

FRANKEN-SCHOTTER GMBH & CO. KG ENVIRONMENTAL DECLARATION 2022





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Faster and more drastic than anyone could have imagined, the start of 2022 showed us how unstable the economy and affluence in Germany really was as supply chains fell apart. It rapidly became apparent that commodities and energy aren't infinite and that prices aren't controllable. However, we remain of the belief that the current situation still presents an opportunity to be part of creating a future that can be prosperous and beneficial to all.



We, the companies of Franken-Schotter and Vereinigte Marmorwerke Kaldorf are convinced that our environmental management system according to EMAS represents a good basis to combat the challenges we face and to act in a sustainable, economical way. In the 7th annual version of our environmental declaration, we outline our environmental measures and the corresponding goals that were achieved as well as future goals. We have listed various operating figures, put them into relation and explained them. We appreciate constructive discussions and welcome feedback. If you have any questions, please reach out to us anytime. Enjoy reading.

Sincerely,



Thomas Herrscher & Karl Tratz



1. THE ORGANIZATION AND ITS ACTIVITIES

1.1 DESCRIPTION OF THE ORGANIZATION

Franken-Schotter GmbH & Co. KG (FS) and the 100% subsidiary Vereinigte Marmorwerke Kaldorf (VMK) together are Germany’s leading natural stone company. A medium-sized company with 531 current employees (416 FS & 115 VMK) as of July 2021, headquartered in Treuchtlingen-Dietfurt in Middle Franconia, FS has production facilities in the Bavarian counties of Weißenburg-Gunzenhausen, Eichstätt and Roth. FS produces and distributes natural stone products, aggregates and asphalt mixed products. As far as natural stone production in Germany is concerned, FS is the market- and technology leader.

In 1970 five companies merged to form Franken-Schotter. The founders knew back then that only a highly efficient, highly productive and quality oriented company would be able to fulfill future market demands. The goal was set to secure quarrying land for natural resources and construct factories to refine these raw materials. Short transport ways, cutting-edge technology, efficient logistics and top-quality products made Franken-Schotter into one of the leading natural stone producers in the world today.

Franken-Schotter delivers approx. 2 million tons of natural stone products annually. The product line includes everything from raw blocks to finished natural stone products including facade and flooring panels, stairs, cubic works, wall stones, aggregates, stone gabions and noise barriers. Asphalt and landfills for old building materials round out the portfolio.

The natural stones offered include, Dietfurt limestone, Dietfurt limestone gala®, Jura limestone, Dietfurt Dolomite and Wachenzell Dolomite. These stones are all quarried solely in FS’ own quarries. FS owns and operates four quarries and four natural stone plants, each one equipped with modern technology from leading manufacturers.

The stones fulfill the highest technical requirements and are suitable to be used for virtually any application in any climatic condition. Various colors, tonalities, forms and finishes allow for limitless design options.

In January 2018 FS expanded with the purchase of VMK. The subsidiary was integrated into the environmental management system in 2019.

1.2 COMPANY HISTORY

Franken-Schotter was formed by a merger of five individual companies in 1970. The founders knew very well that only a large-scale, quality-oriented company would be successful in an evolving market, thus they decided to open new quarries and build new production sites.

1970 Merger of five individual companies to form Franken-Schotter	2005 Opening of the Wegscheid factory for natural stone production
1972 Gravel plant opened in Dietfurt	2006 New asphalt plant opened in Roth
1975 First limestone blocks quarried in Dietfurt	2013 Opening of new slab production facility with cutting lines in Petersbuch factory
1982 New asphalt plant opened in Dietfurt	2014 Opening of new block processing lines in the Petersbuch factory
1989 Opening of the Petersbuch plant for natural stone production	2015 Möhren quarry decommissioned
1999 Gravel plant opened in Erkertshofen	2017 Opening of the dolomite quarry Wachenzell
2002 Production commencement of the RAWETM	2018 Purchase of Vereinigte Marmorwerke Kaldorf GmbH
2004 Kaldorf quarry opened	2020 50 Year Anniversary



1.3 ACTIVITIES AND PRODUCTS

Franken-Schotter GmbH & Co. KG has three business branches:

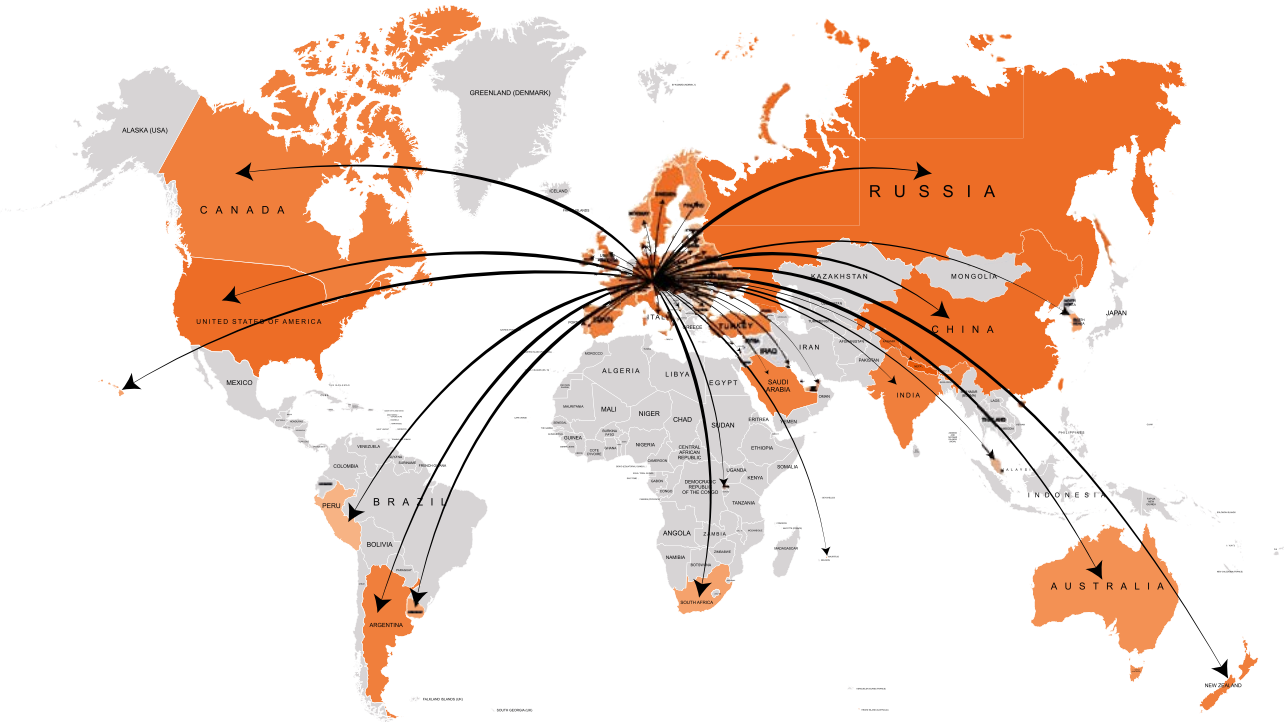
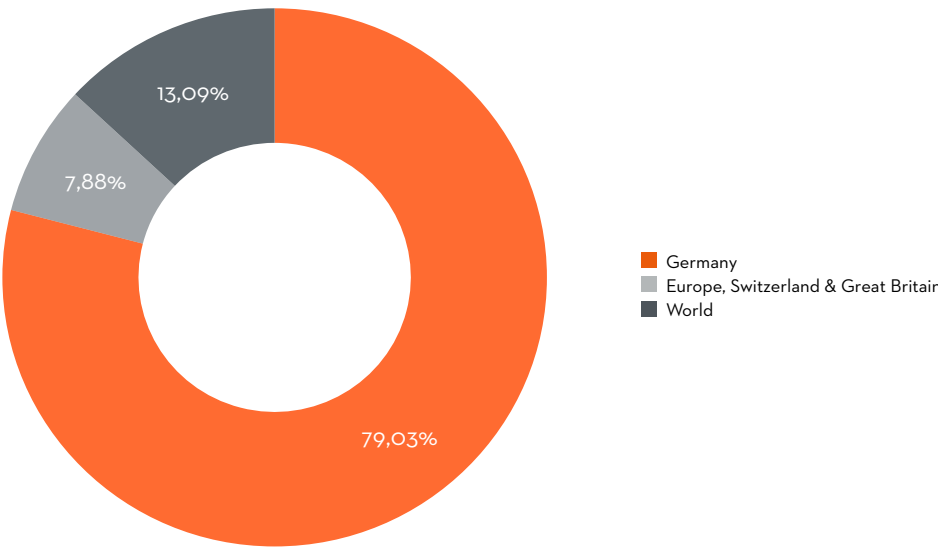
- Aggregate products and filling
- Asphalt mix
- Natural stone production

FS is regionally active in the areas of aggregate products, landfill and asphalt mix and primarily delivers products for road construction. The firm operates a landfill class DK-o for construction waste and excavated earth, this fills the quarry and allows for renaturalization of quarried areas. It also operates a DK-1 inert material- mono-landfill for cement bound asbestos.

Natural stone products are produced solely from its own local quarries and include products made of Dietfurt limestone, Dietfurt limestone gala®, Jura limestone, Dietfurt Dolomite and Wachenzell dolomite. The firm controls the entire value chain from quarry to finished product delivered ready to be installed on the jobsite.

The business model is unique and a source of a competitive advantage as it allows for all material taken out of the earth to be utilized while refilling the excavated areas so they can be renaturalized.

FS has a strong international presence and delivers natural stone to approx. 50 countries worldwide. Massive investments have been made in manufacturing technology, especially in the capability to produce natural stone products which is the fastest growing business segment.





1.3.1 ENVIRONMENTAL PRODUCT DECLARATIONS FOR FACADE PANELS, WALL CLADDING AND FLOORING

Franken-Schotter GmbH & Co. KG received environmental product declarations for its facade- and flooring panels from the Institute Bauen und Umwelt (building and environment) e.V. in 2017. These officially confirm the sustainability strategy of the company in the production of natural stone products that are solely made from locally quarried natural stone. Environmental product declarations are the basis on which ecological building values are measured, or in other words, the sustainability of buildings on internationally agreed upon ISO-norms.

The EPD evaluates the environmental aspects of a product during the entire production process in accordance with ISO 14025. This allows for an exact value of how a certain product contributes to, for example, the energy efficiency and carbon footprint of a building. The EPD offers reliable statistics for architects, developers and planners in relation to accomplishing LEED and BREEAM goals.



1.4 LOCATIONS

All FS locations are part of the environmental management system in line with EMAS:

- 1

Dietfurt

Hungerbachtal 1

91757 Treuchtlingen-Dietfurt
- 2

Roth

Bamberger Str. 1

91154 Roth
- 3

Petersbuch

Marmorstraße 2

85135 Titting-Petersbuch
- 4

Erkertshofen

Limesstraße 37

85135 Titting-Erkertshofen
- 5

Quarry Kaldorf

Gemarkung Kaldorf, Fl.-Nr. 413

85135 Titting-Kaldorf
- 6

Wegscheid

Alte Schernfelder Straße 1

85072 Eichstätt-Wegscheid
- 7

Quarry Michellohe

Gemarkung Titting, Fl.-Nr. 663,

85135 Titting
- 8

Quarry Möhren

Gemarkung Möhren, Fl.-Nr. 209,

91757 Treuchtlingen-Möhren
- 9

Quarry Wachenzell

Gemarkung Pollenfeld, Fl.-Nr. 604

85131 Pollenfeld
- 10

Vereinigte Marmorwerke Kaldorf GmbH
(Subsidiary Company)

Auweg 6

85135 Titting

A flora fauna habitat (FFH) through which the Altmühl River runs is located approx. 500m from the Dietfurt headquarters. The Limes (border wall of the Roman Empire) runs in close vicinity to the Petersbuch, Erkertshofen and Kaldorf locations. There are no existing waste deposits and no direct discharge at any of these locations.

There are more than 100 heavy duty vehicles and machines utilized in these locations. Road sweepers keep the dirt and dust of the quarries and factories to a minimum, these keep

the roads and driveways, internal roads and the company premises clean. At the asphalt mixing plant in Roth the road maintenance is outsourced. The 100% owned subsidiary Vereinigte Marmorwerke Kaldorf GmbH doesn't lie in an FFH area. There are no existing waste deposits or direct discharge here either.





1.4.1 DIETFURT QUARRY AND PLANT

The Dietfurt plant is the largest and oldest location of Franken-Schotter GmbH & Co. KG, it is also the headquarters. Various quarrying and production activities in Dietfurt span approx. 170ha.

Natural stone quarrying (currently ca. 27 ha)

- Quarrying raw blocks of Dietfurt limestone
- Quarrying raw blocks Dietfurt Dolomite

Natural stone production (total ca. 7 ha)

- Armourstones
- Semi-finished products for further processing in Petersbuch und Wegscheid
- Wall and embankment stones
- Cubic steps
- Sitting- and design stones
- Filled stone boxes and noise barriers

Aggregate plant (ca. 4 ha)

- Aggregate production

Asphalt mixing facility (ca. 3 ha)

- Asphalt for road construction

Landfill (ca. 24 ha)

- Operation of a DK-O landfill for construction waste and excavated ground as part of the filling and renaturalization process of the quarry
- Operation of a DK-I-inert-material-mono landfill for cement bound asbestos as part of the filling and renaturalization process of the quarry

Renaturalized area (ca. 26,3 ha)

- Areas where the quarry has been refilled and replanted or prepared for succession areas and recultivation

Other (ca. 85 ha?)

- More excavation areas, roads, social rooms and smaller facilities, smaller recultivated areas etc.

The Dietfurt location is home to a large amount of large mobile quarrying and transportation vehicles. In addition, this location has extensive infrastructure to support production areas and facilities (Repair shop, resource storage, loading, weighing, water treatment facility which recycles water back into production etc.).

The Dietfurt headquarters has an office spanning ca. 640m², the executive team, sales, quality management, EDV, disposition, accounting, HR and purchasing departments are stationed here.

Currently there are 183 employees working in Dietfurt (as of 01. January, 2022). Dietfurt has the most delivery (for landfill) and pick up traffic (aggregates, asphalt, raw blocks and natural stone products) in the company. As in its other locations, detailed rules and operational instructions exist for contractors regarding how to deal with pick up and deliveries.

The aggregate plant and asphalt mixing facilities' emissions are measured every three years and have always been within the required legal limits.



1.4.2 PETERSBUCH NATURAL STONE PROCESSING PLANT

The natural stone plant Petersbuch (Total area 11,1 ha, production area 2,6 ha) is the largest and most modern German factory for building products made of natural stone. A wide pallet of products are produced here, these include stone slabs, facade panels, stairs, tiles, floor panels (interior and exterior) and window sills, as well as cubic elements, wall- and cobble stones. The factory has a wide range of machines and processing technology and processes the entire value chain from the raw block to the customized final product that is ultimately delivered to the customer.

The factory in Petersbuch is equipped with modern machines that process natural stone and create value at each step. In addition, the factory has significant raw block storage capacities that ensures raw material for natural stone production year-round. A repair shop, water recycling plant as well as smaller administrative offices and social rooms are also located here.

There are currently 137 employees working in Petersbuch. (As of: January 1st 2022).



1.4.3 ASPHALT MIXING PLANT ROTH

FS produces asphalt for road construction in Roth. Storage for asphalt clods from old roads and milled out asphalt pavement material as well as a weighing station are also here. Emissions are measured here every three years as well and have continuously passed the required standards. There are currently two people employed here. (As of: January 1st 2022).



1.4.4 AGGREGATE PLANT ERKERTSHOFEN

Aggregates and other crushed stone products are produced on a total area of ca. 12 ha (production area of ca. 2.6ha) in Erkertshofen. Multi-purpose vehicles transport raw material from the Kaldorf quarry and Petersbuch facility over a private industrial road directly into the aggregate plant. As far as the value chain is concerned, the aggregate plant in Erkertshofen primarily processes raw material that is not suitable for efficient production of higher value natural stone products. The site also has storage capabilities for various products, loading and weighing capabilities as well as a control station. Emissions are measured here every three years as well and have continuously passed the required standards. Erkertshofen currently employs six people. (As of: January 1st 2022).

