

**Proven Process Technology**



# Built on stable pillars

**Knowledge, service and excel – these are the three pillars on which KSE Process Technology has built up its business for over 40 years. By continuously monitoring these core values, KSE has become what we are today: the supplier of dosing and weighing systems, automation solutions and services for producers of powders and granulates in the animal feed industry and related industries.**

## **FAMILY BUSINESS**

Much has changed in the past 40 years. However, personal contact, excellent service and passion for the powder and granulates processing industry are still key. You may also expect the same dedication and stability in the coming years. We currently have 140 employees and we are active worldwide, but still a family business to the core.

## **SPECIALIST**

The focus is on the animal feed and related industries. KSE is a true specialist in this market. No other company can offer customers in this sector the same support in terms of dosing and weighing systems and automation software.

## **COLLABORATION**

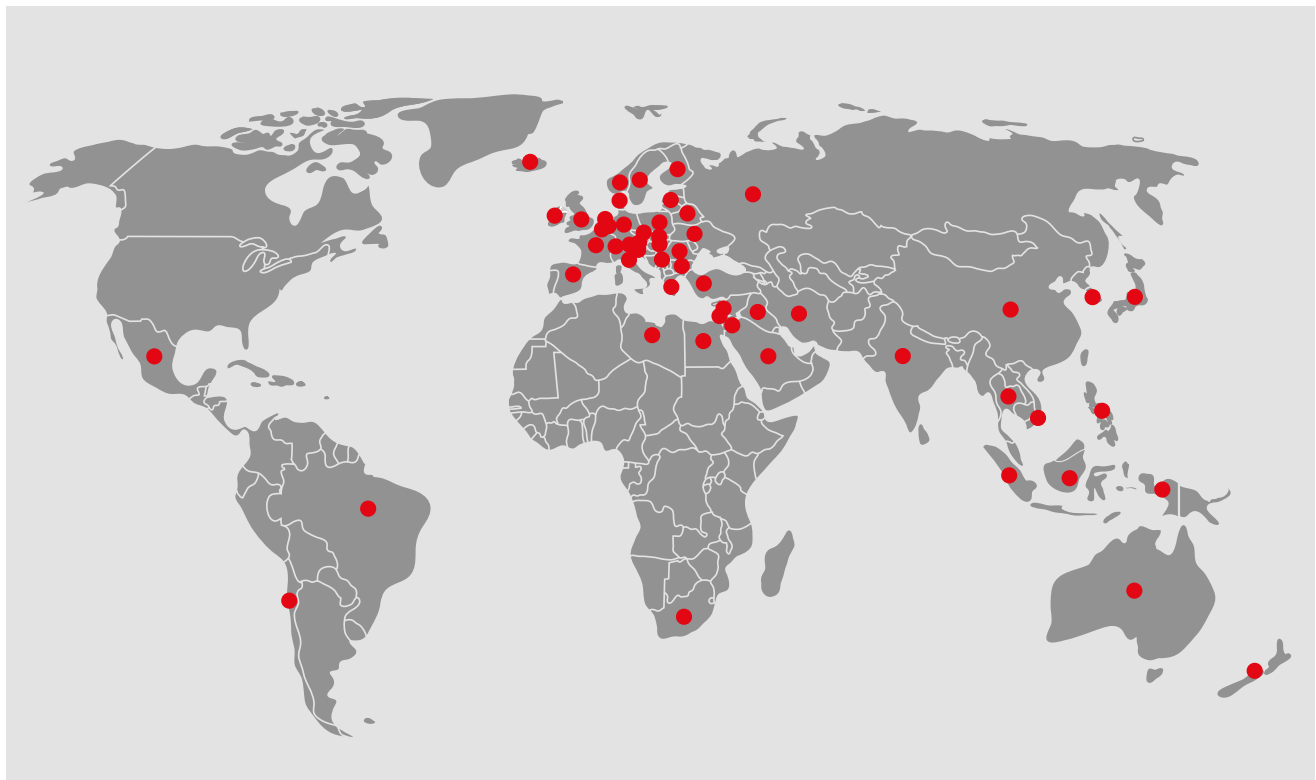
Good collaboration is our top priority. With our customers, but also with our partners worldwide. Because only through close partnership with all stakeholders, we are able to truly optimize production at the customer.

