



**Asia-Pacific
Economic Cooperation**

2011/SOM2/CTI/SEM/002

Dissemination of Environmental Technologies in APEC: State of Play

Submitted by: ICTSD



**Seminar on Dissemination of
Environmental Technologies
Big Sky, United States
11 May 2011**

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& SUSTAINABLE ENERGY

Dissemination of Environmental Technologies in APEC: State of Play

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ICTSD - 国际贸易和可持续发展中心



International Centre for Trade
and Sustainable Development



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Overview

- Value chain of EGS
- IP, Trade and Investment
- Challenges and opportunities of dissemination of environmental technologies



Definition TT

“The broad set of processes covering the flows of knowledge, experience and equipment amongst different stakeholders such as governments, private sector entities, financial institutions, NGOs and research/educational institutions”

IPCC



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Value-chain of EGS

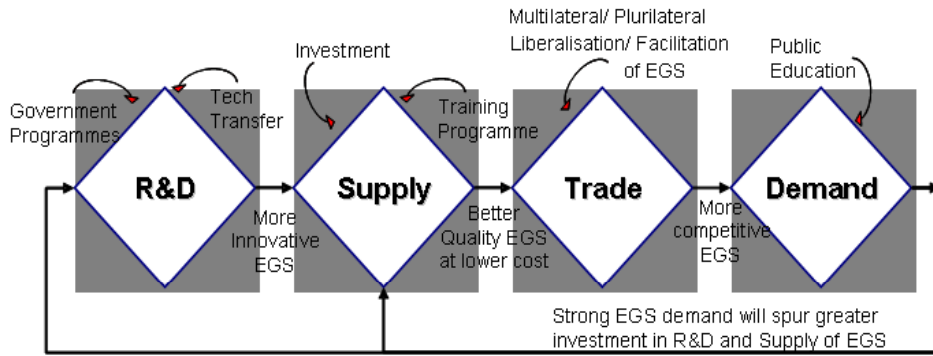


Figure 1: Virtuous Cycle of Success for the EGS Framework

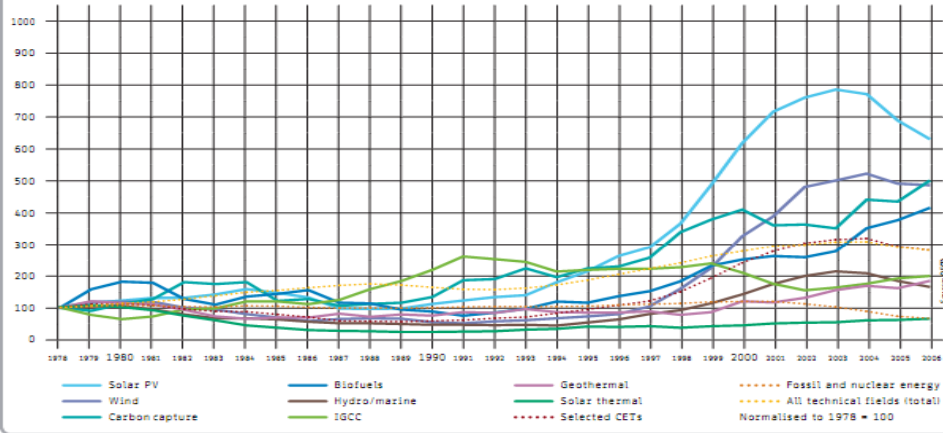


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Intellectual Property

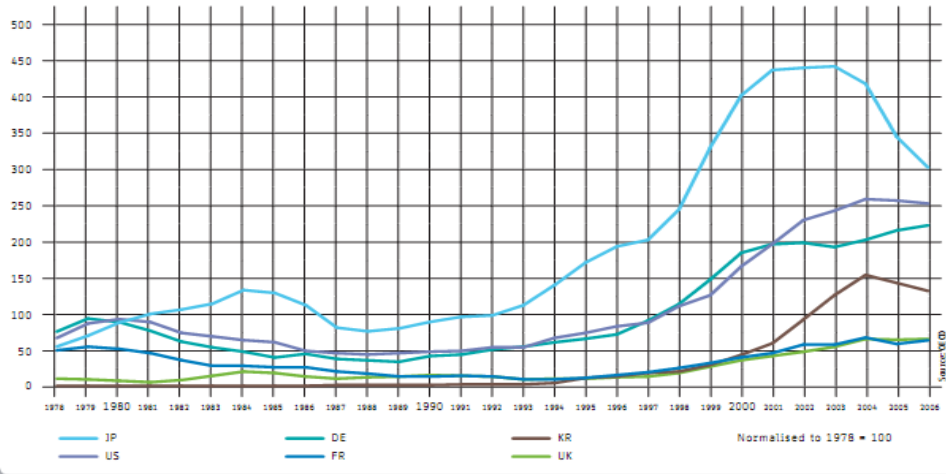
04 Growth rate of claimed priorities patenting for the selected CETs



