MYTILINEOS Sustainable Development Report 2021 Introduction Society Governance Sustainability Standards & Assurance Environment

permeability, as well as the corresponding disposal of hazardous waste in specially constructed and geomembrane- and geotextile-insulated cells (controlled landfill sites).

- Implementation of Best Available Techniques in the management of infrastructure and industrial waste (electric filters, bag filters, primary industrial waste treatment, biological wastewater treatment, oil basins and safety oil traps, sewer oil traps, tank level meters, waste quality meters, custom-designed waste disposal sites, etc.).
- Performing chemical analyses of wastewater at workshops and facilities, as well as specific analyses of wastewater discharged for various chemical parameters (e.g., Al, Cr, Cr+6, Fe, BOD₅, COD, etc.).
- Good knowledge of and training in Emergency Response
- Storage and use of chemicals by following the instructions of the Safety Data Sheets.
- Systematic visual inspections of facilities.
- Unloading of heavy fuel oil from tankers using as a precaution a floating anti-pollution dam.
- Constant monitoring of the quality of the natural recipients (aquifer, sea) and comparison against standard quality values. An example is the discharge of the seawater used in the cooling systems of the cogeneration (Combined Heat and Power - CHP) plant of the Metallurgy Business Unit, where in addition to the strict compliance with the relevant law provisions determining the framework for preventing any environmental impact, the Company commissions, on an annual basis, an authoritative organization (Hellenic Centre for Marine Research - HCMR) to conduct a research study for monitoring the status of living organisms on the Antikyra Gulf seabed. The studies carried out by the Company in accordance with the applicable Environmental Terms and their results are communicated every year, in accordance with the applicable provisions, to the competent authorities (the Ministry of Environment, Energy and Climate Change, and the Water Management Directorates of the Decentralized Regional Administrations for Thessaly and Sterea). The findings of the recent studies, carried out in 2019 and 2020, show a stable ecological status, with improvement trends recorded at several observation stations. These studies will be continued for at least five more years.
- Operation of a fire protection department, which is equipped with 3 fire engines, staffed by a permanent fire-fighting team, and coordinates and trains a team of volunteer firefighters.

Moreover, in what concerns small-scale, localized incidents involving spills of lubricants in the context of mining activities in the tunnels of underground quarries, which are of a limited extent and affect surface soil only, mainly caused by wear and tear of lubricant pipes and by damages to machinery by falling stones or rocks, the **subsidiary DELPHI - DISTOMON** takes steps to prevent and reduce the annual number of such incidents by adopting the following practices: (1) Purchasing supplies with the best quality available in the market, to ensure their maximum possible durability, (2) implementing, on a regular basis, special semi**nars** to raise awareness among personnel of the need to report and log such incidents, in line with the Company's policy on the protection of the environment, as well as of specific techniques to contain the extent of the spills in the soil, (3) responding immediately to such incidents, collecting the quantity of contaminated soil in the area of the spill and forwarding it to the hazardous waste disposal area for appropriate handling, and (4) regular and preventive **maintenance** of the equipment and its parts.

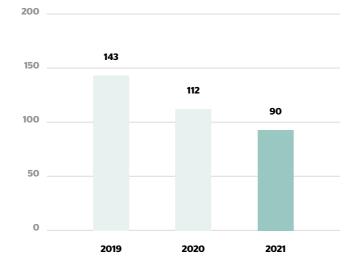
In the Power & Gas, Sustainable Engineering Solutions (SES) and Renewables and Storage Development (RSD) **Business Units,** intensive efforts are made in all production units (thermal plants, RES plants, composite construction plants and work sites), to identify potential risks, so that these are addressed in a timely manner and the consequences of unforeseen malfunctions and accidents are minimized. In particular, the following are implemented:

- All procedures provided for in the Environmental Management Systems and Emergency Response Plans, as well as the operating and maintenance instructions for installations.
- Monitoring of air emissions.
- The best available options for the reuse, recycling and disposal of the various types of generated waste.
- · Training of personnel and readiness exercises for handling spills.
- · Preventive maintenance programs.
- · Selection of state-of-the-art equipment.
- Safety oil basins.
- Systematic visual environmental facility inspections.
- Annual audits by independent external organizations for the certification of the implemented Environmental Management Systems.

