

ENERGY EXCELLENCY INNOVATION

NXO ENGINEERING, your cleantech specialized in water and industrial decarbonation

NXCARB

Positive energy decarbonation



LET'S DARE TOGETHER....

STATEMENTS

*! To Decarbonize ? YES!
But under what conditions?*

*! The best energy is the one which
is not consumed.*

*! Decarbonization mainly stay
limited in pilot's projects in 2022.
Everything remains to be invented.*

CONVICTIONS

*! An efficient process is an energetically
autonomous.*

*! Decarbonation alone will not solve the
challenges of our time. Sobriety must
become the leitmotif of the decades to
come.*

*! "All art is an imitation of Nature"
SENECA*

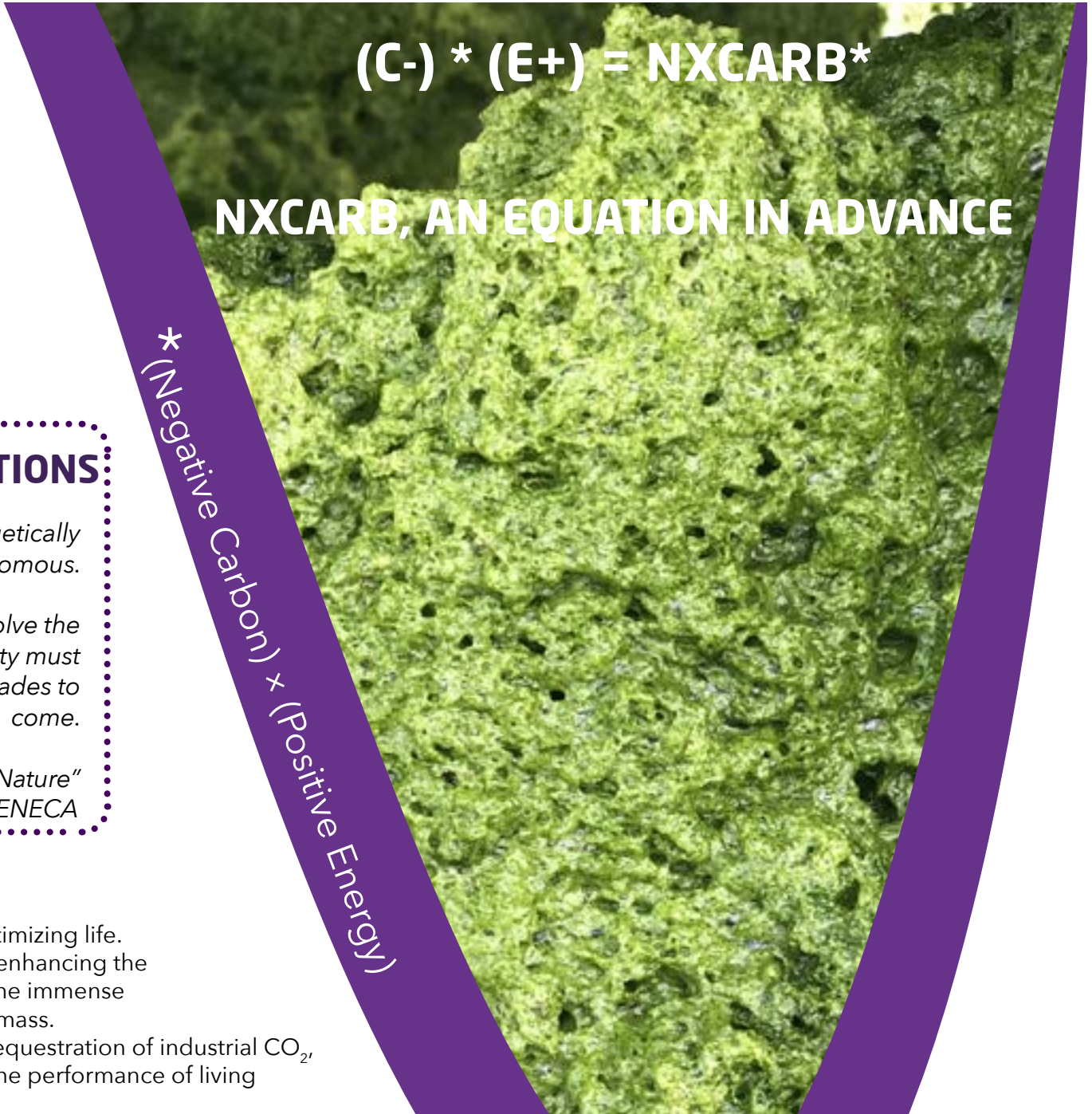
MICRO ALGAE > TRUST THE LIVING