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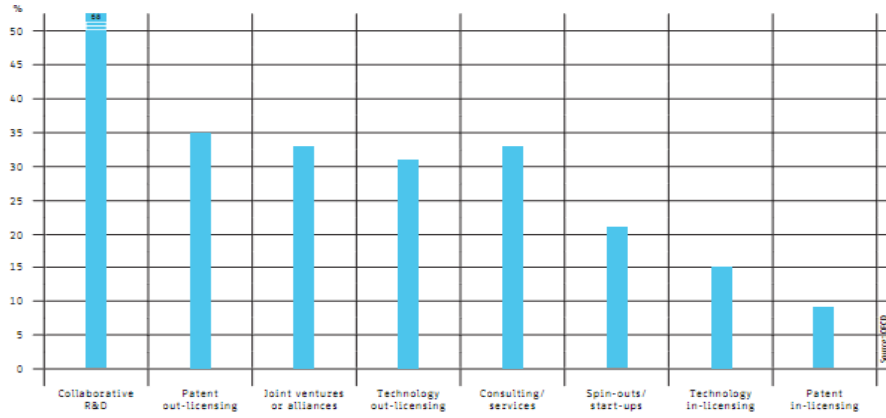
05 Countries leading patenting activity in CETs



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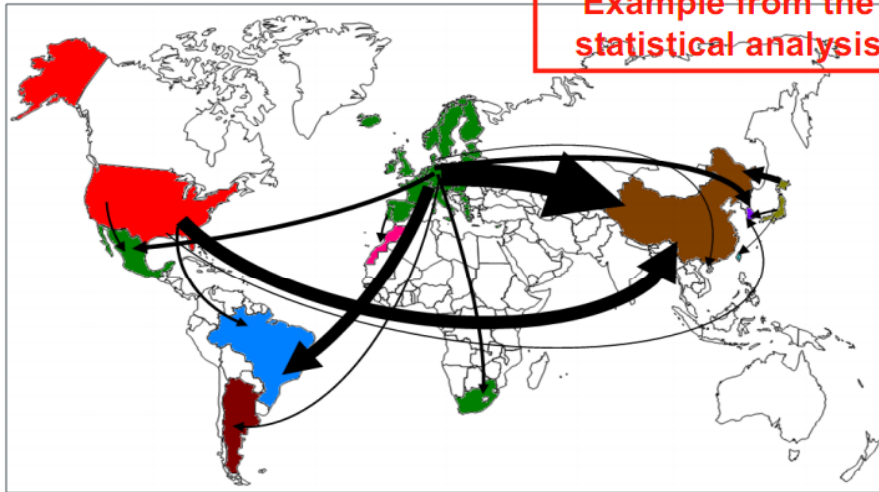
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35 Share of responding organisations reporting a high intensity in their use of different IP-based activities relating to CET patents and technology (Part A, Question 5)

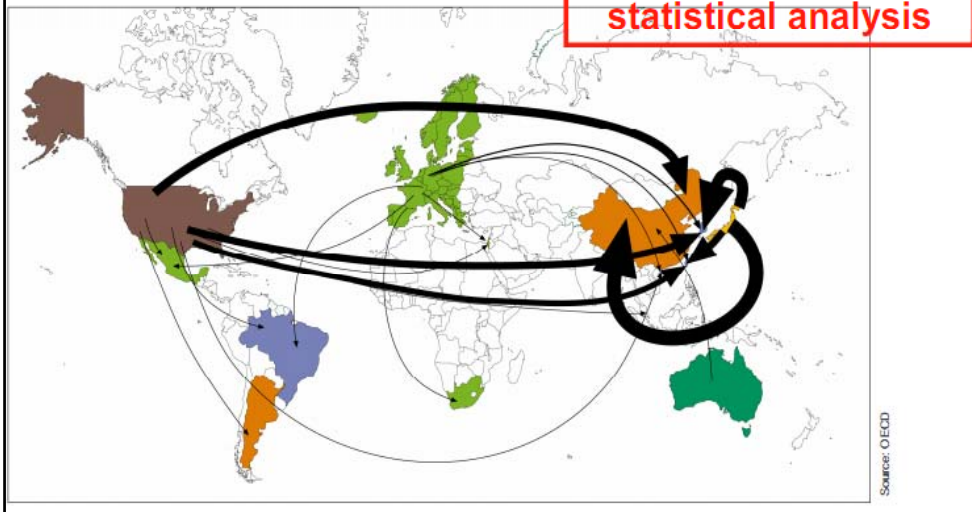


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Patenting trends between countries: wind power

