CLEAN ENERGY MINISTERIAL

Accelerating the Transition to Clean Energy Technologies

International Smart Grid Action network (ISGAN)

ISGAN international smart grid action network

Achievements and prospects

IEA CHP/DHC Workshop, Paris 27-28 May

Yonghun Jung, Secretary General

Bo Diczfalusy, Vice-Chair

Clean Energy Ministerial 5 (CEM5) 12–13 May 2014, Seoul, Republic of Korea

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INITIATIVE STRUCTURE

Current Status: 13 Disaggregated Initiatives

Participation in Clean Energy Ministerial Initiatives

July 2013

	AUSTRALIA	BRAZIL	CANADA	CHINA	DENMARK	EUROPEAN COMMISSION	FINLAND	FRANCE	GERMANY	INDIA	INDONESIA	ITALY	JAPAN	KOREA	MEXICO	NORWAY	RUSSIA	SOUTH AFRICA	SPAIN	SWEDEN	UNITED ARAB EMIRATES	UNITED KINGDOM	UNITED STATES
21ST CENTURY POWER					●		●		●	■					●				●				■
APPLIANCES (SEAD)	●	●	●			●		●	●	■			●	●	●		●	●		●	●	●	■
BIOENERGY		■			●							●								●			
BUILDINGS AND INDUSTRY (GSEP)	●		●		●	●	■	●		●			■	●	●		●	●		●			■
CARBON CAPTURE (CCUS)	■		●	●				●	●				●	●	●	●		●			●	■	●
CLEAN ENERGY POLICY	■				●			●		●		●	●		●			●		●	●		■
ELECTRIC VEHICLES (EVI)				■	●		●	●	●	●		●	●					●	●	●		■	■
ENERGY ACCESS (GLOBAL LEAP)												●										●	■
HYDROPOWER		■						●							●	●							●
SMART GRID (ISGAN)	●		●	●		●	●	●	●	●		■	●	■	●	●	●	●	●	●		●	■
SOLAR AND WIND	●	●			■	●		●	■				●	●	●	●		●	■		●	●	●
SUSTAINABLE CITIES (GSCN)				●	●		●													●	■		
WOMEN IN CLEAN ENERGY (C3E)	●				●										●	●		●		●	●	●	■

Non-CEM governments, nongovernmental organizations, and private businesses also participate in selected initiatives.

■ Lead ● Participant

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Objectives of Revised Strategy

Realize the potential through increased ambition and engagement

- Elevate discussions to reinvigorate Minister-level participation and engagement
- Ensure initiative work is ambitious, relevant and continues to progress
  - Gain commitments for scaled-up financial, technical and political support for initiatives
  - Align initiatives under thematic pillars
  - Identify ways initiatives can support domestic action
- Create more value for Ministers and other participants in roundtables
- Raise the public profile of the CEM and its achievements

