

OVERVIEW

EDITORIAL

In response to the climate challenge, the Sovereign Prince has been a driving force at the highest level, setting ambitious goals for reducing our carbon emissions: **a 55% reduction in greenhouse gases by 2030 and carbon neutrality by 2050.**

Moving away from fossil fuels and decarbonising our economy requires everyone to get involved. To coordinate this effort, the Mission for Energy Transition was created in 2016, as a facilitator and accelerator for the transition. Its role is to work with all public and private stakeholders in the Principality as a technical or financial partner, to provide support or act as a conduit for their actions, in order to sustain and amplify their approach.

The **National Green Fund**, created in 2016, finances public and private initiatives to reduce greenhouse gas emissions.

The **National Pact** aims to bring the Monegasque community together around a shared initiative and to support the implementation of practical action to promote the energy transition in the three fields with most impact: energy use in buildings, waste and transport.

The Mission for Energy Transition has positioned itself to support and coordinate action being undertaken in various sectors thanks to:

- **8 technical (energy and construction) and generalist staff**
- **coordination and expertise from external experts**
- **qualified support from government departments, which are at the heart of the challenge**

2021 has seen strong mobilisation, combining widely shared awareness and a firm resolution to act, political momentum enhanced by the Sovereign's determination to bolster Monaco's greenhouse gas reduction targets, a recovery plan heavily focused on the energy transition with an additional €25 million for the National Green Fund and the roll-out of solutions such as ocean thermal energy loops and the Monaco On charging stations.

Annabelle Jaeger-Seydoux, Director

2021 ENERGY TRANSITION HIGHLIGHTS

In construction:

- A recovery plan which emphasises the renovation of buildings: changing windows, insulating roofs, calling for exemplary renovation, and more.
- The Bâtiments Durables Méditerranéens de Monaco (BD2M) initiative is progressing well, with 28 registered projects or plans, 2 assessment commissions and 4 training sessions.
- Roll-out of two ocean thermal energy loops (Larvotto and La Condamine districts) to accompany the end of fuel oil use in the Principality.
- Energy audits carried out in 55 state-owned housing blocks.
- More than 210 audits of private buildings analysed.

In transport:

- New electric charging stations available to all: roll-out of nearly 200 more powerful and more visible Monaco On branded charging points.
- Wider and successful introduction of car sharing in Monaco through working with Klaxit, the European leader in home-to-work car sharing, and support from some 20 businesses who have signed the Pact (those with the most staff). The threshold of more than 2,500 journeys per month co-funded by the Prince's Government was reached in late 2021.
- Support provided to the same business signatories of the Pact in developing a diagnostic assessment to help produce a Corporate Travel Plan.

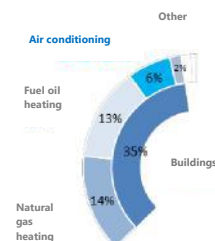
In waste:

- A feasibility study on returnable takeaway containers was completed. The study involved 38 traders, with 859 employees questioned.
- Government decision to introduce returnable containers from the second half of 2022 to reduce single-use plastic waste from takeaways by more than 30 tonnes.

With the Monegasque community:

- The number of businesses and individuals who have signed the Pact exceeded 1,600, with their commitments accounting for more than 1,200 tonnes in CO₂ savings per year.
- 16 new National Pact Ambassadors appointed to represent and communicate the National Pact.
- 9 workshops held in schools to raise awareness among young people.
- 50 businesses received assistance to develop their low-carbon strategies.
- Financial support provided to help businesses with their energy transition as part of the economic recovery plan.
- Themed workshops on yachting, eco-friendly digital technology or industrial ecology.
- Increasing visibility of public and private actions to support the transition, through the Annual Conference, the Pact Events, the Energy Transition Events and the Mission for Energy Transition's involvement in multiple other events (EVER Exhibition, Monaco Ocean Week, Riviera Electric Challenge, Monaco Business Exhibition, EWWR, etc.).
- The Mission for Energy Transition is also a partner of the MEB and the Junior Chamber International Business Start-Up Awards.

