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SCHOOL OF SCIENCE  
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## **Bioeconomy in Greece**

«Third Bioeconomy Course»

**Bioeconomics M.Sc.**

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- ◆ Positive net environmental impact
- ◆ Risk and obstacles

- ◆ Future and the bioeconomy contribution
- ◆ What kind of bioeconomy we want

# Aim of the presentation

Recommend a  
**type of  
bioeconomy**  
most effective  
in **Greece**

**Bioeconomy  
innovation** with  
**positive social**  
and  
**environmental**  
impact

**Risks** and  
**obstacles** in  
Greece and in  
general

**Future** and  
bioeconomy  
**contribution**

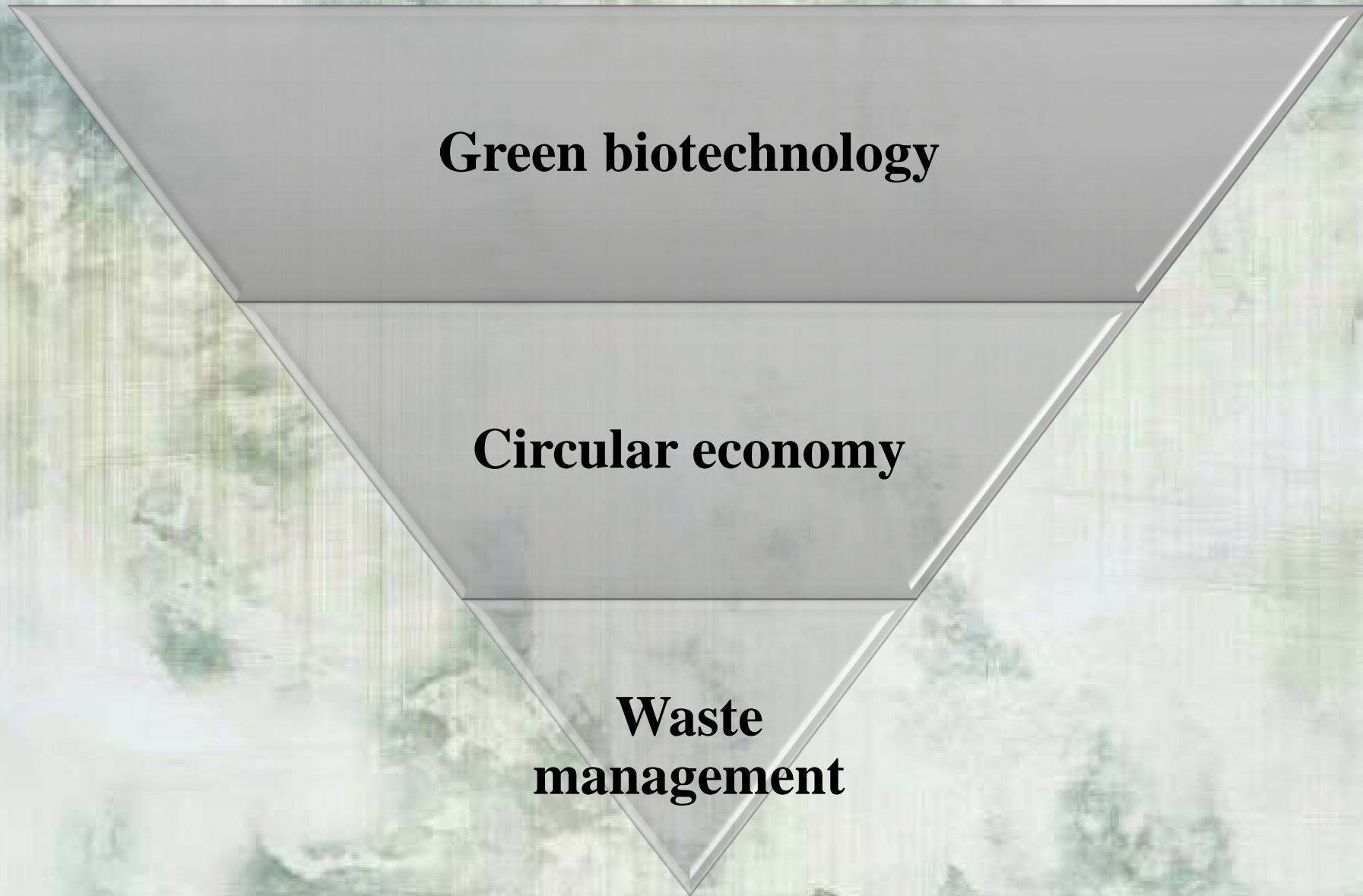
# Introduction

The aim of **bioeconomy** is the **efficiency, sustainability** and **social welfare**