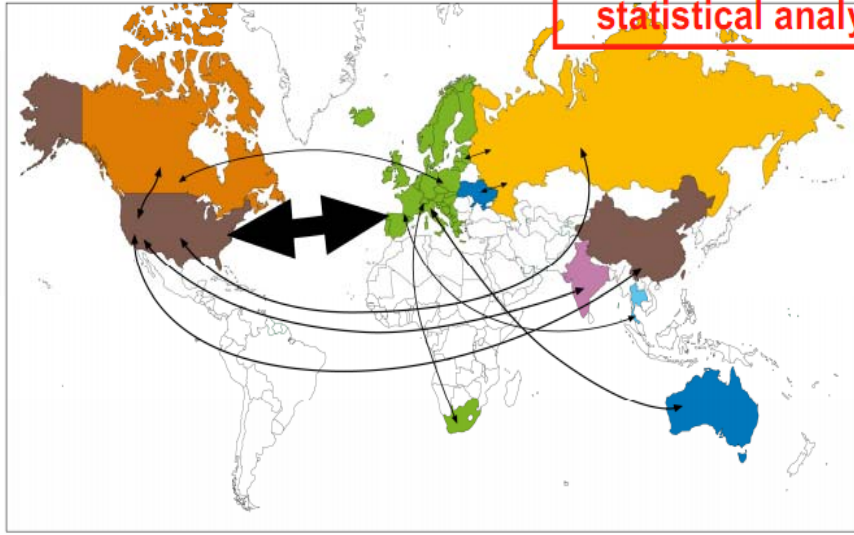


Patenting trends between countries: solar PV



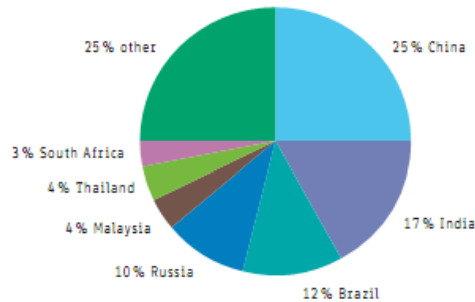
Co-inventions: wind

Example from the statistical analysis



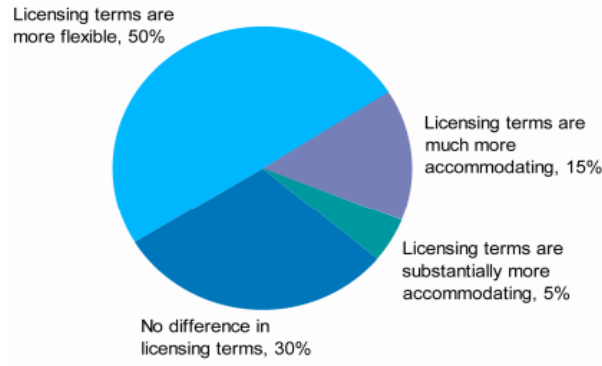
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37 Developing countries with which respondent organisations have been most involved with regard to licensing agreements or other IP-based commercialisation activities involving CETs (Part B, Question 2)