1.4.5 KALDORF QUARRY

The Kaldorf quarry primarily quarries raw material for high-quality natural stone products. The natural stone is quarried using state of the art and efficient chain saws and drilling rigs.

Dynamite is occasionally used to blow up stone not suitable for high-quality natural stone products, this material is then used for aggregate production.

The raw blocks quarried in Kaldorf are primarily brought to the Petersbuch factory for further processing. Raw blocks are also loaded from the Kaldorf quarry for worldwide customers. The total area of the location is ca. 15 ha. Natural stone is currently quarried in an area of 5 ha. The Kaldorf quarry currently employs 43 people. (As of: January 1st 2022).





1.4.6. NATURAL STONE PROCESSING PLANT WEGSCHEID

Multiple production lines in the Wegscheid factory produce high-quality natural stone products (Total area: 4.4 ha, production area: 0.6ha). Products produced here include tiles and flooring panels, skirting, wall stone, tumbled- and special custom products. Raw material for production is primarily delivered as raw- and semi-finished products from Dietfurt, Kaldorf and Wachenzell.

There are currently 38 people employed in Wegscheid.
(As of: January 1st 2022).

1.4.7 MICHELLOHE QUARRY

Jura limestone used to be quarried in an area of 9.8 ha in the Michellohe quarry. The quarry is currently not in operation. The quarried area is being refilled with trimmings from natural stone production and stone mud from the Petersbuch and Wegscheid factories in strict compliance with the local authorities plans. An area of ca. 4,4 ha has already been re-naturalized. There are currently no employees working in the Michellohe quarry.



1.4.8 MÖHREN QUARRY

In the past Jura limestone was quarried in an area of ca. 12 ha in the Möhren quarry. The quarry was completely decommissioned in 2015 and the areas were renaturalized according to the local authorities' renaturalization plan. A large portion of the area (see photo below) was left open in order to promote biodiversity and environmental protection. Various biotopes have been able to form in the meantime. The Bavarian Red Cross uses the area regularly for training rescue dog squadrons.



1.4.9 WACHENZELL QUARRY

Dolomite for high quality natural stone products is primarily quarried in the Wachenzell quarry which was opened in 2017. The natural stone is taken out of the ground using state of the art and efficient chain saws and, to a lesser extent, wire saws. Quarried natural stone blocks from Wachenzell are transported to the Petersbuch and Wegscheid factories for further processing. Raw material that is not suitable for high-quality natural stone production is taken to Erkertshofen and crushed into aggregates.

The total area in which dolomite is currently being quarried spans ca. 3ha. There are currently 6 people employed in Wachenzell. (As of: January 1st 2022).

The Wachenzell quarry was approved by Eichstätt according to BImSchG (Federal Immission Control Act) in 2017. The town of Titting initially didn't approve the first land purchases and quarrying plans. This caused the quarry to be moved further South in the direction of the town of Wachenzell. Unfortunately, this moved the quarry further away from the northern bordering forest by Erkertshofen which may have provided natural noise absorption. The relocation also made the quarry more visible from the connecting road between Wachenzell and Erkertshofen.

In order to minimize noise levels the wheel loaders have been equipped with a different, more pleasant sounding warn tone when in reverse, replacing the standard disturbing peep tone. The system regulates itself according to the other present sounds while maintaining German OSHA requirements which is another advantage.

Private noise measurements conducted showed noise limits in the neighboring towns of Wachenzell and Erkertshofen were not exceeded. The roads are kept clean by FS' own road sweepers limiting dirt and dust as much as possible. The relationship between FS and the local public have been significantly improved by these measures soothing initial reservations of the local public regarding fear of excessive noise and dirt stemming from quarry operations.



1.4.10 SUBSIDIARY COMPANY VEREINIGTE MARMORWERKE KALDORF GMBH

The subsidiary VMK is a great complement to FS. As an independent company it is also subject to internal and external influences.

VMK primarily serves local markets with a fairly diverse product range. The primary focus of VMK are middle to smaller projects in the domestic market and neighboring countries. Large international projects aren't a primary focus for VMK.

Various factors such as contract negotiations, securing of payments, risk of currency fluctuations and political stability play a larger role when dealing in international markets. The supply of raw material is ensured through the quarries. The company's philosophy of investing in new technology and machines contributes, not only to the reliability but also to the highest possible economic and ecologic efficiency.

Quarrying operations as well as the pick-up and delivery of various products create dust and noise in the region. VMK is committed to limiting the impacts their operations have to the local public and environment as much as possible. Cooperation with the local authorities (regulations, permits etc.) and close relationships to the public (residents, employees, customers) is of immense importance.

Finding qualified employees and sensibilizing employees of the importance of environmental awareness is an ongoing challenge. The goal is to implement suitable measures in order to make VMK an attractive workplace and to continue to sensitize our employees to the importance of environmental subjects.

The environmental management system plays a large part in realizing the set goals through continuous monitoring, examinations and implementation of improvement measures.

There are currently 115 people employed in the subsidiary VMK. (As of: January 1st 2022).

Photo: © Richard Stampfer



2. ENVIRONMENTAL POLICY AND MANAGEMENT

2.1 ENVIRONMENTAL POLICY

Franken-Schotter and its subsidiary's roots are as a natural resource processor. Although we have access to one of the largest natural stone reserves in the world, we are fully aware that we work with a non-renewable resource and therefore must ensure that these resources are available for future generations to come. With that in mind we have a sense of obligation to use our natural resources in an efficient and respectful manner and keep our environmental footprint to a minimum. This mentality is reflected all along our supply chain, from our quarrying activities all the way down to the production of our finished products. We operate on a zero-waste basis, meaning that everything that we take from the earth is utilized.

The goal is to continually improve the material and resource efficiency of the entire value chain. As we specialize in extracting and processing a non-renewable resource we set a great emphasis on sustainable and responsible quarrying practices. We understand that we have a responsibility to future generations to make sure that stone is available for their uses as well. This is why we continually invest in the most efficient quarrying practices and have set up our business model in such a way where everything that we take out of the ground is utilized all the way down to the smallest parcel. Our processes have been approved by independent parties, we are ISO 14001 certified and participate in EMAS certification which requires us to constantly improve or processes from an environmental perspective. Our products have Environmental Product Declarations.

Our aspiration is to be the trailblazer for the industry on resource efficiency and environmental protection.

We develop and produce long-lasting sustainable products and support and encourage our customers to use our products to build sustainably by providing them with all the information and appropriate certifications to put them in a position to do so.

Compliance with the legal norms for environmental protection represent our minimum requirements. FS continually works on providing our employees with a safe and healthy environment in which to work in. FS aims to continuously sensitize our employees on the importance of environmental protection and actively integrate them in finding solutions to the challenges we face. We take environmental aspects into account when procuring products and materials. We contribute to the economic sustainability in our region as we are locally rooted with employees and apprentices. We also contribute to the value chain for infrastructure and architectural projects in the region.

FS and VMK have implemented an environmental management system in order to continuously document and improve our advances and provide transparency regarding our environmental activities.

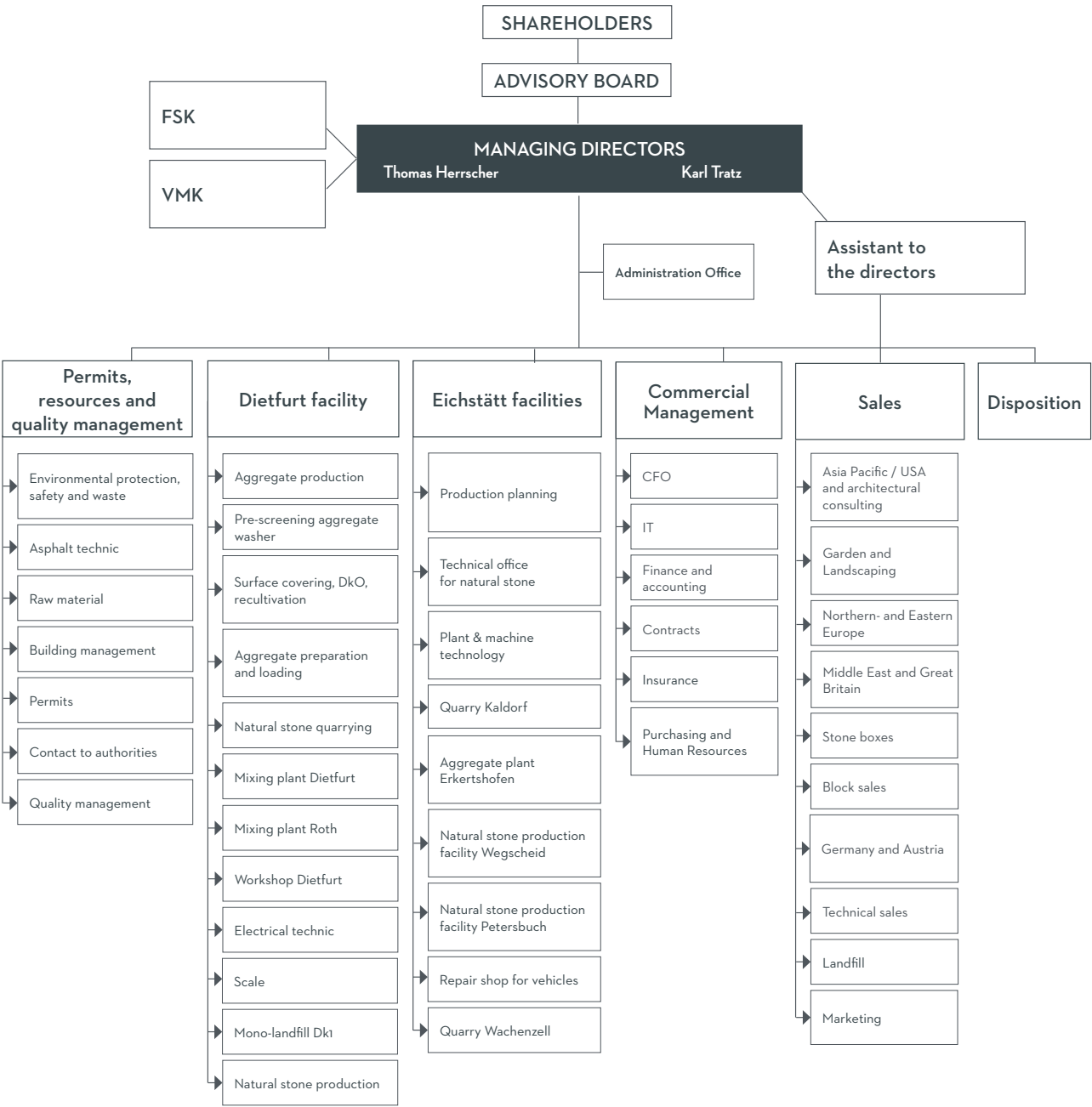
The executive team stands by our environmental policies and makes them available to the public through the website.





2.2 ENVIRONMENTAL MANAGEMENT SYSTEM
2.2.1 ORGANIZATIONAL STRUCTURE FRANKEN-SCHOTTER GMBH & CO. KG

FS' organizational structure is divided into the following managerial levels.
Mr. K. Tratz und Mr. T. Herrscher share managing director duties. The responsibility for the production areas in Dietfurt and the Eichstätt region have been delegated to Mr. M. Scherer and Mr. H. Zierer respectively. They oversee various department heads.