2008-2014: Bioeconomy' s turnover was **€2 trillion per year**

**“Circular economy”**: the development of **circular processes** for the **production** of **value-added products**, such as the **recovery of waste** produced by farms

# The most effective type of bioeconomy

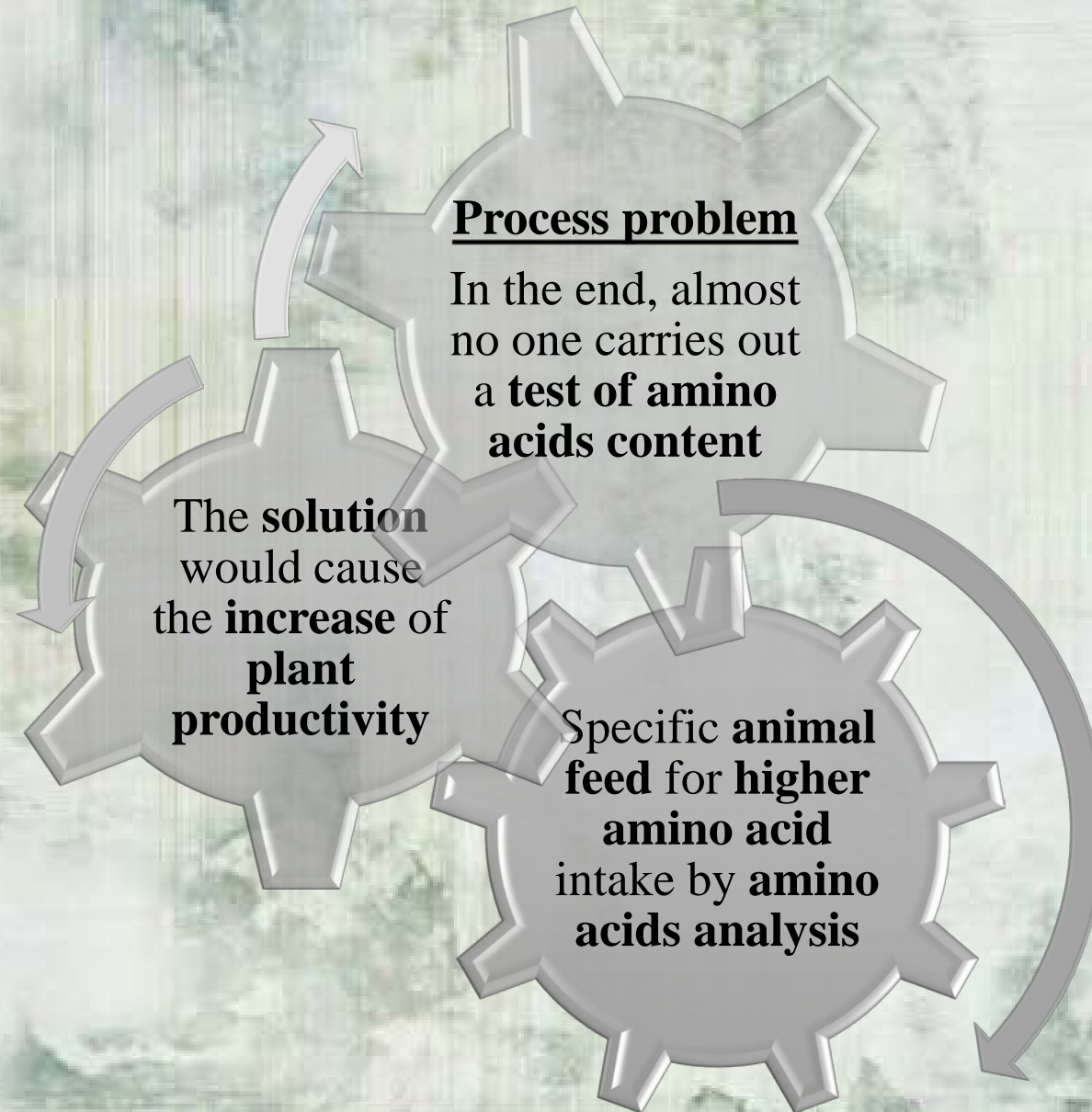




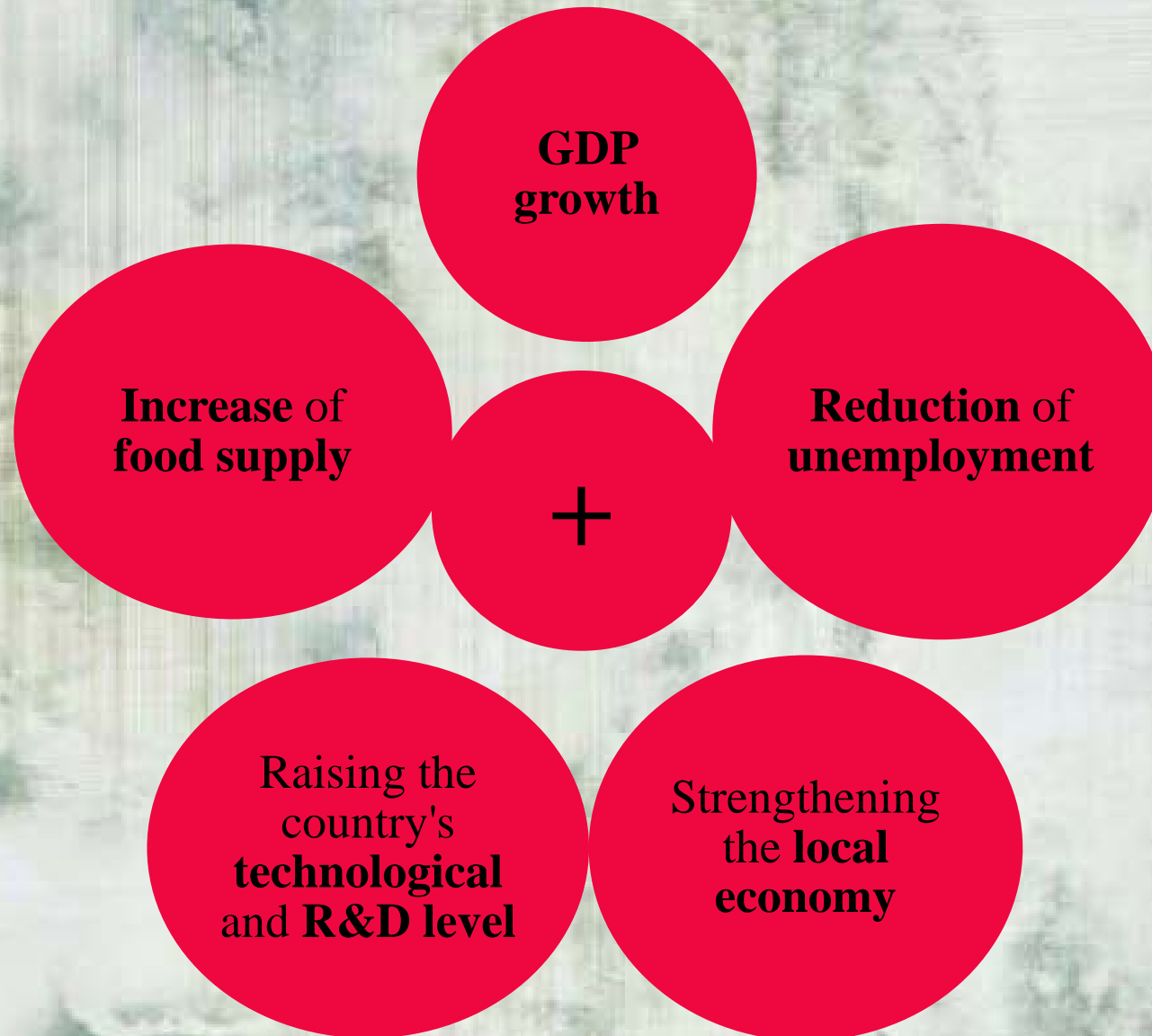
# “Biogas Lagadas A.E.”

- Collection of **biomass** from **livestock facilities** and then using for **bioenergy production**
- **Successful operation** since 2016 → **waste of animal origin is used** and **electricity** is generated
- Unit 's **power generation capacity: 1 MW** with plan of doubling it → **electricity sales** to the **NATIONAL ELECTRICITY SUPPLIER** for **23 cents/kWh**
- The organic fertilizer of the residue of the waste, **return** to the **stock-farmer** in a **usable** form → **corrects the pH** of the soil, in which farmers **cultivate animal feed** → **less chemical fertilizer needs** → digested **residue** is composed of **95% of water** → achievement of a **first irrigation**
- Of the **90,000 tones** of biomass managed annually, only **5,000 tones** are converted **into biogas**

# Our innovation



# Positive change to the social foundation in society





# Positive net environmental impact

Possible **protection** of plants and their seeds from **pathogens** and **weeds**