ENERGY



OUR MEANS OF ACTION

- Ambitious energy regulations > 6 training sessions for various stakeholders to improve implementation (86 participants) and develop a list of frequently asked questions.
- Financial support for energy audits of private buildings: 45% of private buildings audited and allocated grants.
- Support provided to State Property Authority for their audits: 55 buildings audited – 79% of state-audited housing blocks.
- Monitoring of energy use in the most energy-intensive buildings using SMART+ and SMEG, resulting in average energy savings of 4.5% between the second and first years at the 56 sites studied (more than 100 sites have been equipped, representing 29% of Monaco's total consumption).
- Ongoing information and support to building managers to help them in their work and promote a change in energy use (annual gathering and individual meetings).
- Modelling of energy needs in Fontvieille with Efficacity: simulations of future scenarios for 2030 and 2050 carried out for around 100 buildings to select the best performing energy strategies (selection of buildings to be renovated, extended upwards, connected to thermal energy networks, etc.).

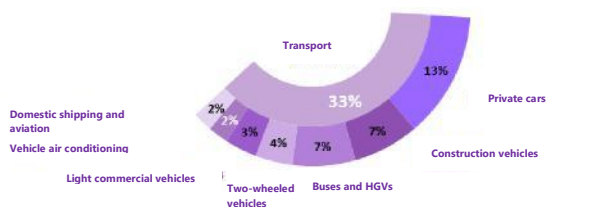
BÂTIMENTS DURABLES MÉDITERRANÉENS DE MONACO (BD2M) INITIATIVE

- 28 public and private construction or renovation projects registered with the initiative.
- Training in building management/building automation, greening buildings, timber construction and commissioning.
- Two BDM/BD2M assessment commissions.
- Training for new members of the commission, including building managers.
- New BD2M guides, an updated Public Buildings Maintenance Office (SMBP) Guide to Eco-Friendly Materials and an updated Detailed Engineering Programme, which are given to developers as part of property development contracts.
- Numerous discussions with the construction industry during monthly Envirobat expertise days.
- The first event for BD2M coaches: a morning event allowing coaches to share experience and promote the ongoing improvement of the initiative.

RENEWABLE ENERGY IN MONACO

- In 2021, the two new ocean thermal energy loops were installed in Larvotto and La Condamine, in partnership with seaWergie. Highlights: completion of primary infrastructure, first sub-station supplying the shops in the Larvotto resort area operational since 1 July, connection of the Administrative Centre in La Condamine on 8 November.
- With regard to solar energy in Monaco, 2021 saw a focus on public buildings: thanks to the National Green Fund, the Public Buildings Maintenance Office almost doubled the surface area of public buildings covered with solar panels over the course of the year to nearly 5,000 m² by the end of 2021, equal to 885 kilowatt-peak and 84.87 tonnes of CO₂ emissions prevented.
- Monaco Energies Renouvelables: by the end of 2021, Monaco Energies Renouvelables (MER) owned 15 photovoltaic power stations, with total power of 128 megawatt-peak (106 MW of photovoltaic power and 22 MW of wind power), together generating 184 GWh per year, equivalent to 34% of the Principality's electricity consumption.