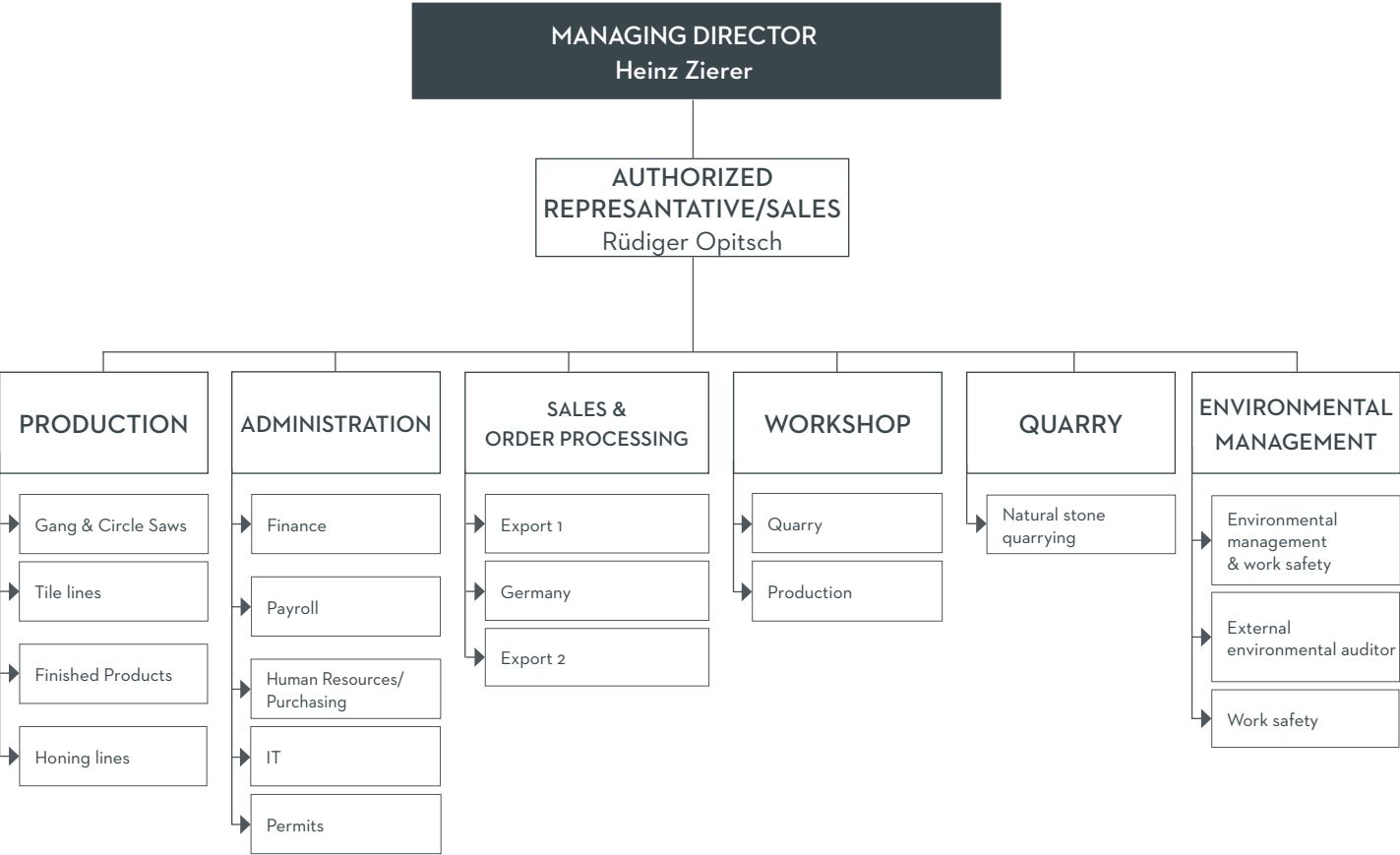


As of: August 5th 2022



2.2.2 ORGANIZATIONAL STRUCTURE VEREINIGTEN MARMORWERKE KALDORF GMBH

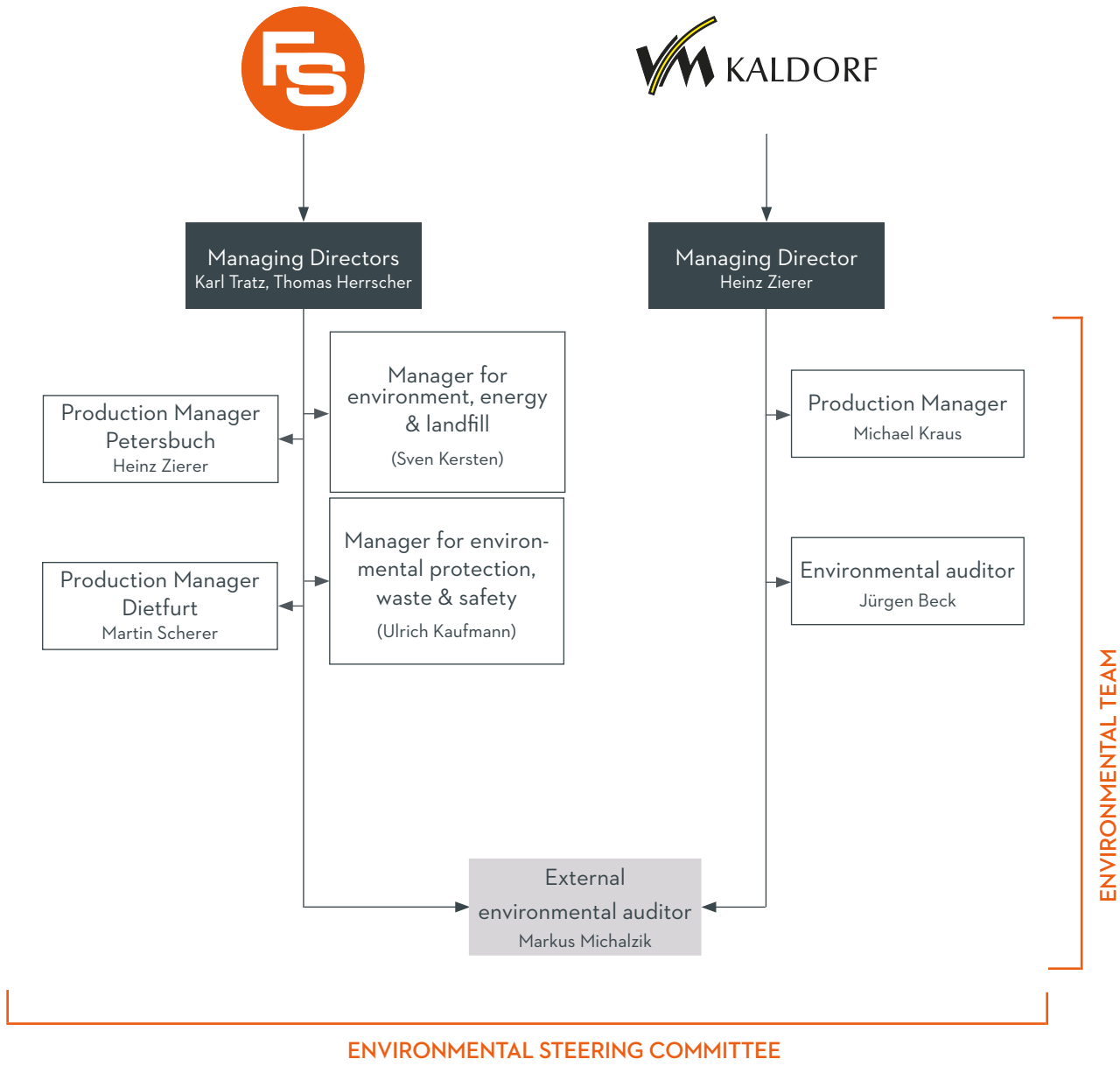
VMK's organizational structure is divided into the following managerial levels.
Mr. H. Zierer is the managing director. The plant manager is Mr. M. Kraus, he oversees various department heads.



As of: August 15th 2022

2.2.3 ENVIRONMENTAL MANAGEMENT STRUCTURE

The following illustration shows the principal structure of the environmental management system. This consists of internal environmental management and external validation.





2.2.4 OPERATIONAL IMPLEMENTATION

Both FS and VMK's roots are as a natural resource processor. Although we have access to one of the largest natural stone reserves in the world, we do work with a non-renewable resource and therefore must ensure that these resources are available for future generations. With that in mind we have a sense of obligation to use our natural resources in an efficient and respectful manner and keep our environmental footprint to a minimum. This mentality is reflected all along our supply chain, from our quarrying activities all the way down to the production of our finished products.

Managing Directors

The Managing Directors of both FS and VMK are represented in the environmental steering committee (ULA) and have the following duties inside of the environmental management system (UMS).

- Determine the environmental policies and goals of the environmental program.
- Determine the personnel duties of our environmental management.
- Cohere with relevant legislation.
- Annual review and evaluation of the current status and effectiveness of the environmental management and the measures on the basis of internal audits among other things.

Environmental Management Representative

The managing directors nominate the environmental management representative (UMB). His job in essence is to care for and implement the environmental management system. He leads the environmental team and moderates the ULA meetings.

Plant Managers

The plant managers are responsible for operations and thus are responsible for complying with the regulations in the various locations among other things. The plant managers are members of the environmental steering committee (ULA) and are part of the most important decisions that need to be made regarding the environmental policies.

Further authorized representatives and specialized employees

There are further specialized employees in the environmental team that support the UMB.

- Waste officer (Comply with legal regulations as far as waste and operations of the DK- and DK-1 landfill in Dietfurt)
- Occupational safety specialist
- Specialist for handling of hazardous materials
- Specialist for groundwater extraction

Environmental Steering Committee (ULA)

The environmental steering committee is represented by: The managing directors, the environmental management representative, the members of the environmental team and the plant managers of FS and VMK. The ULA is primarily responsible for the prioritization and also decides on the proposed measures and goals as well as strategical orientation proposed by the environmental management system.

Environmental Team and Project Groups

The environmental team consists of permanent and temporary members ("project members").

The permanent members of the environmental team come from environmental sectors, their duty is to support the environmental management system. The responsibilities of the environmental team include, among other things:

- Implementing environmental consciousness and energy efficiency in all areas
- Communicating current projects and new measures of the environmental management system
- Staying current on and updating all environmental regulations and requirements (environmental register)
- Constantly working to improve
- Implementing and executing measures and assist others in doing so as well.

Measures have been designed and implemented for all environmentally relevant actions.

Environmental Audit

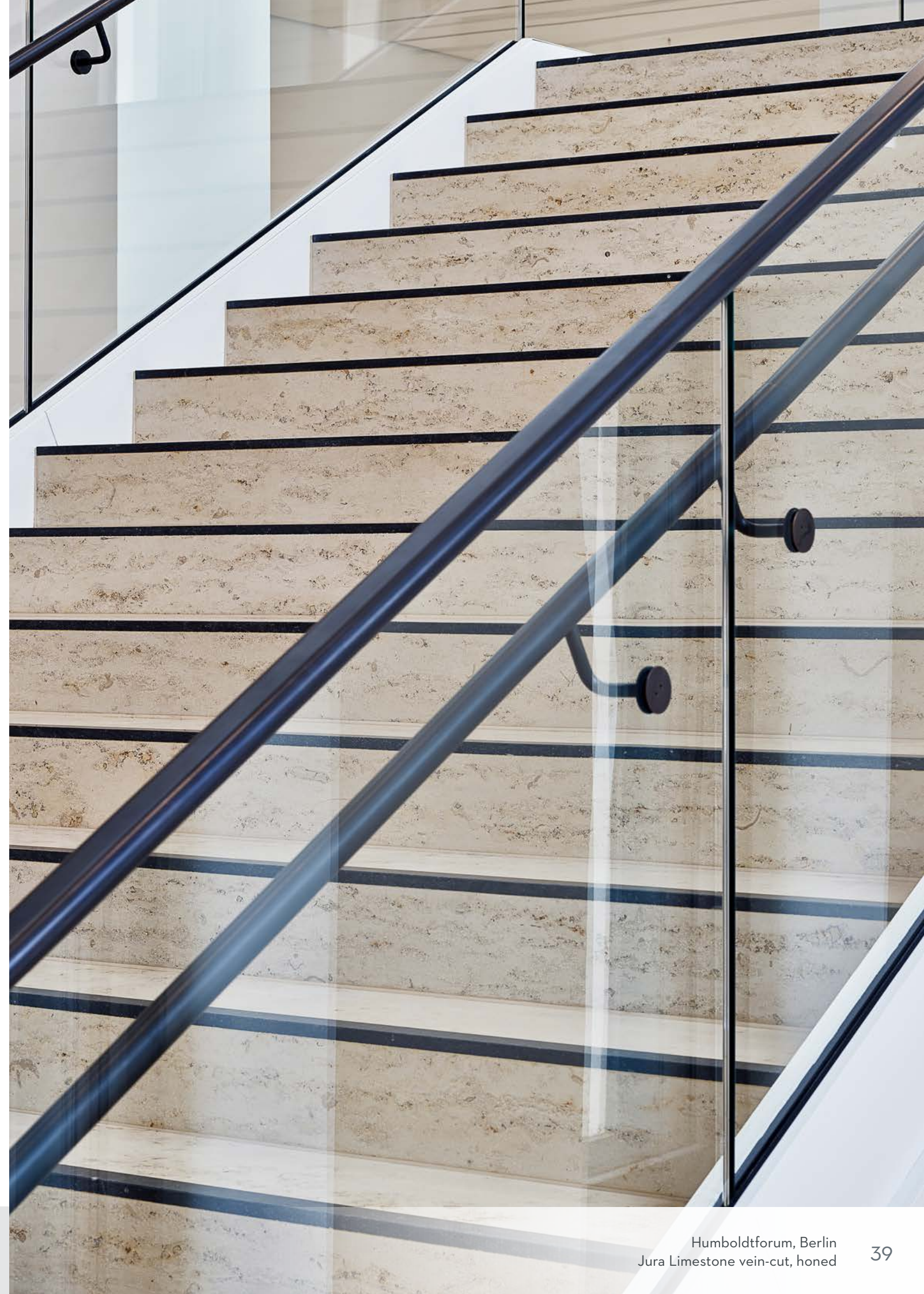
An analysis of the environmental management system is reviewed and analyzed together with the managing directors in regular intervals. The goal of the analysis is to identify measures for improvement. The environmental team has access to all relevant data of the company. The environmental audit furthermore helps identify areas where we can improve and realize optimization potential in protecting the environment.

2.2.5 LEGISLATIVE COMPLIANCE AND OTHER FACTORS OF ENVIRONMENTAL PERFORMANCE

There are numerous regulations that are relevant for us regarding environmental and energy aspects. These are electronically captured in an environmental directory and directly linked to the corresponding environmental laws at www.umwelt-online.de.

Emissions control, water protection, waste management, environmental protection and hazardous materials are the most relevant categories for FS and VMK. New legal regulations are constantly being determined and implemented for all activities and processes. There are clear regulations for many processes. Meeting the legal regulations is our absolute minimum requirement. Due to the importance of this issue, there are continuous controls to ensure that the legal requirements are being upheld. This happens through internal and external audits via interviews and inspections. Through a permit directory we ensure that all regulations coming from the granted permits are being complied with.

Changes of various conditions in 2020 include, for example, the building energy law and various requirements that have to do with electric mobility as well as provisions for infrastructure that supports electric mobility.





3. ENVIRONMENTAL ASPECTS AND PERFORMANCE

3.1 ENVIRONMENTAL ASPECTS

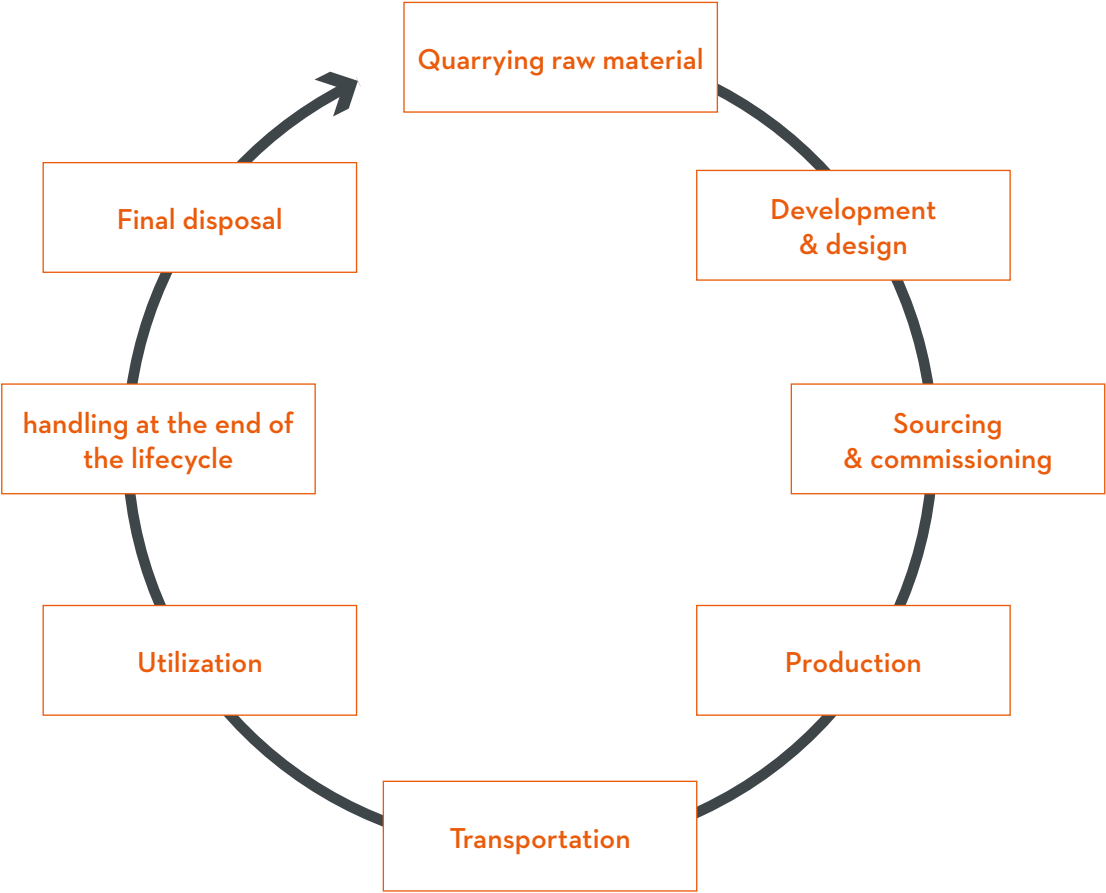
All of FS' and VMK's activities affects the environment. We call these effects environmental aspects. We differentiate between direct and indirect aspects. The relevance evaluation is measured by the consumption, and the greenhouse potential. The degree to which we can influence all these aspects are sorted accordingly.

The environmental aspects of the entire life cycle of all our products and materials were expanded and re-evaluated as per the course of the EMAS-amendment. The environmental product declarations (EPD) for facade and wall panels as well as tiles and flooring panels were very helpful in this consideration.

Environmental aspects can have different effects on the environment, positive as well as negative. These aspects are evaluated on a pre-determined basis in the environmental management system. This is the basis on which FS and VMK determine the most important aspects. Criteria such as environmental effects, relevance and influenceability play a role in the evaluation. These criteria are manifested in our internal documents to environmental aspect measurement. (i.e. quantity, danger, legal norms, neighbors and acceptance and so forth).

The following tables show various relevant environmental aspects, both direct and indirect for FS and VMK as well as the evaluation of their influenceability and the explanation of the basis of evaluation. The individual business sectors have been analyzed on this basis.

LIFECYCLE OF PRODUCTS & SERVICES





3.1.1 DIRECT ENVIRONMENTAL ASPECTS AND IMPACTS

Direct environmental aspects have an immediate effect on the environment. This includes energy- and water consumption, amount of waste water, waste, waste disposal and utilization, usage of operational resources, paper and the emissions of our vehicles. We influence our direct impact on the environment by optimizing and adapting best practices, for example by optimizing our routes in the quarry to reduce the diesel consumption of our vehicles.

