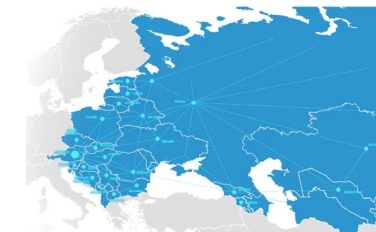


BISCUIT TRENDS & PACKAGING INDUSTRY SOLUTIONS

BISCUIT PEOPLE CONFERENCE
PULA, CROATIA, APRIL 3RD – APRIL 6TH

BOSCH PACKAGING TECHNOLOGY
GLOBAL PRODUCT MANAGEMENT/ DANIEL BOSSEL



Headquarter

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A-1030
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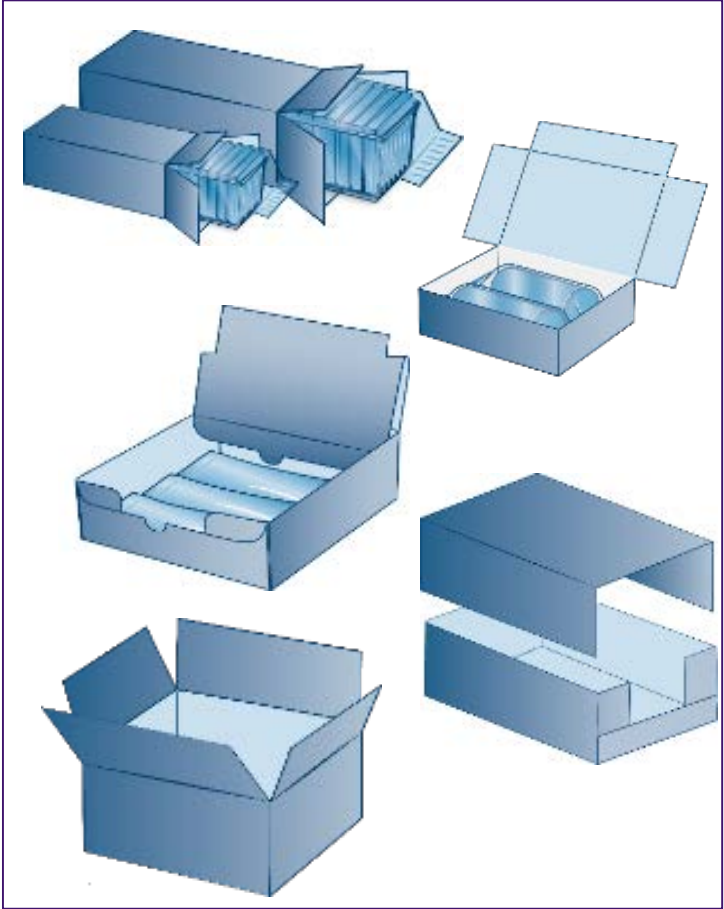
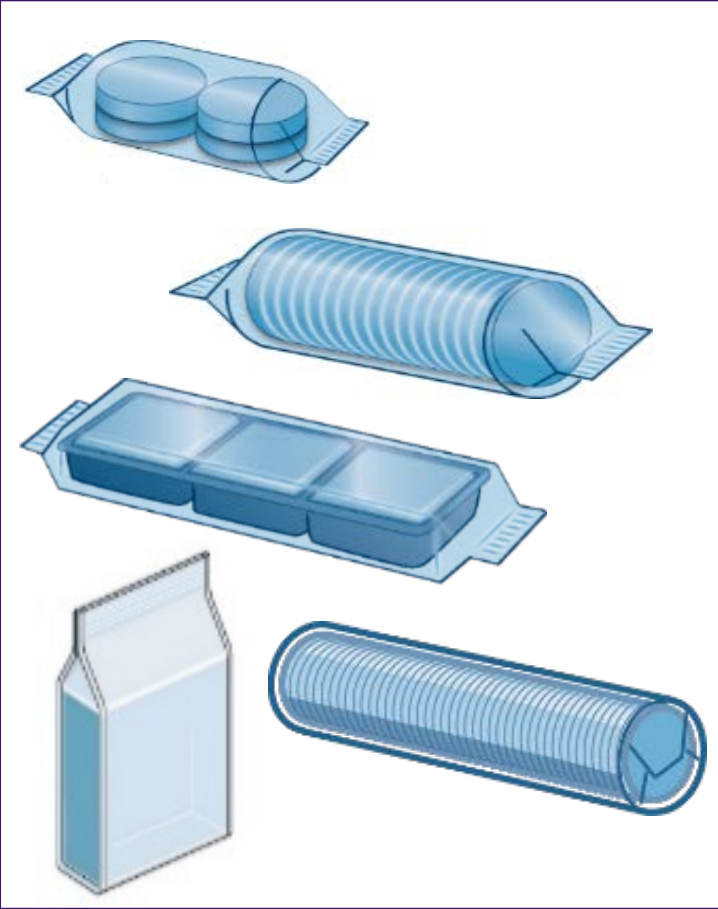
Fax: +385 1 615 14 50

