



FIRA IS A GROWTH COMPANY MODERNISING THE CONSTRUCTION BUSINESS. WE WANT TO BUILD CITIES TOGETHER WITH THE PEOPLE LIVING IN THEM CREATING NEW BUSINESS OPPORTUNITIES.

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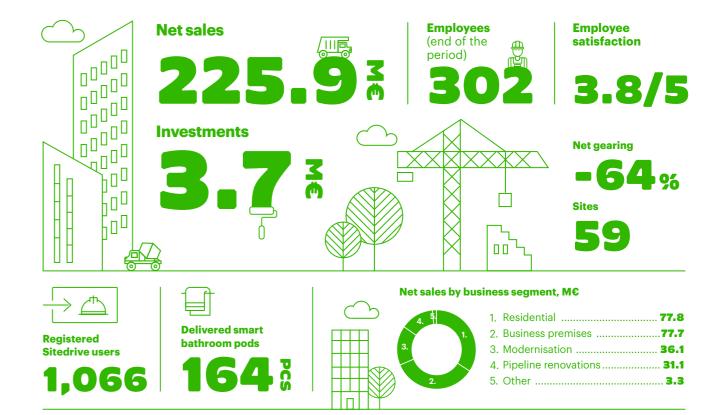
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GROUP'S KEY FIGURES





The year 2018 was significant in terms of our future and, at the same time, two-sided. Our company's development was significant and our business opportunities are now better than ever. At the same time, the profitability of the construction business suffered considerably, as we completed some demanding residential construction projects launched in the previous years, and therefore, our construction business result showed a loss.

We invested EUR 3.7 million in the development of smart services. The development of both modular construction and digital business progressed rapidly. We initiated projects that were promising both in Finland and internationally in these areas. We made strategic investments, which we believe will bring us a lot of new business opportunities. The construction result was weaker than expected, showing a loss of EUR 1,8 million (-0,8% of the net sales). The Group's net sales were EUR 225,9 million, and the result showed a loss of EUR 3,8 million, or -1,7% of the net sales. The contracts we signed at the end of 2018 for high-quality projects in the construction business create a solid foundation for profitability in 2019.

During the year, we renewed the Group's structure and management to support our development. The construction business is centralised in Fira Oy, and Topi Laine is the company's CEO. We recruited Jimmy Ruokolainen, an experienced professional with a background in smart services, to lead the Group's smart services operations.

During the year, we were granted the ISO 14001 environmental certificate for our operations.

The year of learning

Individual demanding projects in residential construction

launched in 2015 and 2016 resulted in write-offs during the year. The residential construction operations experienced a temporary dip in profitability, which cumulated to the past year. Our other three construction business segments were profitable. Residential construction is the newest of our business seaments in construction.

The aforementioned projects were demanding in terms of architecture and construction solutions, and they were also burdened by the increase in input prices during the year. Our estimates concerning the projects' requirement level were incorrect at the contract and development stages and we failed to manage the projects in a financially successful manner. The losses were recognised in these financial statements, and we will use them as a valuable learning experience for the

Towards improved productivity and greater influence

We want new technologies and operating models to benefit people and the environment in accordance with the principles of sustainable development and with long-term effects. The information-based and modular solutions focus on the user. As regards profitability development, we will concentrate on increasing the meaningfulness

of work and on enabling better earnings by means of improved communication and better work flows. We create solutions for a healthy and sustainable living environment for residents and people living in urban areas by means of new services. Examples of our development work include co-operative housing. the use of renewable sources and the distributed generation of energy, joint building ventures, modular construction, as well as a software product that supports the work flows.

New technologies, service platforms, user-centric applications, digital services and new attitudes contribute to a more democratic living environment for the good of people, society and nature. At Fira, we are taking this change forward and call it the Building Movement.

We believe that we will reach an international position of significant impact and value within four years from now. The future we are pursuing cannot be built alone, and we want to be open towards all parties interested in cooperating with us.

We estimate that our net sales will grow in 2019 and that we will succeed in key development work. We also estimate that our profit will be clearly positive. We will continue to develop and invest in smart business. To finance it, we will use the programme under way with Business Finland as well as partners and investors.

I would like to thank our customers, all Fira employees and our partners for collaboration. Together, we are building an amazing future.

