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**Workplace  
Health  
Without  
Borders**



# ABOUT US

**World Health Without Borders'** vision is a world where workers, their families and communities do not get ill because of their work. Our mission is to prevent work-related disease around the world through shared expertise, knowledge and skills.



**Imagine a world where everyone goes home at least as healthy as when they came to work.**

# There are 3 billion workers in the world...



Nearly 2 billion of them work in unhealthy and unsafe Conditions

Worker illness and death due to unhealthy workplaces

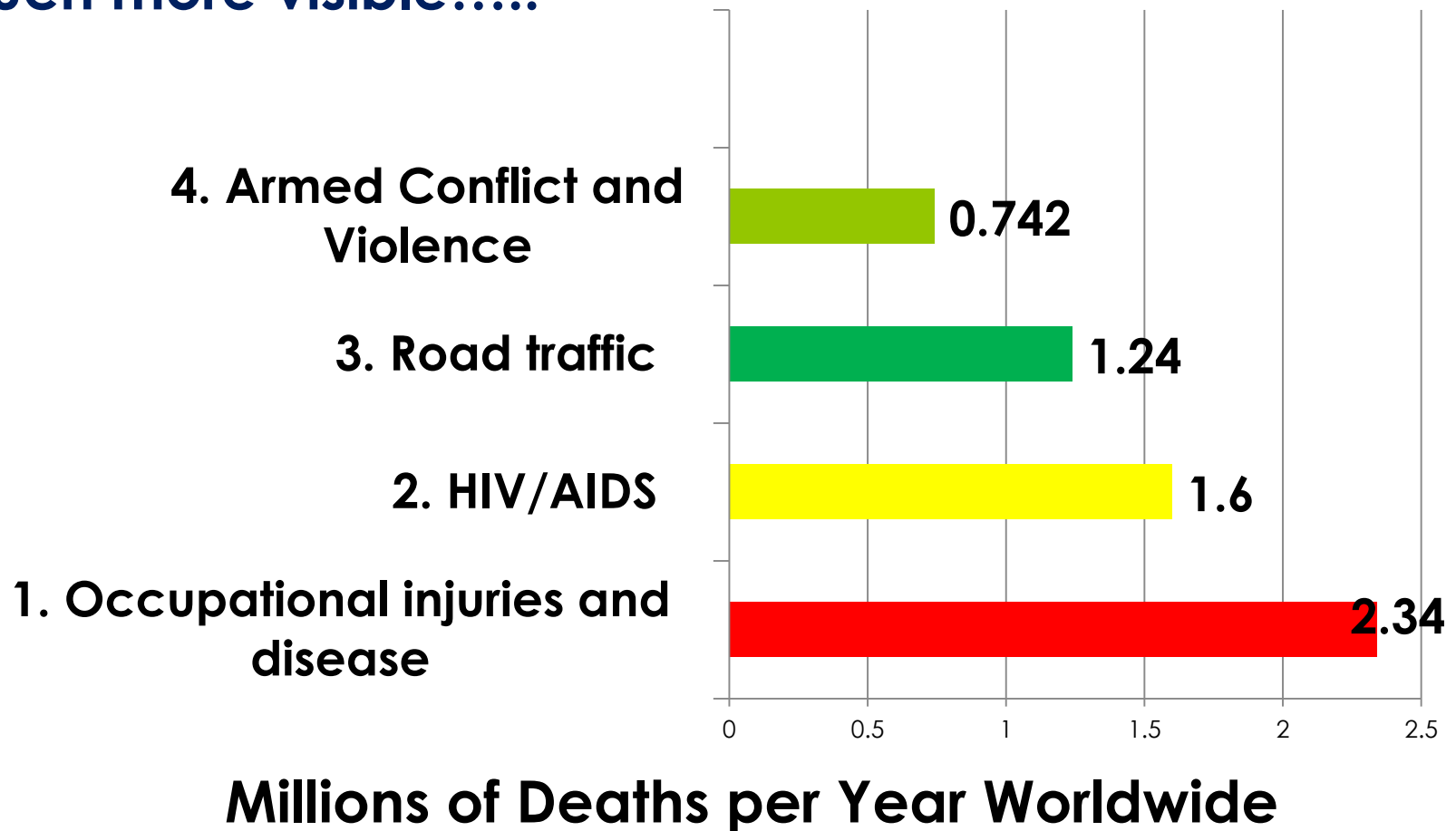
Source:

*World Health Organization (WHO)*

*International Labor Organization (ILO) 2013*



**More people die each year from occupational injuries and disease than from other major causes that are much more visible.....**



**Sources:**

ILO (2013); WHO (2012 deaths); WHO (2010 deaths) ; Amnesty International (2010)

# Hazardous working conditions affect whole families, including children

world-asia-india-25556965

Home UK World Business Politics Tech Science Health Family & Education

Asia China India

## Why India's brick kiln workers 'live like slaves'

By Humphrey Hawksley  
BBC News, Andhra Pradesh

© 2 January 2014

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[bbc.co.uk > news > world-asia-india-25556965](http://bbc.co.uk/news/world-asia-india-25556965)



Zamfara, Nigeria: artisanal gold mining has caused lead poisoning of hundreds of children

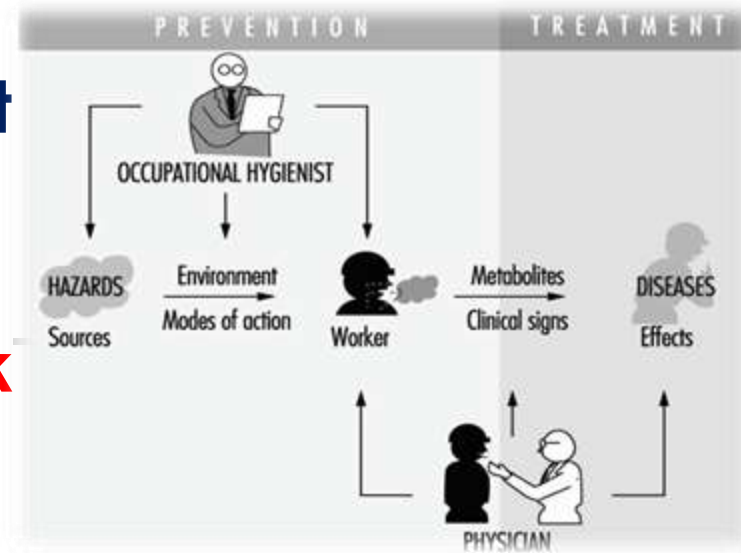


Saeed Awan, Glass Bangle manufacture, Pakistan

# The huge gap in Occupational Health expertise



# Occupational Hygienist prevents ill health caused by work Or sickness related to the work



Canadian Registration Board of Occupational Hygienists



American Industrial Hygiene Association



AUSTRALIAN<sup>®</sup> INSTITUTE OF OCCUPATIONAL HYGIENISTS



South Africa Institute for Occupational Hygiene



IOHA

International Occupational Hygiene Association

# Workplace Health Without Borders: created to help bridge this gap



## Vision

*A world where workers do not get sick because of their work.*

## Mission

*To engage the occupational health professions in ensuring that workers and employers throughout the world have the knowledge and technical means to prevent work-related disease (and injuries).*

**Global Reach** - Network of 400+ people around the world  
- Monthly teleconferences for information exchange

# Workplace Health Without Borders (WHWB)



- ★ **A non-profit international organization**
- ★ **Registered as a charity in Canada**
- ★ **Engages volunteers to address workplace health issues around the world**

# WHWB UK – What do we do?



WHWB members volunteer their time to offer training, mentoring and technical assistance to develop capacity for preventing occupational disease around the world.

Following are examples of our work.

- ✦ **Projects – WHWB\_UK**
- ✦ **Training Programs**
- ✦ **Mentoring Programs**
- ✦ **Professional and Public Awareness**
- ✦ **Support for International NGOs**
- ✦ **WHWB-UK is developing Silica Awareness e-learning**
- ✦ **A competition to design a fan for LEV.**

# Gold Mining and Lead Poisoning (Nigeria)



2010

- ☀ Child mortality due to lead poisoning from Artisanal, Small-scale Gold Mining (ASGM).
- ☀ 735 + deaths (25% of children under 5).

2015 Second outbreak- Niger State;

- ☀ OK International in partnership with MSF is piloting safer mining practices to reduce exposures.



