

AIR POLLUTION CONTROL SOLUTION

A CLEAN AIR / HIGH GAIN SOLUTION



www.pure-nat.com



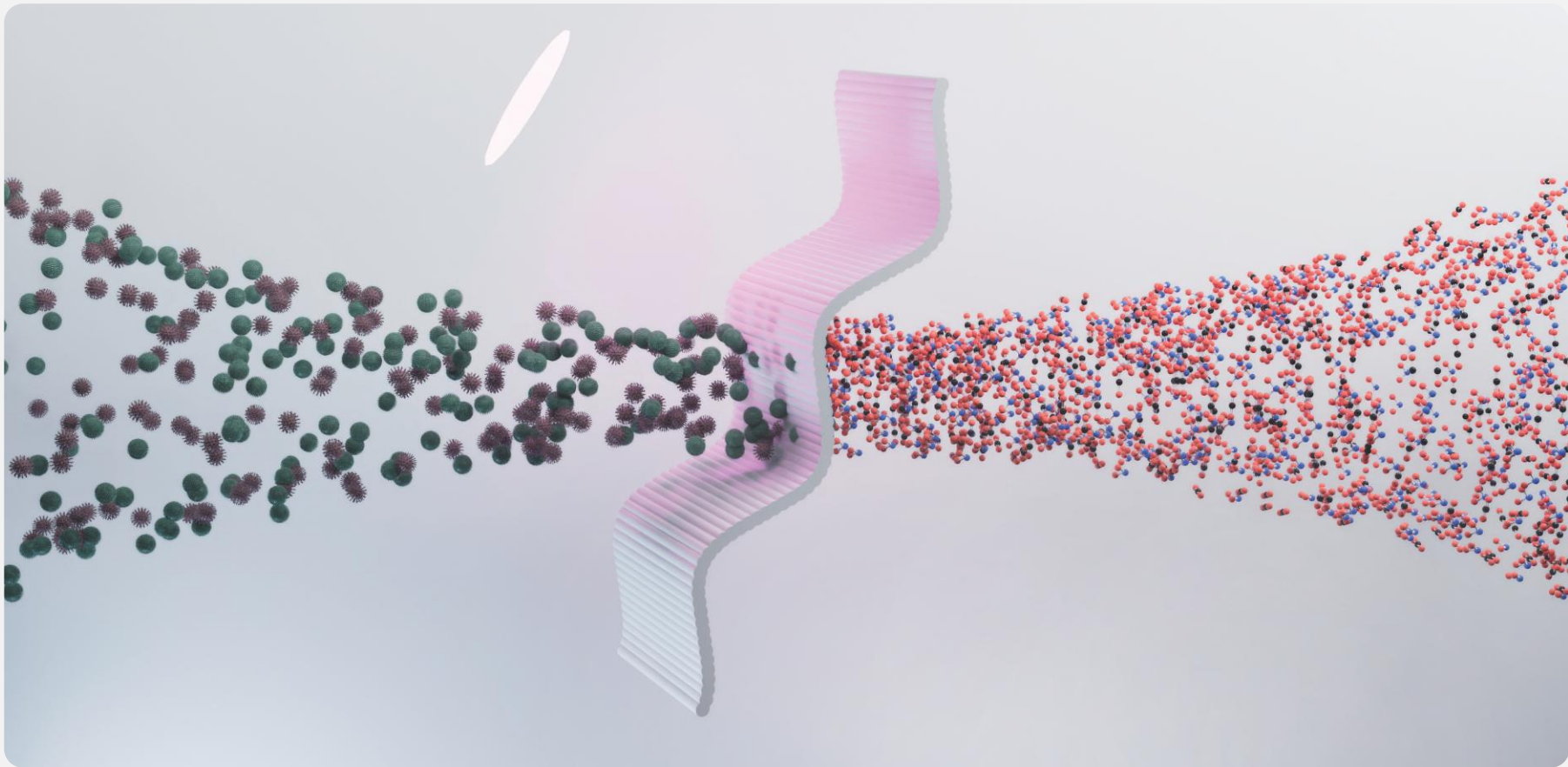
SHATTERS HARMFUL POLLUTANTS

Instead of storing them



1st molecular and microbiologic filter

Efficient against VOCs, solvents, odors, viruses and bacteria



35x more pollutants shattered

10 to 20% global savings

Lifespan 5x longer

Pressure drop <10Pa

Decarbonation : Scope 3



[Watch the video](#)

VOS ENJEUX

Aligned to your strategic objectives



Compliance

Limit VOC and odors

- **Stricter compliances**, especially in Europe
- **Substantial fines**, for non-compliance
- Control VOCs to **obtain building permits**.
- Ensure **site sustainability**.



