







Preliminary information regarding an investment plan for Europe's single largest emission reduction moonshot project

MARCH 18, 2025



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Solar Foods does not provide earnings guidance but describes its outlook and related risks more generally (general future outlook).





Announcement summary

- Solar Foods published (March 18, 2025) preliminary information producing its protein rich food ingredient Solein[®].
- can be built in phases (A, B and C).
- The total investment amounts to approximately 1 billion euro.
- Europe until today.
- Company on the Capital Market Day 9 December 2024.

regarding a plan to invest in a large-scale Factory 02 in Finland for

• The overall plan presented is comprised of a phased investment with the option to realise Factory 02, 03 and 04 at a same location. Due to the modular gas fermentation technology also each factory

• Once operational the three Factories could produce nearly 50.000 tonnes of Solein[®] per year. They would consume about 120.000 tonnes of CO2 and 270MW of electricity as the main feedstock.

• Considering a case where Solein[®] replace meat in the global food system, the three factories enable an emission reduction in the order of 10 million tonnes CO2 equivalent per year making it by far the largest single emission reduction investment and measure in the

• Solar Foods has submitted an application on 14.3.2025 to Business Finland / Ministry of Economic Affairs and Employment of Finland for a 66 million euro investment grant. The first phase (A) of Factory 02 with about 134 million euro investment is entitled to such grant as it has the status of Important Project for Common European Interest (IPCEI hydrogen). This unit is the same as presented by the

- Justification for a grant:
 - 1. Grant amount is small compared to the total private investment it could unlock
 - 2. Factory 02 would open a whole new high-tech sector in Finnish economy
 - 3. For a small growth company with new technology grants are decisive unlike for large corporations
 - 4. Factory 02, 03 and 04 development would be a globally leading climate change mitigation project where Finland has today, but could also maintain in future, a globally leading position
 - 5. Solein production can improve food security and self-sufficiency
 - 6. Once at scale, Solein[®] production can offer a healthy, high value add export opportunity for Finland.
- Solar Foods has entered into Memorandum of Understanding with more than one customers regarding a joint commercialication plan for 6,000 tonnes of Solein[®] annually. Should these later turn to binding agreements the volume corresponds the production volume of Factory 02 phases (A) + (B).
- The information shared reflects the intention of the Company to execute such project(s) should each individual phase become bankable.









Announcement key figures

990 EUR million

Value of total investment. Factory 02-04 investments value approx. 300 mEur each.

>80% **Ratio of domestic**

production

High value add for GDP.

EUR million

Total gross export value from Factories 02-04.

5 X

Value of Solein compared to electricity consumed

High value add for electricity produced in Finland.

6.000 Tonnes per year

Off-take indications through Memorandum of Understanding (MoU) from two customers.

1.000 Permanent jobs

Each Factory 02-04 creates approximately 300 jobs.

12.800 Tonnes per year

Annual production of the first factory, Factory 02.

80 x Capacity scaling

Factory 02 production capacity compared to Factory 01.





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Bringing a New Harvest for Humankind

SOLAR FOODS







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01 Solar Foods in short

Solar Foods produces Solein[®], a proteinrich ingredient created using carbon dioxide and electricity as main feedstock. This groundbreaking production method operates independently of weather and climate conditions, offering a new opportunity for managing risks related to food security, self-sufficiency and price fluctuations.

Founded in Finland in 2017, Solar Foods is listed on the Nasdaq First North Growth Market Finland since September 2024. In April 2024, Solar Foods received the Nasdaq Green Equity Designation – Private Company before later that year being listed on the Nasdaq First North Growth Market Finland.

Background

Solar Foods was established to commercialise research conducted at VTT Technical Research Centre of Finland and LUT University. The founding team sought to develop a solution that could convert CO_2 captured from the air and renewable electricity into edible calories. To achieve this, they identified a single-cell microorganism as the most efficient biological converter for the task. Following a successful proof of concept at VTT, Solar Foods was officially founded in November 2017 and commenced operations in March 2018.

