The State of the European Bioeconomy Market:

Opportunities & Obstacles

Annika Bülow
Marketing and Event Manger

Ceresana

Ceresana
Market Research Since 2002

Ceresana

Over 10,000 customers

in more than 70 countries

Our Expertise

Over 20 years of experience, specializing in chemical and industrial topics, and focusing on bioeconomic themes for the past 16 years

Our Goal

Be a trusted global partner in industrial market research, driving clients' success through precise and impactful analysis

Our References

3M, ADM, AkzoNobel, ALTANA, Aptargroup, LANXESS, LG Chem, Lhoist, L'ORÉAL, OMYA

AsahiKASEI, BASF We create chemistry, BAYER, BMW, BOREALIS Borouge, bp, lyondellbasell, McKinsey&Company, MERCK, BR PETROBRAS

BOSCH, BRENNTAG, CABOT, CLARIANT, mondi, PIRELLI, PPG, P&G, RioTinto

CREDIT SUISSE, DKSH, DOW, DSM, DUPONT, REPSOL, SAMSUNG, sasol, Shell, SIBUR, SILGAN

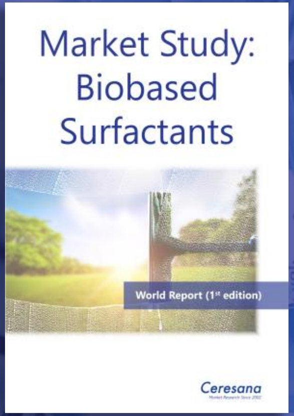
DS Smith, EASTMAN, eni versalis, EVONIK INDUSTRIES, Henkel, SONGWON, storaenso, tesa, thyssenkrupp, UNIVAR

ExxonMobil, H–R, Honeywell, INEOS, NPC, TOTAL, WACKER, wavin, ZEPPELIN WE CREATE SOLUTIONS

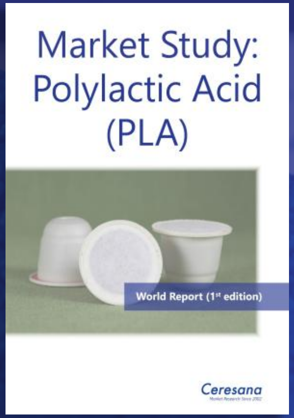
Bioeconomic Market Studies

Ceresana
Market Research Since 2002

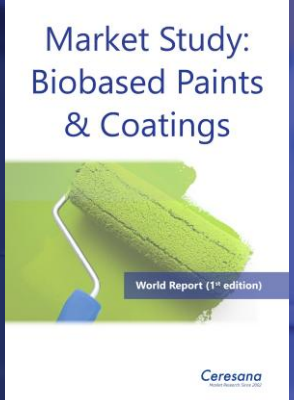
Chemicals

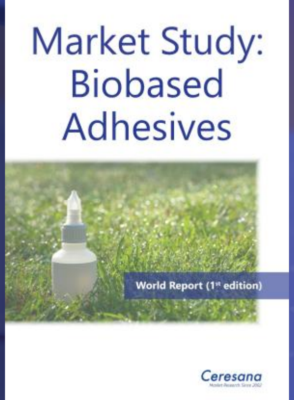


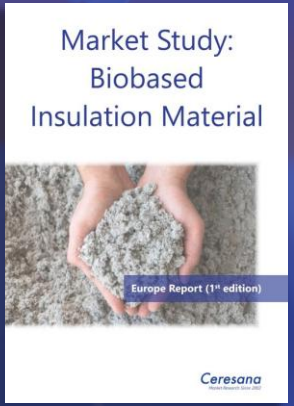
Plastics



Industry







Packaging

FOCUSING ON THE VALUECHAIN

Intersections between the markets using the examples of adhesives

Ceresana
Market Research Since 2002

Market Overview

Industries and Regions

Regional Focus

Europe

Period

2024

Data Presentation

Percentages

Market Focus

Demand

Analyzing Bio-Based Market Dynamics

Three dimensions of market divergence in bio-based industries compared to the general market