### **Adriaan Smulders**

*Director  
KSE Process Technology*

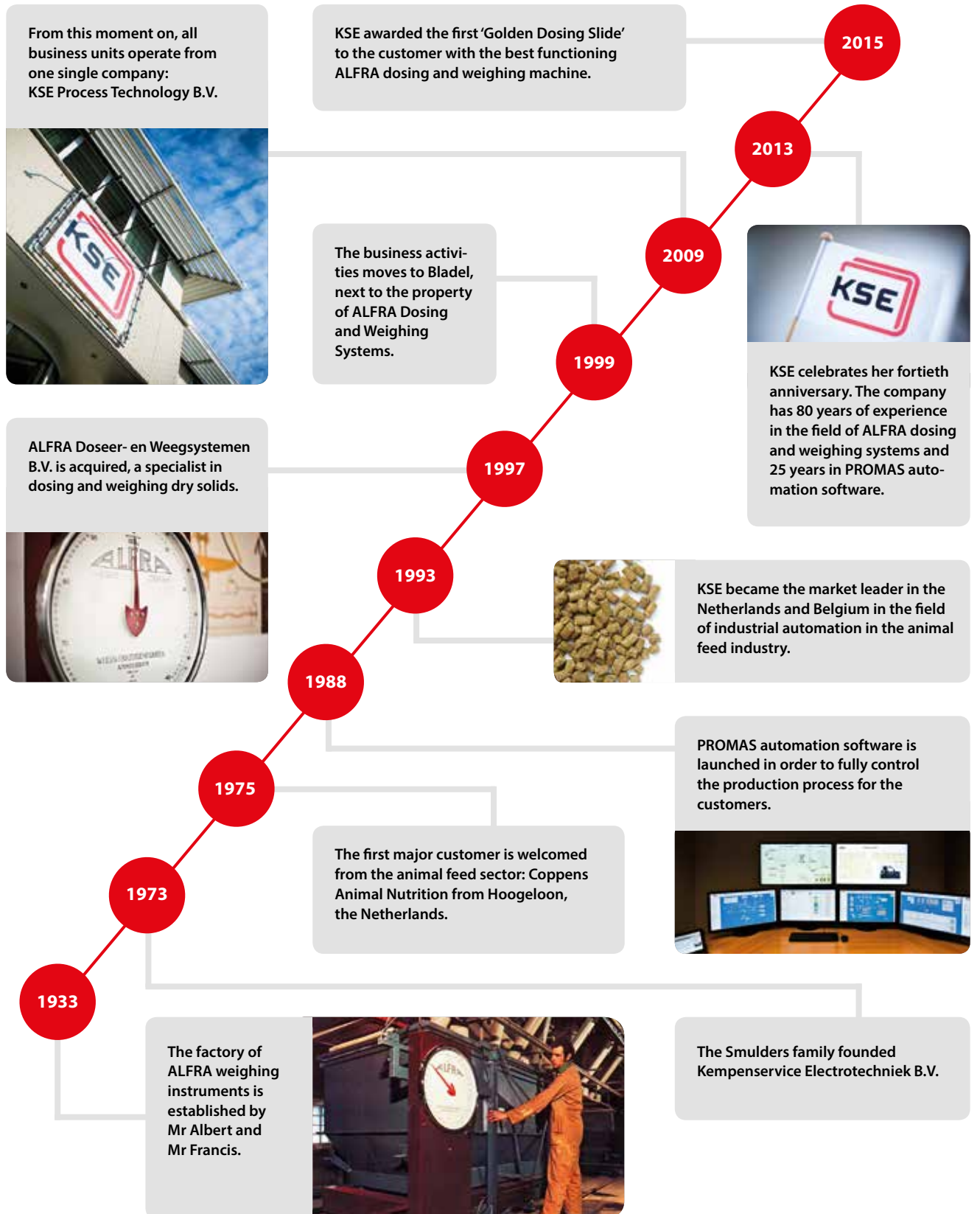


*Despite its worldwide activities, KSE remains a family business to the core*



# The road to international success

KSE is known as *the* dosing and weighing specialist with international experience in the field of process solutions in the animal feed industry. Together with her partners, KSE can provide a total package for the powder and granulates processing industry. This includes three groups of products and services: machinery, automation and service provision. Within which we offer the following two product ranges: ALFRA dosing and weighing systems and PROMAS automation software.



