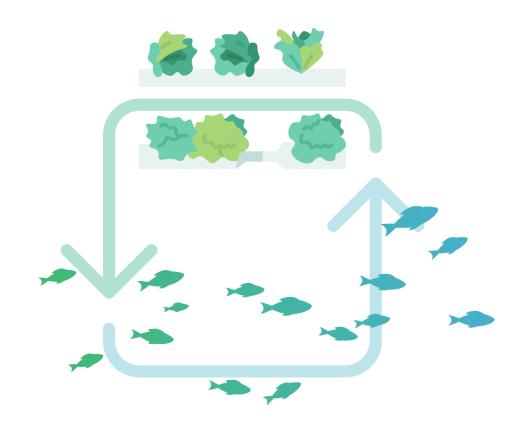


Central Baltic Programme

TransFarm

GUIDELINES REGARDING THE REGULATORY FRAMEWORK













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1. Introduction

1.1 TransFarm project

There are several environmental and social challenges that the food sector has to face: Agriculture is a sector particularly affected by climate change, our seas are overfished and the world population is estimated to continue growing, being about 9 billion people by 2050.

Countries in the Baltic Sea Region are strongly dependent on food import, especially for vegetables, fruit and fish; in recent years the pandemics and the war in Ukraine have exposed the need of more self sufficient food systems. Moreover, agriculture and aquaculture are among the main contributors to the eutrophication of the Baltic Sea.

To answer these challenges TransFarm project wants to bring food production closer to consumers by promoting soil-less farming methods that can be implemented even indoors and allow to grow all year round. Examples of these methods are hydroponics, where plants are grown in water, and aquaponics, that combines hydroponics with aquaculture.

In aquaponics water from the fish culture is used to grow plants; the water is cleaned by a biofilter and by plants and once cleaned returns to the fish unit in a circular way. The systems is completely circular allowing to reuse nutrients and not to have emissions of nutrients in the water bodies. Moreover, in aquaponics it is not possible to use antibiotics nor pesticides due to the symbiosis among fish, bacteria and plants, hence the produce is healthy.

TransFarm will demonstrate aquaponics in Sweden, Estonia and Latvia as well as test alternative water sources such as rainwater and reclaimed greywater. The project will also investigate business models, run activities to inform consumers about the quality of the aquaponics produce, educate entrepreneurs that want to start an aquaponics as well as inform civil servants and policy makers about the reduced environmental impact of circular soil-less methods.

TransFarm project duration is three years (2023-2026) and it is coordinated by Turku School of Economics at the University of Turku (Turku, Finland). Project partners are the Estonian University of Life Sciences (Tartu, Estonia), University of Latvia (Riga, Latvia), Campus Roslagen and Coompanion Roslagen & Norrort (Norrtälje, Sweden).

TransFarm project is funded by EU's Interreg Central Baltic program, the total budget of the project is 1,87 million euro, EU financing covers 1,5 million euro.

1.2 Summary

The regulatory and administrative framework for aquaculture facilities follows national licensing system, this representing one of the main barriers to the sector growth.

The EU aquaculture guidelines provide guiding for addressing this issue while ensuring that environmental impact aspects are assessed. The guidelines report the following as most important elements to address the issue:

- "- Streamlining and harmonising where possible legislation and administrative guidance on aquaculture. Ideally, this streamlining should be carried out by adopting a single piece of national legislation gathering all relevant aspects. This legislation should set clear procedures and timeframes for dealing with applications for new licences or licence renewals.
- -Setting up, whenever possible, a single national aquaculture entity gathering all the different relevant authorities with responsibilities for aquaculture. This entity would seek to facilitate and coordinate the work of those authorities on the planning, licensing and monitoring of aquaculture activities. This entity should involve relevant stakeholders to discuss and integrate their views in a timely manner. In cases where responsibility for aquaculture is also held at sub-national level, a national structure gathering regional/local authorities and entities is to be encouraged.
- -Setting up a 'one-stop-shop' system for aquaculture licences, which facilitates both transparency on the licensing process and interaction between the applicant and the decision-making authorities.
- -Designating areas suitable for aquaculture according to the principles mentioned in Section 2.1.1 above.
- -Providing for longer-term licensing, with regular monitoring and sanctions for non-compliance (which could include licence revocation). Licensing terms should include an obligation to monitor and report data, notably those data required under the relevant national and EU legislation."

This report provides information about the licensing system in Sweden, Finland, Estonia and Latvia. The information is updated to the time this report is being written, we recommend taking contact with the responsible authorities with good time.

2 Permits in Sweden

This report provides information about the permits process that aquaponics company have to follow in Sweden. The information provided apply to systems that produce less than 35 ton/year of fish and use 1,5-40 ton/year of fish feed. Over 40 ton/year of fish feed an environmental impact assessment is required.

