INDIA EU JOINT HOUSE
FOR SCIENCE & INNOVATION

INDIA S&I HOUSE

What did we learn about political will, scientific potential and stakeholders motivation

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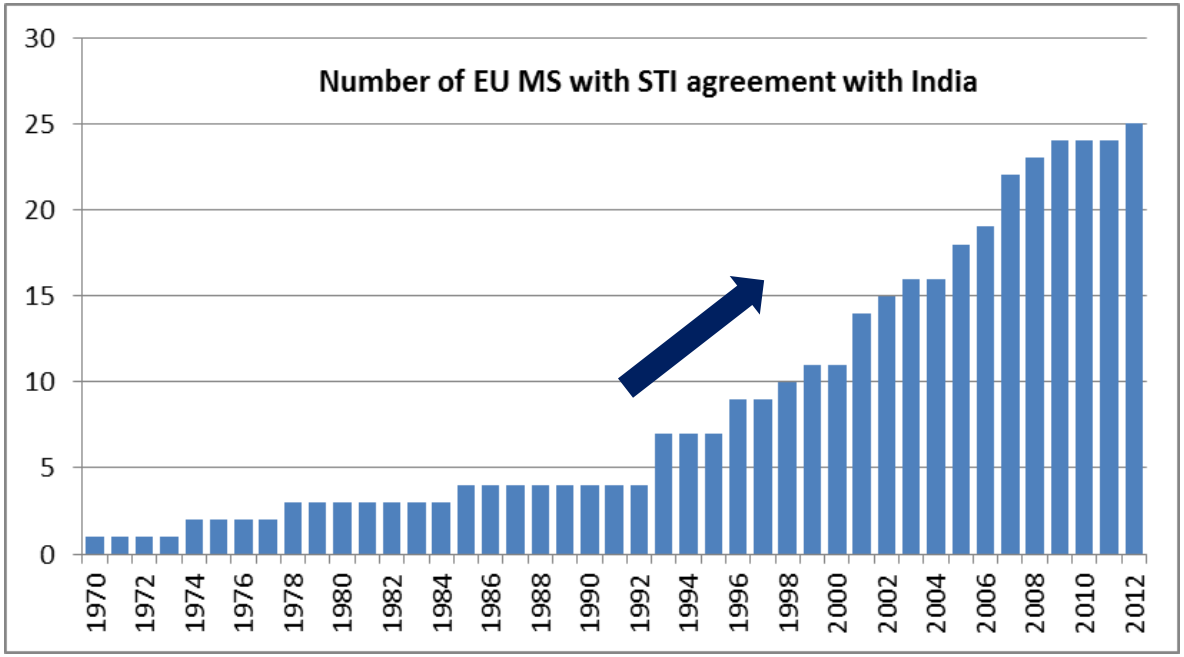
Long history of bilateral political will

Nearly all EU MS have a STI cooperation agreement with India



EU-India STI agreement since 2001 (renewed 2007)

» Acceleration of initiatives since then (EBTC, SFIC, GSO…)

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Political actions: EC with and towards India (FP7)

7 Coordinated calls (co-funded by India and EC)

» 19 projects (>50% in Environment and Nanosciences) : EC co-funding 35M€ for EU participants

Targeted calls (co-funded by EC)