Savings

Reduce operating costs (OPEX)

- Operating costs
- Maintenance costs
- Waste management
- Energy consumption

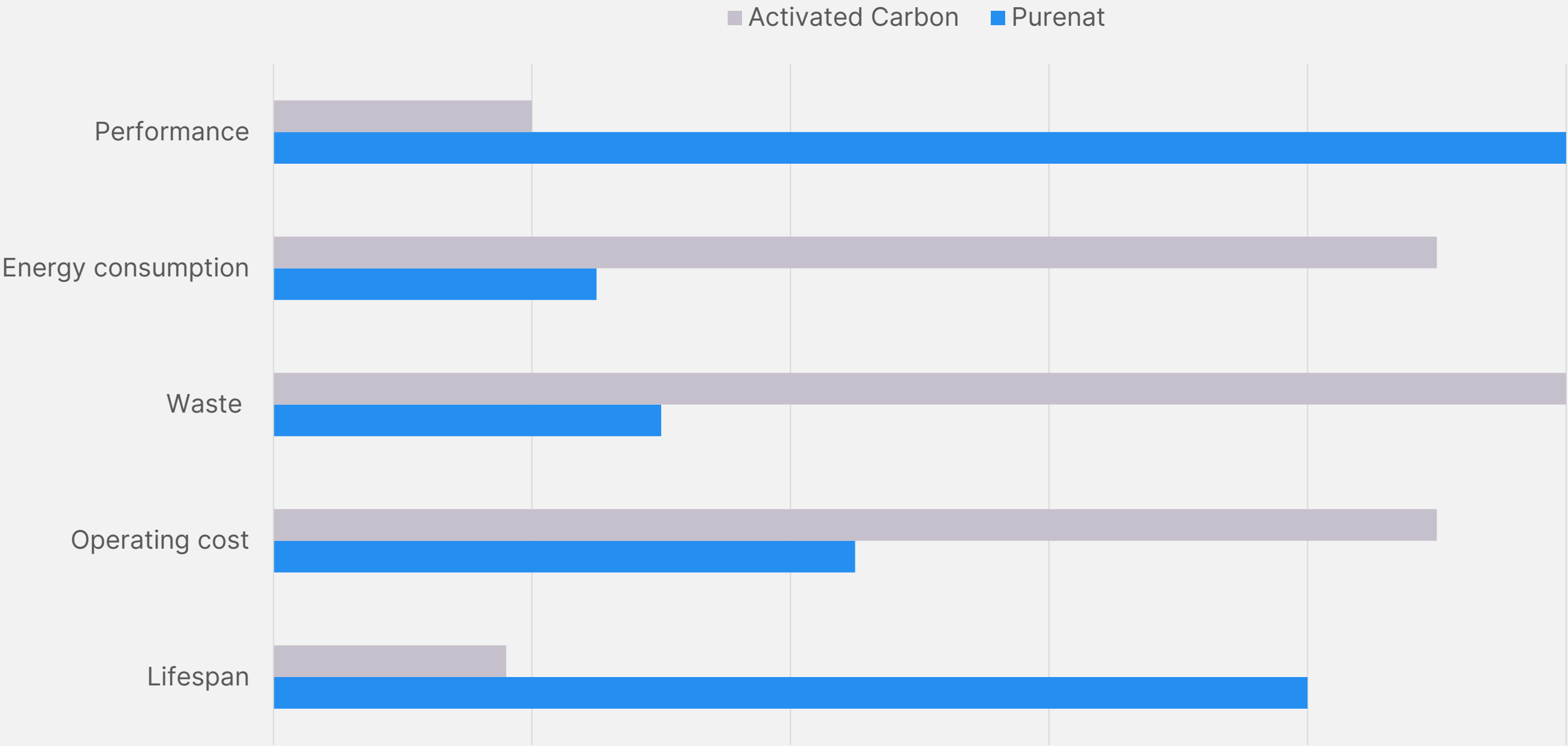
RSE impact

Protect health and well-being

- **Limit the amount of waste** generated
- Ensuring the **well-being of employees and neighbors**
- Decarbonation: **Scope 3**

