-use of packages.

*Types of implications:* food waste reduction, food waste management.
Food supply segments involved/addressed: wholesale, logistic, retail and marketing, food preparation and consumption.

F) Communication and campaigns

HSY campaign - It’s smart with less waste (Fiksu vähentää jätettä)
Helsinki Region Environmental Services Authority HSY is a regional authority that provides water services and waste management services and produces information about the Helsinki Metropolitan Area and the environment.
HSY helps people act for a better environment, including food waste reduction.

Types of implications: optimization of food use, food waste reduction, food waste management.
Food supply segments involved/addressed: food preparation and consumption.

Food waste week and event (Saa syödä!)
The food waste week was launched in 2014. It was mainly a campaign focusing on consumers with the involvement of many stakeholders as retailers, food services, NGOs etc.
A communication package, which included facts and tips about food waste was offered to the participants. The campaign included over 30 partners using their own communication channels, over 40 food bloggers writing about food waste, newspapers mentioning Food Waste Week and/or writing articles and sharing tips, tv-shows and several radio shows talking about food waste.
6 local events around Finland were performed by the Rural Women’s Advisory Organisation.

Types of implications: food waste reduction.
Food supply segments involved/addressed: food preparation and consumption

G) Other measures and projects

License to Eat (Saa syödä!)
It is a campaign launched in 2013 by the Ministry of the Environment, MTT, Motiva, Palmu. It implies sharing surplus food between inhabitants: it is an experimental pilot project for households that aim to decrease food waste by sharing surplus food items.

Types of implications: food waste reduction.
Food supply segments involved/addressed: food preparation and consumption

Waste Food Dinner
It is an initiative to raise awareness about food consumption and food waste. It consists in organizing party for friends made of food otherwise wasted. The idea is to have a dinner together instead of throwing food away, so to save money and the environment. This initiative aims to encourage the sharing and cooking of food. The website will publish photos of the events and will promote awareness about food consumption.

Types of implications: food waste reduction.
Food supply segments involved/addressed: food preparation and consumption

"Älä Jätä" ("Don't waste")
Pupils in the first grade school at the age of 7 learn how to change their behaviours to reduce food waste and improve energy and water management. They cultivate school gardens and the food offered in canteens is normally organic.

Types of implications: food waste reduction.
Food supply segments involved/addressed: food preparation and consumption
H) Food waste policy mix

The overarching goal of the Finnish food waste policy-mix is to reduce the amount of food waste produced on a whole. Priority is given to the management of resources.

Behavioural changes are central to reducing the environmental, social and economic consequences arising from unnecessary food waste and are therefore the main focus of campaigns, citizens’ initiatives and education programs in schools.

Finland's waste policy aims to promote the sustainable use of natural resources and to ensure that waste does not harm human health or the environment. Waste management is based on a certain order of priorities. Waste may be placed in landfills only if its recovery is not technically or financially feasible. Finnish waste legislation is largely based on EU legislation, but in some cases includes stricter standards and limits than those applied in the EU as a whole.

Finland has no specific national strategy on food waste but 2 general plans: one named “Towards a recycling society – The National Waste Plan for 2016” whose aim is to achieve a decline in the amount of municipal waste by the year 2016. The other National plan is called “More From Less - wisely 2012, Finland's national programme to promote sustainable consumption and production. It aims to reduce the environmental impacts and greenhouse gas emissions of households and the public sector.

Finnish municipalities are responsible for collection and treatment of the generated municipal waste including bio waste from households. In metropolitan areas residential properties with 10 or more housing units and other properties that generate over 50 kg of biowaste per week separately collect their bio waste. For smaller properties, bio waste collection is voluntary. Different rules apply to urban and rural areas.

Evira Finnish Food Safety Authority has launched guidelines for the operators who provide and convey food aid as well as for the municipal food control authorities supervising the activities. The purpose of the guidelines is to clarify food donation-related procedures and liability concerns.

From the food donation point of view, products marked with a “best before” date, which are suitable for human consumption, can be sold or donated even after the date is exceeded. The food donor is responsible for product quality, when the product is donated after the “best before” date has been exceeded.

The Food Act (23/2006, amendments up to 352/2011 included) is a sort of food codex that applies to food and the conditions in which it is handled and to food business operators and food control at all stages in the production, processing and distribution of food.