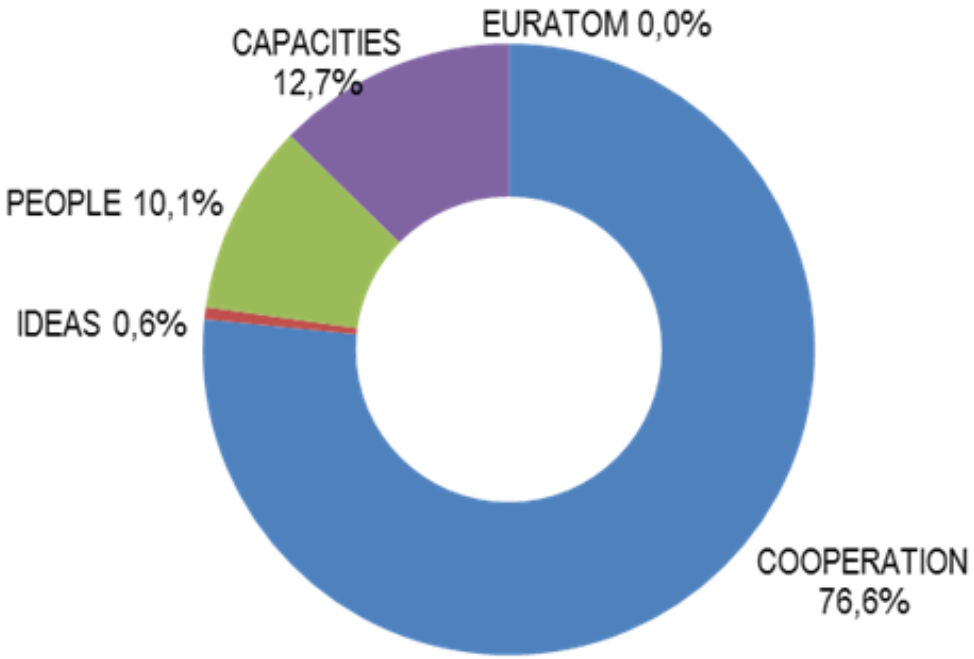
» 8 projects (>50% in Health) : EC co-funding 25M€ for all

All calls (co-funded by EC)

» 159 projects with India (1.5%) : EC co-funding 422M€ for all participants

Political actions: EC towards India

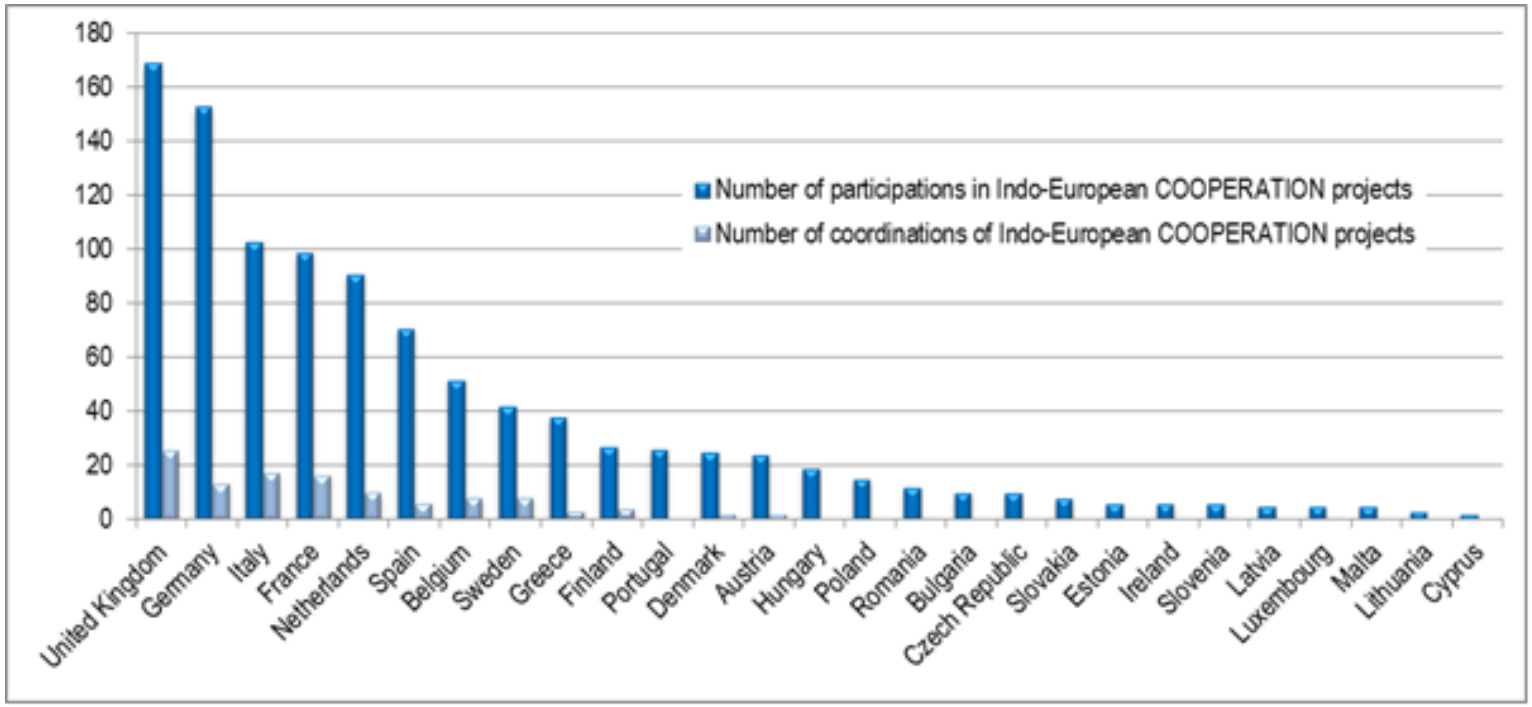
FP7 (Feb. 2013): type of activity including Indian participants