# Specialist in the feed industry

In recent decades, the animal feed industry has made giant steps forward in automation. At the same time, the business has globalized and consolidated, meaning competition has become fiercer. And like all industries, there is constant pressure to reduce costs without compromising quality. We would like to meet these challenges with custom-made systems and solutions that not only satisfy your current production needs but can also be cost-effectively upgraded as your business grows. It is a deliberate choice to become a specialist in the animal feed industry. Because by really focusing on this market, KSE is able to deliver the best solutions. Ranging from separate dosing and weighing systems or advice on the factory layout to think with you when building a complete new production facility.

KSE mainly specializes in four niches within the animal feed industry:

## COMPOUND FEED

The scale of livestock farms continues to increase. As a result, the need for efficient and flexible solutions in the compound feed industry is growing. KSE responds to this by supplying machines, automation systems and services for large-scale dosing and weighing of a variety of products. This allows compound feed producers to meet the demand of livestock farms in a cost-effective way.

*KSE thinks along with the customer by delivering customized, cost efficient and flexible solutions.*

## PETFOOD

Competition from chain stores puts the profit margins in the petfood industry under pressure. This forces petfood producers to work as cost-effectively as possible. KSE supports this, which allows customers to stay ahead of the competitors in a smart way. It enables petfood suppliers, among other things, to supply their products with minimal contamination in color and shape and micro quantities of dyes. They can also accurately dose flavoring, grind raw materials for pellets very finely and perform flushing processes in a more sustainable and efficient manner.



## PREMIX AND MINERALS

The premix and mineral industry has special requirements regarding accurate dosing and precision weighing of a particularly wide range of ingredients. Quantities can vary from a few grams to tens of kilograms, so an in-depth knowledge and understanding of the processes involved is essential. Thanks to our many years' experience with solutions for this industry, KSE has built up the experience and expertise needed to take your business forward in terms of flexibility, quality, consistency and safety – particularly with respect to cross contamination, one of the key considerations for this industry.

## AQUAFEED

The aqua feed industry often uses raw materials with poor and highly variable flow characteristics. For the quality of the end product and to avoid production delay, fast and accurate dosing without interruptions is necessary. Accurate because of the use of expensive components but also because even a small deviation has a big impact on the finished product. By using ALFRA dosing and weighing systems equipped with ALFRA Dosing Slides you can perfectly dose the most difficult raw materials. ●



# ALFRA dosing and weighing systems



KSE is a supplier of ALFRA dosing and weighing systems – *the machines with which companies in the powder and granulates processing industry can measure any product safely, flexibly and efficiently. This applies to micro, medium and macro components in all quantities. The dose range of an ALFRA machine may vary from 1 gram to 10,000 kilograms. KSE supplies machines for each step within a process: from the intake of raw materials to solutions for the distribution of finished product. Purchasing an ALFRA machine is a good long-term investment. The systems usually have a fifty year service life.*



## ALFRA DOSING SLIDES

The heart of the ALFRA dosing- and weighing systems is the ALFRA dosing slide. This dosing method is the most versatile solution for dosing and discharging powders and granulates. Available in a wide range of sizes and configurations, it combines very accurate dosing and high capacity with extremely reliable operation. Next to that it's the solution for dosing fragile products. By gentle dosing based on gravity in combination with the fixed lower grid and moving upper grid virtually it eliminates pellet damage. Ideal for feed pellets, petfood kibbles and seeds. An optional scraper on the slide ensures that there is minimal product remaining in the silo, facilitating full tracking and tracing.

