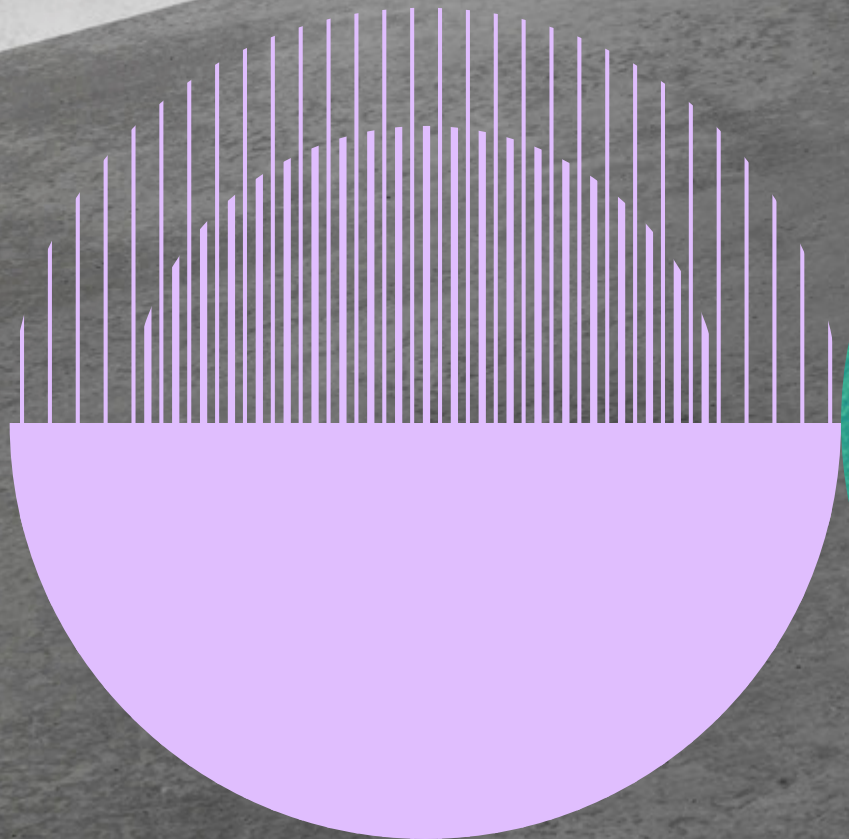
SOLID IN TRANSFORMATION

GREEN BOND FRAMEWORK



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GREEN BOND FRAMEWORK

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01

SECIL GROUP

01 Secil Group

Through eight cement factories and presence in eight countries and four continents, the Secil Group guarantees an annual cement production capacity of over 9.75 million tonnes.

Secil is a business group founded in Portugal whose activity is based on the production and sale of cement, concrete, aggregates, mortars and hydraulic lime. It also integrates a company that operates in complementary areas in the circular economy and in the use of waste as a source of energy.

The Secil Group has consolidated itself in Portugal and has expanded in the last two decades to other markets. It currently operates three cement factories in Portugal (Outão, Maceira and Pataias) and is present abroad in Angola, Tunisia, Lebanon, Cape Verde, Spain, the Netherlands and Brazil.

Through eight cement factories and presence in eight countries and four continents, the Secil Group guarantees an annual cement production capacity of over 9.75 million tonnes.

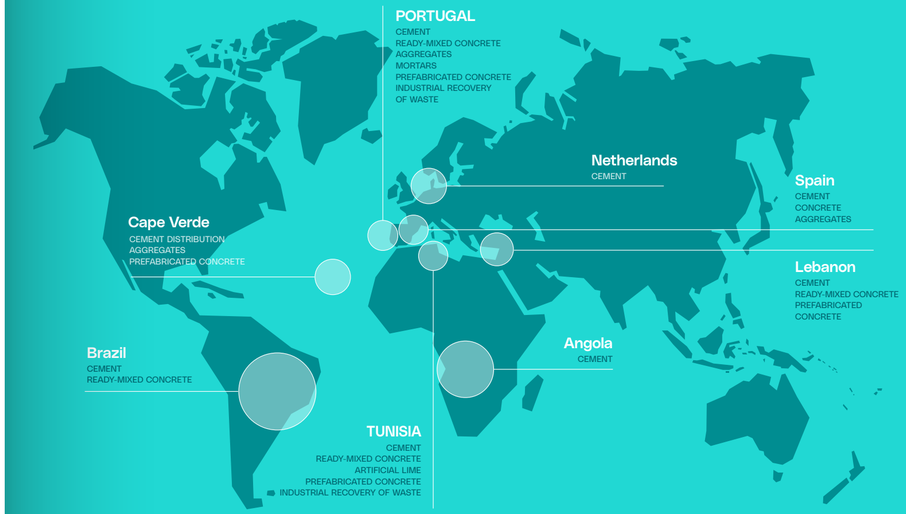
Semapa, holder of the entire share capital of Secil, is a holding company listed on Euronext Lisbon, integrating the PSI - Portuguese Stock Index, and its majority shareholder is the Queiroz Pereira family, with strong traditions in Portuguese industrial and financial activities.

1.1 Business Model

The cement industry has a marked financial impact in European, national and regional economies, in the construction supply chain and in employment. Secil Group Businesses are focused on economic performance and the environmental and social impact in the production and use of its products, which are highly relevant to customer satisfaction.

Secil has a significant presence in the cement industrial sector and is a group enterprise with various operations in Portugal and several countries around the world. Although the core activity is cement, expansion into other businesses and the integration of various companies with complementary services mean that today the Secil Group has a solid international position.

Where We Are



4 Continents

8 Countries

8 Plants

+20 Countries
Exports from Setúbal, Portugal

Business areas
Cement and Construction Materials

Main products
Cement, ready-mixed concrete, aggregates, mortars, prefabricated concrete and hydraulic lime.

