



PACKALL

PackAlliance:
European alliance for innovation training
& collaboration towards future packaging

Linking **Academy** to **Industry**.

Training program: modules

- Eco-design & novel manufacturing processing
 - **New materials and biomaterials**
 - Citizen and Consumer Engagement
 - Residue management and valorisation



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission.
This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Circular economy as a tool for promotion new and biomaterials in the field of packaging -policy challenges in different regions

Author: PhD Justyna Muweis

- **Introduction**

This part of the module includes issues related to the circular economy in the context of the use of new and biomaterials.

The practical work is divided into two parts.

1.

- Introduction of the CE in the field of biomaterials
- The promotion of the CE in the field of biomaterials

2.

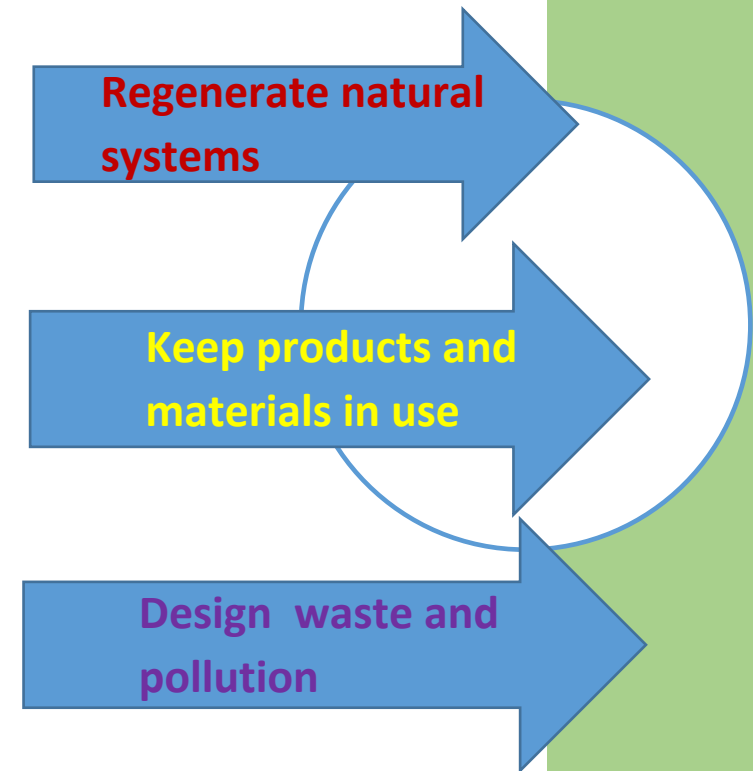
- Analysis of the CE policy implementation in the field of packaging in the selected regions
- Challenges of the CE policy implementation in the field of packaging in the selected regions



