

Fira

ANNUAL REVIEW 2020

2020





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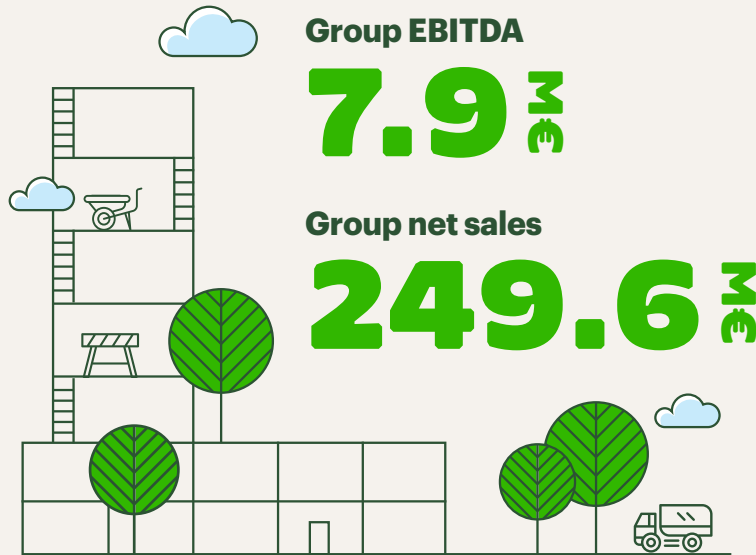
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FIRA'S YEAR 2020 IN NUMBERS



Development spend

4.2 €

Employees
(end of the period)

293

Net gearing

-100%

Equity ratio

44%

Construction sites

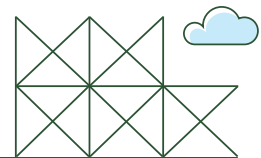
60

Delivered Fira
Modules bathroom
and technical building
system modules

324 PCS

Apartments designed with
apartment library

500+



Customer satisfaction
(NPS), BtoB

+61

Employee
satisfaction



3.9/5

Net sales by business segment, %



Net sales Fira Modules and Fira Smart, 4.5 M€

Fira Smart
nr of digital
footprints

1 MILLION
PCS



A STRONG YEAR IN A CHALLENGING OPERATING ENVIRONMENT

The coronavirus pandemic made 2020 a very exceptional year. Many of us were concerned for our own health and the health of our family members and colleagues. The outlook on the market was initially very unclear. I am proud of how quickly we were able to adapt to the new situation and ensure the continuity of our business. We also decided on an additional investment in the digitalisation of construction sites. Our result improved considerably in 2020, and our company is now in excellent shape.

The role of the construction sector in solving social and environmental problems will significantly increase in the coming years. The role of new technology, especially software, is rapidly growing in our industry, and experts in technology are immensely important. Builders cannot achieve a systemic change alone. We are developing our business in a network and with experts in different fields to be able to jointly develop scalable market solutions that improve the productivity of construction and the customer experience.

Construction is the cornerstone of Fira's business and the foundation of its competence. It provides a solid basis for producing digital and modular solutions for the market. In 2020, construction proceeded very well: forecasts proved accurate, and technological solutions were used in everyday work. We are now implementing a technological foundation and operating model that will ensure Fira's success for decades to come. At the core of our development work, we have a scalable construction production system that includes solutions for both planning and construction.



In 2020, we launched the Fira Smart concept, which brings together market solutions for construction. In the spring, we had excellent success in a construction industry customer satisfaction survey conducted by the research company Taloustutkimus. Our overall result was joint first place. I am very happy that service orientation and keeping our promises were the factors that took us to the top. These are exactly the areas that enable network-based business.

Fira is a specialist organisation of 300 people that uniquely combines the Fira culture and a highly educated diverse personnel.

My warmest thanks to all Fira employees, our customers, partners and owners, and the members of our Boards for the exceptional and unexpected year of 2020. Our objectives for 2021 have once again been raised higher.

Jussi Aho
CEO
Fira Group Oy

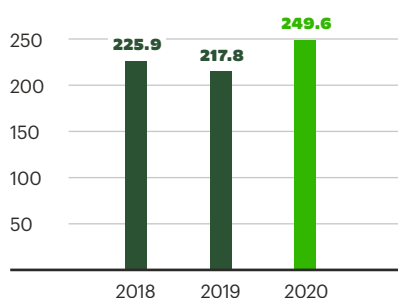
A person with short brown hair, seen from the back, is drawing a large, intricate leafy branch on a dark chalkboard using white chalk. They are wearing a dark grey long-sleeved shirt. An orange sticky note is on their back, and a yellow sticky note is on their left forearm. Several other yellow sticky notes are scattered on the chalkboard surface. The background is dark, and the overall scene suggests a creative or brainstorming session.