» Health (27%), Food, Environment and ICT (15-16% each)

Political actions: EC towards India

FP7 (Feb. 2013): India's partners in collaborative research



» UK & Germany, then Italy & France, Netherlands, Spain and Belgium…

Political actions: MS/AC together with India

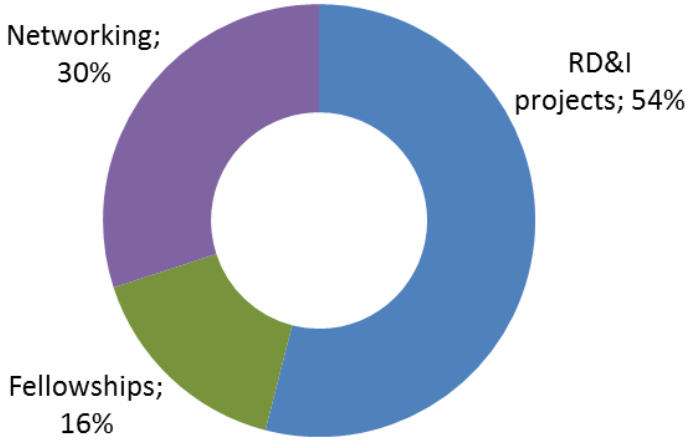
Analysis of 34 bilateral programmes between EU MS/AC and India (2012/13)

» MS/AC funding: 27 M€ per year

» India funding: 21 M€ per year

Type of targeted activity

» Results from 65 calls



India has potential to match political actions :

» Yearly R&D expenditure ≅ ½ of H2020 yearly budget

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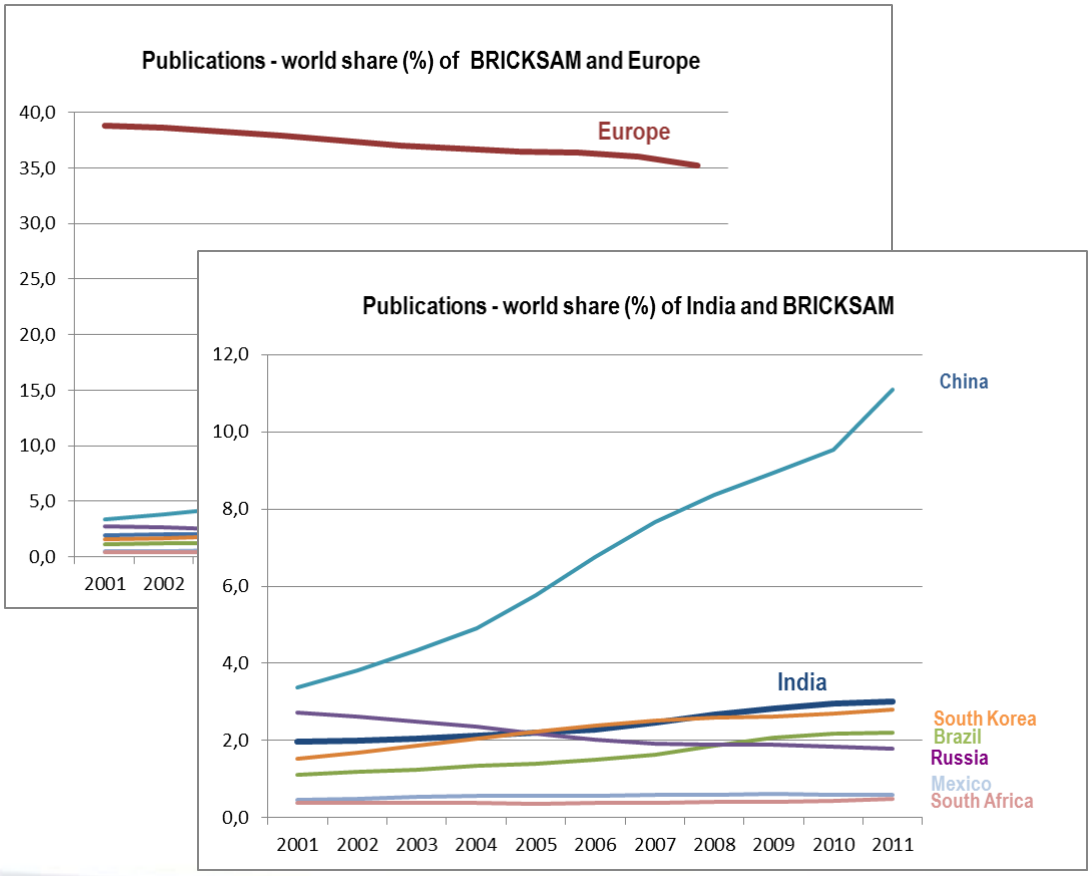
Scientific potential of Europe and India