Jussi Aho

CEO Fira Group



BUILDING MOVEMENT - A CONSTRUCTION COMPANY FOR A NEW ERA, CREATED BY PEOPLE

A city never stops. It lives and grows with its people. New city structures always create new forms of community. Construction affects our daily lives. It determines how we live, where we go and how we spend our free time. We need – and we deserve – better buildings. We can make a difference by listening to people and making the construction process more transparent. Let's build better cities together!

Fira is a growth company that creates living environments

and enables new business. The Group's net sales and number of personnel have been growing since 2009.

Fira Group comprises Fira Oy, the general contractor for multifunctional residental construction, business premises, modernisation and pipe renovations, as well as the provider of smart services that develop novel services, products and operating models.



AWARDS AND NOMINATIONS

Tekla BIM Awards 2018

A nominee for the best information modelling project in Finland Fira Group – Karavaanikuja 2

DUN & BRADSTREET

Certificate – Lowest Credit Risk Fira Group

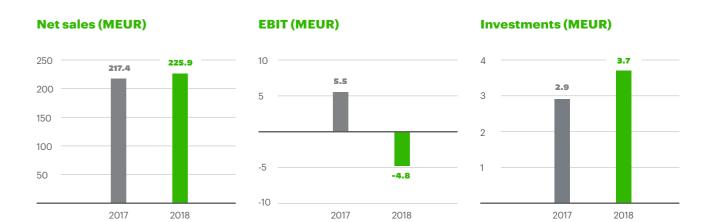
Finnish Comms Awards 2018

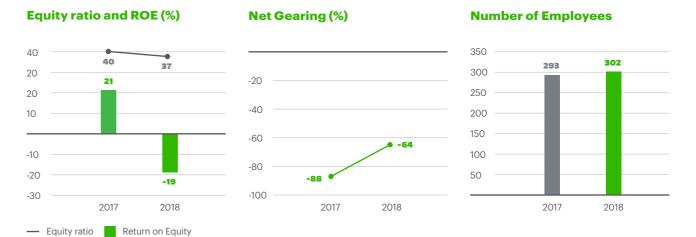
Winner in the Industry and construction category
From obscurity to modernising the sector – Case Fira
Drum Communications
and Fira Group

The 2018 Pile Driving Site Award

Helsinki Outlet Main developer Fira Oy

FIRA'S DIRECTION / KEY FIGURES





GROUP'S KEY FIGURES

1,000 EUR	2018	2017	CHANGE, %
Order book	191,737	205,396	-7%
Orders received	188,514	257,900	
Net sales	225,902	217,386	4%
Operating profit (loss)	-4,768	5,532	-186%
Operating profit (loss)%	-2.1%	2.5%	
Sales margin	14,802	20,273	-27%
Sales margin%	6.6%	9.3%	
Cashflow from operations	-11,660	-10,801	-8%
Earnings per share	-0.72	0.71	-201%
Investments	3,691	2,853	29%
Fixed costs	-17,929	-13,557	32%
Depreciation	-1,641	-1,184	39%
Net gearing, %	-64%	-88%	
Equity ratio, %	37%	40%	
Return on equity, %	-19%	21%	
Return on investment, %	-21%	25%	

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WORKING AT FIRA - WORKING TOGETHER

Co-workers, the support provided by one's own team and the atmosphere at work are important for Fira employees. Open cooperation with customers and partners and learning new things are the icing on the cake.



Ulla Kuosmanen

Procurement Engineer, with Fira since 2012

- The highlight of the year was to prepare the business segment specific strategies for procurement, which are now being implemented.
- The implementation of RIB's iTWO was an extensive venture. It helps us monitor work site expenses in
- Ulla's job description is now clearer and she has been able to focus on her core competence in procurement.



Pekka Kaven

General Foreman, with Fira since 2014

- The highlight of the year was to start working at the Raitinkartano site with a close-knit team.
- Implementing the contract as an alliance was a nice challenge. It is based on open cooperation with the client and we share both our joys and sorrows.
- In my opinion agile decision-making is Fira's

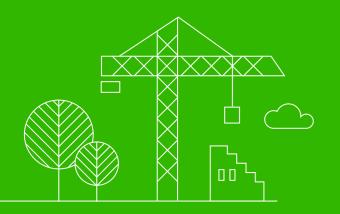


Alina Leppänen

Site Engineer, with Fira since 2015

- The highlight of the year was moving from the office to the work site to develop my competences.
- Cooperation, caring about colleagues and the team's support provide a good foundation for learning on the job.
- Focusing on the prerequisites of a successful project and the efficiency of the operations has been a good thing.





