Ammeraal Beltech

CircleLinks

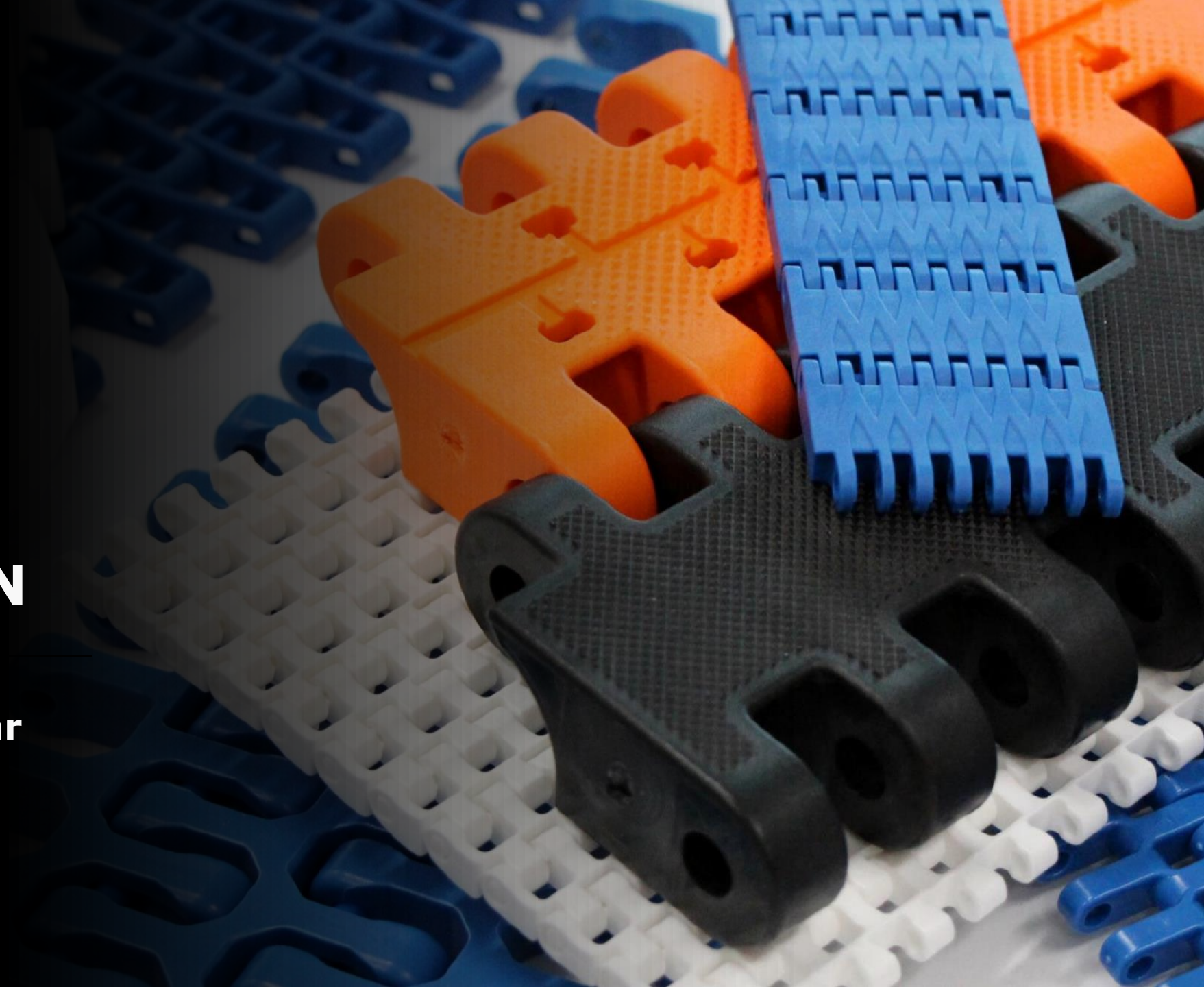
Kan fremtidens fødevaregodkendte transportbånd fremstilles af genanvendt plast?

WE MAKE
YOUR
BUSINESS
MOVE

Version 2502-01

FIRMA INTRODUKTION

Fra AMMEGA til Modular bånd på 2 minutter



The Global Leader in Mission Critical Industrial Power Transmission and Lightweight Process and Conveyor Belting

World's leading producer of synthetic, rubber, polyurethane **conveyor and power transmission belts**

Operates in 50+ attractive, growing and resilient end markets such as food, logistics, packaging among others

Owned by Partners Group and formed through the combination of **Ammeraal Beltech** and **Megadyne**



Mission-critical consumables ~1% (belt cost as a % of total conveyor system)

Present in >50 countries with 170 customer solution centers, close to customers in Europe, US and Asia

Global fragmented market and diversified client base (>50,000 current Ammega customers)

c.€1.1bn *Revenue*	**c.70%** *Replacement Sales*	**20%+** *EBITDA Margin*	**72%** *Cash Conversion[1]*

INTERNAL & BUSINESS ONLY

Ammega's Product Offering is Focused on Mission Critical and High Value-add Applications

	Product Portfolio		Characteristics
~60% Lightweight Belts (~60% of Revenue)	**Synthetic**		• Synthetic Belts are able to fulfil the application needs for light to heavy processing and conveying applications. Synthetic conveyor belts are made of fabrics with a coating on the top and/or bottom side. A belt consists of one or more fabric plies to give certain features
	Modular		• Plastic Modular Belts are positive drive, low-noise, and long-lasting. Assembled in a bricklay pattern, they can be made to almost any length and width and a wide-range of accessories are available to customise the belt for specific applications or processes
	Light-weight-rubber		• Rubber coated textiles consisting of Lightweight Rubber Conveyor Belting, Coated Fabrics, Diaphragms, and other precision-molded products
	PTFE Belts		• PTFE or Silicone Coated Belts deliver premium performance at extreme temperatures for a wide range of Food Industry applications
	RAPPLON® High Performance Flat Belts		• Complete range of high-quality belts suitable for a wide variety of production equipment. Surface covers include fabric, leather, natural rubber, elastomer and many thermoplastic coatings. Also suitable for special applications
~36% Power Transmission Solutions	**Power Transmission Belts (PU And Rubber)**		• Timing/synchronous belts to modify speeds and relay the torque that powers equipment from electric motors or other drives to the driven equipment
	V-Belts & Banded Belts		• Suitable for highly loaded drives and temperatures, with limited design dimensions
	Metal Drive Components		• Optimize the movement of products and increase the conveyor life expectancy
~4% Fluid Power Solutions	**Fluid Power Hoses**		• Fluid power hoses cover a wide range of applications; products include: hydraulic, material handling, water, air, chemical, Food & Beverage, steam, oil, and mine spray hoses
	Hose Equipment		• Hydraulic fittings, couplings, accessories, hose saws, crimpers, etc.
	Skirtboards		• Abrasion and weather resistant rubber skirtboards for use with conveyor belts or as chute lining

Source: Company Websites.