Two different scientific positions and dynamics



Europe (combination of European countries): large historical world player in science and research

India: small dynamic emerging world player

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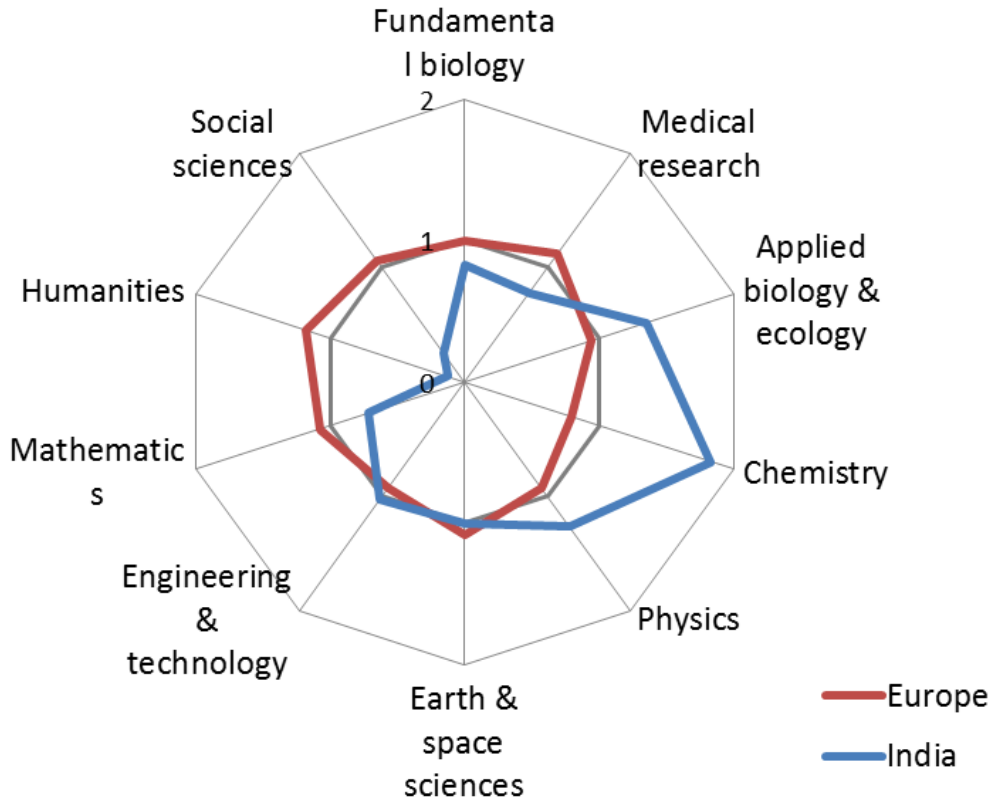
Scientific potential of Europe and India

