

PhotoPaq and Eurochamp welcome you...

<http://photopaq.ircelyon.univ-lyon1.fr/>



What is PhotoPaq?

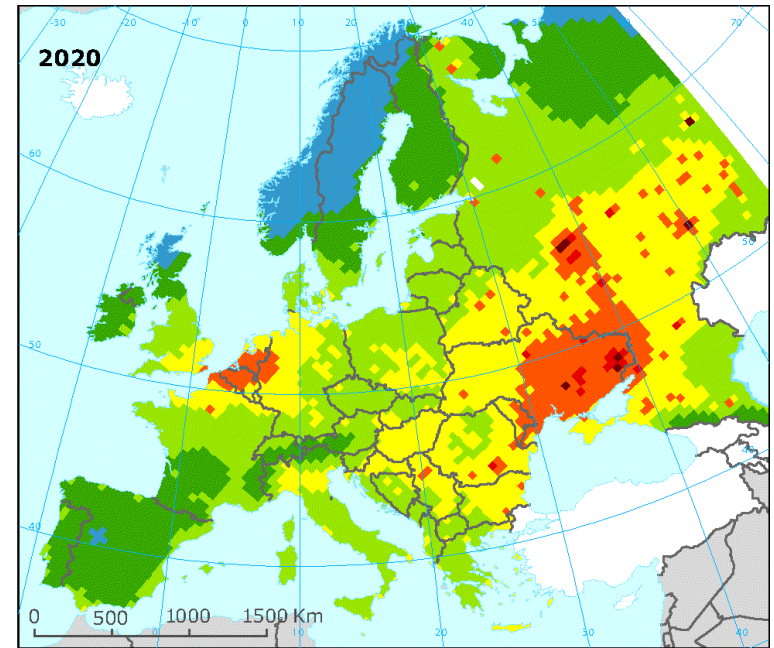
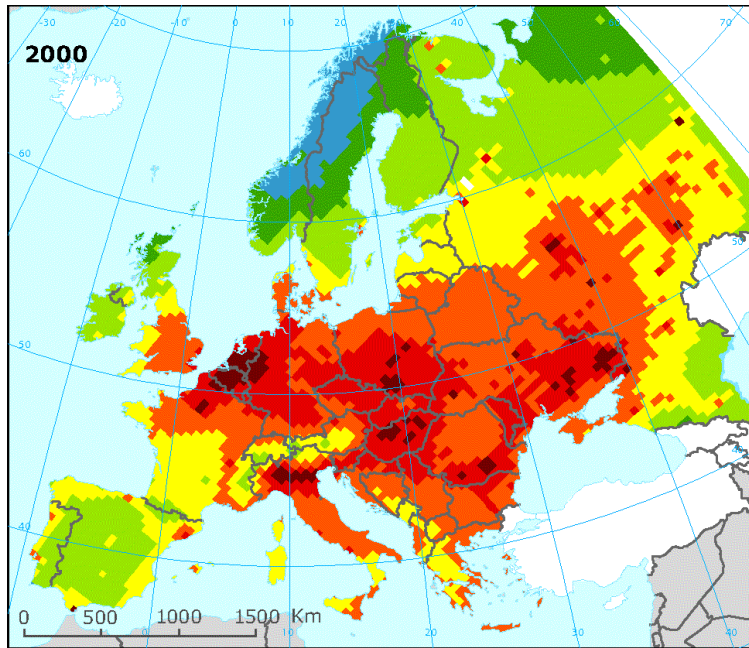
Demonstration of Photocatalytic Remediation Processes on Air Quality

Christian George

*CNRS Senior researcher,
PhotoPAQ Project Coordinator*

Polution de l'air : enjeux de société

Air pollution: a societal issue



Loss in statistical life expectancy that can be attributed to man-made emissions of $PM_{2.5}$

Months ■ 0-1 ■ 1-2 ■ 2-4 ■ 4-6 ■ 6-9 ■ 9-12 ■ 12-36 ■ Outside report coverage

Clean Air For Europe (CAFE) programme. CAFE Report No 7.

Polution de l'air : enjeux de société

Air pollution: a societal issue

Les réglementations actuelles sur les émissions n'auront plus d'impact...