Process	Activities	Environmental aspect	Environmental impact	Evaluation of the environmental relevance	Influenceability	Basis for evaluation, explanation
Quarrying	Clearance, drilling, explosives, chain saw, splitting, loading, chiseling	Energy consumption, biodiversity, noise	Greenhouse emission, Resource consumption, area consumption, noise consumption	1	A	Measurement and calculation
Own transport	Utilization of heavy duty vehicles	Diesel consumption, dust	Greenhouse emission, Resource consumption, dust emissions	1	A	Utilization of energy efficient heavy duty vehicles. Oil and grease for maintenance. Traffic optimization. Dust reduction by cleaning and maintaining roads
Aggregate production	Pre- and post- crusher, washed aggregates, aggregates, loading	Energy consumption	Greenhouse emissions, Resource consumption	2	B	Utilization of efficient motors
Natural stone production	Dry and wet finishing, packaging, loading	Energy consumption, Usage of hazardous material	Greenhouse emissions Resource consumption	2	B	Umstellung der Produktion mit deutlich geringeren Mengen an Harzen und Kitten.
Water consumption	Einsatz von Flockungsmittel	Energieverbrauch	Entstehung von Abfall	2	B	Reduktion des Wasserverbrauchs durch Kreislaufführung des Wassers.
Aggregate Plant	Additives for the production of asphalt. Preparation and utilization of recycled material	Energy consumption and exhaust	Greenhouse gases and other emissions	1	B	Utilization of oils, grease, diesel, additives for gravel, filler, aggregates, bitumen

Relevance evaluation: 1 = high, serious environmental impact, 2 = middle, possible but not serious environmental impact 3 = low, long-term negative environmental impact possible. **Influenceability: A = low, can be impacted with minimal effort or costs, B = middle, can be impacted with some technical effort or limited costs, C = high, can only be impacted through extensive technical effort and costs.

*The total annual consumption takes both, FS and VMK into account.

Process	Activities	Environmental aspect	Environmental impact	Evaluation of the environmental relevance	Influenceability	Basis for evaluation, explanation
Landfill	Excavation. Implementation, road construction	Energy consumption	Greenhouse emissions	2	C	Prompt recultivation after filling
Recultivation	Establishment of natural habitats	Biodiversity	Increase in Biodiversity	3	B	Comply with regulations
External Transport	Utilization of heavy duty trucks	Diesel consumption	Greenhouse emissions, Resource consumption	2	C	Pick up organized by purchased, utilization of local truckers, bulk freight
Product usage	Installation	Diesel consumption	Greenhouse emissions	3	C	Installation, Energy efficiency and reduction of hazardous materials
Waste disposal	Transport, reduction of waste	Diesel consumption	Greenhouse emissions, Resource consumption	3	B	Road construction, construction and civil engineering, River erosion protection, fill material
Raising of awareness	Employee sensibilization	Energy consumption Resource consumption	Avoidance of unnecessary energy and resource consumption	2	A	Training for vehicle operators



3.2 ENVIRONMENTAL PERFORMANCE

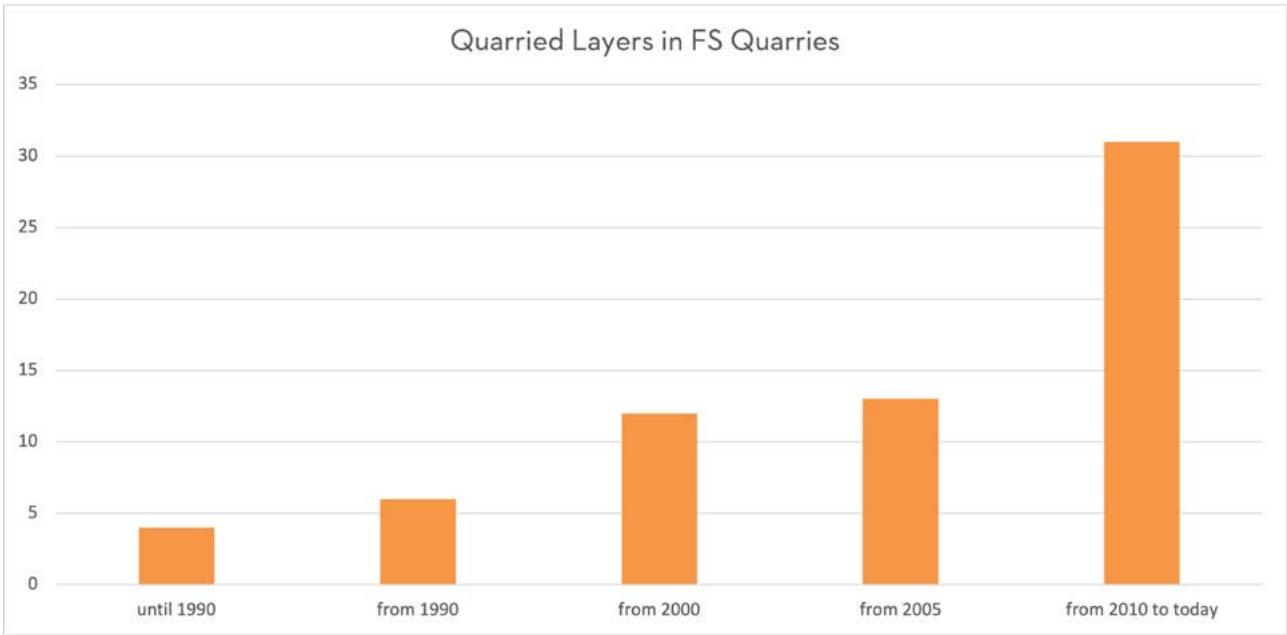
The following sections show the quantified environmental performance of FS and VMK for 2021 and partially between 2017 - 2021. A few comments and tables regarding the development of our environmental performance of the last ten years are also included.

The total amount of quarried stone over the past decade fluctuates relative to economic cycles of around +/- 20% but remains relatively constant overall. The number of employees has approximately doubled in that time span while revenue over the same time span has tripled. This shows that we are creating much more value out of the same raw material usage. The primary reasons for this are as follows:

- **Product Development:**
Our range of products have developed further into the direction of producing high quality products with increased value added. There has also been an increased effort to get the most out of our raw material by coming up with new and innovative products to create the highest possible value.
- **Technology:**
We develop our own technologies. The introduction of the chain saw technique in our quarries, for example, has reduced our Diesel consumption and allowed us to yield up to 100% more raw material for natural stone products. This technology also allows us to quarry layers that were previously unable to be quarried for high-quality natural stone products.

3.2.1 DEVELOPMENT OF USABLE LAYERS IN THE QUARRIES

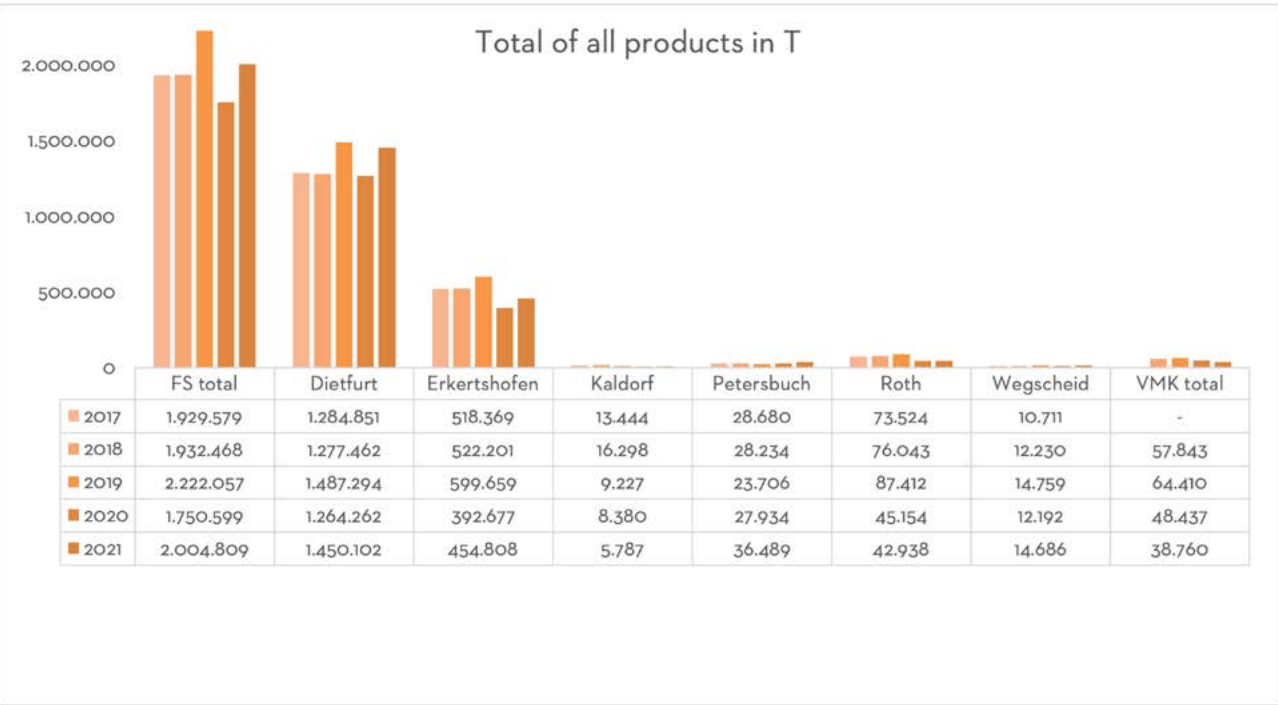
The following graph shows the development of utilizable layers that can be quarried for high-quality natural stone production. The introduction of chain saws, among other improvements, has led to an enormous increase of quarried layers that are suitable for the production of high-quality natural stone products.





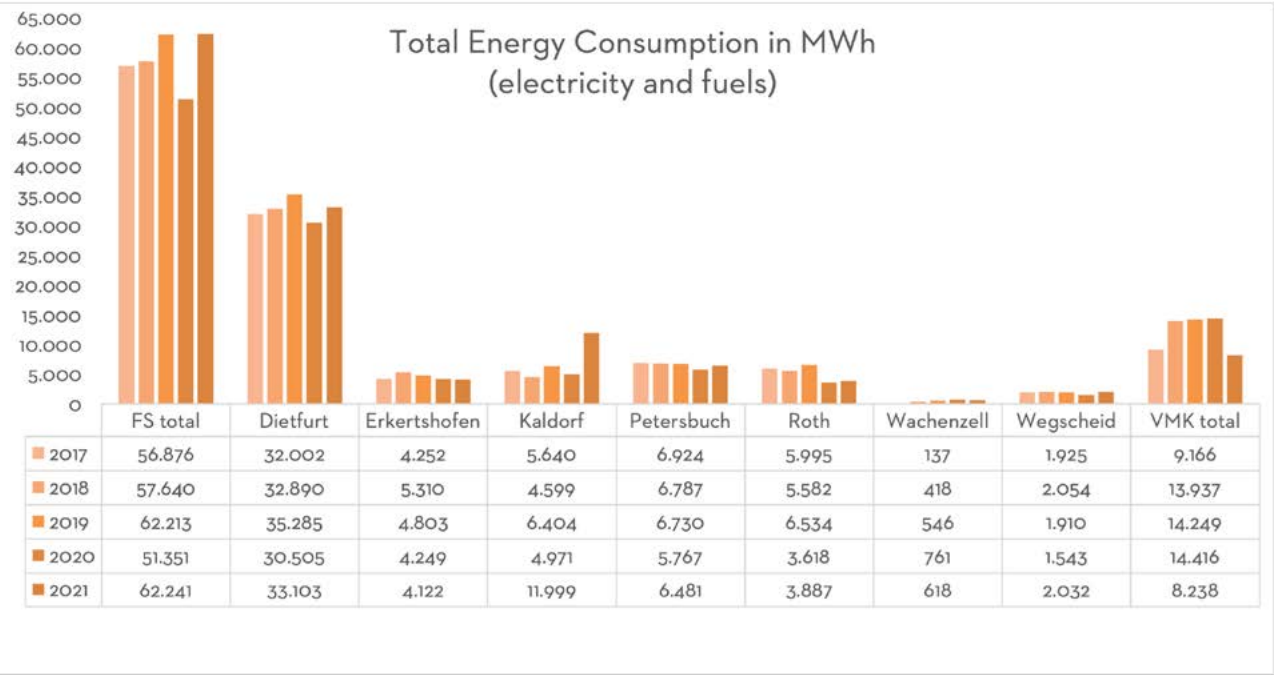
3.2.2 PRODUCTIONS QUANTITIES

The following graph shows the total tons of all products per location. The dip in output in 2020 was due to the pandemic.



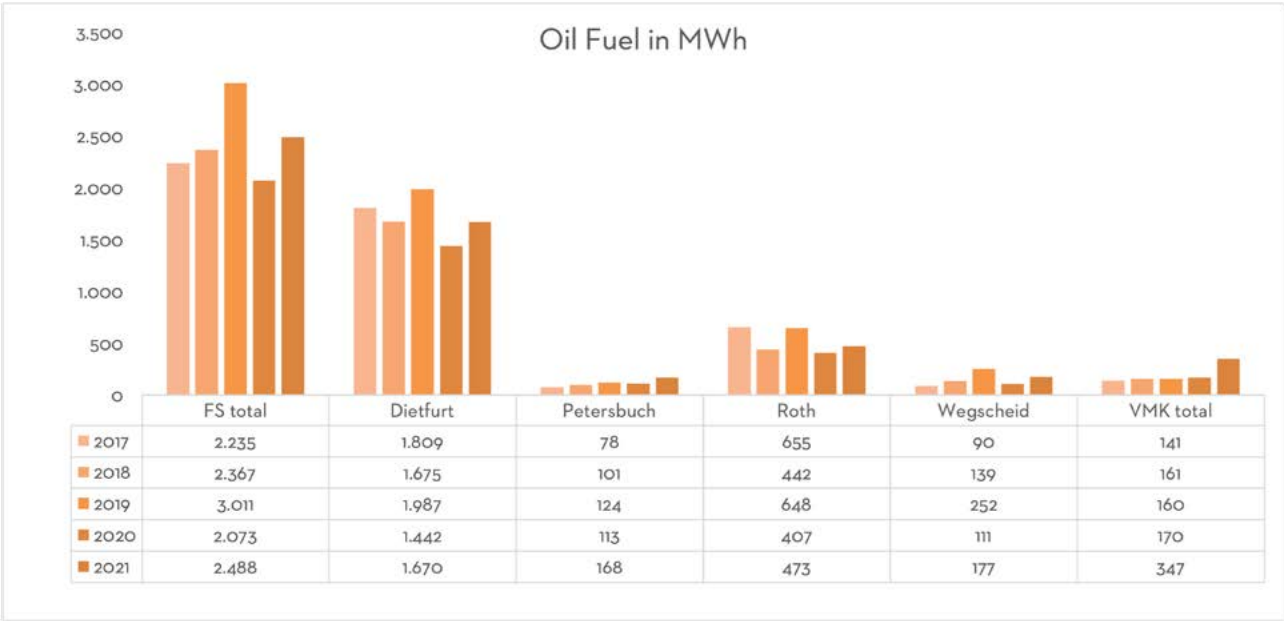
3.2.3 ENERGY

The energy consumption between 2017-2021 is listed in the following graphs. The first graph shows the total energy consumption of electricity and fuels for each individual location. The following graphs are dedicated to the form of energy used and show the proportional use between electricity and fossil fuels. It shows that each location has a clear focal point as far as energy consumption is concerned. The consolidation of the FS and VMK quarries in the Kaldorf area has led to a shift in energy demand. FS is now responsible for the logging and filling of the vehicles in the quarries. Energy consumption in total and with respect to the previous year increased slightly for both companies. This increase is explained through an increase in production output and thus results from our implemented optimization measures are still apparent.