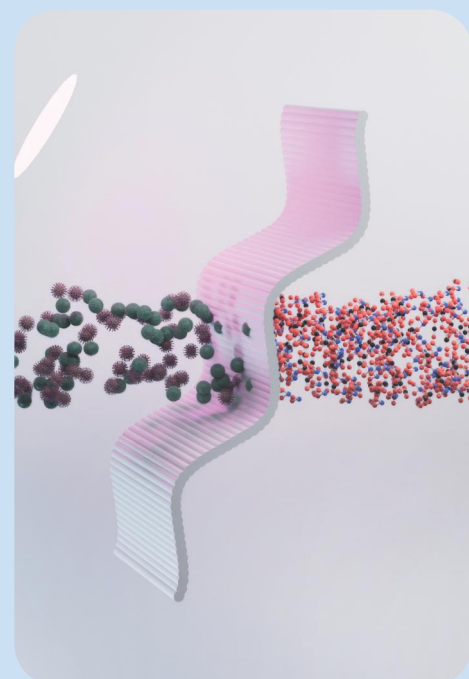
COMPARISON

Purenat vs activated carbon



BIOMIMETIC PHOTOCATALYSIS

A unique patented technology



01
Light
absorption



02
Superoxide
generation



03
Elimination of
harmful
pollutants

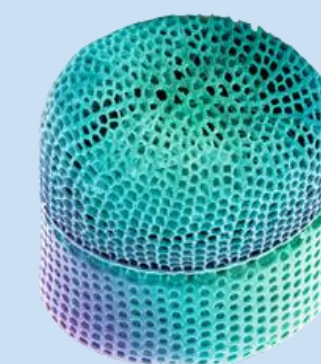
Organic – VOC, odors
Inorganic - NH_3 , NO_x , H_2S
Biologic - viruses, bacteria

Basic molecules, i.e. water
vapor, harmless to humans
and the environment

Biomimicry: boosting performance

Inspired by the champions of
photosynthesis: **diatoms**.

We imitate the porous structure of
diatoms to enhance the material's
photocatalytic performance.



This is the first time that a fiber, then a filter, has been
composed of such an active agent rather than simply
being coated with it.

Natacha Kinadjian Caplat

Founder & President

- PhD in Physical Chemistry of Materials
- Air Quality Expert (exp +14 years)
- Top 100 inventors of the year 2024, Le Point



Unique manufacturing process

For a universal solution



Base materials

- Thermoplastic polymers
- Photocatalysts
- Binding agents



Manufacturing steps

Compounding

Spinning | Carding | Needle punching

Textile activation

Formatting

**Universal
filter cartridge**

Targeted applications

Chemical | Surface treatment | Agri-food | Recycling & Waste | Water Treatment Plant | Transport

IMPLEMENT A PILOTE PROJECT

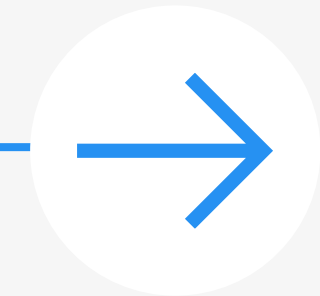
Our team is with you every step of the way.



