



# THE FOOD INDUSTRY NEEDS A CHANGE OF COURSE

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## FARM TO FORK RETHOUGHT

An industry paper from Staufen AG

**STAUFEN.**



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# EDITORIAL

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Dear Readers,

Many food items are now being transported thousands of kilometers as inexpensive mass-produced goods. In the battle for the lowest prices, bulk consumers and food retailers are putting constant pressure on producers and growers. But policymakers have made it clear that a constant price war is not the way forward. For example, the new German Federal Minister of Agriculture, Cem Özdemir, demanded as soon as he took office that there be no more "junk prices" for food. They bankrupt farms, hinder animal welfare, accelerate species extinction and impact the climate. In this context, the EU has adopted a new farm-to-fork strategy to help establish a sustainable European food chain all the way to the consumer. And behaviors are already changing: More and more customers today want to buy food with a clear conscience.

**However, sustainability and price pressure are issues to which the food sector will only find answers through a fundamental change of course.**

This transformation must involve every player from local discounters to growers to holistically improve the farm-to-fork process. The industry knows that there is still a lot of waste in its value chains. Removing it would not only reduce CO2 emissions as well as the mountain of discarded food but at the same time improve the economy. With this industry paper, we would like to invite you to take a look beyond your own industry.



**Your Axel Davila Lage**  
**Principal**  
**STAUFG AG**

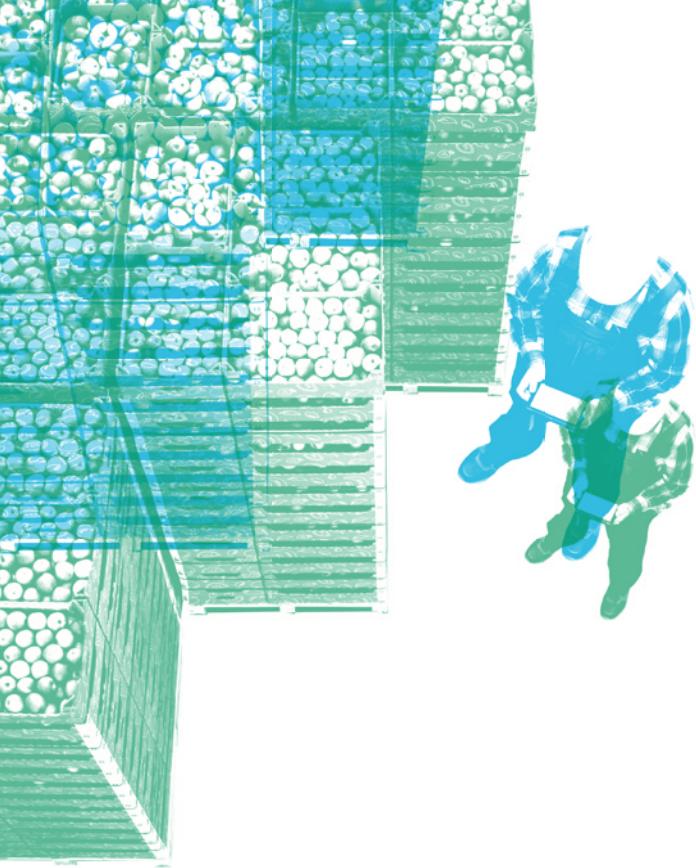
# A SUSTAINABLE FOODCHAIN – BOTH A CHALLENGE AND AN OPPORTUNITY

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## HOW WILL THE FOOD SECTOR DEVELOP IN THE COMING YEARS?

Researchers at the Fraunhofer Institute for Systems and Innovation Research (ISI) are certain that the field will be primarily characterized by sustainability. Products are also even better tailored to customers' wishes and delivered at shorter intervals. At the same time, customers will demand more transparency along the supply chain, meaning that less sustainable products will have a harder time in retail.





# 82 %

of German citizens consider regional sourcing to be important when selecting food items.\*

However, greater sustainability in the food sector is not only driven by customers but also heavily by politics. For example, the European Commission adopted a new farm-to-fork strategy in 2021, committing to a sustainable food system. Important goals are to **provide citizens with high-quality food at reasonable prices and to reduce food waste**. The implementation of this is a building block on the EU's path to climate neutrality by 2050 and serves to establish a sustainable European food chain.