2.1 Register the company

- Application for taxes and VAT Swedish tax agency (Skatteverket)
- Choose if you want to protect the company name
- Choose if you want to register your brand name

2.2 Prepare the start of the aquaculture facility

• Exception on coastline protection - County Administrative Board (Länsstyrelsen)

This is required when your facility is located in a coastal protected area, i.e. an area classified as protected by the environmental code, for example a nature reserve or a Natura 2000 area. The County Administrative Board charges a fee for this application. More information here

Protected natural areas - County Administrative Board (Länsstyrelsen)

You need to find out which natural values are in the area and how these can be affected by your business and, if necessary, to apply for this permit. More information here

Nature with antiquities - County Administrative Board (Länsstyrelsen)

If you are planning work that could affect an ancient site, you must contact the county administrative board and get permission before starting any work that risks affecting or destroying an ancient relic. The application to the County Board is free of charge.

• Environmentally hazardous activities - Municipality (Anmäl miljöfarlig verksamhet)

The facilities that will use between 1,5 and 40 tons of feed per year must make a report on environmentally hazardous activities. Make your report to the municipality's environmental and health protection board in good time before you start your farm. Contact your municipality to find out what documents you need to submit. The municipality charges a fee.

 Permit for water activities - only if there are operations on waterbodies (tillstånd för vattenverksamhet) - County Administrative Board (Länsstyrelsen)

The aquaculture facility itself does not require a permit for water activities, but a permit is required if you are to carry out certain works in a water area. Examples of such work are digging, building or piling, diverting water, regulating the water level or

dewatering land. You report water activities to the county administrative board or apply for a permit for it at the Land and Environment Court. More information here

 Register feed equipment in primary production (Registrera livsmedelsanläggning i primärproduktion)

Primary production means cultivation, rearing and collection of products to be used as food. The products can have vegetable or animal origin.

Most aquaculture farms are counted as food companies in primary production and must register their facility with the county administrative board.

You are a food business owner if the following quantities are produced and placed on the market:

- More than 200 kg of whole fish per year
- More than 50 kg of crustaceans per year
- Anyone who sells live mussels is counted as a food business operator Registration is free of charge. The County Administrative Board will check your business on site. The checks are free of charge. However, if deficiencies are discovered,

the county administrations charge a fee for follow-up checks. More information here

• Biosecurity plan - Swedish Board of Agriculture (Jorbruksverket)

You must develop a biosecurity plan for your facility, i.e. a plan that documents the risks for the spread of infection that exist specifically for your facility. This applies, for example, to routines, premises and equipment. The Swedish Board of Agriculture has <u>information</u> on biosecurity plans for many different aquaculture facilities.

- Building permit (Ansök om bygglov) municipality
- Registration and approval of aquaculture facilities Swedish Board of Agriculture (Jorbruksverket)

Everyone who handles aquatic animals must register the facility where the animals are kept and in some cases also have an approval. The purpose of the registration is to enable the authority to track the animals if there is an outbreak of disease. You must also have a so-called cultivation permit. Read more here

• Fish farming permit (odlingsstillstånd) - County Administrative Board (Länsstyrelsen)

This permit is required to grow fish, crustaceans or molluscs, according to the fisheries legislation. Apply for permission from the County Administrative Board in the county where you will have your cultivation. The County Administrative Board must approve your application before you can start cultivation. The form to fill in in on the Swedish Board of Agriculture website

• Register the feed equipment - County Administrative Board (Länsstyrelsen)

You who feed your fish or crayfish must register the feed equipment with the County Administrative Board. Feed equipment/facility means the areas in the business where feed is handled.

Most of the time the registration with the County Administrative Board is enough, but sometimes your feed facility also needs to be approved by the Swedish Board of Agriculture. In that case, the Swedish Board of Agriculture will contact you. The registration is free of charge. Read more here

- Register the feed equipment at the municipality (Anmäl livsmedelsanläggning hos kommunen)
 You need to apply to this permit at your municipality in these case:
 - ✓ You are going to sell relevant quantities of your products to people other than wholesalers and the food industry;
 - ✓ refine the products you have grown and sell them to private individuals and to local shops and restaurants
- Exemption from reporting to the municipality Municipality

If you only slaughter the fish (and not clean, filet, smoke or similar), you can sell small quantities directly to consumers, shops or restaurants in your municipality and neighbouring municipalities. Then you do not need to report the food business to your municipality.

By small quantities is meant no more than 15 tons of whole fish per year from fish farms, but no more than 300 kg per week.

Cash register - (Tax agency)

When you receive payments (all the form of payments), you need in the vast majority of cases a certified cash register. You must report the cash register to the Swedish Tax Agency. As a business owner, you must always offer the customer a receipt. A receipt can be in paper format or in electronic format. More information here

• Education requirements (Utbildningskrav) - Swedish Board of Agriculture (Jorbruksverket)

The person responsible for the maintenance of the cultivation must have:

- ✓ relevant theoretical education,
- ✓ practical experience,
- ✓ competence to manage the cultivation according to the animal welfare legislation.

