

# Foreign Body Management

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Kündig Food Safety Tower ®



**KÜNDIG**  
FOOD INGREDIENTS SUPPLIER

## Kündig Group

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As a family-owned enterprise steeped in nearly a century of tradition, the Kündig Group sets the standards for quality and performance in trading and processing of first-rate food ingredients.

# Facts & figures

**35.000+**

Tons of  
output

**4**

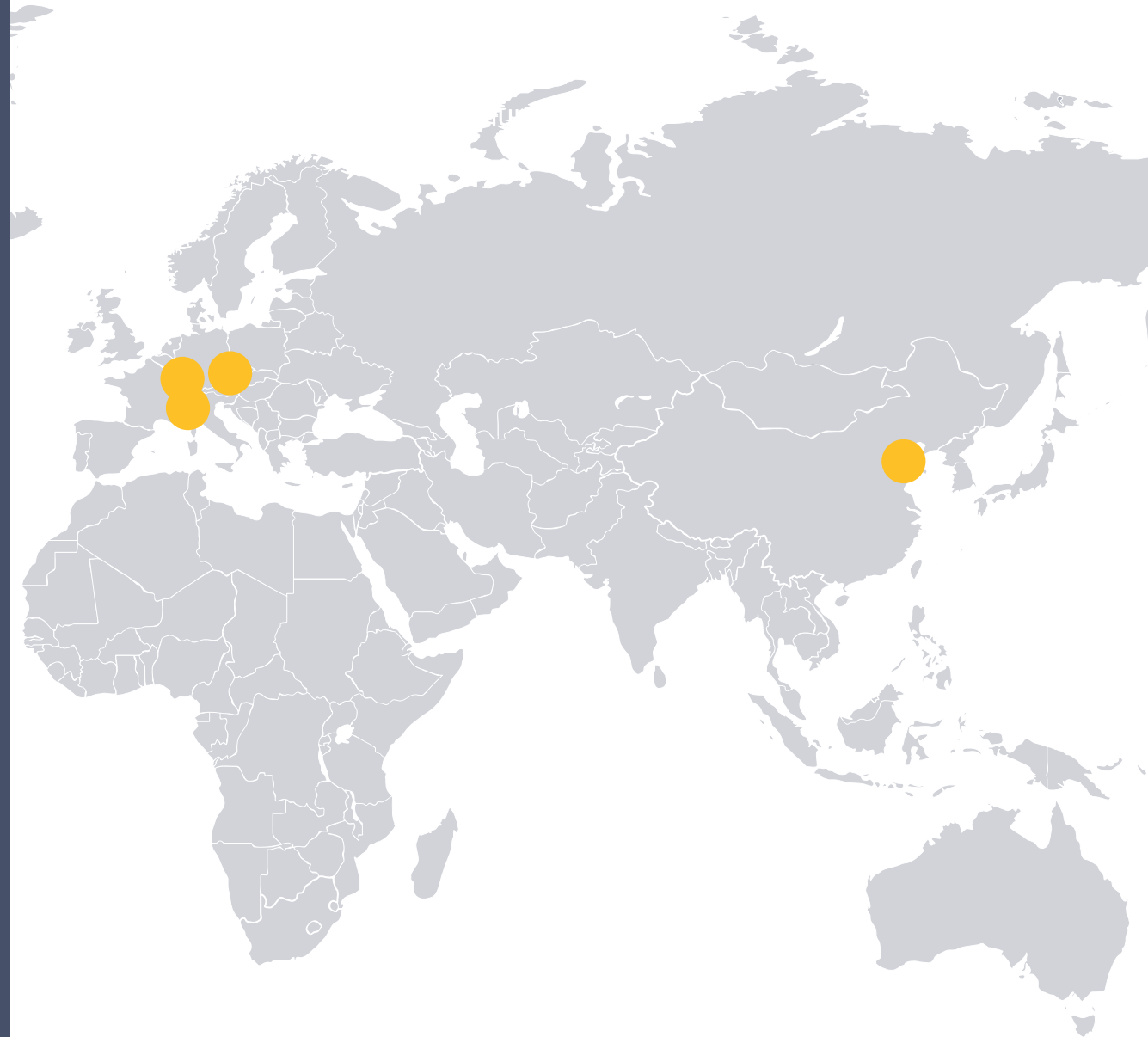
Locations

**140**

Employees

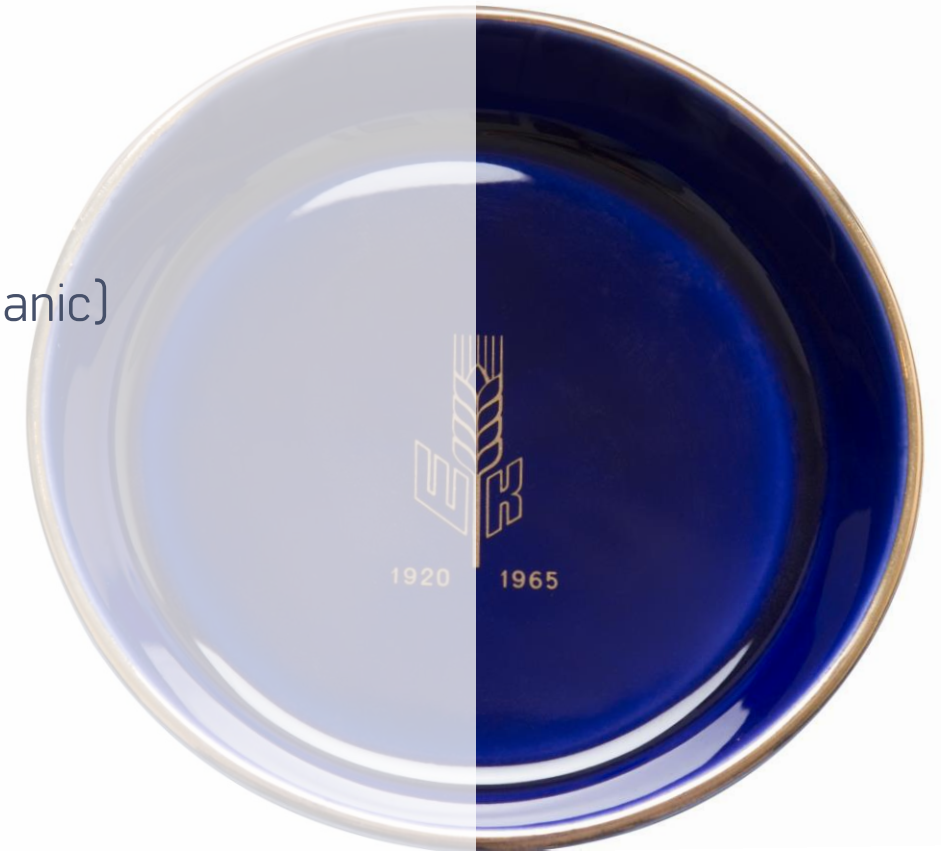
**96**

Years of tradition



# History

- 1920 W. Kündig & Cie AG  
Commodity trading (grains & pulses)
- 1993 Kündig KFT Budapest  
Quality control and source grains & frozen prod. (organic)
- 1996 Kündig Food KFT Kecskemet  
Production of spray dried tomato powder
- 2003 Part Shareholder of BGM GmbH & Co KG
- 2007 Kündig Germany & Biosteril ®  
Processing and cleaning of dried produce
- 2015 Kündig Food Safety Tower®  
Solution for foreign body management



## Danger: Foreign Matter

- **Warning System 2015**  
106 Foreign Matter Notifications (Europe)
- **Warning System 2014**  
89 Foreign Matter Notifications (Europe)
- **Warning System 2013**  
88 Foreign Matter Notifications (Europe)
- Glas / Metal / Plastic / Wood / Stones
- Only fractions have been reported