# 48%

of food losses occur in the food chain.\*

For the food sector, the new farm-to-fork strategy is a major challenge: Everyone involved must reduce the physical waste of food required by policy. This includes agricultural growers as well as producers, transportation service providers and retailers/bulk consumers. At the same time, the carbon footprint must be improved throughout the supply chain.

**Automotive manufacturer Toyota is an example of how efficient and low-waste processes can create sustainable success for the entire supply chain and all stakeholders.** In the end, customers also benefit from the elimination of non-value-adding activities that Toyota achieved through Lean Management - not least in terms of price. Similarly, the food sector can also benefit from Lean Management in the farm-to-fork process.

"Growing customer demand for quality at the lowest price is an area of tension that we can only overcome if we uncover non-value added in our E2E processes and consistently reduce it."

**Marc Grimminger**  
**Managing Director Lila Bäcker**

\* Source: Food and Agriculture Organization of the United Nations

# WASTE DUE TO OVERPRODUCTION AND HIGH INVENTORIES

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WASTE OCCURS IN THESE 7 AREAS



Unnecessary transports



Material inventories too high



Overproduction



Waiting times



Defects



Unnecessary movement



Duplicate processes



## TODAY'S FOOD INDUSTRY

The food industry is currently dominated by overproduction and excessive inventories. And that has a number of negative implications.



### Overproduction

Not only does **overproduction** cause and hide other types of waste, but it also

1

**ties up capital,**

2

**blocks capacities and reduces flexibility**, so that producers cannot react quickly to fluctuations in demand (e.g., short-term production of tuna pizza instead of the large lot size of salami pizza),

3

**extends the lead time** of all products because they are not produced in alternation but one after the other

4

is a **quality risk** with regard to the shelf life.



### High inventories

**Excessively high inventories** also lead to high inventory costs. Furthermore,

1

they conceal **process and machine malfunctions**,

2

require **storage and backup areas**,

3

generate increased **handling and accounting expenditure** (keyword "partial pallet")

4

and lead to the **destruction of raw materials** for which the shelf life expires.

Optimizing these so-called Lean losses is the lever to successfully implement the new farm-to-fork strategy adopted by the EU – and to leverage enormous savings potential.

# TOYOTA AS A MODEL FOR THE NEW FOOD CHAIN

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Apart from the large retail chains, the food sector in Germany is generally characterized by numerous small and medium-sized companies. Most of them have had no experience with Lean Management. Producing small batches, delivering just-in-time and responding flexibly to customer wishes is therefore difficult for them to envision.



That is why it is worth taking a look beyond your own industry. The Toyota example mentioned earlier shows how Lean Management principles ensure efficient processes in the long term. The food industry should therefore use this example to initiate the necessary course correction and optimize its own processes.

**Each member of the food chain should implement the following four Lean characteristics in their own area:**



### LEAN CHARACTERISTIC FREEDOM FROM DISTURBANCE, ZERO-DEFECT STRATEGY

Scrap and rework are not accepted. All production equipment must operate disturbance-free throughout all shifts. Errors must not be reproduced. They must be remedied immediately and must under no circumstances be cushioned by inventories.



### LEAN CHARACTERISTIC FLOW

Transport between individual production stages must be reduced to a minimum. Transferring the smallest possible product quantities (batches) reduces lead time and increases flexibility.



### LEAN CHARACTERISTIC RHYTHM

Customers set the pace for production with their demand. Only the quantity that is really needed is produced.



### LEAN CHARACTERISTIC PULL

The Pull principle is introduced at the remaining interfaces. Production controls material replenishment through clearly defined, low buffer stocks.

"Everything we do is to look at the lead time from the moment we receive a customer order to the moment we receive the money. We shorten the lead time by eliminating all the components that don't add value to the customer."

**Taiichi Ohno**  
inventor of the Toyota Production System

# KEY LEARNINGS

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**1.**

The food industry today is characterized primarily by capital-binding overproduction that leads to a lack of flexibility.

**2.**

Process and machine malfunctions must not be ignored - otherwise they will recur!

**3.**

Rework is just as bad as scrap and should not be accepted. If the causes are not eliminated, the error will reappear again and again.