SOLUTIONS FOR CHANGING CONSTRUCTION

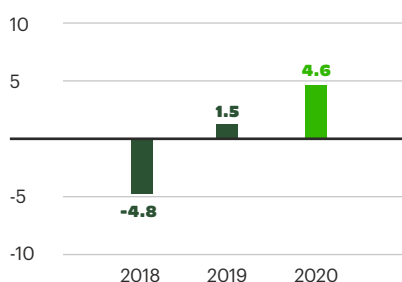
Fira develops internationally scalable market solutions for the systemic change of construction and for better customer service. The company is also a significant constructor in the Helsinki capital region of Finland.

FIRA'S KEY FIGURES

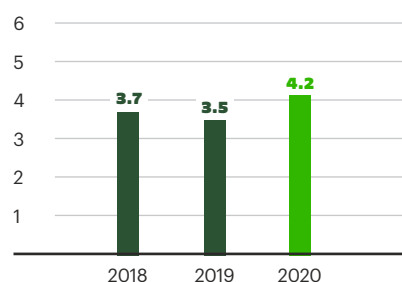
Net sales (MEUR)



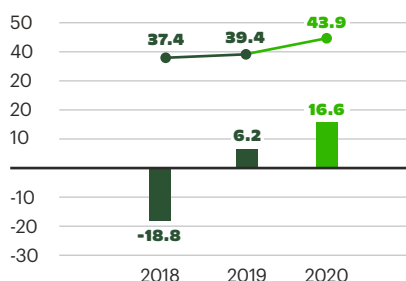
EBIT (MEUR)



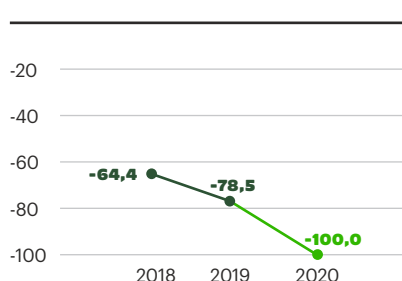
Development spend (MEUR)



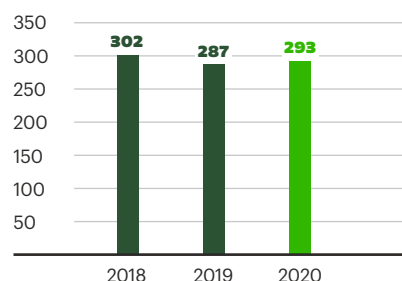
Equity ratio and Return on equity (%)



Net gearing (%)



Personnel at year-end (persons)



— Equity ratio

■ Return on Equity

Key figures

1,000 eur	2020	2019	Change, %
Order book at year-end	183,921	253,086	-27.3%
New construction contracts	158,477	264,570	-40.1%
Net sales	249,555	217,813	14.6%
EBIT	4,553	1,628	179.7%
EBIT, %	1.8%	0.7%	
Sales margin	25,442	22,706	12.1%
Sales margin, %	10.2%	10.4%	
Cash flow from operations	11,989	4,836	
Earnings per share, eur	0.60	0.19	
R&D expenditure	4,152	3,463	19.9%
Fixed costs	-17,479	-17,869	-2.2%
Depreciation	-3,410	-3,309	3.1%
Net gearing, %	-100%	-78.5%	
Equity ratio, %	43.9%	39.4%	
Return on equity, %	16.6%	6.2%	
Return on investment, %	16.1%	6.9%	



STRATEGY

Technology enables a new era of construction. Fira, together with its networks of partners, is creating the future around scalable digital, modular and standardised solutions. The change in construction and the use of new technology are major drivers for boosting the productivity and appreciation of the entire industry.

STRATEGY

WE CREATE NOVEL DEMAND AND SUPPLY

Technology enables a modern customer experience and a new era of construction. Fira, together with its networks of partners, is creating the future around scalable digital, modular and standardised solutions. The change in construction and the use of new technology are major drivers for boosting the service experience, productivity and appreciation of the entire industry.



