



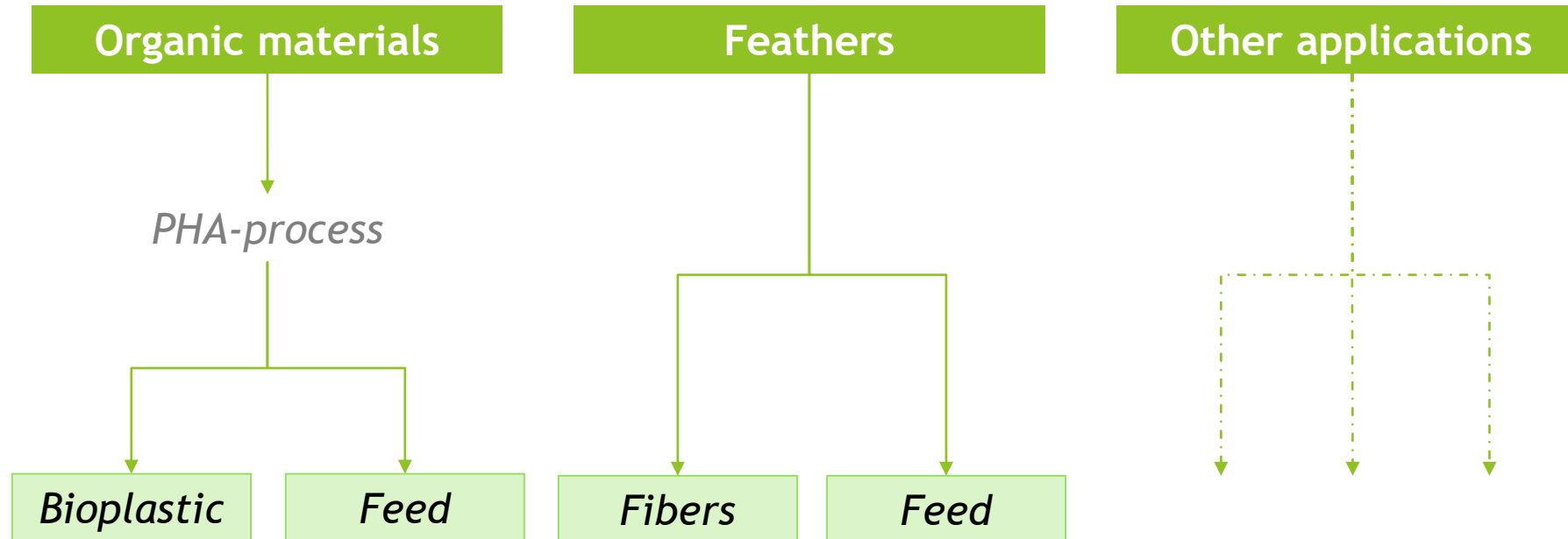
# Bioextrax

Turning waste into value

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# Business areas

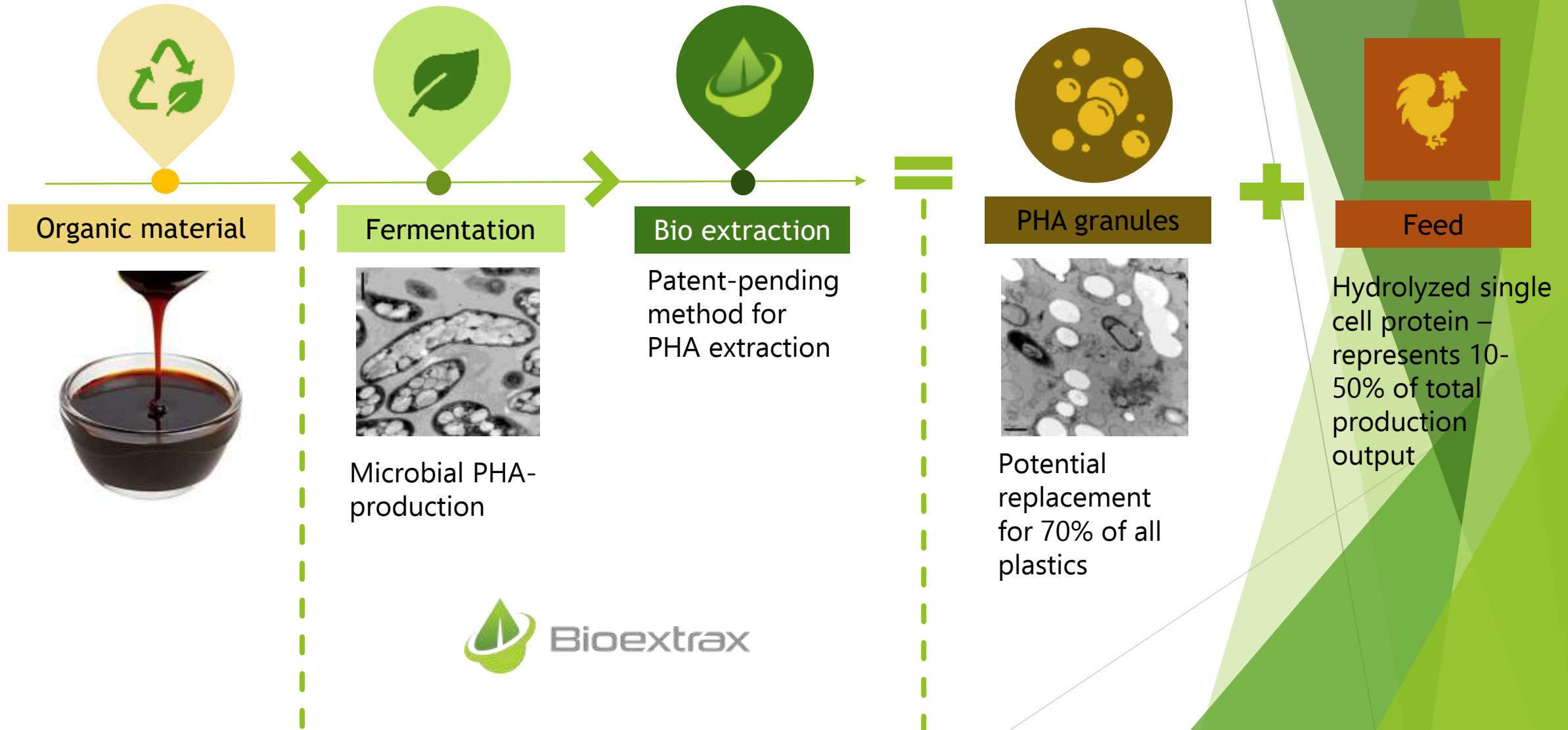
## “Platform technology”






A scanning electron micrograph (SEM) showing several PHA granules. The granules are spherical or rod-shaped with a textured, slightly irregular surface. They are arranged in a cluster, with some in sharp focus and others blurred in the background. The lighting is bright, highlighting the granular texture.

# PHA (Bioplastic)

# PHA - production



# PHA – competitive advantages

-  Bioextrax extraction method reduces the production cost significantly
-  Environmentally friendly process (no chemicals, little energy)
-  Produces PHA granules with intact molecular weights

