SiMMa
E L E C T R O N I C

Complex can be so simple.

**CONTROL TECHNOLOGY FOR
THE CONSTRUCTION INDUSTRY**

Our "CMS" is your fully integrated one-stop solution. Benefit from optimised processes, reduced costs and increased efficiency. **The Simma Electronic Concrete Management System.**
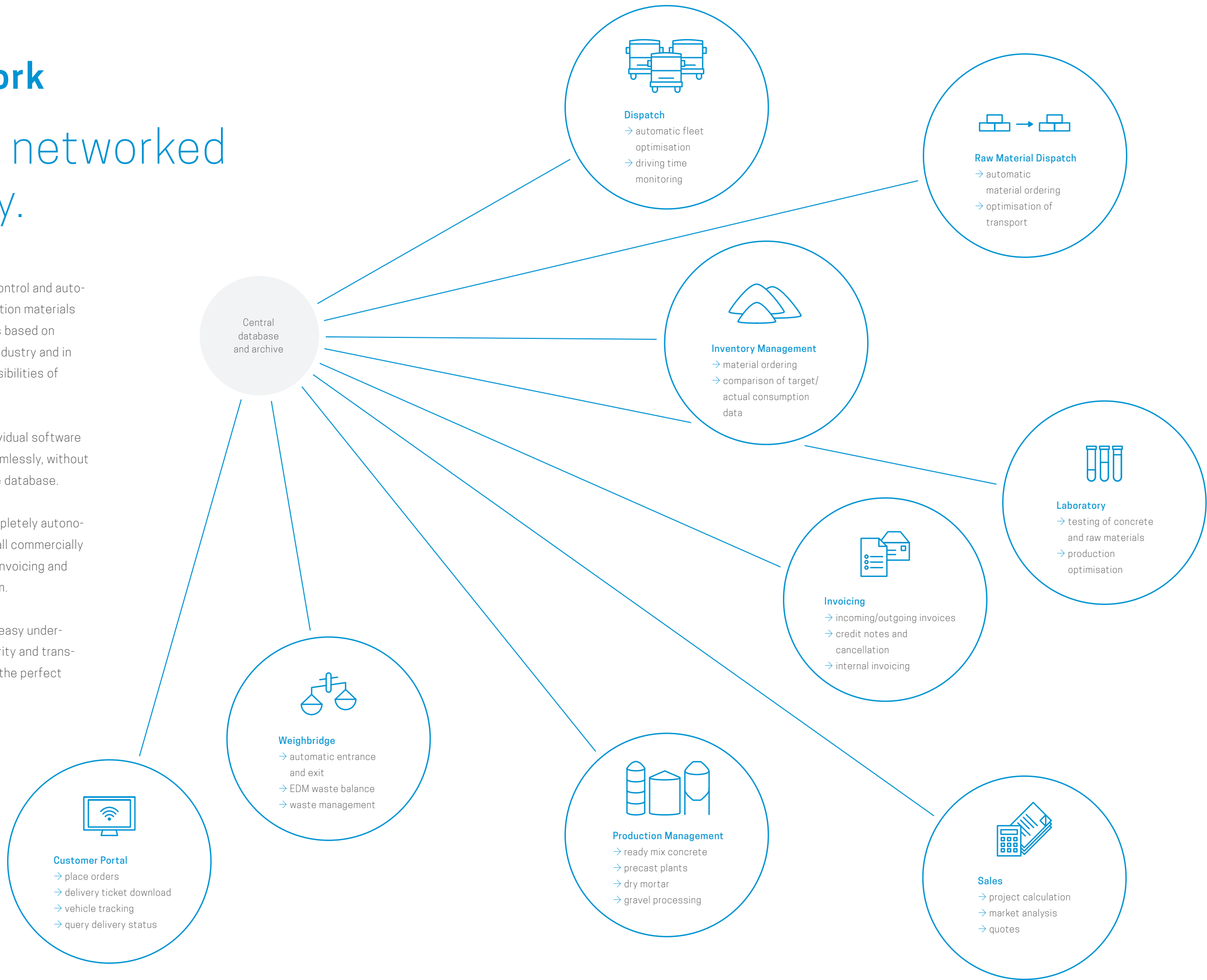
CMS Network

Perfectly networked autonomy.

Simma Electronic specialises in control and automation solutions for the construction materials industry. We develop our products based on many years of experience in the industry and in tune with the ever increasing possibilities of new technologies.

The CMS network consists of individual software modules which work together seamlessly, without any interfaces, and use one single database.

Each individual module works completely autonomously and can be connected to all commercially available dispatching, laboratory, invoicing and control systems without a problem.

Our solutions convince with their easy understandability, simple operation, clarity and transparency. Simma Electronic offers the perfect solution for your requirements.

Central database and archive

Dispatch
→ automatic fleet optimisation
→ driving time monitoring

Raw Material Dispatch
→ automatic material ordering
→ optimisation of transport

Inventory Management
→ material ordering
→ comparison of target/ actual consumption data

Laboratory
→ testing of concrete and raw materials
→ production optimisation

Invoicing
→ incoming/outgoing invoices
→ credit notes and cancellation
→ internal invoicing

Weighbridge
→ automatic entrance and exit
→ EDM waste balance
→ waste management

Production Management
→ ready mix concrete
→ precast plants
→ dry mortar
→ gravel processing

Sales
→ project calculation
→ market analysis
→ quotes

Customer Portal
→ place orders
→ delivery ticket download
→ vehicle tracking
→ query delivery status

CMS Control

Complex tasks need simple solutions.

CMS control systems from Simma Electronic can be flexibly dimensioned and therefore also adapted for a wide range of areas of application throughout the construction materials industry.

The operation of the controls is simple and easy to understand. Maximum investment protection is ensured through the use of the industrial versions of standard PC and PLC components.

The controls are programmed using Microsoft.Net and Siemens Step 7. Thanks to the use of global standards such as Profibus and Profinet, all electronic assemblies can be connected.

The main areas of application for CMS control solutions are:

→ Ready mix concrete plants
→ Precast plants
→ Dry batch plants

→ Gravel processing plants
→ Gravel loading plants
→ Dry mortar plants

→ Simma Electronic has its headquarters in the Bregenzerwald, a region whose traditional values are reflected in the architecture and building culture – even concrete mixing plants are clad with timber.

Investment protection through the use of standardised components.

Our CMS control systems were developed from practical experience. This means that all modules and functions are already in use by our customers and are doing good work there. You can access a wide range of functionalities. Wherever necessary we will implement special customisations for you.

Basic functions
→ multi-client capable (e. g. production for multiple companies)
→ convenient full text search
→ access authorisation for users and user groups
→ master data management (customers, sites, products, mix designs, etc.)
→ simple operation through on-screen visualisations
→ interfaces to all commercial dispatch, laboratory and invoicing programs
→ direct integration with all CMS modules
→ up to four monitors possible
→ choose between industrial PC or desktop PC with dust-proof housing
→ Siemens PLC with Profibus or Profinet, connects control with the power unit

Plant control
→ automatic aggregate and water adjustment
→ calibration program for weigher calibration
→ workability curves for each batch of a vehicle
→ manual entry possible in automatic mode

→ workability control via moisture sensor or power measurement
→ mix design-specific control for filling the mixer
→ Mix design and vehicle-dependent control for discharging the mixer
→ workability dependent control for discharging the mixer
→ automatic silo switching
→ automatic concrete production
→ dosing deviations are corrected in the following batch
→ cash sales
→ customer-specific control components can be integrated (hopper, aggregate filling, cement filling, bucket system, etc.)
→ all commercial moisture probes, level indicators, density measurement and temperature sensors can be integrated
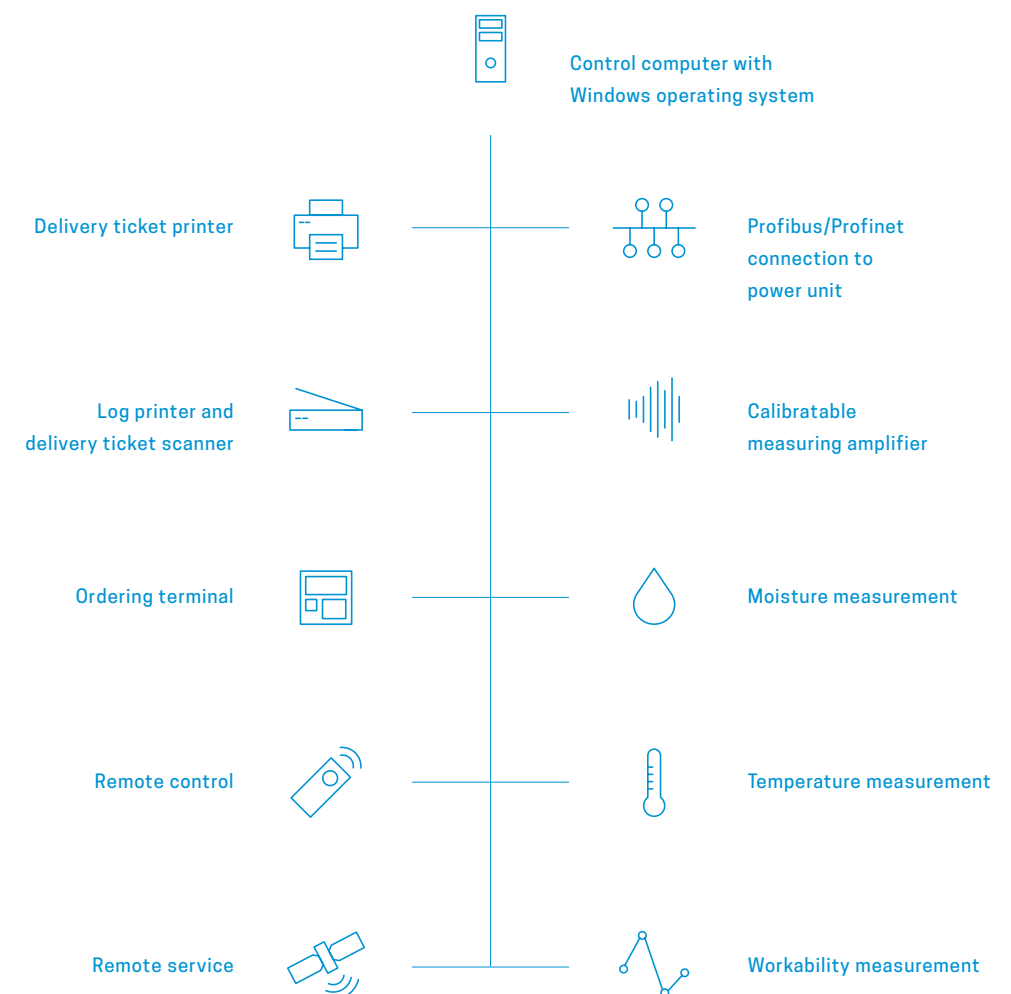
Plant optimisation
→ graphic representation of the dosing process
→ cycle time diagram for performance optimisation

Reports
→ fault analyses
→ notification on missing concrete tests
→ operating hour meter with maintenance notifications

Remote service
→ assistance in the event of plant malfunctions

Control computer with Windows operating system

Delivery ticket printer

Profibus/Profinet connection to power unit

Log printer and delivery ticket scanner

Calibratable measuring amplifier

Ordering terminal

Moisture measurement

Remote control

Temperature measurement

Remote service

Workability measurement

Everything at a glance – be informed if something isn't quite right.

