



Lytefire

Advanced Seed Round

Pitch Deck

Lytefire is a brand of Solar Fire Concentration Ltd

Sustainability Cycle



Lytefire captures solar energy for food processing and much more.



Lytefire comes with entrepreneurship training



This creates a new generation of sustainable jobs



People are fed. Income is generated. Hope is back. Society can change.



Lytefire reduces deforestation and CO2 emissions

The future of energy is the transformation of the energy system. Lytefire brings direct heat to people for food transformation. This creates jobs. And it protects the planet.

Lytefire creates a viable solar energy future

Lytefire products empower entrepreneurs to go solar, using our unique high-temperature technology and educational trainings.



Lytefire Commercial Bakery Ovens



Lytefire Solar Sauna in the Swiss Alps.

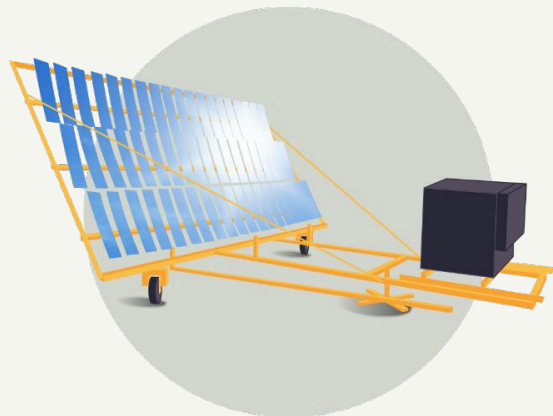


Lytefire Roasters, Cookers, Dehydrators, and more.

Key Performance Indicators – KPIs

As an impact company, we hold ourselves accountable to maximizing our impact.

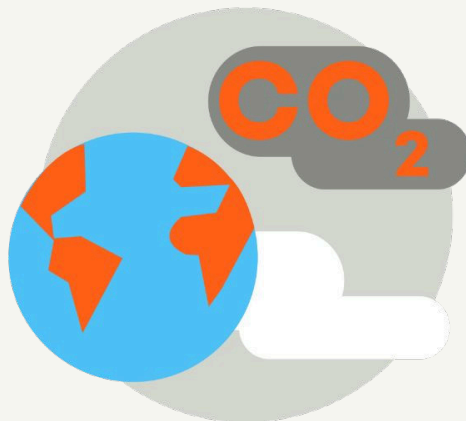
Number of Units in use
[# Lytefire]



123 Lytefires
in the field

+ 1 patent, 2 under development

Tons of Carbon Dioxide saved
[tCO₂eq]



540 tCO₂eq
yearly savings potential

Revenue and Profit
[€]



357k€ revenue
78k€ profit

What is Lytefire?

Lytefire is a scalable solar concentrator. Lytefire concentrates the sun's rays into heat: Powerful, simple, robust & elegant. We have developed the following applications: Oven, Roaster, Stovetop, and Sauna. This clean source of heat replaces fires and fossil fuels.



Embu, Kenya



France



Burkina-Faso

Performance & Impact

Lytefire is scalable from 4 to 32 square meters of mirrors per unit and Lytefire PRO produces 3.5kW of thermal energy.

Depending on the Lytefire model:

- Lytefire PRO bakes 50-110kg per day.
- Lytefire Deluxe Big bakes 100-220kg per day.

In Kenya, a Lytefire PRO used for 6 hours / day, 210 days / year prevents the emission of **5 tons of CO₂** (volume of an Olympic swimming pool). In Tanzania, a school is saving 500 € / month and on top makes 260 € / month with sales of baked goods for example. Ask for our Performances or [calculate yourself](#).

Beyond the Solar Oven: Education & Job Creation

We sell Lytefire through our educational packages for job creation, tackling energy poverty and teaching solar entrepreneurship.



Our Training Contents

Technical Training

Installation, handling and operation, maintenance, sustainability, etc.

Bakery Training

Baking skills, making traditional products and recipes with the solar oven, handling food, hygiene

Entrepreneurship Training

Running a small business or a cooperative (budgeting, inventory, warehousing, calculation of profit / loss, accounting, etc.)

Lytefire units are sold in each training.

We are Lytefire

We sell solar devices for food processing, under our Lytefire brand. Solar Fire Concentration Ltd is our Finnish impact company with a global team and our scalable tech.

