

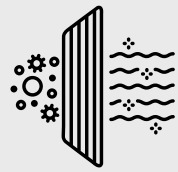


# LOW-CARBON ALTERNATIVE TO ACTIVATED CARBON FILTERS



# Purenat solution

1ST MOLECULAR AND MICROBIOLOGIC FILTER WHICH DESTROYS POLLUTANTS INSTEAD OF CAPTURING THEM



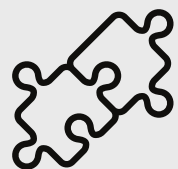
## High performance self-cleaning filter

- Destruction of pollutants at source : **VOCs, solvents, odors, bacteria, viruses (including COVID)**
- **Constant, guaranteed** : depollution: no clogging and maximized depollutant content
- Safe : **no release** of hazardous by-products



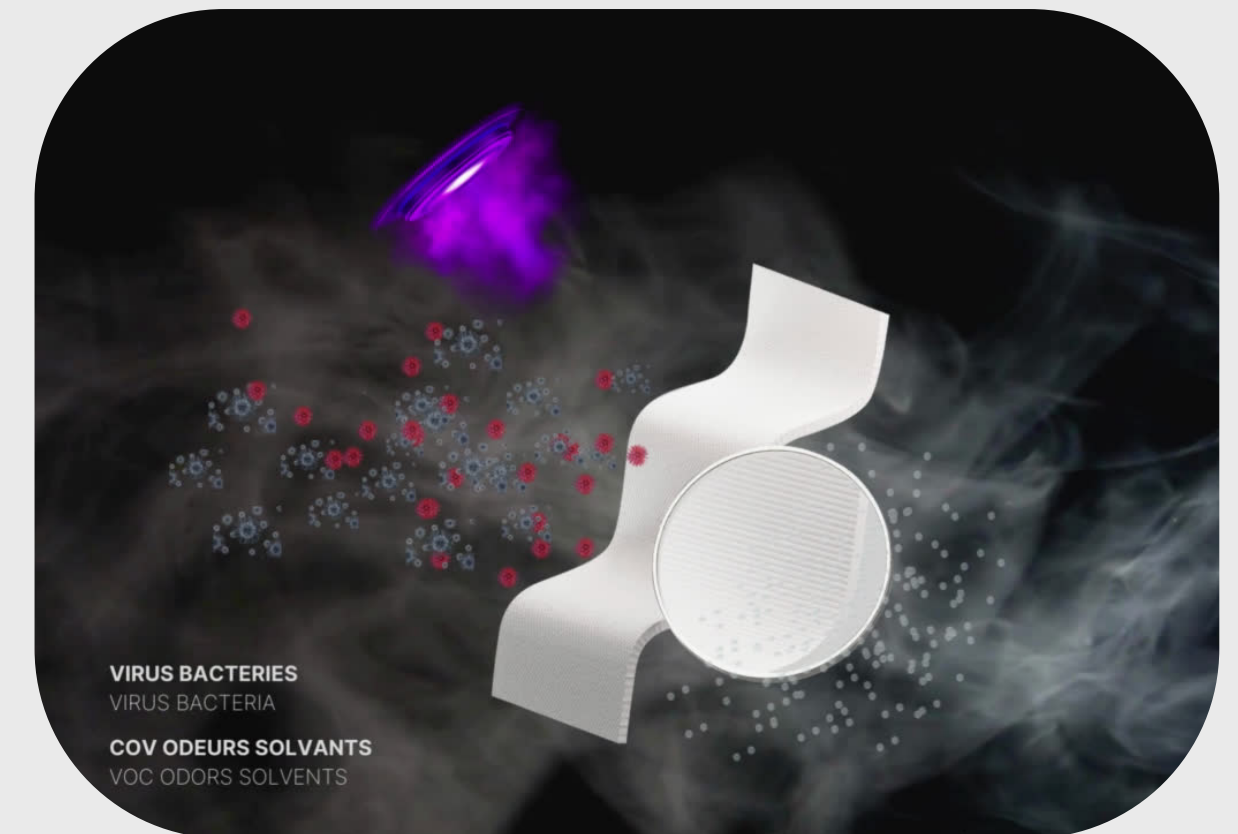
## Sustainable and low-carbon

- Doesn't clog up : **lifespan up to jusqu'à 5 years** (50.000hr)
- **Energy savings** : low pressure drop (up to 10 Pa)
- **Reduces the amount of waste** associated with filter replacement
- **Avoided carbon emissions**



## Adaptable to any air-treatment system

- **Ajustable** to your specifications: analyse de vos besoins techniques
- Adaptable to your system: **customized dimensioning**
- Technology enabling the design of **miniaturized, lighter, more aesthetic and more ergonomic air handling systems**



# Our commitment

“Protecting people's health and well-being by innovating to clean up our environments with commitment and responsibility.”



