



China EU Information Technology Standards Research Partnership

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Deliverable 4:

Implementation of case-study design

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RE	Restricted to a group specified by the consortium

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CO	Confidential, only for members of the consortium (including the Commission)

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Lead author,	Robin Williams (UEDIN)
Contributing Authors	Xiaobai Shen (UEDIN)
Reviewers	
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Description

A report describing the methodology for the three domain studies of standardisation, including proposals for the three domains of study, and the justification for the final selection, the specific focus of each study and the common research methodology.

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1. Introduction/summary

This brief report conveys the outcomes of *Workpackage 3: Implementation of Case-study design*. It summarises the discussion and decisions within the China EU Information Technology Standards Research Partnership regarding the implementation of the research design and methodology in accordance with the project description in the Technical Annex for the project. Specifically it conveys the decision regarding the final selection of the three case-study areas. It considers how to implement the research design outlined in the Technical Annex for the project. It considers specific issues surrounding the conduct of the research in the Chinese context.

2. Goals and scope of the project

The China EU Information Technology Standards Research Partnership is a European Union FP7 Coordination and Support Action (CSA). The project goals and specific objectives as specified in the Technical Annex are as follows:

The CSA has an overall goal of improving our understanding of the new ICT standardization processes emerging in China, comparing them with EU standardisation processes in their global context and discussing the implications with European and Chinese policymakers and stakeholders. To pursue this we identify four specific objectives.

1. To build and strengthen the knowledge network of leading experts and research in the area of Chinese and European ICT standardization;
2. To conduct strategic studies in three selected areas (chosen on the grounds of their stated importance to the FP7 IST Programme) of Chinese standardisation processes and their European and global counterparts;
3. To analyse these standardisation processes, focusing upon the issues they pose for innovation communities and policymakers in China;
4. To discuss the findings and their implications for industrial strategy and public policy in Europe and China, in collaboration with standardisation players/policymakers in these regions, and bring these to the attention of wider communities of policy, technology and industry players.

The research design issues addressed here relate to the conduct of the strategic studies in three selected areas (objective 2) and ensuring that these can be analysed and will throw light upon industry strategy and technology policy in the UK and China.

The Technical Annex, section B 1.3.1 summarises the work to be undertaken. This work is divided into eight discrete, but inter-connected workpackages, plus WP9 on Project Management.

In the first phase (Months 1 – 6) the emphasis is on reviewing the state of the art, building a “taxonomy” of standardisation processes (Workpackage 1); building knowledge networks of leading individuals and centres in Europe, China and beyond (Workpackage 2); and, finalising the selection and methodology for a set of studies to be conducted (Workpackage 3).

The second phase (Months 7 – 18) will be devoted to developing a set of three selected empirical cases drawing upon existing research efforts across the network into a comparable frame (Workpackage 4,5 and 6).

Finally the third phase focuses upon the comparative analysis of study findings (Workpackage 7), engagement with policymakers and innovation communities regarding the implications for policy and practice and academic and broader dissemination (Workpackage 8).

3. *Tasks to be undertaken under WorkPackage 3: Implementation of case-study design*

The tasks to be undertaken under *WorkPackage 3: Implementation of case-study designs* are listed in the Technical Annex as:

- Finalise case study selection
- Finalise study design
- Identify candidates within selected domains for detailed study
- Develop common research instruments

These tasks are addressed in the next three sections.

4. *Finalising case study selection*

The technical annex provisionally indicated three areas that would be the focus of three Studies of Standards Dynamics Mobile Telephony; Audio-Visual and Mobile Broadcasting (respectively workpackages 4 – 6). China’s involvement in promoting standardization and indigenous Intellectual Property in these areas flagged as of particular interest to the FP7 Information Society Technologies programme. Interest has also been drawn by IST and others to other areas of Chinese activity, including Radio Frequency Identification (RFID) a technology with wide application for example in logistics and life cycle management, and

next Generation Internet. Given their potential significance, the Technical Annex kept open the possibility of selecting alternative technologies for these case studies.

The research group reviewed the range of potential technologies that might be studied. After extensive discussion at research workshops conducted alongside the first and second Project Coordination Committee meetings (March 2008 and June 2008) it was determined to stick with the originally-proposed cases. The main motives here were manageability of the research tasks within a small scale project, and the fact that there were important synergies between the originally-proposed study areas which enabled insights into the emergence of new mobile Information and Communication Technology (ICT) infrastructures, addressed at a number of levels.