[Watch the video](#)

COMPLETED PROJECT

Use case



Limit VOCs and odors

Specifications

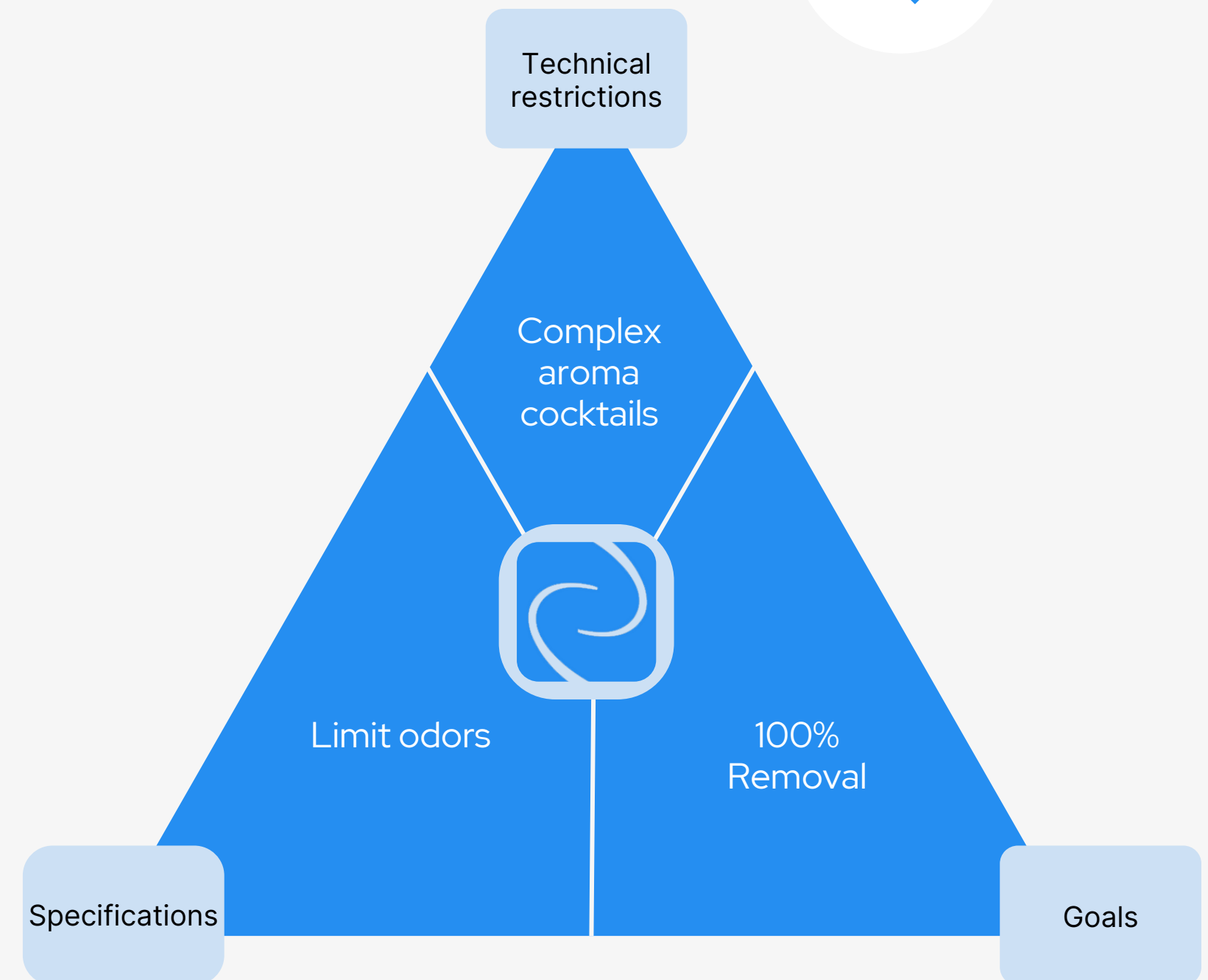
- Application: Process VOC emissions
- Issue: odors
- Sector of activity: **chemicals** (manufacture of aromas and perfumes)

Technical restrictions

- Pollutant concentration: peak at 26ppm = approx 100mg/m³
- Targeted pollutants: **aroma cocktails** (more than 30 molecules mixed together)
- Pilot tested flow rate: 10 to 20 m³/h
- Current solution: **biofilter**