Contact the aquaculture office at the Swedish Board of Agriculture for more information: vattenbrukskansliet@svensktvattenbruk.se

Tag the fish - Swedish Board of Agriculture (Jorbruksverket)

If you are going to tag fish to be released into the wild, you must have relevant training for this. Contact SLU (Swedish University of Agricultural Sciences) for more information. SLU also organizes a course in fish tagging that is approved by the Swedish Board of Agriculture.

2.3 Operate the aquaculture facility

Journaling – Swedish Board of Agriculture, County Administrative Board

When you have all the permits and start your business, you are required to keep records.

The journal must, among other things, contain information about all the displacements of the animals, both within the farm and when you move the animals outside the farm. You must also keep records of health checks and laboratory tests, treatments with drugs, mortality and more.

You must have the medical record available during control visits and save the data for at least 5 years.

<u>Information on journaling for aquaculture</u> <u>Information on displacement of living animals</u>

Hygiene requirements and labelling - Swedish Food Agency (Livsmedelsverket)

Hygiene requirements

To ensure that food is safe, there are hygiene requirements that apply to all food companies. In addition, there are special hygiene requirements for food companies in primary production (aquaculture) and processing. As a food business owner, you are responsible for knowing the relevant regulations. To help entrepreneurs interpret and comply with the regulations, some industry organizations have developed industry guidelines;

Labelling

In the case of retail sales of fish, crustaceans and molluscs and other aquatic invertebrates the consumer must receive information about the trade name, production method and origin through labelling or posting. More information at the Swedish Food Agency website

Traceability - Swedish Food Agency

You must have a system to keep track of your purchases and deliveries, in order to identify from whom you have received food, ingredients or food-producing animals, as well as which companies you have supplied products to.

Contagious animal diseases - Swedish Board of Agriculture (Jorbruksverket)

As an aquaculture farmer, you have the main responsibility for checking that the animals on your farm are healthy. If you suspect that the animals have been infected with any disease or if you notice abnormal or increased mortality, you must report this to a veterinarian immediately.

The veterinarian must come as soon as possible and take samples from the animals and send the samples for analysis to the State Veterinary Institute (SVA) or another accredited laboratory.

The notifiable diseases are listed in the regulations on animal health requirements for aquaculture.

• Handling of dead animals - Swedish Board of Agriculture (Jorbruksverket)

To avoid the risk of spreading infectious diseases, you must take care of dead animals and clean them in a safe way.

More information here

Annual report - Swedish Board of Agriculture (Jorbruksverket)

Once a year you must report to the Swedish Board of Agriculture and provide information about production, water management and the displacement of animals and transport. You will receive a form to fill in from the Swedish Board of Agriculture when it is time to report.

The information is used to plan infection control checks for veterinarians and to risk classify the facility.

• Direction sign (to indicate the direction to the facility on public street) – Swedish transport administration or municipality

This applies if you want to put up a direction sign next to a public road, then you must apply for a permit either to your municipality or to the traffic agency.

3 Permits in Estonia

3.1 Prepare the start of the aquaculture facility

• Registration of aquaculture producer and facility - Board of Food and Agriculture

When you plan to start an aquaculture business, the registration of aquaculture producer and the registration of aquaculture facility has to be done with the Agriculture and Food Board: https://pta.agri.ee/en

If your production is not exceeding 1 metric ton per year you have to register you production. The registration has to be approved minimal 30 days before start.

If the production exceeds 1 metric ton per year you have to acquire a permission.

All registrations and permits can be acquired and managed digitally: https://kotkas.envir.ee/

• Aquaculture permit - Estonian Environmental Board

Aquaculture requires an environmental permit if the production growth is over 1 ton per annum or if more than 30 m³ of water per day is taken from a body of surface water or groundwater more than 150 cm³ per month or more than 10 cm³ per day. If the annual increase in production is less than 1 ton and the aquaculture facility is connected to a surface water body, then a registration of activities involving risk to aquatic environment is required. Additionally, the quantities of water abstraction must also be taken into account. If the abstraction of water from groundwater is less than 10 m³ per day or less than 150 m³ per month and less than 30 m³ of surface water per day, then registration of activities involving risk to aquatic environment is required. In case of increased abstraction of water, an environmental permit is required.

https://keskkonnaamet.ee/en/environmental-use-charges/water/registrations-and-cutting-water-protection-zone

Water permit - Estonian Environmental Board

From January 1, 2020, an application for an environmental permit for the special use of water (water permit) will be submitted to the environmental permit information system KOTKAS.

If a person previously has a special water use permit for an activity, for which a water permit is no longer required as of 01.10.2019, but which entails the obligation to register, he may submit a request to the Environmental Board to declare it invalid and to register the corresponding activity.

