



BUILDING International Cooperation for Trustworthy ICT



A strategic approach for International Cooperation (INCO)

BIC Discussion Paper

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James Clarke¹

Abhishek Sharma²

¹ Waterford Institute of Technology, Ireland

² Abhishek Sharma, BIC International Advisory Group (IAG) member, Co-founder, MD & CEO, Beyond Evolution Tech Solution Pvt. Ltd., India



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Introduction

The purpose of the European Commission funded BIC coordination action project (<http://www.bic-trust.eu/>) is to foster cooperation between the EU and the international programme agencies and researchers in India, Brazil and South Africa within the focus areas of Trustworthy ICT, including trust, privacy and security, in order to:

(a) Understand the activities and planning of the target countries; and

(b) Carry out a mapping of the European Commission's planning to them, such that a common technical and policy alignment is viable.

The project is also working with the communities in a coordinating role in reflecting on a longer term strategy for international cooperation and this discussion paper summarises its findings to date. The project held a workshop entitled *Cross domain coordination of International Cooperation and technical themes in Trustworthy ICT and INCO* [1] in June 2012 and during this two day workshop, a number of international cooperation (INCO) projects participated and this discussion paper reflects on the results from this workshop and proposes a potential approach to follow based on the findings.

- Jointly address global societal challenges;
- Support EU's external policies.

The Strategic INCO approach

In order to examine the challenge of moving from a bi-lateral to a multi-lateral approach, the project held a recent workshop in June 2012 [1] bringing together a majority of the projects engaged in international cooperation to enable the following outcomes:

1. sharing their experiences and insights in order to brainstorm a strategy to move forward on international cooperation in future calls for collaborative research;
2. developing the current bi-lateral (and potentially overlapping) country to country cooperation into a comprehensive and coordinated global cooperation.

In addition to BIC, a wealth of experience was represented from the following international cooperation projects: IST Africa, EuroAfrica-P8, FEED, AUS-ACCESS4EU, PACE-Net, EU – India Spirit, Synchroniser, Euro-IndiaGrid2, OpenChina-ICT, FIRST, FORESTA, PAERIP, SEACOOP, EuroAfrica-P8 and AMERICAS. A full report of the BIC workshop can be found at [2].

These projects gave their insights on their experiences and suggestions for improvement and the

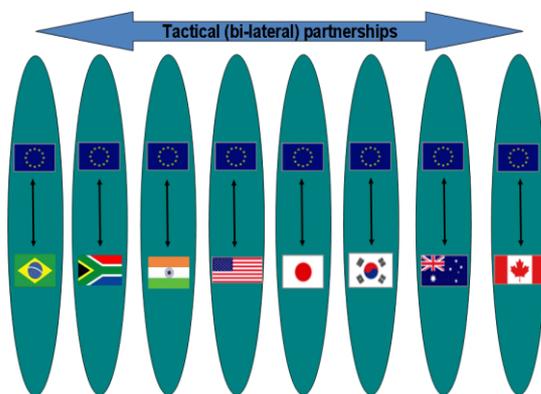
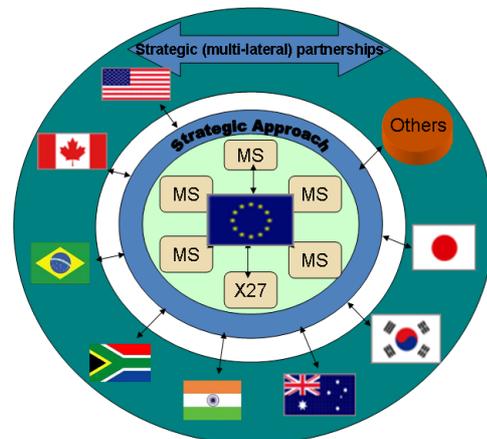


Figure 1 – Tactical (bi-lateral) approach



Strategic (multi-lateral) approach

The need for INCO

From the European perspective, cooperation with third countries and international organisations has been and will be promoted with the following objectives:

- Strengthen EU's excellence and attractiveness in research and innovation;
- Strengthen EU's economic and industrial competitiveness;

main point was agreement that it is a very good idea to move towards a more multi-lateral strategic position. However, in the discussions, it wasn't very clear how this strategy shift could occur within the current mechanisms that focus bi-laterally on seven (7) distinct regions.