Mob: +385 916 15 14 60

Email: d.tesija@polo-ag.com

Biscuit Systems

Major Biscuit Packagings



Biscuit Systems

Some Packaging System Applications



Distribution



Feeding



Flow Wrapping

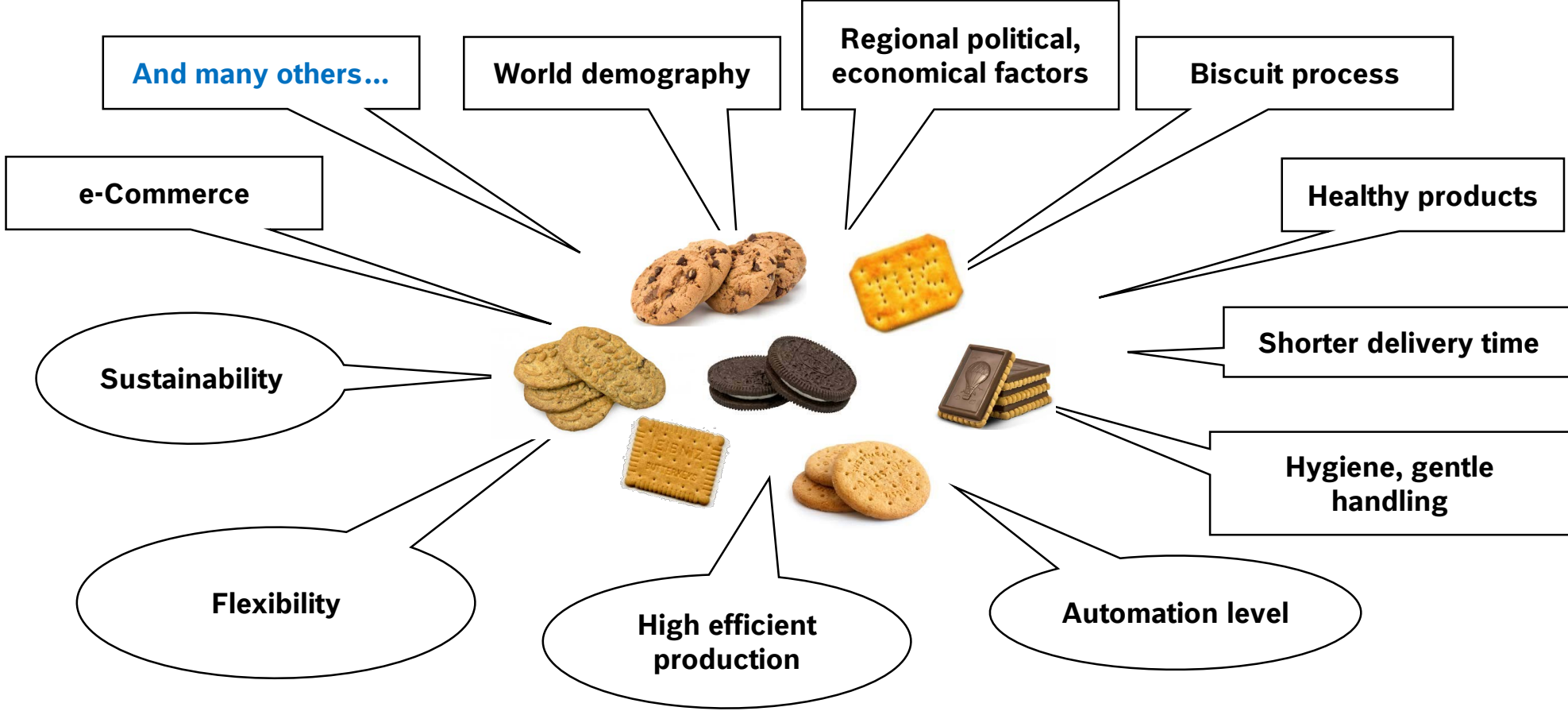


Toploading



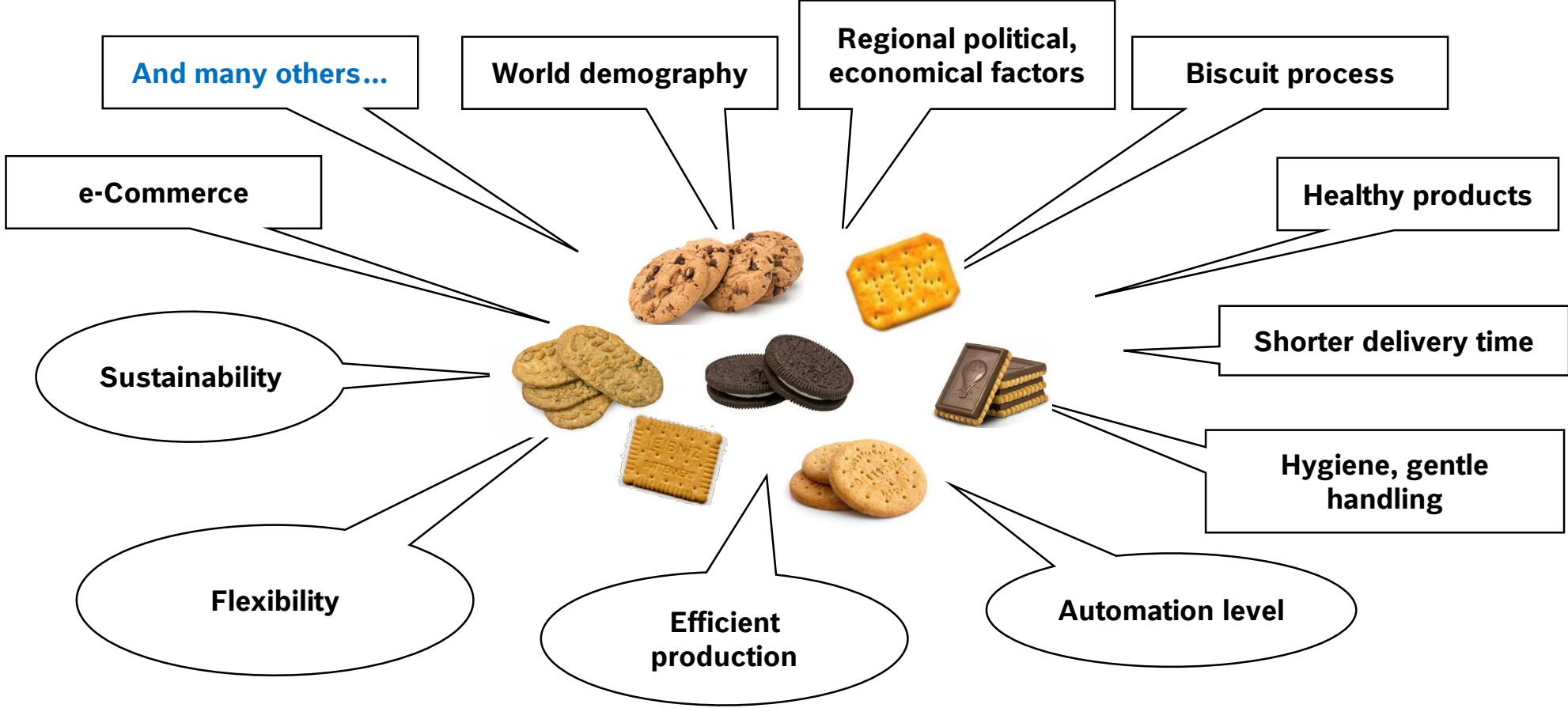
Biscuits Industry Evolution

