




# Process upgrades through belting V4.0

A photograph of a business meeting. Several people in professional attire are gathered around a table. One person is pointing at a tablet computer that displays a circular diagram. Another person is holding a white coffee cup. The scene is brightly lit, suggesting an office environment.

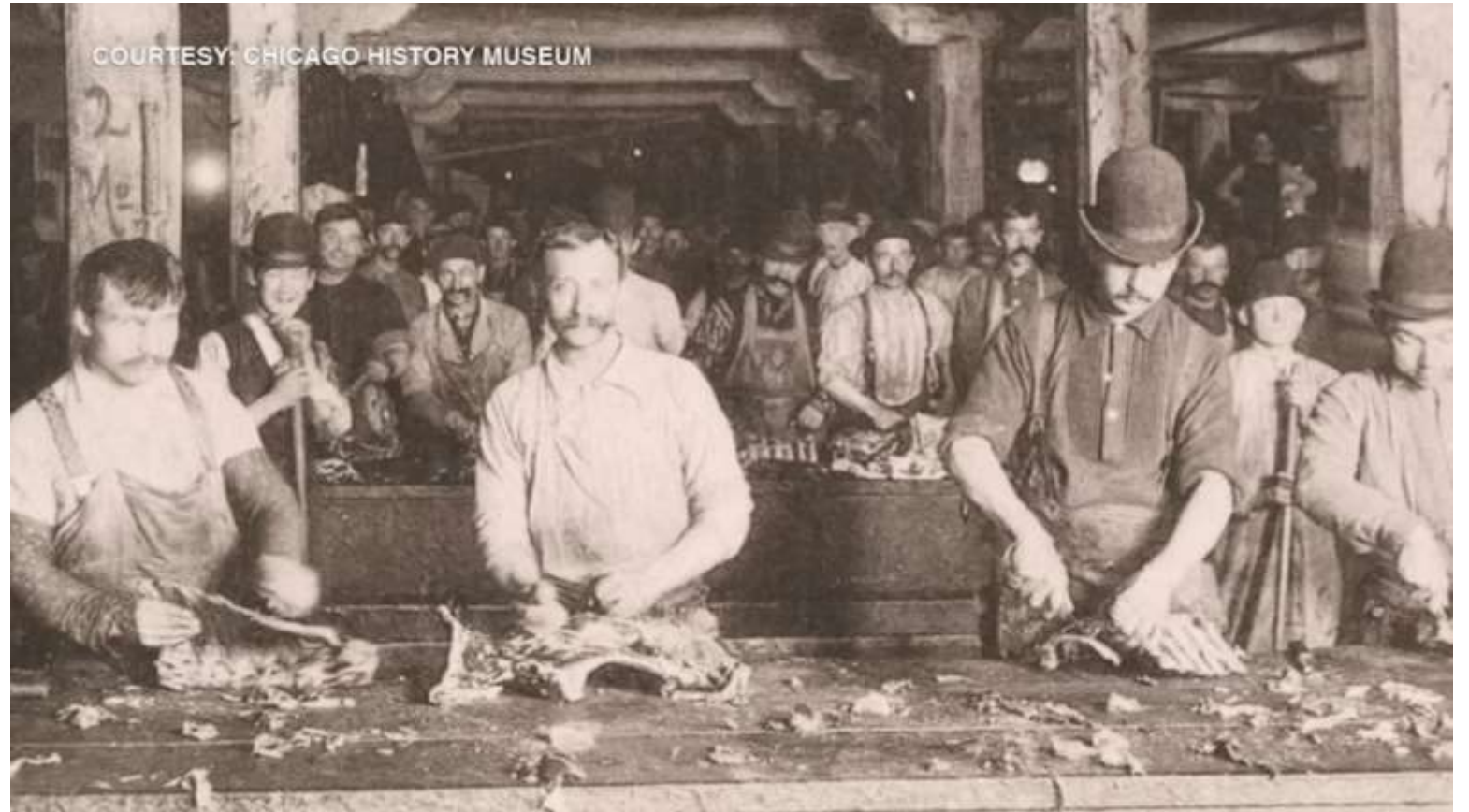
A brief history of belting  
The challenges before us  
Belting V4.0



## *The beginning*

*"From here, it had to get better!"*

Belting Vo.o





## *Up to and around the 1950's*

Wooden slats (Chain, leather, canvas)

Metal belts

Wider woven cotton belts

Nitrile rubber belts

Rollers

Belting V1.0





# Belting V1.0

## *Up to and around the 1950's*

Wooden slats (Chain, leather, canvas)  
Metal belts  
Wider woven cotton belts  
Nitrile rubber belts  
Rollers



Conveyors allowed increases in production volumes  
More hygiene awareness  
Introduction of official production standards