Results

- During 2021, no incidents occurred involving the pollution of the natural environment from production activities or involving industrial accidents in all Company Business Units. Concerning air emissions, these remained below the statutory maximum limits for yet another year.
- Regarding the incidents of small-scale, localized oil spills from machine failures in the context of the mining process, a total of 90 incidents occurred in 2021, 20% less than the corresponding number in 2020 (112 incidents), with the total spill volume amounting to 10,308lt1, decreased by 20% compared to 2019 (12.869lt).

Incidents involving small-scale, localised spills



1 The quantity of 10 308 lt corresponds to 0.065 kbls.

Ecological Impacts







Significance for **Stakeholders**



Materiality assessment process results Scale: [0-10], where 0 "Not significant" and 10 "Very significant"

Boundaries of the Material Topic [GRI 102-46] [GRI 103-1b]

DISTOMON takes place, as well as in protected areas of the Natura network where the RES plants of MYTILINEOS' subsidiaries operate.

By whom are the impacts caused:

The impacts are caused by the Metallurgy Business Unit and in particular by the subsidiary company Delphi-DISTOMON, as well as by the wind energy subsidiaries of MYTILINEOS.

The management of the topic by MYTILINEOS contributes to **Sustainable Development:**

- The conservation of mountain ecosystems, including biodiversity.
- The restoration of the exploitable land affected by the business
- The increase of forestry and reforestation at local and national level.

Topic of increased significance to:

- Suppliers
- · Shareholders / Investors / Financial Analysts
- NGOs
- · Academic community
- · Local Communities

in the context of their cooperation with MYTILINEOS.

Where the impacts occur:

In the area where the mining activity of the company DELPHI-

- Employees

Management Approach [GRI 102-11] [GRI 103-2c]

The purpose of this disclosure is to provide specific information and data to all MYTILINEOS' Stakeholder groups, so that they can understand the Company's approach, which relies on a combination of elements to prevent, manage and restore the impacts of its activity on land areas, while minimizing any effects on biodiversity. [GRI 103-2b]

Key Challenges / Impacts [GRI 103-1a] [GRI 102-15]

The protection of biodiversity and the restoration of the natural landscape of the land areas used in the Company's business activities, constitute a substantial challenge for MYTILINEOS in the context of the reduction of ecological impacts and its contribution to sustainable development.

Maior risks [GRI 102-15]

Ineffective prevention of any adverse impacts on the flora and fauna of the wider area of the Company's activities would lead to environmental degradation, raising issues of non-compliance with applicable legislation. In such a case, the consequences for the Company would include the disruption of its business development and growth plans, due to the impact on its reputation and financial position.

Commitment [GRI 103-2c]

Protection of biodiversity and ecosystems during mining operations and development and operation of RES plants in protected Natura areas, in accordance with the main priority areas of MYTILINEOS' Environmental Policy.

Risk Management / Control Practices [GRI 103-2a] [SASB EM-MM-160a.1]

In the Metallurgy Business Unit, the Aluminium of Greece (AoG) plant, in compliance with the applicable legislation (including the plant's Environmental Terms Approval Decisions), has established a series of prevention and control measures to contain emissions to the natural recipients, thus safeguarding their quality and, consequently, the conditions for the growth of the local flora and fauna. The prevention measures include investments in anti-pollution equipment such as state-of-the-art filters in chimneys and at the discharge points of wastewater treatment plants, installations for the treatment of process gases etc. The Aluminium of Greece plant also undertakes the restoration of the inactive surfaces of the Accumulation Sites for Bauxite Residues and the Inert Waste Disposal Areas, while it has assigned to a specialized external partner the maintenance of the new and old restored waste disposal sites (e.g., old and restored Controlled Landfill for Hazardous Waste, inactive slopes of the Inert Waste Disposal Area and of the limestone quarry). ASI

The control measures include:

- Taking regular groundwater and sea water samples, whose results are confirmed by samples and analyses made by independent hodies
- Operation of the air quality measuring station located in the Holy Monastery of Hosios Luke of Steiris.
- Assessment and ecological evaluation of the wider area of AoG's plant, a study that was carried out in 2021 and also took account of the fact that the plant is developed only on land, which however is in direct contact with a sea area of the NATURA 2000 network (pSCI: GR2530007- CORINTHIAN GULF), which is a proposed Site of Community Importance (SCI).
- The evaluation of the ecological status of the Antikyra Bay, in collaboration with the Hellenic Centre for Marine Research
- The management of all types of hazardous and non-hazardous waste complies with the provisions of the applicable laws, while the disposal of this waste takes place either in the duly licensed sites of the Company or through duly authorized and certified systems / contractors.