Industry Dynamics

Solvent Market divided in Industries

Solvent Industry

Solvents

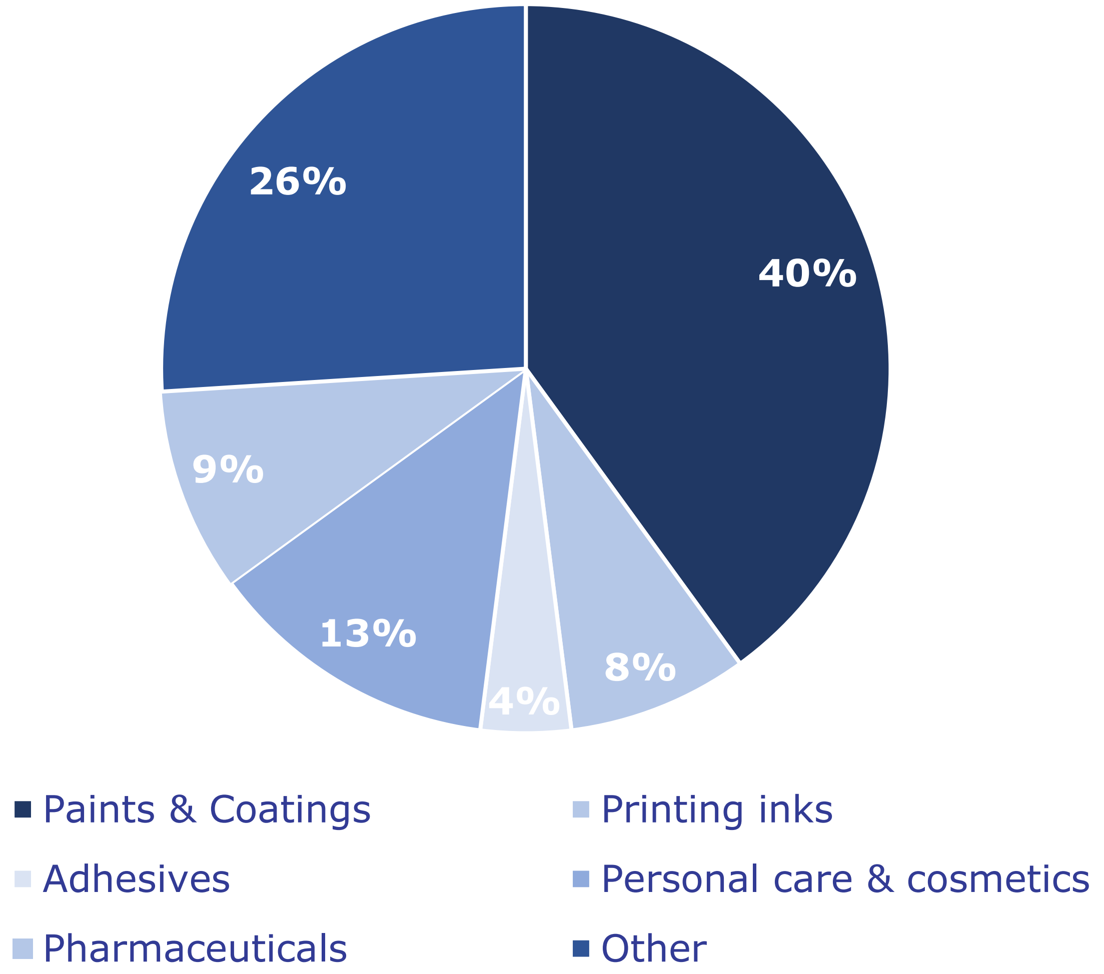
Alcohols, ketones, esters, ethers, aromatics, hydrocarbons

Bio-based Raw Materials

Lignocellulose, starch, sucrose, terpenes, vegetable oils, animal fats

Market Structure

Highest demand is accounted for by paints and coatings



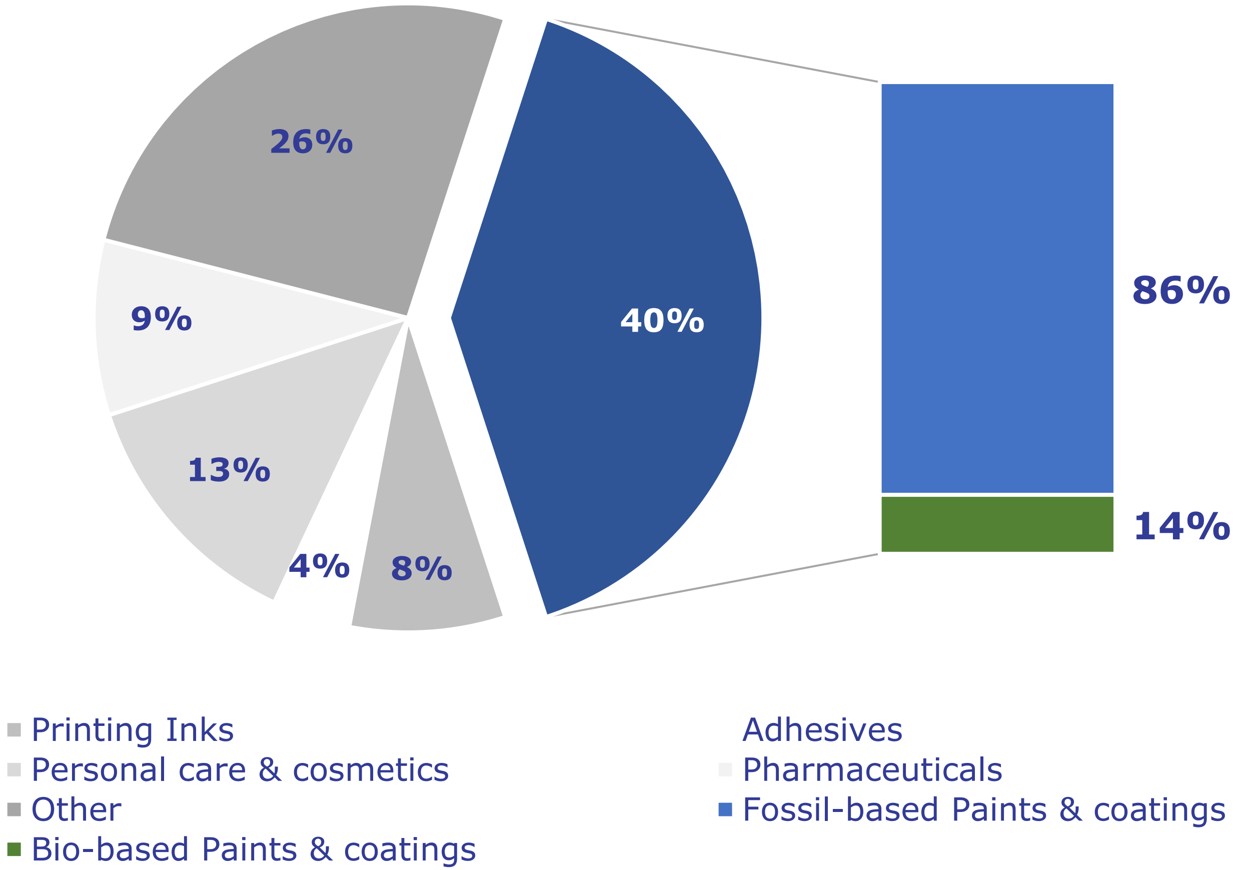
Source: Market Reports Solvents (5th Ed.) from Ceresana; (Market Data for 2024 in Europe)