CONSTRUCTION **SERVICES**

In 2018, we reorganised our construction business into four business segments: residential construction, business premises, modernisation, and pipeline renovations. This will enable us to develop and determine a better strategy for each business segment.

Construction net sales. MEUR

2017 217.0

222.7 +2.6% 15.21 | +45

accidents / one million hours worked

NPS

sites





TAKT TIME PRODUCTION ENABLED US TO COMPLETE **CAPELLA ABOUT** THREE MONTHS AHEAD OF TIME."

A TWO-SIDED YEAR FOR THE CONSTRUCTION **BUSINESS**

We had many successful projects in 2018 in terms of both profit and customer satisfaction. In addition to these accomplishments, we also experienced some challenges and disappointments during the year, and they were reflected in our profit.

The lines of business premises and modernisation achieved an excellent result. In contrast, residential construction and pipeline renovations did not reach the targeted level. During the year, we had to considerably tone down the project forecasts of individual residential construction projects, and this impacted our result. The initial assumptions concerning those projects did not hold, and the effects of this came to light during 2018. The upswing in the construction industry and the increase in input prices also put pressure on the projects.

During the year, we launched the Performance Management efficiency programme, which

supports the management of business segments, and a weekly management model. This will result in more transparent and streamlined management. In addition, we have defined requirement levels for the selection of projects, setting of objectives and high-quality preparation of projects, which will be used to ensure the accuracy of our initial assumptions. We also implemented the RIB iTWO software in the projects being launched. This will improve the transparency of projects and increase the level of management by information. We increased the use of Fira Modules smart bathroom modules and in takt time production

we used Sitedrive software for work site scheduling and management. The first good experiences of the method were provided by the Capella and Keinulaudankuja work sites.

Fira's customer oriented approach and company culture points its strength in challenging operational environment that shows in high NPS number.

We will pilot our more ecological residential construction consept in 2019 within the framework of the Kehittyvä kerrostalo -program of City of Helsinki in the Koskela district. We have also been developing a takt time production method. At the time of writing this, our order book for 2019 is good. Fira's construction business is and will be a foundation for developing smart services.

Topi Laine CEO Fira Oy



TARGETING IMPROVED QUALITY AND CUSTOMER EXPERIENCE

With regard to residential constructions financial result, the year 2018 failed to meet our expectations. Write-offs reduced our profit considerably. In addition, our profit was affected by the delayed start of some projects.

We have determined seven procedures to improve our profit: a gradual approval in the project development and offer operations, improved planning solutions in accordance with the concept, better preparedness in terms of plans before starting work on sites, fewer project-specific purchases, production schedules that hold, getting things right the first time, and clear responsibilities throughout the project chain.

Our objective is to improve quality and customer experience and shorten the total leadtime of projects. We will benefit from the prefabricated smart bathroom modules provided by Fira Modules and the takt time production method.

Fira has a good overview of new projects. Our objective in 2019 is to make the business segment profitable again and create a continuously evolving concept of residential construction.

Topi Laine CEO

Fira Oy

Reference case 2018



ASO CAPELLA

Fira was the turnkey contractor in the apartment building constructed in Kalasatama.

In the Capella project, implementing takt time and digital services provided the greatest impacts. Therefore, the building was completed three months ahead of time.



BUSINESS PREMISES EXCEEDED THE PERFORMANCE TARGETS

All projects in 2018 were positive in terms of their result.

At the end of 2018, we conveyed the largest building in Fira's history, namely the Lidl logistics centre with a volume of more than a million cubic metres, in Järvenpää.

We also constructed parking garages in the new residential areas in Kruunuvuorenranta and Kivistö.

The launch of the Helsinki
Outlet retail village being built in
Porttipuisto was the outcome of
long-term project development.
The pile driving stage of the

project, which was particularly extensive, was completed during the year and the site won the 2018 Pile Driving Site Award.