Biscuit Trends



Biscuits Industry Evolution

AGENDA, Today



Biscuits Industry Evolution

Conventional Solutions with Chain

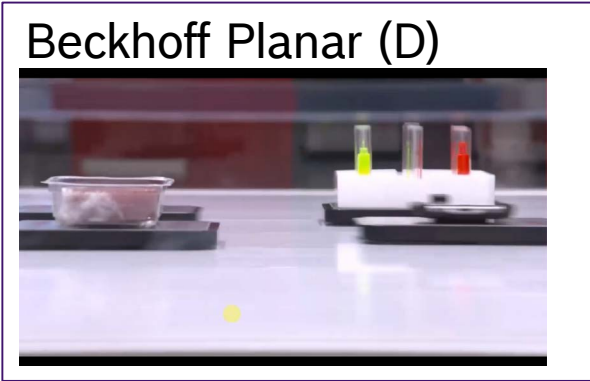
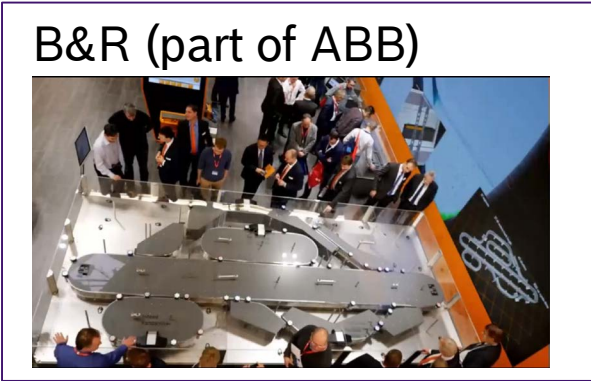
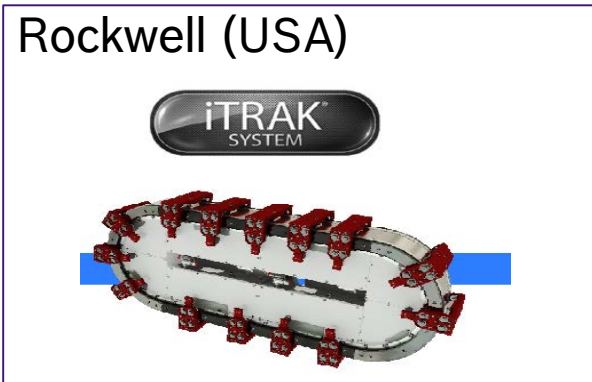
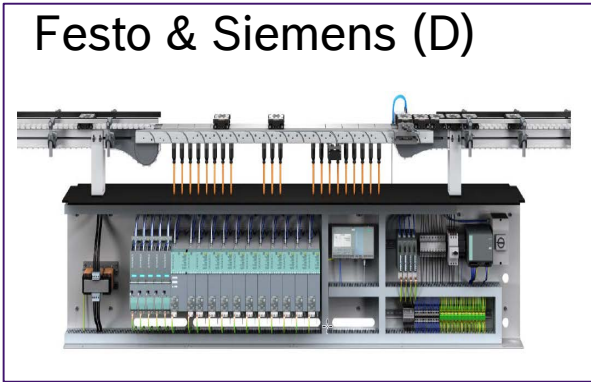
Flexibility