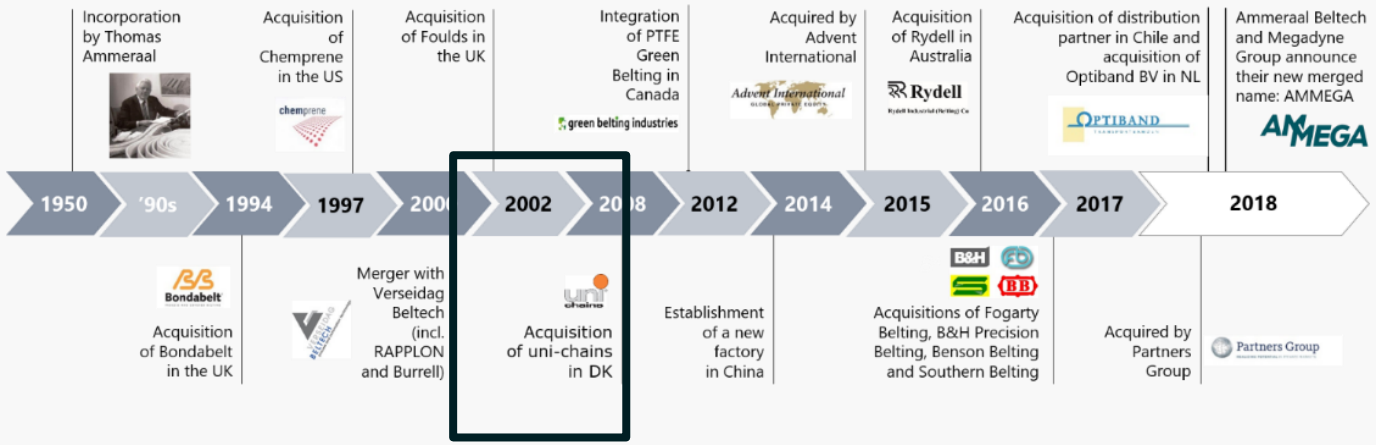
Revenue Split

INTERNAL & BUSINESS ONLY

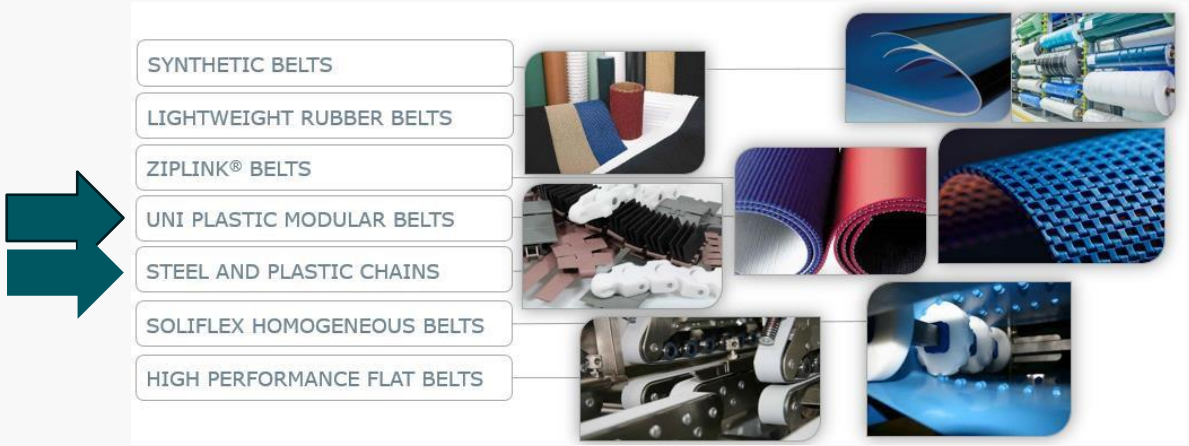
Ammeraal Beltech – 50 years in Conveyor Belting

Ammeraal Beltech

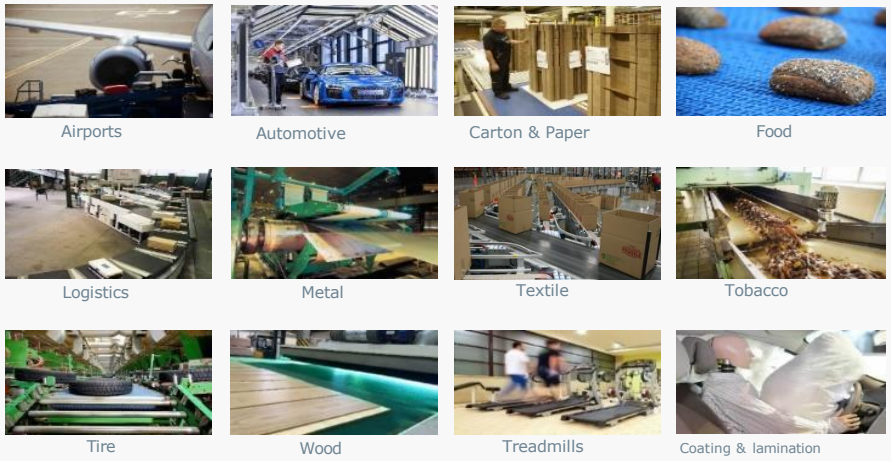
Ammeraal Beltech Group
Since 1950, Ammeraal Beltech has grown through a combination of strong organic growth, international expansion and targeted acquisitions.



Product range



End Markets (partial)



