



# Driving Impact

Safe food and saving food



**9.74 billion**

is the estimated total world population in 2050 according to United Nations predictions.

**809.9 million**

people around the world were considered to be malnourished in 2018, according to the Food and Agriculture Organization of the United Nations (FAO).

**2.6**

babies born every second.

A close-up photograph of a hand holding a single stalk of golden wheat. The background is a vast field of wheat stretching to the horizon under a warm, golden sunset sky. The lighting is soft and directional, highlighting the texture of the wheat and the skin of the hand.

# 70%

more food will be necessary to feed the world population in 2050.

# 74 years

is the global average life expectancy for women born in 2018; for men, it's 70 years.

## Feeding the world

The world population stood at 7.71 billion in 2019. That figure is set to reach 9.74 billion in 2050, according to United Nations predictions. Making sure each and every person has access to food is a mammoth task. Not only is the number of people growing in absolute terms, but people are also living longer on average. The global average life expectancy for men born in 2018 is 70 years; 74 years for women.

In 2019, the global harvest volume of grain was estimated at 2,667.9 million tonnes. While nutritional styles in industrial nations continue to differentiate, with allergies and intolerances on the rise, around 809.9 million people still suffered from malnutrition in 2018. It is estimated that the world population will need 70 % more food in 2050. Productivity in the food industry therefore needs to ramp up considerably.



**20%**

of food produced in  
the EU is lost or wasted  
every year.



## Minimise waste

Besides the problems of quantity and distribution, there is also the problem of waste. An estimated 20 % of food produced in the EU is lost or wasted every year. Wasted food can be attributed to many causes: crop losses, post-harvest losses, process losses, wholesale and retail distribution losses, consumption losses or losses caused by the recall of contaminated products.

If we look at potatoes, for example, almost 50 % are lost during processing and approximately 11 % of this is a result of process losses. In principle, all forms of waste must be minimised significantly. The food industry can make an important contribution to the prevention of process losses and fewer product recalls, which must then also be destroyed.





## Increase productivity

In order to secure the global supply of food in the future, waste must be reduced and productivity increased. Producing the quantities of food needed calls for greater automation of the production processes. Yet if automation is increased, the maintenance effort also increases and with it the risk of contaminants getting into food during maintenance work on machines and systems. The rise in transportation of food and the longer transportation distances pose an increased risk of contamination. Contamination in industrial quantities that are distributed globally should not be underestimated.

As a whole, the food industry presents itself as a complex, globally interwoven system involving many participants. These days it is often the case that raw materials from different countries are sourced and processed at different prices and quality levels and are sold and stored in a completely different location than where they were produced.

# High demands of consumers and retail chains ...

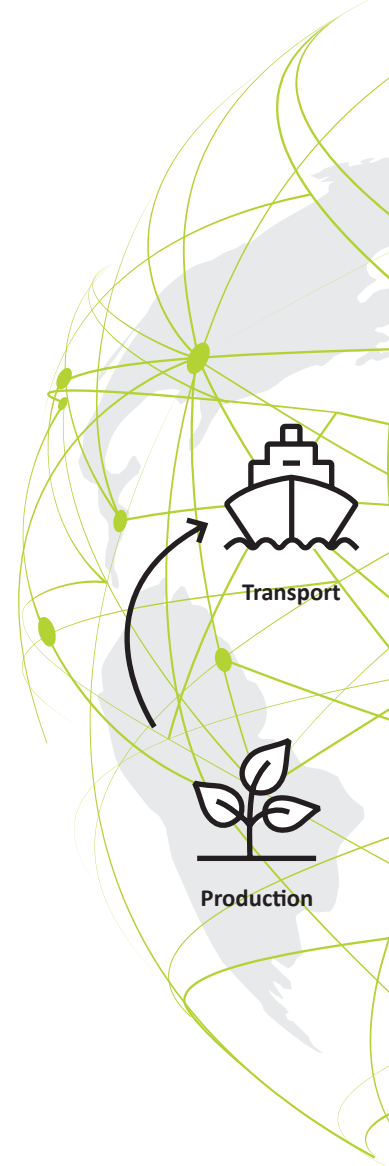
In addition to the productivity demands, food producers and processors are under pressure to meet the many expectations of consumers and retailers.

## What consumers want

Consumers expect the food industry to provide them with huge quantities of foods that are long-lasting and permanently available. These foods should be in pristine condition, free from contaminants or impurities, of high quality and healthy. Furthermore, the demand for food in industrialised countries is increasingly being divided up – into foods that are free from allergens, gluten-free, vegetarian or vegan, for example – and is therefore becoming more fragmented. This in turn requires more time and effort during the production process. In addition, the origin of the food is becoming increasingly important – consumers want to know where the goods come from, what they are made from and how they were produced.