Our Roots

Why doesn't everyone already run on sustainable, affordable energy? What does it take to change that? Our group of 6 friends was very concerned with this, and so we started. The result is Lytefire.

Mission

We empower people with our Lytefire solar product and our education service to create sustainable jobs. This supports the regeneration of ecosystems and economic stability.

DNA

We are agile, creative, persistent and minimalistic, with positive attitudes and highly motivated.

Identity

We are an impact company with strong family ties. We grow through an ecosystem of entrepreneurs to empower users with Lytefire locally.

Values

Sustainability, Empowerment, Courage, Authenticity.

Each time a Lytefire is installed, it positively impacts these SDGs

1 NO POVERTY



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



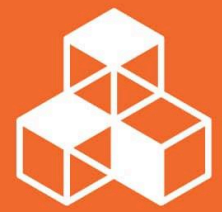
7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



How we make money now?

We package Lytefire in educational trainings, sold to impact-organizations such as NGOs. In essence, we sell the impact of Lytefire: Carbon reduction & green jobs and the 11 SDGs we tackle. In 2022 we have reached 350k€/year turnover with this model.



Our Track Record

Sales revenue and Profit:

- €200 000 in FY 2022–2023
- €357 564 in FY 2021–2022
- €140 621 in FY 2020–2021
- €43 662 in FY 2019–2020

Breakeven reached March 2022
with €78 415 profit.

Impact:

438 people trained

123 Lytefires installed

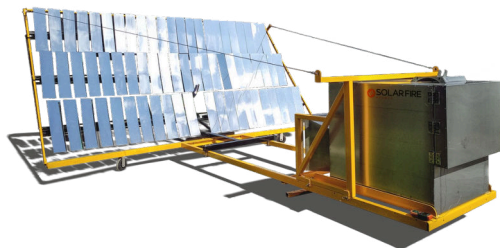
5 tons of carbon saved
per Lytefire per year.

Diversification and Scalability:

In 2022–2023 we diversified with
licencing and received our first
royalty and licensing revenue based
on a scalable licencing model.

Our Clients

Commercial Licenses - B2B



Our licensees make BtoC sales.

We already have licensees in Kenya, France, Sudan, Switzerland, Uganda. Signature stage in: Tanzania, Ethiopia, Malawi.

Examples of our Lytefire end-users:

France: NeoLoco, Du Soleil et des Graines, Le Comptoir d'Hélios, L'Atelier Bélénos, Idée d'en Faire, SolBRayon.

East Africa: SmartUp Solar Bakeries (Nebbi, Uganda), Solar Fire Bakery (Kisumu, Kenya) + 7 other bakeries

Switzerland:

Heuberge resort
in the Swiss Alps

Schools:

Montessori,
Tanzania

Associations:

Vagabonds
Solarstart



Education Packages - B2B



NGOs, Vocational Schools and CBOs get Lytefire through Educational Trainings

123 units implemented in the Global South and
438 users trained with our education training.



Asso Sahel
Espoir



Construction Guides - B2C



DIYers, Tinkerers, Enthusiasts and Makers

230 guides sold since 2021

Hardware Sales - B2C



Entrepreneurs & Bakers

Buy the Lytefire PRO directly
from our manufacturer.

Market for Lytefire PRO Oven

Lytefire is sold as a commercial oven, next to our other products (Roaster, Stovetop). The market is bakeries, entrepreneurs, hotels, institutions, schools, commercial kitchens. In Europe, Lytefire "Deluxe" Oven is sold in the context of solar entrepreneurs who run mobile food stalls. In the other market segments, the Lytefire "PRO" is stationary to power bakeries and other food processing businesses. For hotels, Lytefire offers an unique opportunity to improve their sustainability, enabling them to use Lytefire for pizza and other sustainable food preparation. See our products: lytefire.com/shop