Information on the level of operation of critical operating equipment (filters etc.) and measurement equipment (continuous

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measurement analysts etc.), as well as the results of studies and checks of the physical recipients of the plant's wider area, carried out by the plant itself and/or by independent bodies, are the subject of regular documented updates that have been requested by the Competent Authorities.

The mining activity of **DELPHI-DISTOMON, a MYTILINEOS subsidiary,** involves primarily underground quarries in the area of Fokida and is carried out with respect for the biodiversity of the area. Before each new mining activity begins, Environmental Impact Assessments and Environmental Rehabilitation Plans are carried out and used as a basis for the mining phase as well as for the rehabilitation phase. The extraction and remediation locations are specified in detail, while all mining operations are planned so as to guarantee the least possible alteration of the natural environment and landscape. **ASI**

Measures taken to prevent significant adverse impacts on the environment and alterations of the natural landscape:

- Use of the existing road network and prohibition of opening up new roads.
- Use of existing access land works and in-site installations.
- Prohibition of depositing on the soil or managing sterile limestone waste from the mining process.
- Systematic wetting of open-air storage areas for bulk materials to suppress dust emission.
- The management of all types of non-hazardous waste complies with the provisions of the applicable laws, while the disposal of this waste takes place only through authorized and certified systems/contractors.

Moreover, a detailed mapping of the form and type of the vegetation is carried out, so that rehabilitation can be based on the unique features of the local ecosystem. **The environmental policy** of DELPHI-DISTOMON (mytilineos.gr/what-we-do/metal-lurgy/aluminium-of-greece/) **emphasizes its commitment** to the protection of biodiversity both in the preparatory construction phase of a project and in the rehabilitation phase, helping to further contain any adverse effects, which are already quite limited in scope and temporary in nature. In this context, an annual monitoring of risks and impacts on biodiversity is carried out in all environmentally licensed sites located in Natura areas. **ASI**

DELPHI-DISTOMON has been systematically active for nearly 50 years in environmental rehabilitation and all its inactive quarries have been restored. Environmental remediation is carried out by systematically planting approximately 10-15,000 trees per year, while during 2021, **11,550 forest seedlings** were planted. **ASI**

Until today, DELPHI-DISTOMON has planted approximately 1,199,977 trees covering a total afforested area measuring over 1.82 km². In addition, 98 km of fencing have been installed (to protect the tree planting areas), together with a 740 km long network of watering - irrigation pipes for those trees. ASI

It should also be mentioned that over the last 6 years, on average, 300,000 tons of sterile limestone are produced during the mining process. This quantity is disposed of in already existing sinkholes of surface and underground sites and thus **not a single square meter of land has to be reserved for the disposal of this type of waste.**

In the Power & Gas Business Unit, with respect to the activities which concern the construction of wind farms located near or inside areas designated as Special Protection Areas, a key prerequisite is the development of the respective environmental impact studies foreseen (specific ecological assessment, annual monitoring of the protected area), to confirm that there are no impacts or, in cases where there are impacts, to describe the measures which may be adopted in order for these impacts to be avoided. In cases where measures cannot be taken, the project is redesigned. **In line with the above, the movement** of animals in the locations of the Company's activities is not obstructed as there is no fencing, and the disturbance to the local population of birds is negligible, while where this is necessary, technical systems for the protection of birds are installed. Concerning the restoration of the environment in connection with projects for new wind farms, the Company implements the obligation to reforest areas of a size equal to that of the project and, where possible, to also restore illegal or inactive quarries, in accordance with the applicable laws and the instructions of the corresponding Forest Departments. In this context, 617,700 m² of land have been already been afforested. An additional 37 forestry projects with an equivalent afforestation area of 289,900 m² are expected be implemented by the end of 2022.

Regarding the project for the construction of the new thermal plant (CCGT II) and its accompanying interconnection projects, in Agios Nikolaos, Viotia, 89,100 m² of land have already been afforested and an additional 80,900 m² will be afforested in 2022.

