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PRESS RELEASE

Technology Made in Italy: TOLO Green is Italy's technical partner at Expo 2020 Dubai

Rome, 18 January 2021

The carbon dioxide produced by visitors of the Italy Pavilion at Expo 2020 Dubai will be reused and converted into oxygen.

Thanks to an agreement with the Commissioner's Office for Italy's participation at the Universal Expo, TOLO Green will bring to the Italy Pavilion its advanced technology by using microalgae for the biofixation of the carbon dioxide emitted by visitors to produce oxygen.

The installation by TOLO Green – a technical partner of the Italian Commissioner's Office – is embedded in Italy Pavilion's architectural and technological concept and aims to represent some of the main thematic values of Expo 2020 Dubai, which is scheduled to be inaugurated on the 1st of October:

- **Innovation** with 100% Italian technology,
- **Accessibility** to provide a *visitor experience* open to direct interaction,
- **Sustainability** in the consumption of water and energy in the production of proteins from plants,
- **Safety**, by making the Italy Pavilion a unique "breathing" structure.

Five large water ponds for the cultivation of algae will encircle the perimeter of the Belvedere inside the Pavilion **to treat part of the stale air from inside the exposition space**. Once purified, the CO₂-rich air emitted by visitors will be reinjected into the environment.

The biological cultivation technology developed by TOLO Green shall be applied to three different microalgae: Spirulina, Dunaliella and Haematococcus.

Photosynthetic plant organisms feed on carbon dioxide – essential for their carbon substrate – and convert it into oxygen, thus reducing the environmental impact of the major contributor to the greenhouse effect. Photosynthetic light bulbs, specifically developed to promote the growth of microalgae, will also enable their proliferation in a confined space with scarce lighting.

<https://italyexpo2020.it/>

General Commissioner's Office for Italy at Expo 2020 Dubai

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A technical laboratory equipped with all the required analytical instrumentation shall be located on the same level as the Pavilion, adjacent to the visitors' boardwalk, which will enable them to observe the microalgae growth process all the way to the packaging of the finished product throughout the 6-month duration of the Expo.

Interaction with visitors will be assured through communications in English and Arabic to help visitors understand the risks connected to the increase of CO₂ in closed spaces. Furthermore, TOLO Green Experts will illustrate the plant and the treatment process to stimulate the interest of visitors, especially young people.

Throughout the duration of Expo 2020 Dubai, visitors to the Italy Pavilion will receive real-time information on the volume of purified air flowing into the facility.

"TOLO Green's installation will showcase Italy's topmost scientific and technological skills to the rest of the world, creating a virtuous interconnection between Nature and central theme of our participation at Expo 2020 Dubai," stated the Commissioner for the Italy Pavilion, Paolo Glisenti.

"Being a partner of the Italy Pavilion at Expo 2020 Dubai gives us the extraordinary opportunity to promote our Country's topmost skills in the development of technology at the service of environmental sustainability and the production of clean energy. Our focus is concentrated on the environment and on future generations through a one-of-a-kind technological process aimed at stimulating the interest and attention of the international visitors crowding to see the Expo," stated Gilberto Gabrielli, CEO of TOLO Green, also highlighting that the microalgae production industry is a very attractive investment sector for investors from Arab Countries.

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