# Silica Exposures in Artisanal Small-scale Gold Mining (ASGM) in Tanzania and Implications for Tuberculosis Prevention

- ★ **First study on silica exposures among small-scale miners conducted in 2014 in Tanzania.**
- ★ **Although the hazards associated with mercury use in artisanal small-scale gold mining (ASGM) have been well documented, no studies had been done on silica exposures in this population.**



Perry Gottesfeld, Damian Andrew, and Jeffrey Dalhoff, *Journal of occupational and environmental hygiene* 12.9 (2015): 647-653.

# Interventions to Reduce Exposures in Processing – Artisanal Refinery

- ★ **Miners care about their health.**
- ★ **It is possible to significantly reduce lead and silica dust exposures in ASGM without destroying the economics.**
- ★ **Whenever and wherever there is outreach on mercury in ASGM, there should be efforts to address silica dust exposures.**
- ★ **Prevention is not popular among global health funders but it is effective.**



# Interventions to Reduce Exposures in Processing – Artisanal Refinery



# Interventions to Reduce Dust Exposures in stone crushing in India

## Water Spray Misting Systems

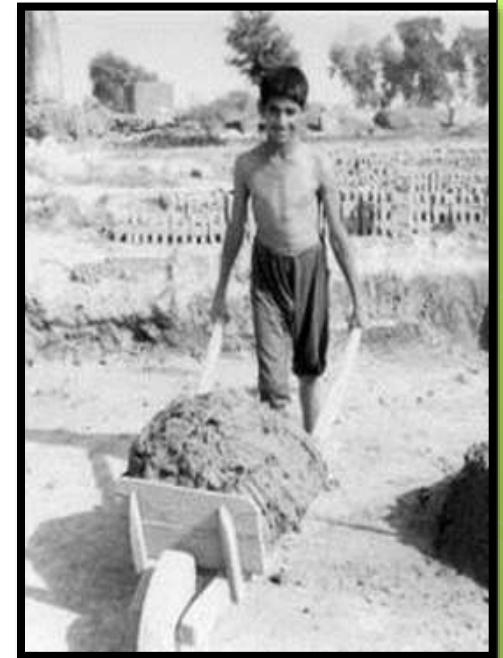
- ★ Proven to be effective at reducing respirable silica dust from stone crushing operations (80%)
- ★ Cost effective systems
- ★ Requires water supply



Gottesfeld P, Nicas M, Kephart JW, Balakrishnan K, Rinehart R. Reduction of respirable silica following the introduction of water spray applications in Indian stone crusher mills. *International journal of occupational and environmental health*. 2008;14(2):94-103.

Our brick plant project is addressing silica and other hazards in brick plants in Nepal, Pakistan and Tanzania

*We are working with the ILO Child Labour Project to help protect the many children around the world who work in brick plants*



*Provided technical assistance on sampling for silica in Pakistan brick plants*

# Training – Odisha India

Sponsored a workshop in Odisha, India to address silica exposure among stone crushers



photo courtesy of Perry Gottesfeld © Occupational Knowledge International

**Partnering with University of Toronto and  
People's Training and Research Centre  
in India on Grand Challenges project:  
*A Toolkit to Protect Workers and  
Families from Occupational Risks***

Helping to prevent silica  
exposure among agate  
polishers in Gujarat India





# Training Programs

Taught Occupational hygiene course to physicians in India

Taught OHTA W201 Basic Principles in Occupational Hygiene, Tanzania



## Partnership with Occupational Hygiene Training Association (OHTA)

- Approved training provider
- Developing silica module
- Recruit translators of OHTA modules



The image shows a screenshot of the Occupational Hygiene Learning website. At the top left is the WHWB logo, a green circle with 'WHWB' in white. To its right is the text 'Workplace Health Without Borders' in a bold, dark blue font, with the tagline 'Occupational Health for Workers Everywhere' in a smaller, lighter blue font below it. The main content area features a photograph of two workers in a dusty, industrial environment; one is shirtless and wearing a white cap, the other is wearing a blue long-sleeved shirt and a blue cap. Below the photo is a dark blue navigation bar with white text: 'HOME CONTACT US ABOUT WHWB BOARD OF DIRECTORS FORUM PROJECTS ✕ RESOURCES ✕ OH LEARNING'. Underneath the navigation bar, the text 'OH Learning' is displayed in a large, bold, dark blue font. Below this is the logo for 'OH learning.com', which consists of four stylized human figures in green, blue, red, and yellow, followed by the text 'OH learning.com' and the tagline 'advancing occupational hygiene worldwide' in a smaller font. At the bottom of the page, a paragraph of text reads: 'The Occupational Hygiene Training Association (OHTA) is a not-for-profit organisation of volunteers. We aim to reduce the global burden of ill health from the work environment by promoting better standards of occupational hygiene practice around the world.'