Member of la Communauté du Coq Vert  
Actors committed to the ecological and energy transition  
BPI France | Ademe



Project financed by l'Ademe  
Member of Ademe International



Deeptech committed to French reindustrialization

# Indoor air quality: a public health issue

- 4th** Cause of death worldwide
- 7x** More death than road accidents in France
- 30%** Loss of productivity
- 3x** No more sick leave



# Current solutions are incomplete and energy-consuming



**Which alternative ?**

Increase energy consumption

Can exacerbate the problem

Require heavy and costly maintenance

Increase carbon impact

Generate waste and by-products

# A patented disruptive technology

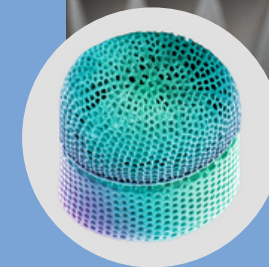
The innovative biomimetic material developed by Natacha Kinadjian Caplat takes the form of a fiber, which is then transformed into a textile using the non-woven process. The composition of this fiber contains an active depolluting agent (photocatalytic agent) that destroys organic pollutants.

This is the first time that a fiber and then a filter incorporate in its composition such an active agent, rather than simply be coated with it.



**NATACHA KINADJIAN CAPLAT**  
President and Founder

PhD in Materials Chemistry  
Indoor Air Quality Expert (exp +14 years)  
Top 100 Inventors of 2024



Three-dimensional structure imitating the cells of diatoms (marine algae)



# The right answer to your needs

Health, Environment, Comfort, Quality of Life



Purify indoor air



Waste treatment



Reduce odors

# Implementing an air pollution control project

Our team of Air Quality experts will be with you every step of the way, from the initial analysis to the custom-designed solution.



## INITIALE ANALYSIS

Analysis of how your system works and the conditions under which it is used.



## ADAPTED PROTOTYPING

Integration of our customized solutions into your laboratory, pilot or semi-industrial-scale installations



## ANALYSIS AND RECOMMENDATIONS

Purenat's technical experts draw up a performance report for your Purenat technology pollutant abatement equipment.



## CUSTOMIZED SIZING

Dimensioning the right quantity and the right shaping of Purenat textile with a view to scaling up the technology to industrial scale: a full-scale installation

Purenat manufactures media rolls from its innovative material. Its shaping (housing and depolluting cassette) is subcontracted to filter manufacturer partners.



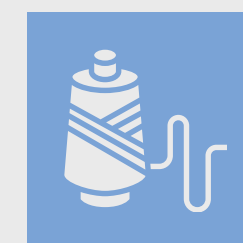
# Key partners



**CSTB**  
le futur en construction



**afnor**  
GROUPE



**CETI**  
CENTRE EUROPÉEN  
DES TEXTILES INNOVANTS



**CONIDIA** ...



**canoe**  
LE CENTRE TECHNOLOGIQUE  
NOUVELLE AQUITAINE  
COMPOSITES & MATÉRIAUX AVANCÉS



**IMT Lille Douai**  
École Mines-Télécom  
IMT-Université de Lille



**IPREM**  
Institut des sciences analytiques  
et de physico-chimie  
pour l'environnement et les matériaux



**wirexpR**

# About Purenat

- Industrial deeptech startup founded in 2020
- Two founders supported by a team of 6
- 1 patent in 2022
- 1st fundraising round (€1.1M) in 2023 to recruit, complete the industrial scale-up and start commercial launch
- A Social and Solidarity Economy company

**NATACHA KINADJIAN CAPLAT**  
Présidente et Fondatrice

PhD in Materials Chemistry  
Indoor Air Quality Expert (exp. 15 years)  
Afnor France & International workgroups  
100 inventors of the year 2024 by Le Point



**MANON VAILLANT**  
General Manager

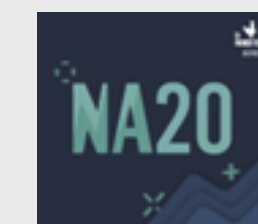
Biotechnology engineer  
Specialized in Strategic Marketing (exp. 15 years)  
Certified Professional Coach (Coach & Team)



**CHRISTOPHE SAINT MARTIN**  
Industrial Director

Mechanical engineering, specializing in the design and manufacture of special-purpose machines for all applications (exp 22 years)

## AN AWARD-WINNING INNOVATION





## SALES TEAM

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