



GREEN FLEXIBLE PACKAGING

Solutions to Achieve
Your Sustainability Goals



- EU legislation aims to the reduction of waste disposed in the sea.
- Common products such as plastic cutlery, dishes, straws etc. are to be out of use over the next years.



- Reduction of usage of plastic food containers.
- EU members will be obliged to gather 90% of plastic containers from 2025.



GOAL:

DEVELOPMENT OF GREEN FLEXIBLE PACKAGING SOLUTIONS TO ADAPT TO THE NEW CIRCULAR ECONOMY

- I. Development of resource efficient flexible packaging solutions of reduced carbon footprint
- II. Development of fully compostable flexible packaging solutions using renewable resources
- III. Development of recyclable flexible packaging solutions using the same polymers



CHALLENGES TO OVERCOME:

- Barrier properties to sustain product shelf life
- Maintain packaging technical characteristics (dead-folding, puncture resistance, stiffness...)
- Performance at the packaging lines
- Sealing properties / conditions
- Printing substrate replacement
- Functional coatings (e.g. lacquers)
- Add-on packaging features application & performance (die-cutting, adhesive label, etc..)



I. RESOURCE EFFICIENT

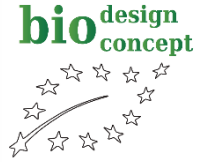


Hatzopoulos Proposal:

Total replacement of aluminum foil by metallized and/or transparent materials



- High-barrier properties maintained
- Numerous materials & structures alternatives, custom-made to your pack & product requirements
- Optional packaging transparency
- Reduced carbon footprint



Hatzopoulos Solution: X-BIO: Compostable Laminates Range



- Made from certified compostable materials (EU legislation EN 13432)
- Duplex / Triplex Film alternatives
- Deriving from renewable resources
- High-barrier properties: up to
W.V.T.R: 1g/m²/24h – O.T.R.: 1cc/m²/24h
- Fin & lap sealing properties
- Lower sealing temperatures
- Create useful product out of package



Hatzopoulos Solution: X-GREEN: Recyclable Laminates Range



- Compatible with recycling streams (mix polyolefins / PP / PE)
- Duplex / Triplex Film alternatives | according to pack & product requirements
- Metalized / Transparent solutions available
- Various film thicknesses available
- Optional peelability
- High-barrier properties, reaching up to:
W.V.T.R: 0,10g/m²/24h – O.T.R.: 0,10cm³/m²/24h

REMEMBER!

**There are more
green packaging
solutions,
to help you
achieve your
sustainability
goals!**





Thank you!