1.2 __ Business Units

Cement is the core of the Secil Group's operations, but the Group soon began to develop other construction materials that set it apart in the market and made it a preferred brand among its customers. With a wide range of cement, concrete, aggregates, and mortar products, Secil combines quality with the responsibility to manage the social and environmental impacts of its production.

Secil combines quality with the responsibility to manage the social and environmental impacts of its production.

Products

Cement

Secil produces a wide range of gray and white cement grade types with applications ranging from small construction to large civil engineering works. Secil cements are certified (EN 197-1) and subject to strict and permanent quality control from the production stage to their placing on the market. By adopting the best practices and technologies available in the market, the company guarantees a high standard of quality in all its actions.

Markets

PORTUGAL
ANGOLA
TUNISIA
CAPE VERDE
SPAIN
NETHERLANDS
BRAZIL
LEBANON

Sales 2021 (quantity)

5,319,281t

Sales 2021 (value)

€325.9M

Products

Concrete

The best-known use of cement is the production of concrete for civil engineering structures or gray, white, or colored architectural concrete. This material consists of water, cement, and aggregates. This product is essential in the seismic reinforcement of building foundations and structures. Abundant, close to consumption centers, generating employment and versatile in its use, concrete is fully recyclable after its long-life cycle.
Due to its high use, low cost and ease of manufacture, this material has no alternative competitor allowing the construction of development structures essential to human dignity.

Markets

PORTUGAL
TUNISIA
LEBANON
BRAZIL
SPAIN
CAPE VERDE

Sales 2021 (quantity)

1,959,539m³

Sales 2021 (value)

€112.4M

Products

Mortars

In the area of prefabricated products and construction materials Secil Group also produces pre-prepared dry mortars.
The mixture of cement, lime, sand, and other additives serves to settle materials and waterproof, regularize and finish surfaces, whether in new works or in the renovation and rehabilitation of existing buildings.

Markets

PORTUGAL

Sales 2021 (quantity)

233,349t

Sales 2021 (value)

€21.4M

Products

Aggregates

Industrial aggregates are raw materials for the construction of other materials. Therefore, their choice has a strong influence on the quality and behaviour of the final products. The Secil Group, through Secil Agregados, extracts and markets limestone and granite aggregates, certified for various construction uses.

Markets

PORTUGAL
SPAIN
CAPE VERDE

Sales 2021 (quantity)

5,082,570t

Sales 2021 (value)

€27.3M

Products

Hydraulic Lime

In addition to cement, Secil Group also sells hydraulic lime, a widely used binder, particularly in the manufacture of mortars, soil treatment, soil-lime or filler for bituminous products.
Currently Secil also produces natural hydraulic lime as the result of a research and development process at the Secil Group, which allows for a use compatible with old substrates but with a behavior that meets the rigorous requirements of today.

Markets

PORTUGAL
TUNISIA

Sales 2021 (quantity)

24,800t

Sales 2021 (value)

€2.5M

02

SUSTAINABILITY STRATEGY

02 Sustainability Strategy

Secil is committed to Sustainability, seeking to reconcile its economic performance with environmental respect and responsible citizenship.

The response to global climate change involves the reduction of the carbon intensity of production, the circular economy and the promotion of biodiversity, challenges that are accepted and will be overcome, with continued creation of economic value in the context of globalisation. To fulfil this design Secil has an empowered and autonomous team, being the main focus of the Company its development and recognition.

It is Secil's strategy:

- To achieve carbon neutrality in the cement and concrete value chain by 2050.
- Contribute to a circular economy by increasing the use of alternative fuels and secondary raw materials.
- Build a health and safety culture that will allow reduction of work accidents and eliminate fatalities.
- Support equal opportunities and promote diversity in management decisions.
- Focus on the customer to provide him with exceptional experiences.
- Do all this Respecting Human and Labor Rights with Ethics, Integrity and Corporate Responsibility.

In the communities in which Secil operates it aims to exceed and integrate the expectations of its stakeholders. Secil integrates international institutions and partnerships that also assume this same commitment, achievable through the Sustainable Development Goals. Secil wants to have a clear, transparent governance model that allows to anticipate risks and opportunities, based on ethics and integrity. Secil's Sustainability Policy defines objectives and prioritizes actions in order to contribute to a better life on a planet dedicated to all humanity.

See our Sustainability Policy

Secil has developed an internal framework to achieve its strategy, covering Environmental, Social, Governance and Economic pillars, named ESG+E.

In each ESG + E Pillar, the material topics on which Secil will focus up to 2025 have been identified.

Environmental (E)	Social (S)	Governance (G)	Economic (E)
Carbon Neutrality	Health & Safety	Corporate Governance	Sustainable Economic growth
Air Emissions	**Stakeholder Engagement**	**Organization Strategy**	**Sustainable Finance**
Circular Economy	Social Responsibility	Ethics, Integrity & Compliance	Sustainable Procurement
Resources & Energy Efficiency	**Equity, Diversity & Inclusion**	**Sustainability Management**	**Customer centricity**
Biodiversity	Human & Labor rights	Reporting	
Water			

The commitment to sustainability with several entities

Secil Group has always demonstrated its sense of responsibility for the impacts of its operations, not only on the environment, but also on communities and especially on people. Nowadays, companies are increasingly making commitments, individually or at sectoral level, and Secil is part of this movement. In this sense, Secil aligned itself with the sector, and initiated an internal process to establish concrete objectives, with associated goals, in order to reduce or compensate for the impact of its operations.

Secil is a member of Global Cement and Concrete Association (GCCA), which has issued a charter of ten commitments for the sector to contribute to the achievement of the Sustainable Development Goals (SDG's) of the United Nations. Secil has subscribed these 10 commitments that intends to meet in the 2020-2030 horizon, with concrete indicators and for which it will set goals.

At the same time, Secil is committed, along with a set of national companies, to the promotion of a more sustainable development model, having signed the Manifesto promoted by the Business Council for Sustainable Development (BCSD) Portugal.