The company discovered and patented a unique microorganism, called SoF1, successfully cultivated it in its pilot facility to validate the concept. Following this, the focus shifted to scaling up Solein® production and obtaining regulatory approvals for food use.

About Solein®

Solein is an all-purpose protein, versatile to meet a wide range of consumer needs. Thanks to its mild taste, products made with Solein can taste like anything, without the need to hide any unpleasant notes. Solein is nutritionally unique. It naturally combines the best qualities of animal and plant-based proteins: It has all the essentials of a perfect protein without the cholesterol and saturated fats of animalbased protein, yet still containing iron and vitamin B12, which are lacking from plant-based proteins. Solein excels in nutrient-dense products focused on addressing key consumer needs in the performance and nutrition space.

Solein also surpasses other protein sources in sustainability, as the production of Solein has a radically small environmental impact.

Company Status

In April 2024, Solar Foods began operations at Factory 01, a demonstration-scale production facility. Located in Finland, the facility is just ten minutes from Helsinki Airport and half an hour from Helsinki

city centre. Factory 01 has an annual production capacity of 160 tonnes of Solein corresponding to about 6 million meals worth of protein.

Solein received its first novel food regulatory approval in September 2022 from the Singapore Food Agency (SFA), allowing for its test marketing and sale in Singapore. Since then, Solein has been introduced in limited-edition food products both at restaurants, as well as by selected consumer packaged goods (CPG) companies. In September 2024, Solar Foods attained self-affirmed GRAS (Generally Recognised As Safe) status in the United States, enabling the company to commence commercial activities in the U.S. Solein was introduced in New York in November 2024, in collaboration with a local restaurant. Next the company aims to commercialise together with customers in different CPG categories. Solar Foods estimates Solein will obtain regulatory approval in the EU in 2026.

Expansion & scaling plans

Solar Foods operates today Factory 01 with an annual capacity of up to 160 tonnes per year with a plan to increased capacity 230 tonnes by 2026. The pre-engineering of Factory 02 is ongoing, targeting investment decision in 2026 and a start-up in 2028. The total capacity would be 12.800 tonnes per year corresponding to half billion meals.

Solar Foods has a 110 mEur IPCEI funding notification from the EU for Factory 02, wherefrom 44 mEur has already been approved as a research and development grant. In addition, Solar Foods has raised 51 mEur equity, 16 mEur senior debt as well as 5 mEur R&D loan.

After deployment of Factories 02-04, the company could generate revenues of EUR 800 mEur by 2035.

Read more about Solar Foods at solarfoods.com













VISION

By combining modern technologies, we begin a new era in feeding the world

Solar Foods is transforming how food is produced to nourish 10 billion people within planetary limits.

Our groundbreaking technology overcomes the constraints of land, weather, and climate, enabling a new era of sustainable and nutritious harvests.

By democratizing access to high-quality nutrition, we are safeguarding global food security and ensuring a sustainable future for generations.



> 10 000 BC > 1700 AD

> 2000 AD

2000 AD >

O N

MISSION

A New Harvest for Humankind

Solar Foods is revolutionising the global industry by providing a new food ingredient, Solein[®], to humankind.

Solein establishes a completely new protein-rich ingredient category in the global food market.

Due to its proprietary hydrogen fermentation platform Solein's impact on the ecosystem can be orders of magnitude less than today's foods.

We aim to make products that are more nutritious and taste better than what is available in the market.