Two different scientific orientations



Europe (combination of European countries) is not very specialized

India has distinct dominant scientific fields

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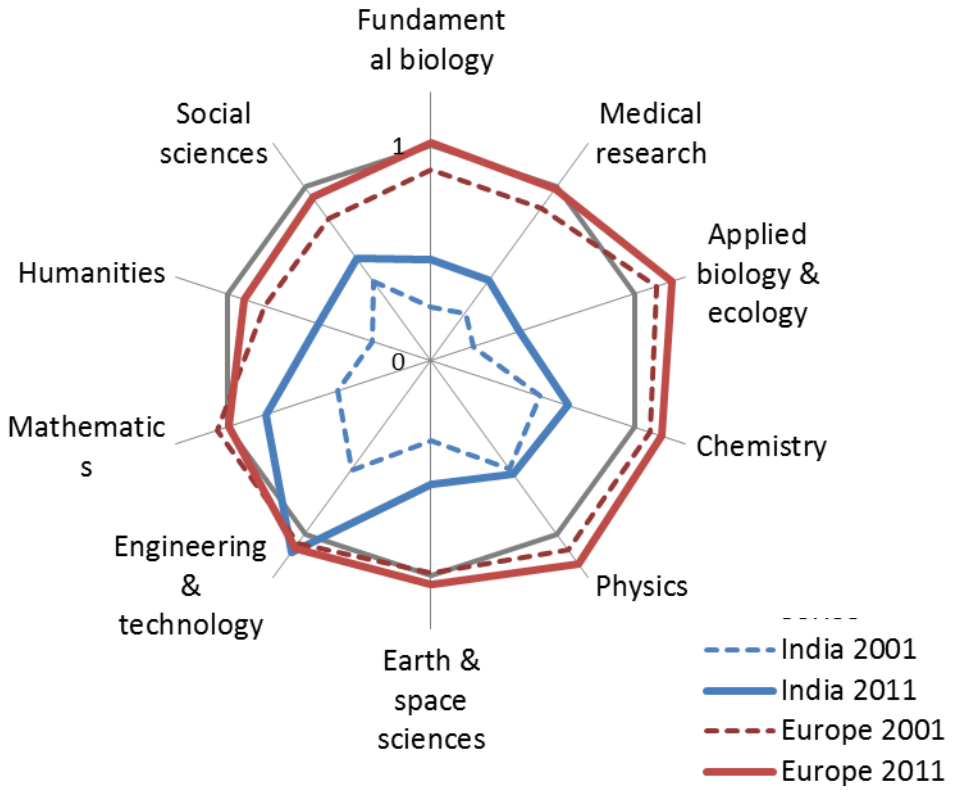
Scientific potential of Europe and India

Two different levels of average scientific visibility



On average, European publications are cited about as much the average of the field (grey line)

On average, India's publications are less cited but the citations are increasing

Scientific potential of Europe and India

Where are the niches of Indian research excellence ?

At the national level, in a few (sub)fields or scientific specialities

	INDIA: Relative impact index	
Subfield	2001	2011
Civil & mining engineering	0,75	1,49
ICTS - artificial intelligence	0,58	1,20
Energy, chemical & industrial engineering	0,65	1,06
ICTS - electrical / electronic engineering	0,33	0,93
Organic, mineral & nuclear chemistry	0,63	0,85
All fields combined	**0,37**	**0,62**

Locally, in all fields: 2% to 13% of India's publications are highly cited (part of Top10% most cited publications worldwide)

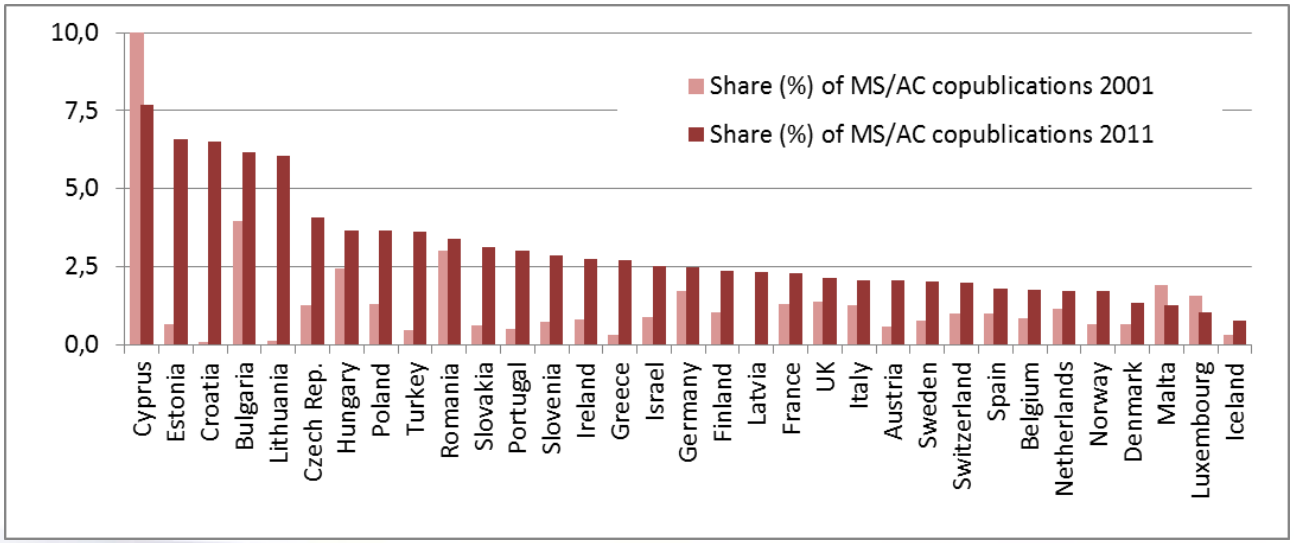
Indian participation in mega-projects:

