

# Global Emissions Initiative

<http://www.geiacenter.org/>



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**activity**



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**Paulette Middleton**

**GEIA Network Manager**

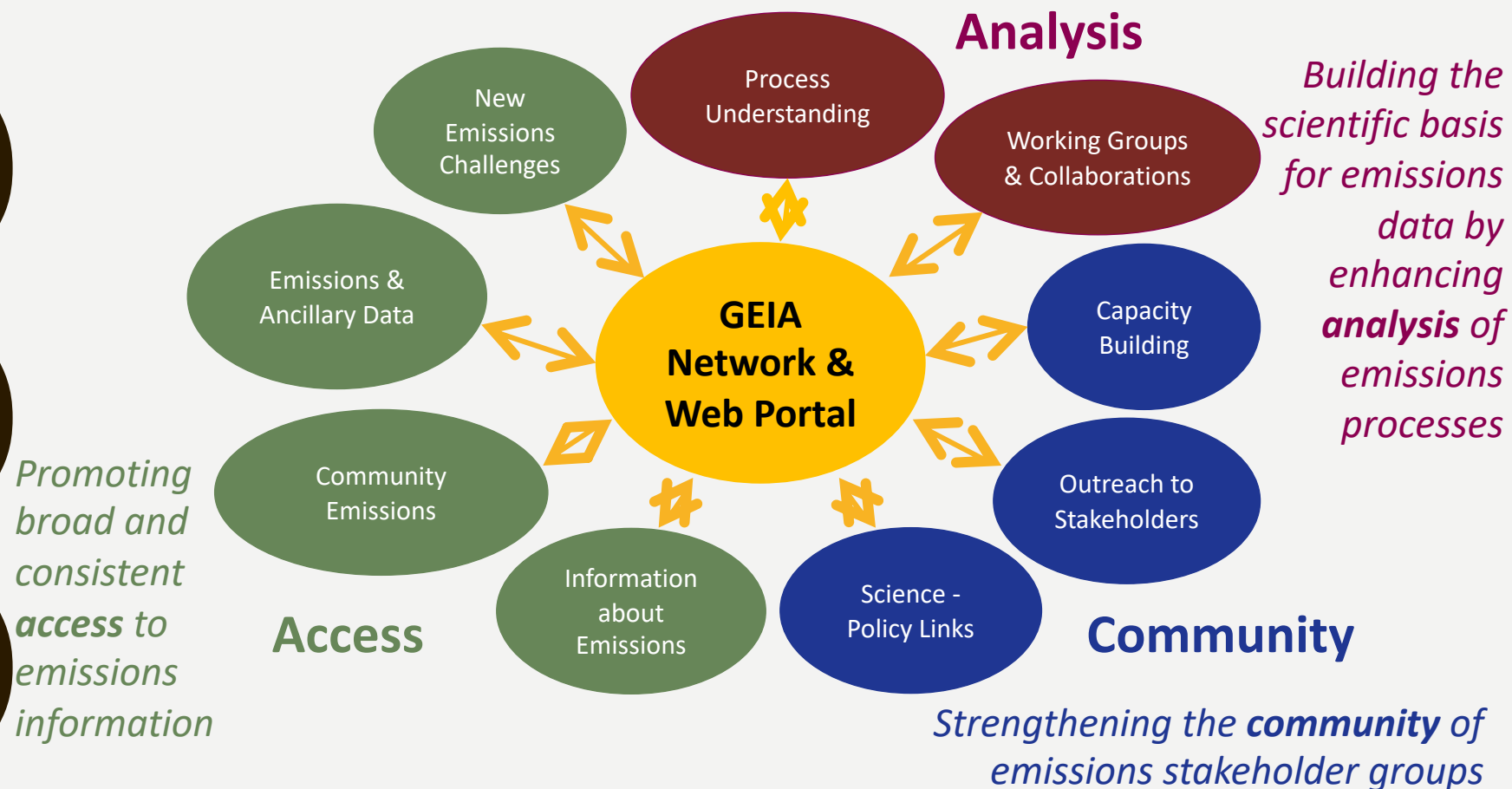
*Panorama Pathways, Boulder, CO, USA*

- Founded in **1990**, a community initiative
- Bridging science, society and policy
- Bringing together people, data, and tools
- Creating and communicating emissions information
- Key forum for emissions knowledge, serving stakeholders in rapidly evolving global society