In 2022 Secil has also joined Science Based Targets Initiative (SBTi) in order to validate Secil's target for CO2 emissions.

The sustainability commitments allow Secil to align and consolidate its internal objectives, integrate all the perspectives of stakeholders, position the company alongside its peers and also contribute to the achievement of the United Nations Sustainable Development Goals.

→ Commitments 2020-2030 (GCCA)

_____ PILLAR

HEALTH AND SAFETY

Our People

ALIGNED WITH SUSTAINABLE DEVELOPMENT GOALS

1.
Apply the GCCA guidelines for best practices in Safety

2.
Encourage the continued sharing of best practice in Health and Well-being

_____ PILLAR

CLIMATE CHANGE AND ENERGY

Protection of the Planet

3.
Delineate a strategy to mitigate climate change, with publication of concrete targets and their progress

_____ PILLAR

THE ENVIRONMENT AND NATURE

Protection of the Planet

4.
Implement the Environment and Nature Guidelines

5.
Set emission reduction targets and publish their progress

_____ PILLAR

CIRCULAR ECONOMY

Protection of the Planet

6.
Foster and circular economy principles in the value chain

7.
Implement guidelines for the use of fuels and raw materials in cement production

_____ PILLAR

SOCIAL RESPONSIBILITY

Community Involvement

8.
Publish a Code of Conduct that integrates the international principles of human rights

9.
Apply social impact assessment guidelines

10.
Establish a systematic dialogue process with stakeholders

These SDGs are identified in the next page and illustrated with the main initiatives that have contributed over the past two years to meet each of them.

Secil closely monitors the challenges of sustainable development. The United Nations' SDGs are therefore included in its agenda. In this regard, three priority SDGs were identified - 9, 12 and 13 - and five second-level or important SDGs - 4, 7, 8, 11 and 17.

There are a total of eight SDGs which are in line with the GCCA, which are subscribed by Secil.

Priority

Framework

Secil's companies operate in value chains with a clear local economic impact and in areas which are vital to society. They offer resilient solutions and products, and are committed to R&D, seeking to meet future challenges.

Secil's Solution

Offering resilient construction solutions and a sustainable life-cycle; technical development areas, focused on process and product innovation; support for the development of infrastructures in developing countries (Tunisia, Angola); donation of computers and other technologies to social projects; Secil Innovation Prize, aimed at promoting regional innovation.

The CCL project, which is being implemented by Secil, is highly innovative and involves several university researchers. This project will eventually lead to 12 new patents being filed.

Priority

Framework

Secil has environmental impacts in its production processes, which are mitigated and managed with its environmental management policies and systems. The Company is focused on resource efficiency and the promotion of a circular economy.

Secil's Solution

Efficiency in the use of resources - water, energy and raw materials; reduction, control and measurement of particle emissions; reuse of materials, recycling and reduction of consumption; development and expansion of the use of alternative, non-fossil fuels; concretes with less cement and more secondary raw materials, such as cork; development and production of thermal insulation, contributing to more efficient energy consumption in buildings.

Secil follows trends on the international agenda to measure circularity. Thus, during 2021, Secil followed the development of version 2.0 of the Circular Transition Indicators (CTI tool), developed by the WBCSD with the support of Circular IQ.

Priority

Framework

Secil is aware of its impact on CO2 emissions, and is committed to contributing to the minimisation of climate change.

Secil's Solution

Strategy and actions to reduce the carbon footprint and decrease CO2 emissions; reduction of admixtures: cement with less clinker (Low Carbon Clinker) and concretes with less cement; provision of a single product - cement - for society's infrastructures and its adaptation to climate change (with special focus on fire resistance) and to phenomena such as floods or storms; preference in the use of maritime and rail transport, in the movement of goods and fuels; increase in the energy efficiency of equipment and facilities.

Important

Framework

Secil assumes the responsibility of encouraging the personal and professional development of its employees. Attracting and retaining talent is a constant concern, given the high number of employees.

Secil's Solution

Support for the development of education campaigns in developing countries such as Lebanon, Tunisia and Angola. Participation in School Councils in educational establishments in Portugal and various initiatives with universities, to encourage research or integration into working life, such as the Secil Universities Award. Educational field trips to plants, namely factories and the Cement Museum of the Maceira-Liz factory. Inauguration, in 2020, of the Casa da Cultura Pedro Queiroz Pereira (cultural centre), aimed at promoting activities in the Adrianópolis (Brazil) community, free of charge and for all ages, focusing on areas such as education, culture, sports and leisure. This cultural centre had increased its activity by the end of 2021.

Important

Framework

Secil accepts that one of the objectives is the conversion of the company's energy matrix, as can be seen in its decarbonisation roadmap.

Secil's Solution

Development of its carbon neutrality roadmap in order to meet the challenges that climate change presents to society. Investment in improved combustion processes with hydrogen.

Important

Framework

Secil is a benchmark employer at a national and international level, and is focused on generating value, providing decent employment, favouring safety, training and respect for equality.

Secil's Solution

Programmes in Leadership and Coaching in Safety Behaviour. TME Programme (including safety roadmaps for all regions) of training and capacity building of human capital extended to a larger number of employees.

Implementation of a new positive reassurance programme, as we believe that positive feedback influences not only employee well-being, but also communication, trust and teamwork.

Important

Framework

Secil is a benchmark employer at a national and international level, and is focused on generating value, providing decent employment, favouring safety, training and respect for equality.

Secil's Solution

By creating more sustainable product lines, with low environmental impact, Secil is contributing directly to this goal.

Important

Framework

Secil interacts with very diverse groups in civil society, both nationally and internationally. Multiple partnerships have been established that have promoted the improvement of their performance.