02 sciein is a new kind of food









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02

Solein[®] is a protein source with unmatched value

NUTRITION

- Protein content: 78%
- Dietary fibers: 10%
- Fat 6%
- Carbohydrates 2%
- Minerals 4%
- All nine essential amino acids
- 20% BCAA (out of protein)
- 8% Leucine (out of protein)
- Vitam B12 (50 μg/kg)
- Rich in iron (1.1g/kg)

FUNCTIONALITY

- Outstanding emulsion forming properties
- Creamy mouthfeel
- Strong dispersion stability
- Low sedimentation

LABELLING

- Non-GMO
- Allergen-free
- Vegan

SUSTAINABILITY

- Low carbon footprint
- Low water and land usage





Food & beverage manufacturers must no longer compromise between plant and dairy proteins: Solein offers the best of both worlds

Plant protein

- Sustainable
- Animal-free
- High in fiber
- Reduced price volatility



sclein

• Strong amino acid profile • Nutritious fibers Rich in important micronutrients like iron and vitamin B12 • Superior emulsification Great mouth-feel • Great taste & texture • Low in carbohydrates



Dairy protein

- Great taste and texture
- Excellent amino acid profile
- High in vitamin B12

S: Jein

is a nutritional, functional & sustainable everyday protein.

HEALTH AND PERFORMACE Sports, healthy snack, active lifestyle and meal replacement

DAIRY ALTERNATIVES Ice cream, youghurts, cheese & spread PASTA & BAKED GOODS Noodles, pasta, fortified baked products, egg yolk replacement





S State CULINARY SPECIALITIES Soups, dressings, seasonings & sauces



Solar Foods' addressable and obtainable market

Solar Foods has a path to >20,000kt protein market with commercialization starting in U.S. Health & Performance Nutrition

Capturing just ~1% of the market corresponds to a revenue potential:



Source: Euromonitor, SPINS, Statista, 3A publications database, Fortune Business Insights, Fortune Market Insights, press search, expert insights Priority applications, U.S. retail

Initial Serviceable Obtainable Market Serviceable Available Market **Total Addressable Market**

Long-term opportunity

Further geographic expansion

Geographic expansion (APAC, EU, UK and SA) Further application expansion

Commonly used across food chain >20,000kt, alternative revenue streams

Space nutrition

Application expansion (e.g., baked goods)

Precision fermentation

hic on

Broader Food and

Nutrition applications

~2,500-5,000kt

Channel expansion

(e.g., foodservice)

US Health & Performance Nutrition ~300-500kt



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Solar Foods will focus on the Health & Performance Nutrition segment, initially in the United States, the world's biggest protein powder market

- The Health & Performance nutrition market has attractive size and growth rates
- Strong trends on health, wellness and fitness have \bullet been driving the category for the past decade
- The industry is dominated by Whey Protein ۲ Isolate at price of 18-20 \$/kg Q4 2024
- Industry is looking for sustainable • alternatives that can match whey on nutrition, taste and texture
- Health & Performance industry does not require \bullet quality standard above food unlike medical nutrition and infant formula industries

Source: Euromonitor, SPINS, Statista, 3A publications database, Fortune Business Insights, Fortune Market Insights, press search, expert insights

Priority applications, U.S. retail



Initial Serviceable Obtainable Market Serviceable Available Market





High Protein foods as an emerging new

segment for healthy snacking and consumers on weight control medication



Bringing Solein® products to life: From prototypes to shelf-ready solutions

We want customers to experience and explore the ingredient's functionality and value firsthand.

Solar Foods supports customers in developing shelf-ready products tailored to their needs.

To further inspire and guide product development, Solar Foods showcases in-house prototypes and ready-made concepts that highlight the ingredient's full potential in different product applications.



02 Applications Powered by Solein®

HIGH-QUALITY PROTEIN **GREAT TASTE & FUNCTIONALITY** COMPLETE NUTRITION





For active lifestyle seekers, Solein transforms on-the-go snacks like protein bars, into an unique, delicious flavor and creamy texture, combined with complete nutrition, redefine convenience and set a new benchmark in the category.

performance ensures healthfocused consumers never have to compromise on taste or functionality.

content and complete BCAA profile, Solein delivers a gamechanging solution for peak performance and recovery.





02 ON-THE-GO SNACK CONCEPT: Solein[®] Protein Bites

Solein[®] Protein Bites is designed for those who prioritize general well-being and seek better choices.