The workability curve can be displayed if the power panel is equipped with a power monitoring device. In addition, workability control is also possible. A batch protocol is saved for each batch produced. Each batch protocol contains all the data arising during the production (manually dosed materials are also recorded). The batch protocols are saved in the database and can therefore be viewed and even printed out at any time.
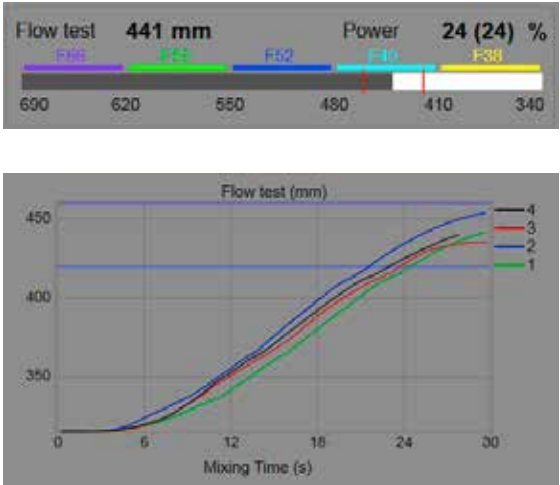
→ Workability curve for each batch for a vehicle is plotted. This allows for early identification of the final workability. The mixer only opens once the workability is within the desired range.
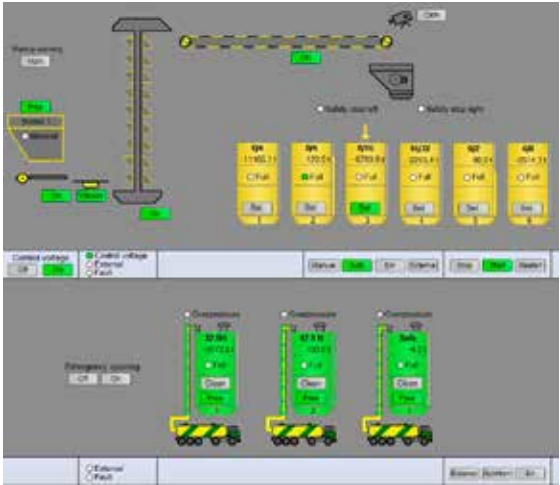
→ The aggregate filling and cement filling can be integrated into the controls and operated via the on-screen visualisation.

→ All data recorded during production can be shown in detail per batch.

→ Tool for optimisation of the plant output and for analysis of the dosing process.

CMS Weighbridge

Optimise delivery and receiving of materials.

With the CMS weighbridge module, we help you to manage your incoming and outgoing materials. The weighed quantity is integrated directly into the CMS inventory management so that your inventories are always up-to-date. These processes can be handled and documented automatically through an access control system.

With the waste management module, you can make the legally required reports for the consignment note and waste balance in Austria.

The required master data, e. g. originator, receiver, landfills and treatment processes can easily be managed. All movements such as acceptance, delivery, transport, etc. can be recorded. Both the mass flow and the pollutant flow can be analysed and displayed as a Sankey diagram.

→ Fully automated CMS weighbridge via identification and height-adjustable entrance and exit terminals.
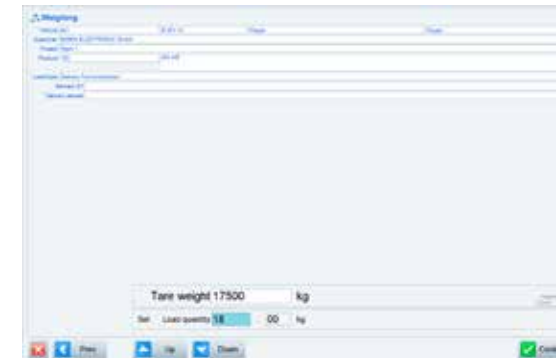
→ The entrance terminal allows for fully automated weighing. The vehicle is identified by means of a contactless key card or optionally through manual entry of the vehicle number in the process.
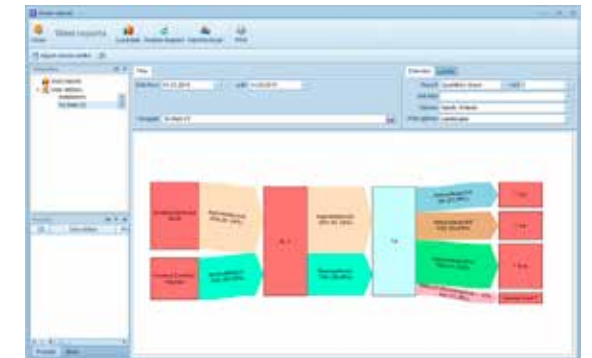
→ Graphic representation through a Sankey diagram to show the flow of materials between different plants and stock locations.

Basic functions
→ multi-client capable (e. g. management of multiple companies)
→ convenient full text search
→ master data management (customers, sites, products, etc.)
→ order handling
→ cash sales
→ material can be both delivered and received
→ entry and exit weighing, optionally with or without tare weighing
→ fully automated entrance and exit via identification and height-adjustable entrance and exit terminals
→ video intercom
→ delivery ticket printing at the exit terminal
→ images from up to four cameras can be saved with the delivery ticket

→ traffic lights and gates can be controlled
→ event logging (e. g. unauthorised entry or exit)
→ operator terminal in the wheel loader
→ inventories are automatically managed
→ interface with existing weighing terminal
→ management of stocks and stock locations

Waste management
→ entry of pollutant tests
→ analysis of pollutant flows as Sankey diagram
→ declaration of the EDM waste balance (Austria)
→ allocation of a consignment note number for delivery tickets with hazardous waste
→ information for hazardous products on the delivery ticket
→ declaration of the EDM consignment notes (Austria)

CMS Order Management

Central management of master data.

The central management of master data – customers, projects, mix designs, etc. – allows you to respond quickly and efficiently to your customers' needs. Orders can be recorded centrally as well as in the plants. The central management of production data saves a lot of time and money. With the know-how and experience from innumerable projects, we can develop an individual solution for you.

Basic functions

→ multi-client capable (e. g. management of multiple companies)
→ convenient full text search
→ access authorisation for users and user groups
→ tracking of changes to data
→ post-processing of delivery tickets
→ generation of cash sale invoices
→ plants can be combined into plant groups
→ interfaces to all commercial production controls and invoicing systems

Order entry

→ order entry centrally or at the plants
→ uninterrupted production even if the data line is interrupted
→ orders are synchronised with all plants of a group

→ orders can be processed by multiple plants together
→ orders can be sorted and filtered by any criteria – an order will be highlighted in different colours depending on its status (new, started, completed, etc.)
→ order-specific adjustments to the mix design (additional cement, retarder, etc.) can be entered during order acceptance
→ all relevant data for an order, such as customer, project, mix design, time on site and discharge speed, as well as other site-specific data (e. g. whether a pump is required, etc.) can be recorded

Integrating a phone system

→ integration of TAPI-capable phone systems (voice recording, allocation of calls for projects and orders)