High level of foreign object contamination  
Lower levels of sanitation (poor hygiene)  
Open machinery leading to injury  
Unreliable operation (high maintenance)





## *1960's onwards*

Synthetic coated textile belts  
Polyester solid woven belts  
Extruded round and vee belts

Belting V2.0





# Belting V2.0

## *1960's onwards*

Synthetic coated textile belts  
Polyester solid woven belts  
Extruded round and vee belts



Further improved hygiene with coated belts  
Belts became scraper friendly  
Better cleaning regimes possible  
Better stability and reliability

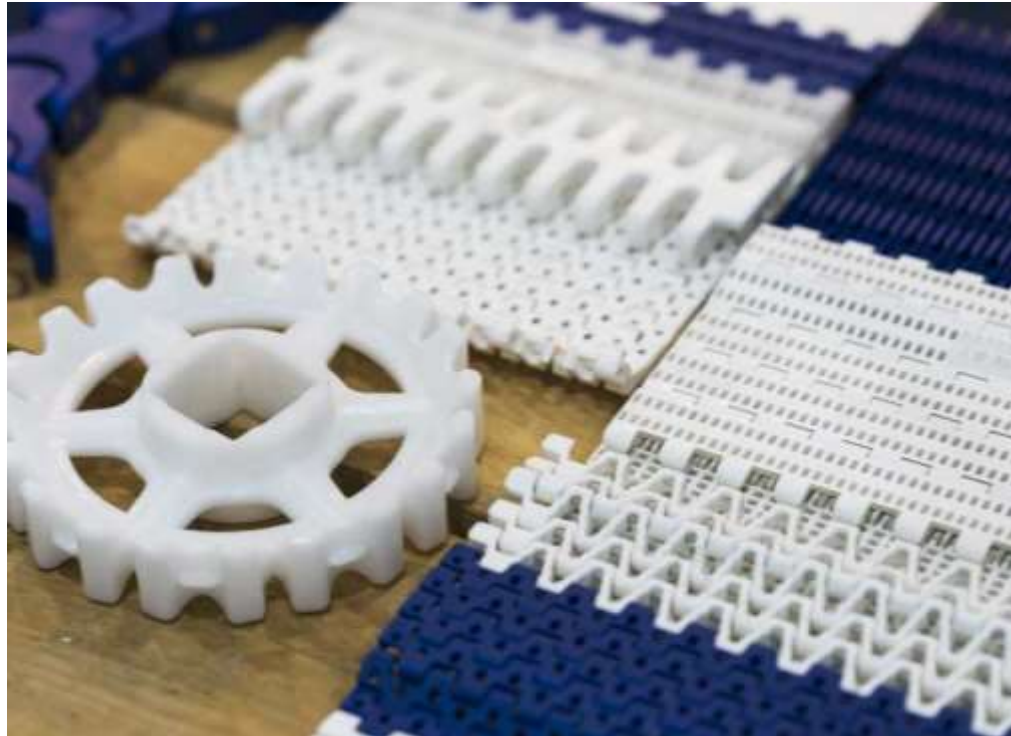


Increased cases of plastics contamination  
Belt delamination becomes a problem  
Scarfed belt joints were a hygiene point

## *1970's onwards*

Modular belts  
Friction driven monolithic belts  
Food grade TPU timing belts  
Introduction of antimicrobial belts  
Improved jointing techniques

Belting V3.0





# Belting V3.0

## 1970's onwards

Modular belts  
Friction driven monolithic belts  
Food grade TPU timing belts  
Introduction of antimicrobial belts  
Improved jointing techniques



Significant increases in hygiene  
Significant increases in belt width (5 mtrs!)  
Lower maintenance costs



Hard plastics contamination becoming a real issue  
Fabric contamination remains an issue  
Antimicrobial migration becomes a problem