INTERNAL & BUSINESS ONLY

Modulbånd i procesindustrier



uni XLB
Straight running belt,
paper and print





uni CSB
Straight running belt,
with car pusher,
automotive industry



uni MPB
Straight running belt
with pop-up flight,
seafood industry



uni Flex L-OSB
Side flexing belt
running in a spiral.
bakery industry

INTERNAL & BUSINESS ONLY

Modulbånd i procesindustrier

uni MPB
Straight running belt, with flight, fruit and vegetables industry

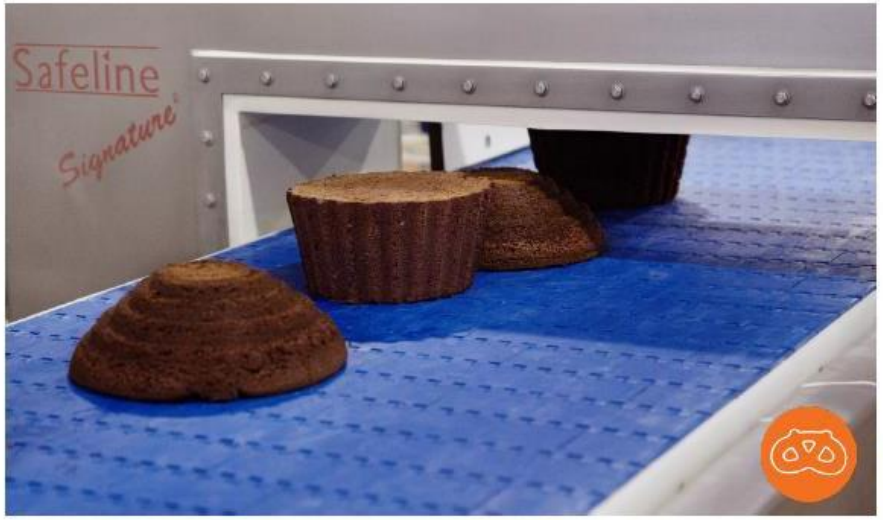




uni MPB single link®
Straight running belt, snack food industry

uni RTB M1
Straight running belt, tire industry





uni MPB
Straight running belt, bakery industry

INTERNAL & BUSINESS ONLY

Modulbånd i procesindustrier

uni S-MPB
Straight running belt, fruit and vegetables industry





uni MPB 25% Open Cone Top
Straight running belt, seafood industry

uni MPB
Straight running belt, cutting line at pig slaughterhouse





uni QNB
Straight running belt, with rubber top, airport industry

INTERNAL & BUSINESS ONLY


Circle Links
2024-2026

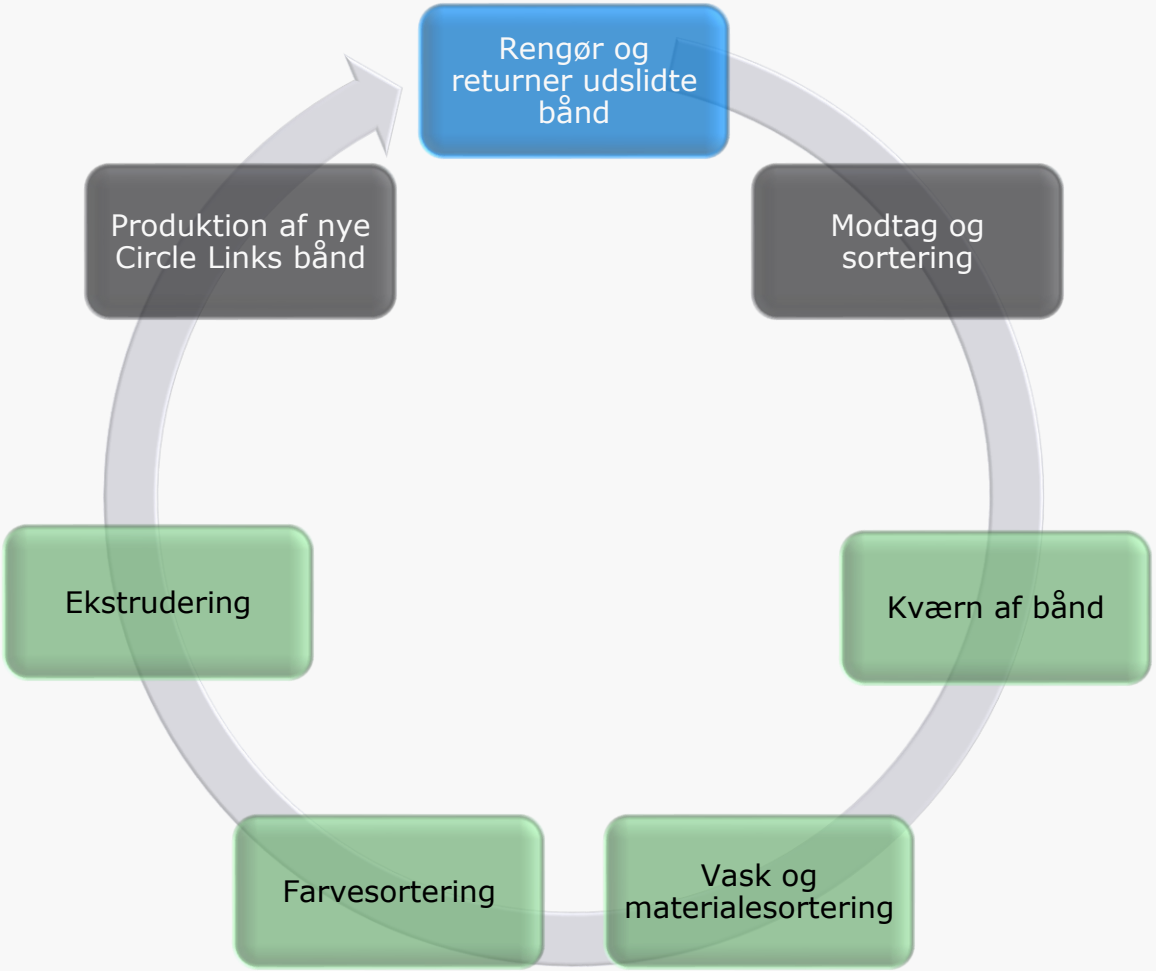
Hvad er Circle Links?



Circle Links er det eneste Modular Bånd på markedet lavet af 100% recycled plastik!

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Processen



Kunde

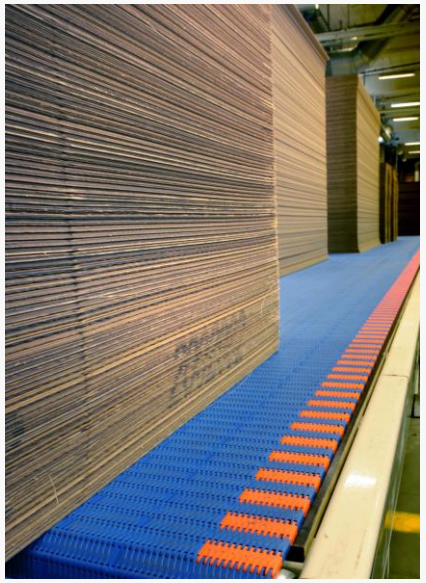
Ammeraal

Partner

INTERNAL & BUSINESS ONLY

Crawl- Walk – Run….også i lancering af Circle Links

Pitch	Series	Material	Wave 1	Wave 2
			Industry/Application	
			Corrugated	End-of-line
0,5"	M-OWL	POM-CL		✓
0,5"	M-QNB	POM-CL	✓	✓
		PP-CL		✓
1"	JCB	POM-CL	✓	
1"	QNB	POM-CL	✓	✓
		PP-CL		✓
1"	SNB M2 34%	POM-CL		✓
		PP-CL		✓
2"	MPB C	PP-CL		✓





Wave 1 og 2 er produkter kun til applikationer uden direkte fødevarekontakt

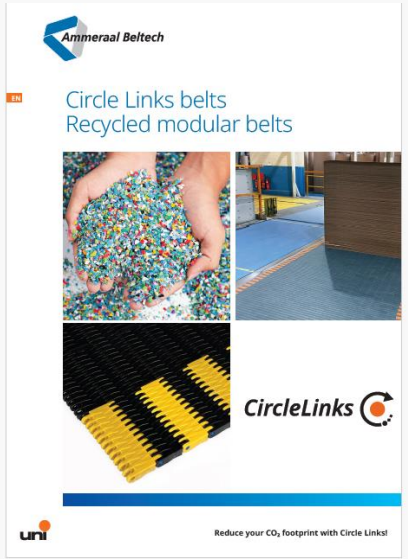
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Produkterne fås i Color-of-the-day eller Sort….

Color-of-the-day **betyder ikke**:

"Some days it is a consistent blue, other days it is a consistent green and so on – you never know which consistent color you will get"

Color-of-the-day er et "kludetæppe", hvilket også fremgår af vores Brochure:



Colours:

Colour of the day – a patchwork of colours and shades, free from color additives, molded from 100% recycled material	**Black** – if your application requires color consistency, then the only option would be to add black pigment	For corrugated industry: **soft hazy yellow** – with colour additive for safe walk edge markers

Hvad kunderne må forvente med CoD:



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Dokumentation af CO2-footprint

Circle Links konceptet er baseret på en trejdepartsgodkendt LCA. Forskellen på "Business As Usual" og "Recycling"-scenarierne giver en 67% besparelse på CO2-footprint for POM produkter.

Alle solgte Circle Links produkter bliver beregnet i vores Engineering Tool (www.eptool.online) og kunden modtager en kopi af beregningen samt et certifikat på CO2-reduktionen.



Ammeraal Beltech
Hjulmagervej 21
7100 Vejle
Denmark

LCA Verification

Carbon footprint of modular conveyor belt in virgin POM and modular conveyor belt in recycled POM – Cradle to Grave

The manufacturing and sorting facility concerned are:
Hjulmagervej 21, 7100 Vejle, Denmark (Production site)
Herstedvang 10, 2620 Albertslund, Denmark (Sorting facility)

Data version no. 2023-10-09 (version 4)

This document includes the overview of the verifier's dialogue and the checklist for a verification of LCA. The review is towards the procedural and methodological requirements in ISO 14040:2008, ISO 14044:2008, and ISO 14067:2018. These standards are a connection with the GHG management family of standards.

ISO 14040 describes the "principles and framework for LCA", ISO 14044 "specifies requirements and provides guidelines" for LCA, and ISO 14067 specifies "principles, requirements and guidelines for the quantification and reporting of the carbon footprint of a product".

The verification is verifying whether an LCA has met the requirements for methodology, data, interpretation, and reporting, and whether it is consistent with the principles.

Verification statement

We hereby confirm that following checks performed in accordance with the limits of the scope of our appointment, nothing has come to the verifier's attention to suggest any data errors or deviations from the requirements by the above-referenced LCA project report, in terms of:

- The underlying data collected and used for the LCA calculations,
- The way the LCA-based calculations has been carried out to comply with the calculation rules,
- The presentation of environmental performance included in the LCA, and
- Any other information included in the LCA study.
- Plausibility and consistency of the company-specific data that have been examined. The LCA study owner is responsible for its factual integrity and that the product does not violate relevant legislation.
- We have sufficient knowledge of the market and experience with relevant standards, and the geographical area of the LCA to carry out this verification.
- We have been independent in our roles as verifiers in accordance with the requirements and guidelines of quantification of carbon footprint, i.e. We have not been involved in the execution of the LCA or in the development of the LCA study and have no conflicts of interest regarding this verification.

Date: 09. October 2023

Validated by:

Waldemar Hemdrup, LCA & EPD Consultant

Odysseís Papagiannidis, LCA & EPD Consultant

By Bureau Veritas HSE
www.bureauveritas.dk
+45 7731 1000

Verification based on the report: Ammeraal Beltech x Trebo 2023-10-09.

Publication date: 09. October 2023
Expiry date: 09. October 2025

Official Certificate



CircleLinks

Certificate

This certificate is proudly presented to:

Smurfit Westrock, Witney

In recognition of their outstanding efforts in reducing carbon emissions and promoting environmental sustainability.

2.4 tonnes of CO_2 emissions

Through dedicated participation in carbon reduction initiative using belts made of recycled plastic instead of virgin plastic this contribution supports global climate action and sustainability goals.