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Opportunities



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Value-chain of EGS

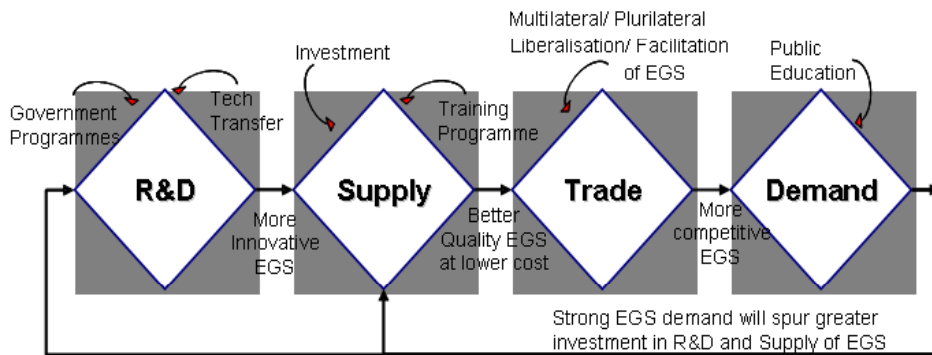


Figure 1: Virtuous Cycle of Success for the EGS Framework

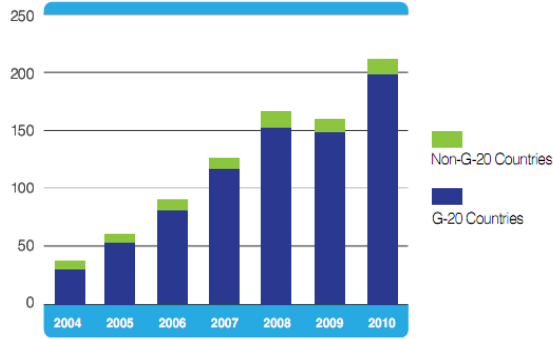


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Investment

FIGURE 1: GLOBAL AND G-20 CLEAN ENERGY INVESTMENT, 2004-10 (BILLIONS OF \$)



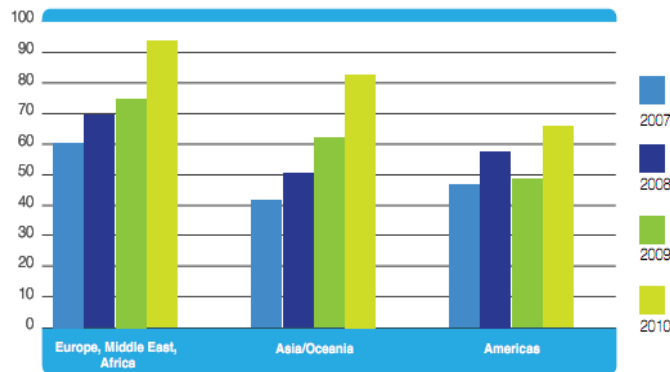
* Does not include research and development investments



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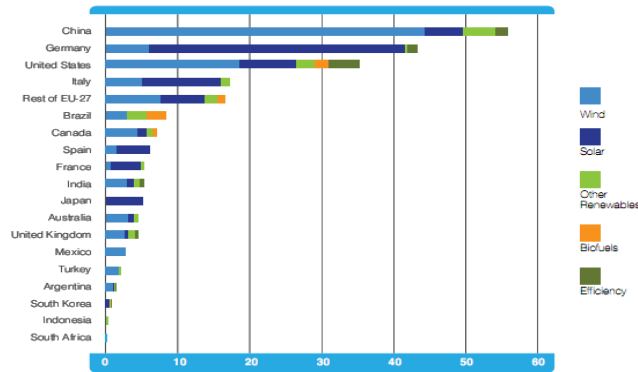
FIGURE 2: TOTAL INVESTMENT IN CLEAN ENERGY BY REGION 2007-10 (BILLIONS OF \$)



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FIGURE 7: INVESTMENT BY COUNTRY AND SECTOR, 2010 (BILLIONS OF \$)



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All renewables index at February 2011