Renewable Energy Market:
3.1 Trillion € in 2030

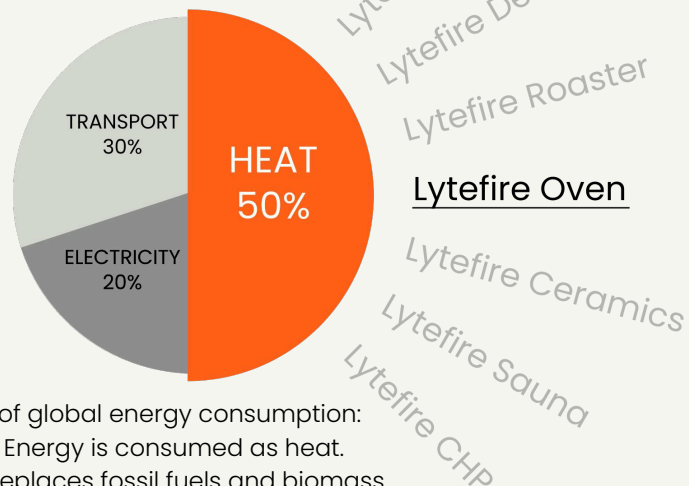
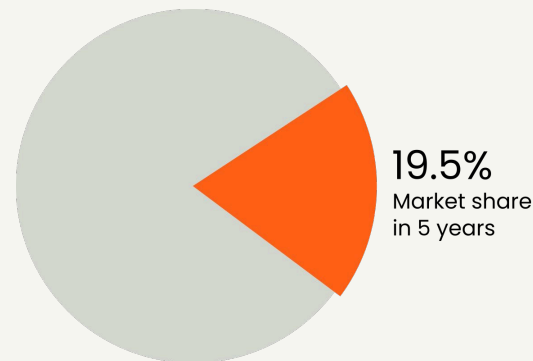


Chart of global energy consumption:
Most Energy is consumed as heat.
Lytefire replaces fossil fuels and biomass
fuels even at high temperatures.

Lytefire Oven Target Market:
8.6 Billion € as of 2023



Considering **only** hotels and bakeries
in our target markets. Together with our Lytefire Stovetop
solution, Lytefire Oven will also tackle Africa's \$40 Billion
sustainable cooking fuel market.

Ask for our financial model and market studies for more information

Business Model

With this round, we move from high-overhead sales to licensing and digital products, meaning higher margins, lower overheads. We become leaders in all the markets we started to penetrate.

We follow an ecosystem approach leveraging our Intellectual Property in tech & education.

Licencing - BtoB

Scalable way to spread Lytefire. France, Uganda, Kenya, Switzerland, Sudan and that's just a start. Licensees are in charge of selling to SMEs, schools, hotels, communities, local governments. Priced with an entry fee and royalties. Low overhead, high margin.



NGO Project Sales - BtoB

Our historic money-maker. We sell the impact of Lytefire for local job-creation, carbon reduction and poverty reduction. We train youths, women and entrepreneurs to earn a living with Lytefire. 357k€ in 2022.



Digital Education - BtoC

We digitize our educational training, sold as online "Solarpreneurs" course. We continue selling our DIY construction guides and roll out the Lytefire App with paid functions for weather-based production forecasting, remote control, scheduling and resources like recipes.



International Product Sales

Lytefire products are available for international shipping from our industrial producer, even in countries where we do not have a licensee. Makes Lytefire available globally and orderable on our website.



Ask for our financial model for more information.

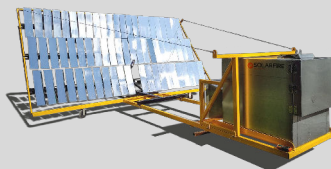
Competition and Position in the Market

In our technological space we outcompete by reaching high temperatures without the cost and complexity of larger industrial systems. Smaller systems don't reach the thermal output to run commercial activities. As a result, we compete with fossil and wood-based fuels, with no need for new infrastructure to deploy.

Domestic



SMEs (Micro, Small and Medium Enterprises)



Industry



Solar Cookers

Solar Cookers – Insufficient power for commercial activity
 -> **Lytefire 4/5** can be used as powerful solar cooker for commercial use

Lytefire

Lytefire 5
 Powers commercial activities by entrepreneurs and SMEs. **Lytefire is scalable in size.**
 The model number indicates the square meters of mirrors per unit.

Lytefire 11

Lytefire 32

Industrial CSP

Industrial CSP
 Too expensive and large for SMEs
 -> **Lytefire 32+** can serve industry

We compete directly with fossil fuels, tree-based fuels, and electricity for SME needs:



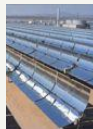
Charcoal / coal / firewood: highly polluting and expensive. Lytefire 5 beats charcoal prices within 18 months of operation (ROI).