Certification Date: **February 14th 2025**
Verification Entity: **Ammeraal Beltech Modular, CVR 25539419**

Michael Boks
Global Product & Management Modular

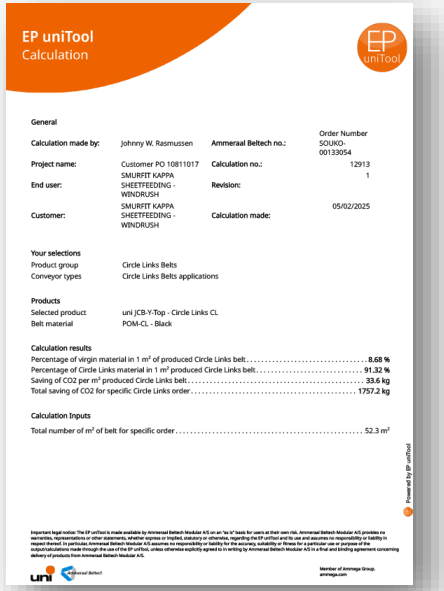
This certificate is issued as part of a verified CO_2 reduction program and acknowledges meaningful actions taken towards environmental stewardship and a greener future.

Verification: This certificate is issued as part of a verified CO_2 reduction program using Life Cycle Assessment and approved by Bureau Verification based on the report: Ammeraal Beltech x Trebo 2023-10-09 Carbon footprint of modular conveyor belt in virgin POM and modular conveyor belt in recycled POM – Cradle to Grave verification of LCA. The review is towards the procedural and methodological requirements in ISO 14040:2008, ISO 14044:2008, and ISO 14067:2018. These standards are a connection with the GHG management family of standards.
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uni

Ammeraal Beltech

Calculation data



EP uniTool
Calculation

General

Calculation made by:	Johnny W. Rasmussen	Ammeraal Beltech no.:	Order Number SOUKO-00133054
Project name:	Customer PO 10811017 SMURFIT KAPPA SHEETFEEDING - WINDRUSH	Calculation no.:	12913 1
End user:		Revision:	
Customer:	SMURFIT KAPPA SHEETFEEDING - WINDRUSH	Calculation made:	05/02/2025

Your selections

Product group	Circle Links Belts
Conveyor types	Circle Links Belts applications

Products

Selected product	uni JCB-Y-Top - Circle Links CL
Belt material	POM-CL - Black

Calculation results

Percentage of virgin material in 1 m² of produced Circle Links belt	8.68 %
Percentage of Circle Links material in 1 m² produced Circle Links belt	91.32 %
Saving of CO2 per m² produced Circle Links belt	33.6 kg
Total saving of CO2 for specific Circle Links order	1757.2 kg

Calculation Inputs

Total number of m² of belt for specific order	52.3 m²

Important legal notice: The EP uniTool is made available by Ammeraal Beltech Modular A/S on an "as is" basis for users at their own risk. Ammeraal Beltech Modular A/S provides no warranties, representations or other statements, whether express or implied, statutory or otherwise, regarding the EP uniTool and its use and assumes no responsibility or liability in respect thereof. In particular, Ammeraal Beltech Modular A/S assumes no responsibility or liability for the accuracy, suitability or fitness for a particular use or purpose of the output/calculations made through the use of the EP uniTool, unless otherwise explicitly agreed to in writing by Ammeraal Beltech Modular A/S in a final and binding agreement concerning delivery of products from Ammeraal Beltech Modular A/S.

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ammega.com

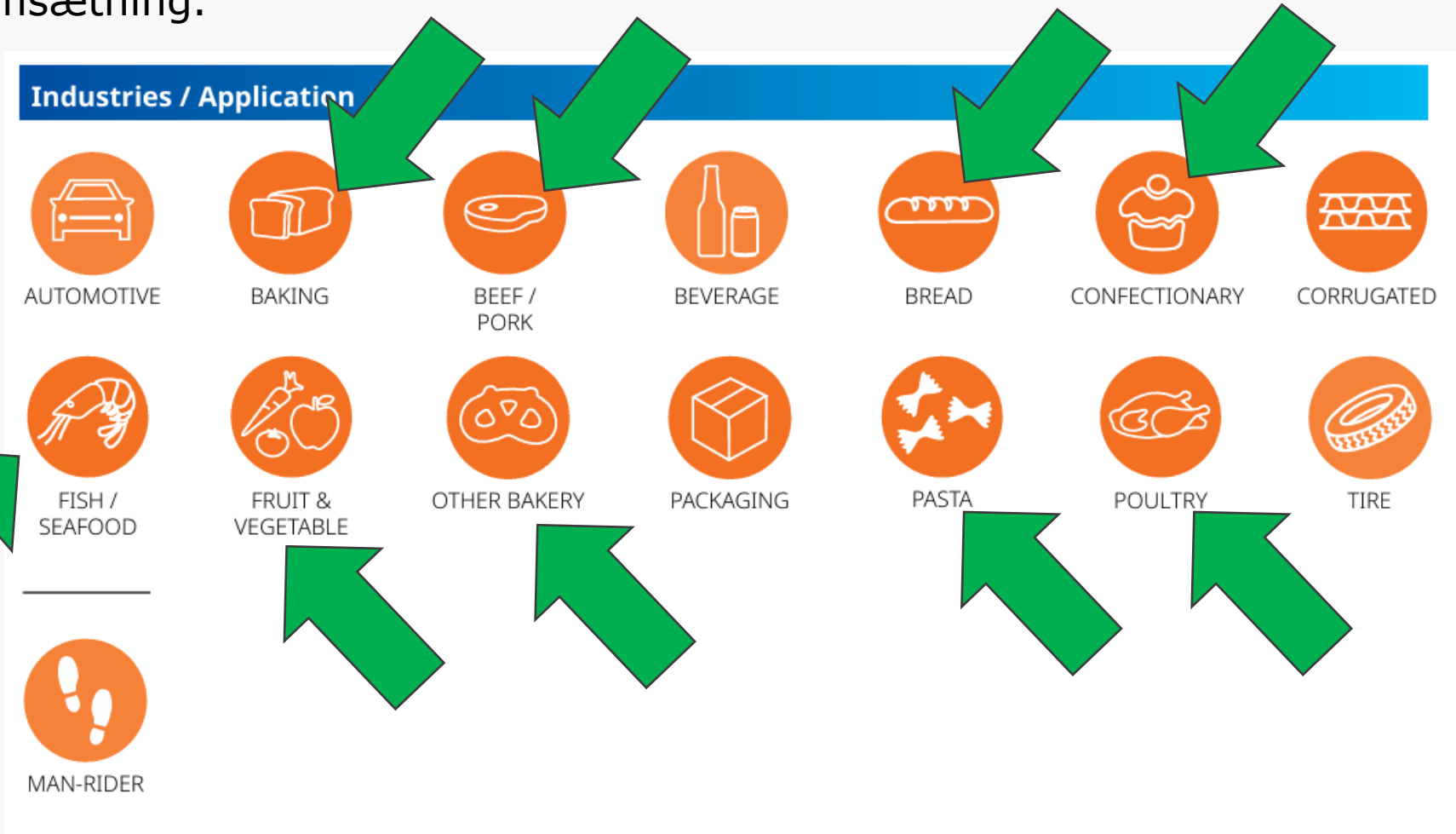
Powered by EP uniTool

INTERNAL & BUSINESS ONLY


Circle Links
Food Grade

Hvorfor også Food Grade versionen af Circle Links?