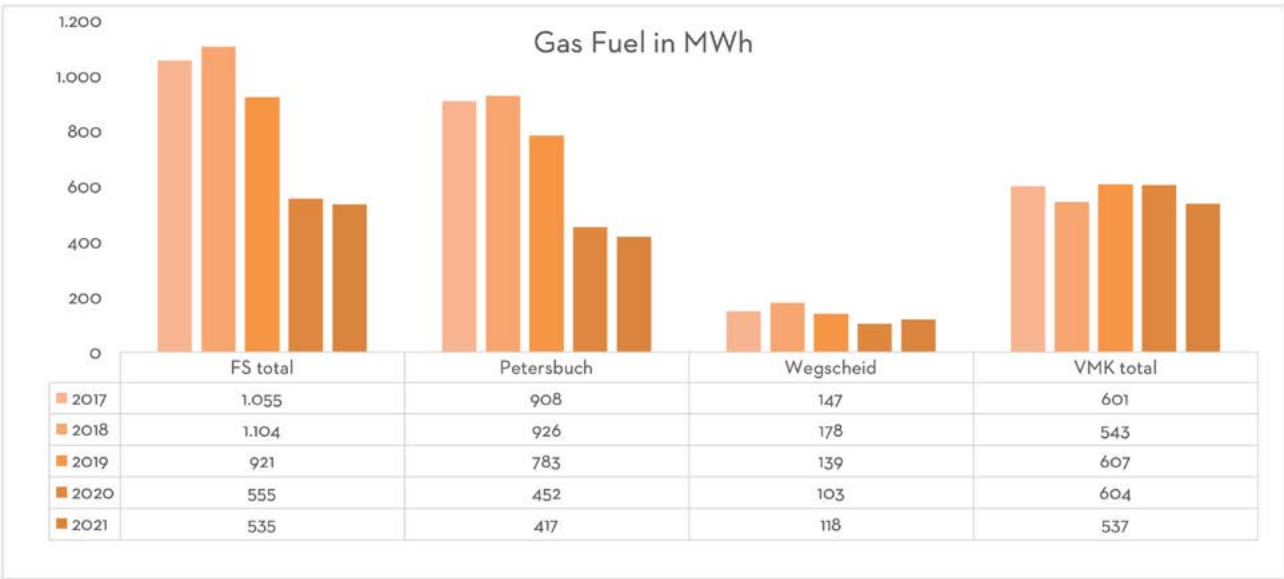




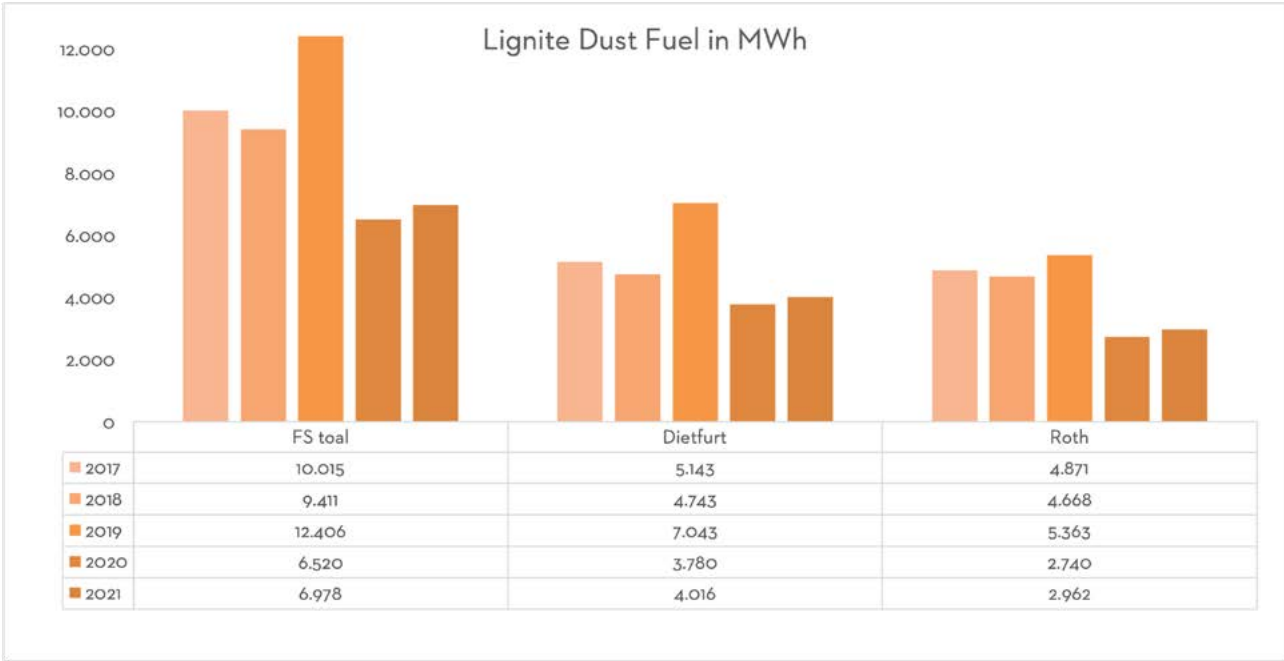
The following graph depicts the use of heating oil in each location. The consumption increased slightly in 2021. The increase was due to a longer and colder winter, which was confirmed by average daily temperatures (Exterior temperature was 8.8°C in comparison to the long-term average of 9.4°C). Due to the pandemic there was also a need for increased airing out of offices as part of the hygiene protection concept, this increased the need to heat the offices.



The graph below shows the consumption of gas fuel, which is utilized in Petersbuch, Wegscheid and at VMK locations. The Petersbuch location has been able to significantly reduce consumption of gas fuel through a change in production methods in 2019. Significantly less stone is being processed through the resin line, this was the primary driver in reducing gas consumption in 2020 was confirmed by the 2021 numbers. The first look shows an overall increase in gas consumption in Wegscheid when compared to prior years. When we compare this with the production output however it is apparent that the use of gas was reduced from 1.29L/T of produced material to 1.22 L/T.

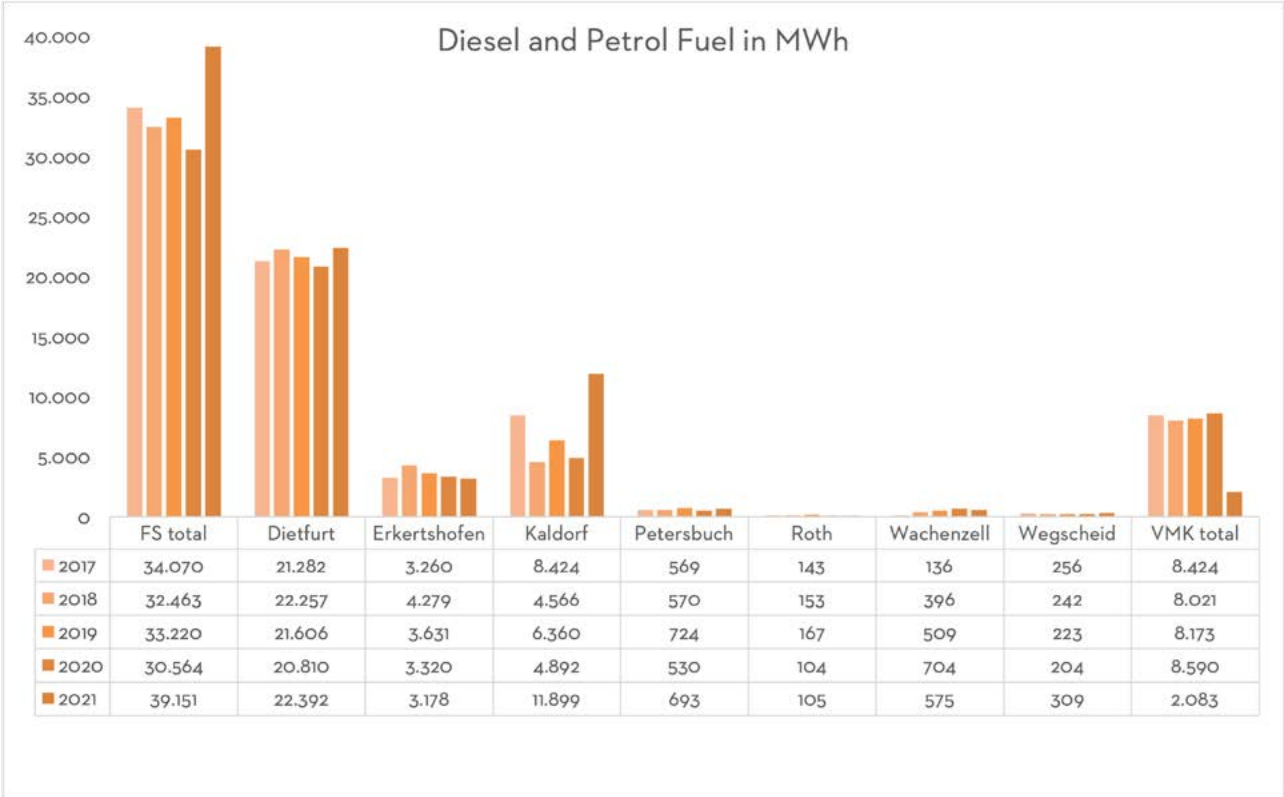


Lignite dust is used in the Roth and Dietfurt locations. Due to the increase in production of asphalt mixed products, lignite dust consumption increased marginally. The demand for asphalt mix products remained consistent in 2020 which led to a reduction in consumption of lignite dust. Lignite dust consumption increased slightly in 2021 due to the need to produce various varieties of asphalt mix goods and the corresponding need to heat up smaller orders. In Dietfurt the consumption of lignite dust increased from 15.67kg/t to 15.84 kg/t and in Roth somewhat more, from 14.57kg/t to 16.55kg/t. Lignite dust will no longer be used beginning in 2030. Alternatives are being discussed by the German asphalt association and the first concepts are being tested for feasibility. Implementation of new methods is planned for the near future.

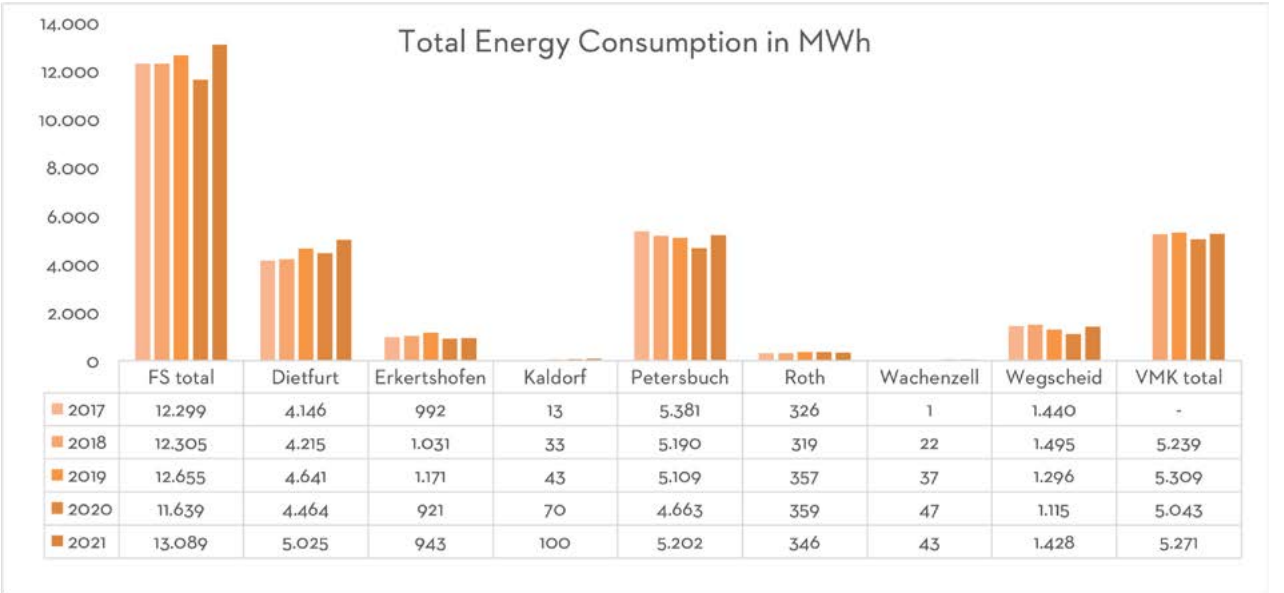




Diesel fuel is the most important energy source that FS uses. The graph below shows diesel fuel consumption per location. The increased level of production in Dietfurt has led to an increase in diesel consumption. Various measures have been taken over the years to decrease diesel consumption from 1.64L/T down to currently 1.54L/T. The increase of diesel consumption in Kaldorf is due to the merger of the VMK and FS quarries. The increase in diesel consumption in Kaldorf is therefore directly correlated with the decrease of diesel consumption for VMK.

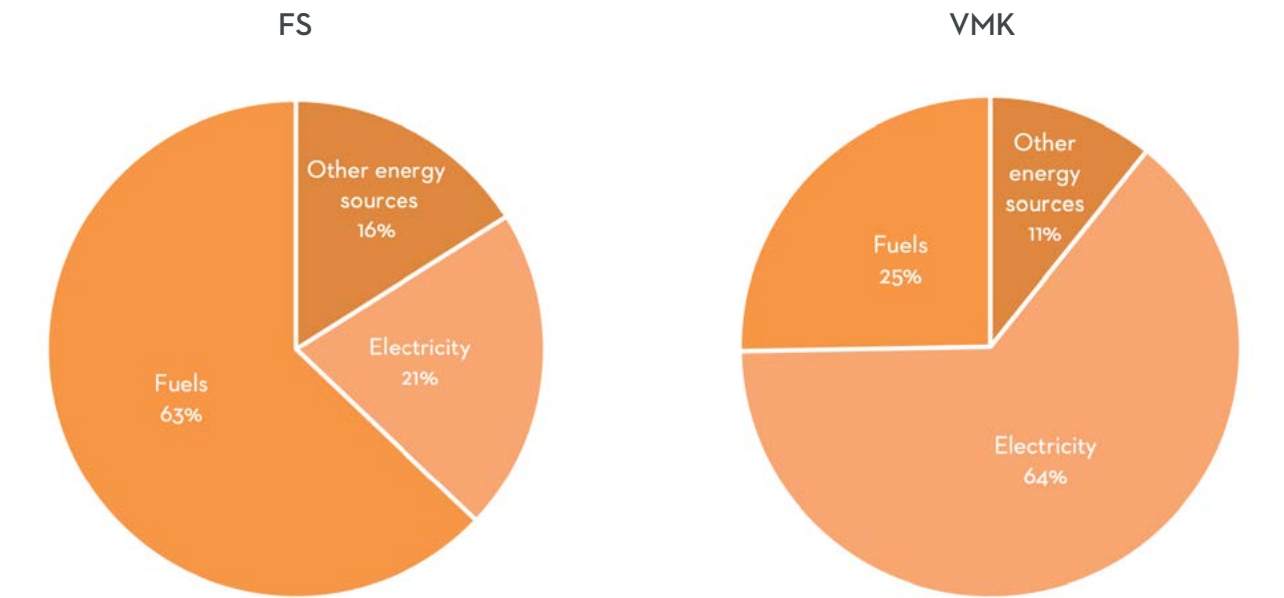


The graph below shows electricity consumption per location. The increase of electricity consumption in Dietfurt, Petersbuch and Wegscheid is due to the considerable increase in production. The amount of energy needed to produce a ton of natural stone actually decreased from 3.531 kWh/T to 3.465 kWh/T from 2020 to 2021.