With high-quality protein and essential nutrients, it provides sustained energy in a convenient format, fitting seamlessly into busy lifestyles - whether as a quick snack or an easy on-the-go option. The rich peanut butter with Solein flavor ensures that nutrition doesn't come at the cost of taste.

This bar offers both practical benefits and indulgence, supporting a balanced and active lifestyle—anytime, anywhere.





02 PROTEIN READY-TO-MIX CONCEPT:

Solein® Shake

Salty Caramel edition

A performance boosting shake powered by a game-changing protein.

Solein ready-to-mix (RTM) solution, Solein® Shake is crafted for fitness enthusiasts who demand performance-driven products tailored for post-workout nutrition. With Solein's exceptional high-protein content and complete BCAA profile, Solein delivers a game-changing solution for peak performance and recovery. This bar offers both practical benefits and indulgence, supporting a balanced and active lifestyle—anytime, anywhere.



Solein[®] Shake

Salty Caramel edition

A performance boosting shake powered by game-changing protein. Contains all essential amino acids and 20% BCAAs.













Factory 01 – the world's first factory growing food out of thin air

- F01, Solar Foods' demonstration-scale production facility in Vantaa, Finland was commissioned in H1/2024. Video link
- F01 has 24/7 production employing around 20 persons. Furthermore, office spaces used by additional 40 employees.
- Food safety certification (FSSC22000) obtained in H2/2024.
- F01 serve also as Solar Foods' hub for R&D and future product development. Running the facility will provides valuable data on the path to the next milestone: Factory 02 (F02).
- To respond on customer demand before FO2 is operational, The company is planning to increase the annual design capacity from 160 tonnes to 230 tonnes in 2026.



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Kitchen: Invitation to experience the future of food

> The Solein[®] Kitchen is a culinary playground where chefs experiment with Solein[®], exploring its potential in diverse dishes, tastes, products and new frontiers in food.



INVESTMENT PLAN AND IMPACT FOR INDUSTRIAL-SCALE SOLEIN® PRODUCTION



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Kitchen: Invitation to experience the future of food

Solein dumplings

Solein powered blackcurrant frozen delight

Solein powered bread

Solein dumplings with aromatic mushroom broth



Science

Kitchen: Invitation to experience the future of food

Solein powered bao bun with meaty bites and mayo made with Solein

Solein macarons

Summer salad with Solein dressing





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04 Factory 02





Factory 02 scaling step

- Solar Foods' first large-scale manufacturing facility, Factory 02, will produce Solein with the total capacity of 12.800 tonnes per year. This is upscaling of about 80 times the production capacity of Factory 01.
- The facility will be built in three phases (A, B, C), each featuring bioreactors powered by hydrogen and oxygen generated by means of a 20MW electrolyser plant. These are supported by up and downstream process lines, utilities, buildings and site infrastructure.
- F02 Phase (A) will have a capacity of 3.200 tonnes per year equalling to about 130 million meals. Phase (A) is a first-of-a-kind project in its magnitude applying proven technologies at required scale from dairy and chemical industry.



2022

2028 >



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Factory 02 next steps

- Once operational, FO2 will prove the final scaling of Solar Foods' technology. Attractive unit economics are achieved already at phase (A) with the expected revenue at around 48–55 mEur and an initial estimate for EBITDA margin of 57-62%.
- In February 2025, the company disclosed that it has entered into an Engineering & Procurement partnership agreement with Blue Projects, a global design, engineering, and project management company specializing in larger-scale construction projects.
- The planned preliminary site in Lappeenranta, Finland, is used as the basis for this pre-engineering work. The site of 13,5 hectares offers unique electricity supply possibilities together with great future opportunities for integration with district heating network for the city.
- The company continues collaboration with its partners, stakeholders and relevant authorities targeting to the final investment decision in 2026 and with the FO2 (A) phase aiming to become operational in 2028.