Bio Market Share

Ceresana
Market Research Since 2002

Reasons for the bio-based share in the paints & coatings industry

- High reliance on aromatic solvents
- Other formulation components
- High technical performance requirements



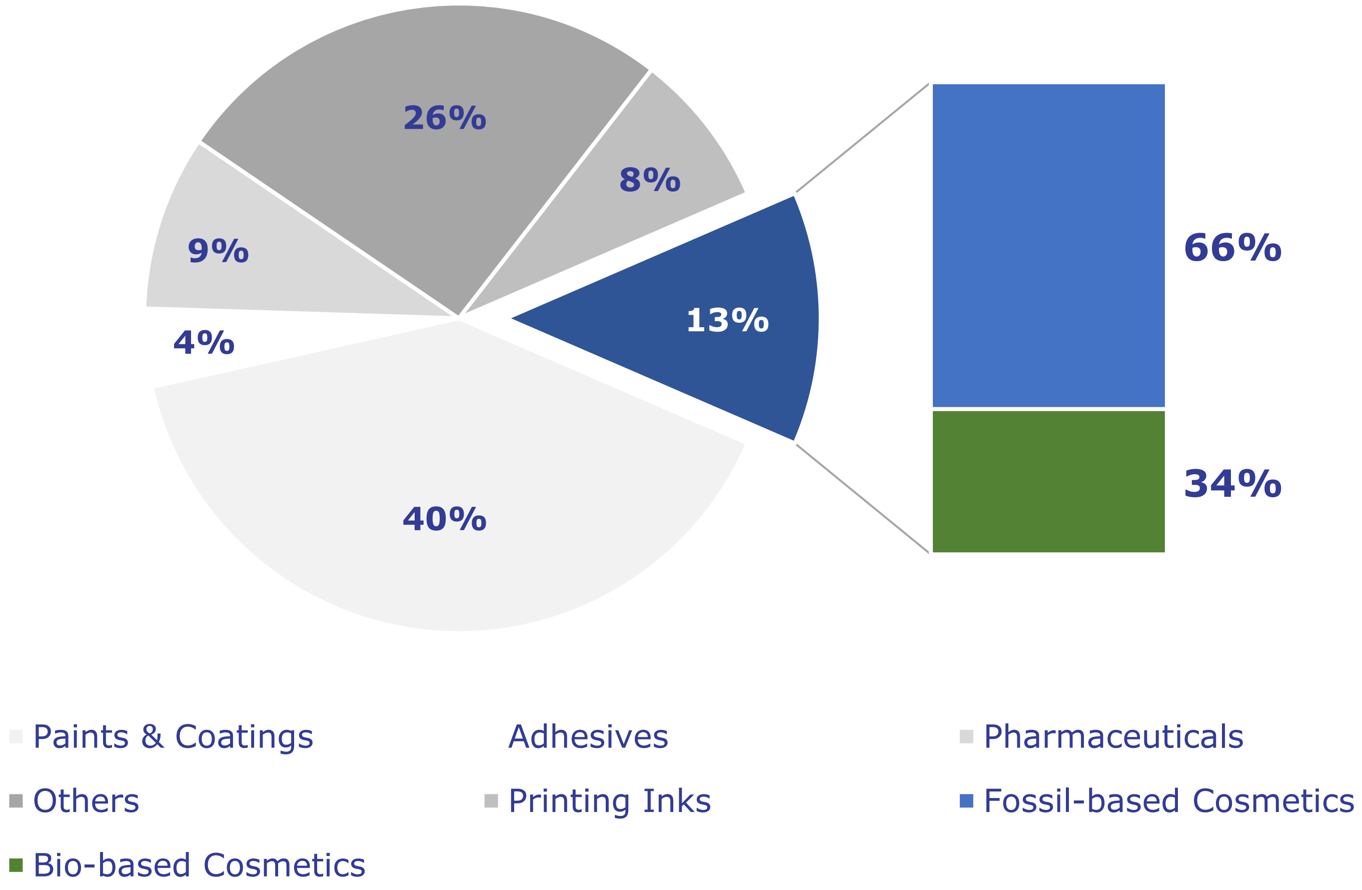
Source: Market Reports: Solvents (5th Ed.) and Biobased Solvents (2nd Ed.) from Ceresana; Market Data for 2024 in Europe