<https://webgate.ec.europa.eu/rasff-window/portal/?event=searchResultList>





## Mars

Plastic pieces in chocolate bars

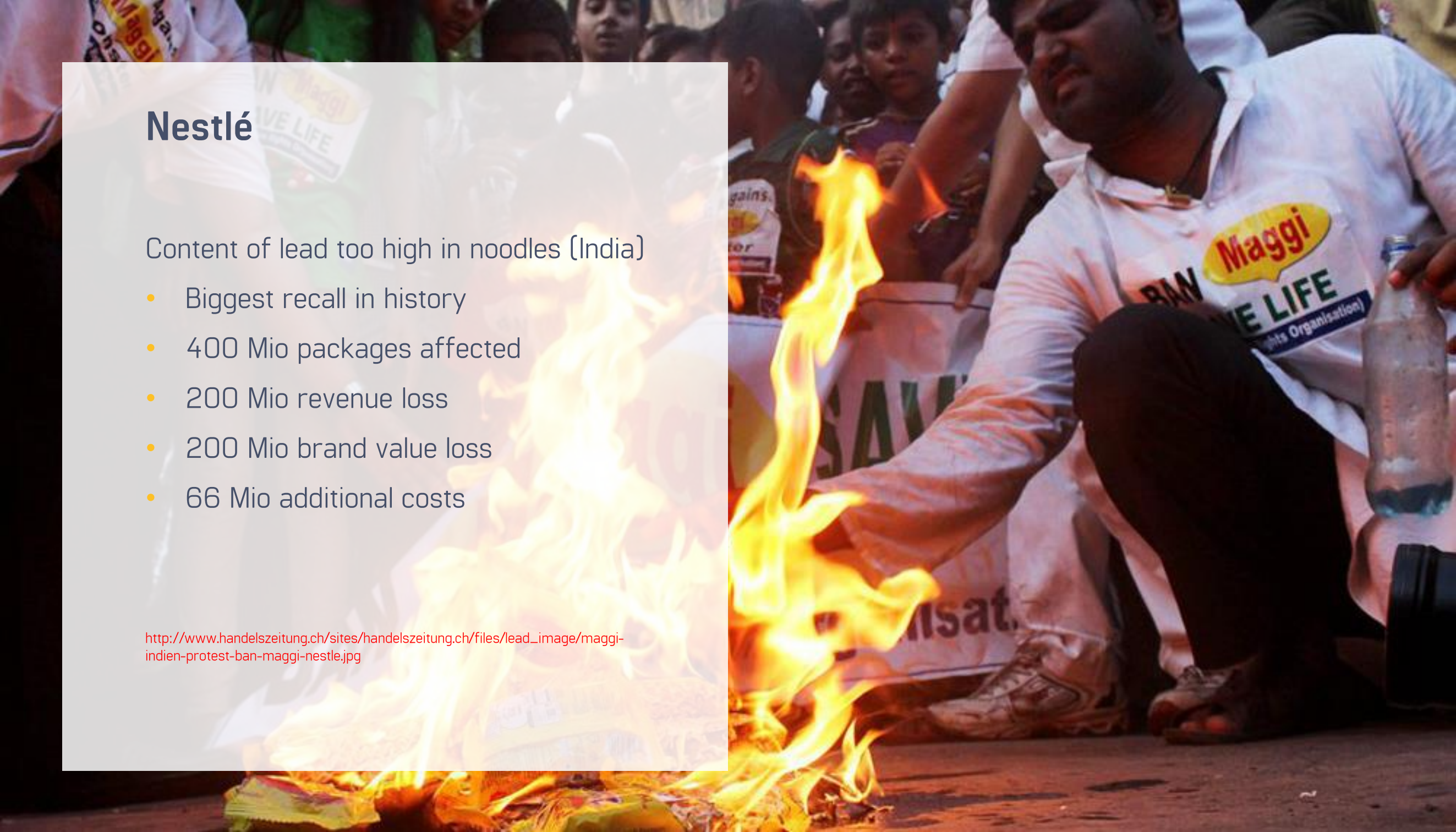
- Recall in over 50 countries
- Damage of several Millions (USD)
- Damage to reputation unknown

# Nestlé

Content of lead too high in noodles (India)

- Biggest recall in history
- 400 Mio packages affected
- 200 Mio revenue loss
- 200 Mio brand value loss
- 66 Mio additional costs

[http://www.handelszeitung.ch/sites/handelszeitung.ch/files/lead\\_image/maggi-indien-protest-ban-maggi-nestle.jpg](http://www.handelszeitung.ch/sites/handelszeitung.ch/files/lead_image/maggi-indien-protest-ban-maggi-nestle.jpg)



# Technological Progress

- Sensitive customers increasing
- Higher industry requirements
- Conventional cleaning reached its limits
- Mindblowing Progress in technology
- New possibilities
- Impressive potential for Food Safety







## Problem 1

Influence factors:

Technology, men, process, material

Not only efficient (to do the right things)  
but also effective (to do things right)

Solution:

- Raising awareness through training (Know-How / Mindset),
- Correct arrangement of processes & machines
- Use of correct materials.