In order to obtain an environmental permit for the special use of water (water permit), a proper application must be submitted to the Environmental Board through the KOTKAS information system, according to the planned activity. The Timeframe can be up to 90 days.

When water permit is given you receive a water resource monitoring schedule, the operator has to have an operation diary, log (Operator HACCP-log).

Operator log has to contain:

Depending on the type of farm, the following information must be reflected in the operating diary:

- 1. the number of ponds, pools or ponds on the farm, their volume and area;
- 2. the number, length and surface area of shell and seaweed lines or other similar facility;
- 3. time of installation and removal of sumps, box and algae lines;
- 4. quantity, species name, time of specimens brought to and removed from the farm;
- 5. name of used feed, daily quantity (kg/day), total nitrogen and total phosphorus content (%);
- 6. quarterly water intake (m³);
- 7. quantity of removed fish farming sediment (t/a);
- 8. use of chemicals and medicines (names, quantities);
- 9. staff health certificate for food producer
- 10. other relevant data specified in the water permit.
- Damming and use of hydro-electric energy (if needed) Estonian Environmental Board

If damming of a water body, i.e. raising the water level and/or use of hydro-electric energy is required, then a new environmental permit is needed, including the existing damming. If you wish to build a dam, it is necessary to apply for an environmental permit for placing a solid substance in a water body.

No environmental permit is required for damming if the natural level of a watercourse is raised by up to one meter, unless the damming takes place in the water bodies that need protection as spawning areas or habitats of salmon, brown trout, salmon trout or grayling, or sections of such water bodies, included in the list established under the Nature Conservation Act.

https://keskkonnaamet.ee/en/environmental-use-charges/water/dams-and-damming

4 Permits in Finland

4.1 Founding a company

4.1.1 Corporate forms

First, it is good to find out which company form is the most suitable option for aquaponic operations. The most common forms of company in Finland are limited liability company and business name.

The differences in company forms are mainly related to who is the legal entity and where the responsibility for payment lies. The advantages of a limited liability company are that the limited liability company is considered a legal entity and you are generally protected as an entrepreneur compared to other types of companies where the person running the company has sole financial responsibility. In a joint-stock company, the owner does not have personal responsibility for the company's debts and thus does not have to pay them out of his own pocket.

A business name, i.e. sole trader, is often the easiest way to start a business. In this case, no start-up capital is needed and the founder can only be one person who is responsible for all decision-making and finances related to the company. It is always possible to change the simpler Company form to a more complex one if the need requires it in the future.

Compared to a business name, a limited company requires more administrative work, bureaucracy, and is generally more expensive to establish, maintain and terminate.

When choosing a company form, you should read a little more about it and at the same time think about what pitfalls or advantages different forms have. It's worth getting in touch with others who have started similar companies and hear how they reasoned and, in general, what could be difficult and unexpected when starting.

It is also possible to establish a limited partnership or an open partnership. An open company may be a good choice if, for example, you have complete trust between the partners and want to avoid the bureaucracy of a limited company. In an open company, all partners are responsible, just as one person is responsible in a business name, but there must be at least two partners in an open company.

A limited partnership is similar to a general partnership in that there is little bureaucracy, but in addition to the partners, there must be at least one silent partner, who is responsible for the amount of capital invested but has no other responsibility for the company's operations.

In recent years, a new way of working as an entrepreneur to some extent has become common, the so-called light entrepreneurship. This is not actually a form of company, but means that the light entrepreneur employs himself with some activity, but all the administrative aspects are outsourced to an invoicing service company.

4.1.2 Corporate taxation

There are differences in the taxation of companies, which it is good to look at before choosing a suitable option.

The business name pays the company's taxes personally and, for example, the profit is taxed together with all other income, mostly as earned income. The business name entrepreneur does not pay himself a salary from his company, but it is possible to withdraw funds as private withdrawals, which are tax-free. In this case, however, it is good to take into account the possible tax consequences for both income and value added taxation. The business name can often have problems with the taxman, for example, regarding car expenses, expenses related to the purchase and use of a computer, and the allocation of real estate and apartment expenses.

A general partnership and a limited partnership are not separate taxpayers, but the company's taxable income is divided among the partners based on the partnership agreement and is taxed as personal income. The company's losses, on the other hand, are deducted from the company's profit for the following tax years, so the partners are not allocated a share of the loss. Company members can make private withdrawals and withdraw salary from the company.

The income of the limited company does not affect the taxation of the shareholders. The amount of the company's income does not affect the tax rate, which is usually 20%. The company's profit is usually distributed to the shareholders either as dividends or as salary. The profit made in a joint-stock company is first taxed in the company and the second time it is deducted from the shareholders when they withdraw dividends or salary from the company for themselves.