*GEIA's communication hub: <https://www.geiacenter.org>*



# Core Plans



- Actions and decisions about the atmosphere focus on emissions
- We are in the Century of Accountability
- GEIA serves science and society

# Analysis of emissions : GEIA working groups (WG)

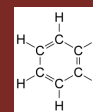
## China Emissions WG (K. He, Q. Zhang)

- *Development of the Multi Resolution Emission inventory for China (MEIC)*
- *Development of Mosaic emission inventory for China*
- *Organizing training workshop and conferences & special issue on top journals*



## VOC Emissions WG (Eva Pfannerstill, P. Dominutti, A. Borbon)

- *Improving global understanding of VOC emissions, including methane*
- *Creating a global directory of VOC observations to enhance discoverability of data*
- *Long-term trends in VOCs*
- *Effects of VOC speciation on secondary pollutant production*



## Latin America/Caribbean Emissions WG (N. Huneus, L. Dawidowski, N. Rojas)

- *Developing and evaluating LAC-specific emissions information*
- *Creating LAC regional emissions database and inventory*
- *Building LAC emissions expert community linked to global efforts*



## Urban Emissions WG (L. Tarrasón)

- *Leveraging techniques for urban emissions characterization*
- *Building capacity in megacities around the world*



## Africa Emissions WG (C. Leal-Liousse, S. Keita, M. Naidoo)

- *Creating a network of experts on African emissions*
- *Evaluating African-specific emission inventories*
- *Creating a regional database (fuel consumption, emission factors and inventories) and a continental wide African emission inventory*



## Near-real-time (NRT) emissions WG (M. Guevara, B. H. Baek)

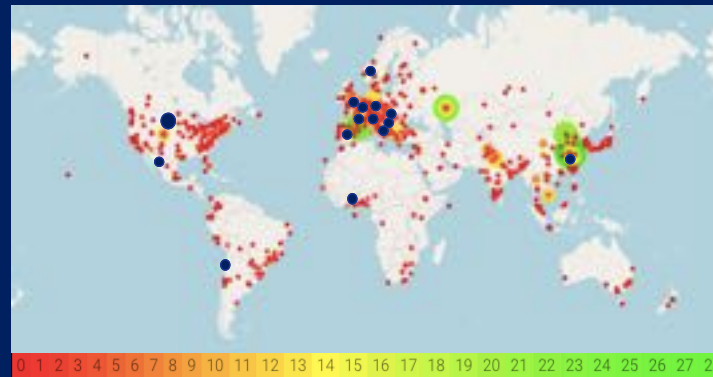
- *Creating a network of experts on NRT emissions and corresponding applications*
- *Review of current practices and applications of NRT emission estimates*
- *Perform benchmarking exercises (i.e. NRT vs official estimates)*
- *Provide recommendations/guidance in the form of a publication*



# Strengthening the community of emission groups

## Network

Real time GEIA users : **more than 2000 people worldwide**  
(Blue points represent GEIA SSC member locations)