NXO, on the strength of its expertise, has bet on optimizing life. Micro-algae are indeed capable of consuming and enhancing the fumes containing CO₂ and NO_x. They also present the immense advantage of constituting a recoverable energy biomass. By entrusting the photosynthetic process with the sequestration of industrial CO₂, NXO has designed a technology that can increase the performance of living organisms.

$$(C-) * (E+) = NXCARB^*$$

NXCARB, AN EQUATION IN ADVANCE

** (Negative Carbon) * (Positive Energy)*



NXCARB

POSITIVE ENERGY DECARBONIZATION

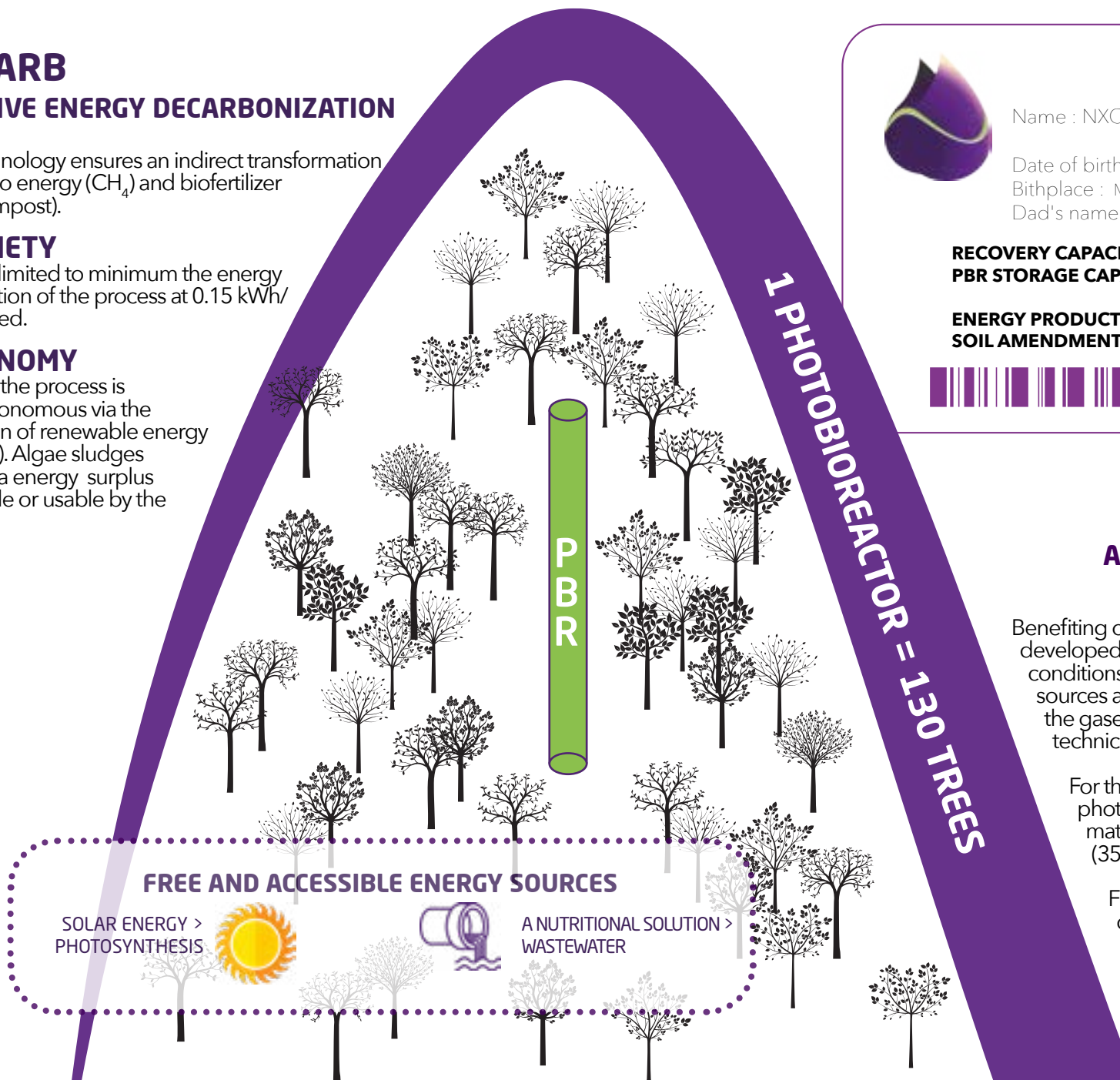
NXO technology ensures an indirect transformation of CO_2 into energy (CH_4) and biofertilizer (Vermicompost).