Our long-term cooperation with Technopolis continued and the development of the Espoo campus gained extra boost through the expansion of Innopoli.

We developed a day-care centre concept with HEI Schools and began the construction of the Metsäkalteva school in Hyvinkää.

The levels of management by information and transparency in

projects were increased as we switched to a systematic and predictable income recognition based on the degree of completion

The focus in 2019 is to ensure a good quality work book. We will continue design based on the BIM model and deployment of digital systems by increasing the competence of our personnel.

Miska Eriksson

Director
Office and Industrial
Construction

Reference case 2018



TECHNOPOLIS RUOHOLAHTI 3

The Technopolis office complex in the Ruoholahti district of Helsinki was expanded with an office building and a parking facility.

The project was implemented in accordance with the Design and Build concept, which places more extensive operational responsibility on the contractor.



MODERNISATION FOCUSES ON THE CLIENT

Our operations are based on the Verstas workshop and construction service where the client is the focus of the activity. We define the key areas to be assessed together and actively monitor the customer value of our service. Customer satisfaction determines the size of our compensation. This model has helped us develop our operations according to the client's needs and reached targeted result in 2018.

Our work with clients and our partner network is transparent and builds trust. Our project teams have developed their competence with an open mind in the different aspects of project management. The most modern tools for planning guidance, quality control and schedule management provide a real-time and high-quality snapshot of the project for all parties.

We develop our modernisation operations further in a cus-

tomer-centric manner through the Performance Management programme and the model of weekly management.

The fast and proactive interaction in our projects is essential and supported by digital systems, flexible operation and contract models.

Jari Koivu

Director Modernisation

Reference case 2018



ACRE

Fira renovated facilities for start-up operations and a corporate partnership hub at Aalto University.

The plans for the 25,000-square-metre complex were developed in the Verstas workshops led by Fira before the construction work began.



ONE-STOP SHOP FOR PIPELINE RENOVATIONS

Our successes in 2018 included the establishment of the Ketterä model and the deployment of a logistics model developed in connection with a two-week pipeline renovation for use on work sites. The model enables us to considerably reduce material loss and improve work site organisation and the availability of materials.

In the Ketterä model, a pipeline renovation solution including costs and schedules is formulated with the help of the Verstas workshops on the basis of the residents' and joint owners' daily living needs, the financial framework and the property's technical specifications. In 2018, a record number (approximately 20) of Verstas workshops were conducted in the Ketterä model, and the targeted number of workshops progressed to the pipe renovation planning and implementation stage.

In the Ketterä model, inconvenience caused to the residents last for only 2–8 weeks

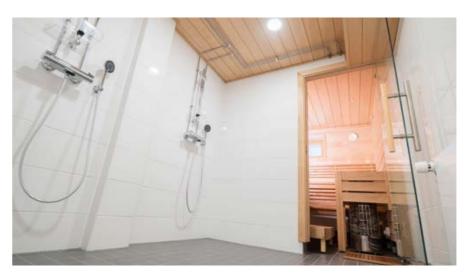
and the costs are approximately 5–15% lower than average. Our customer satisfaction is very high, which is also one of our most important objectives.

Our operations were financially profitable, but we didn't reach our goals. Thus, our main objective in 2019 will be to improve profitability through Fira's development programmes.

Sami Kokkonen

Director Pipe Renovations

Reference case 2018



HAKOLAHDENTIE

A pipe renovation project in accordance with the Ketterä model was implemented in a housing company located on Hakolahdentie in the Lauttasaari district in Helsinki. The project included eight apartments and the yard as well as the replacement of the water, sewer and electricity lines. The inconvenience caused to the residents was six weeks.



SMART SERVICES

Thus far, the construction industry operates locally, but we want to contribute to developing the industry by means of globally scalable digital innovations.

Registered Sitedrive users



Number of delivered smart bathroom pods



164 %

Investments

3.7

SMART SERVICES / BUSINESS REVIEW



THROUGH FIRA'S
CONSTRUCTION
BUSINESS, WE
LEARN HOW USERS
EXPERIENCE OUR
DIGITAL SERVICES."



WE ENABLE BETTER PRODUCTION AND LIVING IN DEVELOPING ENVIRONMENT

For Fira's smart services, 2018 was a revolutionary year. The Fira Modules partnership consortium developed the next generation of smart bathroom pods and signed the first letters of intent and framework agreements with external partners. The number of Sitedrive users increased considerably, and we won our first international clients.

