# BRICS*plus* Network, BRICS*plus* Universities Network and Joint Education and Research Projects in Human Factors and Ergonomics

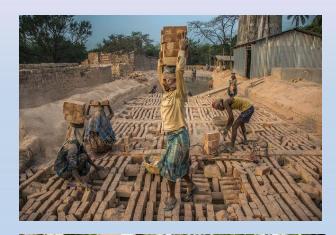
July, 2018, Saint Petersburg

Jose Orlando Gomes, Vice-Presidente & Tesorero
International Ergonomics Association

☐ △ Universidad Federal de Rio de Janeiro



### Reality We are Facing -1









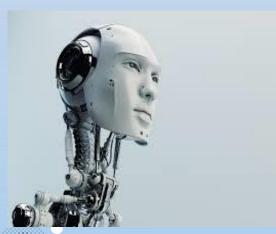


### Reality We are Facing - 2











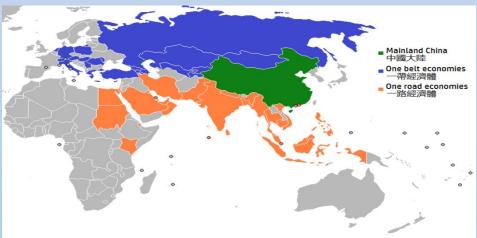




### Globalization-Disparity-Informal Economy











4

### Low Cost Solutions





**Conventional Drumstick Plucking** 



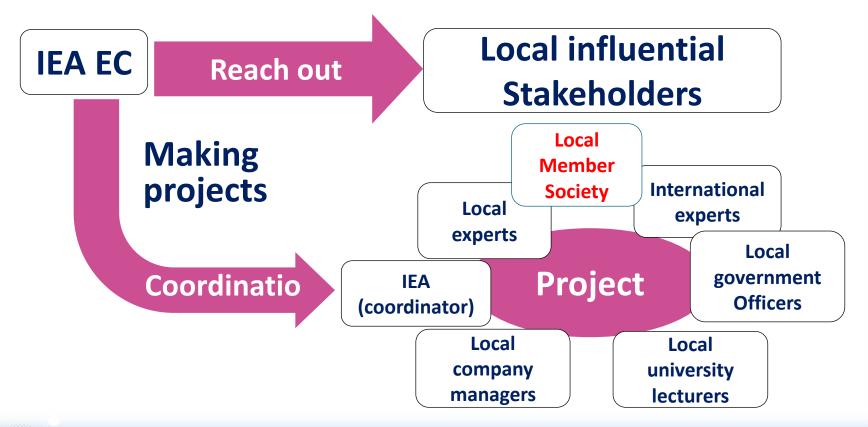


**Indian Approach** 



**Western Approach** 

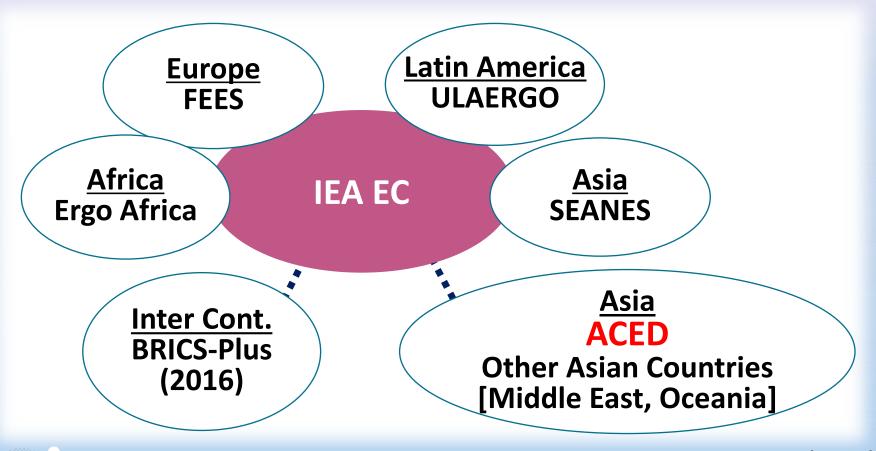
### Policy: Stakeholder Engagement





So far, successful in Latin America and Africa.