SOBRIETY

NXO has limited to minimum the energy consumption of the process at 0.15 kWh/kg CO_2 fixed.

AUTONOMY

Corollary, the process is totally autonomous via the production of renewable energy (methane). Algae sludges generate a energy surplus marketable or usable by the customer.



ID CARD



Name : NXCARB

Date of birth : 12/2021

Bithplace : MONTPELLIER

Dad's name : César NARVAEZ

RECOVERY CAPACITY = 40,000 TCO₂/HA/YEAR
PBR STORAGE CAPACITY = 3 TCO₂/YEAR

ENERGY PRODUCTION = 700MWh/HA/YEAR
SOIL AMENDMENT = 60,000 T/HA/YEAR



PHOTOBIOREACTORS, A MICROCOSM OF CONTROLLED EUTROPHICATION

Benefiting of the NXSTEP program, NXO has developed a photobioreactor to guarantee conditions of access to non-limiting nutrient resources and an optimized transfer of CO_2 from the gaseous phase to the liquid phase without technical constraint.

For this new generation of self-cleaning photobioreactors, NXO has opted for a material with a very long lifespan (35 years).

Fully recyclable, this polymer has optical qualities superior to glass and has a better carbon footprint.

NXCARB, A FEW FIGURES

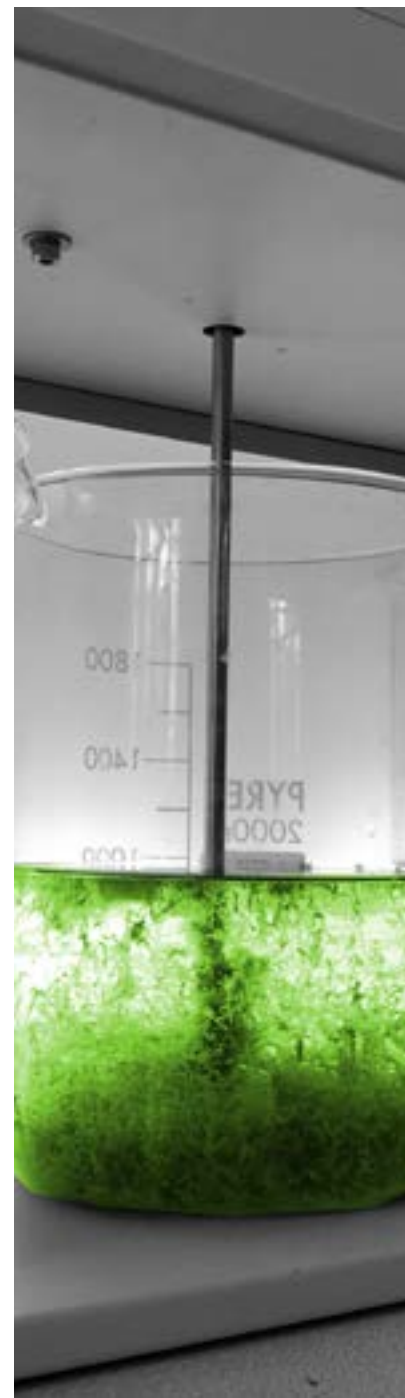
For 1 ton of biomass produced, up to 1.8 tons of CO₂ are naturally captured during algae growth!

