





# The Global Waste Problem

Ban on single-use plastic items approved by European Parliament [Press for link](#)

Canada to ban single use plastics as early as 2021  
[Press for link](#)

Nestle is aiming at 100% recyclable or reusable packaging by 2025 [Press for link](#)

Tesco vows to remove one billion pieces of plastic packaging by end of 2020 [Press for link](#)



# The Packaging Market

## Size



Over Trillion US\$  
Packaging industry is  
on track to keep  
growing (CAGR of 5%)

## Need



Many packaging products require  
barrier properties against oxygen,  
oils, water vapor and aromas to  
protect the packed products

## Problem

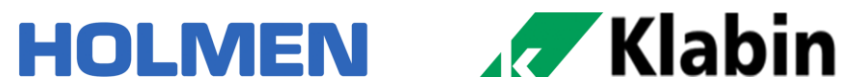


Barrier properties are achieved  
by materials that are harmful to  
the environment such as plastics  
and aluminum foil

# The Solution - Bio-Based Materials

We use the **ONLY** natural and sustainable alternative to oil-based products

## The industrial forest

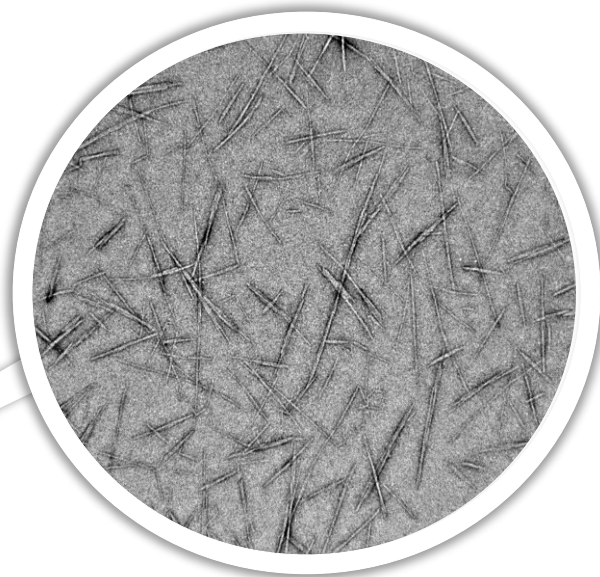


Two of the largest pulp & paper  
companies in the world are  
Melodea's shareholders



# The Solution - Bio-Based Materials

Cellulose Nano Crystals (CNC) is emerging as one the most promising green solutions



Natural building block of all plants on earth



Strong, light weight and transparent material



Excellent for various bio-based applications





We operate in two main activities:

Innovative extraction of CNC



Melodea's CNC plant in Arad, Israel

CNC



Barrier coatings for packaging



Other applications

- ✓ 3D Printing
- ✓ Paint Additives
- ✓ Fiber & textile
- ✓ Led lights



**Melodea**  
Bio Based Solutions

# Target Markets

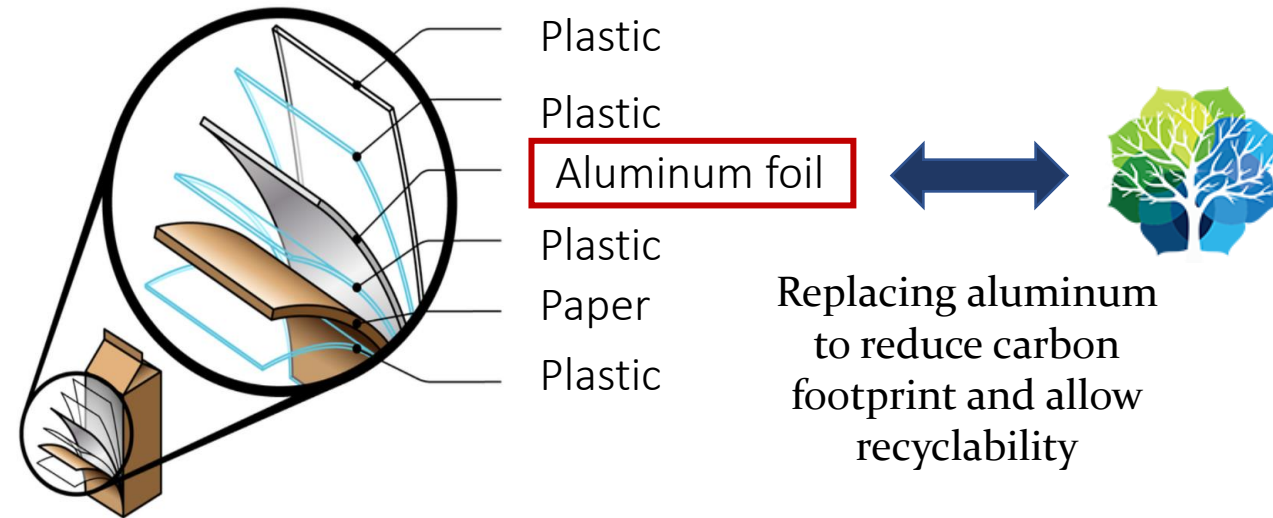
We have developed a CNC based barrier coating for:

High barrier films for flexible packaging



High Barrier  
Paper Based  
Packaging

Liquid packaging carton packs



# Product - Barrier Coatings for Packaging

Sustainable  
alternative



Compostable



Biodegradable



Recyclable

High performance barrier  
properties in high  
humidity conditions



Oxygen

<1 cc/(m<sup>2</sup>·day) @70% RH



Oil & grease

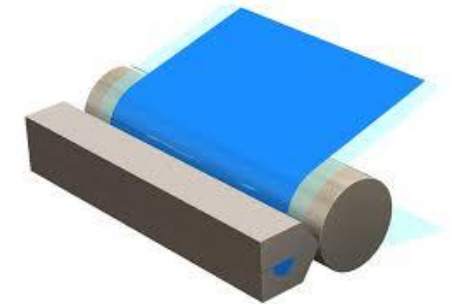
3M Kit value of 12



Water Vapor

Substrate dependent

Can be integrated into  
existing coating lines and  
applied on different substrates



Melodea  
Bio Based Solutions

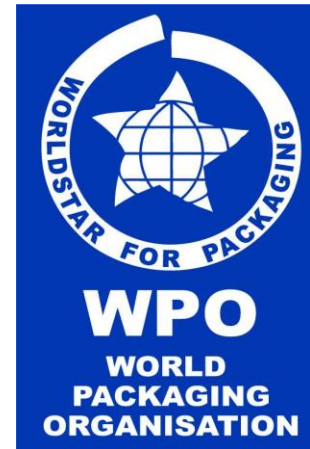


# Award Winning Technology

Packaging Europe, #FachPack2019



#Interpack2020



**WORLDSTAR  
WINNER 2020**



You are welcome to join our journey



Thank you!