Bio Market Share

Ceresana
Market Research Since 2002

Reasons for the bio-based share in the personal care & cosmetic industry

- Widespread use of bio-based ethanol
- High solvent content in products like perfumes
- Strong consumer demand for "green" and natural products



Source: Market Reports: Solvents (5th Ed.) and Biobased Solvents (2nd Ed.) from Ceresana; Market Data for 2024 in Europe

Industry Dynamics
Conclusion

Challenges

- Technological barriers
- Low substitution effects with complex product structures
- High standards in technically demanding sectors

Opportunities

- Higher adoption in consumer-oriented sectors
- Easier production of certain bio-based materials
- Demand for holistically sustainable product solutions

Regional Dynamics

Bio Market Share in Europe

Surfactant Industry

Ceresana
Market Research Since 2002

Surfactants

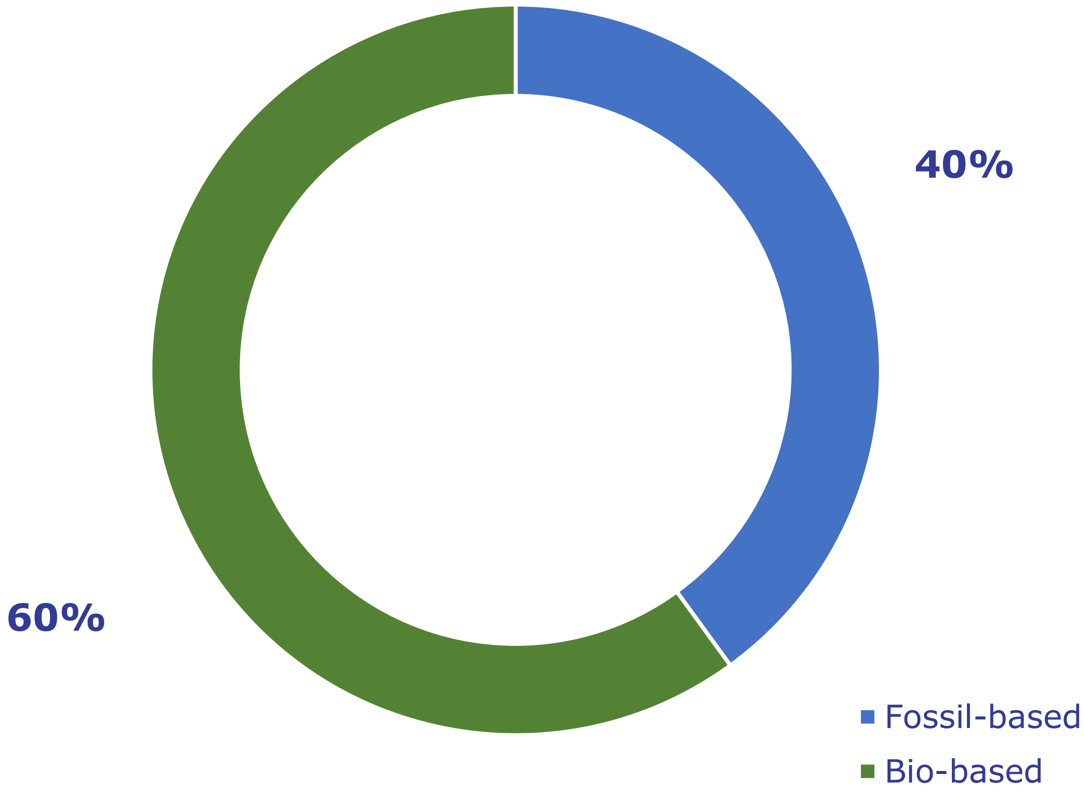
Anionic, cationic, and non-ionic

Bio-based Raw Materials

Coconut oil, palm oil, fatty alcohols; glucose, sorbitol

Market Structure

More the half of the surfactant demand is bio-based



Source: Market Reports: Surfactants (4th Ed.) and Bio-based Surfactants (1st Ed.) from Ceresana; Market Data for 2024 in Europe