Reports

→ comprehensive reports (products, customers, projects, drivers, vehicles, delivery zones, freight zones, etc.)
→ per mix design material consumption
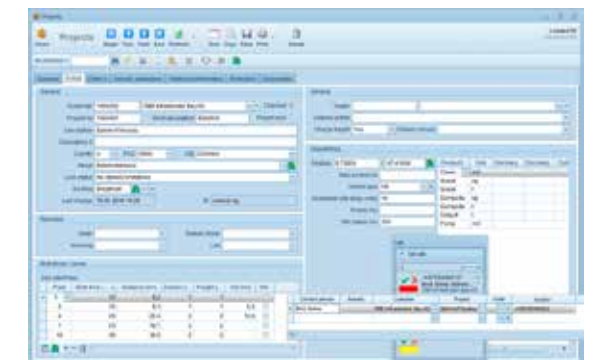→ customers' ordering behaviour (e. g. order changes at short notice)
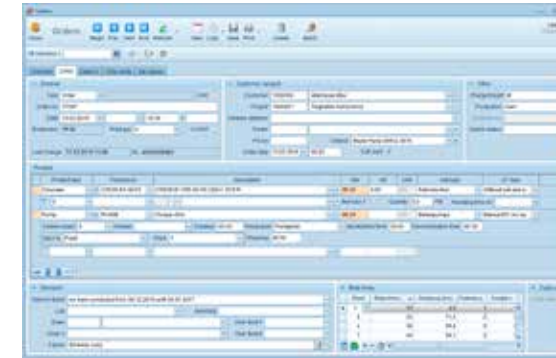
→ All relevant data for an order is already recorded during order placement over the phone.
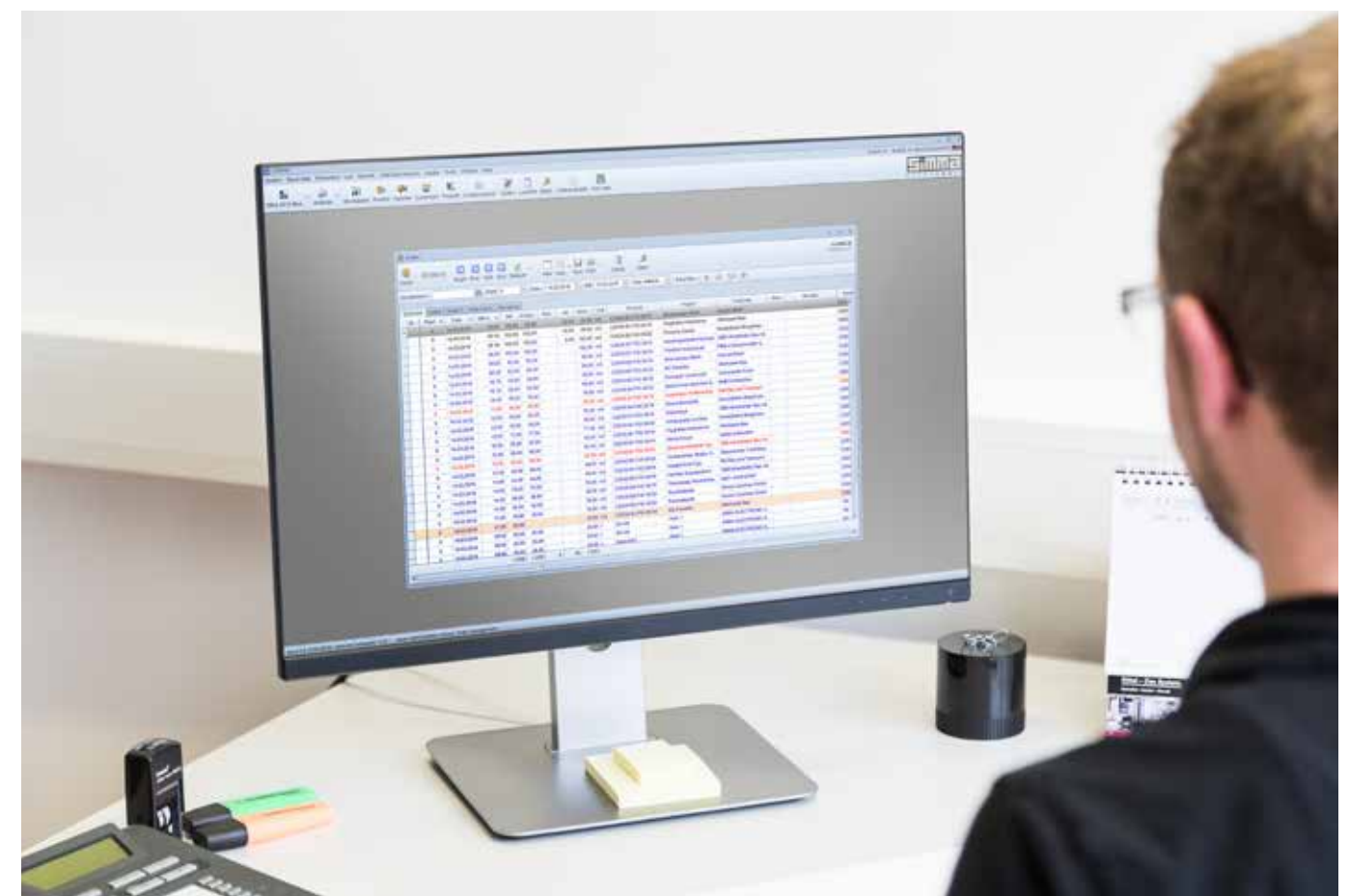

→ Material adjustments can be added during order acceptance.

→ Material preview for all orders to be produced.

→ Allocation of calls to projects and orders, recording of incoming calls.
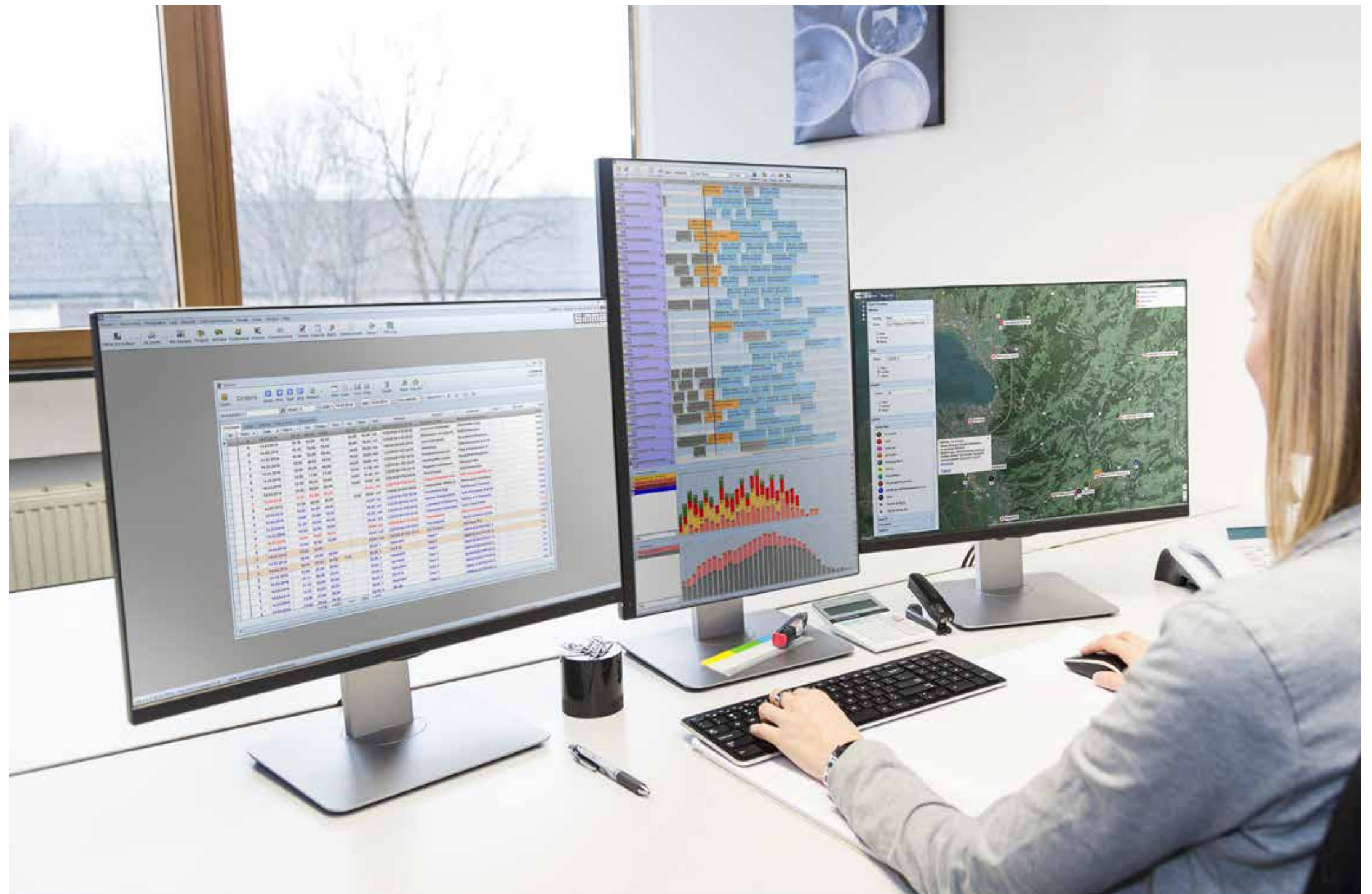
CMS Dispatch

Being in the right place at the right time.

The optimisation of vehicle usage reduces your transport costs, on-time delivery to the construction site minimises the administrative costs, greater utilisation of the fleet increases your profits – the Simma Electronic software offers all this, and much more. Experience has shown that the computer-assisted optimisation of vehicle fleets can significantly reduce transport costs.

A telematic unit with GPS is installed in every vehicle. Communication between the vehicles and the control centre occurs via GPRS. The GPS position is transmitted to the control centre at regular intervals. The current position of each vehicle, as well as its status (outward journey, waiting, discharging, return journey), is displayed on a map.

In addition to the vehicle positions, the plant positions and construction sites can also be displayed. Orders can be dispatched either automatically or manually.

In vehicles with a telematic unit installed, there is the option of recording vehicle data e. g. mixing water on site, discharging signal, tachometer data (driving time logging) and driver card data.

Effective vehicle deployment with the CMS dispatch module.

Basic functions
→ master data management
→ access authorisation for users and user groups
→ availability of vehicles and drivers
→ definition of allowed vehicle types for each order
→ order-specific discharge speed, break times, priority, acceptable delay
→ material preview for planned orders
→ dispatch plans for previous days are saved, meaning that follow-up is possible at any time
→ integration of TAPI-capable phone systems

Interfaces
→ data connection to all commercial control and invoicing systems

Transport and production planning
→ plants can be combined into plant groups
→ allocation of plants to dispatch plans as desired allows for both overall planning and plant-specific planning
→ a site can be supplied from multiple plants
→ for pump orders, the necessary pump is automatically taken into account
→ the number of vehicles and pumps required can be determined at any point in time
→ graphic representation of the utilisation of individual plants
→ orders for which there are no vehicles available at the desired time are filed in their own to-do pool

→ orders and individual loads can easily be moved or changed using the mouse
→ delays in delivery to the construction site are clearly displayed
→ service times for vehicles can be entered in the dispatch plan

Automatic optimisation
→ route calculation occurs in real-time
→ consideration of customer priority, usage fees, kilometre costs (full/empty)
→ the raw material costs are taken into account for determination of the production plant
→ how "delivery with rest" should be handled can be predefined for each order
→ comprehensive order-specific guidelines which are taken into account in the optimisation process (use specific vehicles, max. number of vehicles, etc.)
→ consideration of a vehicle's main plant for optimisation
→ specific orders can be manually planned and automatic mode does the rest