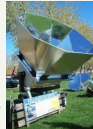
Electricity: More expensive than charcoal, power cuts in LDCs. PV cannot compete with Lytefire for thermal loads.



Propane / diesel: Expensive, volatile supply in non-producing countries.



Linear concentrators: Too expensive and large-scale to fit entrepreneurs & SMEs (about 15 companies).



Sunoven (USA): Price point €8600 + shipping (too expensive). Reaches only 260°C. Import product. Non-scalable.



Scheffler reflectors (IND) and Sunshine chocolats (FRA), Panatere (SWI): Overly complex, too expensive, too hard to maintain by end-users. Single-size, non-scalable.

An investment round to unlock growth

We are raising €2.5 million to scale our business (2.1 in equity, 0.4 in loan already raised)

After having proved our revenue streams, our tech and team, we can grow rapidly with investment in sales, workforce, R&D and IP Protection.

Growth in Revenue and Impact: Key Investments Needed

To unlock the potential of Lytefire, we need key investments in the following areas.

Ask for our investment offer, financial model and due diligence documents.



Reinforce workforce

The core team now needs to stop the start-up dynamics, be reinforced, attract key skills and rock it



Grow Sales

Licenses - UN - NGOs - Schools - Associations - DIYers



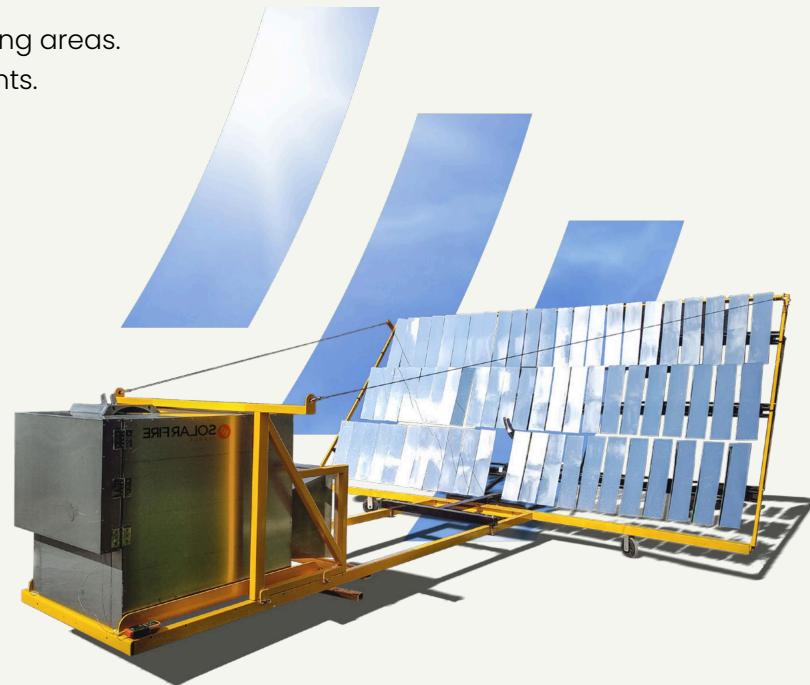
Develop key R&D and ecosystem

Commercialize automatic tracking, reinforce core IP, add more applications, reinforce online products, develop app for clients.



Secure the value

Implement IP Strategy – Patents - Quality Control



Intellectual Property

IP is the foundation of our business. Each client, licensee and partner contributes to the strength of our IP ecosystem, adapting our tech to local markets and contributing to Lytefire's owned IP Pool.

What makes Lytefire Cost-Efficient / Better than other Designs

Our solar design can use regular mirrors as reflector, making it factors cheaper and fundamentally maintainable at the local level (mirror availability in every larger town). Our **scalable tech** adapts to entrepreneurs real-life needs, allowing commercial processes with longer operation hours than domestically, **shortening the payback compared to other renewable energy products**. We can power any process from 60-350°C today, and even higher temperatures in the future.

