



**Sustainable
Stone
by PORTUGAL**

AGENDA VERDE DA PEDRA NATURAL



Financiado pela
União Europeia
NextGenerationEU



52 PARTNERS



CONSÓRTIUM

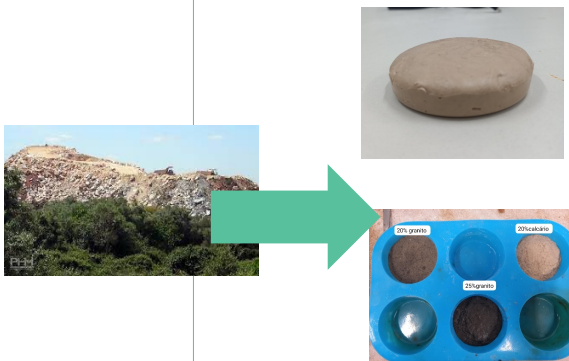
- 20 STONE COMPANIES
- 11 TECH AND SOFTWARE COMPANIES
- 16 ACADEMIC ENTITIES
- 3 ASSOCIATIONS
- 2 PUBLIC ENTITIES
- 4 REGIONS

- + 8% VALUE ADDED
- + 5% PRODUCTIVITY
- + 15% EXPORT FOR CONSORTIUM COMPANIES
- 1 PATENT
- + 20% QUALIFIED EMPLOYMENT
- 30%: REDUCTION OF GREENHOUSE GAS EMISSIONS
- 60%: GROWTH IN THE INCORPORATION OF RENEWABLE ENERGIES
- NEAR 100%: GROWTH IN THE USE OF BY-PRODUCTS
- CREATION OF DIRECT JOBS: 200

OBJECTIVES

1. INNOVATIVE PRODUCTS

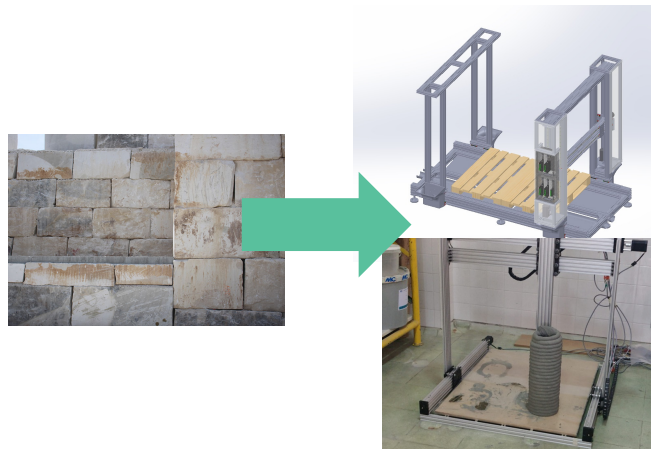
DEVELOPING NEW PRODUCTS FROM WASTE;
DEVELOPING NEW PRODUCTS FOR ADDITIVE
MANUFACTURING.



TRANSFORM WASTE INTO BY-PRODUCTS
NEAR ZERO WASTE OPERATIONS

2. NEW SYSTEMS FOR THE RECOVERY OF BY-PRODUCTS

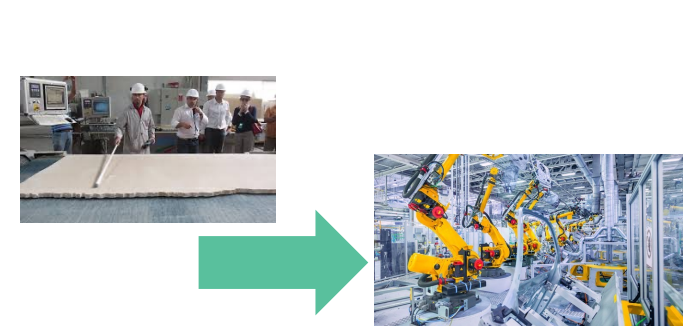
NEW SYSTEMS FOR THE VALUATION OF NON-COMMERCIAL BLOCKS
CREAMS AND STONE DUST;
DEVELOPING ADDITIVE MANUFACTURING;
DEVELOPING SYSTEMS FOR THE REPROCESSING OF "BY-PRODUCT"
BLOCKS.