No improvements with current emissions regulations

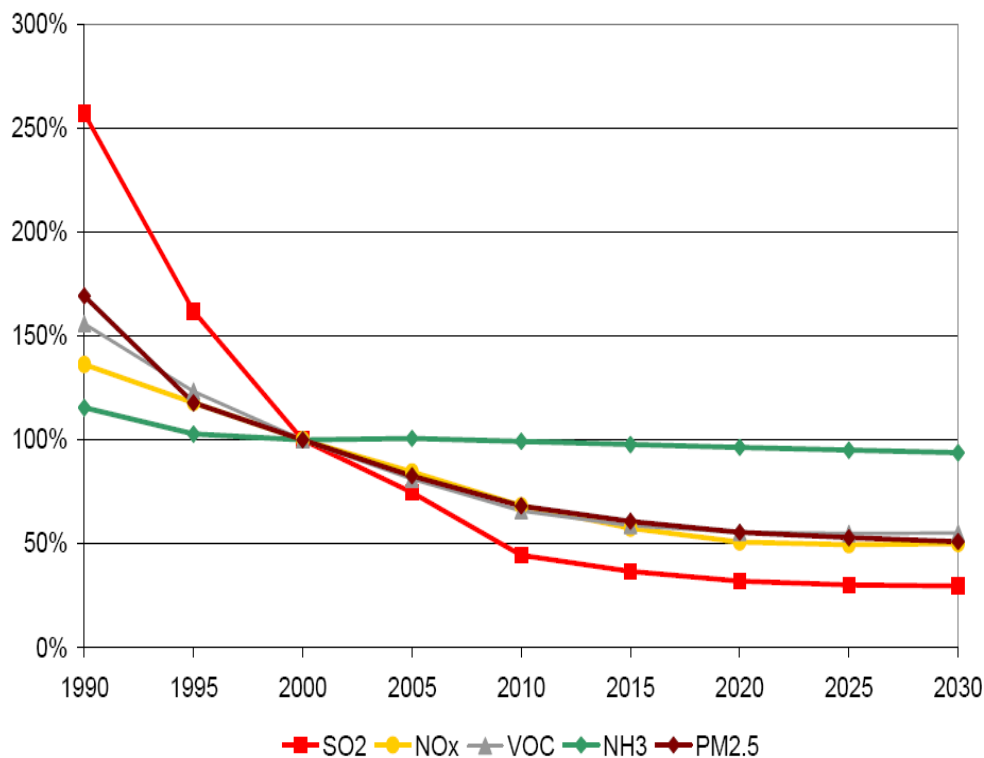


Figure 1:
Tendances à long terme des émissions de l'Europe des 25 par rapport à l'année 2000

Long-term trends in EU-25 emissions relative to the year 2000

(CAFE Scenario Analysis Report Nr. 2)

Projet PhotoPAQ

Objectives

- demonstrate the usefulness of photocatalytic materials for air pollution reduction
- providing recommendation to the European authorities on the practical application for air treatment
- designing better environmental indicators and methods to assess the impact of this new technology in European cities

What is photocatalysis?

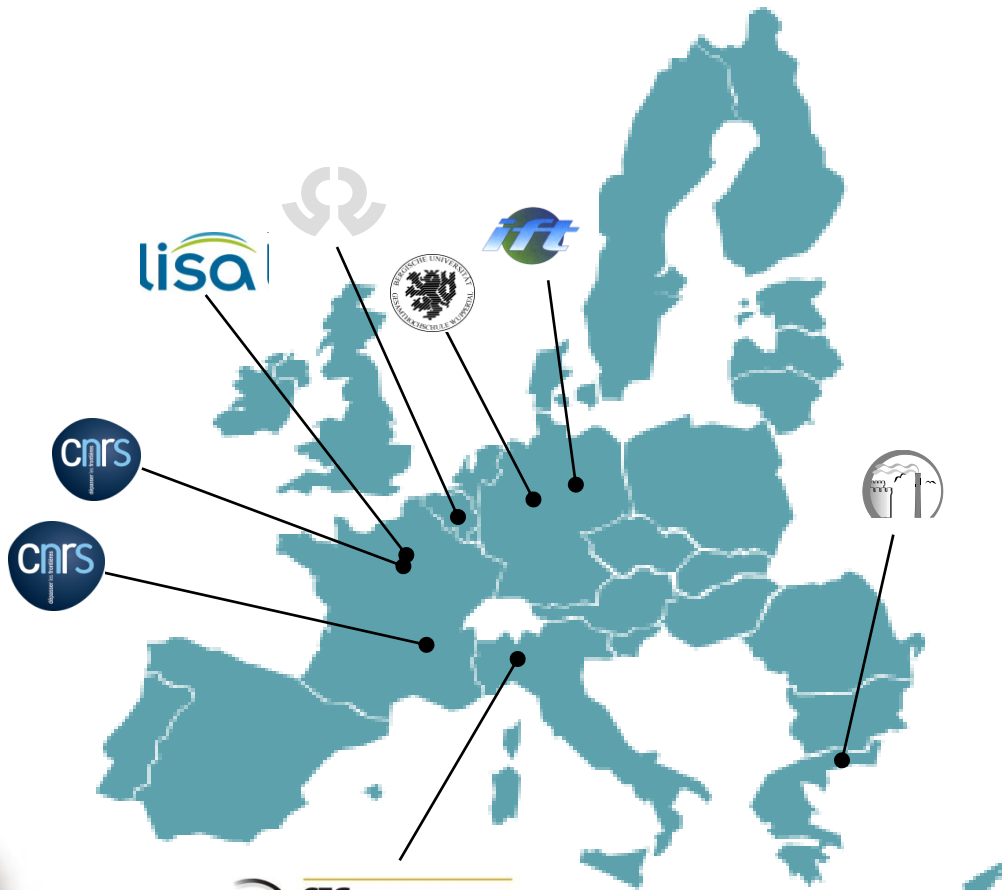
(Wait for next talk)