For all implemented afforestation projects, there also the obligation to provide maintenance and irrigation for 3 to 5 years depending on the project, which is constantly respected.

At the same time, in the framework of the Environmental Management Systems implemented by the Company (based on ISO 14001), in addition to internal inspections, the Company is also subject to inspections by independent third parties.

Finally, MYTILINEOS is a member of the Business Council for Sustainable Development of the Hellenic Federation of Enterprises (SEV), which is a member of the Business for Nature international coalition for the protection of biodiversity and ecosystems. The SEV Business Council for Sustainable Development, as a member of the World Business Council for Sustainable Development (WBCSD), after co-signing the Lisbon Declaration, paved the way for Greek companies to contribute to tackling the global challenge of environmental balance and sustainability and to highlight the strategies they are implementing, the commitments they have made as well as the good practices they adopt and follow.

DELPHI-DISTOMON has been systematically active for nearly 50 years in environmental rehabilitation

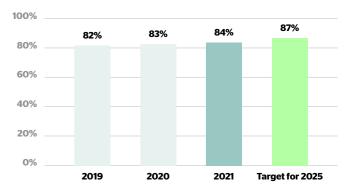
Results

[GRI 103-3a-ii] [SASB EM-CM-160a.2]

- During 2021, no incidents occurred involving a deterioration of biodiversity as a result of the Company's activities, while the work scheduled for the restoration of areas used in mining operations was carried out as planned.
- Concerning mining operations, at the end of 2021: (a) the total area of land used for mining operations stood at 86,000 m², reduced by 28.3% compared with 2020, (b) the total area of land in the process of remediation stood at 153,000 m², decreased by 18.2% from the previous year, while (c) the area of land whose soil has been rehabilitated since the beginning of the mining activity, as a percentage of the total land area of land used for mining operations, stood at 84.34%, increased by 1.24% compared to 2020.
- Regarding the construction and operation of the wind farms and the new thermal power plant, the total area of land for which the reforestation process has been completed stood at

706,900 m 2 (617,700 m 2 and 89,100 m 2 respectively), while three avifauna monitoring studies were carried out.

Rehabilitation percentage of land areas used in the mining activity





70 71

The table below lists the very limited impacts of the construction and operation of the Company's wind farms located in protected areas (e.g., Natura 2000 Network and archaeological sites ASI).

Operational sites under lease by MYTILINEOS in protected areas [GRI 304-1]

of Sintiki (Regional Unit of Serres), with a power output of 17.0MW, in operation, owned by the company Eoliki from the area "GR 1260008".

Concerns the lease of 0.802 km² of land from Public Properties Company S.A. Area of operational site: 0.12 km².

2. Wind Farm in the locality "Koryfi (Expansion)" of the Municipality of Sintiki (Regional Unit of Serres), with a power output of 15.0 MW, in operation, owned by the company Aeoliki Sidirokastrou, situated at an average distance of 1.0 km from the outer boundaries of the Natura 2000 area "GR 1260001" and at a distance of more than 7.5 km from the area "GR 1260008".

Concerns the lease of 0.027 km² of land from the Municipality of Sintiki. Area of operational site: 0.035 km².

2000 Network. Two (2) Wind Turbines are located tion of the Wind Farm on the avifauna of the area.

Lease of 0.0579 km² from private land owners holding the ownership rights to the "Dafniza-Kalipeti" private forest. Area of operational site: 0.103 km².

of Karystos (Regional Unit of Evia) with a power output of 8.1 MW, in trial operation since October 2019, owned aries of the Special Protection Area (SPA) for Birds 'Mt Ochi, Coastal Zone and Islets', with code number "GR 2420012", belonging to NATURA 2000 network. Seven (7) Wind Turbines are located within this area.

Area of operational site: 0.130 km².

Biodiversity value of protected area [GRI 304-2]

1. Wind Farm in the locality "Koryfi" of the Municipality The "GR 1260001" area encompasses wetlands and mountainous ecosystems of great national and international importance. It supports rich -in terms of both numbers and diversity-bird populations, including rare and endangered species. The wet-Sidirokastrou, situated at an average distance of 1.5 km land is of great importance as a feeding ground for birds of prey nesting in the nearby from the outer boundaries of the Natura 2000 area forests, as a winter site and stopover site for migratory birds, as well as a breeding "GR 1260001" and at a distance or of more than 7.0 km ground for a significant number of birds. The increased biological productivity, the existence of rare plant species and of equally rare and diverse fauna (fish, mammals, amphibians, reptiles), increase even more the area's biodiversity value.