	STOCK OF C TC/HA	ADDITIONAL C STORAGE TC/HA/YR
PERMANENT GRASSLANDS	84,6 (+/-35)	+/- 0,9
ARABLE LANDS	51,6 (+/-16)	+/- 5,2
FOREST	81 (+/-35)	+/- 1,2
NXCARB	5450 (+/-500)	0

ONE PROGRAM, MANY PARTNERS

NXSTEP and NXCARB benefit from the expertise of the science community and local authorities at national and local levels.

The originality of the approach arise a wave of interest in the scientific community inherent both in the choice of the depollution matrix (microalgae) and in the destination of the technology (Sanitation and Decarbonation).



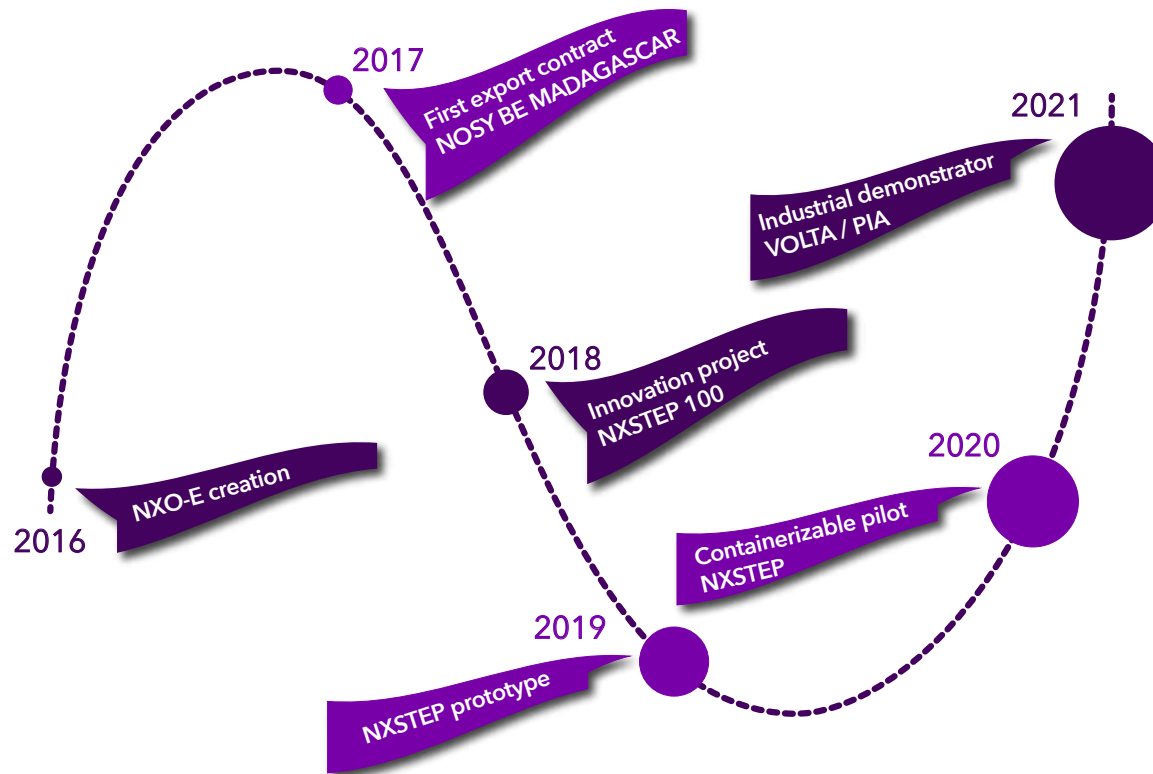
WINNER 2021

**COMPETITION
INNOVATION
«I-NOV»**

VOLTA PROGRAM



NXO, YOUR COMMITTED PARTNER



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CESAR NARVAEZ / NXO'S PRESIDENT

"In the world to come, display will not be enough to meet environmental challenges. NXCARB and NXSTEP aim to tackle all transition issues energy and environment to propose a structuring and integrated approach to decarbonation."

"In the light of this new century and the related challenges, CO₂ emissions linked to the production tool can no longer constitute a financial burden for companies but an opportunity for resources. Microalgae contribute to this change in status and image. By proposing a virtuous and economically innovative decarbonation model, this new model augurs new hopes. »