Secil's Solution

Environmental Monitoring Committees; Secil Awards; partnerships with the Architects' and Engineers' Associations; partnerships with universities; support for NGO and IPSS (social welfare) initiatives in the communities surrounding the plants; close institutional links with local authorities in the areas where the plants are located, with financial and logistical support for various initiatives; participation in numerous business associations. Support for the publication of technical works or works of community interest; participation in Associations or Platforms for Business and Institutional Cooperation. Inauguration, in 2020, of the Casa da Cultura Pedro Queiroz Pereira (cultural centre), aimed at promoting activities in the Adrianópolis (Brazil) community, free of charge and for all ages, focusing on areas such as education, culture, sports and leisure. This cultural centre had increased its activity by the end of 2021

03

SUSTAINABILITY GOVERNANCE

03 Sustainability Governance

The Group's culture is based on values such as integrity and responsibility, which are expressed in the way Secil operates daily.

Constitution of the Board of Directors/Areas of Responsibility

Secil has a one-tier Board of Directors (BoD), with 3 executive directors and 5 non-executive directors. Secil's Chief Executive Officer (CEO) is responsible for promoting sustainability topics in the business, namely Governance topics, as well as approving related strategic objectives, strategic initiatives and priority actions. There is an Executive Director that is responsible for climate-related issues and other Environmental topics. The Social topics will be, beginning in 2023, assured by the HR Manager, that will be invited to all Executive meetings.

Sustainability management at the corporate level

In 2021, when defining the strategic plan that gave rise to Ambition 2025, one of the 7 elements defined was Sustainability, thus the ESG+E project (Environmental, Social, Governance and Economic) was born. The ESG+E project team will coordinate the entire sustainability area up to 2025, in order to consolidate its management and facilitate meeting all current ESG+E requirements.

This project has a Project Leader and a global manager for each Pillar (ESG+E), constituting these 5 people Secil's **Sustainability Project Team**.

There is a **Steering Committee**, composed by the Sustainability Project Team plus the Executive Committee, the Country CEOs and the Institutional Communication Manager, which meets every two-months for a status follow-up.

The **Sustainability Committee** was created in 2018 but beginning in 2023 it will be extended and will hold meetings on a quarterly basis. This Sustainability Committee is composed by all elements involved in the various topics of Sustainability (for topics see internal framework above), both corporate and local level:

a) **Corporate ESG+E pillars managers**

b) **Corporate technical experts**

c) **Local ESG+E pillars managers**

Twice a year, all first line managers will be invited to participate in the Sustainability Committee.

Responsible business conduct

The Group's culture is based on values such as integrity and responsibility, which are expressed in the way Secil operates daily. The principles of ethics, compliance and respect for human rights are integrated into the Governance model in this culture, extending to all geographies where it operates.

It was in this sense that Secil's Code of Conduct was developed, as one of the hand-held members of the construction of 'This Is Us' identity, and which mirrors the set of principles on which the Group's responsible conduct is based.

Involvement with stakeholders

Stakeholders are a key part of the way Secil manages the Group's business. Secil has been promoting the opening of channels that make it possible to involve more and more the different actors that are impacted by its operations, which should be heard and involved in Secil's decision-making process. As an example, the groups of stakeholders identified were also the ones auscultated for the definition of material topics (please see page 24 of the Sustainability Report:

Scan to know more

04

GREEN BOND FRAMEWORK

04 Green Bond Framework

By issuing Green Bonds, Secil will continue to support its sustainability strategy and vision.

Rationale for Green Finance

Secil is deeply engaged in developing its activity by applying Environmental, Social, and Governance (ESG) principles and best practices and has established this Green Bond Framework to support the finance and/or refinance of part of the Clean Cement Line ("CCL") Project (hereafter the "Framework").

The Project comprehends eligible green assets with clear environmental benefits and the Framework will apply to the two Green Bond Issues in the total amount of 75,000,000 euros (issue of "Obrigações Verdes Secil 2030 – Taxa Fixa" in the amount of 37,500,000 euros and issue of "Obrigações Verdes Secil 2030 – Taxa Variável" in the amount of 37,500,000 euros) that will be used to finance and/or refinance the Project.

Secil believes that Green Bond Issues are effective tools to channel investments to projects that have demonstrated climate benefits. By issuing Green Bonds, Secil will continue to support its sustainability strategy and vision.

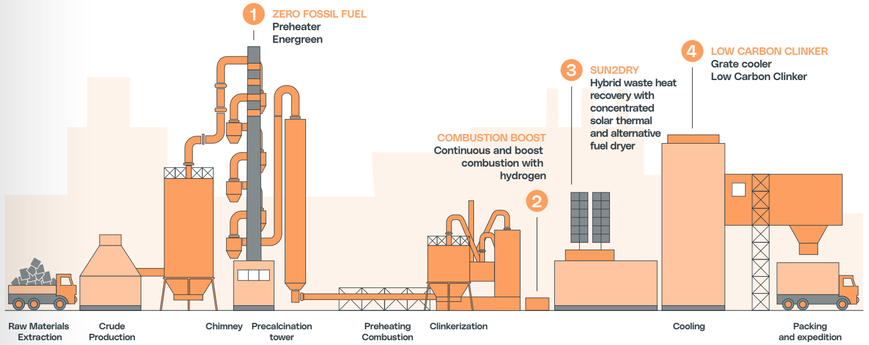
These Green Bond Issues are the keystone for (re)funding the Clean Cement Line Project.

Clean Cement Line (CCL Project)

The CCL Project is Secil's flagship project in the process of decarbonisation, and is the result of an 86 million euros investment by the Company in its plant in Outão, Setúbal. With this project, Secil intends to position itself as the main supplier of low carbon cement for the public works and civil construction cycle, which is announced with the Recovery and Resilience Plan and PT2030, whose green procurement criteria and objective are to eliminate the use of primary fossil fuels and thus achieve a 20% reduction in CO_2 emissions, increasing energy efficiency by 20%, and generating 30% of electricity through heat recovery.

2021 will see the implementation of this project, which includes four research and development sub-projects to help achieve the set goal. With this new line, Secil will be able to produce low carbon clinker and, consequently, create a range of cements with a low ecological footprint.