Projet PhotoPAQ

PhotoPAQ will deliver ...

- A **recommendation report** about the approach in order to apply in an urban environment the photocatalytic materials
- A report concerning the **monitoring methodology** to be adopted in relevant project (e.g. an "intelligent management of a tunnel" by using specific sensors for pollutants)
- A "**demonstration tool**" for the depolluting action, which can be obtained from the numerical modelling actions

Partenaires / Partners



- Institut de recherches sur la catalyse et l'environnement de Lyon**
(Ircelyon, CNRS / Université Claude Bernard Lyon1)
- Institut de combustion, aérothermique, réactivité et environnement**
(ICARE, CNRS)
- Leibniz Institute for Tropospheric Research**
(IFT, Allemagne)
- Bergische University Wuppertal**
(BUW, Allemagne)
- CTG Italcementi Group**
(Italie)
- Laboratory of Heat Transfer and Environmental Engineering**
(LHTEE, Grèce)
- Belgian road research centre**
(BRRC)
- Laboratoire inter-universitaire des systèmes atmosphériques**
(LISA CNRS/Paris Diderot-Paris 7/UPEC).



+ Brussels' Region





PHOTOPAQ

Demonstration of Photocatalytic remediation Processes on Air Quality

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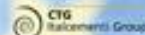
Cleaning the air
by means of
photocatalytic
construction
materials...

Coordinator
Dr Christian George

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Field & laboratory studies
IRCELYON
Institut de recherches sur la catalyse
et l'environnement de Lyon
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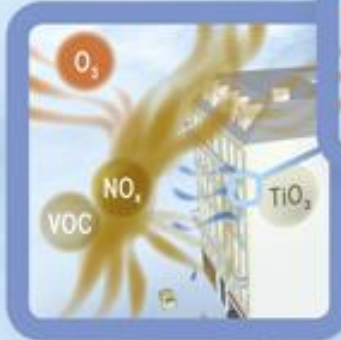
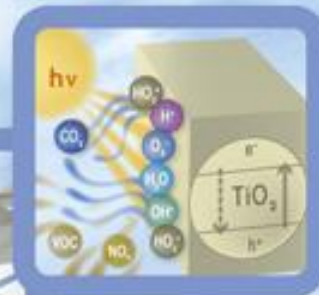
Building materials
CTG Italcementi Group
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Field & laboratory studies
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Numerical modeling
LHTEE
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Heat Transfer and
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Field & laboratory studies
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Field & laboratory studies
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Field & laboratory studies
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Tunnel Léopold II : la campagne de mesures

Tunnel Léopold II : the field campaign

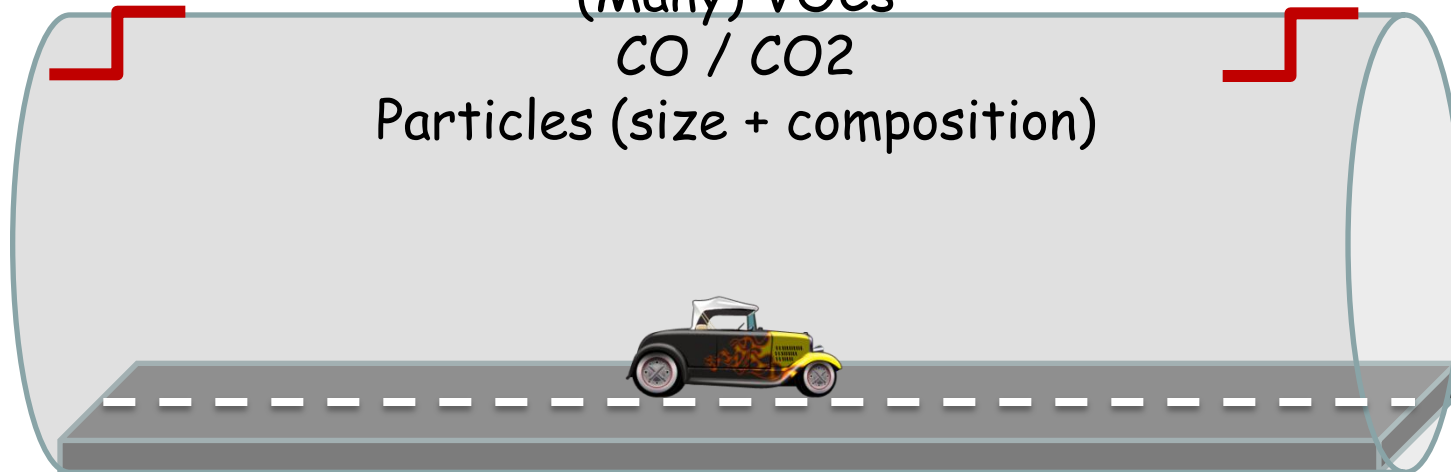
Une caractérisation complète de la qualité de l'air