# WHWB – UK Launches Silica Awareness e-Learning

## Course Summary

- Crystalline silica is a very common naturally occurring mineral.
- Exposure to RCS is common in many work environments.
- Exposure to RCS can lead to serious or fatal disease.
- Appropriate control measures can reduce the risk of disease.

# Mentoring

Our mentor program matches experienced occupational health and hygiene professionals with mentees who want technical and career guidance



Facilitated  
Occupational  
hygiene  
equipment  
donations to  
Uruguay, Pakistan,  
Tanzania

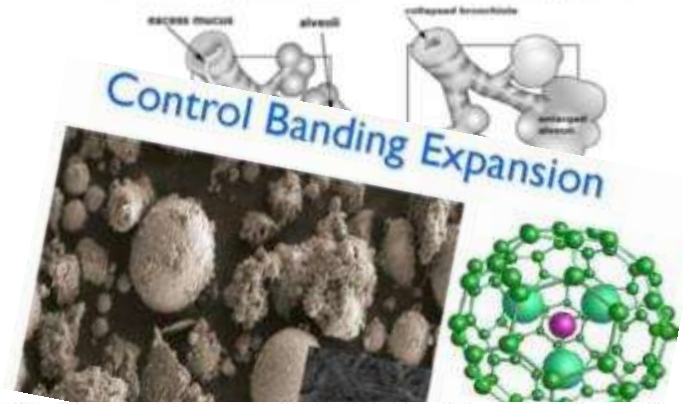


# Inform the OH profession on important issues related to global occupational health

*Round Tables and presentations on global OH at professional conferences*

## Chronic obstructive pulmonary disease (COPD)

COPD encompasses chronic bronchitis and emphysema.



**Control Banding Expansion**

Is the Thermal Work Limit a better heat stress indicator than the WBGT in hot climates?

A Comparison of Heat Stress Indices WBGT and Thermal Work Limit



**IH-STAI**  
**IH-MOD**  
**IH-SkinPerm**

*Information sessions at every monthly teleconference*



Broadening the scope of occupational health ethics



# Where in the World is my Classroom?



**UIC** SCHOOL OF  
UNIVERSITY OF ILLINOIS  
AT CHICAGO **PUBLIC HEALTH**  
Environmental and Occupational  
Health Sciences Division

Global Program  
in Occupational  
Health Practice  
(GPOHP)