It should also be noted that this project also has a strong, local socio-economic impact, albeit temporary, in terms of job creation during the construction and assembly of equipment, where a peak of over 500 workers is expected. Already in the operational phase, there should be an increase of more than 250 workers compared to the present number, and seven new specialised jobs, linked to research and development in Secil's technical centre. ↑ CCL Project.



Clean Cement Line - Concept

Inclusion of several projects related to energy efficiency and CO_2 emission reduction (combustion and production)

Global Improvements

20%

Energy Efficiency
20% energy use reduction

20%

CO_2 Emission reduction$_2$
20% reduction

30%

Electric Energy
by Solar Thermal and production heat recovery amounting to 30% of the energy needs

Secil is modernizing its Outão factory, making it the most sustainable in Europe, with the elimination of primary fossil fuels. The CCL Project is a research, development and innovation project that transforms the current Outão factory into one of the most advanced cement factories in Europe and in the world, through an innovative process of integrating mature technologies and recent technologies never before combined with each other and also innovative and generating intellectual property.

The aim is to develop and demonstrate a new cement production technology on an industrial scale, reduce the factory's CO2 emissions by at least 20%, increase energy efficiency by 20% and generate 30% of electricity through an innovative hybrid generation system by recovering of process heat and concentrating solar thermal energy.

In a total investment of 86 million euros, the factory will achieve a new carbon footprint and will be considered a European benchmark in the sector. It is a critical step to ensure the competitiveness of its production and export, particularly in the context of the European Trading Emissions IV.

CCL Project was considered a PIN - Projeto de Interesse Nacional (National Interest Project), as well as a Research, Development and Technology project and the largest Portugal 2020 project. It is divided into four subprojects, which intend to eliminate dependence on fossil fuels, increase energy efficiency, produce its own electricity, integrate the digitalization process and reduce CO_2 emissions.

These four subprojects promote the development of low carbon clinker production and consequently the creation of a range of cements with a low ecological footprint.

This is an investment in decarbonization with undeniable gains for the environment, for the region where it operates and for the country.

→ Description of the 4 subprojects

PPS 1 - Zero fossil fuel

Zero Fossil Fuel is a subproject that focuses on the optimization of the fuel transfer processes and on the definition of the location of the fuel inlet, with the purpose of developing and implementing an optimized system that includes the main burner, kiln, cyclone tower and pre-calcination.

The optimization of this equipment will increase the thermal exchanges between the petcoke and the solid Alternative Fuels (AF) aiming at maximizing the substitution rate and energy efficiency, leading to a consequent decrease in energy needs and the target reduction of CO2 emissions. Namely the introduction of a pre-calciner to maximize the consumption of alternative fuels allowing the increase in the current consumption rates.

On the other hand, the consequent improvement in the firing conditions facilitates the percolation of gases by changing the architecture of the system, increasing the heat exchange time of the fired material, leading to a reduction in blockages, rings and other clogging which reduce the flow in circulation, with consequences in terms of productivity and energy efficiency.

A scale-up to the industrial scale of the Energreen technology to produce an advanced biofuel (bio-oil by liquefaction) produced from the direct liquefaction of biomass. With this scale-up, it will be possible to meet the thermal needs to eliminate the use of fossil fuels.

In this same subproject, a new concept of Industry 4.0 will be introduced that will allow establishing the management of fuel intake and the optimization and intercommunication of the various existing systems, relieving the human management of the process

PPS 2 – Low carbon clinker

The Low Carbon Clinker project aims to develop a low carbon clinker by changing its mineralogy and with an effective reduction of CO2 emissions, around 15% compared to the current ones. For this, it will be necessary to develop a new grate cooler with the modification of the current satellites of Secil Outão's Line 9.

This new technology will allow the co-processing of silicate materials which may be natural or from waste with latent hydraulicity, with potential for thermal activation. The improvement of the clinker cooling conditions, which will be carried out by thermal exchange with the material at room temperature, increases production without additional consumption of fuel or dedicated material.

With the production of this new low carbon clinker, a new range of cement types will be developed, with minimization of negative impacts on product performance. The production of a new product range with a lower ecological footprint from the co-processing of clay materials or silico-aluminous waste meets the needs of a more circular economy.

PPS 3 – Combustion boost

Combustion Boost works with the introduction of fuel cells for continuous combustion in the clinkerization process. With Combustion Boost there will be the implementation at the line scale of an electrolysis system that will produce a mixture of H2+O2. A series of tests will be carried out to optimize and finally evaluate the benefits of injection during the clinkerization process.

The introduction of fuel cells for continuous combustion will aim to optimize the burning efficiency and the reduction of specific consumption and emissions.

PPS 4 – Sun2dry

Sun2Dry consists of the introduction of Solar Thermal Concentration in the cement manufacturing process to increase the electrical energy production capacity through hybrid systems with heat recovery. This reuse process involves the inclusion of a Waste Heat Recovery system that will use the heat that is wasted at the end of the process to produce electrical energy that will cover part of the line's needs, thus reducing the respective energy bill and production costs.

In this subproject, a dryer of Refuse Derived Fuels (RDF) will be introduced to allow the use of dried alternative fuels that would otherwise be a source of problems and instabilities in the process, which contribute to its inefficiency. This dryer introduces a high content of dried RDF increasing its calorific power, which will allow a substantial reduction in energy production costs.

(PPS = Project, Process or Service)

Secil has established several partnerships for the 4 sub-projects, namely with universities (Instituto Superior Técnico and Universidade de Évora), research institutes (CENTI – Centre for nanotechnologies and Smart Materials, PSA – Plataforma Solar de Almería), suppliers (Thyssenkrupp, CTP and UTIS).

CCL will allow Secil to achieve the goal set out worldwide by the Paris Conference and by the sector with Declarations of Climate Ambition, as well as the goal set at national level with the Roadmap for Carbon Neutrality of the National Cement Industry, which aims to achieve carbon neutrality in the concrete value chain by 2050.

