

**Products and  
concepts made by  
BioBag  
International AS**



# History

- 1959 Plastic bag production
- 1993 BioBag production started
- 2003 100 % focus on Bio - own production of plastic bags stopped
- 2009 New production partner **Silvex** in Portugal and Spain
- 2010 4 factories in the group.  
Market and sales activities in 18 countries



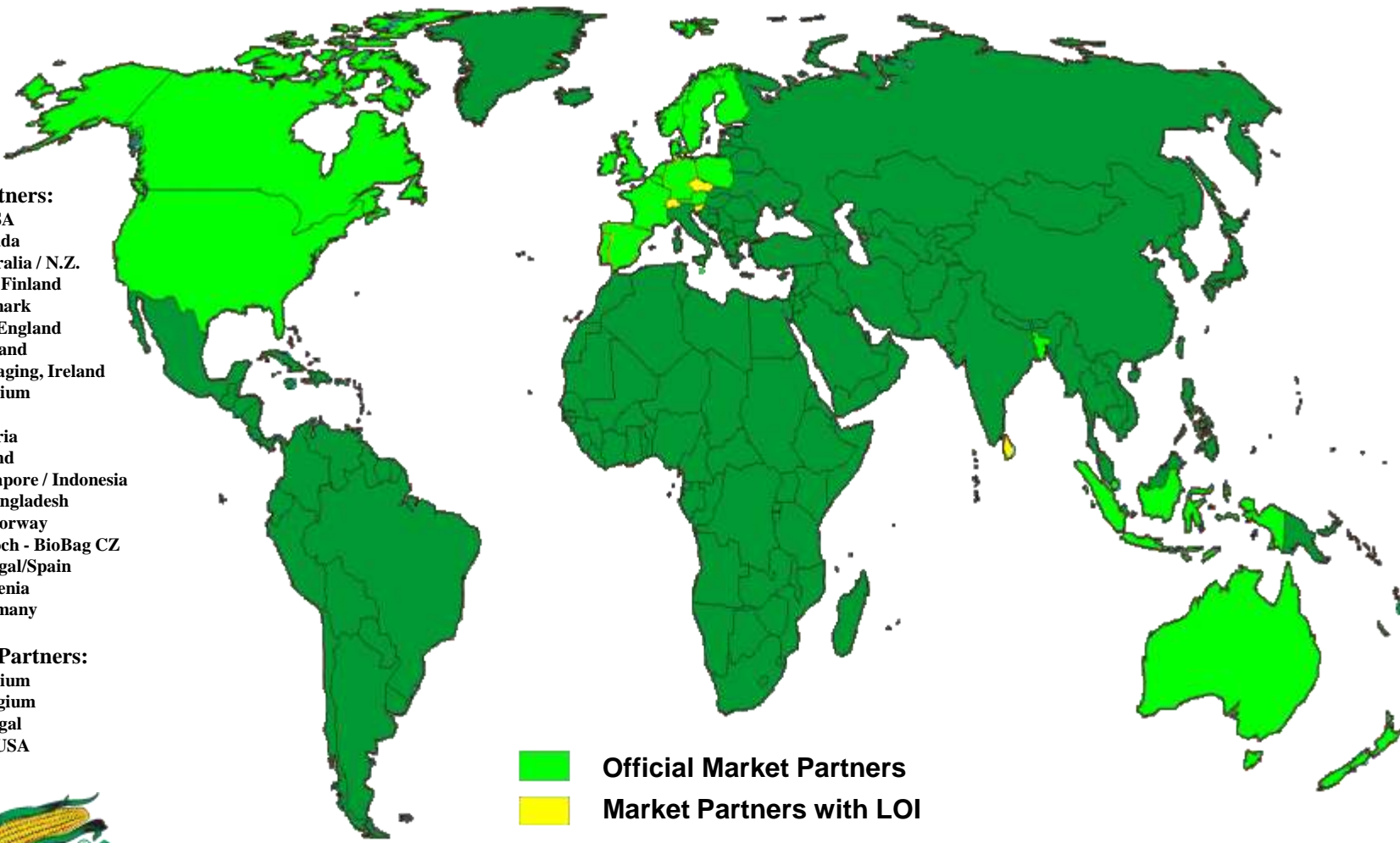
# Market Partners

## Market Partners:

- BIOgroupUSA
- BioBag Canada
- BioBag Australia / N.Z.
- BioPartners, Finland
- Abena, Denmark
- BioBag UK, England