> As was the case in 2018, 2019 and 2020, an annual avifauna monitoring study was carried out in the area of the Wind Farms in 2021 and is pending submission (usually within the first six months of the next year), to the competent Department of Protected Areas of the Directorate of Natural Environment and Biodiversity Management of the Ministry of Environment, Energy and Climate Change. No impacts on the protected area, as the operation areas of the Wind Farms are located in the area's peripheral zone, away from the Priority Habitats.

> An automated bird collision avoidance system has been installed in the second one of these Wind Farms

No bird killing incident has been observed.

3. Wind Farm in the locality "Pyrgos" of the Municipal- In the Natura area "GR2120012" (Mt Ochi, Coastal Area and Islets), 55 avifauna speity of Karystos (Regional Unit of Evia), with a power cies listed in Annex I of Directive 79/409/EEC have been recorded, together with 38 output of 15.3 MW, in trial operation since April 2019. important species of migratory birds. The protected area "GR2420001" (Mt Ochi owned by the company Eoliki Evias Pyrgos, situated as Karystos Plain - River - Cape Kafireas - Marine coastal area) is mainly mountainous, follows: (a) At a maximum distance of 1,000 m from with a relatively wild and difficult to access coastline in the north-eastern foothills the outer boundaries of the area with code number of Mt Ochi. 16 habitats in this area are listed in Annex I of Directive 92/43/EEC, of "GR 2420012", which is the "Mt Ochi, Coastal Area and which Habitat 1120* - Marine vegetation areas with Posidonia (Posidonion oceanicae) Islets" Special Protection Area (SPA) for birds. (b) At a is a priority habitat. Four (4) species of reptiles, two (2) of invertebrate and two (2) of maximum distance of 200 m from the outer boundar- mammals are listed in Annex II of Directive 92/43/EEC and in article 4 of Directive ies of the area "GR 2420001", which is the Special Man- 2009/147/EC. The two species of mammals (Mediterranean seal and otter) are prioragement Area" (SMA) "Mt Ochi - Karystos Plain - River ity species. As was the case in 2018, 2019 and 2020, an annual monitoring study of - Cape Kafireas - Marine coastal area" of the Natura avifauna was carried out in 2021, which assesses the limited effects of the test opera-

Limited impacts on the avifauna of the area due to the operation of the

No bird killing incident has been observed.

4. Wind Farm in the locality 'Chelona' of the Municipality The Natura area "GR24200012" (Mt Ochi, Coastal Zone and Islets) is mainly mountainous, with a relatively wild and difficult to access coastline in the steep northern and eastern foothills of Mt Ochi. 55 species of birds listed in Annex I of Directive 79/409/EEC by the company Eoliki Evias Chelona, situated at a have been recorded, together with 38 important species of migratory birds. The spemaximum distance of 200 m from the outer bound- cies that characterize the Special Protection Area (SPA) are Puffinus yelkouan (Yelkouan shearwater), Larus audouinii (Audouin's gull), Hieraaetus fasciatus (Bonelli's eagle), Bubo Benelli's (Eurasian eagle-owl) and Emberiza caesia (Cretzchmar's bunting), whereas its delimitation species are Phalacrocorax aristotelis (great cormorant), Circaetus gallicus (short-toed snake eagle), Falco eregrinus (peregrine falcon), Apus melba (pallid swift), Lullula arborea (woodlark), Anthus campestris (tawny pipit). As was the case in 2018 and in 2020, an annual avifauna monitoring study was carried out in 2021 and is pending submission (usually within the first six months of the next year), to the competent Department of Protected Areas of the Directorate of Natural Environment and Biodiversity Management of the Ministry of Environment, Energy and Climate Change.

> Limited impacts on the avifauna of the area due to the operation of the Wind Farm. An automated bird collision avoidance system has been installed in this Wind Farm.

No bird killing incident has been observed.