CCL is currently in the execution phase and is expected to start operating in March 2023. The development phase and demonstration of results should occur until August 2023.

Basis of this Green Bond Framework

This Framework is aligned with the four core components of the Green Bond Principles issued by the International Capital Market Association ("ICMA") in June 2021 (with June 2022 Appendix 1) ("GBP").

These principles are voluntary guidelines that support transparency and credibility in the green bond and loan markets.

This Framework is divided into four core components:

- → Use of Proceeds.
- → Process for Project Evaluation and Selection.
- → Management of Proceeds.
- → Reporting.

4.1 Use of Proceeds

Eligibility Criteria

The proceeds from the Green Bonds Issues will be used to finance and/or refinance, in part or in full, green CCL sub-projects, which fall into the following categories:

GBP/eligible category

→ Renewable energy

Eligible Green Projects

The subprojects considered in this category, and their sub-subprojects, are the following:

PS1 Zero Fossil Fuels

Exclusive use of alternative fuels (AF); Increase to 80% of AF from waste (RDF- Refused derived fuels and biomass) and the remaining 20% comes from the use of a new fuel - Energreen - a biofuel that results from the liquefaction of Fuel Derived from Waste (RDF) and other organic materials, object of a Secil patent, whose high calorific power allows the replacement of fossil fuels and the achievement of the temperatures necessary for clinkerization. The production of Energreen is a parallel activity to the production of cement. There is currently an industrial pilot that has allowed testing the technology and the objective within the scope of the CCL Project is the construction of a large-scale industrial unit.

PPS4 Sun2Dry

Equipment that will recover waste heat from the kiln grate cooler and chimney, associated to a solar field to generate electricity. This system is also linked to a drier of raw materials and alternative fuels. A solar thermal field (CSP- Concentrated Solar Power) will be installed in the factory that will complement the use of waste heat, generating renewable supplementary energy and removing some instability in the production due to intermittence/stopping. This integration is patented.

The partnerships for this category were established with Instituto Superior Técnico, Universidade de Évora, Centi, PSA-Almeria, Thyssenkrupp and CTP.

UN SDGs

Environmental Objectives

Main objectives of these projects:

- Electricity production from waste heat from processes with renewable energy
- Production of an advanced biofuel with a high calorific value, which will allow the abolition of fossil fuels

Use of Proceeds

- Equipment and assembly for storage, feeding, transport and liquefaction of organic materials / CDR
- Equipment and assembly for the solar field and interconnection with the power generation system (WHR)
- Detailed engineering for the scale up project (internal hours of the SECIL team allocated to the project)
- Work monitoring and management.
- Industrial tests, operational procedures/ optimization and commissioning considering that they are R&D projects (large scale demonstrator)

GBP/eligible category

→ Pollution prevention and control

Including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy

Eligible Green Projects

The subprojects considered in this category, and their sub-subprojects, are the following:

PPS1 Zero Fossil Fuels

Pre-calcination
the installation of a pre-calcination facility will allow for a considerable increase in the rate of alternative fuels (AF), which is currently around 50% and will increase to values around 80%. This increase in this fuel (CDR) will make it possible to significantly increase the levels of circularity in the industry, valuing waste with energy potential in the process.

Energreen
as the objective of this project is the liquefaction of RDF/organic waste to produce an advanced biofuel with high calorific value, it will complement the use of RDF in solid form, allowing, as a whole, to reach the calorific values aiming the completely abolish the use of fossil fuels. Energreen is therefore also an important form of waste recovery, enhancing circularity.

PPS2 Low Carbon Clinker

Development and installation of a new state-of-the-art cooler that will allow a new production phase to be added, increasing the production volume without additional CO2 emissions.

Low Carbon clinker and cement
the addition of a material with reactive potential in the final stage of the process (cooling) which will undergo thermal treatment by simple contact with the processed material, will significantly increase its reactivity, constituting a new phase in the clinker which contributes to increasing the chemical resistance and final strength of this material and the cements produced with it. In this way we increase the production of the kiln without increasing CO2 emissions. This process is patented with an international patent granted.

PPS4 Sun2Dry

A system that will recover wasted heat from the kiln to generate electricity, associated with a solar field and dry raw materials and alternative fuels. A solar thermal field installed in the factory that will generate renewable energy.

Waste Heath Recover (WHR)
the installation of the WHR will take advantage of waste heat from the process that would be released into the atmosphere to convert it into electrical energy, allowing a production that corresponds to more than a third of the electrical consumption of the line.

The partnerships for this category were established with Instituto Superior Técnico, Universidade de Évora, Thyssenkrupp and CTP.

UN SDGs

Environmental Objectives

Main objectives of these projects:

- Abolition of the use of fossil fuels, by increasing the rate of AF (from 50% to 80%), complemented with Energreen
- Reduction of CO2 emissions
- Production of WTE electrical energy with the heat used from the process
- Production of a new lower carbon clinker

Use of Proceeds

- Revamping the kiln and cyclone tower as for a new pre-calciner and burners
- Acquisition of equipment and assembly pre-calcination
- A new cooler, with the possibility of feeding low carbon clinker materials
- Waste Heath Recover - Equipment and assembly for the solar field and interconnection with the power generation system (WHR) and RDF's drier.
- Detailed engineering for the scale up project (internal hours of the SECIL team allocated to the project)
- Work monitoring and management
- Industrial tests, operational procedures/optimization and commissioning, taking into account that these are R&D projects (large scale demonstrator)

GBP/eligible category

→ Energy efficiency

Energy efficiency

The subprojects considered in this category, and their sub-subprojects, are the following:

PPS1 Zero Fossil Fuels

State-of-the-art pre-calcination and cyclone tower
with a view to increasing energy efficiency and reducing the thermal consumption of the line, the cyclone tower was re-engineered and pre-calcination was integrated in order to increase residence time of materials and improving calcination.