Smart services was build in 2018 on several openings that were created in Starters program. We looked for unified direction for our operations at the end of the year. It will enable us at Fira Modules to focus on the global markets with our partners and to manage both Finnish and Nordic orders in an excellent manner. In software products, we will concentrate on modern methods of efficient production, such as takt time, smoother work flows and defining the markets.

Sitedrive, developed by Fira, is a software program for site

scheduling and management. The digitalisation of work sites must take into consideration the human factors, work site culture, site management and performance targets. Digital tools should offer genuine benefits to users. Fira's Capella work site provided an important learning experience for us with regard to the synchronisation of takt time and Sitedrive and the application of data on the conditions on the site in the drying of structures. We have been assessing the needs of the global markets and concluded that we will be able to

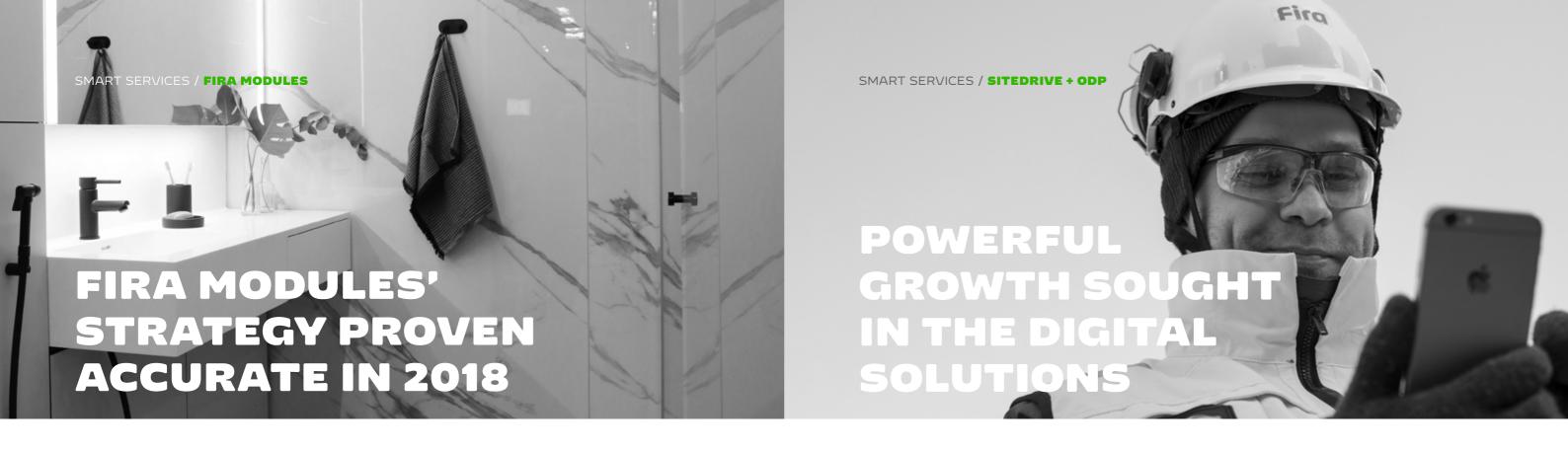
build the partnerships required for us to reach our objectives. The method of construction will change and digitalisation will make it more effective as work sites will be managed in an information-based manner and work is digitised in the planning stage. We want to convert data into information that benefits various operators during construction and the building's entire life-cycle.

Through Fira's construction business, we learn how users experience our digital services. At Fira, all our technological and construction expertise is available under the same roof.

Our goal in 2019 is to create a vision and strategy for our platform offering.

Jimmy Ruokolainen

Director Smart Services



We delivered a total of 164 prefabricated smart bathroom modules to Fira's projects and to a pilot project of Skanska in 2018. The development of production and products required resources, in addition site-specific planning and non-standard production also reduced our profit.

Our goal at Fira Modules will be to develop and offer smart and mass-customisable solutions internationally. Our prefabricated smart bathroom modules are equipped with built-in, clear interfaces to the building around them. Mass-customisation enables us to use our product combinations to generate a countless number of end products. This way, the construction industry benefits from the efficiency of industrial production, while the considerable investments in product development and the input in the planning of details will benefit the end user.

