HECTOS

Harmonized Evaluation, Certification and Testing Of Security products

# D6.4
# Report on Competition Issues in Standardisation, Certification, and Testing of Security Products

UNIVERSITY OF WARWICK

Date: 2017-11-17
Project No: 606861
FOI Designation No: FOI-2015-1958
Dissemination Level: PU
Total No of Pages: 19

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 606861.

HECTOS

# D6.4
# Report on Competition Issues in Standardisation, Certification, and Testing of Security Products

| | |
|---|---|
| Version: | 1.0 |
| FOI designation no: | FOI-2015-1958 |
| Responsible: | University of Warwick (UW) |
| Author(s): | Katerina Hadjimatheou and Tom Sorell (University of Warwick) |
| Number of pages: | 19 |
| Dissemination level: | PU – *Public* |
| Start date of project: | Sep, 2014 |
| Duration: | 41 months |

HECTOS

# Document information

**Document revisions**

| Version | Date | Author | Comments |
|---|---|---|---|
| v1.0 | 2017-11-17 | University of Warwick | Submitted version |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

HECTOS


## Summary

This report presents expert views on the kinds of competition issues that arise currently in relation to the standardisation and certification of security products within the EU, and how a harmonised approach may affect these. It draws on the results of interviews with competition lawyers and relevant stakeholders. Key themes that arose during the discussions included: the ambiguous role of both of standards and standards-bodies and of testing houses in facilitating competition; the tension between, on the one hand, conceded national prerogatives with respect to the procurement, development and sale of products, and on the other, the need for greater competitiveness across the EU; and the challenges to entry into the market for smaller players in light of the power of larger players to influence standard-setting and to inclusion in procurement processes. Harmonisation encourages the creation of common standards and, though standards are desirable, they must be established in an open way and then made generally available, without participation being limited to big or well-resourced players. It should be possible to devise rules of the road in terms of transparency in the process and fairness and the availability of the standards. The role of standard-setting bodies in respecting and upholding these rules is crucial.

HECTOS

# Contents

# 1 Introduction

## *1.1 Background*

HECTOS is a European project focusing on harmonization of evaluation, certification and testing of physical security products. Physical security equipment and systems are very diverse in design, operation, application area and performance, and similar security products are difficult to compare in terms of performance, accuracy, usage, trust, and validation of functionality. Currently, there are very few test, evaluation and certification procedures in Europe that are mutually recognized by different Member States. This leads to fragmentation of the market, as identified in the recent EC Communication on Security Industrial Policy [1], with negative impacts on both suppliers and users.

The HECTOS project focuses on the evaluation and certification schemes for physical security products, and studies how existing schemes used in other areas could be applied, adapted or developed for products used for physical security of people, property and infrastructure. Developed evaluation and certification schemes have been investigated by applying them to two different product groups as case studies: (i) biometrics and (ii) detection of weapons and explosives (W&E).

The HECTOS project learns from and work with other initiatives working in broader product areas such as security systems and cyber security, as well as with other standardization and certification initiatives, including the EU research project CRISP.

HECTOS will result in elements for a roadmap for the development of harmonized European certification schemes for physical security products, and initiate standardisation activities.

The HECTOS project is prompted in part by a concern that current standardisation and certification practices around security product sector within the EU lead to fragmentation of the market, raising costs of entry and business to manufacturers, costs which disadvantage smaller players, hinder competition, and are inevitably passed on to the consumer. This report describes some of the specific challenges, which arise in particular in virtue of the strong national legislation tradition in security standardisation (i.e. the fact that security policy is still a matter for national, rather than EU government), discusses their relation to competition law, and considers how harmonisation might affect these.