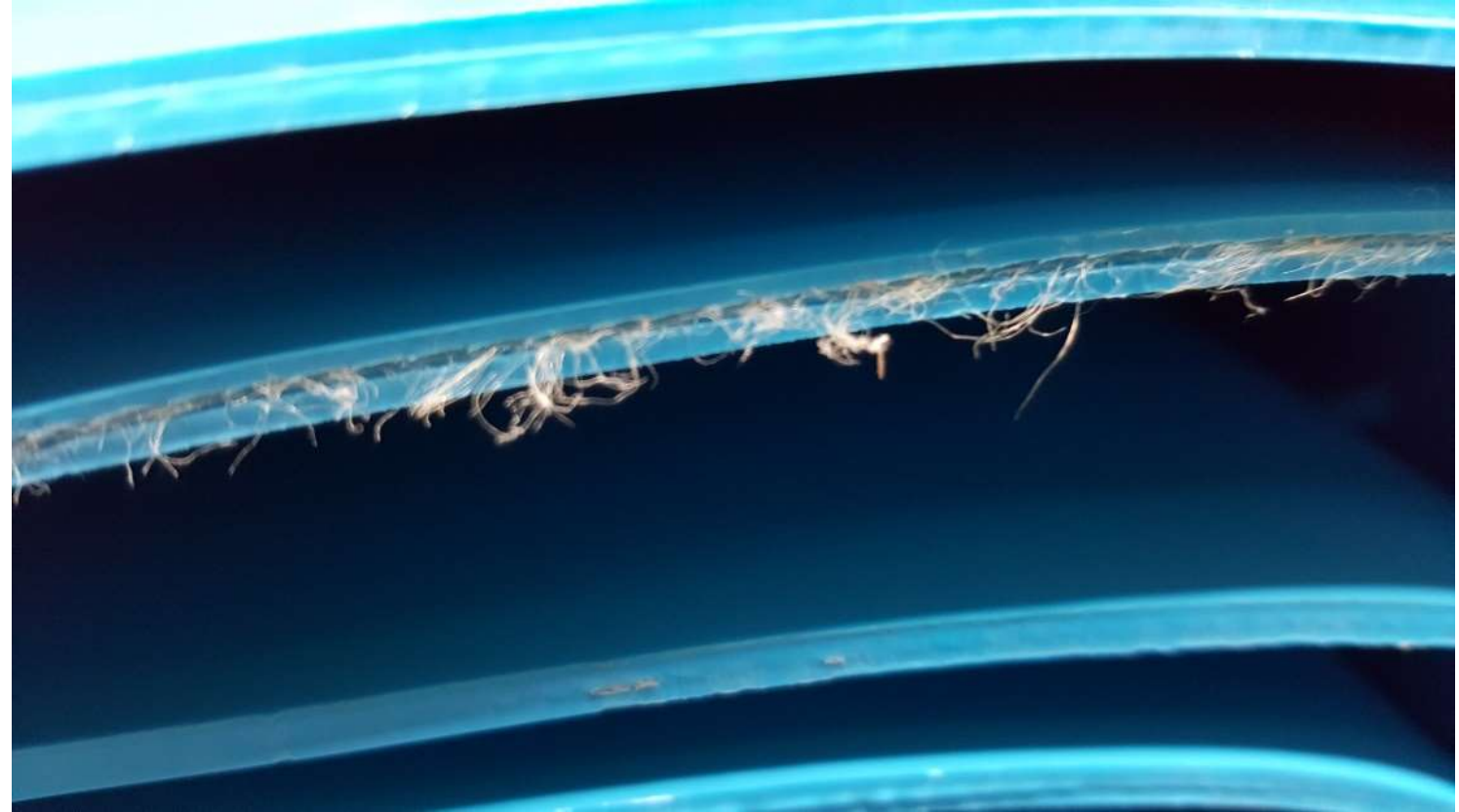
*What concerns food producers  
in their production processes?*