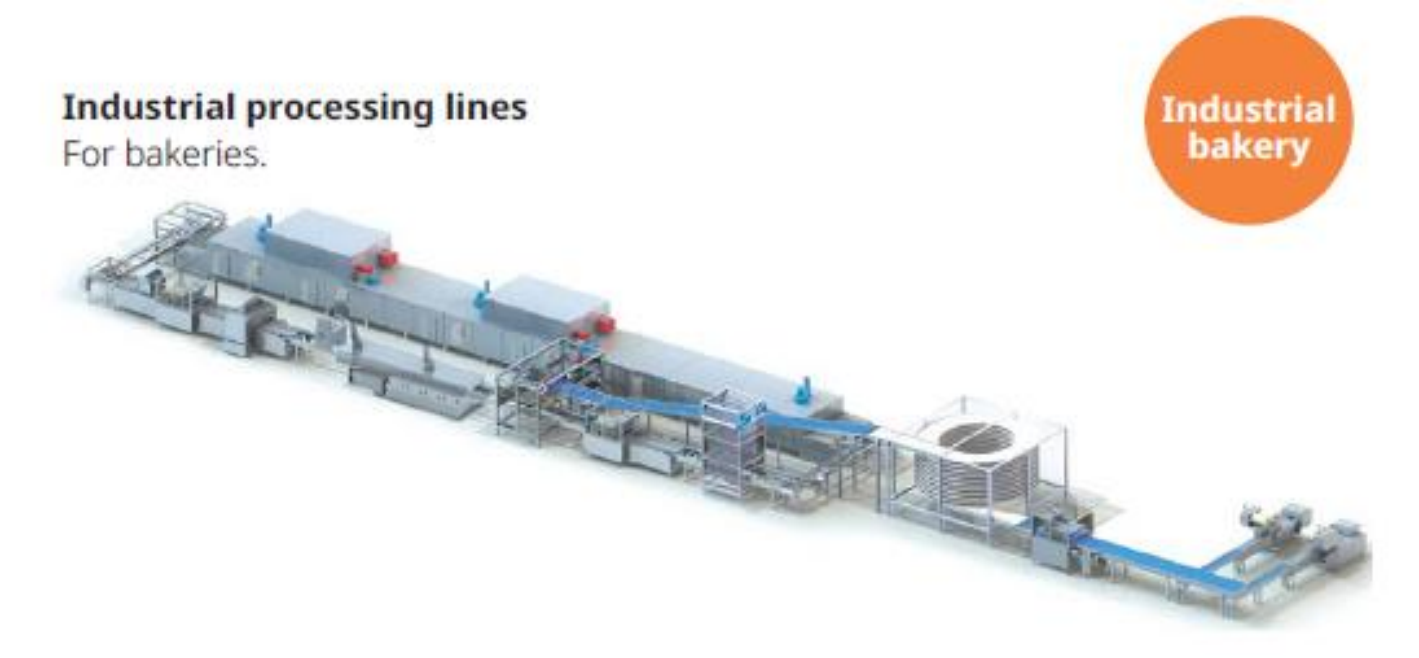
Modular bånd bliver brugt i mange forskellige industrier, og fødevareindustrierne udgør >50% af vores omsætning.



INTERNAL & BUSINESS ONLY

Hvorfor også Food Grade versionen af Circle Links?

Kunderne kan ikke bruge Color-of-the-day i procestrin med fødevarekontakt (hvid/blå er normalt), og de ønsker ikke kompleksitet med 2 versioner af same band-konfiguration



Process steps

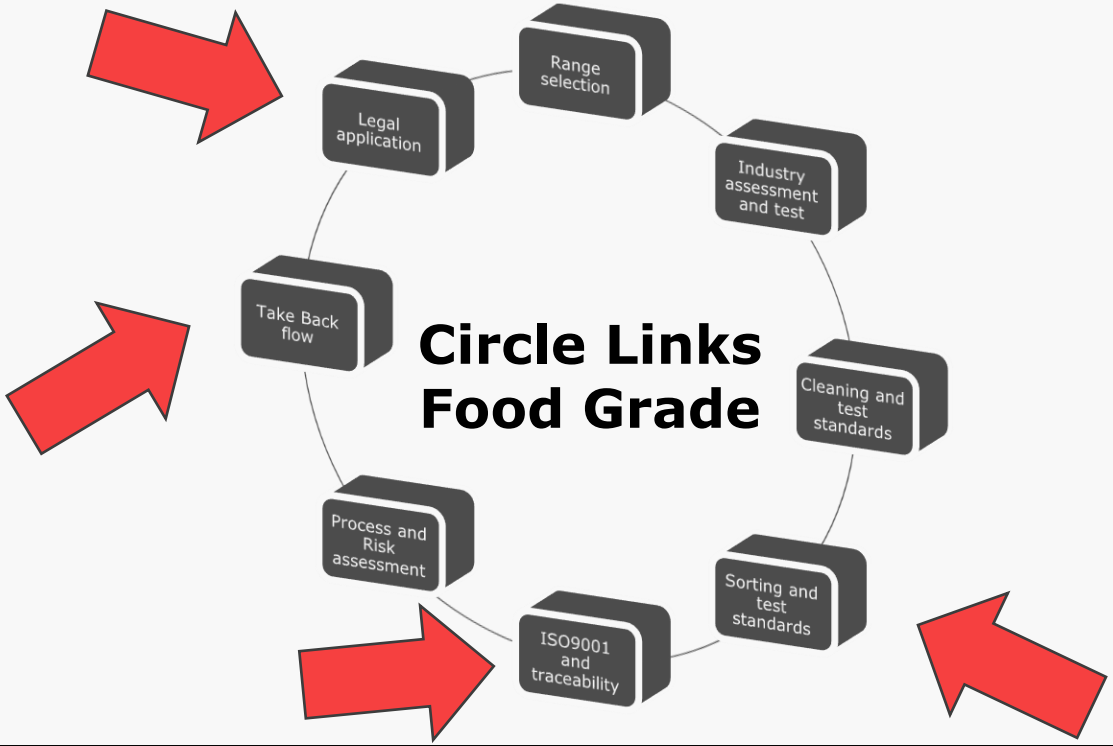
Industrial bakery
Dough mixer
Divider
Rounding
Pre-proofing
Tray loading handling
Final proofing
Baking
Depanning
Tray recycling system
Cooling/freezing
Slicing
Packaging
Logistics

De fleste kunder vil ikke ændre til Circle Links kun i deres "end-of-line" sektion, de forlanger en Food Grade version, så alle procestrin kan håndteres med Circle Links

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Hvor forventede vi udfordringerne var?

Efter gennemgang af de faktorer der indgik i udviklingen af Food Grade versionen, så var der 4 kritiske områder der kunne stoppe projektet



Kritiske områder:

1. Sortering inklusiv farver (Teknik)
2. Traceability (Fra kunde og retur)
3. Take Back (Volumen)
4. Jura (EU 2022/1616 forordningen)

Konklusion: de interne elementer kunne håndteres, men de eksterne faktorer var potentielle "Roadblocks"!

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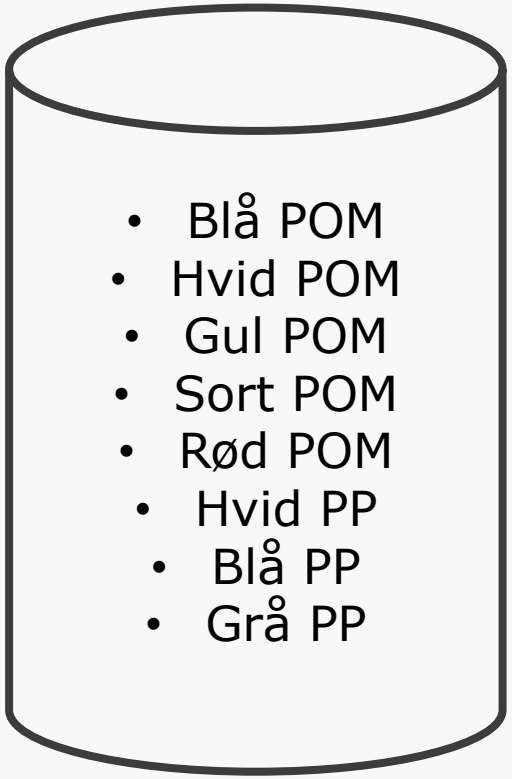
Konsistente farver

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Konsistente farver istedet for Color-of-the-Day

Hidtil har Color-of-the-day været "en feature", men i fødevareindustrien er det et NoGo, så kravet er at det meget blandede input SKAL resultere i farvekonsistente råvarer

Input



Løsninger

	Proces	Konsekvens
Løsning A	Input-varerne sorteres efter farver, inden de sendes videre i processen	Mange varianter og dermed mindre batchstørrelser
Løsning B	Input-varerne grupperes og der køres 2x farvesortering (hvid/blå)	Flere gennemløb = højere omkostninger

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Sporbarhed

INTERNAL & BUSINESS ONLY

Sporbarhed på tværs af forsyningskæden

2022/1616 artikel 9 for Closed Loop stiller krav om:

- Kontrol med materialernes oprindelse, anvendelse og risiko for kontaminering
- Tydelig og entydig identifikation af produkter, der indgår i ordningen
- Dokumenteret procedurer og instruktioner til alle deltagere i den lukkede kæde

Vores løsning:

(fra kunde og retur)



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AmmCare – en digital kundeløsning….