Staged scale-up plan for FO2



• 3 x 100m³ reactors • Production capacity ~3.2 kt/year • Production start in 2028



• $3 \times 100 \text{m}^3 \text{ reactors}$ • Production capacity ~3.2 kt/year • Production start in 2029

• $6 \times 100 \text{m}^3 \text{ reactors}$ • Production capacity ~6.4 kt/year • Production start in 2030

• Total production capacity ~12.8 kt/year







Factory 02 development in numbers

	Unit	F02
Project Capex investment cumulative	mEur	317
MW electrolyzes capacity installed	MW	54
Total installed power	MW	80
Output	t/a	12.800
Heat export to the City	MW	35
Biogenic CO2 processed	t/a	35.200



04 FO2 phase (A) schedule

Activity	Plan start	Plan duration	Actual start	Actual duration	Percent complete	2025
						12345
Project definition	1	12	1	12	25 %	
Detailed engineering	13	17	13	17	0 %	
Procurement	5	25	5	25	0 %	
Construction	18	20	18	20	0 %	
Long lead manufacturing & delivery	16	18	16	18	0 %	
Energy centre	4	36	4	36	0 %	
Installation	30	16	30	16	0 %	
Start-up	38	10	38	10	0 %	





Factory 02 employment estimate

	Direct full-time employees (FTE)	Indirect (i.e., suppliers)	Induced (i.e., direct effect for the broader economy)	Duration	Tota
Project					
EPCM* & Solar Foods project Team	30	30	40		100
Equipment Installation	100	90	140	12 months	330
Construction	150	130	210	24 months	490
Commissioning	50	40	70	6 months	160
Production					
Management**	6	20	30	permanent	60
Operators & department leads (Operating in shifts)	30	90	140	permanent	260
Quality & Maintenance	10	30	50	permanent	90
				Total permanent	410
*Engineering, Procurement, Construction, Management **Operations, Quality Assurance, Human Resources, Maintenance, Logistics, Occupat	tional Health and Safety)			Total at Peak	149









Factory 02

and the second of the second of second of

Ylikkälä Electricity Substation

Product warehouse

A

Gate

88.



Long-term factory investment program

- The Company's business plan includes plans for building and operating several large-scale manufacturing facilities as well as licencing the technology.
- In addition to F02, the pre-engineering site in Lappeenranta can accommodate also Factories F03 and F04.
- Therefore, the proposed IPCEI II grant of about 66 million euro can trigger off up to 1 billion euro private investments in Finland.

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Factory





Factory 02–04

F03 Product warehouse

F03 Dryers

and the same i want to be a set

Section 1

Mr. Garage M.

Adjacent plot for F04





F02 Product warehouse



Staged factory development in numbers

	Unit	F02	F02 + F03
Project Capex investment cumulative	mEur	317	660
MW electrolyzes capacity installed	MW	54	117
Total installed power	MW	80	170
Output	t/a	12.800	29.800
Heat export to the City	MW	35	75
Biogenic CO2 processed	t/a	35.200	76.000



F02 + F03 + F04
990
180
266
47.400
115
116.800



05 Employment F02 + F03 + F04

	Direct full-time employees	Indirect (i.e., suppliers)	Induced (i.e., direct effect for the broader economy)	Duration	Tota
Project					
EPCM* & Solar Foods project Team	30	30	40		100
Equipment Installation	100	90	140	30 months	330
Construction	150	130	210	48 months	490
Commissioning	50	40	70	18 months	160
Production					
Management**	9	30	40	permanent	80
Operators & department leads (Operating in shifts)	90	260	410	permanent	760
Quality & Maintenance	20	60	90	permanent	170
				Total permanent	101
*Engineering, Procurement, Construction, Management **Operations, Quality Assurance, Human Resources, Maintenance, Logistics, Occupat	tional Health and Safety)			Total at Peak	209
The presented figures are preliminary and do not constitute financial guidence of the	000000				

i ne presented figures are preliminary and do not constitute financial guidance of the company