Goals

- 100% pollutant removal



COMPLETED PROJECT

Bespoke prototyping



Cartridge 300 mm x 100 mm

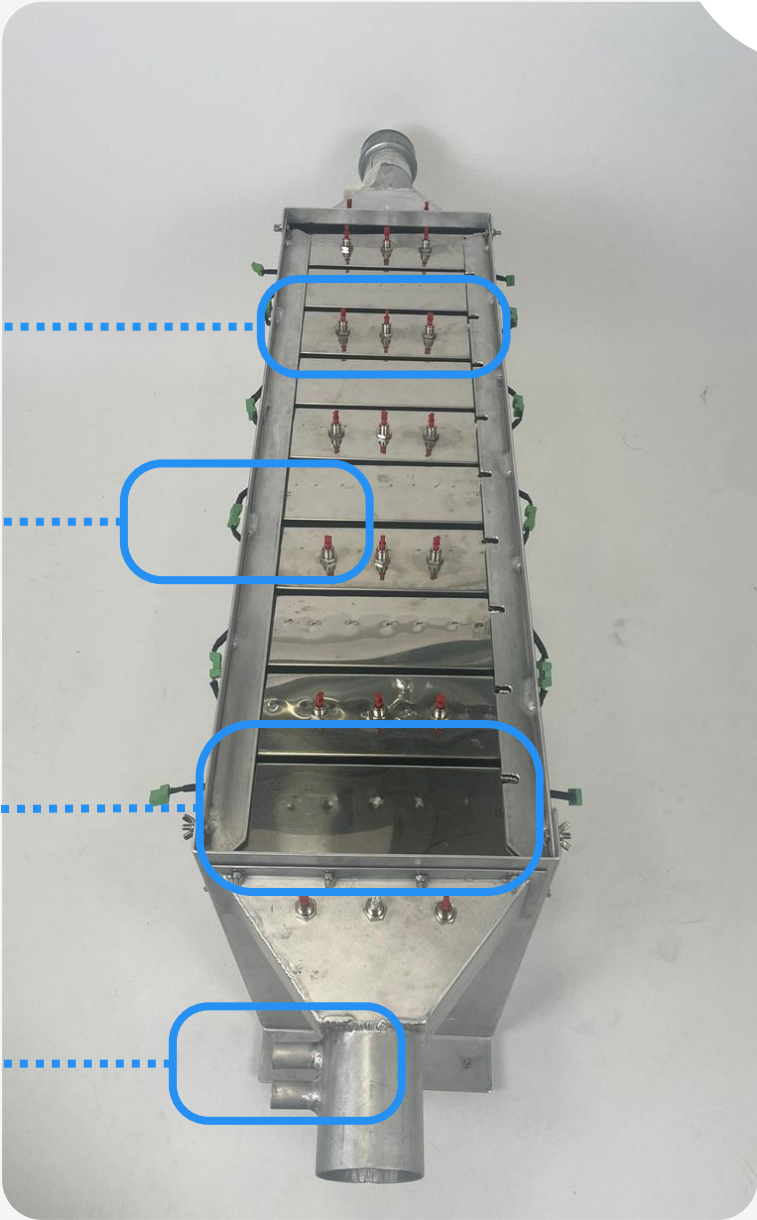


Plug-in socket for sensors

LED power supply wiring

Pollution control cartridge

Socket for anemometer and temperature sensor



0,9sqm
Of Purenat
depolluting textile

COMPLETED PROJECT

Installation and monitoring



Process air
Temperature 40 - 50 degrees
Humidity 80 - 100%.