DISTRIBUTION OF TOTAL ENERGY CONSUMPTION 2021

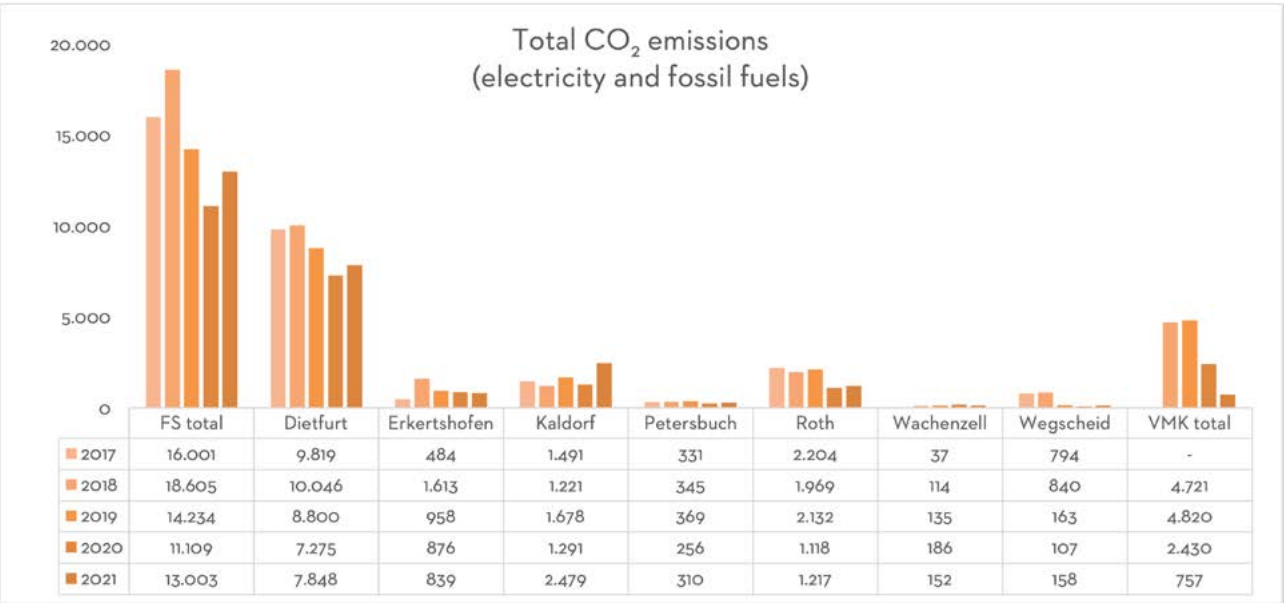
The following graph shows that after the integration of VMK vehicle fleet with FS, fuel is far and away the largest energy source responsible for 63% of total energy consumption. That is followed by electricity and lignite dust. Gas and oil fuel play a diminished role.





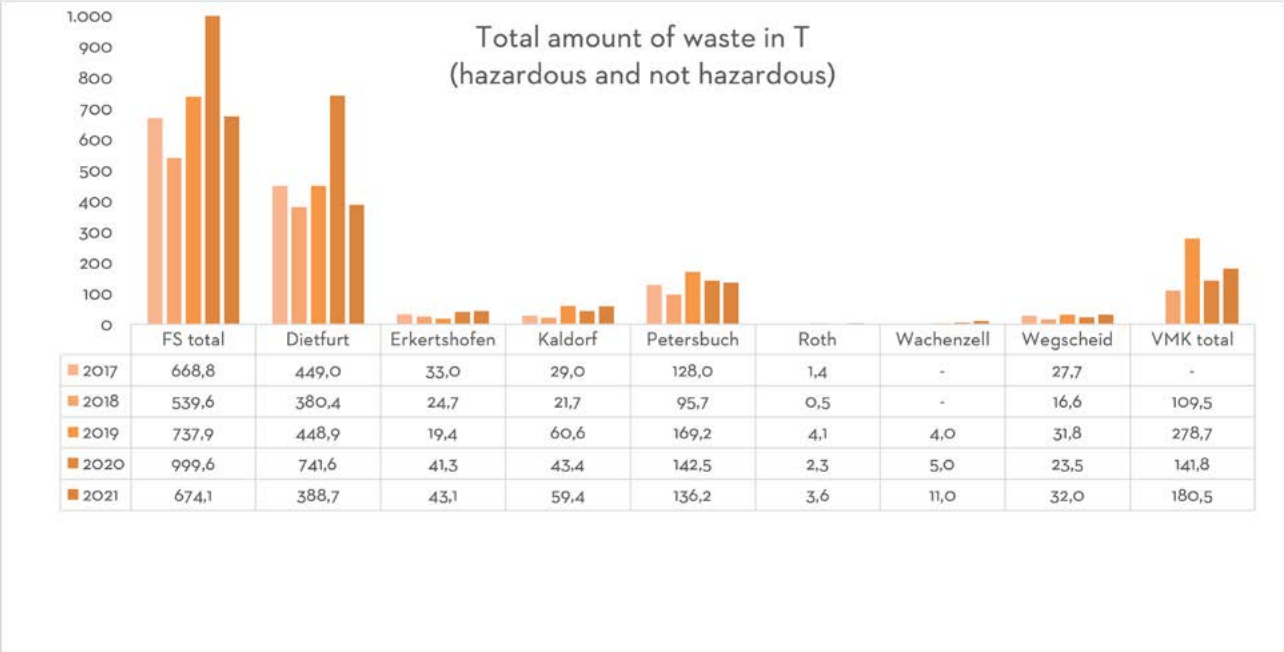
3.2.4 CO₂-EMISSIONS

The following graph shows the CO₂ emissions resulting from energy consumption in each location. All FS locations get 100% of their electricity from renewable sources, a measure implemented in 2019. This has led to a substantial reduction in CO₂ emissions. VMK switched to renewable energy sources in 2020. The energy consumption increase is again, correlated to the energy consumption decrease at VMK as the quarries were combined and are now solely operated by FS.



3.2.5 WASTE

The graph below shows the amount of waste from 2017-2021. Multiple factors account for the volatility here. The removal of waste, including the removal of sewage water happens in irregular intervals and can therefore impact the individual years significantly. Demolition of buildings or machines are a defining factor year over year as well.

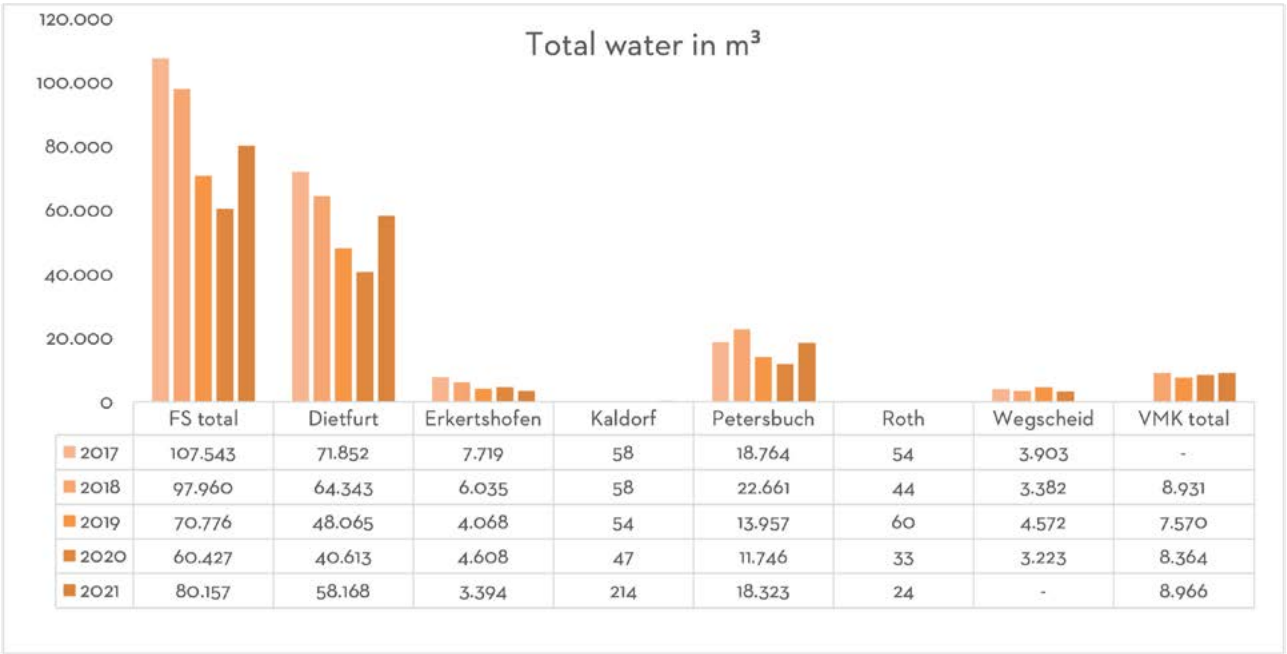




3.2.5 WATER AND SEWAGE

Water consumption is indicated in the graph below by location. The increased amount of washed aggregates led to a significant increase in water consumption in Dietfurt. Dietfurt, Wegscheid and Petersbuch all collect rainwater, this water is brought into the water cycle which reduces the use of drinking water.

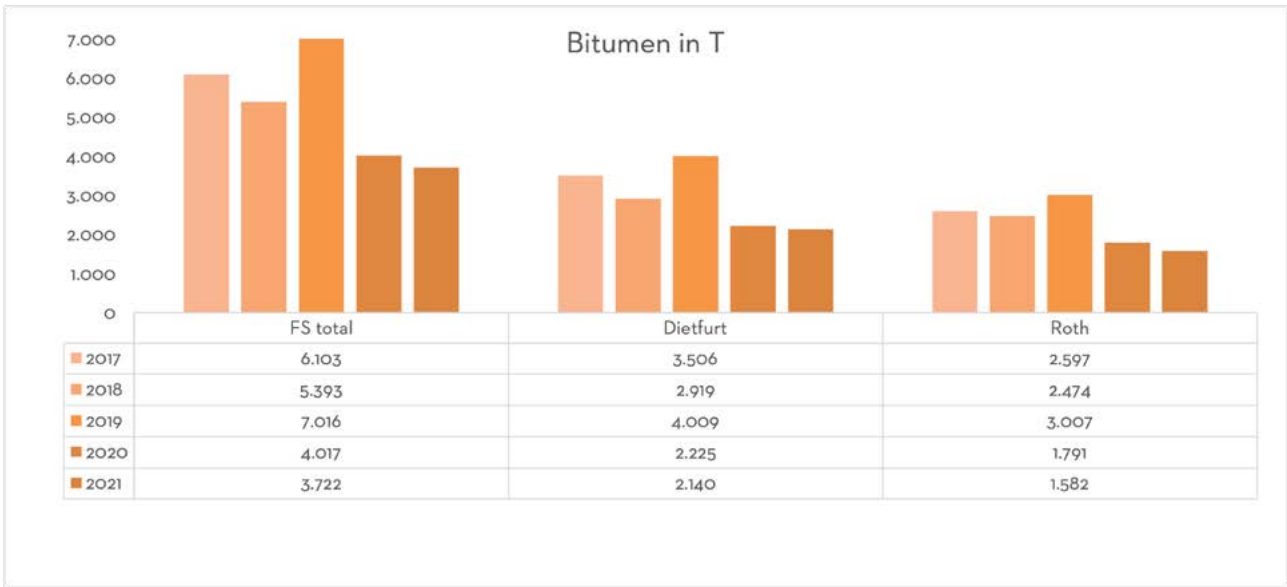
The only waste water at FS and VMK is sewage water. All water from production goes through a water treatment plant where stone sludge is separated from the water, the treated water is then brought back into the production cycle. The following graph shows total water consumption by location. The aforementioned measures have led to a significant reduction in water consumption over the past few years.



3.2.6 RAW, AUXILIARY AND OPERATING MATERIALS

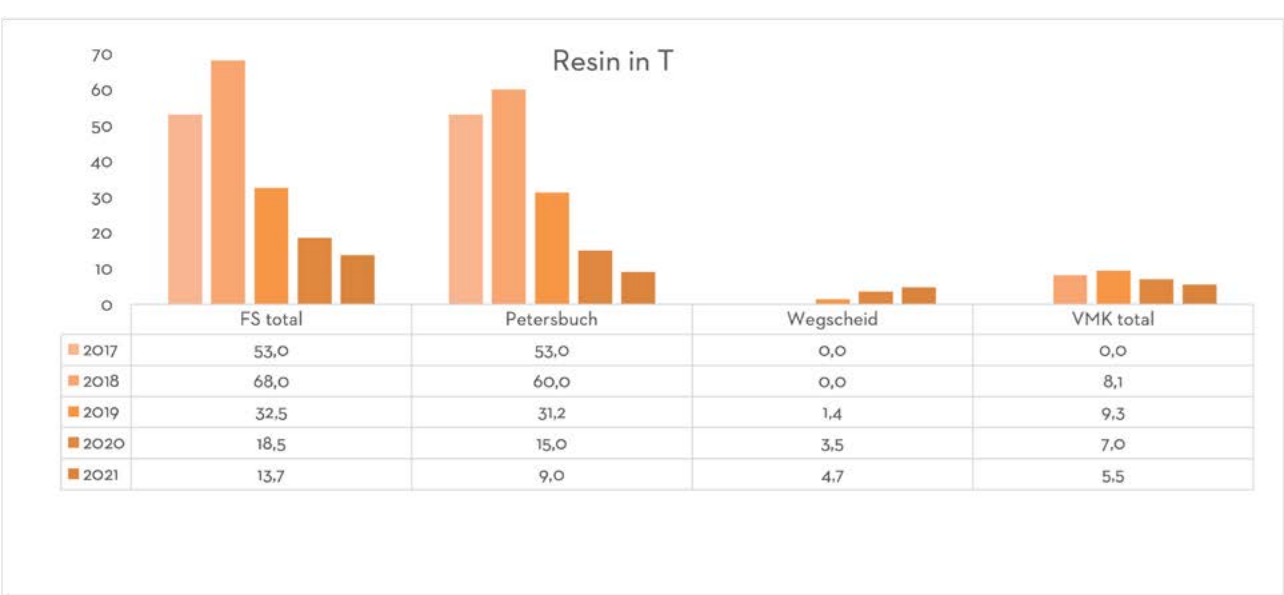
The following graph shows the usage of raw materials and supplies in each location.

Bitumen consumption decreased primarily due to the decreased demand for aggregate mixed products and the increased addition of asphalt granulate in Dietfurt. The recycling factor of asphalt granulate increased from 30 to 32.5% in Dietfurt and thus saved approx. 80 tons of fresh bitumen.