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05

The F02 site – Selkäharju

- The site area is approximately 134,000 m².
- Building rights allow for 66,869 floor square meters, which is enough to accommodate 3 factories.
- The site is connected to the city's water and effluent infrastructure.
- Electricity supply, sizing, and availability have been confirmed for Q2 2026 with 5 MW for construction and initial commissioning, with project development activities ongoing for the 80 MW substation by 2028.
- Potential heat return has been confirmed for Selkäharju, with 35 MW of heat returned to the district heating system. Further understanding of the project's magnitude is planned.
- It is in the logistic intersection of main road 6 and 13 with good access to Hamina-Kotka harbour











Lappeenrannan **energia oy**



 Lappeenrannan energia oy is investing in a new power line enabling Solar Foods an access to the electricity grid without compromises in planned F02 project timeline.



Lappeenrannan energia

• The new power line also serves the bigger local purpose within the electricity transmission program of the city of Lappeenranta.

Background

- The capacity of the existing 110 kV connection point at Simolantie needs to be strengthened to ensure the reliability of electricity transmission in the Lappeenranta area.
- A new power line will connect Lappeenrannan Energiaverkot Oy's Simolantie substation to Fingrid's Yllikkälä substation.

- This project is crucial for the development of the Lappeenranta area and
 - addresses the challenges posed by the electrification of the energy transition.

- The line to be constructed will be approximately 8 km long.
- The line is designed as a free-standing structure with two circuits,
 - with one circuit remaining unbuilt in the first phase.
- Each circuit is dimensioned for 2xDUCK conductors,
 - resulting in a load capacity of approximately 200 MVA per circuit.

Lappeenrannan energia

• The current schedule of Lappeenrannan energia's project allows having FO2 operational in 2028 as planned.

Lappeenrannan energia

- Solar Foods and Lappeenrannan energia are investigating the possibilities for exporting the extra heat generated by Solein production process into the municipal district heating grid.
- This can contribute to the ambitious sustainability goals of the city of Lappeenranta.

SWECO **迖**

 Solar Foods and Sweco have entered into a service agreement for conducting execution plans for environmental impact assessment and permitting processes.

Solar Foods Factory 02

Permitting and Environmental Impact Assessment

27.02.2025

SWECOX

- Both permitting and environmental impact assessment (EIA) are multistep processes involving several stakeholders.
- Professional management of those ensure smooth project execution.

Permitting and Environmental Impact Assessment (EIA) process

In Finland, the establishment of a new facility and operation necessitates the acquisition of multiple permits, registrations, and notifications to various authorities, all of which must be taken into account at an early stage of the project to ensure a smooth process. For this purpose, the permitting plan serves as an essential tool.

In addition to the permitting process, the project may also be subject to an Environmental Impact Assessment (EIA) procedure. The EIA and its reasoned conclusion should also be utilized when applying for an environmental permit. Hence, it is crucial to evaluate at an early stage whether the project will require an EIA, so that appropriate preparations can be made.

SWECO X

- Based on EIA Act, FO2 project does not automatically require full EIA procedure. However, based on Sweco's earlier projects and experience, Solar Foods cannot automatically either rule out that full EIA procedure would not be required. Therefore, official EIA screening will be carried out during spring 2025.
- Permitting plan involves the required permits from chemical and land use point of view.

Permitting and Environmental Impact Assessment (EIA) process

- A comprehensive REACH strategy.

REACH: Registration, Evaluation Authorisation and Restriction of Chemicals

Preliminary EIA screening by SWECO completed.

Conclusion is that there is a possibility that the EIA will apply to the project either based on an activity listed in Annex I of the EIA Act (252/2017) or by applying the EIA on a case-by-case basis for the project. The authority will make the final decision.

Create a Permitting Plan, contracted including:

An overview of the site's environment and environmental conditions.

 An identification of required permits related to environmental and chemical legislation (including water permits and REACH).

The assessment of the suitability of current land use plans.