## *1.2 Approach*

This report presents expert views on the kinds of competition issues that do or might arise in standardisation and certification of security products within the EU, and how harmonisation may affect these. It is based on a series of semi-structured interviews with 2 competition lawyers, 1 manufacturer of security products, 1 representative from a national standards body, and 1 explosives expert, chosen both because they are known to the authors and because explosives detection is one of the case-study areas of the project. Participants were based in the UK, Ireland, Belgium, the Netherlands, and Germany.

It would have been interesting to speak to smaller manufacturers, who may have had experience of finding it difficult to access standards or participate in standard-setting activities, but some input from them on these issues was already achieved at a previous HECTOS stakeholder meeting, and their concerns were fed to the participants. A more systematic investigation of these issues would have consulted regulators, civil servants engaged in procurement activities, and certification bodies amongst others. However, the possibility to undertake a large, empirically robust study was beyond the scope of this project. Drafts of it have been reviewed by the participants, the HECTOS consortium, as well as by external reviewer from a national standards body outside the HECTOS consortium.

Ethical approval for the research was sought and granted by the University of Warwick's Humanities and Social Sciences Research Ethics Committee prior to any contact being made with potential participants. Review of the applications was also provided by HECTOS's EAB. Participants were recruited via a mix of existing contacts and new approaches made by the authors. Along with the information sheet and consent forms (see Appendix 1 and 2) they received, participants were sent a list of issues for discussion, which had been formulated by the authors with input from the HECTOS consortium and the previous HECTOS project officer at the EC. This list, replicated below, aimed to prompt reflection on, and gain insight into, areas of standardisation activity that may have a negative effect on competition in the security product sector. However, the issues are also likely relevant beyond the security sector, for example in large-scale infrastructure projects:

- cases in which hard-to-comply-with standards or hard-to access certification are used as a barrier to imports and as a hidden support for domestic companies
- ways in which countries or companies might be able to continue to game the system even in the light of greater efforts at harmonization (for example, by writing specifications into procurement in ways that favour domestic companies)
- potential tensions between harmonization and, for example, innovation
- the influence of procurement processes and regulations in these areas

Discussions took place via telephone or teleconferencing and lasted typically 60-80 minutes. We encouraged participants to provide us with illustrative examples, references, and further reading to gain deeper insight into relevant issues. It is important to note that the opinions expressed in the interviews are just that-opinions from a small, sample of experts. They are therefore insights, not an objective reflection of the state of affairs in this sector.

# 2 The EU regulatory framework

There are two key EU documents regulating standardisation and procurement. The first is the European Commission's 'Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements' (hereafter 'Guidelines'). The second, relating to procurement is the 2009/81 'Directive on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security' (hereafter 'Directive 2009/81).

The Guidelines recognise that standards and standard-setting practices can be both enablers of markets and drivers of competition, as well as barriers to competition in practice. Indeed, the Guidelines stipulate that establishing whether the law has been breached with respect to competition legislation involves a process of balancing the anticompetitive effects of standard-setting and procurement practices against the competitive benefits. Even when the anticompetitive effects of standard-setting or procurement practices are not obvious or serious enough to reach the threshold that would trigger litigation, they may still undermine or reduce the competitiveness of the market in ways that should be addressed by regulators. As we will see, our discussions with participants helped shed some light on how these typically un-litigated anticompetitive practices occur in the security product sector.

According to the Guidelines, standardisation agreements may produce their effects on four possible markets:

- **a)** the product or service market or markets to which the standard or standards relates
- **b)** the relevant technology market, where the standard-setting involves the selection of technology and where the rights to intellectual property are marketed separately from the products to which they relate
- **c)** the market for standard-setting, if different standard-setting bodies or agreements exist
- **d)** a distinct market for testing and certification.

In order to be in accordance with legal requirements, access to the relevant market (for example, via access to patented technologies included in the standard) must be provided by on terms that are 'fair, reasonable and nondiscriminatory' ("FRAND commitment").