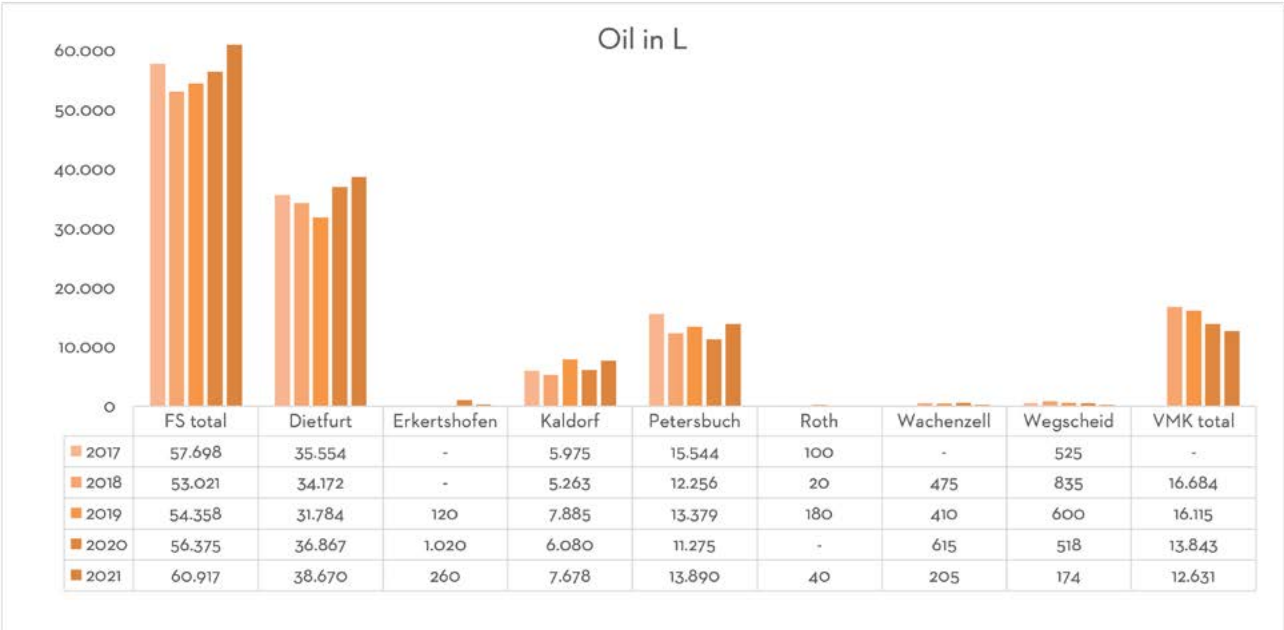




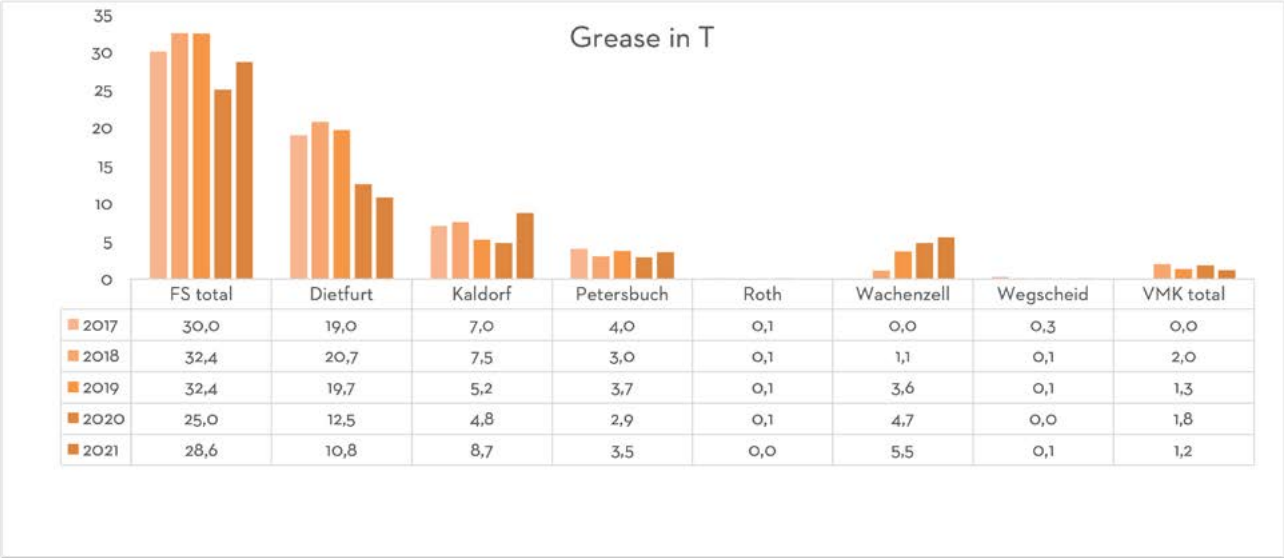
The amount of resin used in Petersbuch has decreased further. A change in the company philosophy and also a change in the demand of our customers has led us to only resin for specific stone selections. We see the trend moving to complete natural materials and away from any chemically treated building materials. A resin-applying robot is used for the small amount of panels that are still filled with resin, this reduces the amount of resin needed per panel considerably. The use of resin was further scrutinized in 2021 and thus FS was able to reduce the usage of resin and further. A larger order of honed material that needed to be filled with resin was produced in Wegscheid which led to a marginal increase in that location.



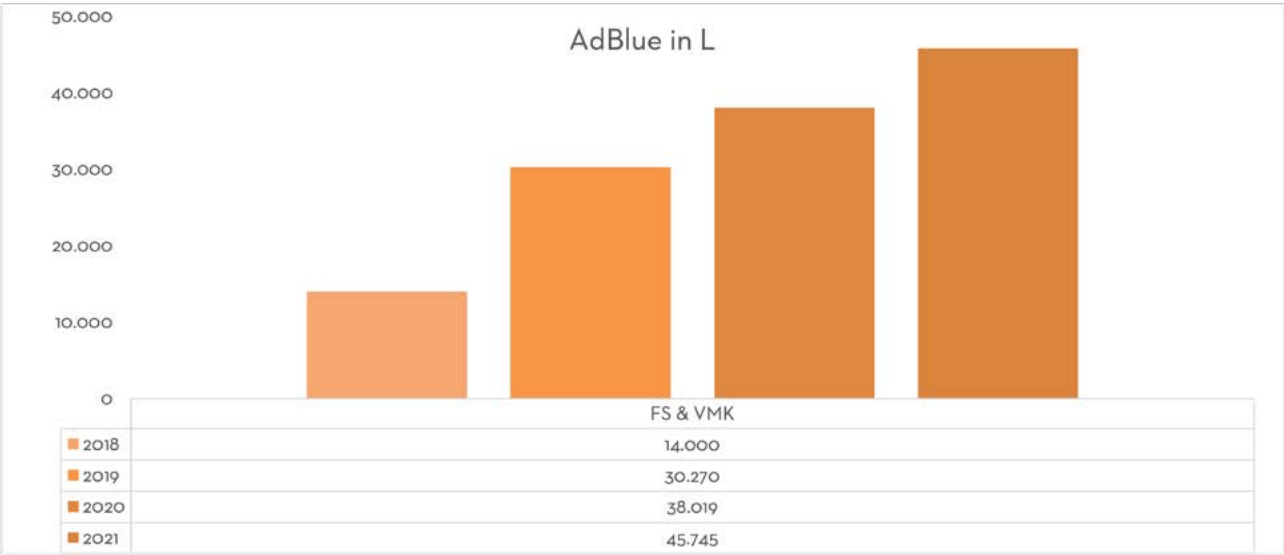
FS saw an increase in the consumption of motor oil at the Kaldorf and Petersbuch locations. This was primarily due to the incorporation of VMK's fleet to FS, subsequently the consumption of motor oil at VMK was reduced. The increase in Dietfurt stems from approx. 14,000 hours of increased usage of the fleet from 2020 to 2021. This led to an increase in service by which more oils are used.



More grease was needed in Wachenzell due to a focus on dolomite quarrying in Wachenzell and away from Dietfurt, this is correlated with a decrease of grease consumption in Dietfurt. The grease increase in Kaldorf was driven by the installation of a new stationary chain saw.



As the fleet is constantly being renewed as older machines are replaced with new ones, the consumption of AdBlue also increases. High AdBlue levels show proof of a modern fleet that is low in pollutants. The following graph shows the combined consumption for FS and VMK.





3.2.8 METRICS

The following two graphics are selected metrics from 2017 – 2021 that count for all Franken Schotter locations and VMK Input-/Output-Metrics for all of FS and VMK respectively

2017-2021
Input-/Output-Metrics for all of FS 2017-2021
& Vereinigte Marmorwerke Kaldorf 2018-2021

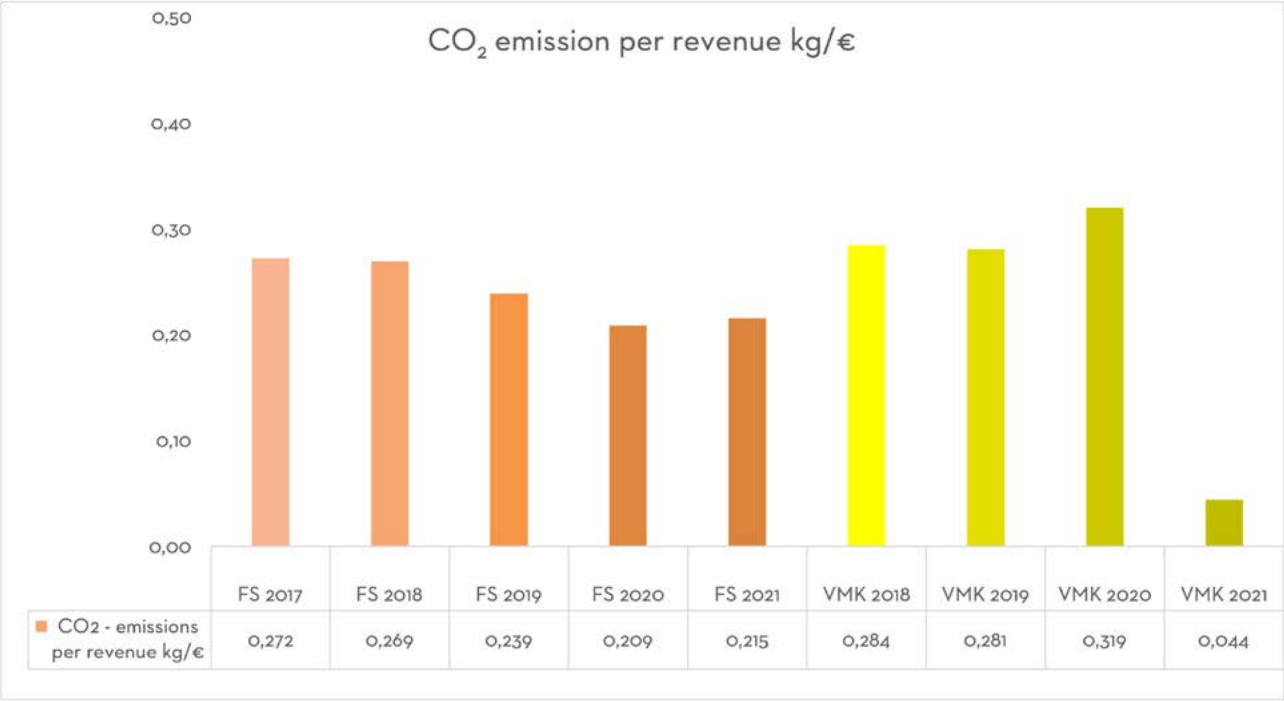
		2017	2018	2019	2020	2021	2018	2019	2020	2021
Franken-Schotter Total						Vereinige Marmorwerke Kaldorf *				
Energy consumption	MWh	56.876	57.645	62.213	51.351	62.241	13.964	14.249	14.416	8.238
Total products	t	1.929.579	1.932.468	2.250.412	1.776.352	2.004.809	57.843	64.410	48.437	38.759
Energy consumption per total of products in weight	MWh/t	0,029	0,030	0,028	0,029	0,031	0,241	0,221	0,298	0,213
Water consumption	m³	98.414	93.141	70.776	60.427	80.157	8.931	7.570	8.364	8.966
Water consumption per total of products in weight	m³/t	0,051	0,048	0,031	0,034	0,040	0,154	0,118	0,173	0,231
Waste total	t	668,8	539,7	737,9	999,6	674,1	109,5	278,7	141,8	180,5
Waste per total of products in weight	kg/t	0,347	0,279	0,328	0,563	0,340	1,893	4,327	2,927	4,66
Amount of hazardous waste	t	151,0	140,7	137,8	200,0	164,0	34,9	17,5	40,4	54,1
Hazardous waste per total of products in weight	kg/t	0,078	0,073	0,061	0,113	0,080	0,603	0,272	0,835	1,396

*The relative metrics of VMK come out much higher as solely natural stone is produced and not mass products such as aggregates and asphalt mixtures

Emission Metrics for all of FS and VMK respectively 2017-2021

		2017	2018	2019	2020	2021	2018	2019	2020	2021
Franken-Schotter Total						Vereinige Marmorwerke Kaldorf				
CO ₂ -Emissions total	t	16.001	18.605	14.234	11.108	13.300	4.721	4.820	2.429	757
CO ₂ -Emissions per Product total	t/t	0,008	0,010	0,006	0,006	0,007	0,082	0,075	0,050	0,020
CO ₂ -Emissions per Revenue	kg/€	0,272	0,269	0,239	0,209	0,215	0,284	0,281	0,319	0,044
CO ₂ -Emissions per MWh	t/MWh	0,281	0,323	0,229	0,216	0,214	0,338	0,338	0,169	0,092

The following graph shows emissions/revenue. The VMK result for 2021 is a result of the quarrying operations being taken over by FS.





4 ENVIRONMENTAL PROGRAM AND GOALS

4.1 EVALUATION OF THE ENVIRONMENTAL PROGRAM

Areas with significant optimization potential were identified during the implementation of the environmental management system. The most important measures were integrated into the environmental program. Further goals and measures were defined in accordance with the environmental policies and derived from the environmental aspects. The investment measures were approved by the shareholders of FS and VMK. The environmental program is listed and evaluated below. This list is continuously updated and expanded. Numerous measures of the environmental program have been implemented in a timely manner and have achieved their expected result. Measures and explanations are listed below:



4.1 EVALUATION OF THE ENVIRONMENTAL PROGRAM

Nr.	Goals	Measures	Location	Target date
Sustainability through technical organizational improvements				
1.1	Transportation reduction	Lowering of the roadway in the Treuchtlinger mining area of 6-8m.	Dietfurt	Completion January - March 2021.
1.2		Improvements were made to the roads in Dietfurt which saves fuel and is an increased safety measure.	Dietfurt	Measure was completed in May 2021, further measures to be taken in 2022.
1.3		The road for loading was expanded, this increased safety and decreased traffic congestion.	Dietfurt	Measure completed in March 2021.
1.4		A new splitting line was built, transportation of raw material from Dietfurt to Wegscheid was reduced as a result of this.	Petersbuch	Completed 2021
1.5		The road to the aggregate plant in Erkertshofen was moved. The driveway to the plan is now flatter so there is less need for acceleration and brakes. The intersection with the pick up trucks was also bypassed which is an increased safety measure.	Erkertshofen	Completed 2021
1.6		The industrial road from Kaldorf to Petersbuch was redone. This saves fuel, is an increased safety measure and improves the driving conditions for employees.	FS und VMK	Completed May 2021
1.7		A tower saw in Dietfurt reduced the need for quarried dolomite to be transported from Wachenzell to Dietfurt.	Dietfurt	Completed 2021
1.8		A new splitting machine for embankment stones. The transport of blocks from Kaldorf to Dietfurt for this product is no longer necessary.	Kaldorf	Completed June 2022.
2	Resource savings from wood	Defective panels are recycled.	Dietfurt, Wegscheid and Petersbuch	Implemented in 2021 - ongoing.
3	Freight cost reduction	Raw material logistics was reorganized in order to reduce the amount of material transported from Dietfurt to Petersbuch. Petersbuch now receives most of its material from the neighboring Kaldorf quarry.	All locations	Implemented in 2021 - ongoing.
4	Optimization processes	The sewage pit from the repair shop was connected to the sewage treatment plant, thus there is no further need to have sewage specially disposed of.	Dietfurt	Completed 2021
4.2		The resin line is only used for special orders. Resin and gas consumption was reduced through this measure	Petersbuch	Implemented in 2021 with continuous improvements in 2022.

Nr.	Goals	Measures	Location	Target date
Sustainability through technical and organizational improvements				
5.1	Reduction of auxiliary and operational supplies	Investments in new, more efficient heavy machinery (Wheel loader CAT 988 K XE, wheel loader Komatsu WA 600-8, road sweeper Brock, new drill machine (drill and split) Wimmer/Hitachi, dumper Komatsu HD 405-8, excavator with grab CAT MH 3022	Dietfurt, Kaldorf	Implemented in 2021 with continuous improvements planned for 2022 and beyond.
5.2		A new 80 saw gangsaw which uses less operational supplies. The oil for the saw is also reused as it is in a closed cycle.	VMK	Measure implemented 2021
5.3		The asphalt mixing plants received new insulation in three bitumen tanks which saves energy costs. The heating system will be changed from thermal oil to electricity.	Dietfurt	Measure will be implemented in Winter 2022/23
6	Reduction of water usage	Prevention of running water when the saws aren't actually cutting.	VMK	Measure was implemented 2021 and expanded upon in 2022.
7.1	Resource savings	Since 2020 all electricity comes from renewable resources	FS and VMK	Measure was implemented in 2020 and completed in 2022
7.2		New, more energy efficient motors (IE4) were purchased for the new honing line.	VMK	Measure implemented in 2021
7.3		A new more energy efficient compressor purchased.	Wegscheid	Measure implemented in 2021
7.4		A new more energy efficient compressor purchased for the repair shop	Dietfurt	Measure implemented in 2022.
7.5		Renovation of the middle splitter for the splitting machine for garden and landscape stones.	Dietfurt	Measure to be implemented 2022/23
8.1	Electricity savings	The new 80 saw gangsaw needs less electricity per m² of stone cut.	VMK	Measure implemented 2021
8.2		Solar panels on the roof of facilities	Dietfurt and Petersbuch	Measure to be implemented the end of 2022.
8.3		Continuous leakage checks are made on the compressed air systems	FS and VMK	Implemented in 2021 - ongoing.