A schedule and cost estimate for execution of the permitting plan

sweco X

- EIA screening includes evaluation of environmental conditions resulting from the Solein production process located in the planned slot (i.e., Selkäharju).
- Accident hazard assessment ensures a systematic approach for identifying, assessing and mitigating potential hazards of the F02 project.

Permitting and Environmental Impact **Assessment (EIA) process**

- Prepared in accordance with the Finnish EIA Act 252/2017.
- Outlines environmental conditions and assesses potential project impacts.
- Aids in determining whether a full EIA procedure is necessary.
- Carried out for the pre-selected location in Lappeenranta.
- · Includes an inventory of surrounding risk receptors (residential areas, facilities, nature areas, cultural heritage sites) within approximately 2 km.
- Describes major accident hazards and provides a preliminary assessment of hazards related to used chemicals.
- Consequence analysis (detailed modeling) could be carried out when more process data is available.

• EIA (Environmental Impact Assessment) Screening contracted:

Major Accident Hazard Assessment contracted:

SWECO **迖**

- Solar Foods has a detailed permitting execution plan.
- This includes the EIA competent authority's view about the potential need for full EIA procedure, by June 2025.

Permitting and Environmental Impact Assessment (EIA) process

WHAT?

- **Preliminary EIA screening result**
- A preliminary assessment of the

Permitting plan

 A comprehensive overview of the an initial timeline and costs for the

EIA screening

 Screening is made in accordance project does not qualify directly for the EIA is made with a <u>case b</u> determine the need to perform

EIA procedure

 If required for the project, the E process. The EIA report and its r considered by the permitting au

Permitting

- Involves applying for the necess environmental permit, chemical
- If EIA is applied, the permitting reasoned conclusion has been g

	WHEN?	STATUS
assessment e necessity of an EIA procedure for the project.	Feb 2025	Completed Sweco
ne permits required for the project, their prerequisites, and the permitting procedures (and EIA, if needed).	March-May 2025	Contracted Sweco
e with the Finnish EIA Act 252/2017. It is required as the for mandatory EIA in accordance with the EIA Act. The need by case consideration by the competent authority and will an EIA procedure.	March-May 2025	Contracted Sweco
IA is procedurally a separate process from the permitting reasoned conclusion given by the competent authority are uthorities in their environmental permitting considerations.	Jan-Dec 2026	Not started
ary permits for the project from various authorities such as I safety permit, etc. (environmental permit) can be carried out only after the given which may affect the preliminary schedule.	Jan-April 2026	Not started

06 Economic in back

Europe's "sick man" problem

- U.S. dominates the landscape of large tech companies. It benefits from availability of risk tolerant funding and faster tech adoption and scaling.
- During the past 20 years, there has been witnessed a tremendous gap in productivity levels between the U.S. and Europe.
- Once at scale, scaleups like Solar Foods have the potential to drive the economic growth in the EU and change the existing centre of gravity in global technology dominance.

Productivity index of listed tech firms, 2005=100

Reproduced from:

How to Awaken Europe's Private Sector and Boost Economic Growth, IMF, September 11, 2024

06 Europe's "sick man" problem

Less than 50 Years Old with \$10B+ Market Cap Public From-Scratch US and EU Companies

\$100T

\$1T

Reproduced from: The Draghi report: A competitiveness strategy for Europe, 9 September 2024

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06

Value of Solein compared to other commodity E-Products

The figure shows the value of different commodity products per weight produced by means of green hydrogen utilization.

Value of E-product, EUR/kg

Source: Transport & Environment (briefing on e-SAF mandates, Oct 2024), S&P Global, press search, company information

Alternatives

Premium needed

High-quality whey

None or low (1-1.5x)

Fossil kerosene (or bio-SAF)	5-10x (2-4x for bio-SAF)
Fossil methanol	4x

Economical value added, company level

- The company's incremental value add* is expected to grow proportional to the production volume.
- Once operational, contribution to national exports is significant, taking into account the Factories create a whole new sector in Finnish economy.
- Strategically, production is not dependent on rare earth elements nor other strategic elements therefore it aligns with the targets to increase strategic autonomy, sustainable resourcing and self sufficiency.