A full characterization of the air quality

Station 1

Ozone
NO_x / NO_y
(Many) VOCs
CO / CO₂

Station 2



Section rénovée / Renovated section

Tunnel Léopold II : la campagne de mesures

Tunnel Léopold II : The field campaign

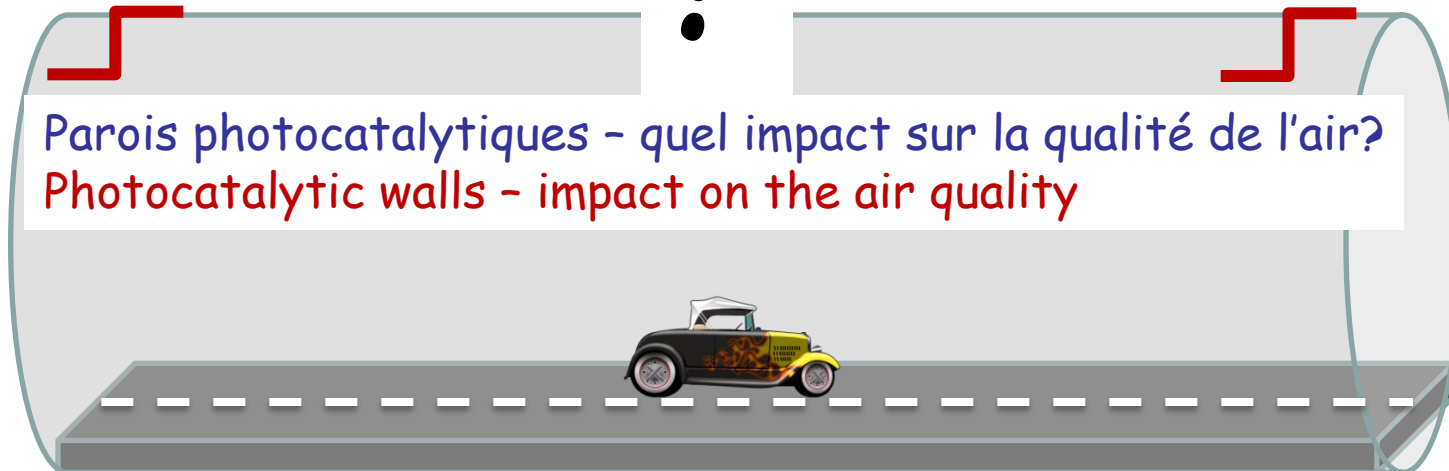
Une caractérisation complète de la qualité de l'air

A full characterization of the air quality

Station 1



Station 2



Section rénovée / Renovated section

Great!
But why are we here?

- Charming and relaxing place,
- Great views on the bay of Ajaccio,
- Nice beaches,
- Good food!

Discussion meeting...

The keyword here is: interactions!

- Relaxing place means relaxed scientists
- Relaxed scientists who are going to interact
- **Make me happy and ask many questions**
- Same game as the one being played at the bar:
 - The one asking the largest number of questions gets free drinks

Organisers

- Wahid MELLOUKI
- Jörg KLEFFMANN
- Hartmut HERRMANN (arriving later tonight)
- Christian GEORGE

The REAL organisers...

- Audrey PHILIPPE-SABOUL
- Christine DELBECQUE
- Alexia MIOLANE

Thanks to them!

Some important informations

- Tonight
 - An introduction to photocatalysis by J.M. Herrmann
 - Le verre de l'amitié at the bar
 - Dinner
 - We will have a private space at the restaurant – to enter use the password: PHOTOPAQ (if you forget this one, you are going to starve)

Some important informations

- Tomorrow
 - An excursion to « Les îles Sanguinaires »
 - The boat will leave at 17:45 sharp
 - We will leave the hotel at **17:20 sharp**
(meeting at the reception)
 - Might be cold on board – take some
« warmer » clothes
 - We will adjust the afternoon session **(starting at 13:45 instead of 14:00)**