# 3 EU case law

There is scant case-law in the field of standardisation and competition law, and that which does exist is most relevant in practice to the role of industrial consortia in standard-setting, rather than national standards bodies. Where national standards bodies have transparent criteria and methods for ensuring inclusivity, non-dominance and the achievement of meaningful consensus, this can be absent from groups of companies that come together on an independent basis to develop standards. The relative lack of case-law in this area does not necessarily mean that there is no illegal behaviour. Our participants suggested that manufacturers who believe that access to the relevant market fails to meet the terms of a FRAND commitment may be discouraged from seeking legal redress for one or more of five reasons:

1. Costs: it is very expensive to mount such a legal action, and those unfairly denied access to a market are more likely to be small players with limited financial resources compared to their adversaries.
2. Non-financial costs: legal action may be costly to the company in other terms, namely the potential for the court to require it to reveal commercial secrets in a public arena.
3. The national security prerogative: this enables countries to favour domestic manufacturers without becoming subject to litigation.
4. Difficulty in calculating royalties: if it is difficult to establish what royalties should be in the first place, then it will be difficult for smaller parties to challenge them once they are set.
5. The industry/governments/a combination of both finds ways to persuade or move or facilitate a 'priority' without creating 'preferences' ('preference' being anticompetitive). According to one of our participants, huge pressure is applied below the surface via purposeful diplomacy by commercial organizations to move decision-makers in government to prioritize in procurement particular standards met by certain products and services. Governments often play a core role in such activities. For example, the UK's processes for new train infrastructure procurement (HS2) gave priority to British producers of slabs and specialist steels and for production methods.

3-5 are addressed in the remainder of the report. We propose that 1&2 raise the question of whether legal action may be facilitated by means of one of the following measures:

- Requiring parity of resources between parties to a case;
- Imposing a ceiling on the legal resources that can be committed by either party;
- Enabling cases to be heard by experts in (partially) closed sessions.

## *3.1 Case study of industrial consortia --The IACS proceedings*

The International Association of Classification Societies (IACS) licenses shipping companies to certify ships for insurance eligibility and therefore for operation in the market. Legal action was brought against IACS by the EC in 2009 and the case[1] was described to us as the most relevant on the standard-setting functions of a collective body and the obligations such a body is subject to.

IACS was formed in September 1968 by the world's seven largest classification societies, with the aim of combining technical knowledge and experience in order to support maritime safety and regulation. At the time of the legal case it had ten members and one associate. According to IACS's own claim, more than 90% of the world's cargo carrying tonnage is covered by the classification design, construction and through-life compliance rules and standards set by the members.

Membership of IACS was viewed by the European Commission as being a gateway for success in the classification market: if a company was not a member then there would be a large category of work that they would be *de facto* excluded from, because they had a combined market share of 90%. To be a member meant that a company could certify ships being built and

[1] http://ec.europa.eu/competition/antitrust/cases/dec_docs/39416/39416_2325_1.pdf

maintained. Ship insurers, P&I[2] clubs, and other kinds of insurers would only provide insurance or brokerage, and operators would only want to charter ships that could certify they were in line with IACS rules. This meant that those who could not certify would be excluded from most international work. In other words, IACS was regarded as being a de-facto standard setting body. It was not a *de jure* body, because there was no law that gave it exclusive right to grant classifications that ships were being built in line with legal rules.

This case concerned the rules on gaining membership of the association and participation in its work, and the rules on gaining access to its work product. 5 EU members of the organization were raided by the European Commission. 5 non-EU members were not raided but received requests for information. The case was resolved by securing commitments from IACS – commitments in this context being a legally binding set of regulations. The decision required IACS to:

- Change their membership criteria to be more transparent and objective. The criteria incorporated too much subjectivity in appraisal of applicants. Membership criteria was to be rewritten to be more empirical and to present a closer and more definable relationship between the criteria and the work of IACS. IACS was also required to set up an appeals body for those whose applications for membership were rejected and for those whose memberships were rescinded. This was meant to be staffed by people independent of members. Finally, periodic appraisal was established to verify that members continued to meet the membership criteria.
- Create a forum intended to allow classification societies who weren't full members to participate in the technical work, meaning in the development of rules and procedures in classification.
- Establish a more rigorous process for publishing IACS work product including drafts.