FIRA'S BUSINESS AND VALUE CREATION

Construction is the cornerstone of Fira's business and the foundation of its competence. It provides a solid basis for producing **digital** and **modular** solutions for the market. We generate new business and create value through networking.

SOLUTIONS FOR THE MARKET TO ADDRESS THE CHANGE IN CONSTRUCTION AND HOUSING

Based on standardisation and modularisation, our production system allows a quicker, more high-quality outcome, independently from the main contractor. We produce apartments for the housing market in a manner that increases customer value, e.g. through group construction.

BENEFITS FOR THE ENVIRONMENT AND SOCIETY

We want to create a sustainably built environment, strengthen the circular economy in construction and measure the achievement of our responsibility goals with data. We are committed to reducing the climate impact and carbon footprint of buildings.

Fira

BUSINESS MODEL

Our service-oriented construction model generates a minimum of 40 per cent return on equity and a strong cash flow. Our construction business model has a very liquid balance sheet with zero net debt. We are creating sustainable competitive advantage and growth for the company based on the development areas utilizing new technology, Fira Smart and Fira Modules. In this sector, the scalability of business,

valuations and return on capital will be significantly higher in the years to come than those of construction. Integrating corporate responsibility into our business and verifying the impacts with ESG data will have a key role. By introducing new services we are contributing to the systemic development of construction and modern customers experience for end customers, the environment and construction.



SUSTAINABILITY

The built environment plays an important role in view of people's well-being. Fira's aim is to allow for a sustainable built environment in which both people and nature feel well even after decades.

Accident frequency
rate

10.07

Employee
satisfaction

3.9/5

Waste reuse
rate

91%

TOWARDS BETTER AND MORE SUSTAINABLE CONSTRUCTION

Fira wants to make construction easier and more sustainable. Doing thing right at once saves the environment, increases well-being and improves the productivity of construction.

The arrival of the coronavirus pandemic in Finland brought the health, safety and coping of our personnel, customers and everyone working at our sites into focus. We managed to prevent the broad spread of the coronavirus at our sites and developed a service with our partners to prevent the spread of the coronavirus at the sites. We look after the mental well-being of our personnel by offering them discussions with occupational healthcare professionals.

Interesting tasks, meaningful work and professional development are value promises that we would like to see come true in the work of all of our employees. We started a development academy in the spring, in which 60 of our employees worked on creating future development paths for Fira. The outputs of the development academy played an important role in the Group's strategy work.

Work for the benefit of the environment

We only build and modernise premises to address real needs in close interaction with the client and often also with the users of the premises to ensure that the buildings address their needs as well as possible. Modernisation not only improves comfort and allows a more flexible use of the premises, but also increases the value of the building and extends its lifecycle.

The cornerstone of Fira's environmental management is the certified and audited ISO 14001:2015 environmental management system that all our companies follow. We seek to reduce the environmental impacts of our operations and regularly train our personnel in environmental matters. A total of 184 of our employees participated in environmental training in 2020. We develop our material efficiency with our waste management partner, and in 2020, our construction waste reuse rate was 91%. The figure includes both material and energy reuse. The priorities of our environmental work are increasing the construction waste



material reuse rate to more than 70%, further development of carbon footprint calculations and utilising the opportunities of the circular economy.

Values create the basis for cooperation

Fira's values, caring, trust and transparency are the cornerstones of all our operations. Each and every partner engaged in our projects is valuable to us, and we promote open interaction and the building of trust through our actions.

We introduced a supplier register in the autumn, which will help us succeed in our supplier choices. We only cooperate with partners who fulfil statutory obligations and those we set. The supplier register helps us identify parties with whom we want to develop long-term cooperation.

In 2020 we also launched a sustainability development project. We conducted a stakeholder survey where we asked them for their wishes and expectations on sustainability. We also held a number of workshops where we identified our sustainability focus areas. In 2021, we will continue to develop our sustainability work and to communicate about sustainability in a more systematic way.

SUSTAINABILITY HIGHLIGHTS 2020

10.07

Occupational safety improved

A total of 25 occupational accidents involving absence occurred at Fira's sites in 2020. Safety practices and the safety culture have been developed over the long term, and the accident frequency rate has decreased in several subsequent years. We made real-time site safety figures available to all parties from clients to contractors' employees in 2020. In 2021, our aim is to reduce the accident frequency rate to less than 10.