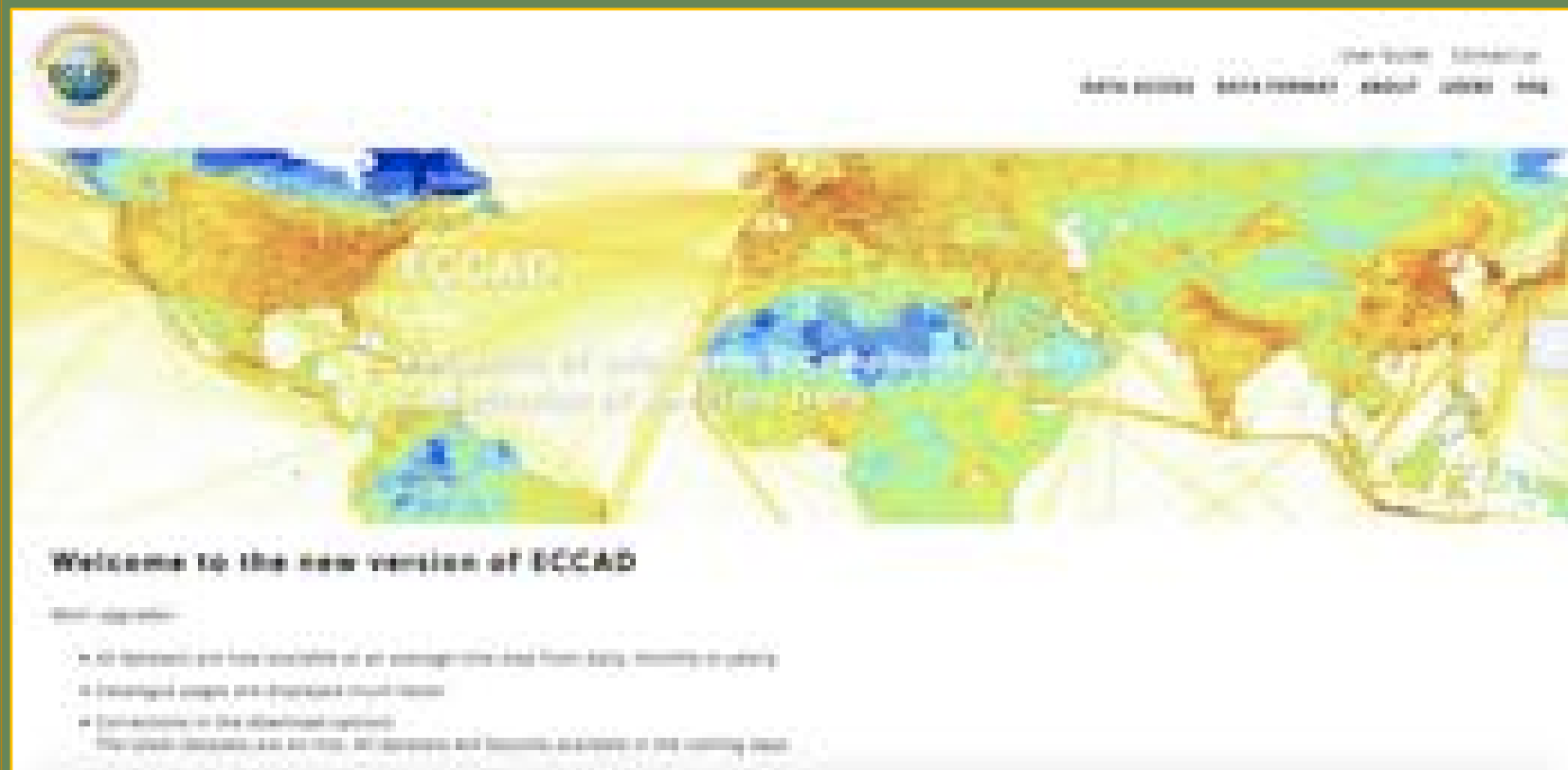


## GEIA Scientific Steering Committee

Beatriz Cardenas (*Mexico*)  
Hugo Denier van der Gon (*The Netherlands*)  
Claire Granier (*France, USA*)/ **Database manager**  
Marc Guevara (*Spain*)  
Nicolas Huneus (*Chile*)  
Greet Janssens-Maenhout (*EU*)  
Monica Crippa (*EU*)  
Johannes Kaiser (*Germany*)  
Sekou Keita (*Côte d'Ivoire*)  
Zbigniew Klimont (*Austria*)

Catherine Liousse (*France*)/ **Co-chair**  
Brian McDonald (*USA*)/ **Co-chair**  
Paulette Middleton (*USA*)/ **Network manager**  
Tom Oda (*USA*)  
Pallavi Saxena (*India*)  
Katerina Sindelarova (*Czech Republic*)  
Erika von Schneidemesser (*Germany*)  
Yuxuan Wang (*USA*)  
Qiang Zhang (*China*)