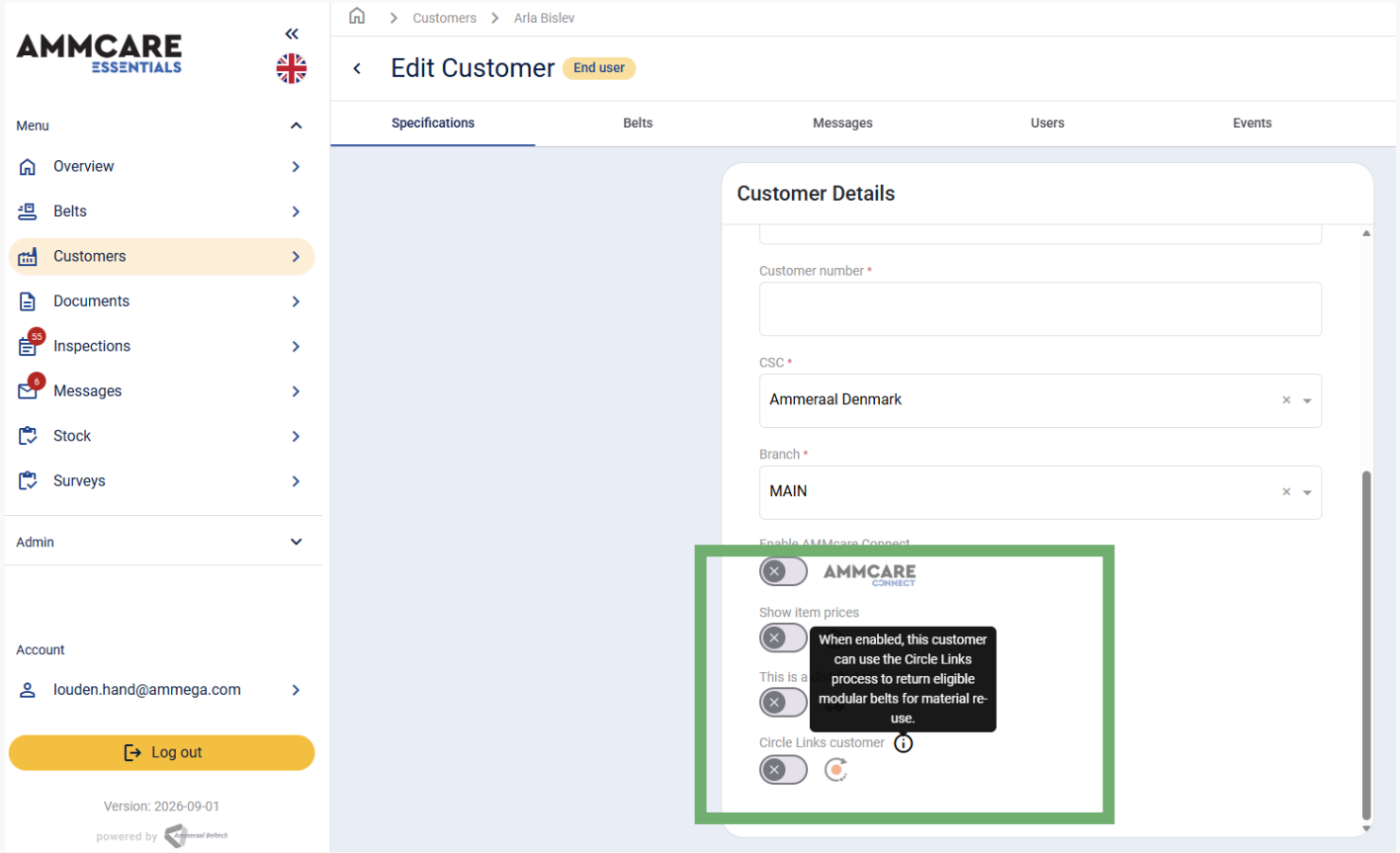


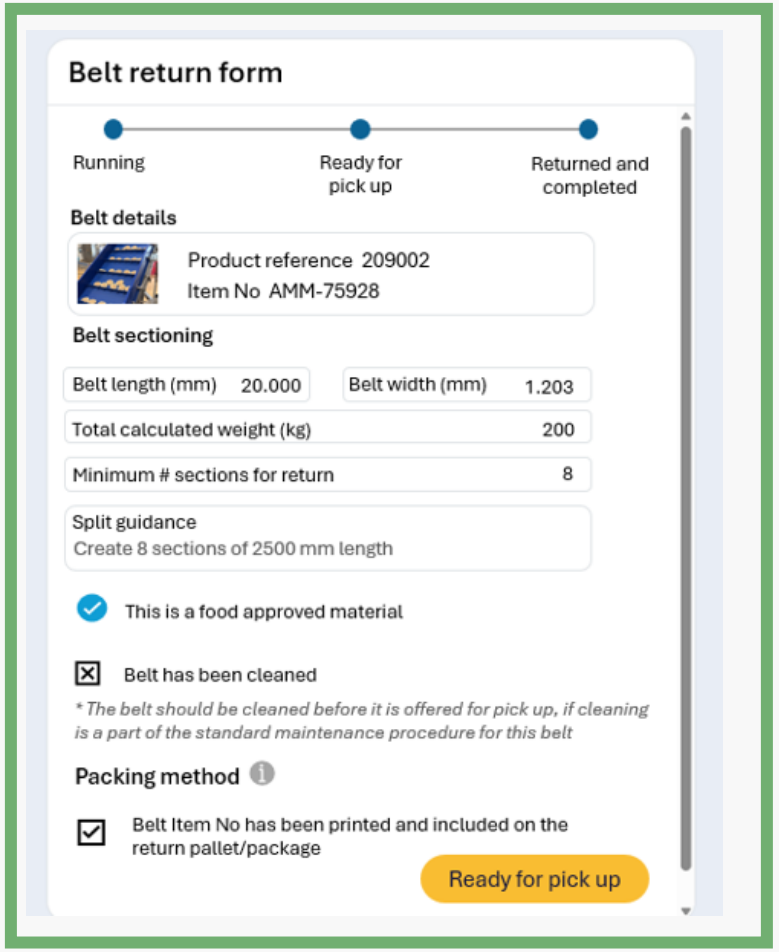




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AmmCare





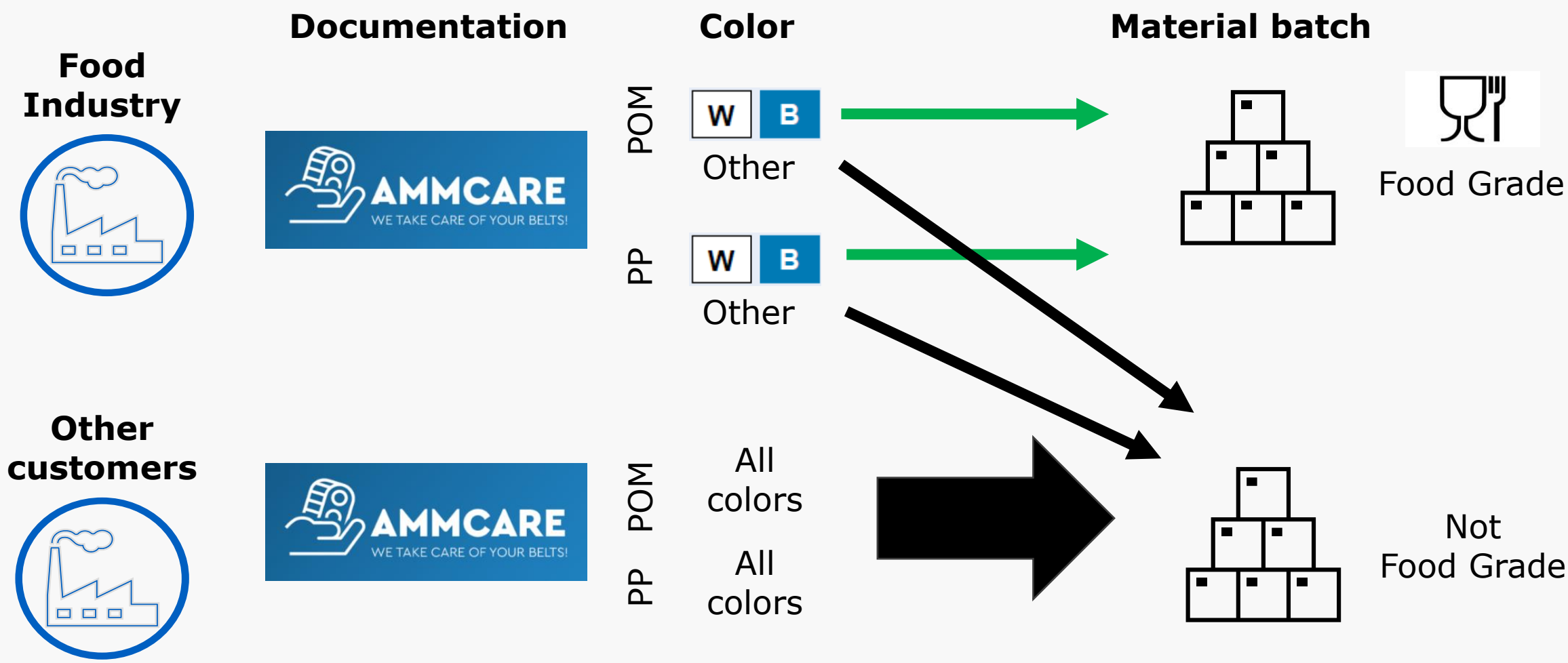
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Take Back model