Trends in the accident frequency rate at Fira's sites

Number of accidents per one million hours worked



3.9

Better employee satisfaction

We measure employee satisfaction twice a year. Employee satisfaction improved from the previous year (3.7 in 2019). The aspects that the employees considered positive were appreciation for colleagues and the possibility to learn at work. Development needs were related to the clarity of roles and goals with respect to the strategy, as well as receiving feedback.

Work experience for 32 summer trainees

We employed 32 summer trainees, for whom we offered challenging and interesting tasks. Based on our survey, the trainees were very satisfied with their work and would also like to work at Fira in the future. They would also recommend Fira to their friends and colleagues, with an average of 9.3 on a scale of 0–10.

STOP the shadow economy

Tackling the shadow economy is a very important focus for Fira. We introduced a supplier register in 2020, which directs procurements to reliable, tried and tested partners. We also carried out an exhaustive assessment of the processes through which we tackle the shadow economy. All in all, our operations are at a good level. As development targets, we identified the development of systems supporting our efforts to tackle the shadow economy and the need to develop our personnel.

Online ethical coaching

We made ethical coaching, which is intended for all our employees, available online. The coaching was started at the end of November, and more than 82 per cent of our employees had completed it by the end of the year. The aim is to attain a completion rate of 100 per cent.

More than a third of the personnel are owners

More than a third of our personnel are owners of Fira. The possibility to become an owner of Fira through a reward fund has been offered to the entire personnel since 2020. Through the reward fund, we want to commit our employees and reward them for Fira's success.

Towards a sustainable, carbon-neutral built environment

Fira became a member of Green Building Council

Finland at the end of the year. The broad cooperation network offers Fira excellent opportunities to continue developing its sustainability work especially with regard to the carbon neutrality of the built environment as well as circular economy.



Getting started with carbon footprint calculation

We launched a carbon footprint pilot calculation project in the residential construction business line with Ramboll in the early autumn. At the end of 2020, CO₂ calculation was in use in all projects in our apartment library. We will continue to develop CO₂ calculation through information models so that we can already offer information on a site's carbon footprint in the planning phase from 2021.

Service for preventing the spread of the coronavirus at construction sites

With the HR service company Barona, and Luona, which offers health and social welfare services, we developed a service solution to prevent the spread of the coronavirus at construction sites. Through the service, a construction worker having caught the coronavirus receives a quarantine apartment, food service directly to the apartment and access to remote healthcare services. Foreign employees in particular working in Finland typically live in group accommodation, in which the coronavirus spreads easily. The aim of the service is to significantly improve the safety of everyone working at our sites.



FIRA SMART

We develop new products, solutions and in the future to an increasing extent services that help shorten the implementation times of projects and improve construction quality.

Co-operation with
global companies
continued

Fira Smart
Nr of digital
footprints

1

MILL.
PCS



DIGI AND DATA SPEED UP PRODUCTION

We carry out development work in close cooperation with construction sites – often by being present at the sites. We make the best results of our work available to all builders, e.g. in the form of software or services.

At our construction sites, we use various digital and modular products and solutions, as well as new technologies and operating methods such as takt production and conditions monitoring. By standardising design and construction work and the workflows used, and by making use of data and digital and modular solutions, the flow of the production stage of construction and construction quality can be significantly improved.

Data-driven management tools and real-time monitoring provide better chances to address deviations as soon as they occur, preventing them from multiplying. At the same time, data available at the construction site can be collected, stored and analysed to learn important lessons for future projects.

Fira Smart addresses construction professionals

We also want to share the lessons we have learned with other operators in the industry. At the end of the year under review, we launched the Fira Smart initiative, seeking to reach construction professionals in particular. Our goal is to make construction more digital, modular and standardised, because we believe this will enable decision making based on data, seamless processes, better quality and significantly shorter implementation times.

Our construction sites also act as test platforms for other operators such as researchers and start-up companies. With the help of the collected data and lessons learned, we continue to develop new solutions. We also actively participate in collaboration projects and events within the industry. Among other things, we are involved in the Building 2030 consortium led by Aalto University, the RAIN2 consortium and the EU-funded BIM2TWIN project.

Our development work and products

During the year under review, we continued the development of Fira Sitedrive, our schedule management solution. In addition, we continued the development work for new ways of leading with data in a pilot project with a client, as well as through development projects at several of our construction sites. As a

result, a digital situational awareness solution was created. It can be tailored for different target groups, and its development continues.