It is also possible for a shareholder to get, for example, a loan from a limited company. In all agreements between a limited company and a shareholder, reasonable terms and a fair price must always be observed in order to avoid unexpected tax consequences. Business and personal assets must remain separate.

4.2 Permit Procedure Aquaponic Cultivation

Business licence

The number of required permits differs if the intention is to establish, for example, an institution suitable for university research use or if one wants to start a commercial company-type operation. If a facility is established with research in mind, it is not necessary, for example, to apply for a laboratory animal permit in accordance with European Parliament and Council Directive 2010/63/EU, unless the intention is to use fish as laboratory animals. Instead, the regional administration's approval is needed to keep fish for experimental use. The regional administrative agency issues a permit after the responsible person can prove his qualifications and experience in caring for fish or other aquatic animals. This is verified, for example, by interviewing, and training in fish farming and knowledge helps in obtaining a permit.

The easiest way to find the necessary information if you want to establish a commercial company is to use the company permits <u>service</u>.

First, you should find out whether you intend to employ employees in your company and whether you intend to import raw materials, goods, or services from abroad. After that, you select the industry you want from the service. Since aquaponic cultivation is not established as an industry in Finland, it is necessary to look for the necessary permits for both water and plant cultivation. Currently, there is not a single commercial aquaponic facility in Finland.

Next, you can search for the necessary permits either by region or without region. When you apply without a region, you only get basic information on municipal permits and agency permits. When you apply from a certain area, you get both the exact municipality-specific information on the permits as well as the permits from the agencies.

Stages	Stage 4/4			
Find out your company's permits	Results			
ndustry Industry	Click the name of the permit to see more detailed information about responsible for the permits that the permits are sufficient for your op		5	
3 Area	You should also check that you or your employees have the required			
Results	Industry: Aquaculture, Growing of non-perennial crops Area: Laukaa			
	The result of the second			
	If you don't find all required permits on your muncipal permits, of muncipal permits. There you will find general information from p			
from your company's muncipality.				
	Agriculture, forestry and fishing			
	Aquaculture			
	Advaculture		Open all	
	Permits applied from agencies	10 pcs	v	
	Professional qualifications	0 pcs	٠	
	Municipal permits: Laukaa	0 pcs	~	
	Basic information on municipal permits	6 pcs	*	
	Growing of non-perennial crops			
			Open all	
	Permits applied from agencies	5 pcs	v	
	Professional qualifications	0 pcs	~	
	Municipal permits: Laukaa	0 pcs	~	
	Basic information on municipal permits	7 pcs	~	
	Oshanania			
	Other permits		Open all	
	Employer's permits	9 pcs	0	
	Possibly required permits	18 pcs	v	
	Universal permits related to export and import	34 pcs	~	

<u>List of Required Permits (Whole Finland)</u>

• Registration in the aquaculture register, more information here

Send information on your establishment to the ELY Centre (Centre for Economic Development, Transport and the Environment). The ELY Centres are responsible for the regional implementation and development tasks of the central government.

Complete the printable registration form (Notification to the aquaculture register) and send it as an attachment to the general online form to the Finnish Food Authority. You can also send the form by post. The contact information is available under the application. The registration obligation, with some exceptions, applies to all those who keep fish, crustaceans and/or molluscs.

The keeper of the register must be notified without delay if the information provided changes or the activities are discontinued.

Fish import permits, more information <u>here</u> (in Finnish only)

A permit must be applied for, among other things, from the ELY Center of Varsinais-Finland for the importation of fish or crab species that occur wild in Finland or their stocks or gametes to enter natural waters or for aquaculture activities.

• Health permit for farming aquaculture species, more information here

Food Authority's authorization is required for establishments whose operation is associated with a medium or high risk of animal diseases. Authorization is always required for establishments:

- -from which live aquaculture animals are transferred to other establishments in Finland or other countries
- -where more than 2000 kg of fish per year are grown for human consumption
- -where more than 2000pc crabs are grown for human consumption per year
- -where food fish or crabs produced are sold other than directly to consumers or to local retail establishments, which in turn sell them directly to consumers.
- -from which fish or crabs are transferred to stocking, excluding local hatcheries and natural food ponds for fish wherefrom fish are moved only to stocking in wild
- -located in the areas listed in Decree 320/2021 of the Ministry of Agriculture and Forestry and to which salmonid fish are transferred from a holding place outside that water catchment area.
- -that are quarantine sites

Municipal permits

Approving a grocery shop as an establishment (<u>example</u> in Finnish only)

Food establishments that handle foodstuffs obtained from animals before retail sale must

apply for approval as an establishment. The operator must apply for approval from the food control authority of the municipality where the facility is located. Apply for the approval of the food premises as an establishment by submitting the application from the municipality's website with attachments to the food control authority of the municipality where the establishment is located in duplicate. The food control authority can approve an establishment when it is in compliance with the Food Act and the requirements established pursuant to it. The facility must also meet the requirements set in the regulation of the European Parliament and the Council on special hygiene rules for food of animal origin. In addition, the facility must meet the requirements set by the Ministry of Agriculture and Forestry's regulation food hygiene in facilities. on

Notification of primary production premises, more information <u>here</u>

The primary producer must submit a written notification to the municipal food control authority about the premises of primary production and the operations practiced there. A notification is not needed in case the authority is notified of the primary production premises by another authority.