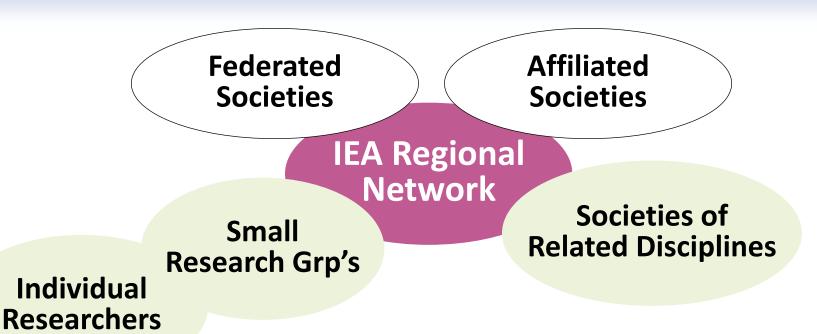
### Policy: Work with IEA networks





Asian Council on Ergonomics and Design (ACED)

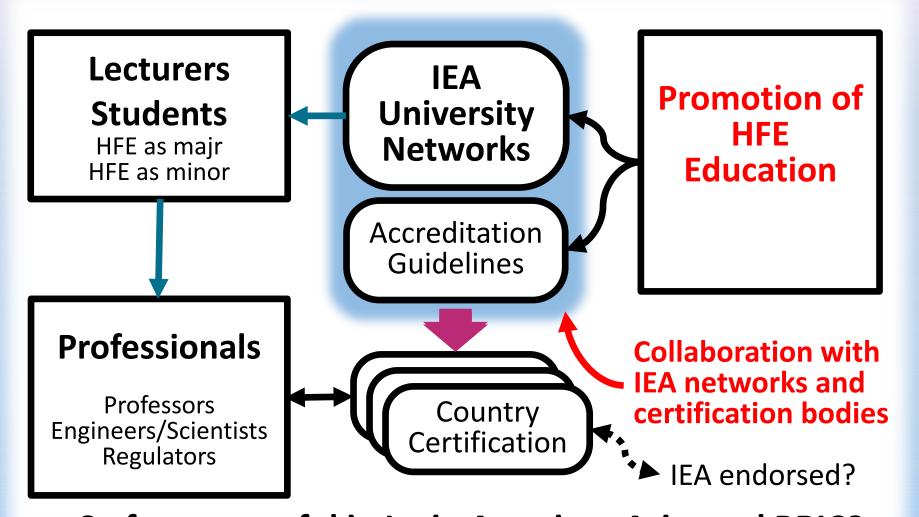
### Policy: Reinforce IEA networks



Reinforce the capacity of network So far, successful in Latin America [, Asia, and Africa]