» CERN, ITER, FAIR, SKA

Scientific potential: cooperation

EU MS/AC are involved in over 40% of India's international copublications

India is involved in about 2% of European international copublications



	Share (%) of India's international copublications	
Rank	Partner country	Share
1	Germany	12,7
2	United-Kingdom	11,4
3	France	8,6
4	Italy	5,4
5	Spain	4,1
6	Netherlands	3,3
7	Switzerland	3,3
8	Poland	2,7
9	Sweden	2,7
10	Belgium	2,1
11	Czech Republic	2,0
12	Portugal	1,7
13	Austria	1,7
14	Turkey	1,6
15	Israel	1,6

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Stakeholder motivation…

Interviews and online survey (1000s were invited, >300 replied)

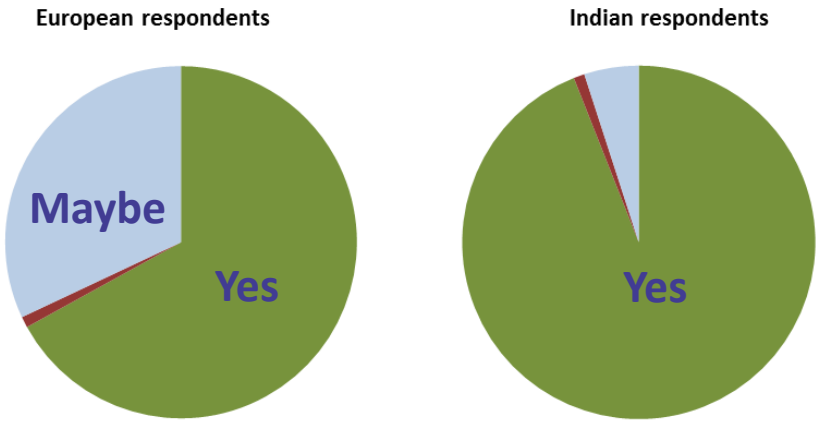
» Essentially operational level (public, private)

For a single Joint EU-India SI House ??