Our modules serve as both physical and digital platforms which can interface with different solutions and applications that can be used to change interior design solutions or follow energy consumption, for example.

Our product development investments in 2018 targeted the Modules 2.0 product family. We carried out development work in cooperation with key operators in the construction industry, and the first prototype was completed before Christmas. We will continue the development in 2019. Together with our Finnish and international partners we will solve a production system that enables internationally scalable manufacturing. We have also signed a letter of intent on the implementation of the Modules 2.0 product family with Skanska.

We will manufacture approximately 300–400 first-generation modules for Fira's residential construction projects at our factory in Hämeenlinna. The parallel modules generations are due to the long planning cycle of projects.



1,000

WE FORECAST
THAT WE WILL
DELIVER MORE
THAN 1,000
PREFABRICATED
SMART BATHROOM
MODULES IN
FINLAND IN
2020.

Our key objectives in Hämeenlinna production system and its development are lowering production costs and improving quality and our sales margin.

Ville Wikström

Vice President Fira Modules Our work is closely linked to Fira's strategy of creating globally scalable operating models in order to improve productivity in the construction industry. We are responsible for the Sitedrive software for work site scheduling and management and the Open Data Platform (ODP) for information management in the construction industry.

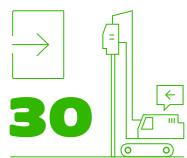
Our business operations aim to develop and offer the best comprehensive solution for work site management in the increasingly industrialised method of construction.

Smart modular solutions and resource planning methods applied from the manufacturing industry, such as takt time, will set new demands on supervisory personnel, the tools they use and the further utilisation of data collected from information platforms. We want to be a trail-blazer in this development.

The year 2018 was full of growth, development and learning for Sitedrive. The monthly charge model was introduced at the beginning of the year, and our monthly licence billing tripled during the year. The number of registered users has grown from 200 to over a thousand. Currently, anyone can start using Sitedrive independently and pay for the monthly charge with a credit card.

The year also offered us learning experiences and disappointments. Some of the work sites that had started using Sitedrive decided to discontinue using it. We conducted customer interviews to truly understand the reasons for them leaving Sitedrive and focused more closely on clients and work sites that had successfully expanded the use of Sitedrive. The year 2019 will show us if our analysis was accurate.

We will be seeking strong growth and pursuing several

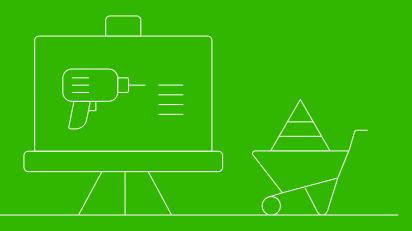


AT THE END OF THE YEAR, THERE WERE MORE THAN THIRTY ACTIVE CORPORATE ACCOUNTS ON SITEDRIVE.

international pilot accounts and launch our ODP solution in 2019. Our ecosystem will grow with new innovations, such as the shared use of Sitedrive-Congrid.

Henry Salo

Vice President Sitedrive



STRATEGY AND BUSINESS MODEL

Our growth targets concern increasing Fira's value and influence - not growing the company's size directly. We want to be a trailblazer valued by our clients. Our competitive advantage builds on customer value that is based on possibilities created from developing enviroment.

Group-level ROE (2013-2018 average value)

Equity turnover

Net gearing

Number of shareholders 124 of whom 106 are employee-shareholders



STRATEGY

INVESTING IN ACCELERATED DEVELOPMENT

Fira Group's business consist of construction and the commercialisation of new service concepts and smart service solutions. Construction is the cornerstone of our business and it facilitates the development of scalable service concepts and smart services for the Finnish and international markets.

In accordance with our strategy, our focus is particularly

on growing the Group's smart services. We have been building a strong basis for this through investments and recruitment.

We believe that various platforms will increasingly accumulate value. With a total value of approximately EUR 10 million, two significant projects funded by Business Finland are moving forward. We seek new talents, such as user experience

and software specialists and Al experts, through recruitment and networking. Finnish and international partners are engaged to create innovations and cooperation models.