• Notification of food-related activities, read more here

A notification must be made of professional operation in the food industry. A notification must be made of any indoor or outdoor space or a part thereof in which food meant for sale is stored, transported, marketed, served, or handled.

A notification must be made of the following:

- -food premises such as restaurants, shops, or bakeries
- -food transports
- -mobile food premises such as food trucks
- -virtual rooms such as those involved in the online sale of food.
- Notification of experimental activities in accordance with the Environmental Protection Act, read more here

A company or other operator undertaking experimental activities has the obligation to submit a notification of the activity at least 30 days before the activity begins. The notification must be submitted to the authority that also grants the permits related to the activity. If the experimental activity may cause pollution of a water body or the unreasonable stress referred to in the Act on Neighbour Relationships, an environmental permit must be applied for the activity.

Permits that are not necessarily needed in recirculating systems

Water management permit, more information <u>here</u>

The need for a permit is defined in Chapter 3, Sections 2 and 3 of the Water Act. If you are not

sure whether you need a permit, you can request a statement on the matter from the regional ELY Centre or the municipal environmental protection authority.

The need for a permit depends on whether the project causes a harmful change in the water body, beach, aquatic environment or groundwater. The impact of aquaponic cultivation on these matters is probably not so significant that a permit is needed. An explanation is needed.

• Starting a permitted water resources management project, link

In principle, you can start your water resources management project when the positive permit decision by the Regional State Administrative Agency gains legal force. The permit decision gains legal force after 38 days have passed since the decision was issued and no appeal has been lodged to the Vaasa Administrative Court.

Environmental permit

Fish farming and slaughter operations require an environmental permit in accordance with point 11 c of Table 2 of Appendix 1 of the Environmental Protection Act (527/2014): "11 C) Fish farming or fish farming facility where at least 2,000 kg of dry feed is used per year or an amount of other feed equivalent in nutritional value, or where the additional growth of fish is at least 2,000 kg per year, or a natural pond or group of ponds of at least 20 hectares in size." You apply to the regional administrative agency for an environmental permit.

In an aquaponics system, discharges of nutrients remain very low compared to conventional fish farming. It is best to find out on a case-by-case basis if an environmental permit is needed. However, experimental activities require only a notification to the regional administrative agency or the municipality's environmental protection authority.

• Reporting data to the ELY Centre in accordance with an environmental permit or notification decision, read more here

If your activities are subject to an environmental permit or notification obligation under the Environmental Protection Act, report the discharge, monitoring and observation data to the environmental protection supervisory authority of the ELY Centre. The data to be reported is specified in the environmental permit or notification decision.

4.3 Sources

Applying for environmental permits and permits under the Water Act:

https://avi.fi/en/services/businesses/guidance-and-advice/water-and-the-environment

Permits: https://www.suomi.fi/company/permits

Legislation and regulation Foodstuffs:

https://www.ruokavirasto.fi/en/foodstuffs/hygiene-passport/legislation-and-instructions/

Food legislation:

https://www.finlex.fi/fi/laki/ajantasa/2021/20210297

https://www.finlex.fi/en/

Enviromental permit:

https://www.finlex.fi/fi/laki/ajantasa/2014/20140527

https://www.finlex.fi/en/

Water law:

https://www.finlex.fi/fi/laki/ajantasa/2011/20110587

https://www.finlex.fi/en/

5 Permits in Latvia

There are no specific criteria or permits for aquaponics, but since this method produces plants and fishes it should meet the requirements for their production.

- Activities **regarding food** should comply with the existing rules for plants:
 - Regulation (EC) No 852/2004 of the European Parliament and of the council of 29 April 2004 on the hygiene of foodstuffs.
 - Commission Regulation (EU) 2023/915 of 25 April 2023 on maximum levels for certain contaminants in food and repealing Regulation (EC) No 1881/2006
- Activities regarding fish should comply with the existing rules for aquacultures:
 - Commission Delegated Regulation (EU) 2020/691 of 30th January 2020 supplementing Regulation (EU) 2016/429 of the European Parliament and of Council as regards to rules for aquaculture establishments and transporters of aquatic animals
 - Council Directive 2006/88/EC of 24 October 2006 on animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals

Register the company:

Company should register in **Food and Veterinary Service** for food production according to Republic of Latvia Cabinet Regulation No. 104 (Adopted 2 February 2010) "Procedures for the Recognition and Registration of Food Establishments".