Fira Sitedrive

The benefits of takt production in construction are obvious. However, the benefits of takt production cannot be achieved with software alone. A thorough understanding of the production method, planning, collaboration, continuous learning and human resources are needed in the background. When processes and expertise meet, great takt production tools offer many benefits.

Fira Sitedrive is an application for daily schedule management, already used by more than 2,000 construction professionals, mainly in the Nordic countries. During the year under review, Fira Smart started collaboration with Refine Projects AG, a construction consulting firm, on expanding the use of Sitedrive to the German-speaking market.

With Fira Sitedrive, work supervisors can always keep up with the situation, and making changes to the schedule is quick and easy. A good situation picture and visually clear user interface make scheduling flexible and fast. The application is suitable for managing design, production, building services engineering and warranty work.

Sitedrive is also developed in close collaboration with construction sites. Strong User Experience (UX) design expertise has also been employed in the development of the application.

Situational awareness

When digital tools are used throughout a construction project, valuable data is also collected that can be used to form a real-time situation picture of the progress of construction projects. Shared situational awareness among all parties increases transparency and improves predictability and risk management. In addition, the situation picture can be refined to produce versions suitable for various needs such as a situation picture for the client, a site dashboard tailored for the needs of work supervision and a physical space created for the monitoring of all construction projects, located at Fira's head office – the Situation Room.

Processing the data leads to a better understanding of which information is valuable from the perspective of management and the development of operations, and which processes support smart construction. One of the most important goals of the development of the situation picture is continuous improvement, learning from ongoing construction projects and transferring the lessons learned to future projects.



CONSTRUCTION SERVICES

Fira primarily operates in the Helsinki metropolitan area, designing and implementing high-quality residential construction projects, commercial and office premise solutions that serve the users, demanding renovation projects and agile pipe renovations.

Construction net sales, MEUR

2020

248.6

2019

217.7

EBIT 2020

7.9 €

Sites

60

Order book at year-end

183.9 €



A STRONG YEAR FOR THE CONSTRUCTION BUSINESS DESPITE THE PANDEMIC

Fira Oy's construction business achieved a strong result in 2020. Development work progressed in several areas, and the implementation of our strategy proceeded as planned. The coronavirus pandemic caused a dip in the order book at the end of the year under review but it also accelerated the development work.

In particular, Fira's residential construction business line achieved a strong result, and we expect the fine development to continue in 2021. The negative impact of the coronavirus pandemic was visible in the business of Fira's pipe renovations and commercial construction operations. Many housing companies postponed their projects. In the commercial construction business line in particular, significant contracts were postponed or cancelled. This caused a gap in the order book, which we expect to recover in early 2021.

Investments in modularity, digitalisation, standardised design solutions, schedule management and takt production continued according to plan. In addition, we developed our business partner network and supply chain management. Our objective is to significantly shorten project implementation times, and we achieved great results in that respect. At best, project implementation times have been 30 per cent shorter than before. On a mid-sized site, implementation time has been on average one month shorter. The construction production model, the development of which is a central strategic focus area for Fira, plays a key role in the shortening of implementation times.

The coronavirus pandemic made caring for the health and safety of our personnel, customers and partners our first priority. We were able to secure the operating capability of construction sites in the challenging situation through careful preparation and measures aimed at preventing the spread of the virus.



As the coronavirus pandemic started, a change was quickly made at construction sites from a weekly to a daily management model and its digital monitoring. During the year under review, we made great advances in the development of leading with a data-based situation picture. This development work will continue in 2021, as harmonised and increasingly real-time situational awareness shared by all parties is essential when seeking to increase transparency and improve predictability and risk management.

The construction of the first site of the Fira "OSKU" housing cooperative in Koskela in Helsinki proceeded, and sale of the apartments of the "Kustinpolku" group building project in the northern Pasila area in Helsinki started. By creating new housing solutions and services, we make a positive impact on residents' everyday lives and living environment.

CONSTRUCTION SERVICES

Residential construction



Kuvaishde: INARO

Case Postipuisto

A DATA-DRIVEN WORKSITE

At the beginning of 2021, Fira's six-storey residential building, consisting of 60 apartments, was completed on Postiljooninkatu in Postipuisto, Helsinki. Supervisors used a digital control room for worksite management, with data in different systems being displayed in clear visual views on screens in the worksite office. Daily schedule management was carried out using the Fira Sitedrive software in close cooperation with

contractors. Schedule data was exported from Sitedrive through an open access interface and combined with quality and condition data, making the overview even more transparent and management easier. The site was handed over to the customer as a zero-error project six months ahead of the contractual schedule. The apartment-specific turnaround time decreased by a whopping 36 per cent.