Telematics in the vehicles
→ recording of all times required for invoicing
→ recording of the concrete mix water on the construction site (incl. mixing time) and the remaining water in the drum
→ recording of the concrete workability, air temperature, concrete temperature at the beginning of discharging
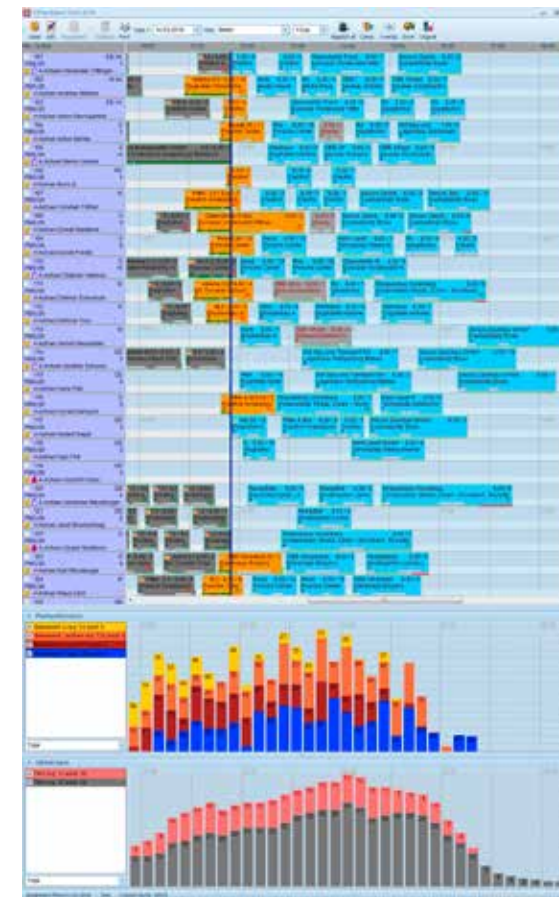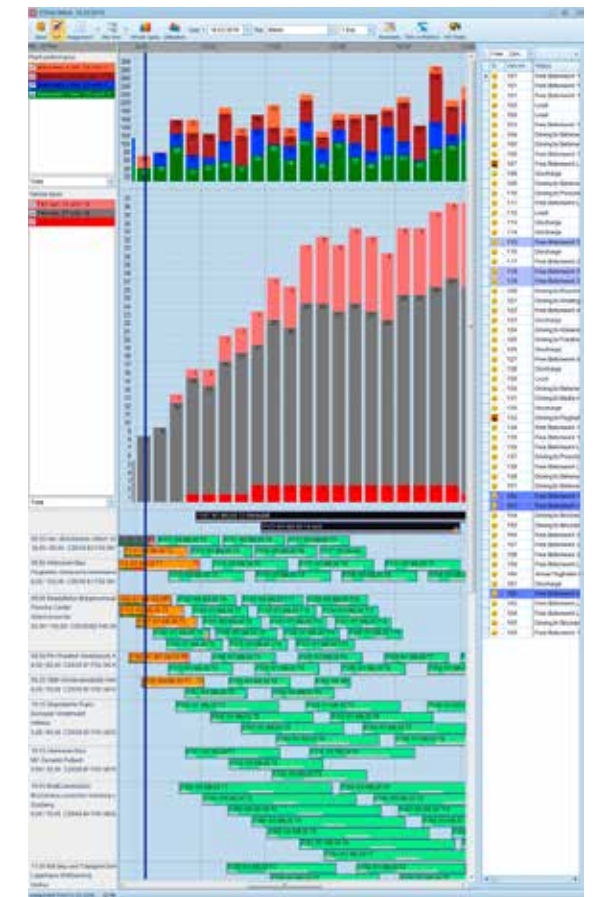

Vehicle-specific planning

Site-specific planning

→ recorded data can be checked in the vehicle and amended where applicable
→ delivery ticket printing in the vehicle with signature (including pump delivery tickets)
→ recording of driving and break times

Driving time monitoring
→ if the digital tachograph in the vehicle is connected to the dispatch system, driving and working time overruns which would occur as a result of the planning are highlighted in colour in the dispatch plan

Vehicle tracking
→ a map (e. g. Google Maps) shows the current position of the vehicle incl. its current status (loading, driving to site, waiting on site, discharging, etc.)

→ active sites and plant locations can be displayed
→ tracking of the routes driven

Reports
→ the transport statistics can be used to perform a wide range of analyses (quantities, waiting times, fleet utilisation, etc.)
→ vehicles can be compared
→ customers' ordering behaviour (e. g. order changes at short notice)

→Vehicle Tracking
See who is where.

The dispatcher can see the position of all vehicles, plants and sites on the map. Additional information such as construction site address or vehicle status can be directly displayed. The current vehicle position for tracking of the route actually driven is determined via GPS and sent

to the control centre via GPRS at regular intervals. All strategically important information such as "arrival on site", "start of unloading", "departure from site" is automatically generated. Routes driven can be retroactively tracked.

Logging on the road: Additional water, mixing time, concrete temperature.

The data recorded for the transport route is plotted. Data recording starts when loading begins and ends when the vehicle leaves the construction site. Depending on the sensors installed, a variety of data can be recorded in the truck:

→ Water addition on construction site
→ Concrete mixing time and discharge time
→ Air temperature and concrete temperature
→ Concrete workability

If the remaining water in the mixer truck is not emptied out, it is automatically taken into account for the next production. If a return quantity remains after discharge, the driver has the option of reporting the return quantity. This is likewise taken into account for the next production.
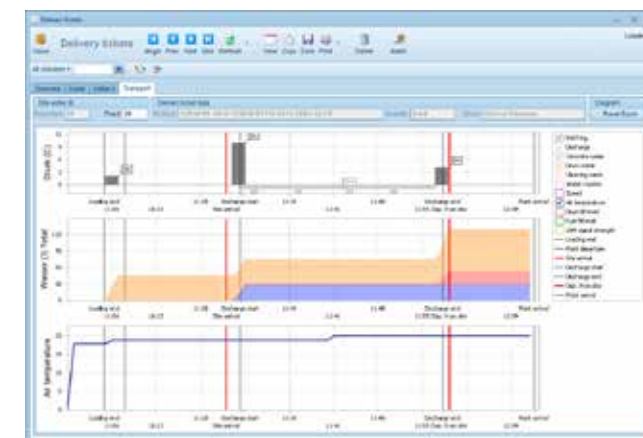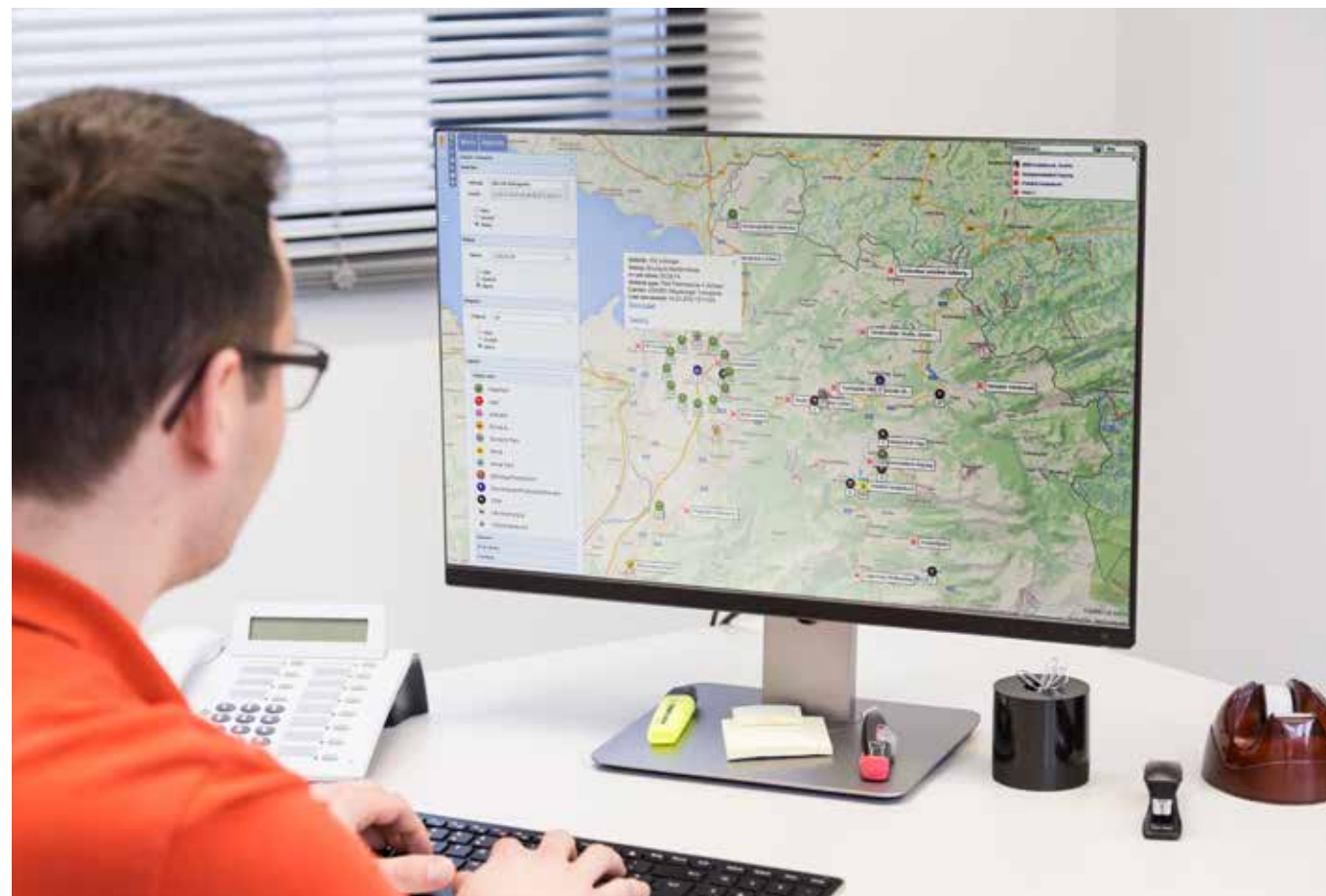
→ Transport route display for a delivery ticket.

Process optimisation through a telematic unit in the vehicle.

Our telematic units in the vehicles help you to reduce transport costs, to optimise your fleet usage and to increase customer satisfaction. In addition, they can simplify communication between the dispatcher and the driver.

Vehicles can be navigated and located. All important events like waiting times, begin and end of discharging, are recorded. It is also possible to exchange messages and photos between the dispatcher and the driver.