>> provide a “single window” for accessing collaboration opportunities

>> bring a multi or inter disciplinary approach

>> pool financial resources for attacking larger scientific projects

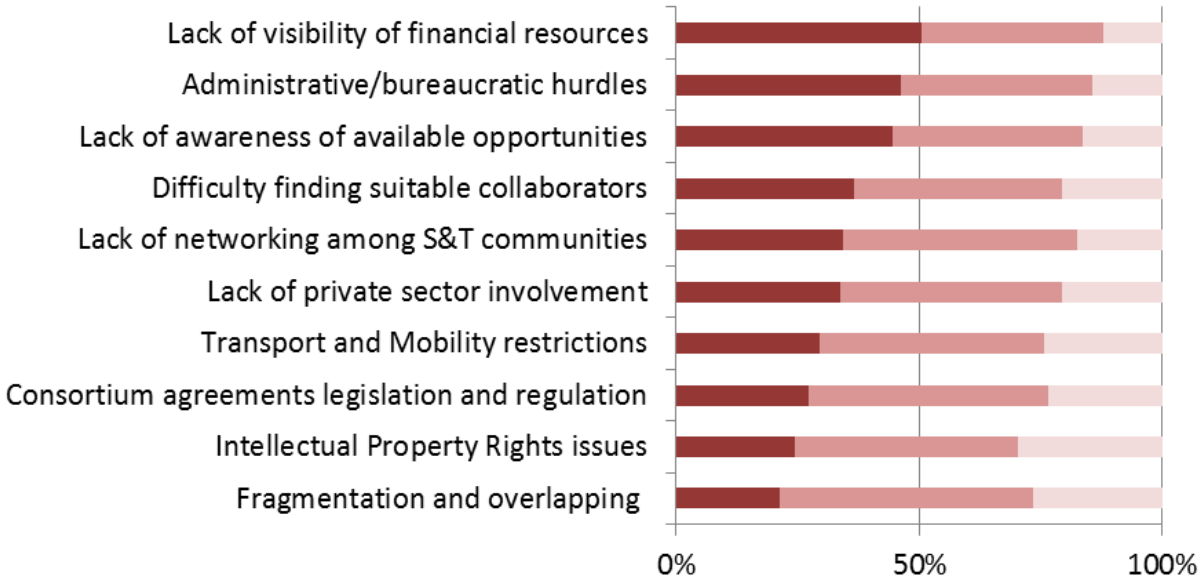


>> BUT less flexibility and need for larger consent agreement

Barriers to be dealt with

For enhancing multilateral EU-India STI collaborations

- » Lack of awareness about opportunities or finance, or about the community in India/Europe
- » Complex application procedures, financial reporting

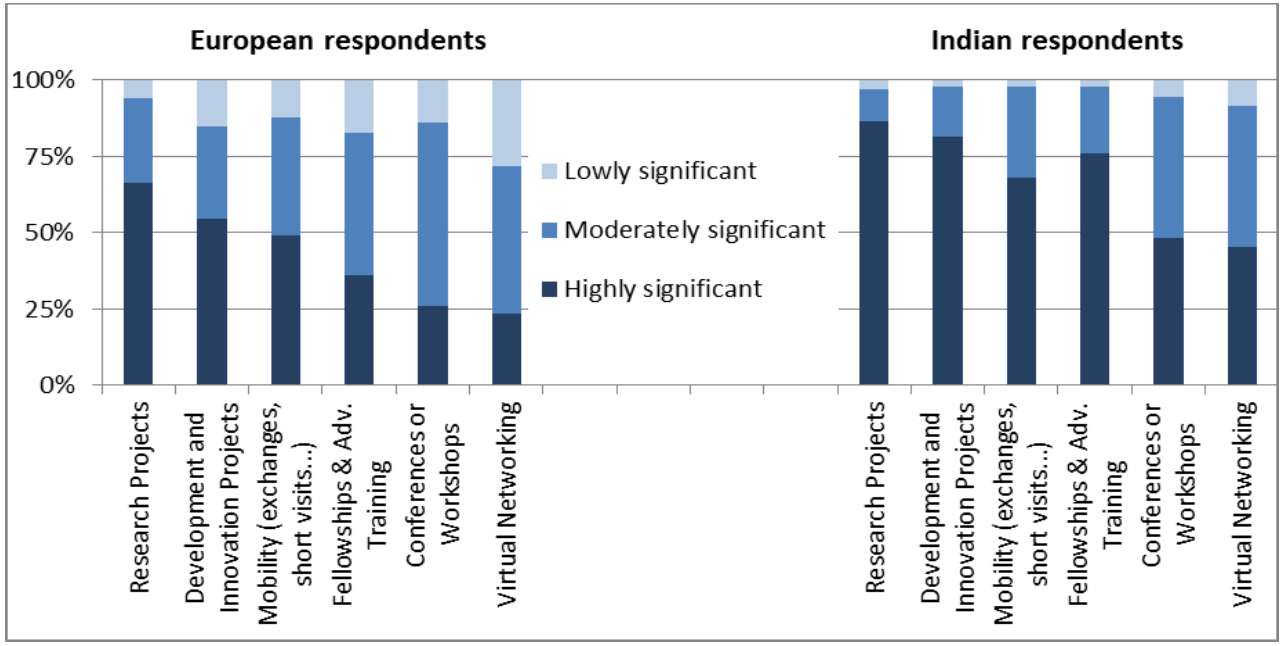


>> Later stage, consortium level issues are seen as less problematic

Stakeholder motivation for…

Multilateral STI collaboration activities

» Projects, mobility then networking



» Consistent with existing bilateral/multilateral programmes

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Stakeholder motivation for…

The format of the joint SI House: physical or virtual

Physical

>> more stable, sustainable and visible (has more impact)