Biscuits Industry Evolution

Intelligent and flexible Motor Solutions

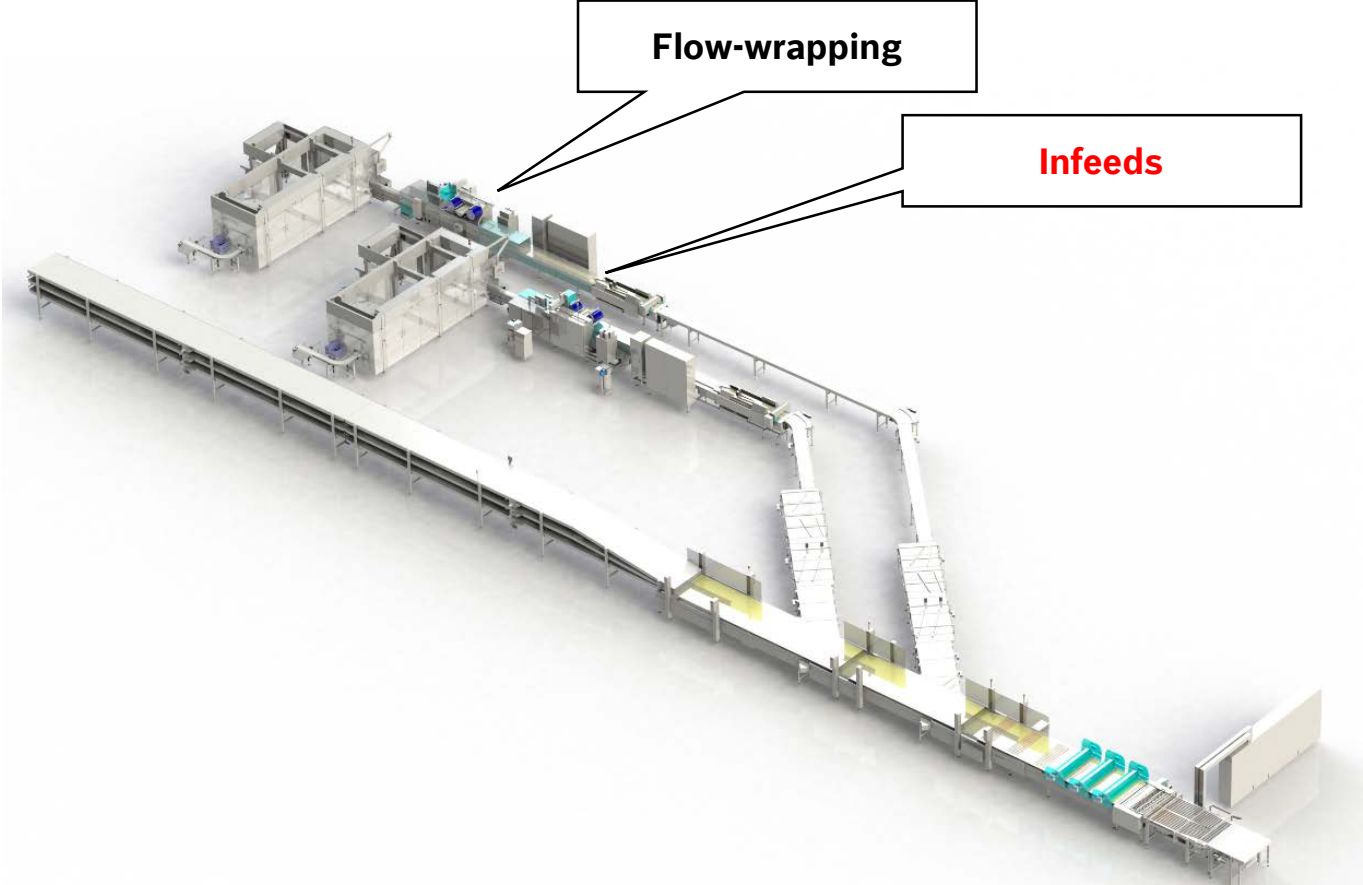
Flexibility



Biscuits Industry Evolution

How to use intelligent Motors?