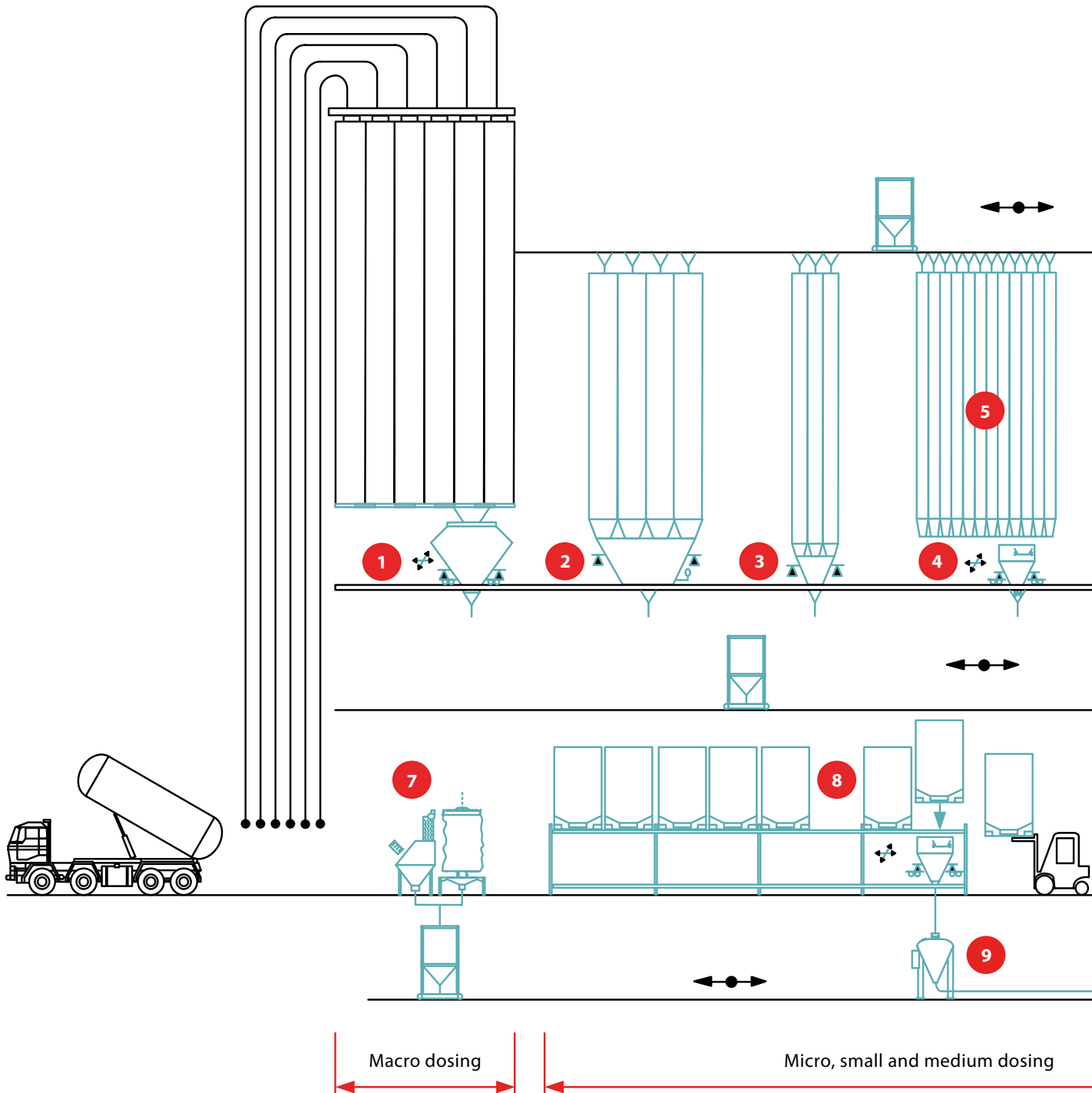
*The ALFRA Dosing Slide guarantees high capacity, maximum accuracy and a long product lifecycle.*

Through the large discharge surface it not only enables a silo to be emptied in the same order it is filled (first-in, first-out), but bridging and rat holing is eliminated. Example applications include pelleting meal in a pelleting line and macro dosing. Compared to dosing screws, an incredibly wide range of capacities can be dosed with just one slide. The main advantage with a dosing slide is that high capacity with high accuracy can be guaranteed. ●



More information on the specific ALFRA dosing slides can be found at [www.kse.nl/en/alfra/dosing-slide](http://www.kse.nl/en/alfra/dosing-slide).