Rank ¹	Country	All renewables	Wind index	Onshore wind	Offshore wind	Solar index	Solar PV	Solar CSP	Biomass/other	Geo-thermal	Infra-structure ²
1 (1)	China	71	76	78	69	60	67	40	59	51	77
2 (2)	USA ³	67	67	70	56	72	71	75	61	67	61
3 (3)	Germany	63	66	63	74	54	65	0	63	54	62
3 (3)	India	63	64	71	42	68	70	64	59	45	65
5 (5)	UK	62	68	64	79	40	54	0	59	38	71
5 (6)	Italy	62	62	65	54	65	68	60	56	65	68
7 (7)	France	58	60	62	57	51	60	24	59	36	62
8 (8)	Spain	55	56	60	42	63	61	68	50	33	55
9 (9)	Canada	54	60	65	46	34	46	0	49	34	62
10 (10)	Portugal	52	55	59	42	49	58	22	46	33	57
11 (11)	Ireland	50	57	57	57	26	35	0	48	27	59
11 (12)	Sweden	50	54	54	53	32	44	0	55	34	53
11 (12)	Greece	50	52	56	41	54	59	41	41	32	52
14 (12)	Australia	49	49	53	40	53	55	46	45	59	51
15 (15)	Japan	48	48	50	41	54	64	27	39	43	57
16 (16)	Poland	47	53	56	42	32	43	0	42	23	47
16 (18)	Brazil	47	48	53	35	42	46	30	50	22	47
18 (16)	Netherlands	46	52	51	55	33	45	0	39	21	42
18 (18)	Belgium	46	52	50	58	31	42	0	39	28	52
18 (18)	South Korea	46	47	46	51	46	53	28	41	35	43
21 (21)	Denmark	44	47	44	56	29	40	0	45	32	51
21 (22)	Egypt	44	45	49	36	45	45	45	38	27	42
23 (22)	Romania	43	46	49	38	32	44	0	43	38	43
23 (22)	Norway	43	47	48	45	22	30	0	44	30	48
25 (25)	Mexico	42	43	43	41	45	46	39	38	54	38
25 (25)	New Zealand	42	47	51	36	24	32	0	34	51	45
27 (28)	Turkey	41	43	46	35	39	43	29	36	43	43
27 (27)	South Africa	41	43	46	35	38	35	46	35	32	43
29 (30)	Finland	39	41	43	36	20	27	0	50	24	40
29 (28)	Austria ⁴	39	36	45	0	40	54	0	48	34	51

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Value-chain of EGS

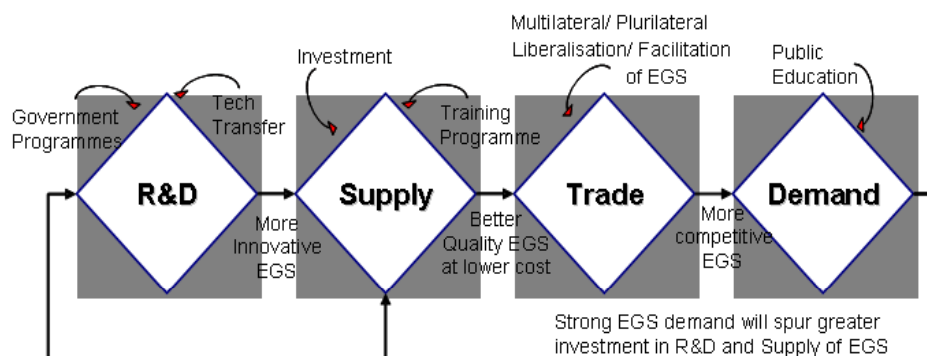


Figure 1: Virtuous Cycle of Success for the EGS Framework



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Trade: top exporters of CFGs

Products and components that may be associated with climate-friendly technologies (ICTSD studies)			
Excluding intra-EU trade		Including intra-EU trade	
Exporter	Value	Exporter	Value
All	236.8	All	331.5
EU27	60.0	(EU27)	(154.7)
China	48.9	China	48.9
Japan	31.1	Germany	47.5
United States	27.3	Japan	31.1
Korea, Rep.	9.8	United States	27.3
Taiwan, China	7.4	France	15.3
Singapore	5.6	Italy	14.8
Mexico	5.0	Korea, Rep.	9.8
Switzerland	4.8	Netherlands	9.7
Brazil	4.6	Belgium	9.1
Canada	4.3	United Kingdom	8.4
India	3.9	Denmark	7.5
Malaysia	3.3	Taiwan, China	7.4
Israel	3.0	Sweden	6.4
Thailand	2.6	Spain	6.2
Turkey	2.1	Singapore	5.6



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Trade: top importers of CFGs

Excluding intra-EU trade		Including in	
Importer	Value	Importer	Value
All-EUN	248.7	All	329.5
EU27	49.4	(EU27)	(130.2)
United States	41.1	United States	41.1
China	28.2	Germany	30.8
Hong Kong, China	11.3	China	28.2
Korea, Rep.	11.1	Spain	15.6
Japan	10.5	France	11.6
Canada	8.2	Hong Kong, China	11.3
Mexico	6.8	Korea, Rep.	11.1
Taiwan, China	6.5	Italy	10.6
Russian Federation	6.3	Japan	10.5

To be continued..
Barriers and opportunities for
dissemination of environmental
technologies in APEC



Dissemination of Environmental Technologies: State of Play

Organized by APEC

11 May 2011

Big Sky Resort, Big Sky, United States of America

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