Other significant Environmental topics

Raw & other materials

Regarding the use of primary natural resources in the production of the main products of MYTILINEOS, the quantity of bauxite used in the Metallurgy Business Unit to produce aluminium and alumina in 2021 was slightly increased compared to 2020 (4.5%), while the total quantity of natural gas used in the Power & Gas Business Unit decreased by 10.9%. The Sustainable Engineering Solutions (SES) and Renewables & Storage Development (RSD) Business Units do not manage primary natural resources, but instead use semi-ready or finished products.

In detail:

In the **Metallurgy Business Unit**, approximately 2.6 million tons of raw materials were used in 2021, to produce alumina and primary and secondary aluminium products, a quantity increased compared to 2020. Of this total quantity, 74% was bauxite, while the remaining 26% regarded the use of other raw materials from non-renewable sources.

MYTILINEOS, in its effort to limit the consumption of natural resources and to reduce the energy required in aluminium production, has adopted in its production process the practice of recasting aluminium waste (scrap) that replaces the use of raw materials. Furthermore, in this direction, the Company has also expanded its activities in the industrial production, processing and trading of metals and in particular of aluminium alloys and their products, investing in the know-how for the optimal treatment of aluminium scrap, so as to be able, in the years to come, to produce raw materials again, spending a much lower quantity of energy and thus significantly cutting costs and mitigating the impact on the environment. ASI

The Sustainable Engineering Solutions (SES) and Renewables & Storage Development (RSD) Business Units do not manage primary natural resources, but instead use semi-finished or finished products, according to the detailed plans and procedures for each project, which specify with great accuracy each material to be used, its manufacturing method and its exact position and operation. Additionally, a key criterion in the design stage of the projects that the Business Unit is carrying out is the use of recyclable materials. The Company's requests for proposals and contracts with suppliers of materials and equipment contain a specific clause regarding their compliance with the requirements of the ISO 14001 standard, specifically referring to the prohibition of using environmentally hazardous materials and the obligation to make the maximum possible use of recyclable materials.

In the Power & Gas Business Unit, the raw material used in power plants is natural gas, which is the transition fuel towards an economy with lower greenhouse gas emissions. The annual consumption of natural gas in the Company's thermal units is linked to the fluctuations in the generation of electricity on an annual basis, and in 2021 recorded a slight decrease by 10.9% compared to 2020, due mainly to the scheduled maintenance of power plant of Korinthos Power. Regarding the materials used in the production process and not incorporated in the end product, such as lubricating oils and chemicals, in 2021 these remained close to their 2020 levels.

Weight (in tons) of materials used in the production and packaging of the Company's main products [GRI 301-1]

	2019	2020	2021	Basic materials
Metallurgy Business Unit ASI				
Raw materials	2,265,428	2,278,815	2,373,121	Bauxite, Alumina, Aluminium Scrap
Materials (not incorporated in the end product)	237,655	250,133	264,995	Anodes, Lime, Soda, Coke, Tar
Packaging materials	1,309	1,192	1,125	Pine planks, Rings
Total	2,504,392	2,530,140	2,638,928	
Recycled materials	39,922	49,012	50,181	Aluminium scrap
Percentage of recycled input materials [GRI 301-2]	1.59%	1.94%	1.90%	
Composite Construction and Steel Treatment Units				
Materials (used in the production process but not incorporated in the end product)	256.0	309.9	313.3	Oxygen, Argon, Nitrogen
Semi-finished products	649.3	1,043.2	1,301.1	Steel
Packaging materials	4.5	8.2	8.1	Nylon
Total	909.8	1,361.3	1,622.5	
Recycled materials	235.2	372.6	440.8	Recycled steel
Percentage of recycled input materials [GRI 301-2]	25.8%	27.4%	27.2 %¹	

¹ Of the 1.309,2 tons of total weight of materials used and incorporated in the end products, steel (in the form of plates, merchant bars or other project materials) accounted for approximately 1.102 tons. Around 40% of the EU's total steel production comes from electric arc furnaces, in which steel is produced from 100% recycled raw material (scrap) (Source: eur-lex.europa.eu/LexUriServ/LexUriServ/do?uri=COM:2013:0407.F1N:EN:PDF, Strasbourg, 11,6,2013, COM (2013) 407 final, p.11). Thus, 440,8 tons (40% of the 1102 tons of steel materials) correspond to recycled steel

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