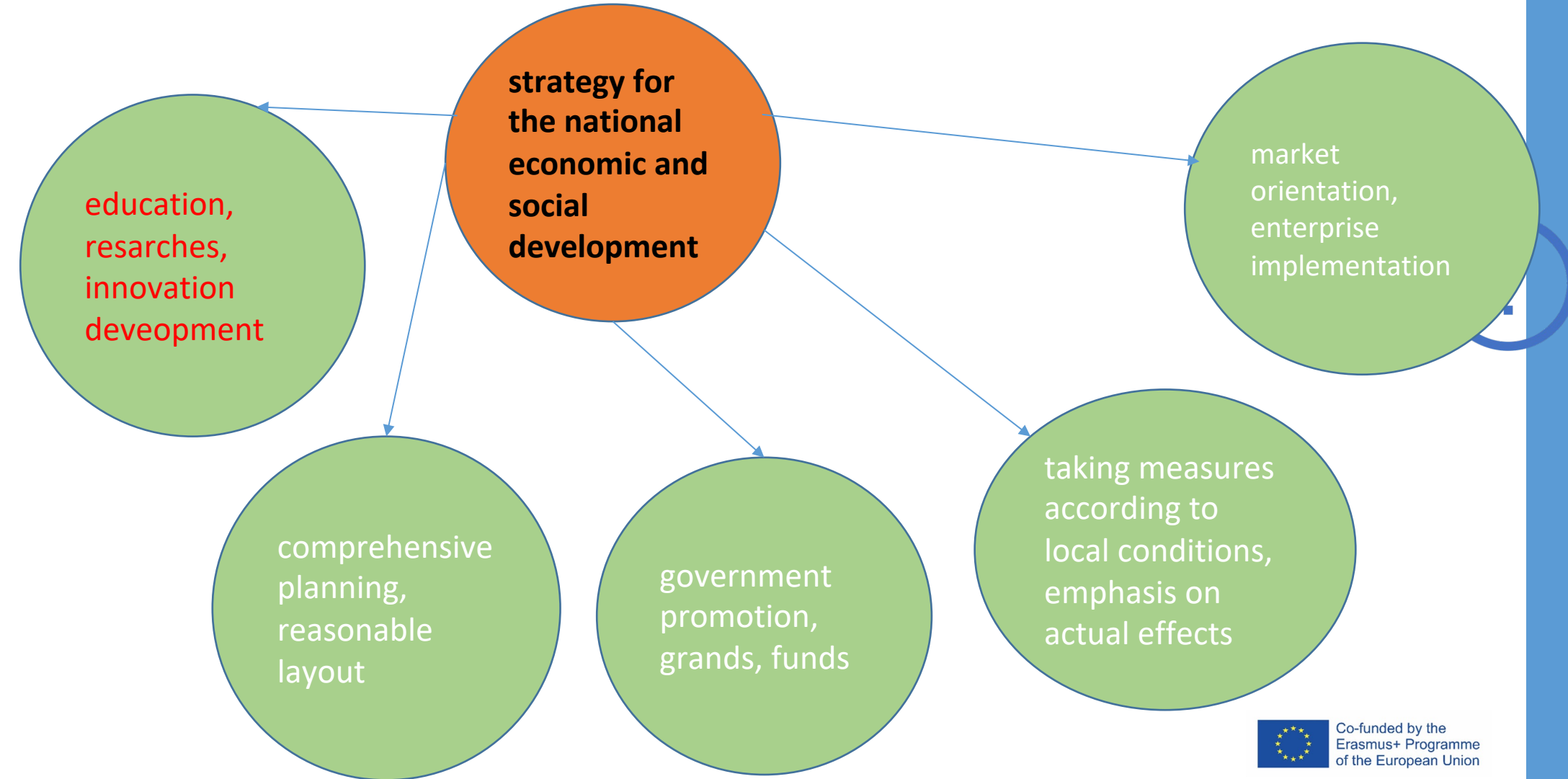
Biomaterials can be divided in following categories

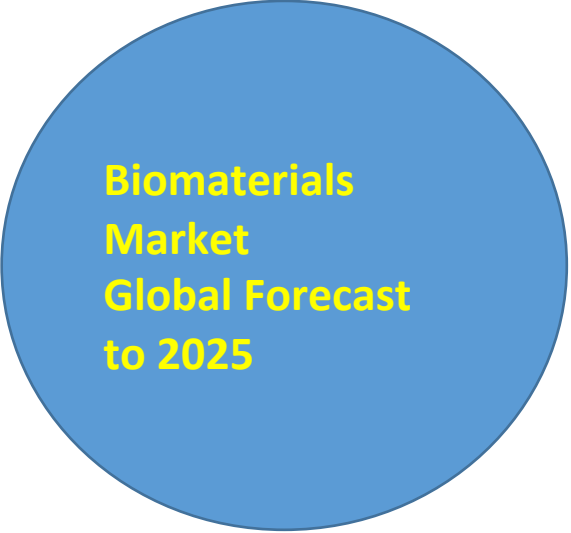
- Synthetic (metals, polymers, ceramics, and composites);
- Naturally derived (animal and plant derived);
- Semi-synthetic or hybrid materials.
- All these types of biomaterials are being used in healthcare from a long time period, but ensuing developments have enhanced their utility in healthcare.

- Source: Davis JR. Overview of biomaterials and their use in medical devices. In: Davis JR, ed. Handbook of materials for medical devices. Illustrated edition, Ohio: ASM International, 2003: 1-11



Promotion of circular economy



A large blue circle containing the text 'Biomaterials Market Global Forecast to 2025' in a yellow, sans-serif font.

**Biomaterials
Market
Global Forecast
to 2025**

- **Biomaterials Market**
- by Type of Materials (Metallic, Ceramic, Polymers, Natural), Application (Cardiovascular, Orthopedic, Dental, Plastic Surgery, Wound Healing, Neurological disorders, Tissue Engineering, Ophthalmology)
- Source: <https://www.marketsandmarkets.com/Market-Reports/biomaterials-393.html>



The biomaterials market in selected countries

- The biomaterials market is segmented into: North America, Europe, Asia Pacific, and Rest of the World.
- The large share of North America in the global market is attributed to the increase in biomaterial-based research, rising demand for plastic surgeries, growing incidence of cancer, and the rising prevalence of cardiovascular disease
- Source: <https://www.marketsandmarkets.com/Market-Reports/biomaterials-393.html>

In 2019, North America accounted for the largest share of the biomaterials market, followed by Europe and the Asia Pacific.