→ communication of the GPS position to the control centre via GPRS
→ status reports (departure from the plant, arrival on site, start of unloading, end of unloading, departure from the site, arrival at the plant) are triggered automatically. If there is no connection available at the current time, the appropriate status is saved with the correct time and transmitted later.
→ all activities to be carried out (loading time at the plant and unloading time on site) are listed chronologically

→ messages can be exchanged between dispatch and the vehicle
→ delivery ticket data can be communicated to the vehicle
→ delivery tickets can be digitally signed (with logging of special services and comments) – the delivery ticket is thus immediately ready for invoicing
→ delivery tickets can be printed in the vehicle
→ photos can be sent to dispatch
→ navigation to the construction site
→ drum rotation direction sensor for detection of the start time for discharging
→ remote download of driver card data
→ water logging (for mixing water on the construction site)
→ recording of the air temperature
→ FMS interface (fuel level, fuel consumption, etc.)
→ driving and break time monitoring
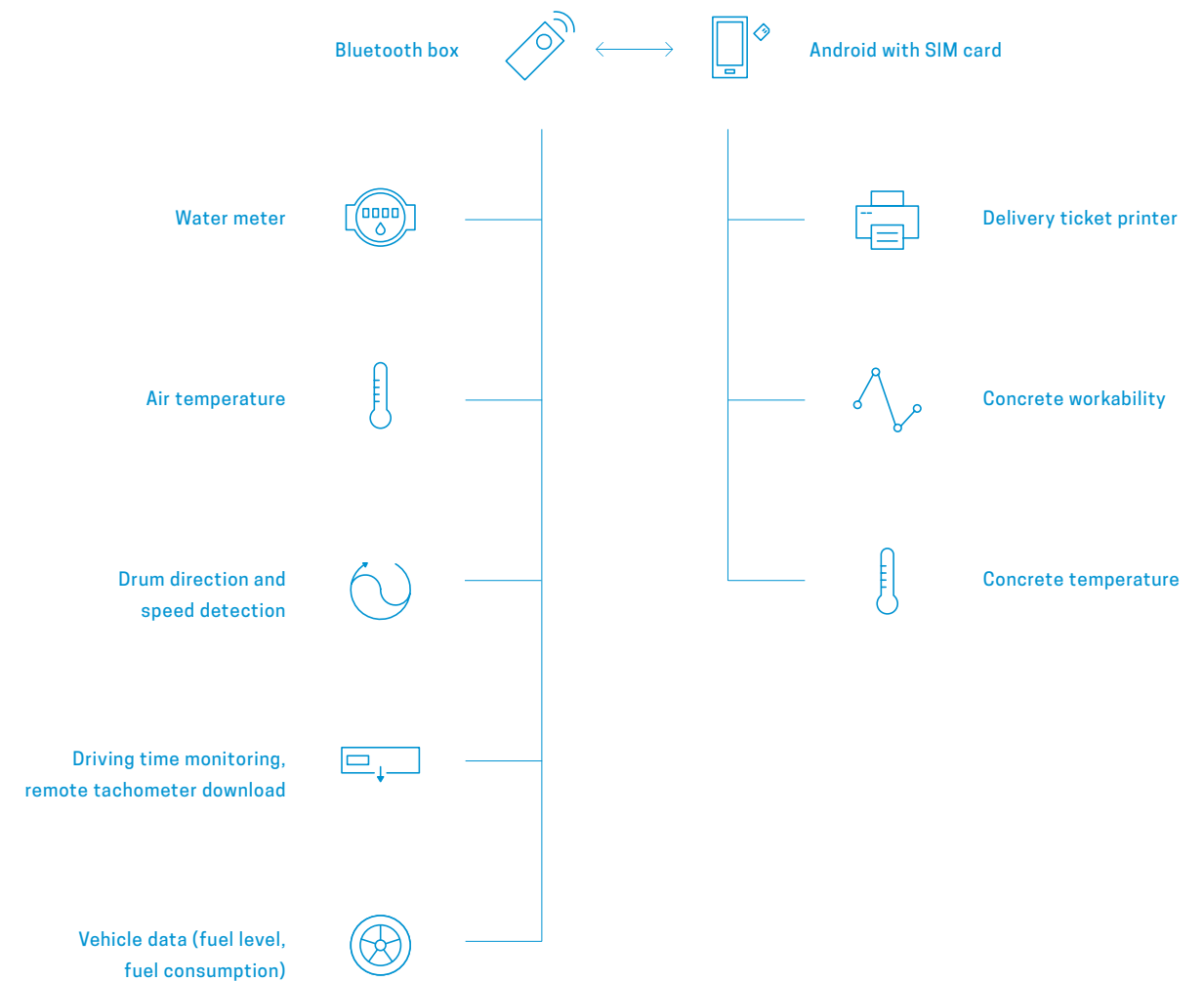→ driver status reports (automatic login with driver card)

Bluetooth box
→ The box is used to record the vehicle data and transmit it to the telematic unit.

Telematic unit with navigation system
→ Use of any mobile phone with Android operating system.

Bluetooth box ⟷ Android with SIM card

Water meter — Delivery ticket printer
Air temperature — Concrete workability
Drum direction and speed detection — Concrete temperature
Driving time monitoring, remote tachometer download
Vehicle data (fuel level, fuel consumption)

CMS Raw Material Dispatch

Automated raw material ordering and transportation.

With our raw material dispatching, you always have your raw material requirements and transport under control. Based on the current inventories and the orders recorded, the system calculates the quantity which needs to be delivered within a period of time. Raw materials for which the stock has already dropped below a certain quantity are handled by the system with higher priority. If an order is generated, this is automatically visible at the raw material plant if the plant is connected to the system. The outgoing delivery ticket is automatically shown in the concrete plant as a receipt after successful shipment of the order. Selecting

the correct storage location will automatically adjust the fill level. Raw material orders can be placed both automatically and manually.

If the CMS dispatch module is available, the necessary vehicles for transportation between the plants can be determined automatically. The punctual delivery of raw materials is thus guaranteed.

→ Raw material orders can occur tailored to your requirements – entirely automatically or manually.
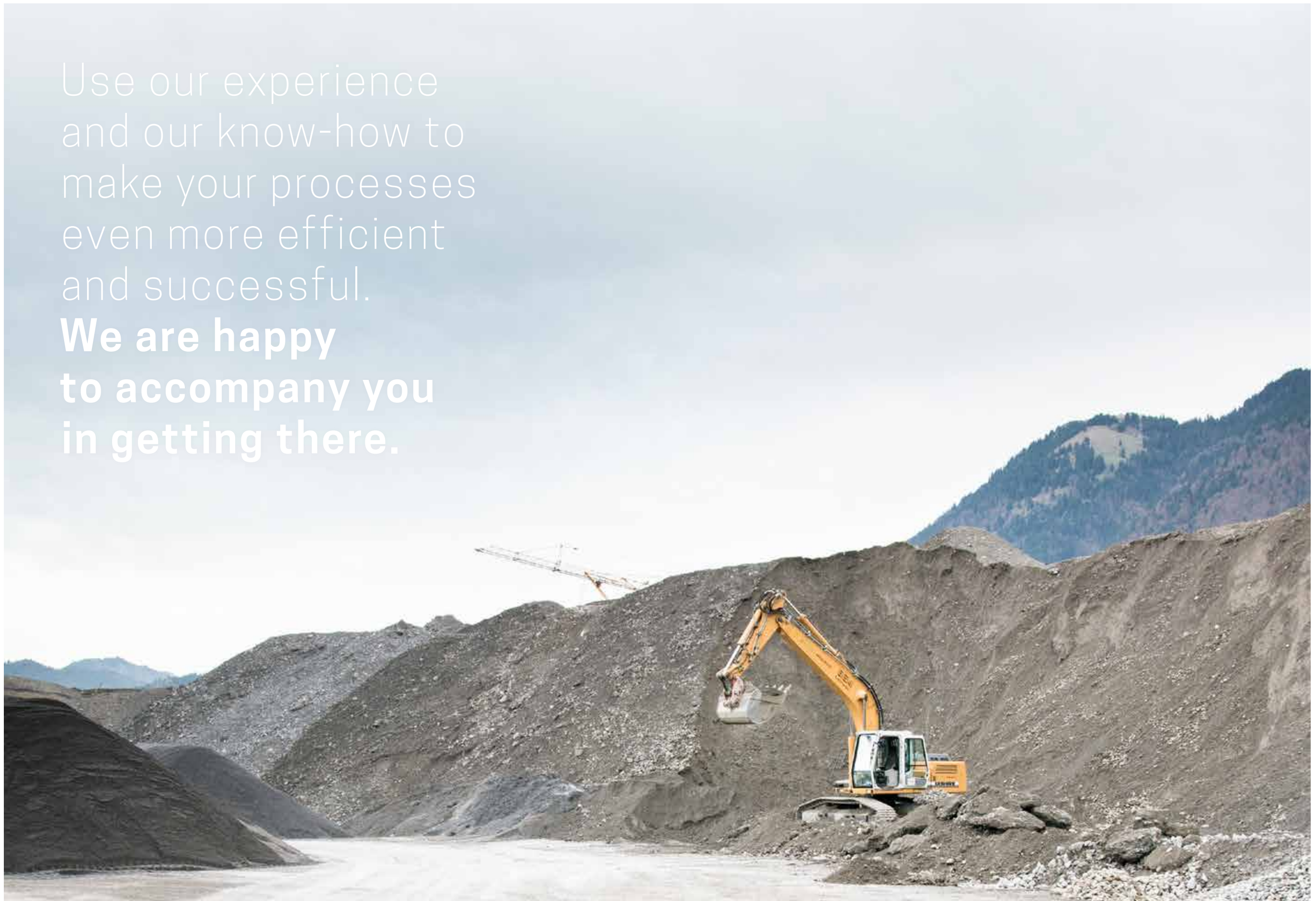

→ With the Simma CMS dispatch module, punctual delivery of raw materials is guaranteed.
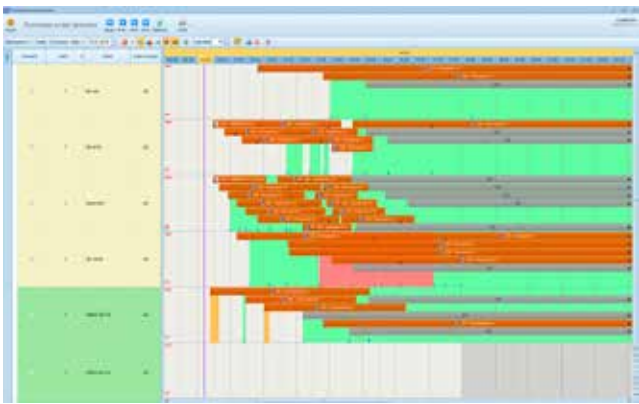
→ Representation of the raw material requirements for a plant.