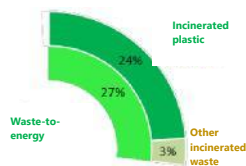
TRANSPORT



SUSTAINABLE MOBILITY IN MONACO

- As a result of a policy to promote electric transport launched in 1994, clean-energy vehicles made up 11% of the vehicle fleet in 2021.
- With the enhanced subsidy available as part of the economic recovery plan, €10 million of the National Green Fund were used to fund the vehicle energy transition in 2021.
- With nearly 200 more powerful electric vehicle charging points rolled out in public car parks and on the streets as part of Monaco On, 927 tonnes of CO₂ emissions were prevented in 2021.
- Klaxit, the home-to-work car sharing app is celebrating its first year in Monaco. The figures speak for themselves: more than 1,900 people have signed up, there are 730 active car sharers and 17,000 journeys have been completed – covering 352,000 kilometres and reducing CO₂ emissions by 39 tonnes!
- Around 20 businesses who have signed the National Pact have received assistance with developing their Corporate Travel Plans.
- The Mission for Energy Transition leads the Clean-Energy Vehicles group to advance discussion on electric mobility.
- MC Hydrogen Group: participation in a round table, co-organised by the Yacht Club de Monaco, Prince Albert II Foundation and Mission for Energy Transition on 9 July. The agenda featured a discussion among Monegasque and French institutions and leaders of international hydrogen projects, and the aim was to address the issue of developing hydrogen for maritime and transport use.

WASTE



TARGETING ZERO SINGLE-USE WASTE IN THE PRINCIPALITY

- To reduce single-use plastic, a feasibility study has been carried out on returnable takeaway containers, involving all relevant stakeholders. It meets the expectations of employees (90% of those who purchase takeaway meals are prepared to switch to returnable packaging) and has buy-in from restaurants serving takeaway food (38 businesses have confirmed that they would like to take part in the project).

OUR COMMUNICATION

Maintaining the momentum in favour of the energy transition by highlighting examples of change in the public and private sectors; showcasing what works; and setting an example to encourage others to act. This has included strengthening our online and social media presence.

WEBSITES

- **Mission for Energy Transition:** transition-energetique.gouv.mc
 - **Mission for Energy Transition quarterly newsletter**
 - Accessible directly from the Mission for Energy Transition website (<https://transition-energetique.gouv.mc/Les-Newsletters-MTE>).
 - Sent to all National Pact signatories
- **Carbon Coach Platform:** pacte-coachcarbone.mc
- **Your Monaco:** <https://yourmonaco.mc/Section/transition-energetique>
 - Mission for Energy Transition topics: Energy Transition section
 - Real-time map showing availability of Monaco On charging points and solar resource map: <https://www.cadastresolaire.mc/>

SOCIAL MEDIA

- **Instagram:** @mte_monaco - https://www.instagram.com/mte_monaco
1,229 followers / 94 posts
- **Facebook:** Monaco Energy Transition - <https://www.facebook.com/MTEMonaco/>
1,202 followers
- **LinkedIn:** Mission for Energy Transition - Monaco
638 followers: <https://www.linkedin.com/company/mission-pour-la-transition-energ%C3%A9tique-monaco>
- **YouTube:** Mission for Energy Transition MONACO
<https://www.youtube.com/channel/UCYVJtw6BVghpdC9UctKhww/featured>

MISSION FOR ENERGY TRANSITION PARTNERS

- **Newsletter**
 - The Mission for Energy Transition contributes to the MEB and GFM newsletters (<https://www.grimaldiforum.com/fr/e-mag#.Yea3tP7MI2w>)
- **Radio Ethic**
 - 15 interviews produced by the internet radio station, which focus on energy transition actions taken by those who have signed the National Energy Transition Pact.

VIDEOS

- Lecture: Strategy and definition of a low-carbon path
- National Green Fund: financial support allocated to businesses for their energy transition
- BD2M training: Timber construction
- BD2M training: Greening buildings
- BD2M training: Photovoltaic power
- Round table with Guillaume Pitron: The energy transition and resource conservation

CREATION OF VISUALS

As part of the economic recovery plan in particular, promotional inserts and advertising pages have been created to highlight the support offered by the Mission for Energy Transition in the local press. Some of these were converted to roll-up format and presented at events (Monaco Business, B2DM Commission, etc.). As part of the Exemplary Renovation programme, a visual focused on the Villa Lamartine project was developed in partnership with Monaco City Hall.