PPS2 Low Carbon Clinker

Low Carbon Clinker + Low carbon cements
the introduction of a material with potential for reactivity, which undergoes heat treatment in contact with the hot clinker in the cooling phase, allows for a reduction in overall thermal consumption and an effective reduction in CO2 emissions from the process.

PPS3 Combustion Boost

A fuel cell system with pulsed injection of Brown's Gas (hydrogen and oxygen) to accelerate and improve fuel burning conditions, improving the energy efficiency of the process. The introduction of this gas works as a flame catalyst, improving the burning of these alternative fuels, allowing a significant reduction in thermal consumption. This effect is achieved with the support of intelligent systems that allow the fuel to be injected in a pulsed manner, in order to increase its efficiency.

PPS4 Sun2Dry

AC dryer
by attaching a RDF dryer to the WHR plus solar field integrated system, it will allow fuel/raw materials that are already dry to be introduced into the kiln, which has a direct impact on reducing thermal consumption. It should be noted that the hot gases for drying come from the end of the turbine cycle after being used to produce electricity.

The partnerships for this category were established with Instituto Superior Técnico, UTIS, Universidade de Évora, Thyssenkrupp and CTP.

UN SDGs

Environmental Objectives

Main objectives of these projects:

- Reduction of thermal consumption/energy savings
- Reduction of CO2 emissions from combustion and the process

Use of Proceeds

- Acquisition of equipment and assembly:
  - New cyclone tower;
  - Boost combustion hydrogen production system;
  - CDR's dryer.
- Detailed engineering for the scale up project (internal hours of the SECIL team allocated to the project)
- Work monitoring and management.
- Industrial tests, operational procedures/optimization and commissioning considering that they are R&D projects (large scale demonstrator)

The estimated amount for the CCL Project totals 86 million euros including the four subproject and general expenses (namely the cost of internal people hours) shared by the subprojects.

86.3M€
TOTAL

Sub-projects - Estimated amount (M€)

20.4M€
PPS 1
Zero fossil fuel

25.7M€
PPS 2
Low carbon clinker

3.0M€
PPS 3
Combustion boost

24.0M€
PPS 4
Sun2dry

13.2M€
General expenses

CCL Project submitted an application to the Portugal 2020 program, from which Secil expects to receive a subsidy of a maximum estimated amount of 11 million euros. The final definition of the subsidy amount is dependent on the evaluation of the targets accomplishment that should occur in 2024. Assuming the receival of the maximum amount of the subsidy, the Green Bond Issues were set at 75 million euros.

At this stage, most of the investment and the respective disbursement has already occurred, so the Green Bond Issues will be essentially used for refinancing the Project. The Green Bond will be carried out through two bond issuances contracted by Secil with a maturity of 7 years and add up to a total of 75 million euros. The funds can be withdrawn up to one year after signing the contract, i.e., January 2024.

Background for the Eligibility Criteria:

Secil will provide an annual update on the activities related to its Green Bond issuance, including the eligible projects and the allocation of the proceeds, as explained in section 4.4. - Reporting, below.

Exclusion criteria: Secil will consider for exclusion any project if claims of non-compliance with internationally recognized best sustainable practices, such as the Global Compact or the International Labor Organization or environmental legislation, become known.

Secil will use its best efforts to replace any asset(s) that may become no longer eligible and/or in the event of material and critical challenges, as soon as possible, once a suitable replacement has been identified, and will provide due evidence in the annual Allocation and Impact Report.

4.2 ___ Process of project evaluation and selection

Project assessment and selection is a key process to ensure that projects financed and/or refinanced through green finance proceeds meet the Eligibility Criteria reported in this Framework.

The CCL Project, to be financed and/or refinanced through the Green Bond proceeds was evaluated and selected based on compliance with the eligibility criteria presented in the 4.1. - Use of Proceeds section above.

In addition to ensure that the assets financed and/or refinanced through the Green Bond proceeds under this Framework are evaluated and selected based on compliance with the Eligibility Criteria, Secil complies with applicable national, European and international environmental and social standards and regulations (including, amongst others, the United Nations Principles for Human Rights and the ILO core labor conventions), to ensure stringent management of potential negative environmental and social impacts associated with the Eligible Green Assets. Secil also signed the CEO Guide for Human Rights of the World Business Council for Sustainable Development (WBCSD).

4.3 ___ Management of Proceeds

All cash flows and balances will be performed through and accounted for in Secil accounts and will be monitored by the Financial teams of the company.

Eligible Green Assets will be registered at their current IFRS balance sheet value, which will be updated annually to reflect investment and depreciation under IFRS and will qualify for refinancing without a specific look-back period.

The proceeds from the Green Bonds Issues will be fully allocated to the Project predictably within 24 months from the issue date. The Green Bond will be contracted in January 2023 and can be withdrawn until January 2024.

Pending the allocation or reallocation, as the case may be, of the cash inflow, Secil will invest the balance, at its discretion, in cash and/or cash equivalents until full allocation of the proceeds to the Project. If for any reason, any assets were no longer eligible, Secil will use its best efforts to substitute such asset, as soon as practical once an appropriate eligible substitution option has been identified.

The principal and interest payment of the Green Bond Issues under the Framework will be performed from its general funds and will not be linked to the execution of the Eligible Green Project.

Secil will provide an annual update on the activities related to its Green Bond issuance. In these updates Secil will seek to provide information on the allocation of the proceeds as well as relevant impact metrics, which will provide the assessment of environmental benefits as result of Green Project, as explained in section 4.4. Reporting below.

This report will be available via Secil's corporate website

Additionally, a summary of Secil's Allocation and Impact Report will also be published in Secil's Annual Sustainability Report.