5. Research design issues considered in finalising study design

The studies need to be undertaken in a comparative perspective. Given the rather limited resources available for these studies to the European partners, the intention is to produce an account of European (and global, primarily US) developments based upon existing research and published material; other secondary sources and the expertise located within the consortium, but funded from other sources. The bulk of the primary research resources can thereby be deployed upon the Chinese studies.

In conducting the Chinese cases, we may usefully distinguish two elements in terms of the methodology required:

A descriptive account of the standardization and innovation processes in the three areas (starting out with a mapping of the key actors, standardization processes etc), based upon published information, 'grey literature' and interviews with key actors; and,

A processual analysis focusing on the dilemmas experienced and key choices made by players involved from innovation communities and policy players including regulators and standard-setting bodies. The processual study is of particular importance to the goals of the project to provide advice for public policy and innovation strategy.

The key players involved –and the question of which respondent need to be addressed - will depend upon the particularities of the case in question. These have already been documented in considerable detail through Activity 1.3: Mapping of standard setting contexts. The findings are reported in Deliverable 3, part 3; “report on initial mapping”. Deliverable 3.3 reviews the key players involved in standardisation and innovation in each of the three selected technologies. This document fulfils the third task of Workpackage 3: *to identify candidates within selected domains for detailed study.*

The processual study (see a. above) will require ethnographic interviews with high-level technical, commercial and policy players. Structured research instruments are not appropriate for such respondents and for the complexity of the issues under discussion.

The European research partners are all highly experienced in developing these kinds of qualitative case-study. There is less experience in the Chinese research context of such qualitative investigation (though the Tsinghua junior researchers, Su and Wang, exceptionally have undertaken such research). The requirements for an adequate case-study are hard to formalise and communicate – depending on the judgement and insight of the research, rooted in largely tacit skills acquired by experience. A priority for the Research Partnership has been the development of a common research culture and understanding. This has been pursued by extended (1 – 2 day) research workshops, conducted alongside the first and second PCC meetings (Edinburgh, March 2008; Aachen, June 2008). In addition Chengwei Wang (Tsinghua) spent two months as a visiting research at the University Edinburgh, to gain an appreciation of the research culture in the Research Centre for Social Sciences and Institute for the Study of Science, Technology and Innovation. At the end of this visit a further informal research workshop was held, also involving colleagues from other parts of the network (Oslo, VDU, and Manchester). These have generated a common understanding of the research challenges and goals for the studies.

6. Access to respondents and conduct of fieldwork in China

Setting up and conducting interviews with these high level players will however present considerable logistical, linguistic and cultural difficulties. There is not such a strong tradition in China compared to Europe of social scientific research into these domains. The work addresses areas which may be subject of political and commercial sensitivity.

We are, however, able to benefit from the good connections developed by our Chinese partners with relevant academic, industrial and policy communities. In addition we have benefited from contributions by Dr. Ping Gao, subcontractor from Manchester University, who has been able to exploit established connections with telecommunications industry players; and Dr. Xiaobai Shen, Edinburgh ISSTI who has over 20 years experience in socioeconomic research on technology in Chinese settings. Dr. Shen is providing detailed support to the project on the conduct and interpretation of the Chinese fieldwork.

Only in some cases will it be possible to conduct interviews in English. It will often be necessary to conduct interviews in Mandarin – conducted by our Chinese partners or through bilingual staff (e.g. from our research partners) acting as interpreters. Extended trips by Ping Gao (Manchester) and by Håkon Ursin Steen (Oslo), drawing on separate research funding, will increase the possibility for jointly conducting interviews. Many interviews will be conducted by the Chinese partners alone.

Interviews will be recorded and selectively transcribed and translated for circulation to the research group (full transcription and especially translation through commercial services would be prohibitively expensive and might not yield sufficiently accurate translations in these specialised fields to be useful).

7. Conclusion and next steps

Considerable progress has already been made in initial research into the three case-study domains, conducted under Activity 1.3 (and the subject of an extended report in Deliverable 3 part 3). This work has already gone a long way towards completing the initial stages of the three case-studies of standards dynamics (Workpackages 4, 5 and 6), as specified in the Technical Annex. These tasks are to:

- Develop map of standardisation settings
- Review of standardisation process to date and select specific areas for detailed study

It is now possible to begin the extremely demanding programme of detailed empirical research (and in particular the process studies outlined above).