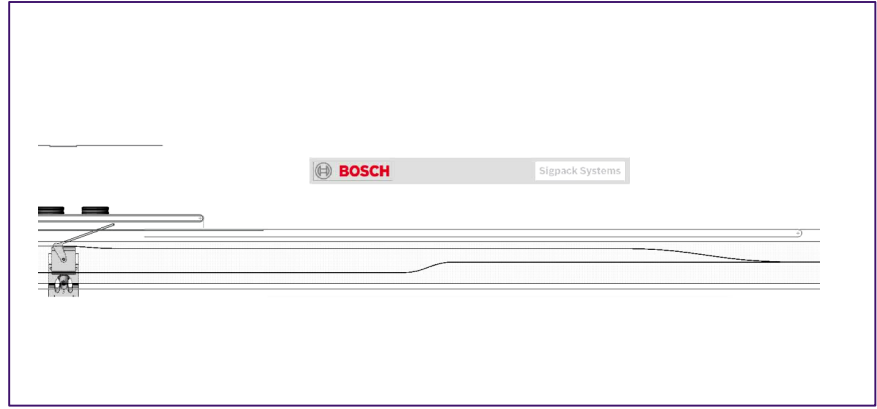
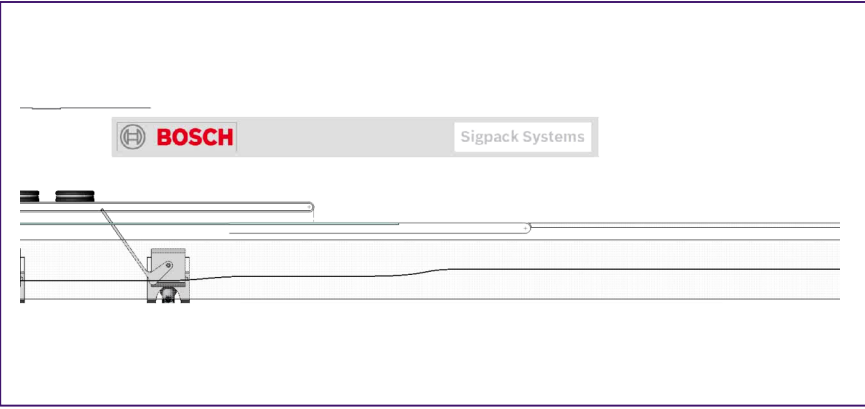
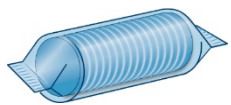
Flexibility