Particle filter
E.i. G4 type

Cooling unit
Chilled water 5 - 7 degrees

Cooling coil
Air-water heat exchanger

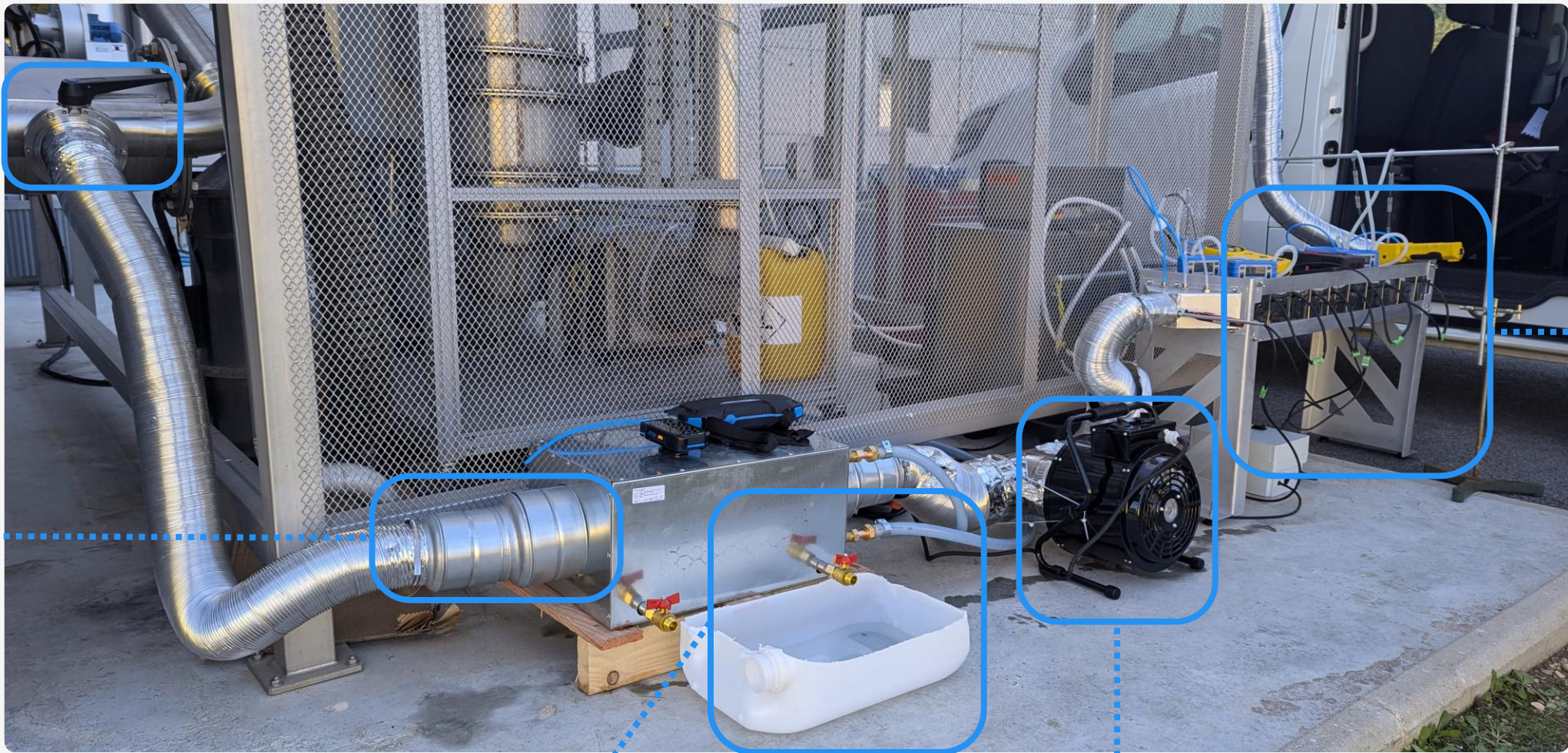
Heating battery

Purenat filters



Measuring instrument

 [Make an appointment](#)