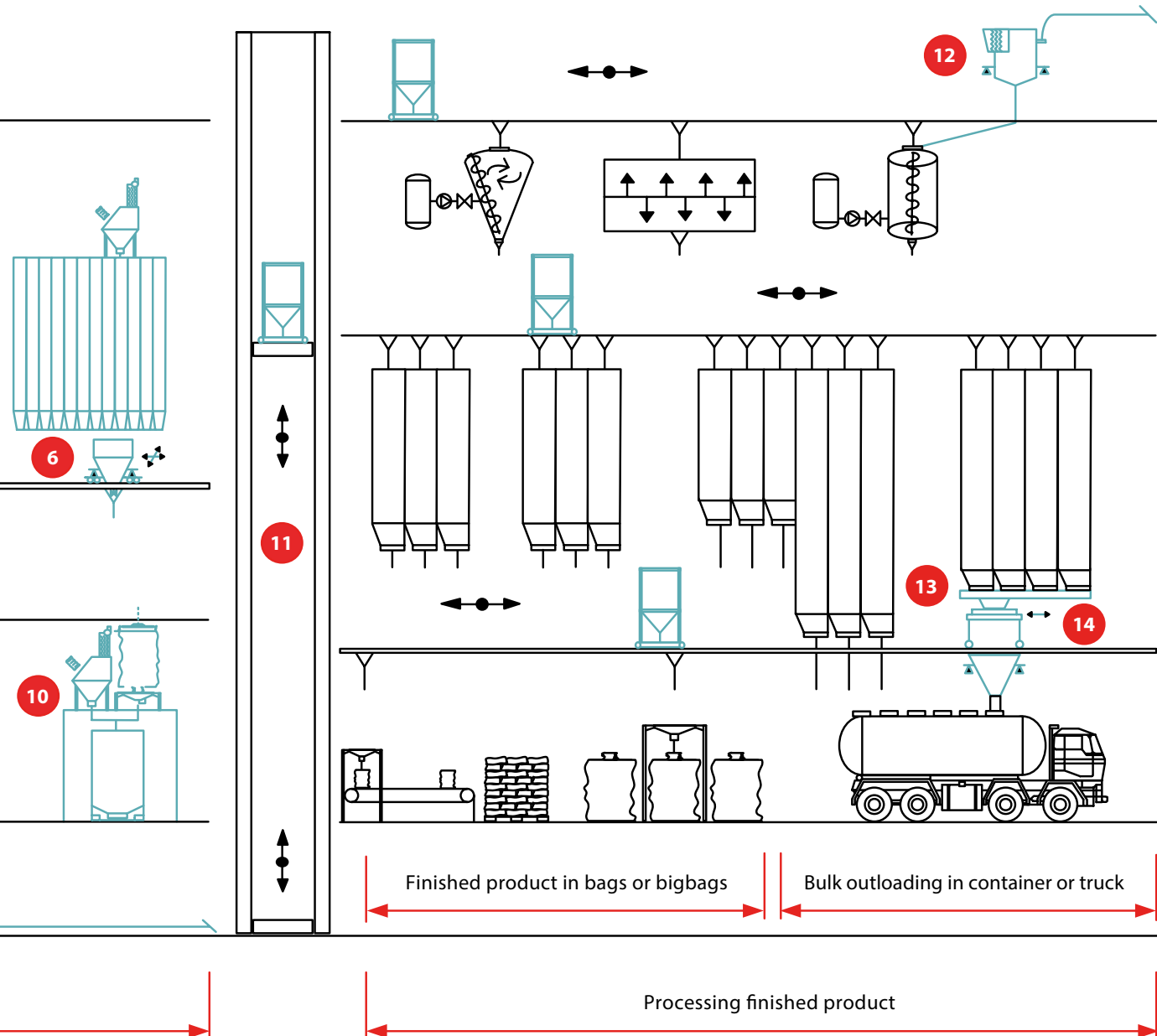
# From the intake to outload there are ALFRA dosing and weighing systems



- 1 Bulk component dosing system, weighing capacity of 100 kg and 2.000 kg
- 2 Medium component dosing system, weighing capacity up to 1.000 kg
- 3 Small component dosing system, weighing capacity up to 100 kg
- 4 Flexible component dosing system, weighing capacity of 5 kg and 100 kg
- 5 Flexible silo for poor flowing, cohesive or compressible materials
- 6 Micro component dosing system, weighing capacity up to 30 kg or 5 kg / 100 kg
- 7 Intake raw materials via hand tipping from bags and/or big bags in containers of the ACT

*“We had a shortage of capacity. Therefore we purchased the ALFRA oblong weigher which we split in two parts, twice two ton for our outweighing process. Thanks to this new weigher we now have 30-40% more capacity.”*