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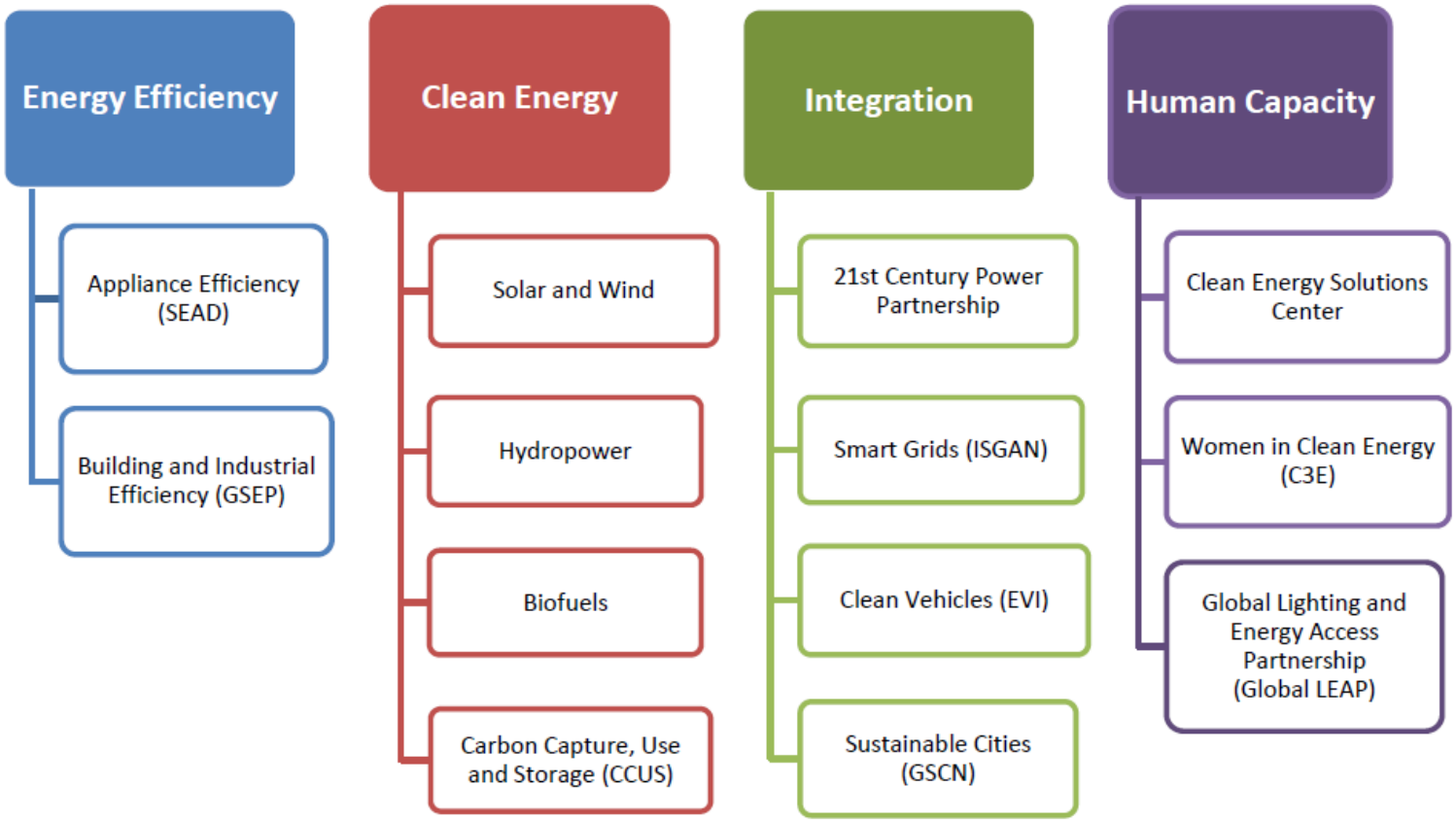
INITIATIVE STRUCTURE

Proposed Structure: CEM Thematic Pillars

- Focus on thematic pillars and progress within them to streamline activities



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Ministerial direction at previous CEM´s

- **- CEM 4:** Discussed ways to enhance linkages between initatives (e.g. ISGAN, 21CPP and EVI)
- **- CEM 5:** Considered new initiatives: Water and energy nexus, Market accessibility of clean energy products, Clean energy finance. Emphasized need to streamline process.


ISGAN
international smart grid action network

Goals and Objectives

ISGAN = Platform to bring high-level government attention and action to accelerate the development and deployment of smarter, cleaner electricity grids around the world.

Objectives:

- Build a better global understanding of smart grid systems and applications, and the value they can offer for both developed and developing economies;
- Address gaps in knowledge and tools related to smart grids; and,
- Improve peer-to-peer exchange on lessons learned, best practices, and evaluation of smart grid technologies and concepts.

