



BIOECO-UP

SUSTAINABLE BUSINESSES

OF THE FUTURE

Sustainable businesses of the future are expected to prioritize environmental, social, and economic responsibility, reflecting a commitment to long-term sustainability. Three types of sustainable businesses are presented below that may play a crucial role in the future:

1

RENEWABLE ENERGY COMPANIES:

As the world transitions to a low-carbon economy, the demand for renewable energy sources is expected to rise. Sustainable businesses in the renewable energy sector may include companies involved in solar, wind, hydro, and geothermal energy. These companies focus on providing clean and sustainable energy solutions, contributing to reduced greenhouse gas emissions and mitigating climate change.

Examples of renewable resources [RURES](#) project



2

CIRCULAR ECONOMY ENTERPRISES

Businesses adopting a circular economy model aim to minimize waste by designing products with longevity, recyclability, and reusability in mind. These companies may engage in product refurbishment, recycling initiatives, and waste reduction strategies. Circular economy businesses are likely to play a significant role in addressing the global challenge of resource depletion and waste management.

Examples and additional information & training about how to implement circularity are provided by the [CASCADE](#)



3

ETHICAL TECHNOLOGY COMPANIES:

The technology sector has a crucial role in shaping the sustainable future. Ethical technology companies prioritize the responsible and ethical use of technology, including considerations for privacy, data security, and social impact. Sustainable technology businesses may focus on developing innovations such as green tech solutions, eco-friendly electronics, and sustainable software development practices.





HOW TO SUBSTITUTE THE FOSSIL BASED MATERIALS WITH BIO-BASED MATERIALS

To substitute fossil-based materials with bio-based alternatives, businesses can begin by assessing the specific requirements of the materials they aim to replace. Researching available bio-based materials, such as bioplastics, biocomposites, and advanced bio-based options, is crucial. Utilizing renewable resources, including plant-based sources and waste by-products, can support sustainability in material sourcing.

Exploring collaborations with suppliers specializing in bio-based materials can provide valuable insights, while investments in research and development help optimize the performance of bio-based materials for specific applications. Considering end-of-life aspects, such as biodegradability or compostability, contributes to a circular economy.

Adhering to certifications and standards, such as the USDA Certified Biobased Product label, helps verify the bio-based content. Businesses should also stay informed about regulatory compliance and communicate their sustainability efforts transparently. Overall, a comprehensive approach that considers sourcing, performance, end-of-life considerations, and regulatory compliance is essential for a successful transition to bio-based materials.



BIOECONOMY INNOVATION FOR BOOSTING THE BUSINESS

Bioeconomy innovation can play a pivotal role in boosting businesses by leveraging sustainable practices, renewable resources, and cutting-edge technologies. Here's an overview without bullet points:



1 Embracing bioeconomy innovation presents a strategic opportunity for businesses to enhance their sustainability efforts while unlocking new avenues for growth. By integrating renewable resources and advanced technologies, businesses can achieve a competitive edge in the evolving market landscape.

2 SUSTAINABLE SOURCING: Businesses can explore innovative approaches to source raw materials sustainably. This may involve using bio-based feedstocks, waste-to-product conversion, or adopting circular economy principles. Sustainable sourcing not only aligns with environmental goals but also resonates with conscientious consumers.

3 BIOTECHNOLOGY AND GENETIC ENGINEERING: The application of biotechnology and genetic engineering allows businesses to optimize processes, enhance product quality, and develop bio-based alternatives. This innovation can lead to the creation of bio-based materials, chemicals, and pharmaceuticals with improved properties and reduced environmental impact.

4 ADVANCED MANUFACTURING PROCESSES: Innovations in manufacturing processes, such as biofabrication and synthetic biology, enable the production of bio-based products with increased efficiency and precision. These processes can be tailored to specific industrial needs, fostering flexibility and customization.



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5 WASTE VALORIZATION:

Businesses can innovate by incorporating waste valorization strategies, converting organic waste into valuable products. This not only reduces the environmental footprint but also contributes to resource efficiency and the circular use of materials.

6 DIGITALIZATION AND DATA ANALYTICS:

Leveraging digital technologies and data analytics enhances efficiency in bioeconomy operations. Real-time monitoring, predictive analytics, and automation contribute to streamlined processes, reduced waste, and improved decision-making.

7 COLLABORATIVE ECOSYSTEMS:

Establishing collaborative ecosystems with research institutions, startups and industry partners fosters a culture of innovation. By participating in cross-sector collaborations, businesses can access diverse expertise, share resources, and accelerate the development of bioeconomy solutions.

In summary, bioeconomy innovation offers a pathway for businesses to integrate sustainability into their core strategies, respond to market demands, and create value through responsible and forward-thinking practices.

Case example for inspiration

Project: **CircularPP**



SOPKÖKET

Use of waste as resource (raw material)

challenge: Regulations on the management of raw materials or semi-finished products

URZA

Simplification of procedures of consumption brought about by streamlining

challenge: Consumers' distorted perceptions of lower hygiene requirements

ACCUS

Changing sales to Rent

challenge: need for flexibility design for product reuse

RE-MATCH

Transforming waste into raw material

challenge: Insufficient information on the possibility replacing natural grass with turf synthetic

Company: **TrafinOil**



Source of business: Recycling of used cooking oils from catering businesses and citizens. Company collects used cooking oils not only from restaurants and other catering businesses, but also from municipalities and citizens. All the collected waste oils and fats are then processed at the factory for secondary use. Through gradual mechanical purification, it produces clean raw material used in the production of modern fuels.

Links:

↑ www.trafinoil.com

← www.cirkularpp.eu

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