### Example from Latin America

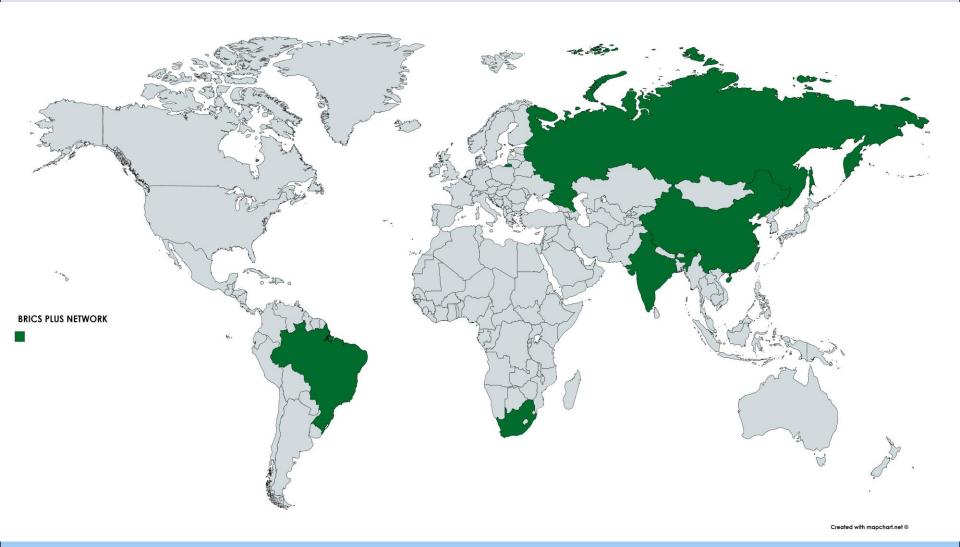


So far, successful in Latin America, Asia, and BRICS.

## IEA initiatives: Peru, Panama, Colombia, Costa Rica, ErgoAfrica, BRICS...



### IEA initiatives: BRICS...(cont.)



## A brief history about BRICS Plus Network on HFE:

- Conversations started 2011,
   Grahamstown, South Africa
- Huge population
- Huge inequalities
- Natural resources
- Industrial basis....



### BRICS Plus Network on HFE Foundation,

Beijing, China, December 2016





Abergo, Brazil

IREA, Russia

ISE, India

CES, China

ESSA, South Africa



## BRICS Universities Collaborative Graduate Education Program, Xiamen, China, Sept, 2016

MOU signed



### **BRICS Universities Collaborative Graduate**

### Education Program

- 7 Universities (foundation) plus others coming
- Brazil
- -Federal University of Rio de Janeiro
- Russia
- -Saint Petersburg State University
- -Electrotechnical University of Saint Petersburg
- -Moscow State University



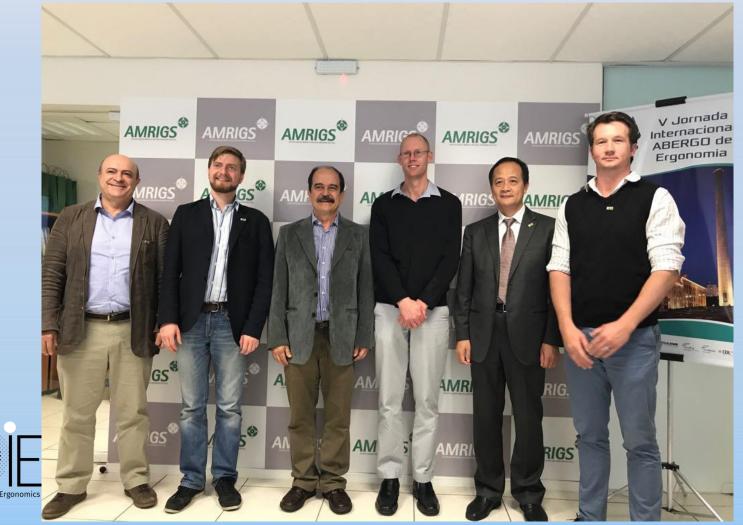
## BRICS Universities Collaborative Graduate Education Program(cont.)

- India
- -India Institute of Technology
- -National Institute of Industrial Engineering
- China
- Tsinghua University
- South Africa
- -Witwatersrand University
- -Rhodes University



## 1st. Meeting BRICS Plus Network on HFE, Porto Alegre, Brazil, September 2016

By-laws drafted



### Goals so far:

 Evaluating the actual education programs in ergonomics, determining the needs and demands in each country.

 The development of a BRICS summer school, starting from 2018 in Brazil and Russia.

 The development of joint research projects with sharing across laboratories.



### Goals so far:

- The creation of a joint textbook on activity analysis for postgraduate students in BRICS countries by academics from all five BRICS countries and published simultaneously in English, Portuguese, Mandarin and Russian.
- The development of a basic module "The basic principles of Human Factors and Ergonomics" for use in all five countries, to be given in English by academics from all countries.
- On line training program (Master)



BRICS Plus Network on HFE affiliation to IEA next Council Meeting, Florence, Italy, August 2018.

BRICS Plus Network on HFE Symposium, Florence, Italy, next August.



#### Thank you very much!

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