Current Work Streams (1 of 2)

Annex 1: Global Smart Grid Inventory	• Assess motivating drivers & technology priorities for smart grids • Inventory key projects • Share lessons learned peer-to-peer
Annex 2: Smart Grid Case Studies	• Develop books of case studies on priority smart grid topics, • Identify common themes and best practices • Foster improved peer-to-peer exchange
Annex 3: Benefit-Cost Analyses and Toolkits	• Assess methodologies available to establish the base level of smartness for an electric grid and evaluate costs and benefits of grid modernization investments • Develop new tools and toolkits as needed
Annex 4: Synthesis of Insights for Decision Makers	• Synthesize complex information and data on smart grids • Foster other forms of outreach, education, and strategic communications across the full range of ISGAN activities
Annex 5: Smart Grid International Research Facility Network	• Coordinate joint evaluation of smart grid concepts, technologies and testing protocols across a network of research facilities, test beds, and applicable demonstration projects

Current Work Streams (2 of 2)

Annex 6: Power T&D Systems	• **Assess emerging needs in technology, policy, and regulation for transmission and distribution grids, and their interfaces** • **Take into account smart grid drivers, in particular, RE integration**
Annex 7: Smart Grid Transitions – on Institutional Change	• **Identify and share best practices for managing the institutional changes that accompany the technological transformation to smart grids**
ISGAN Award of Excellence	• **Recognize excellence in smart grid projects to foster adaptation or replication of proven ideas in other markets, countries, and regions.**
ISGAN Smart Grid Virtual Training Academy	• **Develop online curricula and training materials to support the development of a 21st century work force to accompany a 21st century grid**
EVI-ISGAN Collaboration	• **Prepare a public-private roundtable at CEM5 focused on the challenges and opportunities of integrating EVs into the smart grid and overall power system**