On Submission for Recognition or Registration of a Food Establishment you should declare:

- Information on the submitter and the immovable property;
- Types of operation: The activities follow the statistical classification of economic activities in the European Community (NACE). For aquaponics a viable option could be following both the classification for agriculture (NACE 01.50) and the one for aquaculture (NACE 03.22);
- Categories of products (for example, fish products; fresh fruit, berries, and vegetables).

Permits needed for the facility if the size and the used amount of resources (water resources, chemicals ect) reaches the levels described in the legislation:

In case the annual production of fish and vegetables/fruits is big enough to qualify in the corresponding category of polluting activity, certificates should be obtained from the State Environmental Service, Republic of Latvia.

Cabinet Regulation No. 1082, Adopted 30 November 2010, "Procedures by Which Polluting Activities of Category A, B and C Shall Be Declared and Permits for the Performance of Category A and B Polluting Activities Shall Be Issued".

Category C has a lower environmental impact than categories A and B. In Annex 2 of Cabinet Regulation

No. 1082 we can find the requirements for "Category C Polluting Activities (Installations) Requiring Registration":

- the listed amount of products of vegetable origin which are processed (produce from 0.5 to 10 tonnes of finished product per day (average indicator per quarter));
- installations for the production of fish and crustaceans, including the production of canned, smoked and frozen products with a daily production of 0.1 1 tonne of finished products.

Annex 5 of Cabinet Regulation No. 1082 "Information to be Indicated in the Submission for the Registration of a Category C Polluting Activity" describes the list of necessary information to report:

- **Information on waste.** Description of the measures for the reduction and prevention of the waste amount. Information on the waste management (for example, the type of management of municipal, production, and hazardous waste, amount of waste per year (in tonnes), place and type of storage thereof, waste manager);
- Water abstraction (for example, the water abstraction source, the amount of water consumption (m³/per day-and-night; m³/ year));
- **Discharge of wastewater** (the type of collection and discharge of municipal wastewater and rainwater). Information regarding the existing wastewater treatment facilities, capacity thereof (m³/per day-and-night, m³/per year) (the identification number of the wastewater discharge point, code of the water supply district shall be indicated. If there are no water treatment facilities, the amount of generated wastewater (m³/per day-and-night, m³/per year) and the type of its management shall be indicated);
- **The list of chemical substances** or mixtures used, type of storage, and planned amount used per year.

If it applicable, the data about emissions (into air, water, amount of used chemicals, amount of waste) should be submitted to the State Environmental Service and information about the amount and quality of wastewater also to SLLC "Latvian Environment, Geology and Meteorology Centre" once per year, but the frequency of the analysis depends on the produced amount of wastewater.

Operating the facility:

The food and veterinary Service (<u>Pārtikas un veterinārais dienests</u>) has the responsibility to check the safety and hygiene of food production.

The responsibilities of the Food and Veterinary Service in the food production and its safe transportation are:

- a) monitor and control the compliance of food products (with the exception of unpackaged drinking water supplied to residents through water supply systems) to the requirements set out in regulatory acts at all stages of the food production,
- b) recognize and register the activity of food companies, as well as annul their recognition and registration in accordance with the procedures specified in the regulatory acts,

- c) at all stages of the food circulation, monitor and control the compliance of the operation of food companies and food circulation processes with the requirements set out in the regulatory acts,
- d) conduct research and analysis of risk factors at all stages of the food cycle.

Register an aquaculture facility

Cabinet Regulation No. 146, adapted 14th of March 2017 "Regulations on veterinary requirements for aquaculture animals, products obtained from them and their circulation, as well as for the prevention and control of certain infectious diseases of aquaculture animals"

A natural or legal person submits an application to the service to register aquaculture (only if production is aim to sell), therefore requirement does not apply to aquariums owned by private individuals.

The information required in the application is the following:

- 1. name, address and contact information (phone, fax number and e-mail address) of the aquaculture company;
- 2. registration number or recognition number of the aquaculture industry enterprise;
- 3. the geographical position of the aquaculture industry enterprise (farm) (using a suitable coordinate system for all farms (GIS coordinates));
- 4. the purpose and type of cultivation (type of culture system or equipment) of the company (farm) in the aquaculture industry, the maximum production volume, if it is regulated;
- 5. water supply and discharge of nursery water for continental nursery, as well as dispatch and purification centres;
- 6. species of aquaculture animals grown in the aquaculture farm (The name of the commercial aquaculture animal species in Latvian and Latin). Farms breeding several species of aquaculture animals or ornamental aquatic animal farms shall indicate whether one of these species is susceptible to the infectious diseases mentioned in *Annex 1* of this Regulation or is a carrier of these diseases;

For example, infectious diseases of fish can be Epizootic hematopoietic necrosis which can affect Rainbow trout (*Oncorhynchus mykiss*) and perch (*Perca fluviatilis*).