Use our experience
and our know-how to
make your processes
even more efficient
and successful.
**We are happy
to accompany you
in getting there.**

CMS Sales

From enquiry through to order.

The CMS sales module records master data (customers, projects, products, etc.) which our other software packages (dispatch, control, laboratory, invoicing) can then access. Data is recorded only once – starting from the enquiry right through to invoicing.

You can generate your own quotation templates. When generating a quote, you decide which template you want to use to generate the quote. You can do calculations based on purchase price lists (material and transport) and general costs. Price agreements can be defined in a variety of different ways (fixed price for a project – rebate-related, based on price lists, etc.). Conditions can be used for one or several projects of a customer. Minimum quantities, permitted unloading times, etc. can be defined on a project-specific basis.

Basic functions
→ multi-client capable (e. g. management of multiple companies)
→ convenient full text search
→ access authorisation for users and user groups
→ tracking of changes to data
→ central master data management (customers, projects, products, price lists, etc.)
→ projects received can be released for production or locked via the project status

→ record enquiries for projects (multiple enquiries are possible for a project)
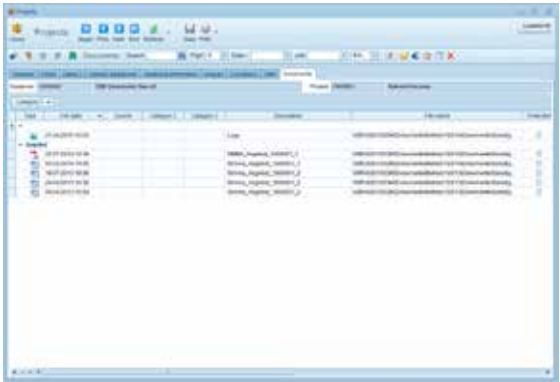→ document management

Quote generation
→ generate quotes based on templates which you can define yourself
→ quotes can be sent by post, email and fax

Price agreements
→ generation of purchase and sales price lists
→ project-specific price agreements
→ customer-specific price agreements
→ group-specific price agreements
→ framework agreements
→ generate project calculations

Reports
→ market analysis
→ logging of competitors
→ tracking of quotes and projects
→ analyses on the web, independent of platform for all devices (Apple, Android, Microsoft)
→ project final costing (only in conjunction with the CMS invoicing module)
→ region-specific analyses (only in conjunction with the CMS invoicing module)

→ Document management can be used to manage customer and project-related files. No more bothersome searching for documents.
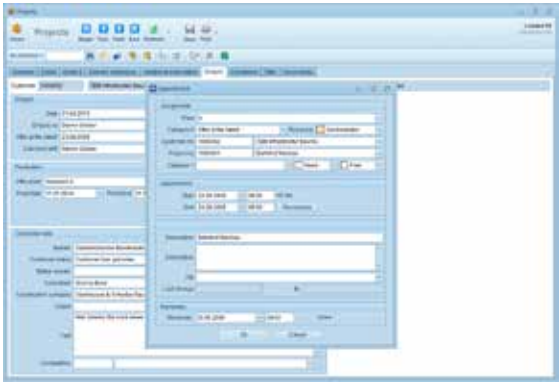
→ Follow-up deadlines for following up on projects can be put on file. These deadlines are monitored by the system and communicated to you.

→ Salespeople can access certain customer and project-specific information via mobile devices at any time.

CMS Invoicing

Daily invoicing made easy.

Alongside the possibilities of standardised invoicing, CMS invoicing for the construction industry offers you all of the additional functions required for invoicing of concrete, gravel, cement, asphalt, etc. With our invoicing system, you maintain an overview of the price agreements.

An image of the signed delivery ticket can be allocated to a delivery ticket (prerequisite: barcode on the delivery ticket). When a delivery ticket is selected, the associated delivery ticket image is displayed. All delivery tickets are saved in a long-term archive. Invoices can be produced more quickly and with lower personnel costs as a result.

Basic functions

→ multi-client capable (e. g. management of multiple companies)
→ convenient full text search
→ access authorisation for users and user groups
→ tracking of changes to data
→ central master data management (customers, projects, products, price lists, etc.)
→ account and cost centre management
→ product groups, rebate groups, revenue groups, statistic groups, scheduled transaction groups
→ delivery zones, freight zones
→ interfaces with all commercial production control systems

→ post-processing of logged delivery tickets
→ automatically check delivery tickets for completeness
→ delivery ticket pricing
→ document management
→ data transfer to commercial financial accounting systems (accounts receivable and accounts payable entries)
→ accept payment receipts from the financial accounting system
→ archiving of delivery tickets and invoices
→ send invoices by post, email (legally binding with digital signature) and fax
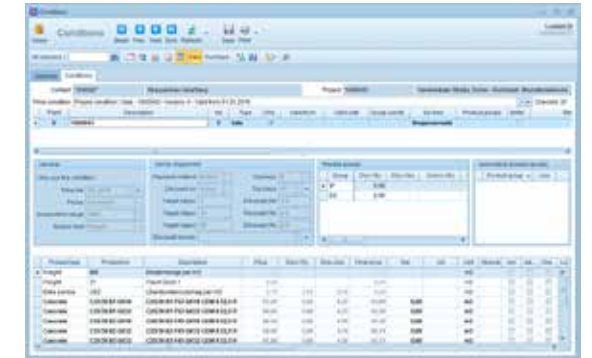
Price agreements

→ generation of sale and purchase price lists
→ project-specific price agreements
→ customer-specific price agreements
→ group-specific price agreements
→ framework agreements
→ generate project calculations

Generation of invoices

→ outgoing invoices and credit notes
→ freight credit notes (surrendering, delivery)
→ trader credit notes with bonus settlement
→ manufacturer credit notes with bonus settlement
→ generate and book internal credit notes
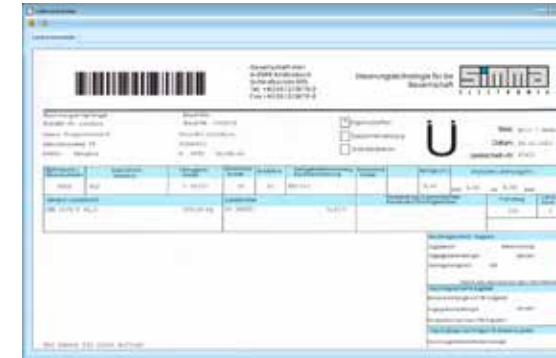
→ Delivery ticket images for delivery ticket post-processing are available at the press of a button.
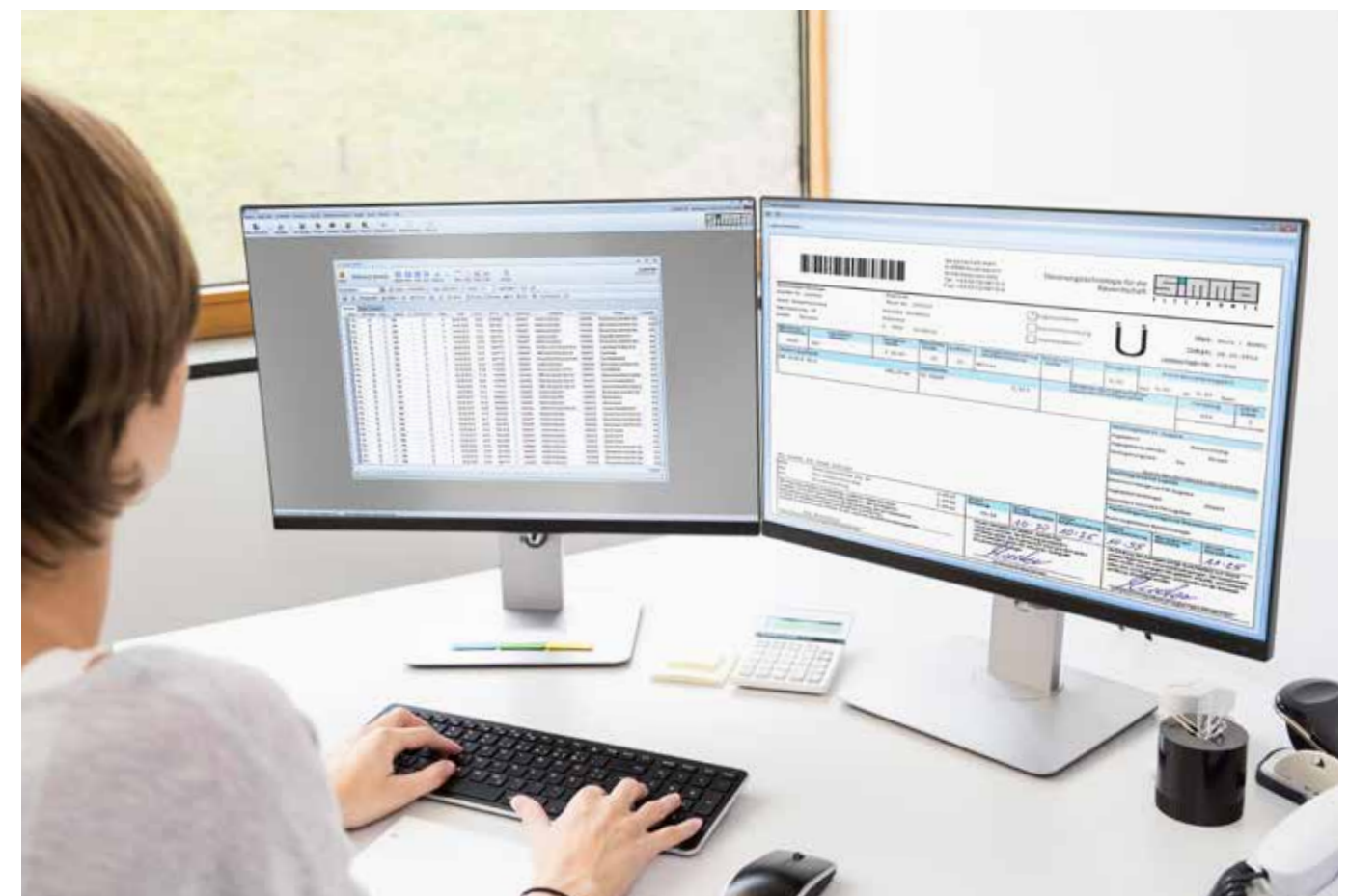

→ Price agreements (customer terms, project terms, group terms, framework agreements).
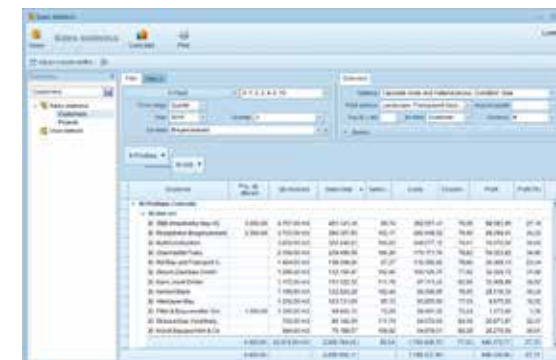
→ Sales statistics and turnover statistics.