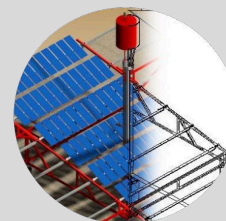
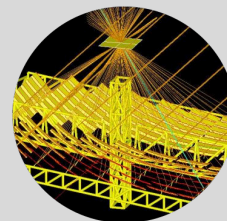
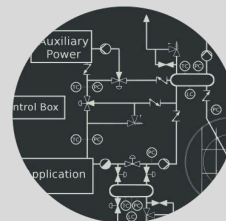
What makes Lytefire ideal for distributed licencing and local production

Lytefire comes in two versions: The DIY version and the CNC version. CNC uses advanced manufacturing (laser cutters), while the DIY method requires only a welding machine, a drill and a grinder. Depending on the context, aspects from each version are applied to reach the best tradeoff between labor/capital. The resulting **local production** eliminates shipping costs, border tariffs, and allows a licensee to tap into local labor, capital and subsidies.

How we protect our IP

Every client, every partner enters an IP protection agreement with us, guaranteeing our ownership of any IP in regard to Lytefire (developed by us or client). Furthermore, our **patented CNC production** is not possible without **our software**, which is kept securely and encrypted in-house. The DIY version of our technology does not scale to industrial production and does not cover current applications (limited to stovetop). We will file additional patents for our developments on thermal applications to protect our IP.

Our software integrates concept, design, simulation & optimization



Reasons for Success

Give someone bread, and they will eat for a day. Give them a Lytefire and they will have free energy to bake for the rest of their lives!

Versatile product

- Lytefire doesn't rely on imports to be produced which is key if supply chains break
- Production doesn't require the creation of new infrastructure.
- Lytefire is a simple tech: users can maintain themselves
- We can scale the tech up and down, depending on the energy need
- Lytefire can adapt to many different contexts: any rural area, flat city rooftops, refugee camps, schools, farms, hotels, bakeries... We have ran it anywhere, from the Finnish winter to sunny Africa
- For hospitality sector, no renovation or installation is needed to install Lytefire

Impact

- Lytefire addresses some of the most terrible challenges of our times
- Lytefire is meant to mitigate and adapt to climate change
- Educational trainings and sustainable jobs creation
- Many new applications are possible and the tech can become a global solution
- Lytefire has low embodied energy: It takes less CO2 to produce Lytefire than other RE tech

Ethical Business

- We are driven by impact, agile and creative
- We scale through knowledge-based, digital products: high margins, low overhead
- We stand by our clients by becoming a hub / marketplace
- We have a great storytelling, a great brand and communications visibility (65+ press coverages, 783 524 cumulated views online)
- Our solution is unique



Our Brand getting attention:

- > Successful crowdfunding campaign for 3 African bakers (€ 15k, 181 supporters)
- > 207 press articles about Lytefire
- > Community of 200 clients on Forum
- > [Educatio, Finland](#) and Finnish Ministries endorsing Lytefire product
- > 2515 newsletter subscribers, active and growing social media channels

Team

Agile, persistent and creative, nothing has stopped us in the last 10 years to get where we are today with minimal budget.

Urs, Eva, and Will are the core team from 2012. They are the original group of co-founders of Lytefire.

We have created a healthy governance and our working board has regular workshops and meeting. Susanne is bringing her years of expertise in Quality Control in industry in Austria and Elise is co-manager of the factory producing the Lytefire Deluxe in France.

Urs and Eva are in charge of the execution, sales, partnerships and management while the rest of the field team is delivering amazing trainings for NGO's.

Working Board:



Eva Wissenz
Chair of the Board & Founder
eva.wissenz@lytefire.com



Urs Riggenbach
Board Member & Co-Founder
urs.riggenbach@lytefire.com



Will Cleaver
Board Member & Co-Founder



Susanne Müller
Board Member & Investor - Quality Control Expert



Christian Schreiber
Board Member & Investor - CFO



Elise Hauters
Advisor of the Board - Co-Manager at CPM Industries

Co-Pilots:



Urs Riggenbach
CEO
urs.riggenbach@lytefire.com



Eva Wissenz
Managing Director
eva.wissenz@lytefire.com

Assistant:



Helena Dairin
Assistant - Sales France

IT:



Muriel Fuhrer
IT

Trainers & Bakers:



Samuel Rodrigues
Quality Control & Master Trainer



Joan Arwa Ogwang
Master Trainer & Logistics



Allen Wilson Odongo
Trainer & Certified Baker (Uganda)

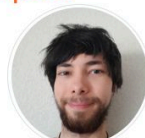


Martin Pouabidjie
Trainer & Logistics (Burkina-Faso)



Augustine Olowo
Trainer & Logistics (Uganda)

Helpers:



Pitamber Vêret Chang
Communications Assistant



Augustin Tagnabou
Logistics (Burkina-Faso)



Prudence Lagedi
Baker (Uganda)

Manufacturers

CPM Industries, France / Metco, Kenya

Licensees

Kelvin, Sudan / Real-Creec, Uganda / Stem, Ethiopia

A brief History of Lytefire

Our milestones from foundation and R&D to our growth stage now.