Surfactant Industry divided in Regions

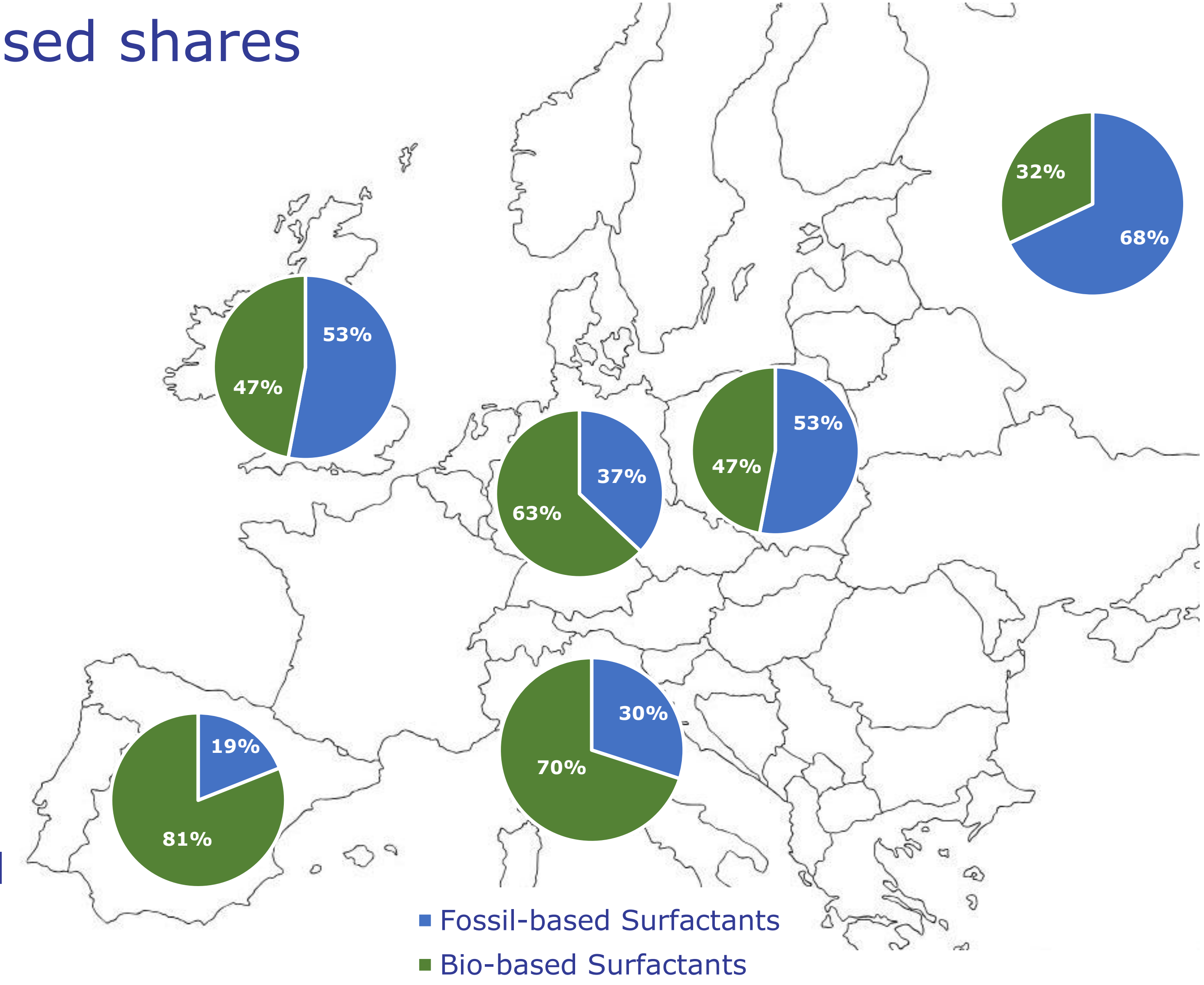
Reasons for regional bio-based shares

Spain (81%)
- Preference of low-foaming cleaning products

Poland (47%)
- Stronger price sensitivity and lower cost of living

UK (47%)
- Impact of local washing habits

Russia (32%)
- High availability of cheap fossil feedstocks



Source: Market Reports: Surfactants (4th Ed.) and Bio-based Surfactants (1st Ed.) from Ceresana; Market Data for 2024 in Europe

Regional Dynamics
Conclusion

Challenges

- Limited access to raw materials and strong petrochemical infrastructure
- Price sensitivity in economically weaker regions
- Consumption habits shaped by cultural preferences

Opportunities

- Strong fossil resource base
- Geopolitical risks of fossil supply chains drive interest in bio-alternatives
- Functional advantages of bio-based products such as low foaming or biodegradability