*Value added (arvonlisä) = Total output – Intermediate consumption

Economical value added, national accounts

- Valued added for Gross Domestic Production* is potentially significant. In comparison, the total value add of paper industry is less than 3 billion euro.**
- The value added of traditional industrial sectors is expected to remain the same or decline in the future, particularly in Eastern and Southeastern Finland which further increase the structural imbalance of Finland's economy.
- Unlike many other high volume industries, Solar Foods' production is able to benefit from domestic sources of feedstock (clean energy, CO2, water) and labor, making the domestic content of the product high.
- Solein's Ratio of Domestic Production*** is estimated at about 80%.
- Innovative, sustainable and highly competitive industry around food technology is assumed to bring significant contribution in growing a new knowledge-based cluster in Finland.

*Value added for Gross Domestic Production = Total output – Foreign Intermediate consumption

***Ratio of Domestic Production= The share of domestic factors of production (Kotimaisuusaste)

Economical value added, exports

- Solein is expected to be the next high-value export product of Finland. It can be incorporated into various food products, answering to the increasing global demand for sustainable and healthy food solutions.
- The value of Solein export would be around 800 mEur, approx. 10% of Paper industry's 2025 exports** and 50% of food, beverage and tobacco sector's 2025 exports.
- The exports would be primarily directed to Western developed partner countries.

Gross exports*,

*Gross exports = (Bruttovienti) Total Value of Exported Goods and Services

07 Environmental Impact

07 Solein[®] is the most sustainable protein on earth

Source: Järviö, N., Maljanen, N.-L., Kobayashi, Y., Ryynänen, T., & Tuomisto, H. L. (2021). An attributional life cycle assessment of microbial protein production: A case study on using hydrogen-oxidizing bacteria. Science of The Total Environment, 776, 145764.

Greenhouse gas reduction potential of the factories 02-04: Meat emissions

Meat emissions

sclein

Solein emissions with the underlying assumptions, 200 kg of **CO2 equivalent emission** is avoided per kilogram of Solein produced and consumed.

The planned capacity of F02, 03, 04 is up to 50.000 tonnes.

The Company is aware uncertainty in life cycle assessments may have a factor of two or more uncertainty in both directions.

When replacing meat,

F02, 03 and 04 offer an emission reduction potential of 10.000.000 tonnes CO2 equivalent.

For a reference 10Mt correspond to:

- 25% of Finland's total CO2 emissions •
- The LULUCF sector total emissions (that is, the land use, • land-use change and forestry sector 12Mt CO2)
- The emissions from road transport (9Mt CO2)

Greenhouse gas reduction potential of the factories 02-04: Whole milk emissions

sclein

Solein emissions

The planned capacity of F02, 03, 04 is up to 50.000 tonnes.

consumed.

The Company is aware uncertainty in life cycle assessments may have a factor of two or more uncertainty in both directions.

When replacing whole milk, with the underlying assumptions, 20 kg of **CO2** equivalent emission is avoided per kilogram of Solein produced and

Greenhouse gas reduction potential of the factories 02-04: Cheese emissions

When replacing cheese, with the underlying assumptions, 160 kg of **CO2** equivalent emission is avoided per kilogram of Solein produced and consumed.

The planned capacity of F02, 03, 04 is up to 50.000 tonnes.

The Company is aware uncertainty in life cycle assessments may have a factor of two or more uncertainty in both directions.

Greenhouse gas reduction potential of the factories 02-04: Egg emissions

When replacing egg, with the underlying assumptions, 40 kg of **CO2** equivalent emission is avoided per kilogram of Solein produced and consumed.

The planned capacity of F02, 03, 04 is up to 50.000 tonnes.

The Company is aware uncertainty in life cycle assessments may have a factor of two or more uncertainty in both directions.