Key players in the biomaterials market include

BASF SE (Germany), Covestro AG (Germany), Celanese Corporation (US), Corbion (Netherlands), Royal DSM (Netherlands), Evonik Industries (Germany), Carpenter Technology Corporation (US), Berkeley Advanced Biomaterials (US), Cam Bioceramics B.V. (Netherlands), CoorsTek Inc. (US), CeramTec (Germany), and Gelita AG (Germany).



How to promote and implement new and bio materials in the market?

What should be taking into account?

Competitive benchmarking
Historical data & forecasts
Regional opportunities and strategies
Latest trends & dynamics

Marketing – strategies, marketing mix, marketing tools
i.e. Direct mail, social media
media monitoring tools.
customer loyalty programs.

research centers, clusters
Advertising campaigns, governmental and non governmental institutions,

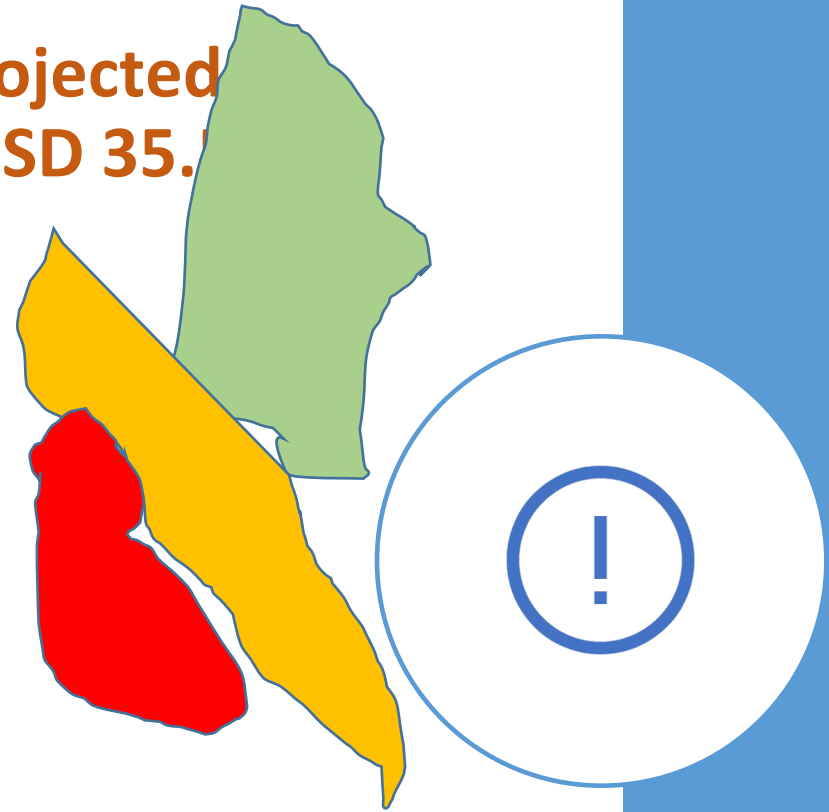


The global biomaterials market size is projected to reach USD 47.5 billion by 2025 from USD 35.1 billion in 2020

Market growth is driven mainly by factors such as the increased funds & grants by government bodies worldwide

for the development of novel biomaterials, rising demand for medical implants, and the rising incidence of cardiovascular diseases, increasing research on regenerative medicine.

Source: <https://www.marketsandmarkets.com/Market-Reports/biomaterials-393.html>

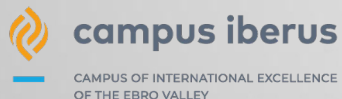




PACKALL

PackAlliance:
European alliance for innovation training
& collaboration towards future packaging

Linking **Academy** to **Industry**.



UNIVERSITÀ DEGLI STUDI
DI SALERNO



Copyright: CC BY-NC-SA 4.0: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

With this license, you are free to share the copy and redistribute the material in any medium or format. You can also adapt remix, transform and build upon the material.

However only under the following terms:

Attribution — you must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial — you may not use the material for commercial purposes.

ShareAlike — if you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

No additional restrictions — you may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission.

This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