Program is completely online



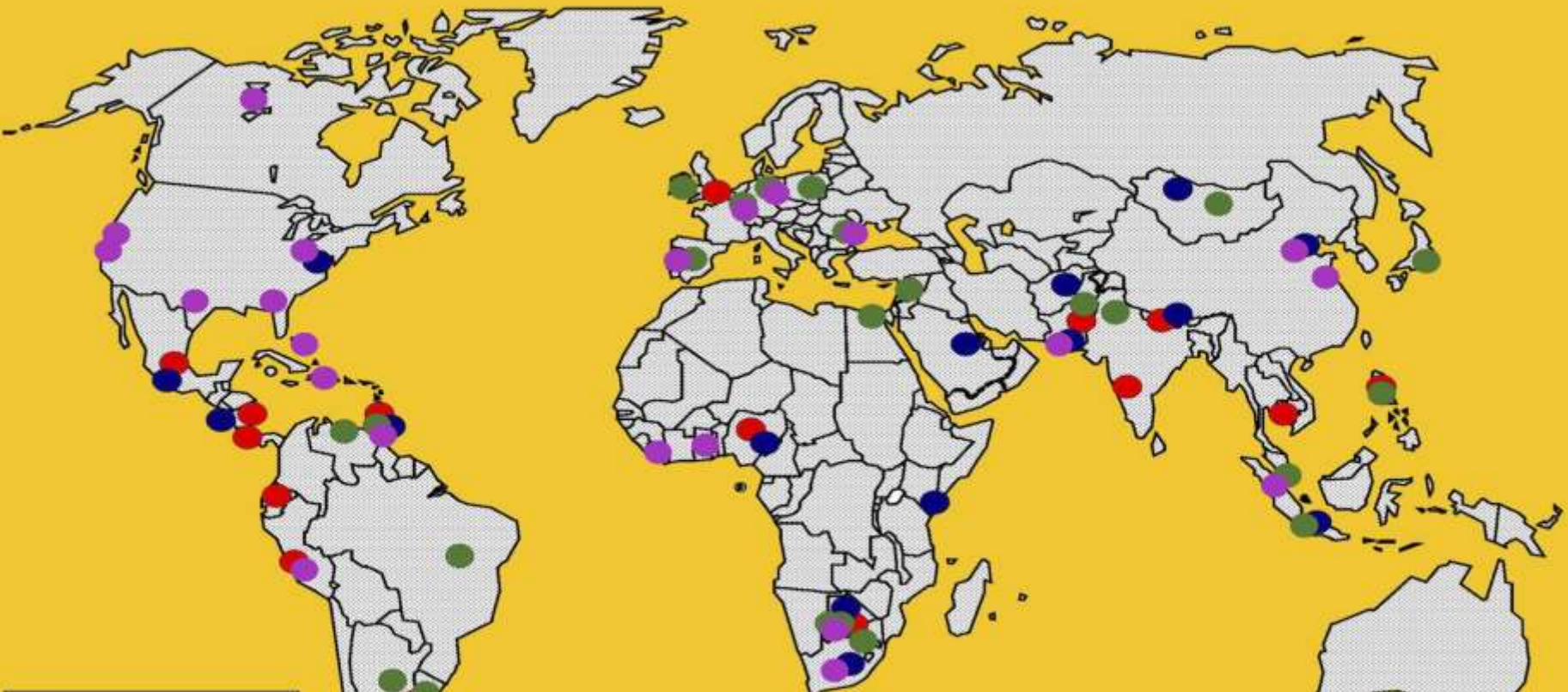


# 150+ Students – 41 Countries

- Abu Dhabi
- Argentina
- Azerbaijan
- Bahamas
- Bosnia/Herzegovina
- Botswana
- Brazil
- Canada
- China
- Dominican Republic
- Egypt
- Germany
- Ghana
- Haiti
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Jamaica
- Kenya
- Liberia
- Libya
- Luxembourg
- Madagascar
- Mexico
- Nigeria
- Pakistan
- Peru
- Poland
- Romania
- Singapore
- South Africa
- Switzerland
- Trinidad/Tobago
- Uganda
- United Arab Emirates
- United Kingdom
- Uruguay
- United States
- Zambia

# 10 Years – 41 Countries

Where do our participants come from?

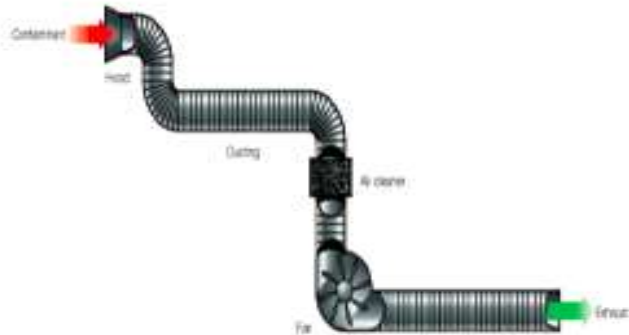


●	2009-2010 trained 18
●	2010-2011 trained 25
●	2011-2012 trained 36
●	2012-2013 trained 25



**UIC** SCHOOL OF PUBLIC HEALTH  
UNIVERSITY OF ILLINOIS AT CHICAGO  
Environmental and Occupational Health Sciences Division