In terms of voluntary agreements, an interesting initiative called The Leftover lunch was promoted in 2014 by Sitra The Finnish Innovation Fund in Jyväskylä. After school lunch time canteens open the doors for neighbourhood people who can have lunch at a very low price, food is sold at a bargain price of 1,5 €. The leftover lunch has been mentioned for people who would not otherwise eat two warm meals per day.

Finland is very active in terms of communication campaigns and bottom up activities on food waste: Saa syödä! License to Eat campaign implies sharing surplus food between inhabitants: it is an experimental pilot project for household company to decrease food waste by sharing surplus food items. The Food waste week was launched in September 2014. The Waste Food Dinner is an initiative for rise awareness about food consumption and food waste. It consists in organizing party for friends made of food otherwise wasted.
Figure 1. Finland’s policy mix at December 2014

It is important to underline that food labeling is given utmost attention in Finland. Products labelled with “use by date” markings may not be sold or donated to customers after the date mark has been exceeded. Products marked with a “best before” date, which are suitable for human consumption, can be sold or donated even after the date is exceeded. The food donor is responsible for product quality, when the product is donated after the “best before” date has been exceeded.
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Ministry of Environment (2012), National plan More From Less - wisely 2012, Finland’s national programme to promote sustainable consumption and production
Available at: file:///C:/Users/mto48/Downloads/Getting_more_from_less_July2013_FINAL_web.pdf
www.ym.fi/en-US/The_environment/Sustainable_consumption_and_production

B) MARKET-BASED INSTRUMENTS
http://www.vm.fi/vm/en/10_taxation/05_excise_duty/08_waste/index.jsp

C) REGULATORY INSTRUMENTS/REGULATIONS TRADING SCHEMES
Evira 2013 Food aid guidance
Available at: http://www.evira.fi/portal/fi/elintarvikkeet/valmistus+ja+myynti/elintarvikehuoneistot+ruoka-apu/

Environmental Protection Act (86/2000, 527/2014)
Available at: http://www.ym.fi/en-us/The_environment/Legislation_and_instructions

Waste Act (646/2011)

Decree on landfill 331/2013
Government Decree under Waste act (646/2011) and (86/2000)

Waste Decree (179/2012) for industry, services, municipalities
Government Decree On Waste under the Waste Act (646/2011)

Food Act (23/2006, amendments up to 352/2011 included)

Decree of the Ministry of the Agriculture and Forestry (1193/2011) and Evira Instructions (16088/5 - 19.1.2013)
Available at: http://www.evira.fi/files/attachments/fi/sivutotto/bkaupan_entisten_elaimista_saattuen_elintarvikkeiden_kasittelyohje_16088_18012013_.pdf

D) VOLUNTARY AGREEMENT
Sitra (Fund operating directly under the Finnish Parliament), 2014, Leftover lunch.

E) RESEARCH AND TECHNICAL REPORTS
Silvennoinen K., Pinolehto M., Korhonen O., Riipi I., Katajajuuri J. M, (2013), Reduction of consumer food waste as a part of food chain responsibility (Kuru, Kauppakassista kaatopaikalle), MTT Agrifood Research Finland.
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F) COMMUNICATION AND CAMPAIGNS
Saa syödä! License to Eat (in Finnish)
Available at: http://www.saasyoda.fi

Food waste week and event Saa syödä! 2014 (7.-14.9.2014), (in Finnish)
Kuluttajaliitto, Motiva, MMM
Available at: http://www.mmm.fi/attachments/ruoka/RMDtlwRxD/License_to_eat_110914_Marniemi.pdf

HSY campaign - It’s smart with less waste (Fiksu vähentää jätettä), (in Finnish)
Available at: http://www.hsy.fi/fiksu/arjessa/ruoka/Sivut/default.aspx

Waste Food Dinner
Available at: http://roskaruokaillallinen.fi/en/

G) PROJECTS AND OTHER MEASURES
FutupackEKO2010 - Environmental effects of packing alternatives of food products
Available at: http://jukuri.mtt.fi/bitstream/handle/10024/438215/mttraportti14.pdf?sequence=1

Preschool education (in Finnish)

“ÄLÄ JÄTÄ” ("Don't waste"), (in Finnish)
Available at: http://portal.mtt.fi/portal/page/portal/Maalleoppimaan/Frontpage/FarmsSchools/Publications/79D17F338EF067F4E040A8C0023C479C

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