COMPLETED PROJECT

Results



Energy consumption



Pollutant abatement



Recommendations for industrial sizing



Make an appointment

OUR TEAM

Project management team



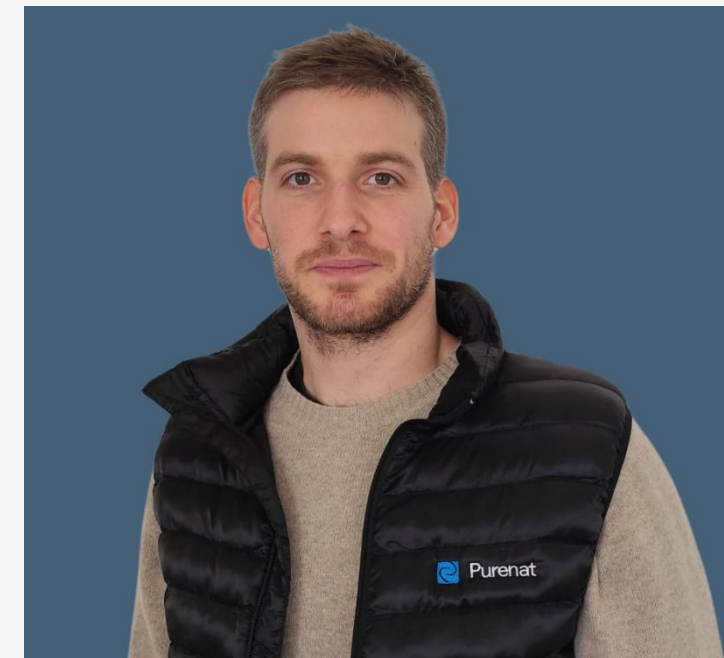
Natacha Kinadjian Caplat
President & Founder

Prototyping calculation
Analysis of results
Recommendations



Manon Vaillant
General Manager

Business relations



Etienne Rainaut
Design Project Manager

Technical follow-up
Housing prototyping
Installation

OUR TECHNICAL PARTNERS



THEY PLACE THEIR TRUST IN US



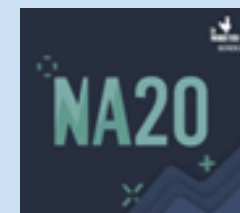
PARTNERS



LABELS



AWARDS



OUR COMMITMENT

Aligned with European Union

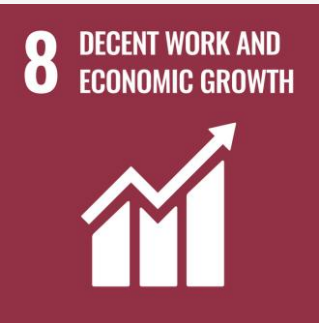


Réduire les maladies respiratoires et cardiovasculaires grâce à **un air plus pur en éliminant les polluants atmosphériques nocifs** (par exemple, les COV, les micro-organismes) **des environnements industriels et urbains**, réduisant ainsi l'exposition du public à des substances nocives.



Promouvoir la **conception durable**, la **réduction de la consommation d'énergie** et l'**utilisation de matériaux recyclables** dans les systèmes de filtration de l'air, ce qui favorise l'**efficacité des ressources** et contribuer à une économie circulaire **en minimisant les déchets et l'impact sur l'environnement**.

Créer des emplois dans les secteurs des technologies propres et de l'environnement. Purenat prévoit de créer 53 emplois directs et plus de 150 emplois indirects d'ici à 2030, au fur et à mesure que la production et ses opérations, en travaillant en étroite collaboration avec et ses partenaires commerciaux pour stimuler la croissance et la création d'emplois.



Éliminer les particules nocives, les toxines et les COV de l'air, améliorant ainsi la qualité de l'environnement et **réduisant les émissions de gaz à effet de serre**.

Permettre aux industries d'**économiser sur les coûts d'exploitation** des systèmes de traitement de l'air en réduisant la consommation d'énergie et en prolongeant la durée de vie des filtres. **20 % d'économie sur les coûts opérationnels avec les filtres Purenat**



Réduire au minimum les effets de l'acidification des océans et y remédier, notamment en renforçant la coopération scientifique à tous les niveaux.

Amélioration de la qualité de l'air à l'intérieur et à l'extérieur, ce qui a un effet direct sur la santé, la productivité et le bien-être général des personnes vivant ou travaillant dans des zones urbaines polluées



Encourager et promouvoir des partenariats publics, publics-privés et de la société civile efficaces, en s'appuyant sur l'expérience et les stratégies de financement des partenariats.

ABOUT US

- Social and Solidarity Economy Company
- Founded in June 2020
- 2 fundraising rounds for a total of 2.6M€
- 7 patents in France and worldwide
- Our values : excellence, innovation, bio-inspiration, durability



Purenat is the story of two entrepreneurs who have surrounded themselves with a team of committed experts.

OUR INVESTORS



OUR PARTNERS





IMPLEMENT A PILOT PROJECT



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