In order to address this further, the BIC project are examining how the combination of their International Advisory Group and supporting working groups could assist in a move towards a more multi-lateral strategic approach.

The majority of the current INCO mechanisms support regional bi-lateral activities as shown in Figure 1. While this regional approach may work for higher level themes, the main difficulty arises when a particular research topic, for example, cyber security, needs to be addressed globally and multi-laterally amongst many regions and the bi-lateral approach is not suited for this type of longer term strategic activity.

Therefore, the BIC project is examining the feasibility of a more strategic approach based on multi-lateral partnerships as shown in figure 1.

BIC International Advisory Group (IAG)

The BIC project has established an international advisory group (IAG) with the following terms of reference.

The IAG will be the forum bringing together the countries representatives in a more strategic way;

- To facilitate collaborations between national ICT Trust and Security constituencies and related ICT trust and security related constituencies from other countries;
- To review the situation on International collaboration strategy in ICT trust and security on a regular basis providing advice on the priorities for international cooperation between the respective research communities, providing directions to the project and recommendations for improvement;
- Assist in the building of the working groups to enable BIC to structure relationships and linkages and facilitate contacts for theme based workshops or other networking events.

The IAG has representation from all the participant countries from both the researcher communities and programme management (funding agencies). The IAG is there to suggest and formulate the policies, processes and mechanisms to achieve international cooperation in the area of the ICT Trust and Security community. Three independent working groups, WG1, WG2 & WG3 with specific objectives as defined in the BIC WG Terms of Reference [3], have been formed comprising specialists from different countries and different specializations. The areas and scope of the three BIC working groups are the following:

1. WG1. Human oriented /citizen trust, privacy and security, which will focus on topics related to a multi-disciplinary approach for international cooperation amongst all stakeholders;
2. WG2. Network Information security / Cybersecurity, which will focus on topics related to the need for international cooperation for enabling the protection of networks and systems;

3. WG3. Programme /funding focus/ identify community, which will focus on the requirements, processes, mechanisms and barriers to enable collaboration opportunities.

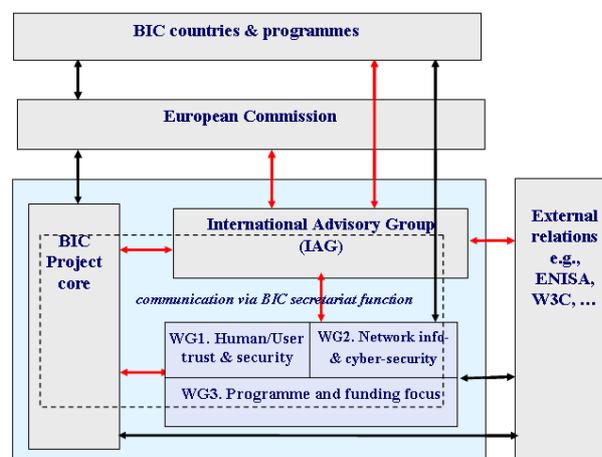


Figure 2 – Overall structure of BIC

Indeed, as shown in Figure 2, these WGs form the backbone of the Project; however, they alone would not be enough to take the entire project forward to its logical conclusion. They would, therefore, need to be supported by additional Groups and Sub-Groups in a structured manner as shown in figure 3, at the management and functional level with defined focus area, roles and responsibilities.

Since the nature of the project requires interactions amongst all participant countries to share the information, resources, etc., the approach for the formal interactions, flow of information and smoothness of actions, it becomes natural that the groups and sub groups working for the project work closely with each other. Accordingly at international management level, it requires a change in approach from the existing bi-lateral approach i.e. EU-India, EU- Brazil, EU- SA, U.S, Japan, ... to multi-lateral approach where each participating country develops a formal system for direct multi-lateral communication and interacts with each other besides interacting centrally as well. Of course, the existence and role of a central body is essential for ensuring that the focus of the projects are not digressed and there is proper coordination amongst all adhering to the core principles and objectives of the project.