Biscuits Industry Evolution

Linear Motor with clever Idea, Example Two in One

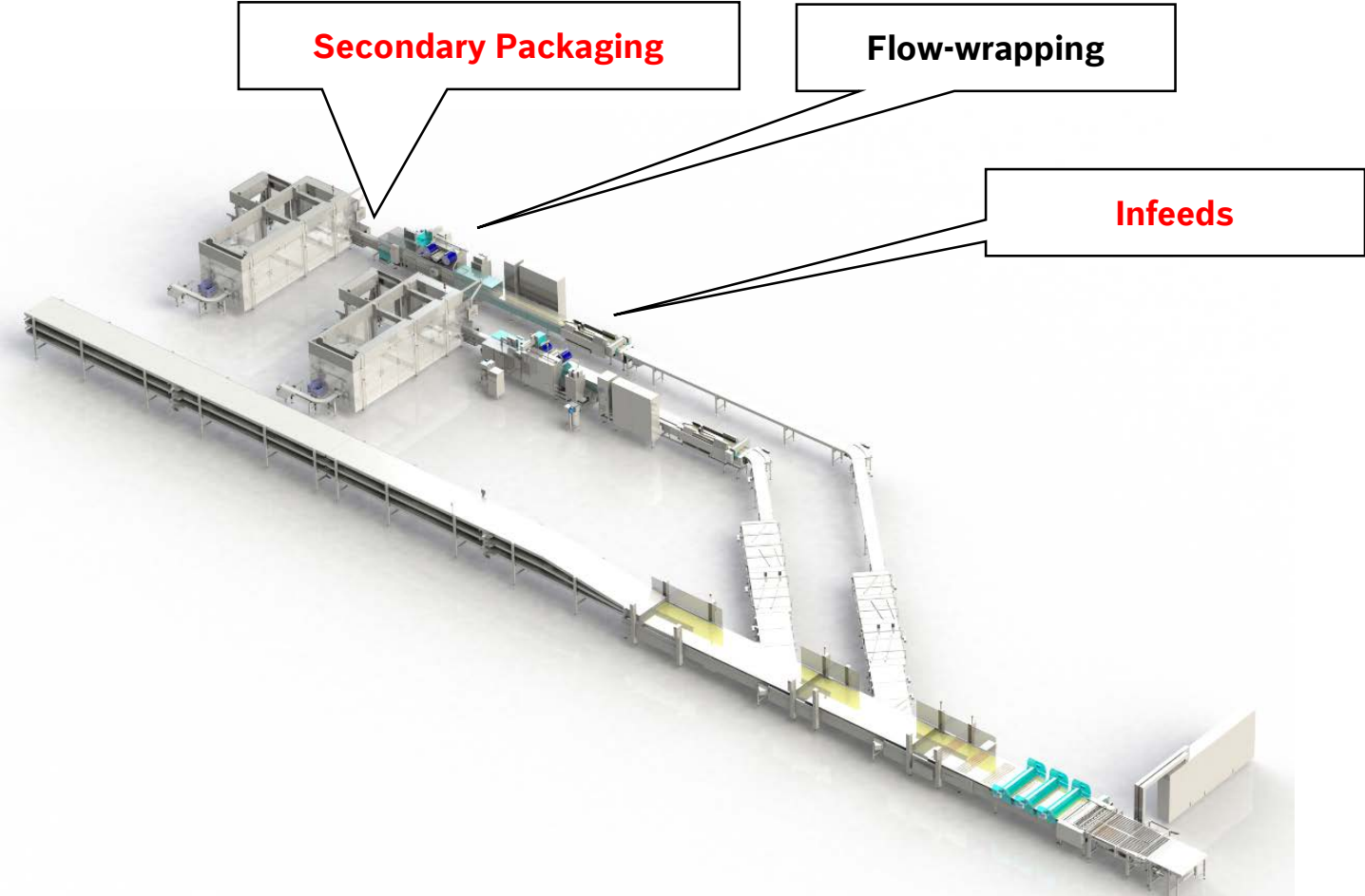
Flexibility



Biscuits Industry Evolution

How to use intelligent Motors ?

Flexibility



Biscuits Industry Evolution

Intelligent Motor Solutions

Flexibility



Biscuits Industry Evolution

The Industry 4.0 Revolution

Efficient
production

Producer Expectations

OEE

Production