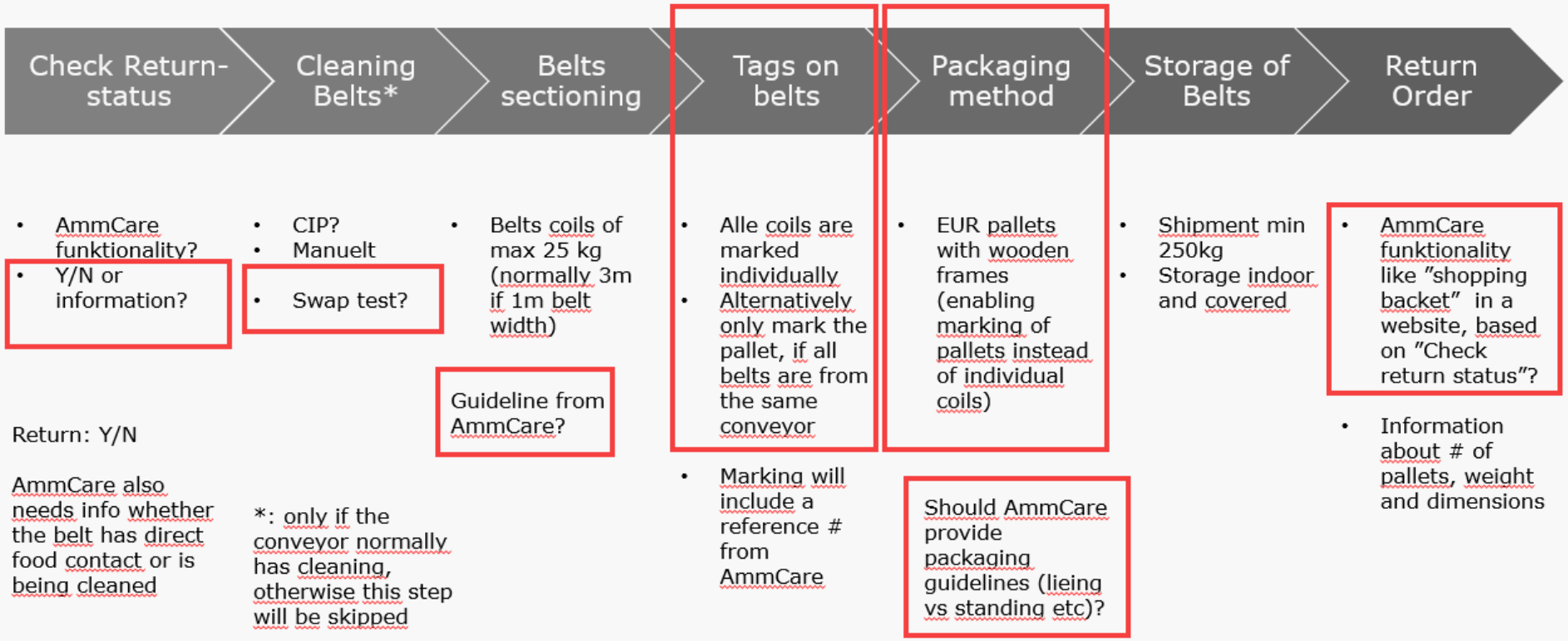
INTERNAL & BUSINESS ONLY

Take Back material flow



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AmmCare til understøttelse af Take Back



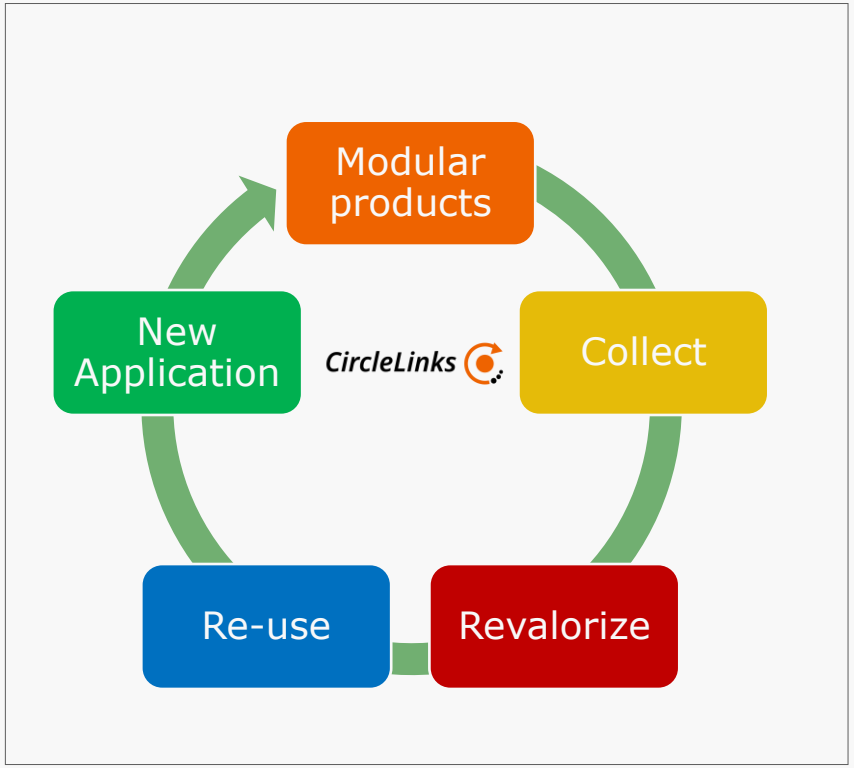
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Konklusioner for Take-Back

Efter dialog med kunderne bliver spillereglerne
- Kun Ammeraal Beltech produkter
- Kun bånd af POM og PP
- Ingen bånd med gummi- eller stål-komponenter
- Minimum 250 kg (konsolidering af flere bånd er OK)
- Bånd skal rengøres inden de tages af conveyor
- Pakkemetode skal være "safe and stackable"

Fordele for kunderne:
- Returlogistikomkostninger er dækket af Ammeraal Beltech
- Undgår omkostninger til logistik og forbrænding af scrap

TAKE-BACK model



Vigtigt:
Kunderne vil ikke få CO2-credits for de band de returnerer. Det er kun ved køb af Circle Links band at de får certifikat på CO2 credits.