+ 5% PRODUCTIVITY
- 30% GREENHOUSE GAS EMISSIONS
+ 60% INCORPORATION OF RENEWABLE ENERGIES

3. INNOVATIVE ROBOTIZED SOLUTIONS FOR EXPLORATION AND TRANSFORMATION

DEVELOPING ROBOTS FOR STONE TRANSPORTATION AND
REMOVAL – QUARRIES;
DEVELOPING ROBOTS FOR NATURAL STONE TRANSFORMATION –
CUSTOM PROJECTS



+5% PRODUCTIVITY
+ 8% ADDED VALUE
MORE SAFETY

4. NEW PROCESSES FOR STONE

SUSTAINABILITY

MAKING QUARRIES AND FACTORIES EVEN MORE ENVIRONMENTALLY FRIENDLY
CALCULATING THE ENVIRONMENTAL FOOTPRINT OF NATURAL STONE PORTUGAL AND DEVELOPING PLANS FOR ITS MITIGATION



- 30% GREENHOUSE GAS EMISSIONS
+60% INCORPORATION OF RENEWABLE ENERGY
WASTE TRANSFORMATION INTO BY-PRODUCTS

5. NEW PROCESSES FOR INDUSTRY

DIGITALIZATION

PRODUCT QUALITY THROUGH PREDICTIVE ANALYSIS;
CREATING CONDITIONS FOR DATA MANAGEMENT;
STUDYING PRODUCT BEHAVIORS;
ADDRESSING NEW BUSINESS MODELS – BIM (BUILDING INFORMATION MODELING)

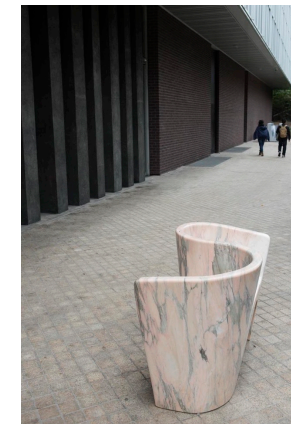


+8% ADDED VALUE
+5% PRODUCTIVITY
+15% EXPORTS FOR CONSORTIUM COMPANIES

6. INNOVATIVE INTERFACE CENTER IN SCIENCE

AND TECHNOLOGY

TESTING AND TRAINING THAT WILL ENABLE A REALISTIC AND FUTURISTIC PRODUCTIVE SIMULATION ENVIRONMENT IN PORTO MÓS"



+ R&D AND INNOVATION FOR SMES
ATTRACTING YOUNG TALENT
QUALIFICATION

TOPICS FOR FUTURE

HORIZON PROJECTS

TYPE AND ROLE OF PARTNERS SOUGHT

PREVIOUS EXPERTISE

Developing new products from waste;
 Additive manufacturing applications in natural stone;
 Robotized solutions for quarry and factory operations;
 Industry digitalization and predictive analysis;
 Environmental sustainability in stone processing;
 Structural stone processes.

Technology and software companies for digital solutions;
 Academic institutions for R&D collaboration;
 Industry partners for pilot implementations;
 Environmental specialists for sustainability assessments;
 Clusters.

Extensive experience in natural stone processing and transformation;
 Development of sustainable and innovative projects;
 Strong participation in EU-funded projects;
 Expertise in natural stone and metallic resources (mining sector);
 91 members – more than 80% SMEs



FROM THE QUARRY TO THE CONSTRUCTION PROJECT WITH THE HIGHEST SUSTAINABILITY STANDARDS

THANK YOU

MARTA PERES
EXECUTIVE DIRECTOR
CLUSTER PORTUGAL MINERAL RESOURCES

SEE MORE:
[CLUSTERMINERALRESOURCES.PT](https://clustermineralresources.pt)

[SUSTAINABLE.STONEBYPORTUGAL.COM](https://sustainable.stonebyportugal.com)

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