A possible multi-lateral structure is outlined here.

- a. Core Working Group (CWG); based on the current BIC IAG and supporting WGs as shown in Figure 3.
- b. Extended Working Groups (EWGs) – specific for each participating country as shown in Figure 3.
- c. Special Function Groups – operating under EWGs as specialists at functional level.

Note: This is only an initial proposed structure and will be discussed in more details as part of the Working Group 3 and the International Advisory Group.

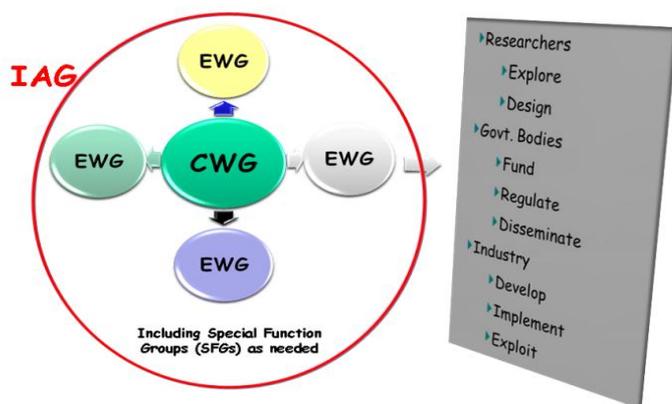


Figure 3 – BIC IAG/Working Groups structure

What's next?

The building of international cooperation is difficult when using a bi-lateral approach as it takes significant time for all of the parties to come together to try to align their activities and priorities. Therefore, it is even more difficult for a multi-lateral approach when building a longer term strategy as proposed within this paper. The BIC project has proposed a strategy and will follow up in the near future with interested countries as exemplars.

The BIC project is going to bring this topic to the next level at the upcoming BIC Annual Forum/IAG workshop being held on the 27th November 2012 in Lisbon, Portugal. A strategic approach for international cooperation will be a main topic of the terms of reference and agenda for the IAG workshop.³

Acknowledgments

The BIC project [4] is funded by the European Commission's DG-CONNECT Unit H.4: Trust and Security [5].

References

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About the Authors

Abhishek Sharma is founder, MD & CEO of Beyond Evolution Tech Solutions Pvt Ltd (beTS). Abhishek has built beTS from scratch developing many mobile application and Solutions offering niche Utility VAS as ASP to large mobile users through many large Telcos like Vodafone, BSNL, MTNL, Idea, Airtel etc in India and abroad. Prior to founding beTS, Abhishek has worked for Indian Air Force for about 22 yrs and then for large corporate in India and abroad such as Programme Manager, GSM Backhaul/ Microwave Services, Tata Telecom, India; Country Head – Telecom SBU at TCS/ Tata Infotech, India; MD at Globacom Cellular, Nigeria etc where he managed large ICT Projects & Operations such as Radar, Telecom NW, BSS, OSS etc. Abhishek is also a renowned consultant on Mobile VAS, Telecom Network, Radar Data Systems & Avionics. Abhishek is B.E. in Electronics & Telecommunications, M.Tech Computer Sc (IISc) & M.B.A. in Marketing.



James Clarke has been working for the Waterford Institute of Technology (WIT) in the Telecommunications Software and Systems Group (TSSG), since February 2005. Prior to joining WIT-TSSG, Mr. Clarke worked at LAKE Communications in Ireland for eight years and Grumman Corporation in the United States for eight years. Since January 2011, Mr. Clarke has been the project coordinator of a European Framework Program 7 Co-ordination action entitled 'BIC', which stands for Building International Cooperation for Trustworthy ICT: Security, Privacy and Trust in Global Networks & Services. Previous to this, Mr. Clarke coordinated the successful FP7 **INCO-Trust** project. More information can be found at <http://www.tssg.org/about/people/james-clarke/>.