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EU 2022/1616 forordningen

INTERNAL & BUSINESS ONLY

EU 2022/1616 forordningen

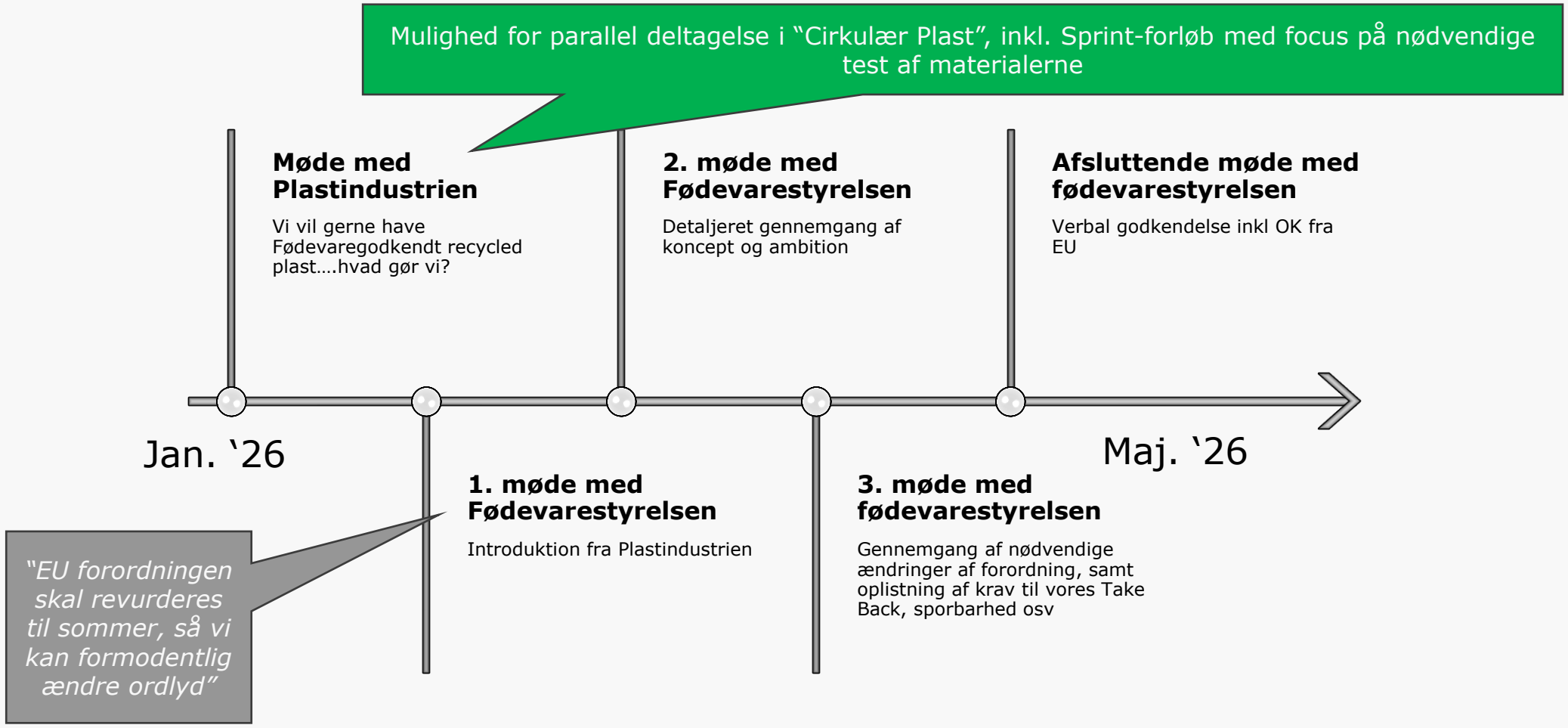
Forventningen var, at dette ville blive den største udfordring – direktivet var målrettet emballage, og ikke brugbart til et produkt med mange delkomponenter.



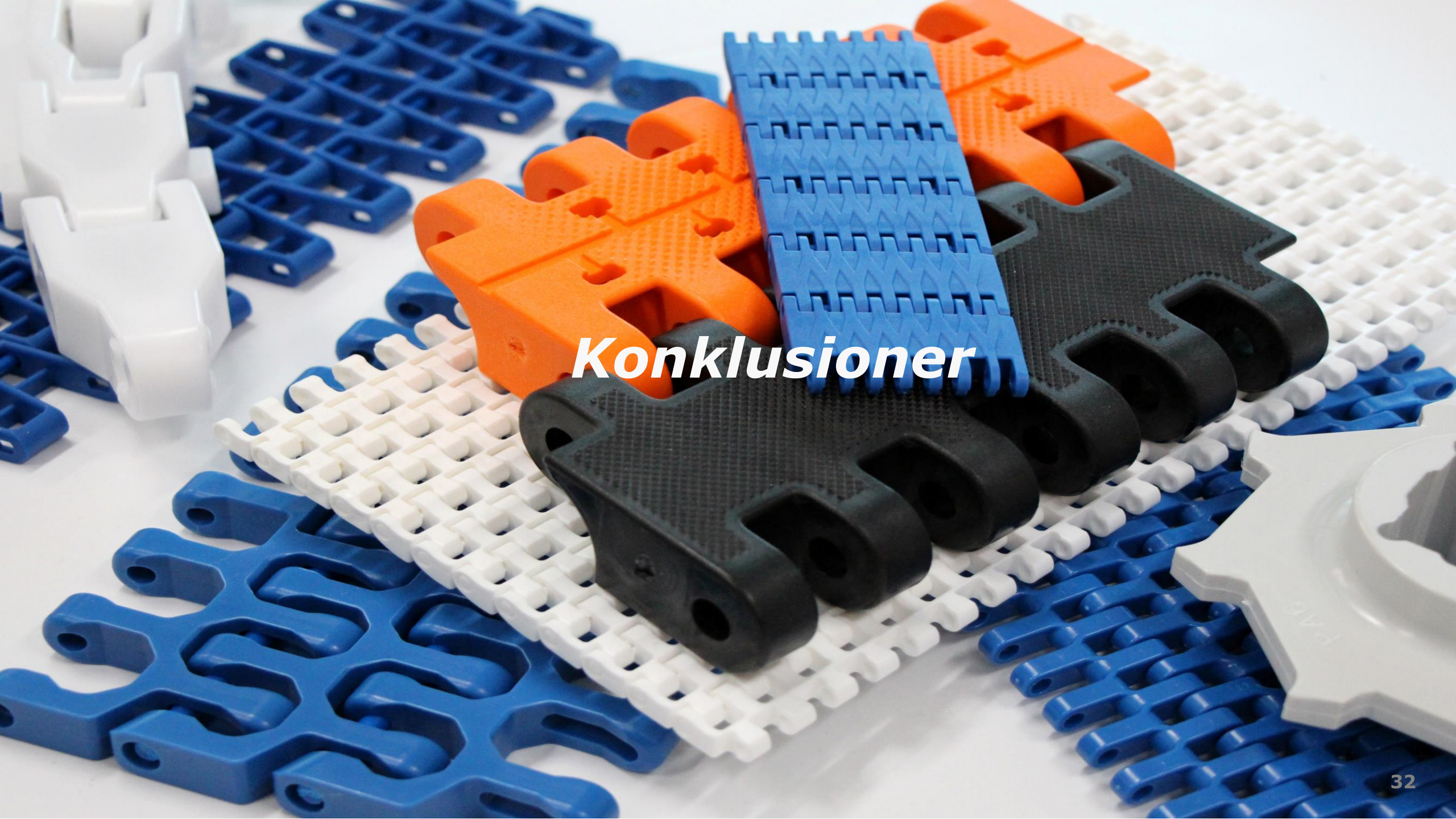
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EU 2022/1616 forordningen

Vejen fra "Det kan vi ikke" til "så er der grønt lys" tog 5 måneder:



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Konklusioner

Reflektioner over udviklingsprocessen

De væsentligste erfaringer vi har gjort os under hele processen med at få udviklet Food Grade versionen af Circle Links er:

1. Den største udfordring har været at få markedets accept af at indgå i Take Back ordningen….og uden den, kan vi ikke lave Food Grade Circle Links produkter

2. Den største kompleksitet er ikke den tekniske løsning, det er etablering af et dokumenteret, sporbart og kontrolleret system, der sikrer materialernes egnethed til fødevarekontakt gennem hele kredsløbet.

3. Du kan og skal ikke vide alting selv – find de rigtige samarbejdspartnere. Start evt med at spørge Plastindustrien, for hvis de ikke har svaret, så ved de (som regel) hvem der har

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Lad os konkludere…..



……ABSOLUT, vi skal bare have kunderne med på Take Back modellen!

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Spørgsmål?



Hvis du har spørgsmål, kommentarer, eller bare gerne vil gå lidt mere i dybden, så er du velkommen til at række ud direkte til mig.

Alex P. Ludvigsen

Head of Business Development
Modular
Alex.Ludvigsen@ammega.com
M: +45 2688 0097

…..du kan også gå forbi Hal K, stand 8260, og tage en snak med vores nordiske salgsteam

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Ammeraal Beltech

WE MAKE YOUR BUSINESS MOVE

Contribute to
WE MAKE YOUR BUSINESS MOVE
More sustainable

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