**Riemer Posthumus** – Factory Manager De Heus Veghel

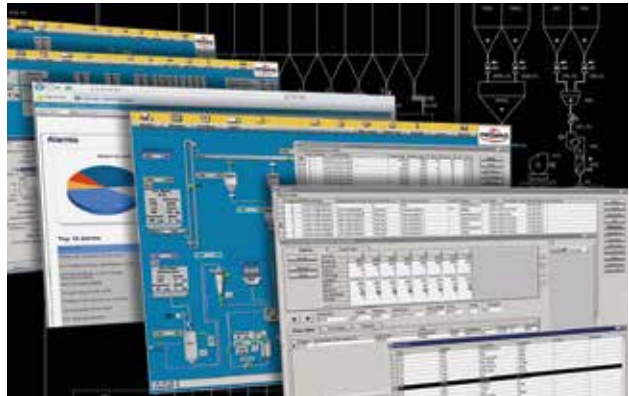


- 8** Flexible container component dosing system, combined weighing capacity of 5 kg and 150 kg
- 9** Automatic Pneumatic Transport system, transport capacity of more than 100 ton per hour
- 10** Filling station for filling the FCCD containers from bags and/or big bags
- 11** Automatic container transport, transport capacity up to 150 ton per hour
- 12** Weighing receiver of the Automatic Pneumatic Transport system, weighing capacity up to 2.000 kg.
- 13** Silo discharge system for finished products, discharge capacity up to 600 tons per hour
- 14** Certified movable bulk weigher for direct truck loading, weighing capacity up to 10.000 kg

# PROMAS automation software



**KSE is the global supplier of PROMAS. This process control system is based on years of expertise and knowledge of the production processes in the animal feed and food industries. This means that the design has been thoroughly tested in practice. One can therefore be assured that the system provides all functionalities to automate business processes adequately. Of course, the design is robust and flexible, making it last as long as the machinery.**



## FUTURE-PROOF

PROMAS ST grows along with a factory. Due to its flexibility, this automation solution is particularly future-proof. If a factory or machines must be renewed or updated, it is possible to implement adjustments with PROMAS ST in small, profitable steps. Expensive investments in new automation systems are therefore a thing of the past. Small-scale activities can also benefit. Start small and when the system grows the investment can be spread over a longer period. PROMAS ST is a flexible solution for production automation and ready for the future.

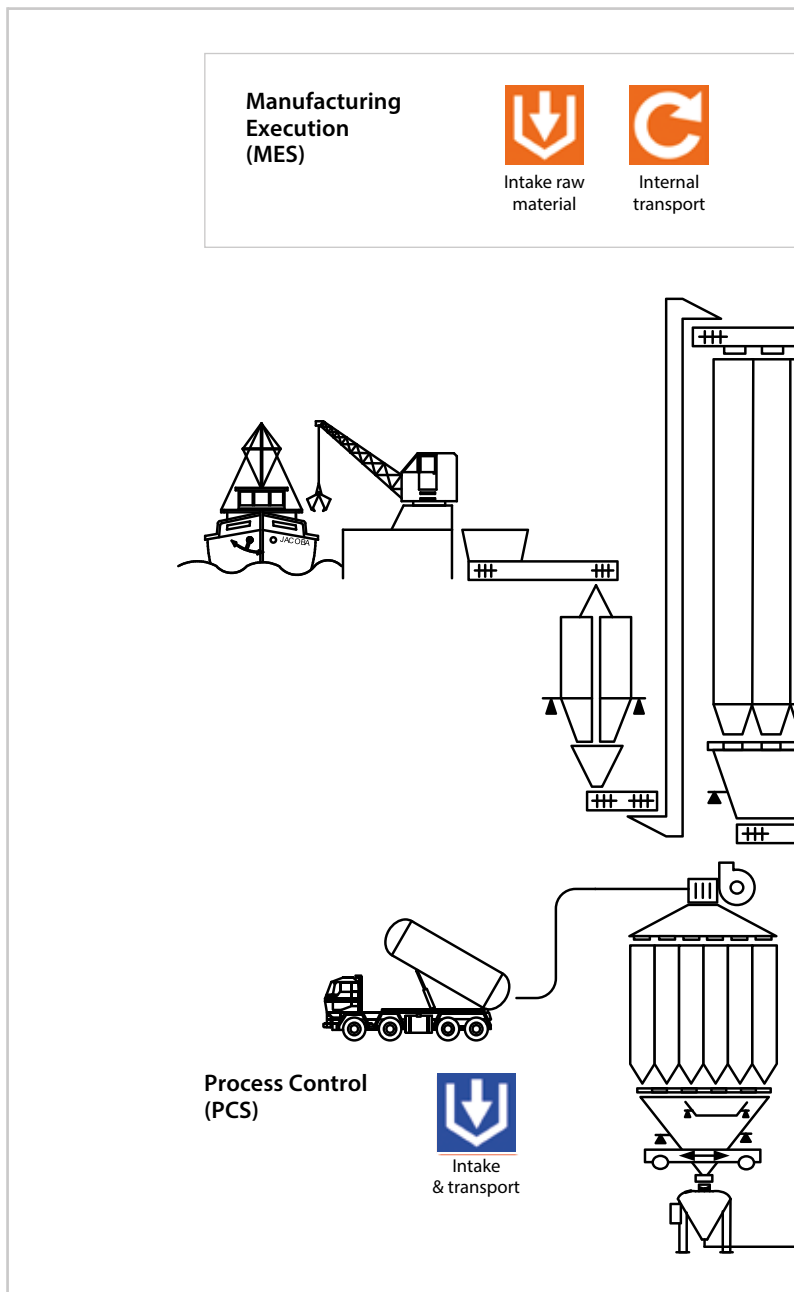
*“We would like to maximize the quality and capacity of our plant. PROMAS ST helps us to achieve this goal. Our company uses PROMAS ST from intake to bulk outloading.”*