4.4 Reporting

Secil will make and keep readily available reporting covering the allocation of the proceeds to the Eligible Green Project and, wherever feasible, reporting on the impact of the Eligible Green Project. Reporting will take place in line with Secil's general annual reporting cycle at least until the proceeds from the Green Bond Issues have been fully allocated, through an annual Allocation and Impact Report (please refer to sections 4.4.1 and 4.4.2 for more information on the content of those reports). In case of full allocation, it will be performed in case of material developments and impact reporting may be performed throughout the entire life of the Green Bond Issues.

In these updates, Secil will provide information on the allocation of the proceeds as well as relevant impact metrics.

This report will be available via Secil's corporate website (www.secil-group.com). Additionally, a summary of Secil's Allocation and Impact Report will also be published in Secil's Annual Sustainability Report.

The information provided will include a more detailed description of the activities financed and/or refinanced and an impact report, based on the proposed metrics outlined in section 4.4.2. below.

4.4.1. Allocation Reporting

The allocation report shall include:

- The total amount of Eligible Assets;
- Portion (amount and percentage) of financing and refinancing;
- Break-down of what is financed/ refinanced; and,
- The balance of unallocated proceeds.

4.4.2. Impact Reporting

The annual Allocation and Impact Report will provide:

- Brief description of the Eligible Projects and their contribution to the Environmental Objectives; and,
- Environmental impact metrics per Eligible Green Project, depending on data availability.

Secil intends to align the Green Finance impact reporting with the approach described in "Handbook - Harmonized Framework for Impact Reporting December 2021".

The applicable template provided by the handbook mentioned above presents as follows, including the necessary adaptation:

Eligible Green project category	Subproject name	Sub-subprojects	Share of total project financing (%)	Allocated amount (currency)	Sub-subprojects Lifetime (in years)	Core Indicator 1	Core Indicator 2	Other Sustainability Indicators
Renewable energy	PPS1 Zero Fossil Fuels	Biofuel Energreen				Annual Renewable Energy Generation in Mj	CO_2 Emissions reduction for the overall project (tCO_2/tclinker)	
	PPS4 Sun2Dry	Solar Thermal Energy				Annual Renewable Thermal Energy Generation in Gj		
Pollution prevention and Control-Waste management resource efficiency (a)	PPS1 Zero Fossil Fuels	Last Generation Pre-heat Tower				Alternative Fuels Rate (%)		
		Biofuel Energreen				Thermal Energy substitution Rate (%)		
	PPS2 Low Carbon Clinker	Low Carbon Clinker + Low Carbon Cement				Incorporation of aluminate-silicate materials Rate (%)		
	PPS4 Sun2Dry	Waste Heat Recovery				Electricity Production Mw		
Energy efficiency	PPS1 Zero Fossil Fuels	Last Generation Pre-heat Tower				Specific Heat Consumption (Mj/t clinker)		
	PPS2 Low Carbon Clinker	Low Carbon Clinker + Low Carbon Cement				Incorporation of aluminate-silicate materials Rate (%)		
	PPS3 Combustion Boost	Hydrogen cells + Pulse/Boost Combustion Control System (AI)				Hydrogen Consumption (Kg/h)		% of thermal energy consumption improvement
	PPS4 Sun2Dry	RDF's Dryer				Electricity Production Mw		

a) The indicators proposed for this category relate to the subprojects associated to waste management and resource-efficiency, which are recognised by the GBP for Green Projects under the broad category of eligibility for Green Projects "Pollution prevention and control (including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy)" and are included in the Harmonised Framework for Impact Reporting in the specific guidance for Waste Management and Resource Efficiency.

05 External Review

5.1 Independent Limited Assurance on the Green Financing Framework (pre-issuance)

Secil has appointed KPMG to provide independent assurance on the alignment of this Green Bond Framework with the four core components of the GBP. The Independent Limited Assurance Report and the Green Bond Framework will be made available on Secil's website at www.secil-group.com.

5.2 Limited Assurance on the Allocation and Impact Reporting (post-issuance)

An independent external party will verify the annual Allocation and Impact Report, including the internal tracking method and allocation of funds annually, until the full allocation of the Green Bond Issues. The external auditors, appointed by Secil, will verify annually and until full allocation, the resources allocated to Eligible Green Projects and the remaining balance of unallocated resources, within the scope of the review of the annual report.

External auditors will also verify the compliance of allocated resources with the Eligible Project categories.

The annual Allocation and Impact Report and the external auditors' report can be publicly available through Secil's corporate website (www.secil-group.com).

The impacts and environmental benefits from this project will arise for whole life cycle of the project, which is estimated to be at least 20 years.

06 Disclaimer

This Framework is intended to provide general and non-exhaustive information. It has not been approved by any security regulatory authority.

Secil has and undertakes (i) no obligation to update, modify, amend or correct this Framework, nor the statements contained herein; and (ii) no obligation to notify any Addressee if any information or statement changes or becomes inaccurate.

This Framework is not intended to be and should not be construed as providing legal or financial advice. It also does not constitute an offer or invitation to sell or any solicitation of any offer to subscribe, purchase or any other kind of recommendation regarding Secil's Green Bond. Each potential purchaser should determine for themselves the relevance of the information contained or referred to in this Framework or the relevant documentation for such Green Bond and their purchase should be based on such investigation, as they deem necessary. Nothing contained herein shall form the basis of any contract or commitment whatsoever and it will not be an event of default or breach of any contractual obligations under the Terms and Conditions of the Green Bond if Secil fails to adhere to this Framework in any respect.

Any decision to purchase the Green Bond issued by Secil should not be made solely based on the information contained in the respective Terms and Conditions. Prospective investors are required to make their own investigations and assessments of the business and financial condition of Secil and the nature of the Green Bond before taking any investment decision.

The distribution of this Framework and of the information it contains may be subject to legal restrictions in some countries. Anyone who might come into possession of it must inquire as to the existence of such restrictions and comply with them.

The Addressee is solely liable for any use of the information contained herein and Secil shall not be responsible for any damages, direct, indirect or otherwise, arising from the use of this Framework by the Addressee.

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