Temporal Dynamics

Growth Rates of bio-based products

Ceresana
Market Research Since 2002

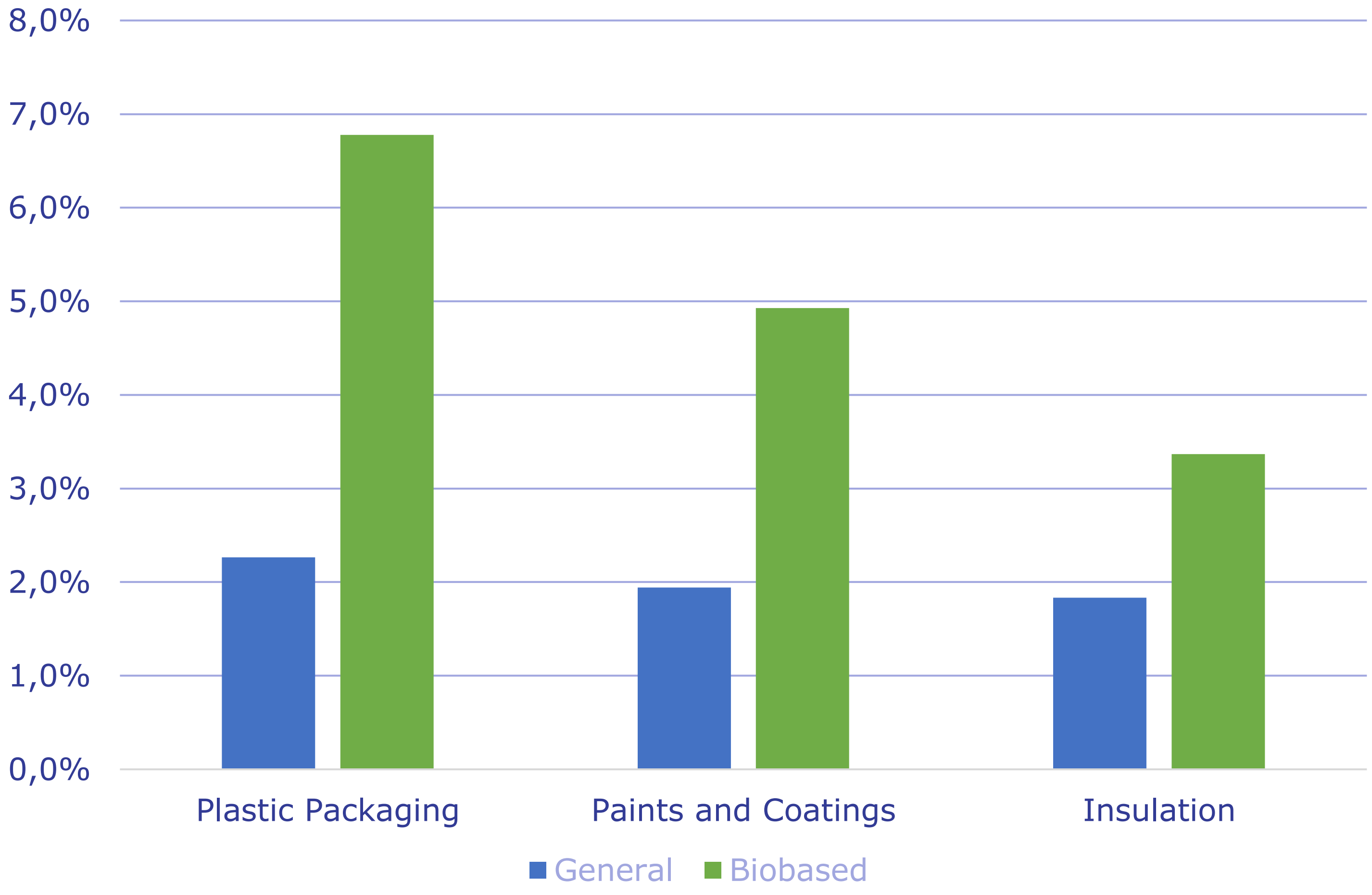
Overview

Bio-based Products

Plastic packaging, paints & coatings, and insulation materials

Market Structure

All segments grow faster than the general materials market



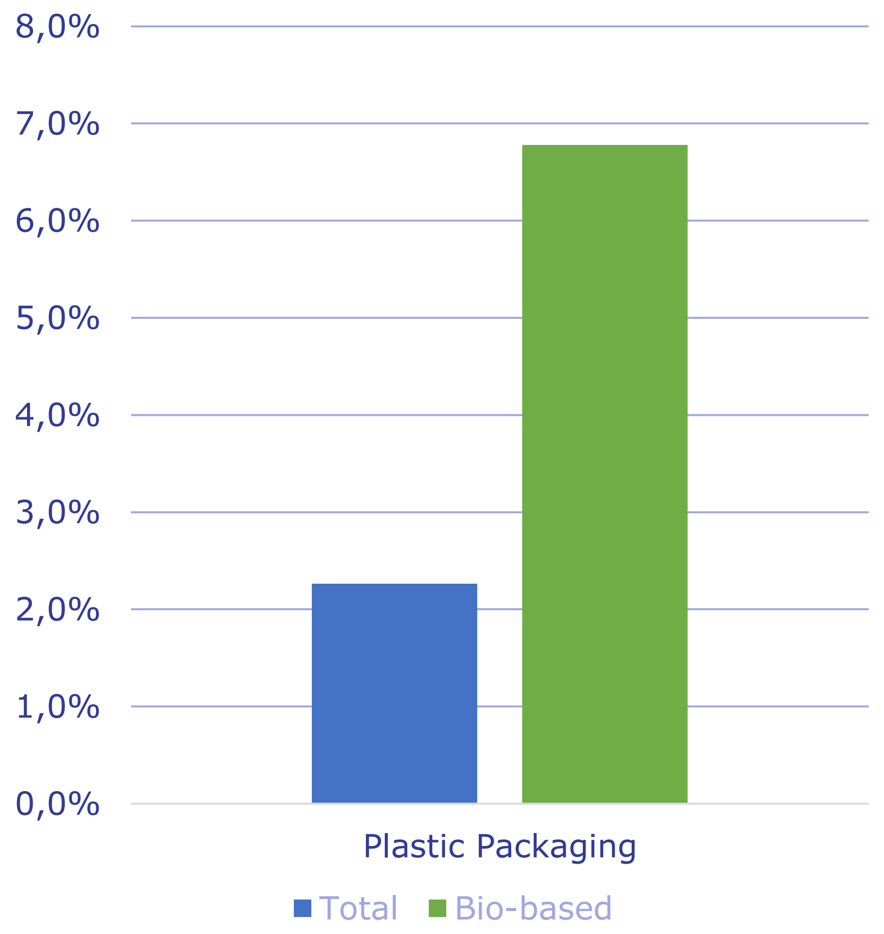
Source: Various Market Reports from Ceresana; Market Forecasts 2026–2032, CAGR of Demand in Europe)