# *Access to emission informations : the ECCAD portal*



**ECCAD, GEIA's emissions data portal, provides consistent access to inventories and ancillary data with easy-to-use tools for analysis and visualization, to serve scientific research & assessment efforts.**

# News

## **VOC WG : new co-chairs, new objectives**

**Joining the WG ?** Meet E. Pfannerstill and P. Dominutti at the conference, or scan the following QR code/follow the link: [tinyurl.com/GeiaVoc](https://tinyurl.com/GeiaVoc)



**Recent outputs from the previous WG :** von Schneidemesser, E., et al., Comparing urban anthropogenic NMVOC measurements with representation in emission inventories—A global perspective. *Journal of Geophysical Research: Atmospheres*, 128, e2022JD037906, 2023 (<https://doi.org/10.1029/2022JD037906>)

## **COVID 19 WG => NRT WG**

End to COVID-19 as global health emergency officially declared...,but the need for NRT emission information has come to stay.

**Recent outputs from the COVID 19 WG :** Guevara, M. et al., Towards near-real-time air pollutant and greenhouse gas emissions: lessons learned from multiple estimates during the COVID-19 pandemic, *Atmos. Chem. Phys.*, 23, 8081–8101, 2023 (<https://doi.org/10.5194/acp-23-8081-2023>)

## **Latin America/Caribbean Emissions WG**

**Recent outputs from the WG :** Castesana, P., Diaz Resquin, M., Huneus et al., PAPILA dataset: a regional emission inventory of reactive gases for South America based on the combination of local and global information. *Earth System Science Data* [Q1], 2021, 1–34, 2022 (<https://doi.org/10.5194/essd-14-271-2022>)

# News

## **20<sup>th</sup> GEIA conference (June 2023, Brussels)**

153 researchers (62 ECR) from 31 countries; 32 orals, 112 posters : a rich conference!

### **Highlights :**

*Intense GEIA activities on developments of bottom-up emission inventories*

*An increasing number of “top-down” emissions studies*

*Interest of GEIA to develop integrated studies of air pollutants and greenhouse gas emissions.*

*Interest of GEIA to explore links between emission studies and policy implementation*

*Expand GEIA WGs to better incorporate regional (Asia, Africa, Latin America/Caribbean) and urban analyses.*

For more details : see the paper at <https://igacproject.org/sites/default/files/2023-10/IGACnewsOct23.pdf>  
and <https://www.geiacenter.org/community/geia-conferences/2023-geia>

## **21<sup>th</sup> GEIA conference**

**July 9-11, 2025, Abidjan, Côte d'Ivoire**

*(A training workshop will be organized in the frame of GEIA Africa WG  
on July 7-8, 2025)*



## GEIA: Global Emissions Initiative

Improving our understanding of air quality and climate

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**GEIA 21st Conference**  
from July 8-11, 2014, featuring presentations, exhibits, and a keynote by David Solomon, CEO of EPA

### Overview, Working Groups, Events

**Overview | About GEIA**

Quantification of chemical emissions into the air is a key step in improving chemical safety and health in communities, protecting against polluting, those chemical threats to their health as well as global climate. Accurate emissions data are necessary to identify health concerns that result when toxic chemicals released without quality estimates, to track the success of regulatory policies, and to address future options.

The Global Emissions Initiative (GEIA) is a community effort dedicated to improving information exchange and

**Join GEIA!**

Boost your expertise, participate in working groups, and join 500+ peers and 100+ researchers to improve your professional network.

**Already a Member!**

Register to view new content and join the community.

**News**

- [GEIA 2014 Conference](#)  
April 29, 2014
- [GEIA 19th Working Group](#)  
October 29, 2013
- [GEIA 18th Working Group](#)  
September 5, 2013
- [GEIA 17th Working Group](#)  
November 18, 2012
- [GEIA 16th Working Group](#)  
January 25, 2012