**No production of extra waste** but **collection** and **treatment** of the already **existing**

**Reduction of animal and agricultural waste** and **reuse**

# Risk and obstacles

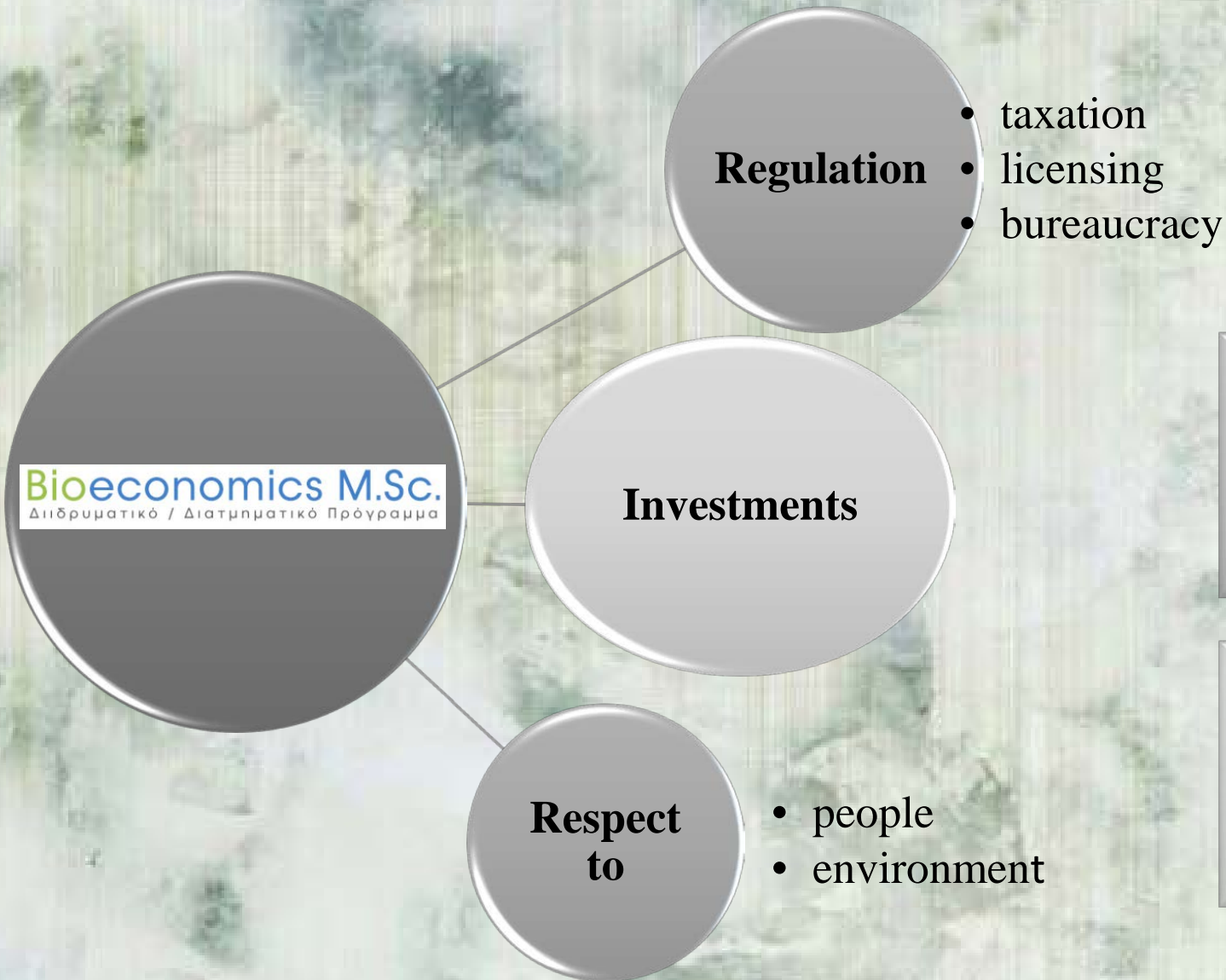
Requirement of  
**large capital  
equipment**

**Not as competitive** as  
the conventional ones

**Insufficient  
educational  
background**

**No  
existing  
cluster**

# Future and the bioeconomy contribution



## Bioeconomy contribution

**Sustainability**

**Economic growth**

**Environmental protection**

**Technological growth (R&D)**

# What kind of bioeconomy we want



“**Bioeconomy**, as a **sustainable development pillar**, provides excellent **opportunities** and **solutions** to a **growing** number of **social**, **environmental** and **economic** challenges, including **halting climate change**, achieving **energy security** and **food availability**, and **resource efficiency**”.



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**Thank  
you!**

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