## What retailers demand

The retail sector, influenced by consumers, also makes high demands on food producers and processors. In addition to product quality and traceability, fast response times in the event of recalls by the producer and specific labelling systems are essential for retailers. On top of that, the logistics must run smoothly – cold chains must be maintained without interruption – and there cannot be any problems whatsoever with repackaging during transit, for example from containers into bags and boxes. Last but not least, cost pressure is high due to the wide variety of products that retailers stock on limited shelf space.







**... increase pressure on food producers and processors.**



# Consumers have a right to safe food

Retailers and consumers don't just expect safe and high-quality food, they are legally entitled to it. In addition to compliance with legal regulations, most retail chains also require special certifications from their suppliers.





## Statutory provisions

No producer can afford to produce products that harm consumers. Damage to reputation, economic damage, liability claims or claims for damages can even threaten the very existence of a company. Contaminants and quality defects must be detected and separated in the best possible way during the production process. Food safety is a major challenge for producers and processors.

### **Product Safety Act (ProdSG)**

Germany's Product Safety Act stipulates as follows: The manufacturer must ensure that the health of consumers is not endangered when the product is used as intended or in a foreseeable manner. Nevertheless, it is not unusual for food recalls to occur, which are announced on websites and in the media. Recalls are caused by impurities of various kinds, e.g. metallic contaminants, glass splinters, E. coli bacteria or allergens.

### **Germany's Product Liability Act (ProdHaftG)**

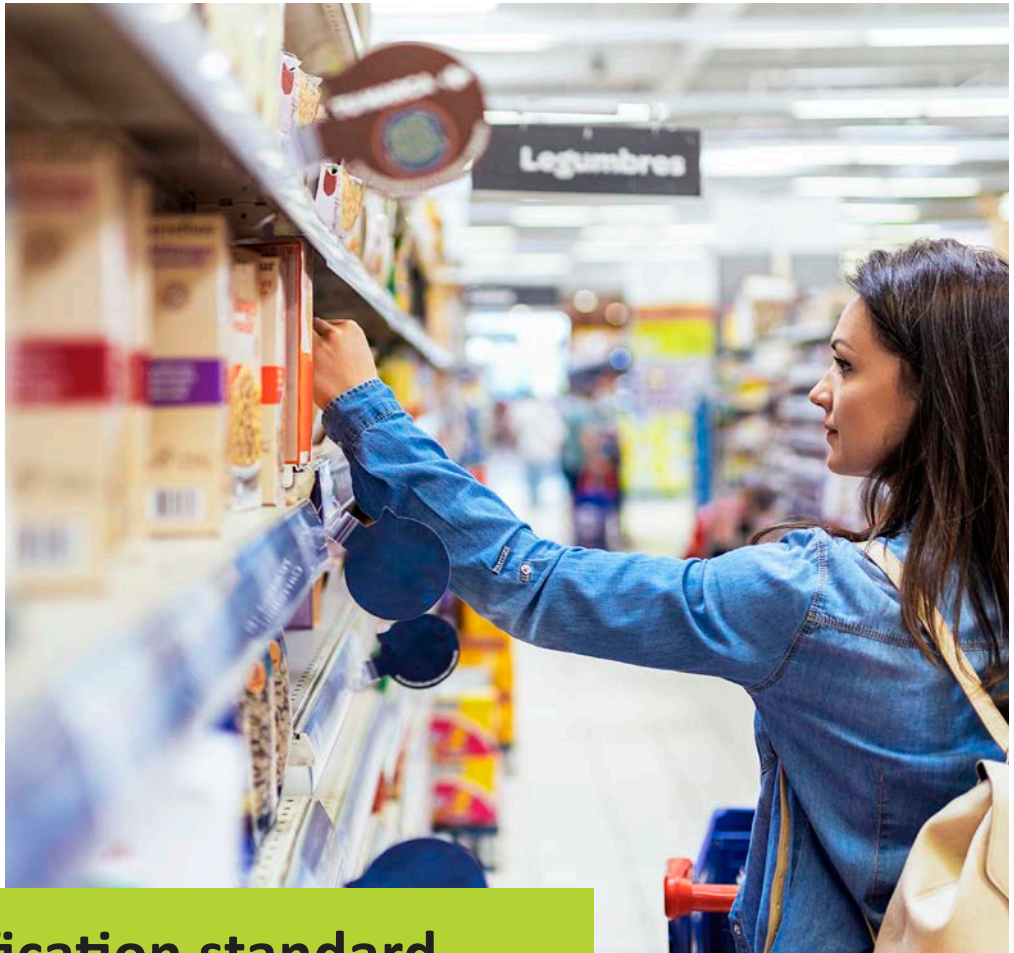
Germany's Product Liability Act stipulates that in such case as a defect in a product causes a person's death, injury to body or damage to health, or damage to an item of property, the producer of the product has an obligation to compensate the injured person for the resulting damage. If the producer can prove that the product did not have the defect at the time that it was put into circulation, the producer's obligation to pay damages is excluded.