## Problem 2

New technologies do have limits!

Small parts are hardly detectable  
( $<1\text{ mm}$ )



Solution:

New technologies need to be used as a  
addition to conventional technologies



## Problem 3

Foreign matter that sticks to the product is difficult to detect.

Traditional cleaning & new technologies have no chance

Solution:

Handpicking

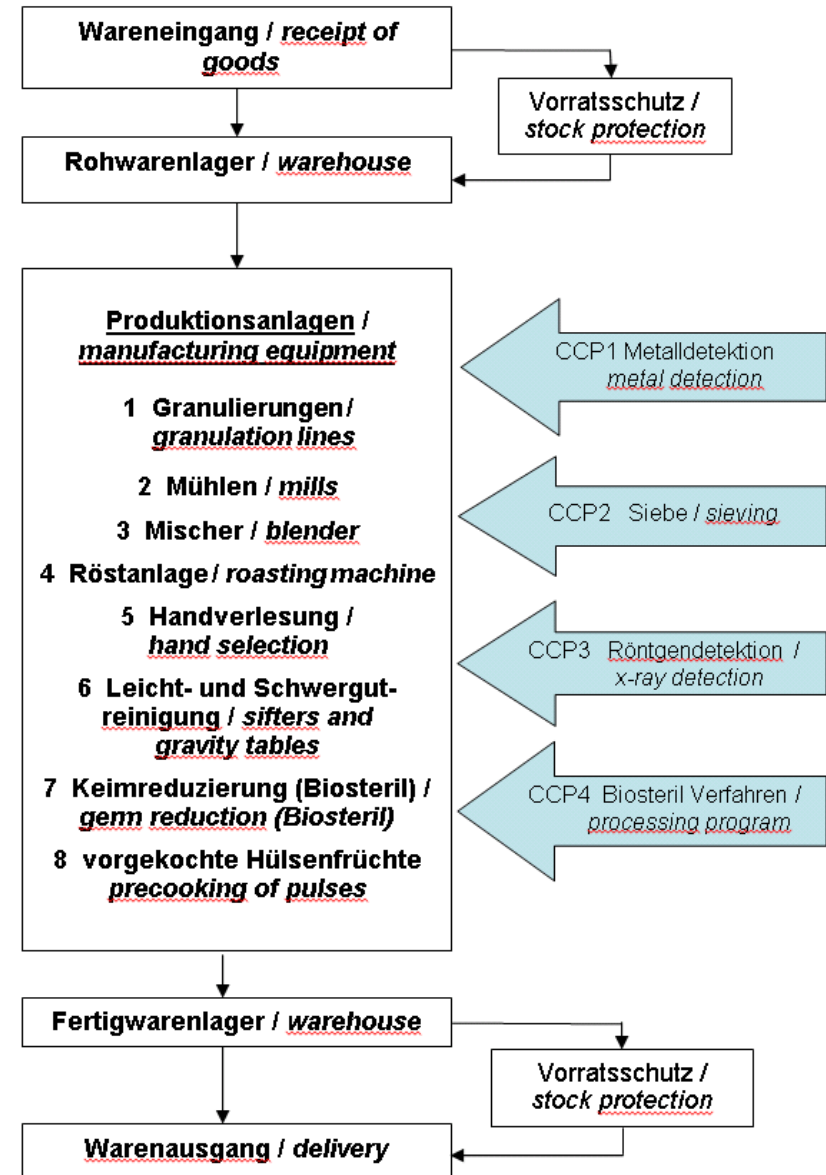


## Kündig Food Safety Tower ®

We have developed a system & solution for the reduction of foreign matter in dry food commodities.