automation

Digitalization

TCO

24/7 Service

Quality

Easy
to use

Maintenance

Machine Industry Offer



Biscuits Industry Evolution

Manual Work...

Automation Level



Biscuits Industry Evolution

Less Manual Work by using Robots

Automation Level



One year ago...



Entry Level
Fanuc & P102
150b/min.



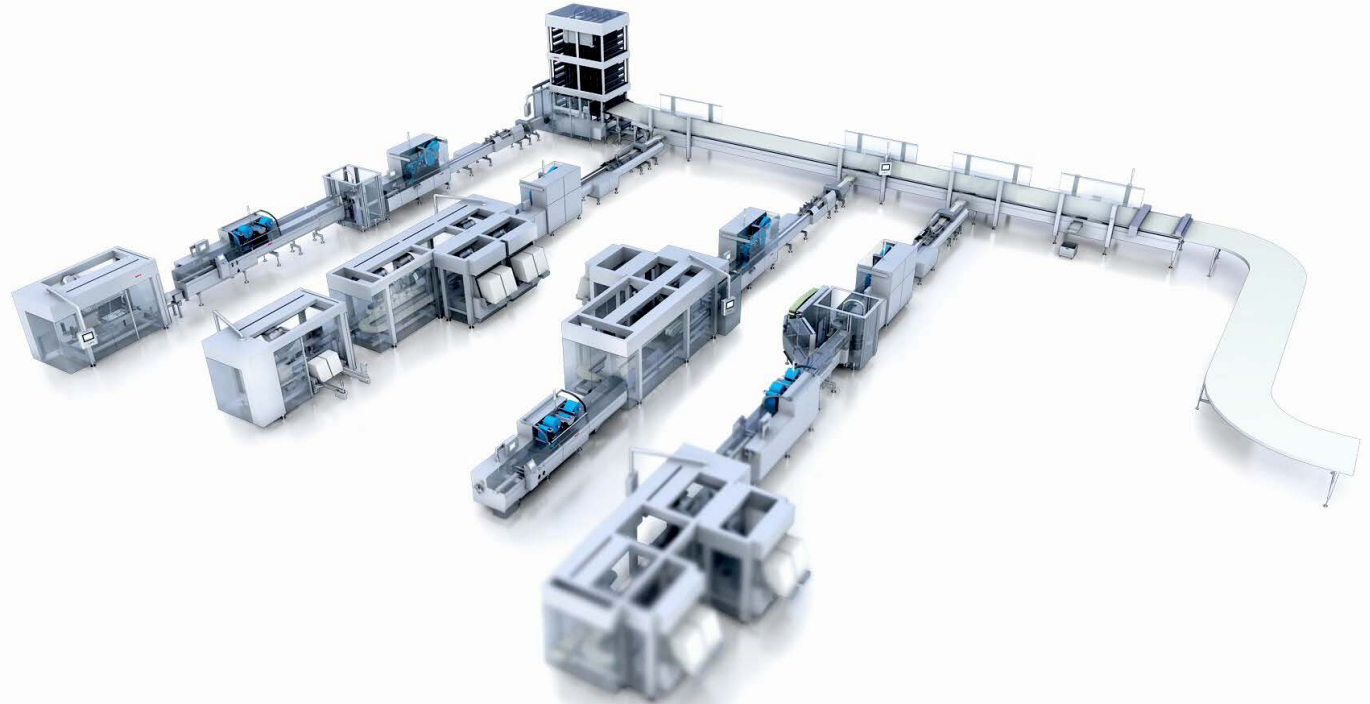
Mature Level
Paloma with Card
(reel) & P 201
240b/min.