Hygiene  
Cost reduction  
Low maintenance  
Reliability  
Compliance

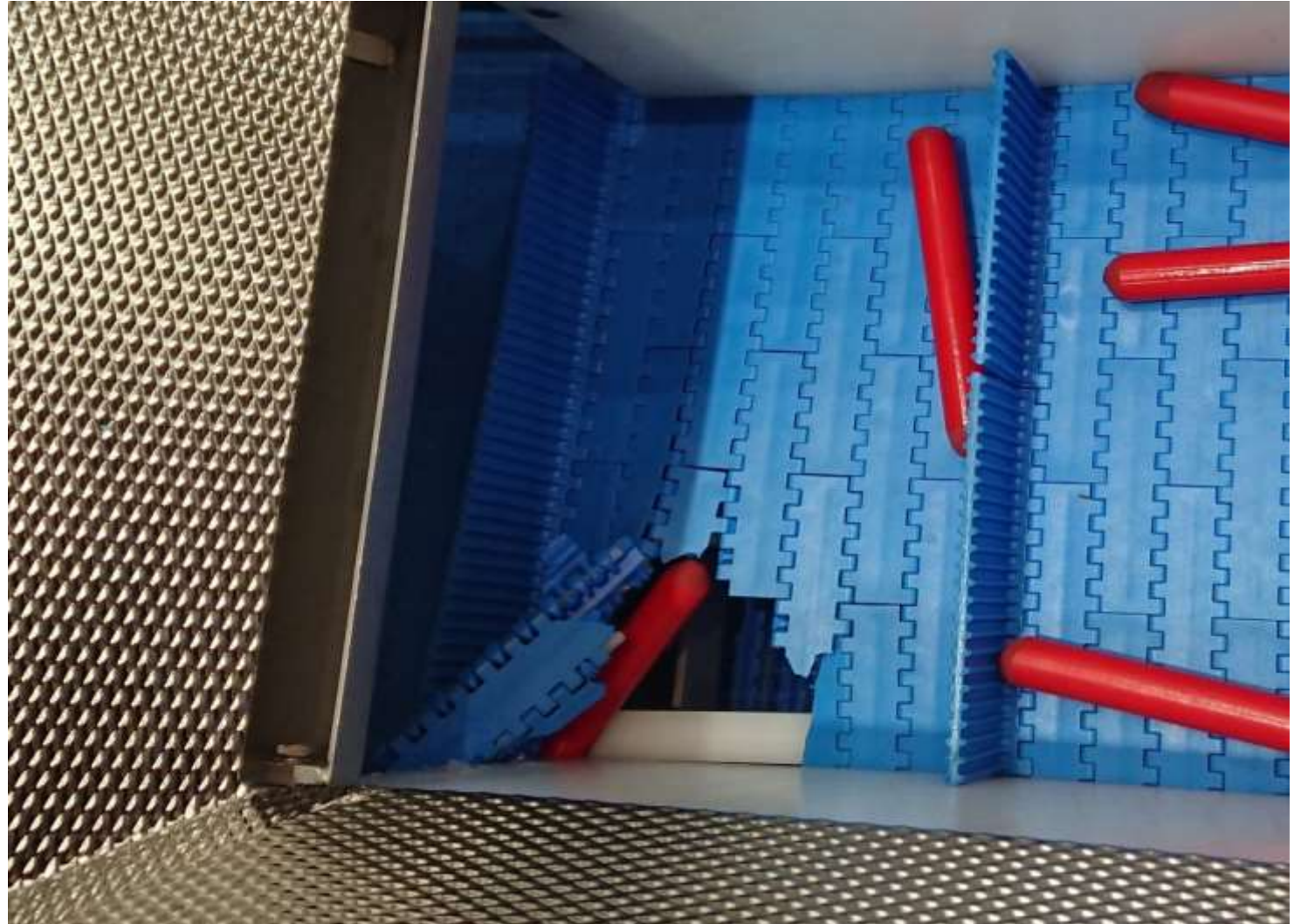
## *What concerns food producers in their production processes?*

Exposed cords  
(fabric  
contamination)



# *What concerns food producers in their production processes?*

Hard plastics  
contamination





# *What concerns food producers in their production processes?*

Surface cracking  
(Bacterial growth)



*What concerns food producers  
in their production processes?*

Cleaning costs





*What concerns food producers  
in their production processes?*

Hygiene levels



# *What concerns food producers in their production processes?*

**Delamination  
(Bacterial growth)**



# *What concerns food producers in their production processes?*

Edge fray  
(Plastics/fabric  
contamination)





*Where are we now?  
(Reminder)*



Hygiene  
Cost reduction  
Low maintenance  
Reliability  
Compliance



*Where are we now?*



Introducing...

Belting V4.0





*Today*

The positively driven monolithic belt

Belting V4.0





*Today*

What is a truly monolithic belt?



**Belting V4.0**

A monolithic belt is fully extruded, single material with no fabrics or other materials incorporated.



*How does a monolithic belt improve hygiene?*



No plies to delaminate  
No cords or textiles to contaminate  
Solid sprockets with no voids  
Resistant to hard plastics contamination  
Hygienic welded joints  
Smooth scraper friendly surfaces



## *How does a monolithic belt decrease running costs?*



Clean in place (CIP)  
70% lower water/chemical/waste usage  
Fit and forget  
Can be mechanically joined  
No specialist joining skills needed  
Can be joined quickly and easily  
Simplified conveyor construction



*How does a monolithic belt improve reliability?*



No need for tensioning  
Self-tracking  
Tough and durable  
Low fatigue on bearings and frame  
Can be easily repaired





*How does a monolithic  
belt comply?*



HACCP friendly  
EU compliant  
USDA and FDA compliant  
50 -80% quieter than modular belts



*Belting V4.0 = Simple, open and hygienic*



**Belting V4.0**

Zero tension  
Self-tracking  
Inexpensive  
Troughing  
Quiet operation



## *Belting V4.0 – What's possible?*





## Key benefits of monolithic conveyor belts



- No fabric contamination
- No delamination
- Resistant to hard plastics shedding
- No harbours for bacteria
- Simple to retro-fit
- Fit and forget operation
- Quiet in operation
- Water, chemical and labour saving
- EU, FDA and USDA approved



Process  
upgrades  
through  
belting V4.0

Thanks for  
your  
attention!