Nr.	Goals	Measures	Location	Target date
Economical and efficient use of resources				
9.1	Reduction of heat consumption	Utilization of alternative heating- and electricity concepts(BHKW, Geothermal, Hydrogen, etc.)	Dietfurt, Petersbuch	Measure to be implemented 2022/23
9.2		12 windows in the repair shop were renewed.	Dietfurt	Measure implemented 2022.
9.3		The installation of new triple glazed windows in the office saves on heating oil during the Winter. Noise in the office is also reduced.	Wegscheid	Measure implemented in 2021
10.1	10 % reduction of specific fuel consumption	An integrated automatic tire pressure control will be implemented in multiple heavy machines. This leads to air pressure loss being identified and corrected quickly which saves fuel and tire wear.	Kaldorf	Measure to be implemented 2022.
10.2		The positive results of the past years from the usage of hybrid wheel loader has led to investment of another one (30% diesel fuel savings)	Dietfurt	Measure implemented 2021
10.3		Purchase of a hybrid vehicle for the executive team.	Dietfurt	Measure implemented 2021
10.4		Roads paved (see goals 1.1, 1.2, 1.3, 1.5, 1.6).	Erkertshofen, Kaldorf and Dietfurt	Implemented in 2021 with continuous improvements planned for 2022 and beyond.
10.5		Heavy machinery left at site during breaks and after work.	Dietfurt	Measure implemented 2022
10.6		Installation of a pre-screening washer for the aggregate plant. The washer needs less electricity and less pre-screened material must be driven away and deposited.	Dietfurt	Measure implemented 2022
11	Reduction of emissions and noise	New machines that meet the emissions standard (tier IV) were purchased. These machines create less emissions and run quieter.	FS & VMK	Implemented in 2021 with continuous improvements planned for 2022 and beyond.
12	Reduction of oil consumption	Heat pumps replace oil heaters for the offices and repair shop.	Dietfurt	Measure to be implemented 2022/23.
13	Reduction of business trips and commutes	1. Increased use of teleconferences; 2. Home-office for employees; 3. Reduction of business trips.	FS und VMK	Implemented in 2021, to be continued for 2022 and beyond.

Nr.	Goals	Measures	Location	Target date
Environmentally friendly processes				
14	Resource savings	A new coffee machine was installed in the break rooms in the quarry. Approx. 70,000 plastic cups were saved as we switched to paper cups.	Dietfurt	Measure implemented 2021
15	Secondary, living spaces created for birds and other wildlife with LBV (State association for bird protection)	Creation of ponds together with the LBV and local authorities.	Dietfurt	Implemented in 2021, to be continued for 2022 and beyond.
16.1	Increased biodiversity	Recultivation of quarried areas.	All locations	Implemented in 2021, to be continued for 2022 and beyond.
16.2		Entered in the Bavarian environmental pact	FS	Entered in 2021, to be continued for 2022 and beyond.
16.3		The area around the stone park will be transformed into a flower meadow.	Dietfurt	Planned for 2022



4.2 EVALUATION OF THE IMPLEMENTED MEASURES

4.2.1 PURCHASE OF ANOTHER
LARGE HYBRID WHEEL LOADER

A new 55 T wheelloader was purchased for natural stone quarrying. This CAT wheelloader is equipped with new hybrid technology, thus the diesel consumption was reduced from almost 40l/h to under 30l/h. With an operation of approximately 1,500 hours annually 15,000L of diesel are saved which results in approx. 40 tons less CO2 emissions. Additionally the wheelloader has new exhaust technology which further reduces emissions when compared to the previous model.

4.2.2 NEW SPLITTING MACHINE
IN KALDORF

A new splitting machine for embankment stones and retaining walls was built in the Kaldorf quarry in 2022. 11,585,5 tons of raw blocks were transported from Kaldorf to Dietfurt in 2021 where another splitter is in operation. The blocks from Kaldorf were brought to Dietfurt on return freight from trucks that brought raw material from Dietfurt to Petersbuch. Thus we examined the savings of loading and unloading of the blocks with a wheelloader. Loading and unloading of a truck carrying 25 tons of material takes approximately 20 minutes. For 463 loads a wheelloader is in operation for approximately 154 hours, consuming 24L/hour. According to our calculations this investment will save over 3,700L of diesel per year and save 9.7 tons of CO2 emissions annually.

4.2.3 INCREASED USE OF CONFERENCE
CALLS AND HOME OFFICE

Due to COVID protocols most meetings between the individual locations were held remotely online. The sales team also avoided personal visits by customers and a number of employees worked from home. This led to a reduction in transportation and in turn CO2 emissions. Comparing 2019 with the COVID affected years of 2020 and 2021 we see there was a decrease in km driven of 47,608km and 21,044km respectively. Taking into account an average consumption of 6.5L/100km, the consumption of fuel was reduced by 3,095L and 1,367L respectively.

4.2.4 NEW SPLITTING MACHINE
IN PETERSBUCH

A new splitting line was installed in Petersbuch to add splitting capacity and to minimize transportation of raw material. Prior to this the splitting line in Wegscheid produced a good portion of splitface wall stone. This factory is supplied with raw material from the Dietfurt quarry which is 23km away. 4,739 tons of splitface wall stone products were produced in Wegscheid in 2019. In order to produce this amount there was approximately 6,160 tons of raw material transported from Dietfurt to Wegscheid. Transporting this material resulted in 25 ton load trucks driving approximately 14,000km in total.

The new splitting line in Petersbuch receives is supplied with raw material via the Kaldorf quarry which is only 2.2km away. The goal of the new line is to produce 10,000 tons of split products annually which requires approximately 13,000 tons of raw material. The blocks can be transported via 40 ton load dumpers via an industrial road. This results in 1,430km of transportation of raw blocks.

On average a dumper consumes approximately 22L/hour of diesel. A 40 ton truck consumes approximately 33L/100km. This results in diesel consumption of approximately 4,290L when transporting raw material from Dietfurt to Wegscheid. Diesel consumption to transport material from Kaldorf to Petersbuch is approximately 860L resulting in diesel savings of 3,400L annually.

4.2.5 LOWERING OF A ROAD

The OFR Team for the Schlüter company completed a consumption analysis in June 2020. The goal of the analysis was to calculate fuel consumption for the current and possible new transport road between the northern quarry area and the paved road. By lowering the road approximately 4m an 11% fuel savings was calculated per trip. In the Spring of 2021 the road was lowered approximately 6m over a distance of 140m.

4.2.6 PURCHASE OF MORE EFFICIENT
LARGE MACHINES

Multiple heavy duty vehicles were purchased. Grant applications were filed for all of them as these are more efficient than older models. The company Wolf & Müller calculated the CO2 savings that are listed below.

- 2 Dumpers Komatsu HD 605-8 each savings 14 t/a CO2
- 1 Dumper Komatsu HD 405-8 saving 20 t/a CO2
- 1 Line drilling rig Hitachi ZX 300 with set up from Wimmer saving 28 t/a CO2
- 1 Wheel excavator CAT MH3022 saving 9 t/a CO2
- 1 Wheel loader Komatsu WA 600-8 saving 19 t/a CO2
- 1 Road sweeper Mercedes Benz with carrier device from Brock saving 10 t/a CO2

4.2.7 PURCHASE OF A NEW
COMPRESSOR

A new compressor was purchased for the Wegscheid factory in 2021. A frequency converter with load-dependent steering was installed reducing the load factor from 60% to 40%. This measure saves approx. 15,000kWh of energy and 6.41 tons of CO2. In addition the warmth generated from the compressor is used to heat the production hall.



4.2.8 PURCHASE OF NEW WINDOWS

New windows were installed over a total area of 118.48m² in the administrative office in Wegscheid. The U-value was reduced from 2.6W/m²K to 0.76W/m²K due to this measure. The heat loss was therefore reduced by a factor of almost four. Our expectation is that this will significantly reduce our consumption of heating oil this year and going forward. Another advantage is that the new windows grant a significant noise reduction from the factory and road providing a more comfortable working environment for our employees.

4.2.9 ENERGY MANAGEMENT VIA MONITORING OF ELECTRICITY CONSUMPTION

The slab processing line in Petersbuch was able to reduce energy consumption by 84.1 kWh per shift through energy management and sensibilizing employees to ensure that the machines are turned off during break times and at the end of shifts. This is an annual reduction of 37,000 kWh per year by two shift operations.

4.2.10 PROCESS OPTIMIZATION OF THE RESIN LINE

By optimizing our processes the electricity consumed by the resin line was reduced significantly from 2019 to 2021. In 2019 the resin line needed 181,449kWh, in 2021 this number was reduced to 56,681 kWh. This number was achieved by moving from a continual process where the line was only working at partial capacity to a discontinual process where when in operation, the line operates at full capacity.

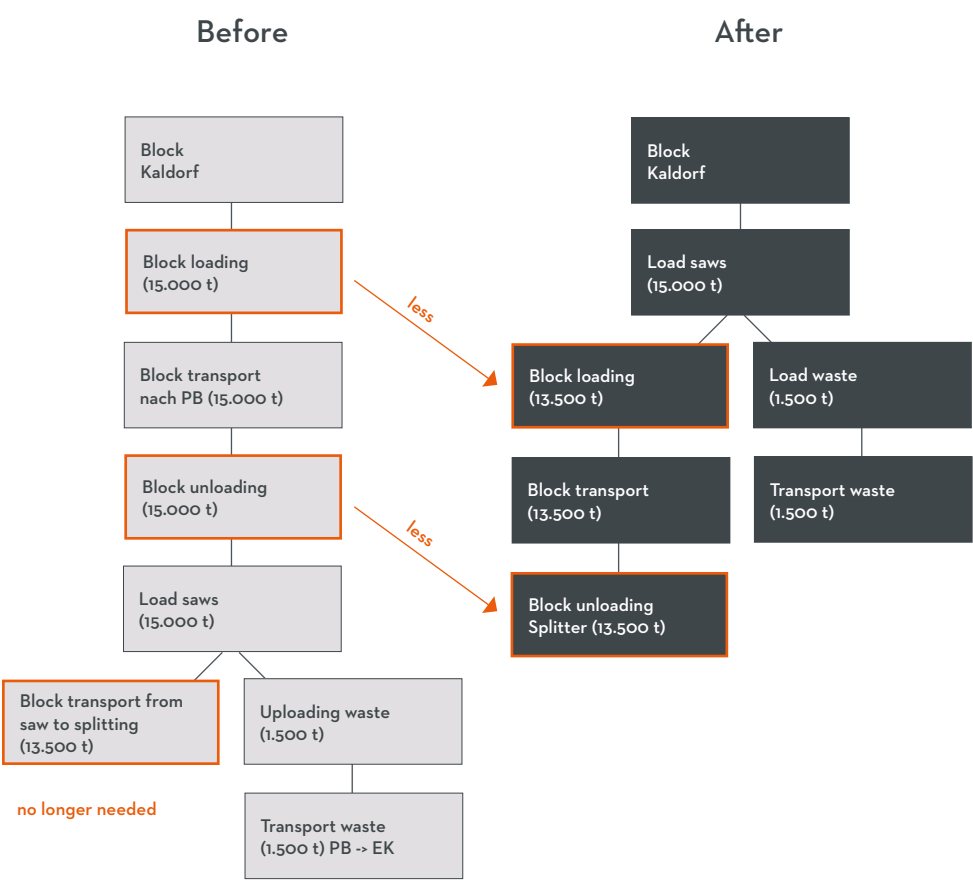
4.2.11 PROCESSING OF PACKAGING MATERIALS

The warehouse clerks inspect the reserve crates for damage on a weekly basis. Broken or missing wooden planks are typical damages that are encountered, these can usually be repaired with minimal effort. This process allowed FS to save approx. 200 crates annually. This not only reduces costs as less new crates need to be purchased but also helps win more independence from delivery times and costs affiliated with new crate orders and creates more value of the packaging material. The biggest benefactor however is the environment as less waste is produced.

4.2.12 STATIONARY CHAIN SAW KALDORF

A stationary chainsaw was purchased in order to format raw blocks for the splitting machine in 2021. The goal is to produce 30,000 t of splitface products. 50% of that material is to be prepared by the stationary saw in Kaldorf (15,000 t).

Approximately 10% of the block is cut off during formatting. Previously all this material was cut on the circle saws in Petersbuch. Going forward, with this change, there will be 1,500 t less material loaded up on trucks and driven into the factory and it also saves the process of transporting 13,500 t of material from the circle saws to the splitting machines.



4.3 RECULTIVATION AND BIODIVERSITY

4.3.1 CONTRACT WITH THE FEDERAL STATE AUTHORITIES FOR BIRD PROTECTION (LBV)

The goal of the contract with the LBV is to foster the area for development of selected amphibian populations in the fauna-flora-habitat in raw material mining areas of clay, sand, gravel and stone during ongoing operations. The process includes the development of suitable measures that generate temporal and spatially distributed habitats. The result is a win-win for environmental protection and the firm.

Over time various habitats will be fostered in the Dietfurt location that will wander together with quarrying activities. The plan is that three to four larger ponds will be created and lined with clay, creating habitats for the midwife toad, yellow-bellied toad, crested newt, common spadefoot, natterjack toad, green toad and tree frog. Deadwood, rootstocks, tree pruning, large rocks, sand and rubble piles are commonplace here and make for ideal conditions that foster biodiversity.





4.3.2 CATTAILS IN THE LANDFILL DIETFURT

The landfill in Dietfurt is an excellent example of how biodiversity can thrive. A large area was recultivated, in the bordering areas between the recultivation and the landfill a deeper trench became apparent. This trench filled up with rainwater and created a habitat where water creatures such as the water strider quickly inhabited the space. Reed cobs and cattails also quickly began growing there.

4.3.3 COMPLETION OF RECULTIVATION OF THE LANDFILL ERKERTSHOFEN TO HIGHER QUALITY AREAS

The sealing of the surface of the building rubble dump in Erkertshofen was completed. In coordination with the environmental protection agency, A special mixture of stone aggregate, which gives the white stonecrop (Sedum album) an ideal environment, was used as cover. This plant offers an ideal habitat for the apollo butterfly which found a home there shortly thereafter.



ENVIRONMENTAL PRODUCT DECLARATION 2022

5.1 CONTACT PERSON

Dipl.-Vw. Thomas Herrscher
Managing Director
Tel.: +49-9142-802-0
E-Mail: t.herrscher@franken-schotter.de

5.2 ADDRESS

Franken-Schotter GmbH & Co. KG
Hungerbachtal 1
91757 Treuchtlingen-Dietfurt
www.franken-schotter.com

5.3 LIST OF ABBREVIATIONS

CO ₂	Carbon dioxide
EMAS	Eco-Management and Audit Scheme
FFH	Fauna-Flora-Habitat
FS	Franken-Schotter
ISO	International Organization for Norms
km	Kilometer
kWh	Kilowatt hour
L	Liter
m ³	Cubic meter
MA	Employees
OB	Upper Bavaria
T	Tons
t CO ₂ e	Carbon dioxide equivalen
VMK	Vereinigte Marmorwerke Kaldorf

Our environmental declaration can be found at
<https://www.franken-schotter.com/en/company/environmental-protection/>
and is also available for download



Franken-Schotter GmbH & Co. KG
Hungerbachtal 1
91757 Treuchtlingen-Dietfurt
Germany

Phone +49 9142 / 802-0

Fax +49 9142 / 802-267

info@franken-schotter.de

www.franken-schotter.com