Biscuits Industry Evolution

Packaging Material changes with Collaborative Robot

Automation Level

Packaging Material / Add. Material	Feed / Refeed Product	Cleaning
Operate Machine	Size Change	
Empty Waste / Reject	Diagnostic	

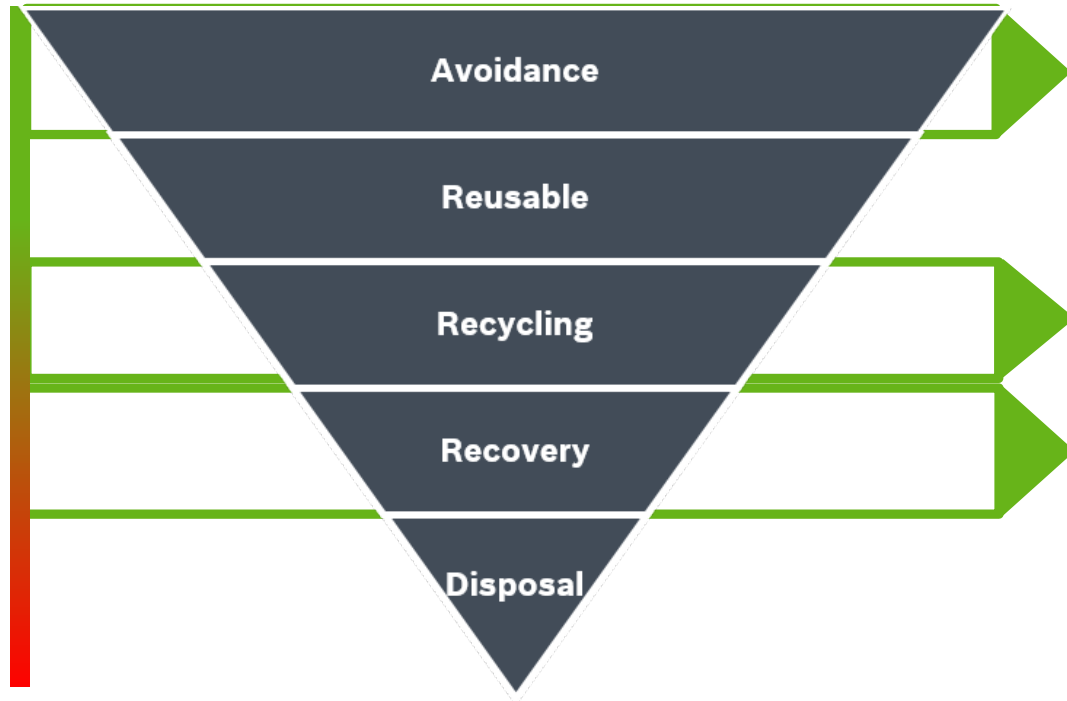


Biscuits Industry Evolution

EU- Waste Hierarchy

Sustainability

«The EU and its 28 member states are legally bound to dispose litter according to the waste hierarchy»



- Less material, thickness
- In packaging, new life like e.g. furniture?
- Monomaterial
- Paper

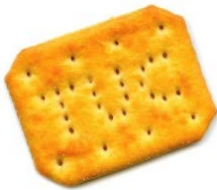
Filling
Design & Functions
Sealing
Printing
Barrier, Exp. Dates
etc,

Biscuits Industry Evolution

Less Material Stress during Heat Sealing

Sustainability





Global product management/ Daniel Bossel
daniel.bossel@bosch.com