Commercial and office line

Case Lounavoima ecological power plant

HOMES HEATED WITH LOCAL ENERGY

The modern low-emission plant generates heat for homes by converting non-recyclable municipal waste into local energy using state-of-the-art grate technology.

Salon Kaukolämpö Oy uses the energy generated at the plant for district heating production. Lounavoima's owners are Lounais-Suomen Jätehuolto Oy and Salon Kaukolämpö Oy.



CONSTRUCTION SERVICES

Modernisation



Case Aalto University in Töölö

MODERNISING A PIECE OF HELSINKI'S HISTORY

The renovation of the iconic Aalto University building in Töölö, designed by Woldemar Baeckman and Hugo Harmia, and built in the 1950s, was completed in the autumn of 2020. Fira Oy acted as the main contractor in cooperation with Caverion Finland Oy at the site protected by the Finnish Heritage Agency.

The building was renovated into a modern learning environment, while respecting its history. The original atmosphere of the 1950s was restored, and building systems were modernised. The project was in the running for Rakennuslehti's Worksite of the Year 2020 award and the Rose for Building award.

Pipeline renovations

Case As Oy Maria Jotunin tie 4-12

PARTICIPATING IN DESIGN AS A CONTRACTOR

This is one of the largest pipeline renovation sites for Fira Oy. Work was started in November 2020, and the project is expected to be completed by February 2022. The site will be renovated as a project management contract. The large and well-managed housing company consists of eight buildings and 183 apartments.

The goal is to complete all work stages agilely through smooth development and design. This will enable the contract to be completed on a tight schedule and support the positive development of customer satisfaction.





FIRA MODULES

Fira Modules helps construction companies in industrial construction with modular solutions to ensure shorter lead times.

Delivered bathroom
and technical building
system modules

324

Fira Modules

2.0

Deliveries
started

Goal

2021

Next-generation
module launched

ADDED VALUE THROUGH STANDARDISATION

Fira Modules' operations are based on standardised and mass-customisable bathroom and technical building system modules, assembled from predesigned options, which are easy to install in various frame solutions. This enables us to create more value for the customer compared with traditional bathroom elements.

Several advances were made in the business operations of Fira Modules in 2020. The manufacture of the first standardised product, the Bathroom Series 2.0 pod, started in Hämeenlinna under a production alliance with Carinafour. The agreement on the alliance was signed in late 2019. Carinafour is responsible for the production of the Bathroom 2.0 product family and the development of the supply chain. Fira Modules is responsible for business development such as customer relationships, sales, products, product development and installation services.

“WE ANTICIPATE A SIGNIFICANT INCREASE IN VOLUME AND AN IMPROVEMENT OF PROFITABILITY.”

Deliveries of Bathroom Series 2.0 started in February 2020, and around 400 pods were manufactured during the year. In March, the bathroom pod received a quality certificate in line with the TR70:2018 requirements.

In 2020, Fira Modules focused on ramping up new production, which is why its quality costs were initially higher than expected. We have learned from the start-up phase during the year and have improved our processes. We anticipate a significant increase in volume and an improvement of profitability in 2021. In addition, the next generation of modules, Fira Modules 2.5, will be introduced to the market. In its development, special attention has been paid to smooth installation at the construction site.

LUJABETONI AND FIRA MODULES INTRODUCED AN APARTMENT BUILDING SOLUTION TO THE MARKET

In December 2020, Fira Modules and Lujabetoni Oy announced an apartment building solution based on the intermediate floor technology of the Luja-Superlaatta slab, which is connected to Fira Modules bathroom pods at the factory. The solution saves several work stages and speeds up construction work. The first project is currently in progress in Tuusula.

No comparable leap in productivity has been achieved in concrete construction before. In traditional precast construction, the intermediate floor and bathroom module typically require about 15 lifting operations with a crane. The combined solution with Luja-Superlaatta and Fira Modules reduces this to 3–4 lifts, decreasing the installation time considerably.



CASE

Fira

www.fira.fi/en
www.firasmart.com
www.firamodules.com