**Martin Sonneveld** – Managing Director Jonker Petfood

## SMART INDUSTRY

Smart Industry is the extensive digitalization and interweaving of equipment, production resources and organizations, through which new ways of producing, new business models and new industries emerge. The feed industry is one of the Smart Industries which has a very flexible production capacity in terms of the product (specifications, quality and design), quantity, timing (delivery), resource and cost efficiency. This, and through a strongly integrated supplier chain, it is possible to deliver customized to our customers. With her automation software, KSE likes to contribute to enable a ‘smart’ production process of animal feed. This by efficiently organizing production processes, effectively responding to customer wishes with customized products and provide remote service in multiple languages. ●

KSE PROVEN PROCESS TECHNOLOGY







Data management



Stock management



Production planning



Delivery end product



Data communication



Energy



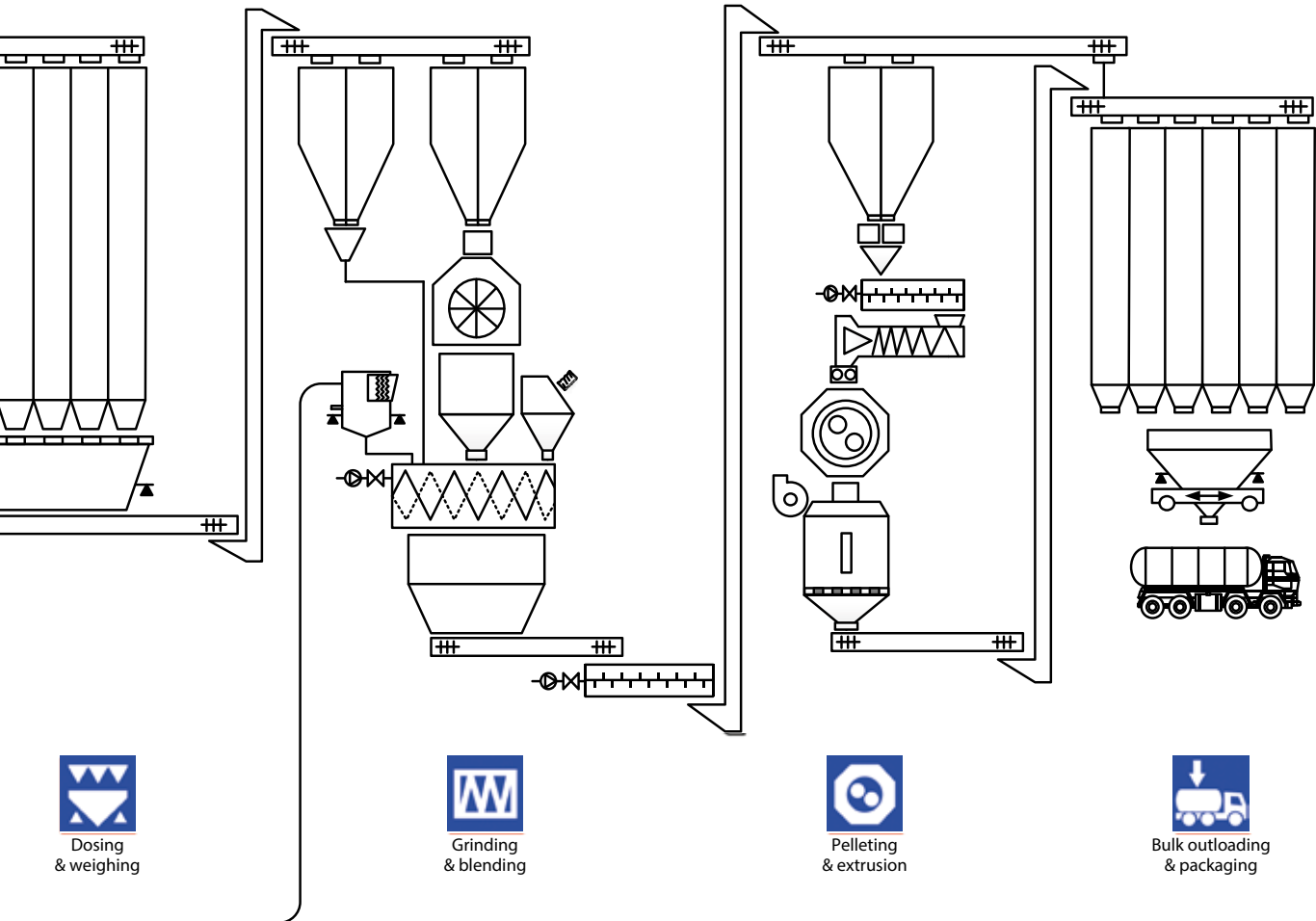
Quality



Reporting



Track & Trace



Dosing & weighing



Grinding & blending



Pelleting & extrusion



Bulk outloading & packaging

# Customized services

As a supplier of ALFRA systems and PROMAS automation we would like to have your production runs as smoothly as possible. We offer various services that contribute to this. Whether you need a new installation or an upgrade, we strive to optimize performance, optimize productivity, reduce costs and extend the economic life cycle of your factory.



## SERVICE

Your production must run day and night. Unplanned production stops are extremely costly. This makes 24/7 customer support an absolute must for operational continuity. The services range from telephone help lines and on-line support to maintenance contracts with pre-agreed response times and guaranteed availability of spare parts. Training programs and documentation are also offered.

In a production process where machines, transport and storage systems, measurement equipment and control software all work closely together, it can be difficult to determine exactly where a potential problem is if the system does not function normally. To address this, the customer support people at KSE not only understand the automation systems and hardware (including machines from other manufacturers) but also have broad experience in the production processes. We can therefore quickly troubleshoot your operation and restore optimal performance.