- BioBag Scotland
- Omega Packaging, Ireland
- Jemaco, Belgium
- ICS, France
- BioBag Austria
- BioBag Poland
- BioBag Singapore / Indonesia
- Agrotech, Bangladesh
- Tradeway, Norway
- Ing. Jan Poloch - BioBag CZ
- Silvex, Portugal/Spain
- ElaBen, Slovenia
- BioBag, Germany

## Production Partners:

- Jemaco, Belgium
- Alpagro, Belgium
- Silvex, Portugal
- Metro Poly, USA

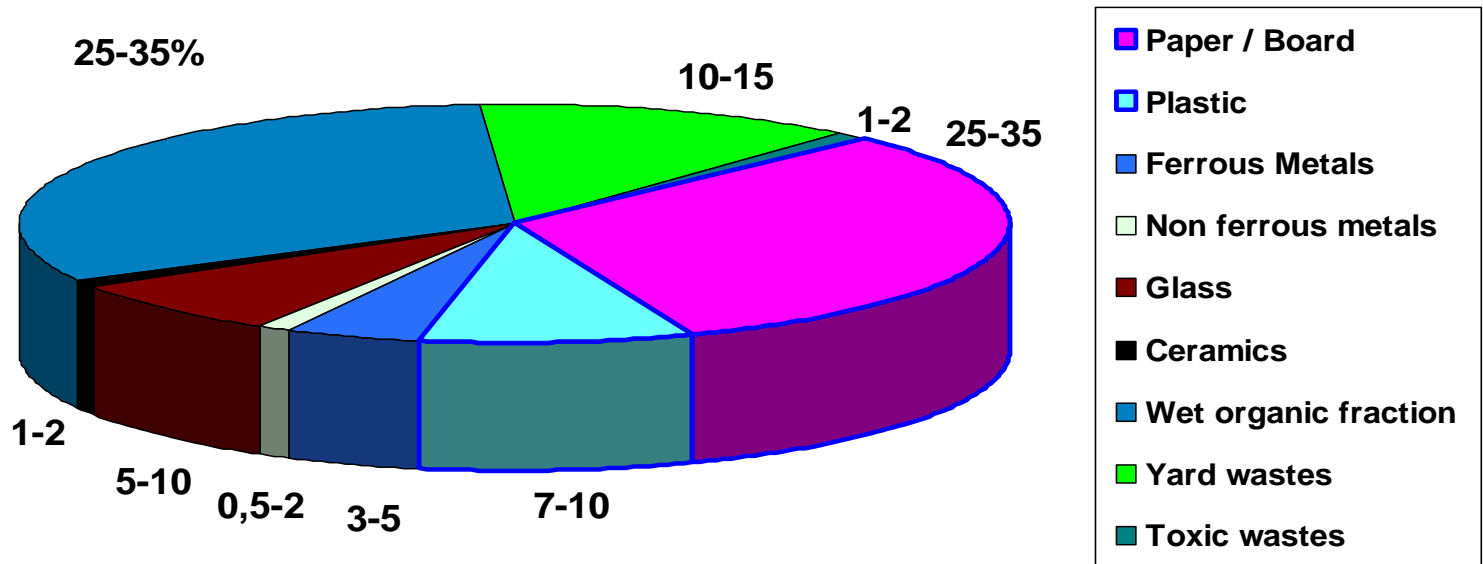


 Official Market Partners  
 Market Partners with LOI



# SOLID WASTE COMPOSITION IN EUROPE

(Average value per inhabitant: 500 Kg/Year)