→ Easily generate discount invoices and correction invoices from an invoice.

CMS Inventory Management

Manage and monitor inventories.

Our inventory management software allows you to manage the inventories in the individual plants or plant groups automatically and order missing source materials.

Basic functions

→ management of stocks and stock locations
→ multi-client capable (e. g. management of multiple companies)
→ convenient full text search
→ access authorisation for users and user groups
→ tracking of changes to data

→ logging of all outgoing materials for concrete delivery, gravel delivery, weighbridge
→ logging of all incoming materials with target and actual quantities (material delivery, weighbridge)
→ manual corrections
→ transfers
→ inventory entries
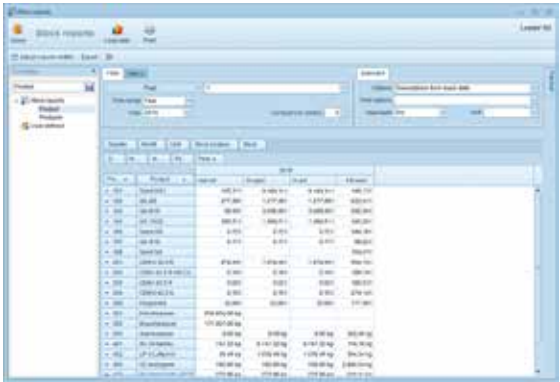→ manual and automatic material orders

Reports

→ inventories can be called up for any date
→ comparison of target material consumption with actual material consumption
→ material preview based on entered orders
→ analysis of the inventory for any period of time

→ Clear overview of all stocks and stock locations with minimum, maximum and current inventories.

→ Comparison of all incoming materials with target and actual quantity to delivered material. A stock difference can thus quickly be detected.

→ Inventories can be managed entirely automatically with the Simma CMS inventory management module.
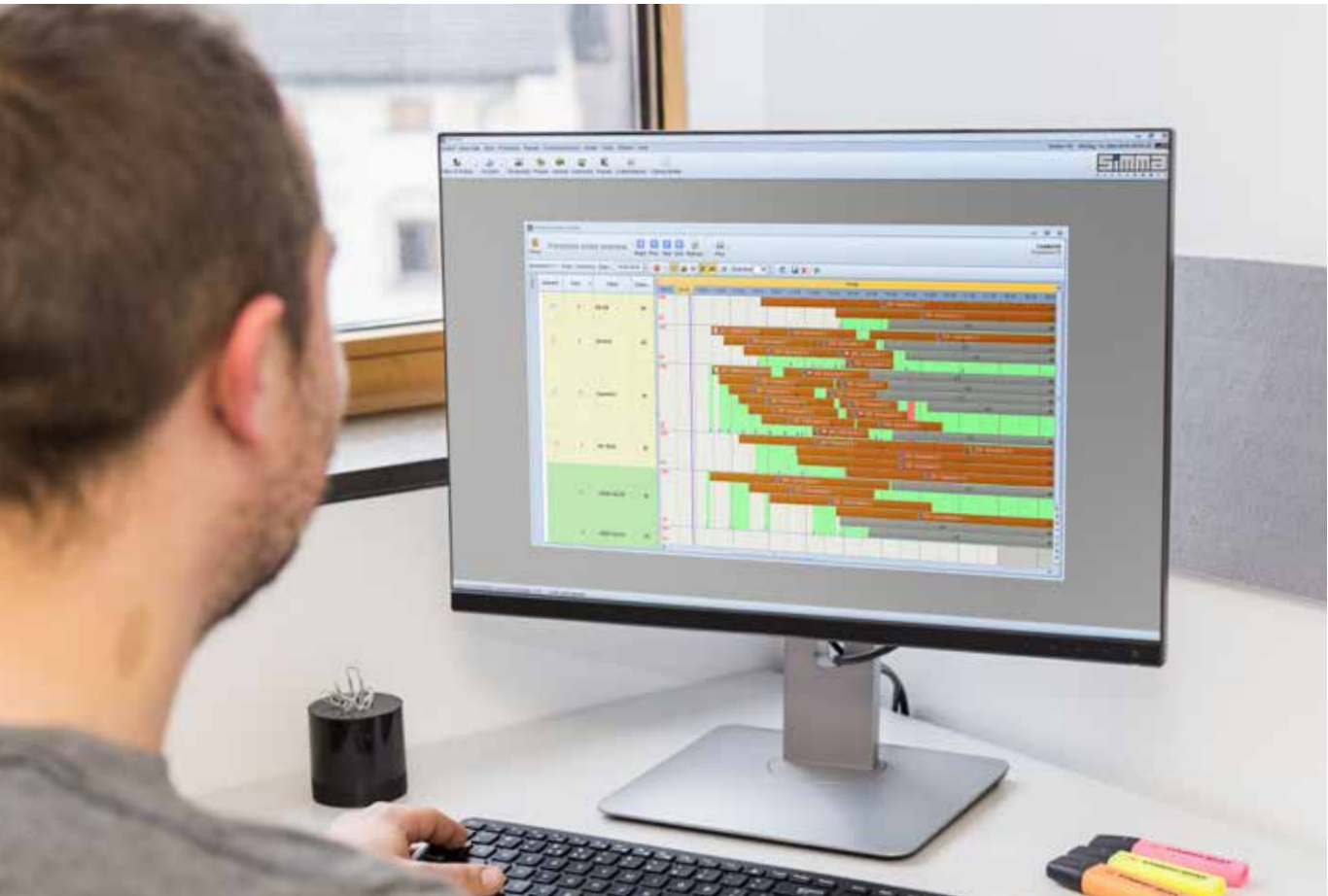
CMS Laboratory

From mix calculation through to quality control.

With the CMS laboratory program, Simma Electronic has developed an innovative tool which helps you to optimise quality and increase productivity. Alongside the functions required for self-monitoring, the program also includes options which help you to increase the efficiency of the mixing plant and cut costs.

Basic functions
→ multi-client capable (e. g. management of multiple companies)
→ convenient full text search
→ access authorisation for users and user groups
→ tracking of changes to data
→ data exchange with testing equipment
→ archiving of batch protocols
→ document management
→ data exchange with all commercial production control systems

Central master data management
→ central master data management (materials, grading curves, mix designs, etc.)
→ master data can be copied
→ dosing sequence can be pre-defined depending on the plant

Delivery list for mix designs
→ site-specific delivery lists (you can generate your own templates)

Testing
→ automatic or manual production logging
→ testing of raw materials
→ generation of fresh concrete, hardened concrete and water penetration tests
→ automatic transfer of the actual data for concrete testing
→ pressure, splitting and flexural tension testing
→ suitability testing
→ printing of test results
→ test intervals can be pre-defined for various tests

Mix calculation
→ concrete families can be generated either automatically or manually
→ mix design and grading curve generation
→ optimisation of mix designs and grading curves based on current test results
→ price calculation for mix designs
→ entry of aggregates either by grading curve or directly in kg values

Reports
→ quantity-related reports
→ declaration of conformity in accordance with EN206, taking the country-specific guidelines (K1, K2, K3 and CUSUM procedure) into account
→ statistical analyses of all test results (time curve, frequency, trend)
→ forms (Austria)
→ optimisation of dosing precision and plant performance
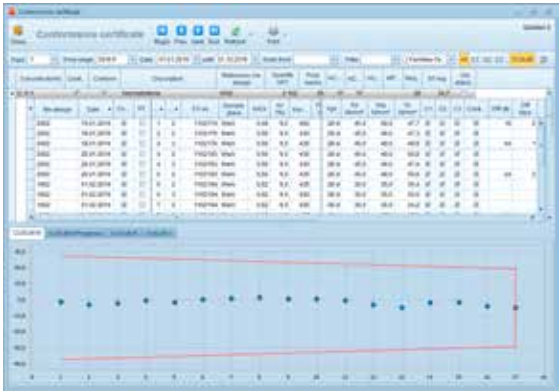
→ Quality certification in the form of the declaration of conformity in accordance with EN206 (CUSUM procedure).

→ Automatic optimisation of grading curves.

→ In the field of quality control, materials are tested for their viability and quality certificates are generated.

With the Simma Electronic "CMS", we help you to surpass yourself. **Benefit from our fully integrated one-stop solution.**

CMS Customer Portal

Secure online solutions for your customers.

With the CMS customer portal, you allow your customers to order concrete over the internet. In addition, you offer your customers a perfect service by allowing them their own secure access to relevant information.

→ It's not just you who benefits from our online customer portal, but also the hauliers who are working for you.

Vehicle route tracking for hauliers.

The Simma CMS customer portal allows your hauliers to access vehicle data over the internet with their own secure access. In order for this information to be made available, the freight vehicles must be equipped with telematic units and must be using our CMS dispatch system.

→ Customers can order concrete over the internet. An overview of the arrival of the individual vehicles can be called up at any time.