When the aquaculture is in operation if there is low risk of infections and there are no identified diseases there will be an inspection once every 4 years. With high risks of infectious diseases, interval can increase to once every 2 years and if infectious diseases have already appeared in the facility then once a year.

The service assigns a low risk level to a hatchery or bivalve mollusc breeding area if:

- 1. there is a low probability of spreading infectious diseases to other farms or wild aquatic animal populations, or a low probability of infection from other farms or wild aquatic animal resources (movement of aquaculture animals between farms with established status for infectious diseases);
- 2. farming conditions do not increase the probability of an outbreak of infectious diseases (small amount of biomass (the density of aquaculture animals is up to 50 kg/m³ of water), good water quality

(the total number of microorganisms detected in water laboratory tests does not exceed the norm of microbiological contamination of water);

3. live aquatic animals are sold for human consumption only.

Operation of the aquaculture facility

During the operation of the aquaculture facility the operator of an aquaculture farm records the following data (journal):

- 1. the movement of all types of aquaculture animals and their products to and from the farm;
- 2. mortality in each epizootiological unit (any unit where transmission of disease can happen) according to the type of production;
- 3. results of health monitoring of aquaculture animals obtained in accordance with these regulations;

Vegetables/fruits

The regulation No. 1308/2013 establishes a common organization of agricultural product markets and repealing Council Regulations (EEC) No. 922/72, (EEC) No. 234/79, (EC) No. 1037/2001 and (EC) No. 1234/2007 stipulates that fresh fruits and vegetables subject to marketing standards may be marketed in the European Union only if they meet these standards (Articles 74 and 75):

- Fresh fruits and vegetables can be sold to the consumer only if they are healthy, clean and of a quality suitable for sale and if their country of origin is indicated (Regulation No. 1308/2011, Article 76, Clause 1).
- Trade standards for fresh fruits and vegetables are applied at all stages of trade, including import and export, and may relate to quality, categorization, weight, size, packaging, packaging, storage, transportation, presentation and sale (Regulation No. 1308/2011 76 Article, paragraph 2).
- The owner of these products is responsible for the compliance of fresh fruits and vegetables with the requirements of trade standards, who displays such products in the European Union for viewing, offers for sale, supplies and trades only in accordance with trade standards (Article 76, Clause 3 of Regulation No. 1308/2011).

Republic of Latvia Cabinet Regulation No. 597, adopted on 20 October 2015 "Regulations Regarding Requirements for Quality, Classification and Additional Labelling of Fresh Fruit and Vegetables and the Procedures for the Conformity Assessment of Fresh Fruit and Vegetables with Marketing Standards" prescribes quality and classification requirements for fresh fruit and vegetables (hereinafter - the product) and the procedures for the conformity assessment of such products with the marketing standards

Example of notification on non-conformity of the marketing standard

Food and Veterinary Service has found that the following product (lot) did not meet the requirements of the _____ marketing standard of the Commission Implementing Regulation (EC) of No 543 7 June 2011 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 in respect of the fruit and vegetables and processed fruit and vegetables sectors.

1. Kontroles vieta/place of control	
2. Kontroles datums/date of control	
3. Kontroles apliecības Nr./control reference No.	
4. Atbilstības sertifikāta Nr./control certificate No.	
5. Produkta nosaukums/product (CN code)	
6. Izcelsmes valsts/origin (country code)	
7. Šķirne/variety or commercial type	
8. Pieprasītā šķira/quality class claimed	
9. Daudzums (iepakojumu skaits)/quantity – number	
10. Svars (kg)/quantity – weight	
11. Neatbilstība (% kods)/defects (% code)*	
12. Veiktie pasākumi/follow-up action	
13. Transportēšanas veids/transport means (code)	
14. Transportlīdzekļa numurs/number of vehicle	
15. Pakotājs/packer	
16. Nosūtītājs/sender	
17. Saņēmējs/recipient – country (code) – specifications	
18. Valstis, kurām nosūtīts paziņojums (kods)/member states notified (code)	
19. Komentāri/comments	
Datums/date	Inspektors/inspector

Piezīme.

02 slimības un puvumi/breakdown diseases and rots

^{*} Neatbilstības rādītāju kodi/code of defects:

⁰¹ bojājumi un defekti/blemishes and damages

- 03 fiziologiskie defekti/physiological defects
- 04 izmērs/sizing
- 05 īpašas norādes par produkta formu marķējumā/shape labelling
- 06 netīrs produkts/cleanliness
- 07 krāsojums/colour
- 08 gatavības pakāpe/maturity
- 09 iepakojums/presentation
- 10 marķējums/labelling
- 11 neatbilstība minimālajiem kvalitātes rādītājiem/citi rādītāji/does not fulfil the minimum requirements/other requirements