*"Because Cargill has such a high standard it was fantastic having KSE work with us making sure that everything was done to the safety standard we adhere to and everything can be maintained and accessed in a safe way."*

**Jack O'Connor** – Project Engineer Cargill

If necessary, KSE technicians will remotely log onto customer systems to solve problems directly or preventively. KSE has many international customers. Each of them works with PROMAS ST in their own language. Our service employees who login remotely also see the control panel in their own language, regardless of the language of the automation system of the customer. This multi-language feature ensures that our service employees can remedy any unexpected failure or stagnation faster.



### **ENGINEERING**

Good engineering is the basis for a process or a machine. KSE engineers are capable of providing customers with advice and drawings for any process or any machine. Of course, they work in close consultation with our customers. They can, for instance, produce machines custom-made for a certain location or scrutinize them in detail in a diagram.

The KSE software engineers ensure that the automation system always perfectly fits the specific customer requirements and wishes. They make the necessary adjustments so the software better supports a certain process. Or they implement changes so that end users can comfortably work with the system, and they enable process-oriented reports.

### **CONSULTANCY**

The development of ideas is becoming increasingly professional. Our advisors and consultants will gladly visit you as external knowledge sources. Together with the customer, ideas are assessed in all possible ways, independent from the actual implementation. Because of this independence, the focus lies more on the desired result.

### **PROJECT MANAGEMENT**

Experienced project managers monitor the projects and intervene where necessary. Guiding the implementation, but also monitoring the budget and turnaround time are part of the tasks of the project manager. The project manager is the fixed contact point for the customer with knowledge of their process and installation. ●



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