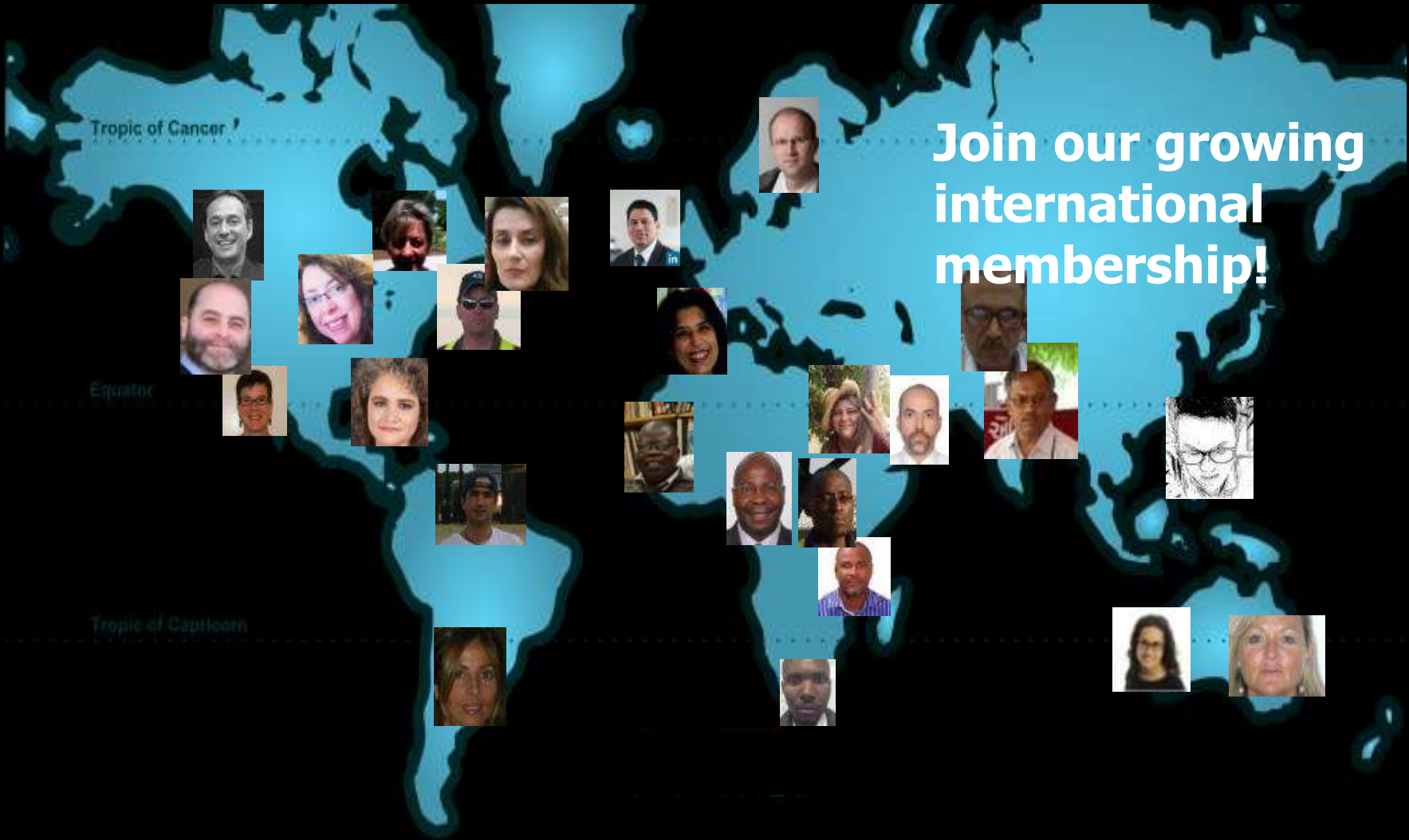
# WHWB – UK Launches Engineering Fellowship Fan Competition



**Aim** is to produce a concept design for a fan for a LEV system to help protect an individual worker at a desk based workstation.

The parts should be comprised of easily sourced, simple, cheap, ideally waste/recyclable materials – hence the original term “Rubbish Fan”

**Join our growing international membership!**



# Learn more and get in touch!



- ✦ Join WHWB: [www.whwb.org](http://www.whwb.org)
- ✦ Volunteer - we need help with projects, communications, fundraising
- ✦ Donate through our web site
- ✦ Participate in our monthly teleconferences
- ✦ email: [info@whwb.org](mailto:info@whwb.org)
- ✦ See our video: <https://vimeo.com/74343804>
- ✦ Find us on **Facebook, Twitter (@WHWB3) & LinkedIn**





# Acknowledgement