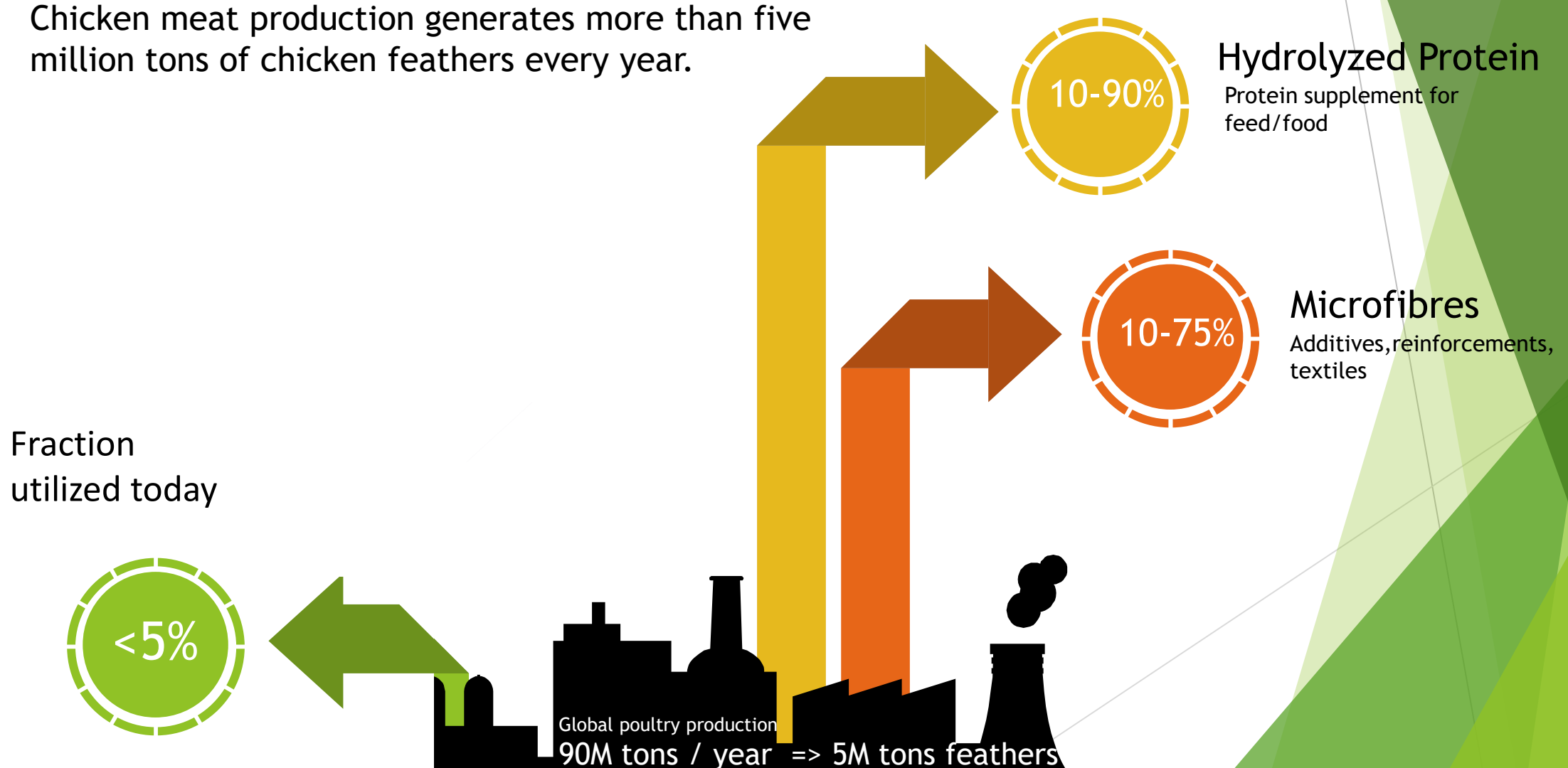


# Feathers

- *feed*
- *microfibers*

# Valorizing feathers

Chicken meat production generates more than five million tons of chicken feathers every year.



# Hydrolysis of feathers

Keratin  
microfibers  
- Plastic  
reinforcements,  
textiles, insulation



- *Hollow*
- *30-200  $\mu\text{m}$  long, 2-6  $\mu\text{m}$  wide*

Protein for  
feed



- *+90% protein*
- *H<sub>2</sub>O soluble*
- *99.7% digestability*