

# **KaRMA2020 - Industrial Feather Waste Valorisation for Sustainable KeRatin-based MAterials**

# Market survey: Future perspectives of the bio-based market and opportunities for KaRMA2020



CONNECTING AMBITIONS

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## KaRMA2020 SURVEY ON **BIO-BASED MATERIALS**

#### WHO PARTICIPATED AT THE SURVEY?

18.75%

25 - 1 - 25%

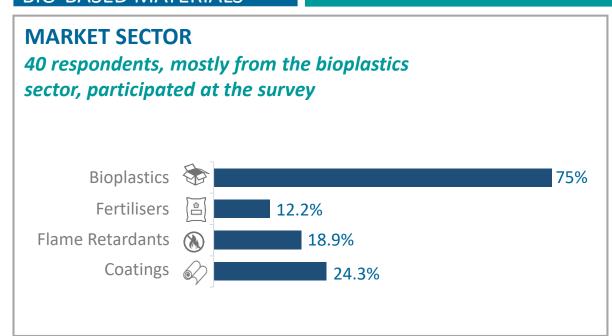
3.12%

50%

15.65%

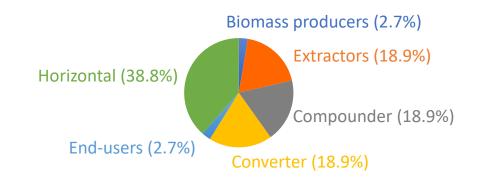
12.5%

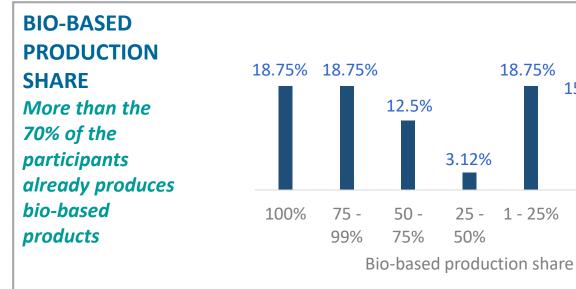
N/A



### **VALUE CHAIN POSITION**

The respondents covered all the value chain, from biomass producers to end-users





#### INTEREST IN BIO-BASED PRODUCTION

All participants consider important to increase their biobased production and the 86.5% is taking concrete measures



*The 100% of the respondents* considers important increasing the bio-based production for its business



*The 86.5% of respondents* has already taken concrete measurers to increase its bio-based production

#### **MARKET DRIVERS**

The valorisation of the waste stream is expected to be the main market driver for the KaRMA2020 products

Valorisation of waste streams

Compliance with environmental regulation and with the EU commitment on Circular Economy

"Green" image of the products

Ecolabel or Bio-based Content certifications

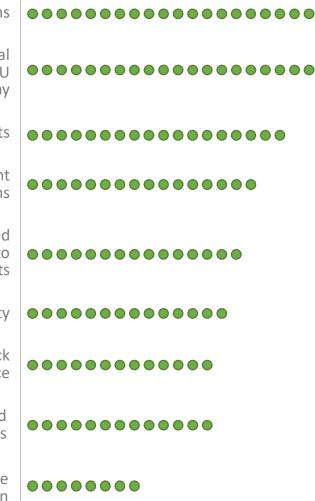
Comparable or increased performances compared to conventional products

Biodegradability

Potential to exploit locally feedstock source

Low production costs and advantageous prices

Employment creation due to the establishment of new value chain



#### **MARKET BARRIERS**

The costs factors are expected to be the main market barriers for the KaRMA2020 products

High cost of production and high final prices

Uncertainty about the legislations that prevent the use feathers in production

Low performance or uncertainty regarding performance

Difficulties to create new value chains within the existing production schemes

Scepticism by costumers for the use of poultry feather wastes

Lack of public awareness about the environmental impacts of poultry industry

Lack of public awareness about bio-based products

Limited feedstock availability

Reduction of meat consumption over the next vears

Use of bio-materials from animals opposed by animal welfare associations













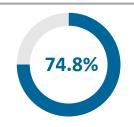


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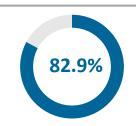
#### ARE THE STAKEHOLDERS WILLING TO ADOPT THE FEATHER-BASED PRODUCTS?

# **ADOPTION OF BIO-BASED PRODUCTS FROM FEATHERS**

Over than the 70% of the respondents has expressed willingness in adopting KaRMA2020 materials or products



The 74.8% of the participants would be willing to adopt feathers-based materials/products instead of the current ones



The 82.9% of the participants thinks that consumers will be interested in feathers-based products

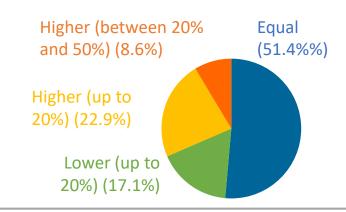


The 70.6% of the participants considers that the possible adoption of feather-materials would positively affect the company

# **FINAL PRICE OF THE FEATHER-BASED PRODUCTS TO GAIN CONSUMERS ACCEPTANCE**

Half of the respondents considers that the KaRMA2020 products should have an equal price compared to the fossilbased ones to gain consumers acceptance

What should be the final price of the feather-based products (compared to fossilbased) to gain consumers acceptance?



#### WHAT STAKEHOLDERS SAY ABOUT BIO-BASED MARKET:

"The bio-based market has to run quickly to be as competitive as possible. New technologies and new products are (going to be) deployed but the final cost of these products is still too high"

"Until the performance and price are not equal to fossil and synthetic based materials, there will not be reasonable market proliferation"

"It will grow"

".. Probably, in B2C scenarios the customers are more open to spend a bit more to have more environmentally friendly products, especially when higher quality and longer durability can make the difference"

PROMOLDING

#### **SOME OF THE PARTICIPANTS AT THE SURVEY:**







