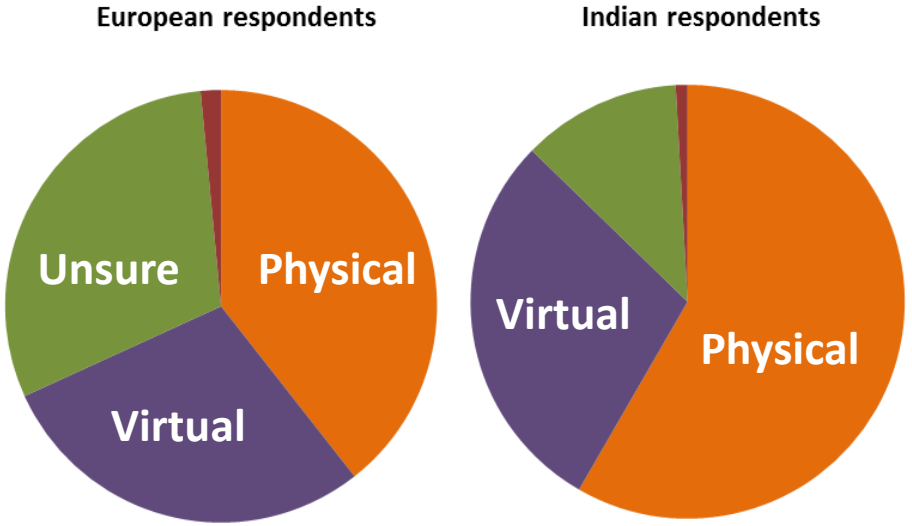
>> fulfil the role of a "single window" for accessing collaboration opportunities

>> facilitate the guarantee of long-term commitments

Virtual

>> allow having personnel working from any part of the globe

>> greater flexibility, cheaper



Stakeholder motivation for…

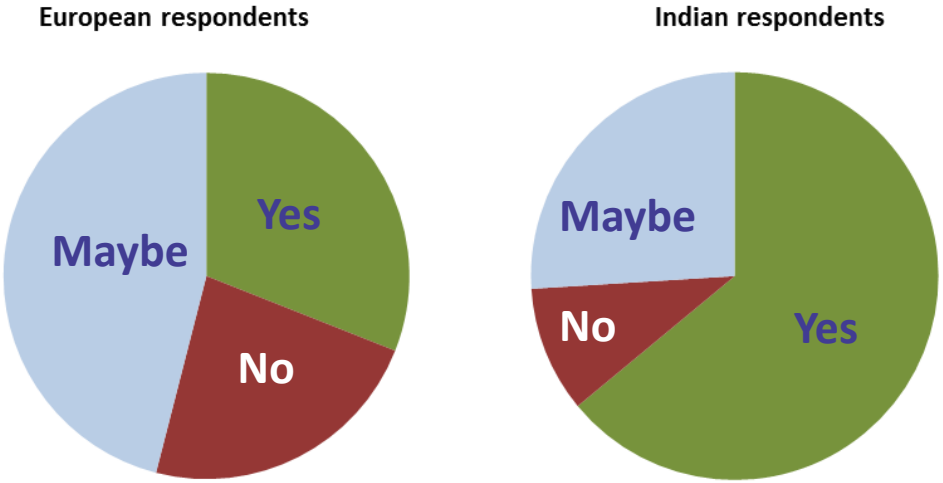
Strong implication of the private sector (PPP)

In favour

>> bridging the gap and complementing strengths between academia, research and industry

>> mobilizes both public and private sector support

>> allows being more geared towards innovation



Not in favour

>> IPR strategy complications

>> potentially politicized process to select private partners

>> research should be carried out independently of industry needs

So what did we learn?

Strong political will and actions exist on both sides (Europe and India)

On the ground, potential to increase ST&I cooperation

- » Niches of excellence on both sides
- » High-tech Europe and frugally innovative India
- » European foothold in India
- » India's potential : resource pool and market

Groundswell of enthusiasm for a highly visible, single window

- » Format and PPP for the SI HOUSE?
- » Beware of rigidity, administration/bureaucracy…

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