Growth Rate of bio-based Packaging

Ceresana
Market Research Since 2002

Reasons for growth rate difference to the general Market

- Supported by EU funding for 2nd & 3rd generation bioplastics
- Conventional food packaging often non-recyclable
- Rising consumer demand for sustainable packaging
- Weaker growth in industrial packaging



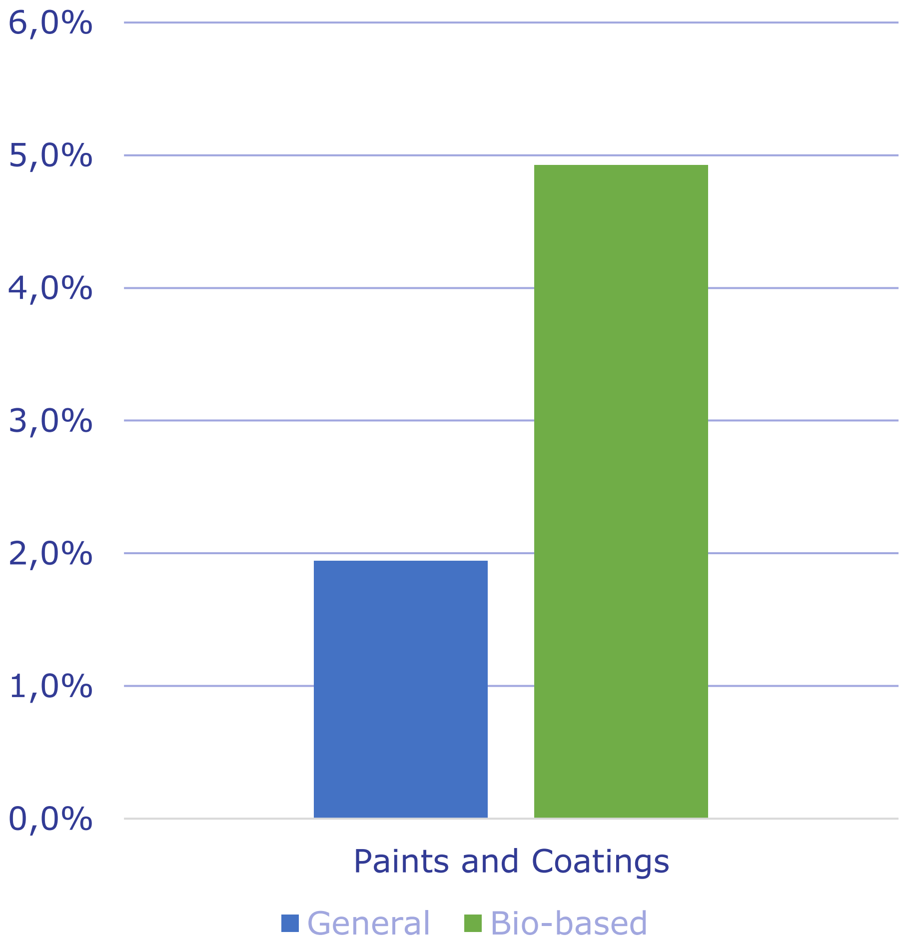
Source: Market Report: Bio-based Packaging (1st Ed.) from Ceresana; Market Forecast 2026–2032, CAGR of Demand in Europe

Growth Rate of bio-based Paints & Coatings

Ceresana
Market Research Since 2002

Reasons for growth rate difference to the general market

- Growth mainly in the construction sector
- Functional benefits
- Challenges in technical applications
- Higher costs limit adoption in cost-sensitive sectors