→ The customer can view delivery tickets and batch protocols online and, if they want, download them as PDFs.
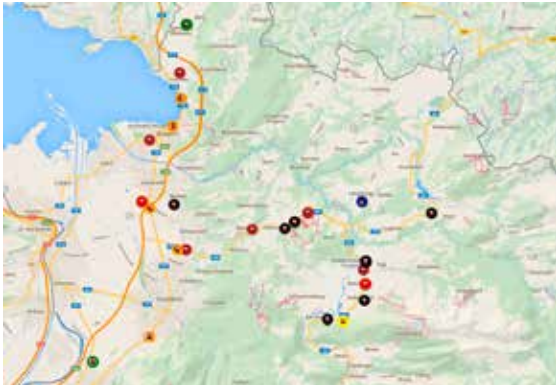
→ Vehicle position display on a map. The vehicle status is indicated by means of coloured highlighting.

→ Vehicles can be evaluated over the internet.

About Us

Leaders when it comes to innovation.

Simma Electronic stands for innovative control and automation solutions in the building materials industry. We have achieved our leading position in this market with know-how, many years of experience and consistent implementation of the latest technologies.

Simma Electronic CMS modules are developed for and with the customers. The focus is on the people who work with them on a daily basis and should experience the benefits. The results are control and automation concepts at the highest level. Control systems which are easy to use, create oversight and transparency, and ensure an edge in every detail which advances our customers.

Our qualified team is characterised by their ambition and the motivation to want to be better than anyone else. Team spirit and enjoyment define the daily atmosphere in our office.

The results are solutions which make our customers more successful and help to save time and money. This responsibility means that we place great value on our employees' training, both with regard to their professional skills and their social skills.

→ Simma Electronic is a family company with a long tradition, and has its headquarters in the Bregenzerwald in Austria.
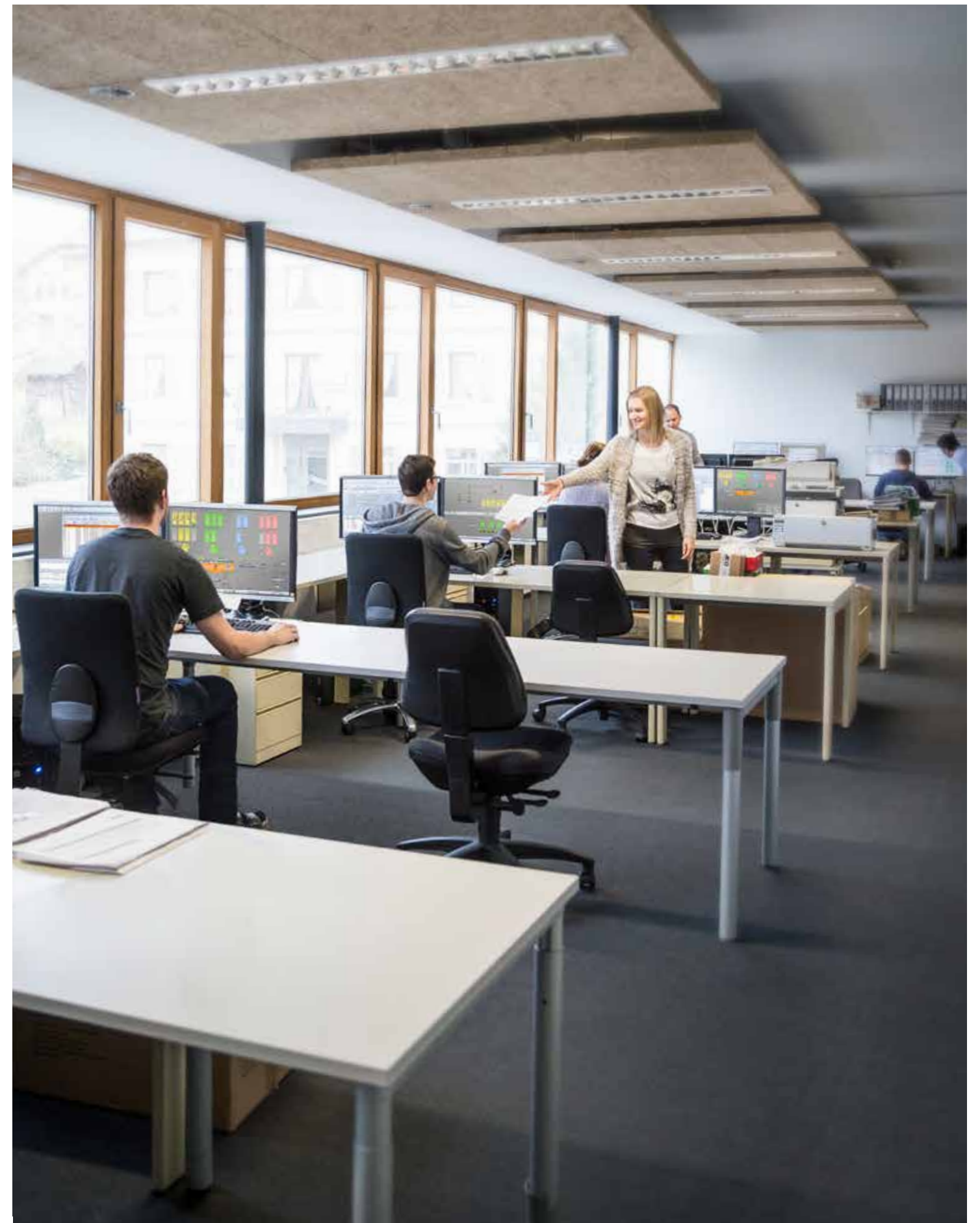
Full service, emergency assistance and training opportunities.

Training centre

Advice and training are very important. That's how you increase both efficiency and competitiveness. Together with you, we develop a company-specific instruction and training concept and, as a result, achieve the optimal use of our solutions.

The training topics are tailored to your environment. Training can be carried out on your premises or in our training centre, equipped with state-of-the-art technology.
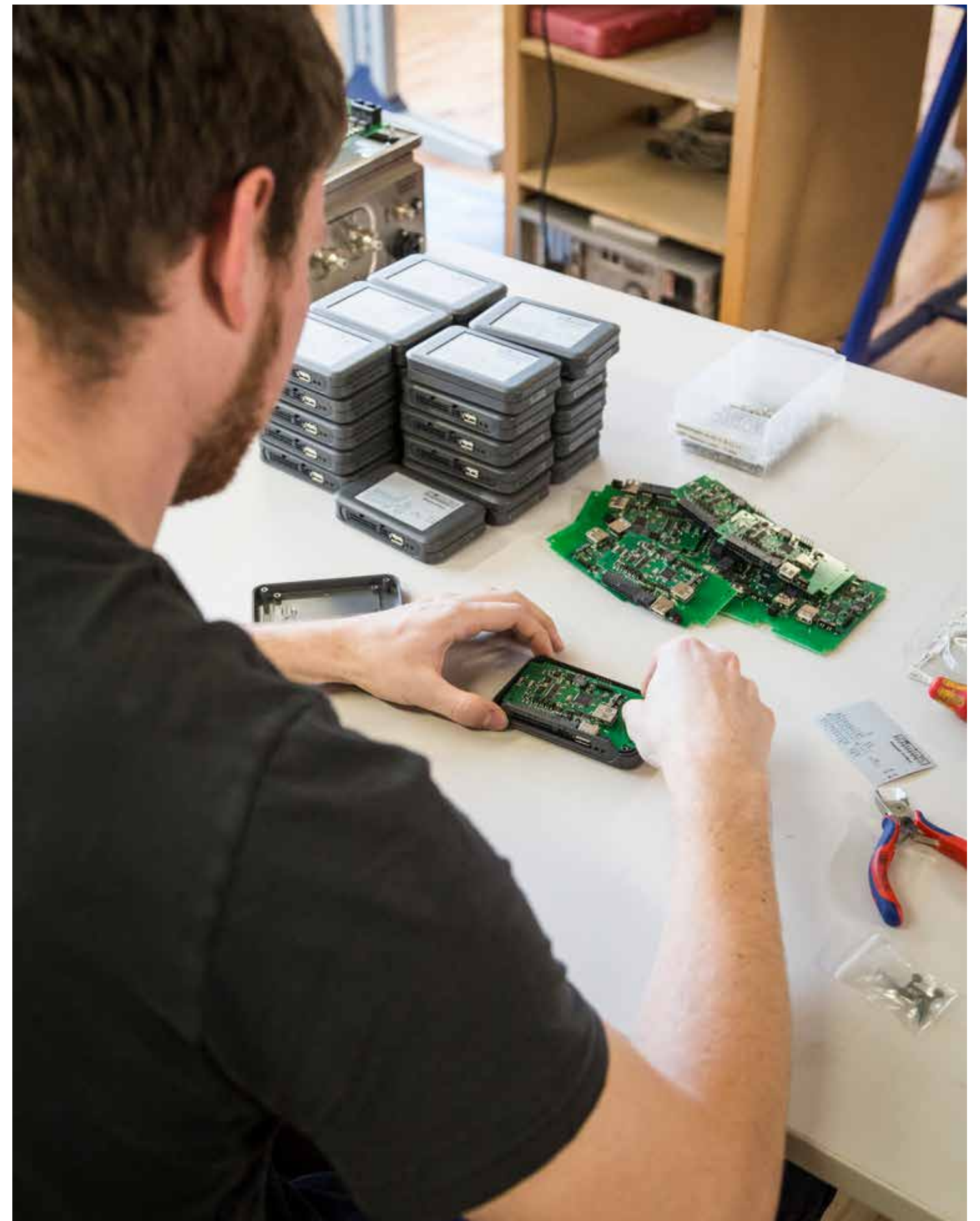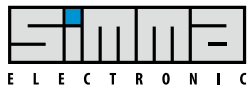
Maintenance and "first aid" at any time

To round out our comprehensive service offering, we offer a professional service and 24-hour support.

If you need help or have any questions, we're always happy to help. With our remote service, we can help you to solve problems and eliminate faults from the control centre.

And of course, we also keep you up-to-date with the latest news. As a result, you are always one step ahead of your competitors.

→ We are happy to advise you about the training courses which we run in our training centre.

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**CONTROL TECHNOLOGY FOR
THE CONSTRUCTION INDUSTRY**