Lytefire is a unique technology. So to get here, we had to invest in R&D, piloting and generating the actual sales to prove our model.

Now, another scale of investments are needed to grow what's working and make additional key developments to reach our impact-potential.

Start 2012-2014

Social impact company created in Finland. We're new, we learn entrepreneurship the hard way.

R&D 2014-2016

Founders financed the R&D and implement we our first project in Kenya with World Vision. Two pre-seed investors join.

Pilot 2017-2018 Name

Autodesk Foundation and Wärtsilä are financing our next projects in Kenya and Tanzania, R&D and piloting Lytefire in the field, as well as our first construction guide (Lytefire 4 stove for DIYers)

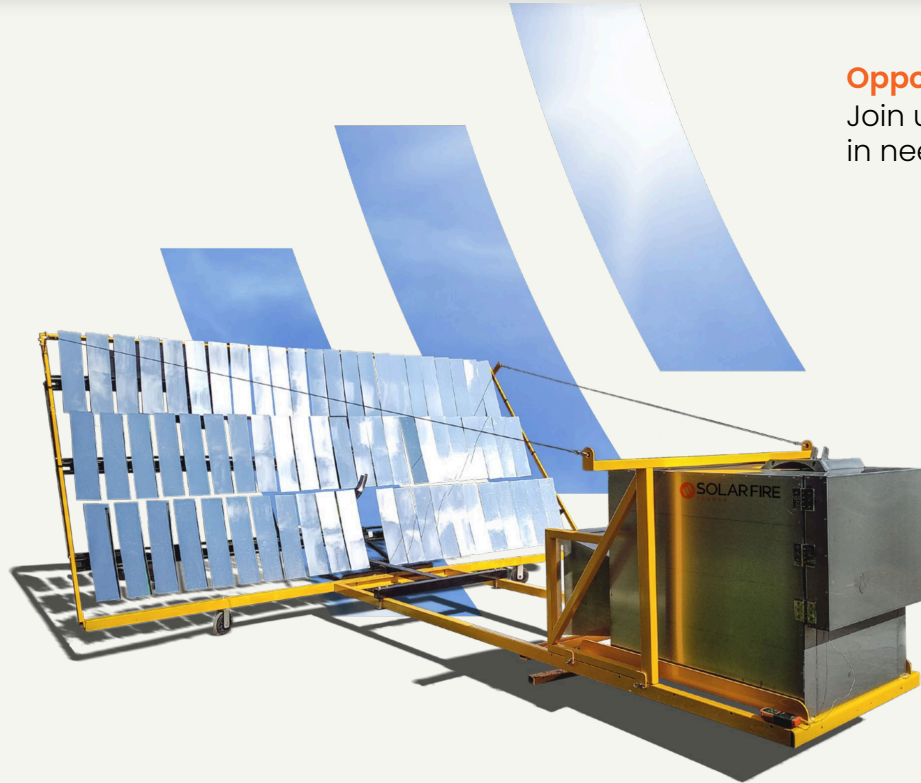
Sales 2019-2020

Continuation of work with NGOs (sales revenue) and private partners in 5 countries and private investment (186k€).

Growth 2021-2022

Founders conflict resolution, change of management, adaptation to covid and growth: Focus on bringing the value created to customers, multiplication of sales (construction guides, Pioneers packages, NGO's packages, school's packages sales in France), building our ecosystem with entrepreneurs and licensing.. Bridge investment. Revenues triples to 350k€, bridge round of 225k is raised.

The world is now on fire – join us to cool it down with Lytefire!



Opportunity for you to join Lytefire

Join us on our journey to bring impact to millions of entrepreneurs in need of a clean, affordable energy solution.

We look forward to meeting you!

Reach out to us:

Urs Riggenschach, CEO, urs.riggenschach@solarfire.io

Eva Wissenz, Managing Director, eva.wissenz@solarfire.io

To see our amazing tech in action, visit
www.lytefire.com

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