**4.**

All process steps should be interlinked and balanced. This significantly reduces the lead time. Handling and transport requirements are reduced to a minimum.

**5.**

Do not fear small lot sizes! They offer more flexibility and capacity for production.

# HOW STAUFEN SUPPORTS YOU

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The consultants at Staufen AG are convinced that inside every company, there is an even better one. We advise, accompany and coach you on your path towards becoming a Lean Enterprise.

Our employees will help you set up and implement a production system. We support the qualification of managers in a Lean environment as well as training internal Lean experts. Together with you, we set up Shop Floor Management - for greater transparency and leadership on site. And we offer selective support in implementing the four Lean characteristics of freedom from disturbance, flow, rhythm and pull.

# YOUR CONTACT

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In his professional life, Axel Davila Lage has experienced both sides of the food industry: "do-it-yourself" in the industry and in consulting companies. His love of food is not only evident as an consultant, but he is also as a passionate hobby chef.

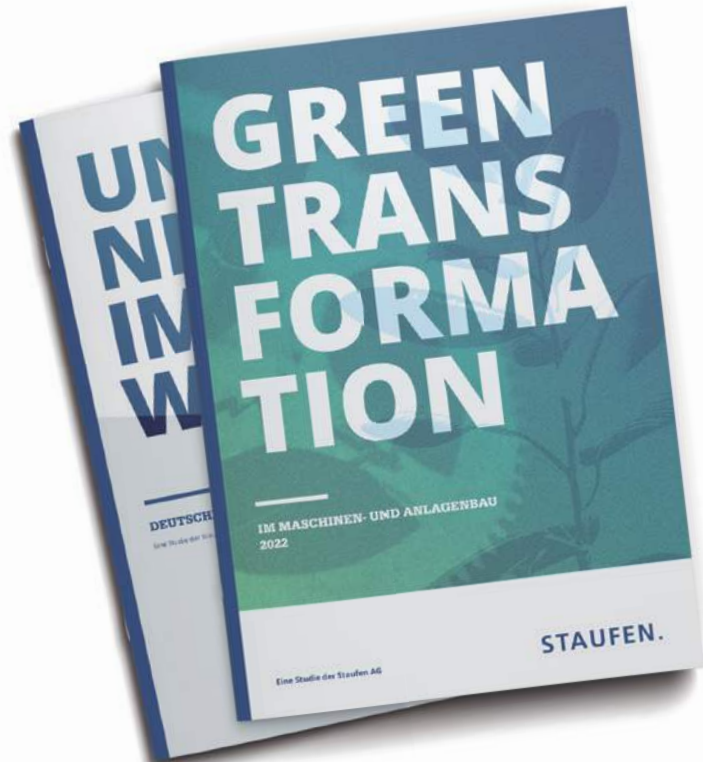
Do you want to implement Lean Management in the food industry?  
Then call Axel Davila Lage at +49 7024 8056 0  
Or send an email to [axel.davila@staufen.ag](mailto:axel.davila@staufen.ag)

He looks forward to talking to you in person!

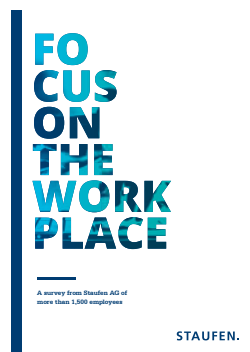
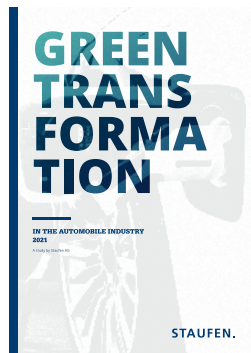


# STUDIES, INDUSTRY AND WHITE PAPERS

All studies, industry and white papers from Staufen AG can also be found online at [www.staufen.ag/studien](http://www.staufen.ag/studien)







# ABOUT US

Staufen AG is a Lean Management consultancy and academy. We have been advising and qualifying companies and employees for over 25 years. Worldwide.

Our goal is to make every business better and move our customers forward. Our special approach is to quickly set the right changes in motion and establish a sustainable culture of change.

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**INSIDE EVERY COMPANY  
THERE IS AN EVEN BETTER ONE**

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