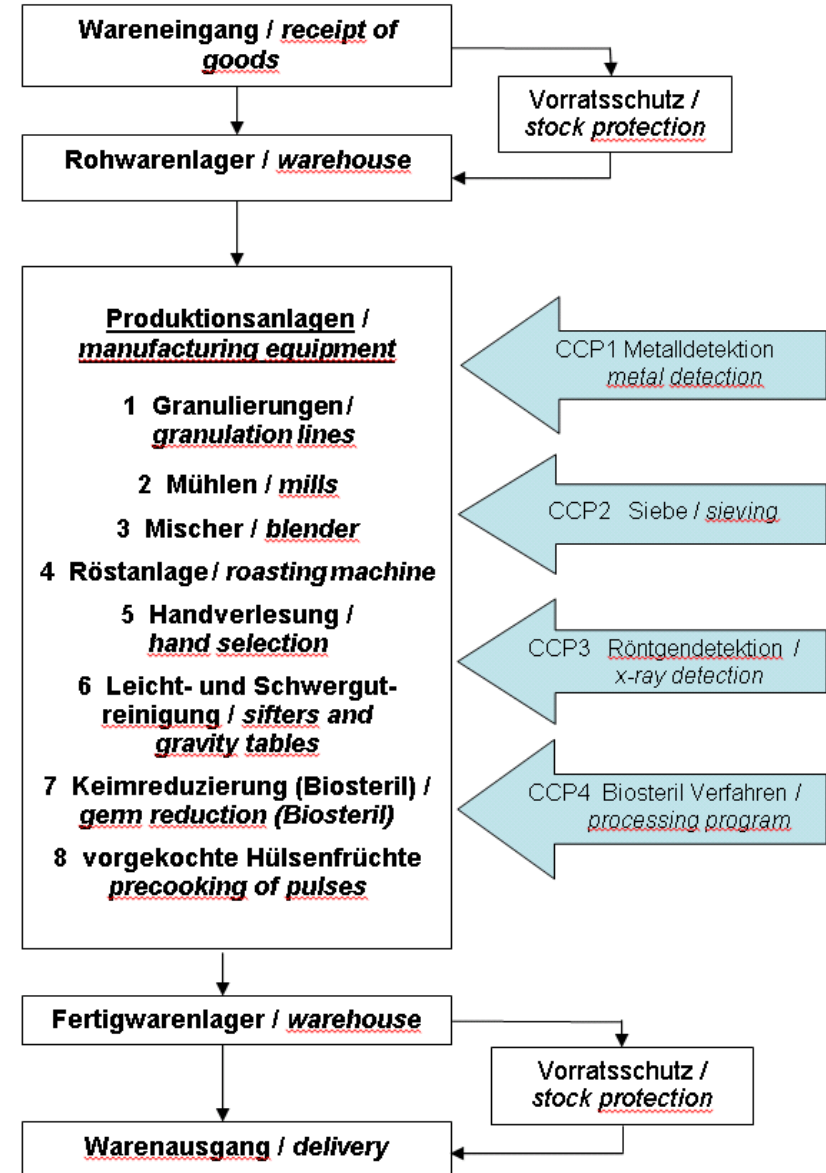
# Traditional Work-Flow

- Goods receipt
- Production
- Delivery



# Kündig Work-Flow

- Receipt of goods
- Kündig Food Safety Tower ®
- Customizing
- Delivery



## Flowchart of goods

- Goods receipt
- Kündig Food Safety Tower ®
- Customizing



## Goods receipt

- Incoming inspection (visually)
- Sampling
- Handpicking
- (Stock protection)



# Kündig Food Safety Tower ®

- Sieving
- Elimination of heavy foreign matters
- Magnetic cleaning
- Elimination of light foreign matters incl. magnetic cleaning



# Kündig Food Safety Tower ®

## ● Optical sorting

- Analyses form, colour and surface structure
- 3 separate laser systems
- Fluorescence laser detects lignified fragments
- Polychromatic camera recognises 16 million colours
- Monochrome camera recognises 256 greyscale levels



# Kündig Food Safety Tower ®

## ● Radiographic detection

- X-ray beams identify foreign matter such as glass splitters, ingrained metal shavings, aluminium foil, stone adhesions, etc.
- Multi-channel extraction device minimises product loss



# Kündig Food Safety Tower ®

- Fractioning
- Metal detection
- Control sortation
- Packaging





## Customizing

- Cutting, granulating
- Grinding
- Hand-sorting
- BioSteril® steam sterilisation
- Final packaging

# Kündig Food Safety Tower – At a glance

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## #1 Perfect Interaction

Leading-edge laser and radiographic technologies guarantee purity and product safety.

## #2 Closed system

From goods receipt to packaging, the KFST® guarantees maximum product safety due to its closed system.

## #3 Modern sieving technique

State-of-the-art sieving techniques ensure pinpoint accuracy of fractioning process.

## #4 Transmission via stainless steel

Produce transmission via stainless steel eliminates contamination risk.



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