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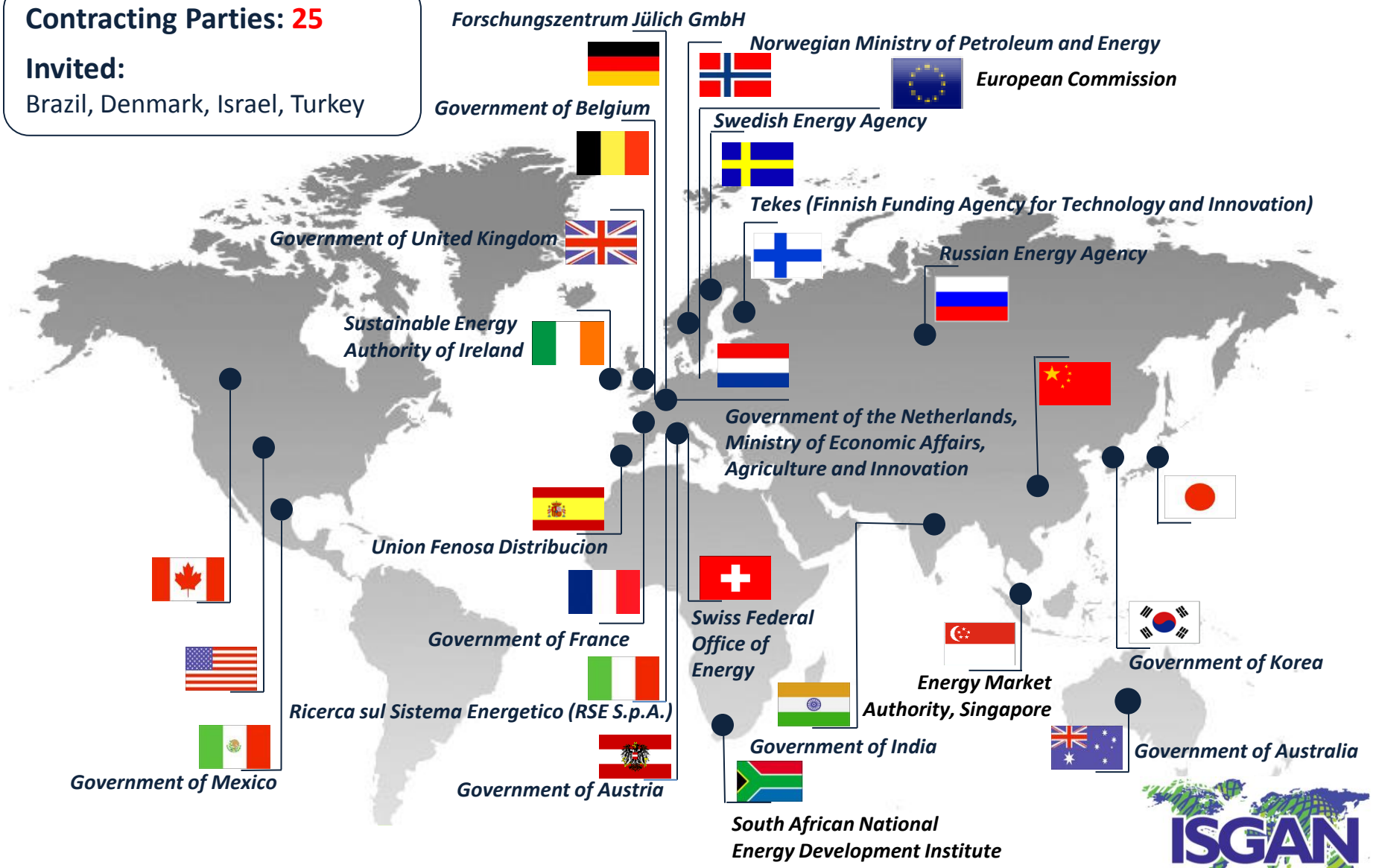
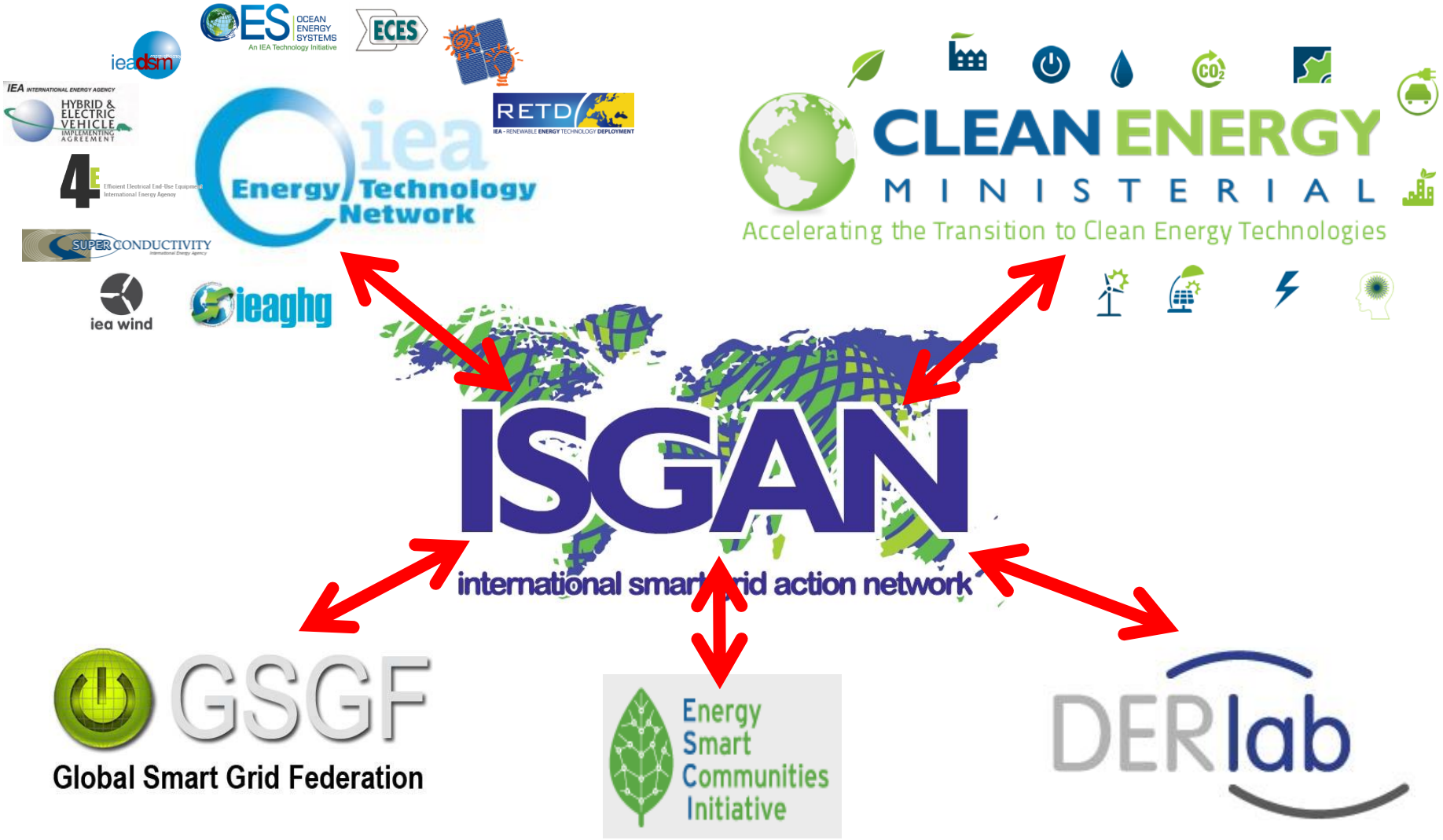
Current Participants and Partners