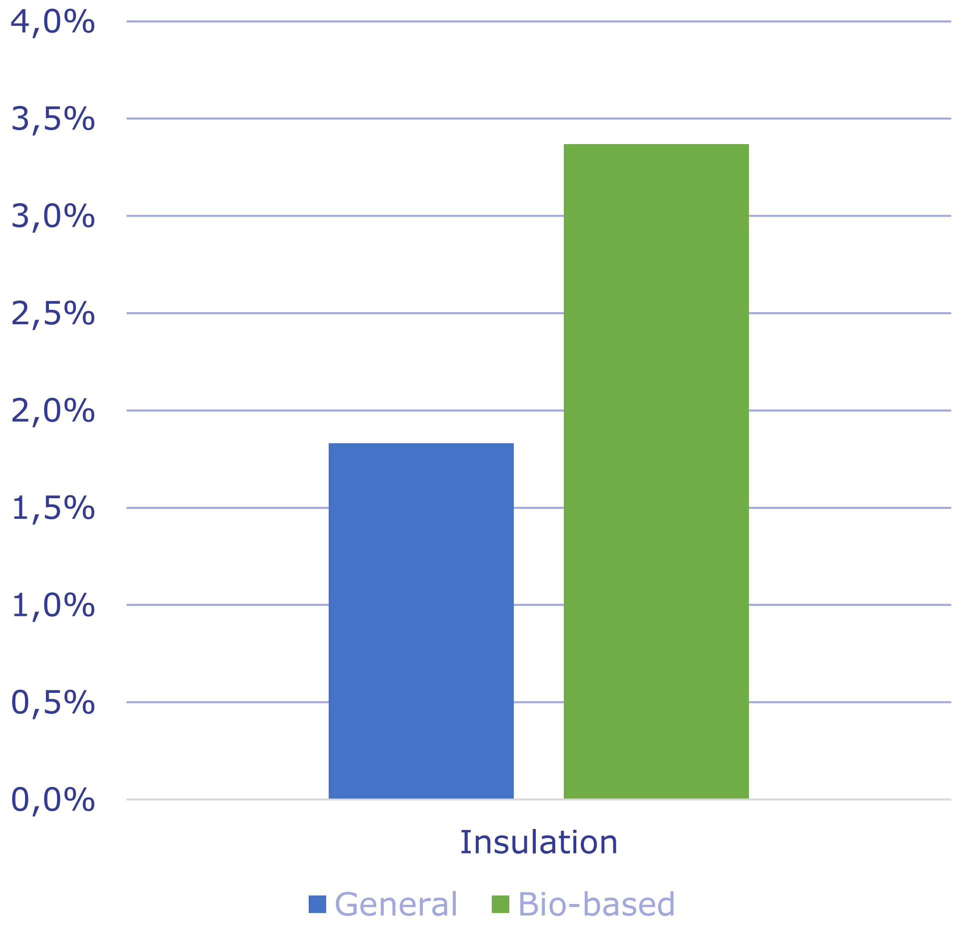
Source: Market Reports: Paints & Coatings - Europe (6th Ed.) and Bio-based Paints & Coatings (2nd Ed.) from Ceresana; Market Forecast 2026–2032, CAGR of Demand in Europe

Growth Rate of bio-based Insulation

Ceresana
Market Research Since 2002

Reasons for growth rate difference to the general market

- Use of locally available raw materials
- Incentives in energy efficiency and sustainable construction
- Strict building regulations
- Low awareness among professionals and end-users



Source: Market Reports: Insulation Materials – Europe (6th Ed.) and Bio-based Insulation Materials from Ceresana; Market Forecast 2026–2032, CAGR of Demand in Europe

Temporal Dynamics
Conclusion

Challenges

- Slow pace of technological substitution
- Regulatory uncertainties and barriers
- Higher Costs
- Low visibility of bio-based options in the industry

Opportunities

- Growth in consumer-oriented markets
- Long-term relevance due to additional ecological benefits
- Political and regulatory support
- Reducing transport costs
- Use of waste and by-products from agriculture and the food industry

Conclusion

Conclution: Bio-Based Market Dynamics

Ceresana
Market Research Since 2002

Key challenges and opportunities across industrial, regional, and temporal dimensions

1. Industry Dynamics

Challenges:
Complex products and high technical standards slow substitution.

Opportunities:
Faster adoption in consumer markets; ecological benefits add product value.

2. Regional Dynamics

Challenges:
Fossil infrastructure and price sensitivity limit uptake in some regions.

Opportunities:
Regional demand and fossil risks drive interest in bio-based alternatives.

3. Temporal Dynamics

Challenges:
Slow substitution and cost barriers in industrial settings.

Opportunities:
Policy support, circular use, and consumer demand accelerate change.

Conclution: Bio-Based Market Dynamics

Ceresana
Market Research Since 2002

Between market barriers and strategic opportunities

1. Industry Dynamics

2. Regional Dynamics

3. Temporal Dynamics

Progress emerges where barriers are addressed and potential is purposefully unlocked.

Therefore, up-to-date and objective market knowledge is essential for well-founded decisions and a successful corporate strategy.

Thank You for Your Attention!

Ceresana

info@ceresana.com
www.ceresana.com
+49 7531 94297 0
Mainaustr. 34, 78464 Konstanz