More than 40% of solid waste can be composted



\* Food, Vegetable, Fruit

Household

Catering

Garden

Agriculture

Pet

Carrier  
Bags

Hygiene  
& Films

BioToi



## Household



## MaxAir systems:

- Very important product / concept for collection of food waste.
- Highly increased focus on food waste collection from private households
- We have the longest experience in the market, approx. 2.0 mill. systems sold
- New customers seeking experience and we have it!
- Still big opportunities in many countries
- New EU-members continuously implement EU waste directives



## MaxAir systems (cont.):

Highly breathable system =

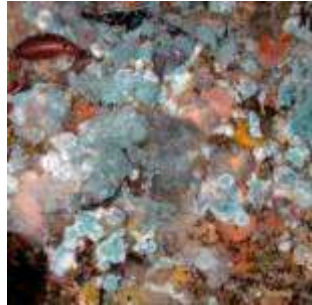
- Cost savings for local authorities
- Cost savings for composters
- Reduction of smell
- High motivation for the households



Open bin



Closed bin (both after 5 days)





**Household**

**Catering**



## Catering:

- Increased focus on food waste collection from commercial kitchens
- Easy to collect organic food waste from commercial kitchens
- Areas collecting food waste from private households are showing increased focus on commercial kitchens
- Flexibility: we have a wide range of bags/liners/sacks available
- Liners/bags adjusted to standard containers (35-350 litre)
- Short delivery time STD products (European Central Warehouse)
- High quality products
- The liners/bags are important to keep waste containers clean.



**Household**

**Catering**

**Garden**



# Garden:

- Longest experience with garden sacks
- Special developed materials / high quality
- VGS certification (quality guarantee system)
- Several shapes and designs



**Household**

**Catering**

**Garden**

**Agriculture**



# Agriculture :

- Long experience
- Several qualities can be tailor made based on climate and crop
- BioBag & Silvex have applied for an EU-contribution to perform tests in Portugal, Spain and France.



Household

Catering

Garden

Agriculture

Pet



## Pet :

- Our products within retail
  - Block bags in bulk and retail
  - Bags on roll in bulk and retail
  - BioBag on roll in pouches
- Dispenser systems
  - Pluto system
  - Dog dispenser
- Products are suitable for several markets like: local authorities, retail, wholesales, pet stores etc.





Household

Catering

Garden

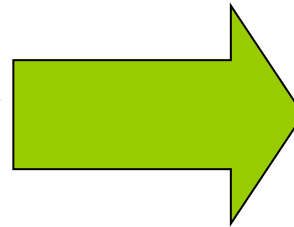
Agriculture

Pet

Carrier  
Bags



# Use and re-use again:



**Household**

**Catering**

**Garden**

**Agriculture**

**Pet**

**Carrier  
Bags**

**Hygiene  
& Films**



## Technical films:

- Diaper film
- Feminine hygiene film
- BioAgri
- Magazine films
- Other films



# LAMINATION FOR FOOD PACKAGING

CEREALS



COFFEE



STAND UP POUCHES



Household

Catering

Garden

Agriculture

Pet

Carrier  
Bags

Hygiene  
& Films

BioToi



# BioToi:

- Potential markets
  - Armed forces
  - Aid organisations
  - Sport ware stores
  - Holiday homes / cottages
  - Trailer parks
  - Boating



# The European standard EN13432

According to the EN 13432, the characteristics a compostable material must show is:

- Biodegradability, namely the metabolic conversion of the compostable material into carbon dioxide
- Disintegrability, namely fragmentation and loss of visibility in the final compost
- Absence of negative effects on the composting process
- Low levels of heavy metals (below given max. values) and absence of negative effects on the final compost





**Thanks for your attention**

**BioBag International AS**

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