Jussi Aho

CEO Fira Group

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BUSINESS MODEL

CHARACTERISTICS OF FIRA'S BUSINESS

Fira's operations are not highly capital-intensive. Our working capital is negative, and all functions that are non-essential in terms of value creation are purchased as a service.

The construction business consists of projects with life-cycles extending over several years. Residential construction is more cyclical in nature and follows the economic cycles of the construction industry. Business premises and modernisation are more stable and based on long-term customer relationships. The operations in the pipeline renovation business are also more stable due to the relatively high demand in the pipeline renovation market.

The smart services business includes Fira Modules, Sitedrive and Open Data Platform (ODP). An element shared by all of them is the important role that investments in product development play in achieving a strong market position.

Our personnel own a significant portion of Fira. Our value is increased by competent and committed employees, customer-centric products and services, an innovative operating model and a strong brand, as well as our good reputation.

Kimmo Kärkkäinen

Fira Group

TRADITIONAL BUSINESS MODEL IN CONSTRUCTION IS CHANGING FROM VERTICAL TO **KNOWLEDGE-BASED THAT CONNECTS CUSTOMERS AND OPERATORS IN A NEW WAY. BENEFITTING**

FROM DIGITALISATION

AND SERVICE

PLATFORMS."



FIRA AT THE FOREFRONT OF DEVELOPMENT

Succeed on Site is Fira's ambitious development programme launched in 2018, which focuses on the principles and solutions of industrial construction. We are taking determined steps towards the world of industrial construction.

The Succeed on Site programme identified two significant areas that will guide our production towards the model of industrial construction. They are modular design and production and increased efficiency of production flow. Installing Fira Modules bathrooms in two projects in 2018 showcased the undeniable positive impact of the high-quality, quick-to-install product on the project completion speed, overall quality and profitability. To improve the efficiency of production flow, two of our projects applied the method

of takt time production, which considerably accelerated work at the sites.

The Succeed on Site programme benefitted from Fira's smart services competence in 2018. Information tools, such as Sitedrive and real-time monitoring of conditions, improved the opportunities to address issues quickly after they emerge in takt time production. Data generated on site was collected in Fira's Open Data Platform, where it was combined and transformed into a visual form. For the first time, real-time and diverse data that was easy to absorb was available to support decision-making.

Fira's strength is the will to innovate and develop competence. In 2019, this will be demonstrated by increased utilisation of the model of industrial construction and digital compe-

DURING 2019,
WE WILL DEVELOP
AND IMPLEMENT
A NEW PRODUCT,
NAMELY, A COMPREHENSIVE
INDUSTRIAL
CONSTRUCTION
PACKAGE.

tence in our operations.

Digitalisation has put in motion the disruption of the construction industry, and we want to apply digitalisation to create value for the entire industry.

Sakari Pesonen

Project Owner
Succeed on Site programme

TOWARDS SUSTAINABLE LIVING

Fira participates in various networks as part of the Fira Green development programme and develops new kinds of business concepts, which seek to influence people and the environment more extensively than the traditional construction business.

Key initiatives include projects related to local energy production and storing energy. Traditionally, buildings are seen as consumers of energy, but in the future, they may also be energy producers. If a building generates heat as a by-product of cooling, the heat can be sold to those who need it or stored for later. Buildings can also be used to even out consumption peaks. Fira invested in new operating models related to these initiatives in 2018.

Another significant project initiative is the survey on co-op-

erative housing, related to the methods of housing financing and management. Building ownership includes a number of quite complex legal issues. A central success for us was the City of Helsinki reserving for us a plot for a co-operative housing project in the Koskela district. The project will be available to consumers during 2019.

A co-operative is a new way to own and manage residential properties. A key aspect of this is that right from the beginning of the project, the building is fully owned by a co-operative formed by the residents. However, a share in the co-operative does not entitle a resident to the possession of an individual unit in the building, but a separate rental agreement is signed with the resident.

The co-operative housing project demonstrates in a

CO-OPERATIVE
HOUSING HELPS
KEEP HOUSING
COSTS REASONABLE
FOR INCREASED
WELL-BEING AND
MORE PLEASANT
LIVING."

tangible manner how reasonably-priced housing influences people and the environment. It increases the use of services, improve well-being and, subsequently, make the living environment more pleasant and comfortable.

Samuel Kopperoinen

Project Owner Fira Green programme

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