Contracting Parties: 25

Invited:
Brazil, Denmark, Israel, Turkey



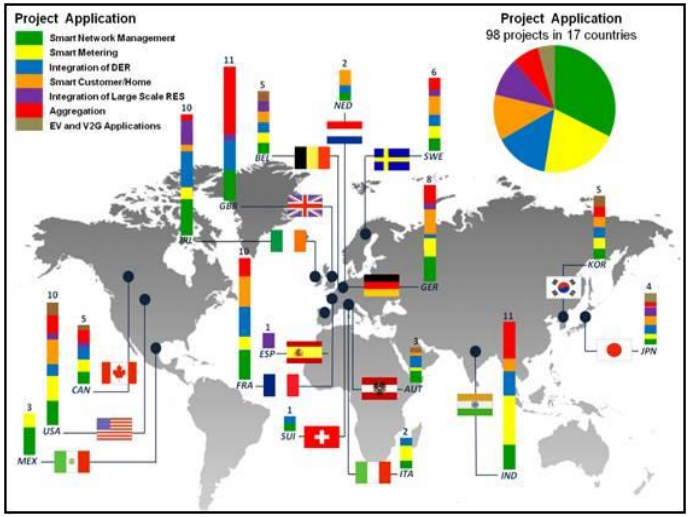
Current Participants and Partners



... and more

Progress Towards Goals and Objectives *(Examples)*

- Launched inaugural **Award of Excellence** competition
  Winner *anounced at CEM 5 in Seoul, Korea*
- Opened second biennial assessment of smart grid drivers and technology priorities
- Prepared a book of **case studies on demand management** and an updated version of a case book on AMI, both at CEM5
- Developed an online database of about 100 key smart grid projects across 17 ISGAN countries
- Conducting joint evaluation of draft test protocols for advanced, grid-facing functions of PV inverters



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Prospects for the future

- **Integration with other CEM initiatives**
- **Geographic coverage**
- **Scope**
- **Outreach**
- **Resources**

Thank you!

http://www.iea-isgan.org/