### **Traceability (Art. 18 EC No. 178/2002)**

EU food law stipulations include the following: The traceability of food and feed intended to be, or expected to be, incorporated into a food or feed must be established at all stages of production, processing and distribution.

### **EU's hygiene regulations**

The EU's hygiene regulations stipulates that only food that complies with the HACCP principles may be traded and imported into the Union. HACCP stands for Hazard Analysis and Critical Control Points, and the aim of setting up an HACCP system is to prevent possible health hazards. Food businesses must draw up, adhere to and document a hazard matrix with risk priority numbers and measures such as cleaning plans, verification certificates and personnel instructions. Compliance with these principles is assessed regularly during audits.



## Certification standard

On the one hand, certification standards mean increased operating expenses for producers; on the other hand, the standards help producers to stay on the safe side. This is because the rules are extremely precise, strict and application-oriented. They also include requirements for the technical execution, meaning that the process technology used must be adapted to the guidelines and ensure compliance with the standards.

Many large retail chains and food companies require producers to comply with certain guidelines in addition to the statutory provisions. These guidelines are based on the ISO 22000 international standard for food safety management systems. In addition, there are private-

sector standards, such as the International Featured Standard (IFS) of the German and French retail association, which in turn are based on ISO 22000. Many dealers insist on certification according to these standards as a prerequisite for delivery.





# What food producers and processors need

In order to meet the legal requirements, the standards of the retail chains and the expectations of the consumers and to withstand the pressure, food producers and processors depend on a functioning process technology. Various aspects play a part in this.



## Precise technologies

Producers need to have the right technologies to comply with the food safety standards. Metal detectors can be used to detect metal contaminants, such as wires or chips. X-ray technology can be used to detect glass particles. Optical technologies, such as cameras, can be used to ensure correct labelling. These technologies guarantee that what appears on the label is exactly what is included in the packaging.



**“Our quality system is based on Global Food Safety Initiatives (GFSI) and is the backbone of our organisation. We have a systematic assessment of each step of our production processes through our HACCP plan and a proactive and preventative control of all raw materials, processing activities and our processing environment.”**

Abdul Basit Gaba, director of quality / food safety at Kalustyan, a herbs and spice processing company located in the US



## Compliance

It is absolutely necessary that the technology complies with the food industry guidelines. The process technology used must be adapted to the retail chain guidelines and ensure compliance with the standards. Any deviation from the respective standard can put an audit at risk of failing. The users must therefore be able to control the technologies reliably.



## Reliable service

Should we face machine failure, system availability must be restored as quickly as possible, because downtime costs money. This is why a competent and reliable service is important, one that is available around the clock.





## Economic efficiency

Automated product inspection is here to stay and that means additional effort and costs for food producers. It is important that the costs of the technologies are proportionate to the remaining production costs and do not jeopardise economic efficiency.



# United against waste

Sesotec has been a supporting member of the “SAVE FOOD” organisation since the summer of 2019 and therefore actively contributes to reducing the waste and loss of food around the world. “SAVE FOOD” is a joint initiative of the Food and Agriculture Organization FAO, the environmental program of the United Nations, UNEP, Düsseldorf Trade Fair and inter-pack, the international trade fair for packaging machines and processes. Through a wide range of projects, fairs and conferences, the companies taking part in this initiative want to raise awareness among decision-makers in politics, the economy and industry as well as among consumers, and dedicated themselves to counteract food waste.



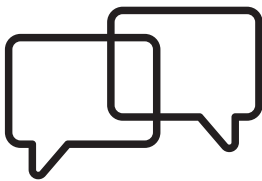
[www.save.food.org](http://www.save.food.org)

**“Being a member of ‘SAVE FOOD’ is very important for Sesotec, because food wastage is not only an ethical problem, but also an economic one. By working in partnership with food industry companies, we help to prevent this waste.”**

Marc Setzen, CEO of Sesotec

**Producing safe food profitably while wasting less. This is what we help to achieve in the industry through intelligent technologies and services. Compliant with guidelines. In a manner that conserves resources. Efficiently.**

**As a partner to the food industry, Sesotec provides a variety of solutions for each stage of the process, product type and support type, as well as for all critical control points in the production processes.**



**Would you like to learn more about our technical solutions for the food production industry?**

**Then get in touch with us. We look forward to assisting you. Simply call or visit our website:**

**+ 49 8554 308-0 [sesotec.com](http://sesotec.com)**

## Legal notice

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