OUR EVENTS

- Lecture and debate featuring Guillaume Pitron on the digital and energy transition (24 March)
- 6th Energy Transition Press Event (12 April)
- Annual Energy Transition Conference (10 May), preceded by a public vote on the best waste reduction initiatives (26 April to 2 May)
- EVER Exhibition: presentation of Monaco On charging points (5–7 May 2021)
- Lecture: “Together towards a low-carbon economy” to launch support for businesses in developing low-carbon strategies (28 May)
- Workshop for businesses: Low-carbon mobility (June)
- Pact event on sustainable yachting (8 June)
- Monaco Hydrogen Group round table (9 July)
- Industrial ecology workshop with businesses in Fontvieille (14 July)
- Workshop on eco-friendly digital technology with the Digital Transition Office, Monaco Business Exhibition (6 October)
- Mission for Energy Transition in Dubai, presenting two lectures on ocean thermal energy (18–24 October)
- Press conference on the ocean thermal energy loops: update one year after the concession was awarded (2 October)
- Pact workshop with Julien Vidal on celebrating the holidays sustainably (16 November)
- Workshop on “utopian discussions” with the National Pact Ambassadors
- First Monegasque Repairathon, jointly organised with Monaco City Hall as part of the European Week for Waste Reduction (Saturday 27 November)
- Production of a video titled “Mission for Energy Transition’s Digital Greetings Card”, with National Pact Ambassadors (December)

SIGNATURES OF THE NATIONAL PACT

Since the Pact was launched, the number of signatories has continued to increase, and indeed increase significantly, with 29 new signatures in 2019, 37 in 2020 and 103 in 2021 (reaching a total of 232 at the end of 2021).

Those signing the Pact in 2021 included the Monaco Diocese, Monaco Boost, the Yacht Club de Monaco, the Monaco Scientific Centre, seaWergie, Coty Lancaster, Oceanco, Junior Chamber International Monaco, the Monaco Pavilion, UBS, DIETSMANN, Y.CO Monaco, the Cycling Federation, Noaro Frères and Insobat.

Corporate workshops were organised with the businesses who signed the Pact, covering Pact actions. Eight workshops were held in 2021, including one with staff at the Hotel Métropole.

MISSION FOR ENERGY

- *Annabelle Jaeger-Seydoux, Director*
- *Arielle Barrabino, Communications Manager*
- *Cécile Biso, Assistant to the Director and the Team*
- *Raphaël Carossi, Building Energy Specialist*
- *Isabelle Curau-Bloch, Head of the National Pact Project*
- *Marie-Pierre Fassio, Head of the Buildings and Returnable Container Projects*
- *Géraldine Fievet, Building Energy Specialist*
- *Virginie Hache-Vincenot, Head of the Energy, Finance and Innovation Project*

OUR PLANS FOR 2022

- > Accelerate renovation of existing buildings by reviewing audits and promoting dedicated support programmes
- > Continue to develop the BD2M initiative and make use of the circular economy in construction
- > Support the move away from fossil fuels to heat our buildings
- > Work with the Monaco Hydrogen Group stakeholders to produce a hydrogen road map
- > Complete the Corporate Travel Plans
- > Accelerate the electric transition of two-wheel vehicles (support for dealers, regulations, information)
- > Introduce returnable takeaway containers
- > Develop new versions of the National Pact: a School Pact, a Young People's Pact
- > Support implementation of the Sustainable Tourism White Paper, with a particular focus on measuring the carbon footprint of events and offsetting it
- > Help 50 new businesses with their low-carbon strategy
- > Launch low-carbon support for start-ups in partnership with Monaco Boost and Monaco Tech
- > Launch an industrial ecology project with stakeholders in Fontvieille and a specific focus on previously identified options to reduce plastic (Styrofoam boxes, plastic barrels, plastic pallet systems).