# 4 FRAND in procurement: Intellectual Property and telecoms case law

A de jure or de facto standard setting organization is required as a matter of principle to make its standards available on fair terms to competitors. A procurement body would need to be careful to define the terms of the tender in such a way that not only a dominant market player can satisfy them. In the case described above, IACS decided to publish its rules and procedures and working documents freely on its website. Alternatively, a standard-setting body could create a licensing regime for potential users. In such a case, they have to do so in a way that is FRAND. The question of what FRAND requires in practice is, however, controversial. For example, it is not always obvious what sort of royalties a company can demand for intellectual property, especially if they are starting from a dominant position. There is some guidance from the courts and a significant body of litigation between telecom companies about what royalties they can charge in relation to patents which become standards. However, this is only of limited relevance to the work of the national standards bodies most active in the security product field. These have membership procedures that are potentially more inclusive and open than those of the telecoms standard-setting bodies.[3] If someone wanted to obtain the license to develop the

[2] Protection and Indemnity clubs

[3] A good example of a collective standard setting organization in telecoms is ETSI (European Telecommunications Standards Institute) generated 3G, 4G, and GSM standards.

technology they would ask the company that owned the patent to provide them with a license on FRAND terms.

However, it is not easy to determine the level of the royalty. It should not be prohibitive, but it is hard to value the technology accurately. A valuation would need to take into account, among other things:

- The R&D costs the patent-holder might have made
- Whether there is a comparator or benchmark
- The revenues that either they or the competitor would generate

In addition to these challenges, there is time pressure, because in a procurement context the relevant parties need a means of resolving the issue quickly enough to meet the deadlines of the tender.

In light of this, options should be explored for establishing reliable and transparent procedures for calculating royalties, not only to facilitate fast responses to procurement actions, but also to ease the path for smaller firms considering litigation in response to unfair exclusion from the market.

# 5 National Security Clauses as Barriers to Competition

The national security clause that permits governments and standards bodies to act in ways that promote one country's industry, as this prerogative has been extended for product specification. A number of participants said that attempts to harmonise standards would inevitably come up against the discretion of governments to declare a national security exception. The view was expressed that some countries often - or more often than other countries - supplement and modify their standards in ways that favour a national or preferred supplier. This needs to be considered when developing a harmonised approach, to make sure that all such needs are minimised or kept at an EU level. A harmonised framework should consider these aspects and include mechanisms to handle or reduce national exceptions. A common security mark and/or product database together with harmonisation of performance and testing standards at the EU or international level would reduce the risk that national suppliers are favoured.

A related issue raised by a number of participants is the fact that some of the standards for compliance and some of the specifications that must be met in order to be tested for compliance are secret. Some security standards have classified elements. This means that in order to gain access to the standard, companies must be security vetted in advance. Such vetting can take time, and the timeframe for responding to calls to tender for procurement can be tight. This may create barriers to compliance with the standard, especially for smaller players which do not have the clearance necessary to gain access to the classified information. While it was described to us as more of a procedural barrier than an insurmountable impediment to access, secrecy may confer an advantage on larger or more established companies as new market entrants will have to go through the security procedure.

The participants were of the opinion that the national security prerogatives would remain a serious barrier to competition as they would only make it possible to harmonise parts of standards. Participants did not see indications that there is a drive amongst member states to work to a common agreed standard. It was also pointed out that there is a risk that standards

developed with many organisations - EU standards in particular - tend towards higher levels of generality in their specifications, as an inevitable result of the attempts to achieve consensus. The added specificity introduced at a national level may also be in part an attempt to re-introduce the kind of detail desired by domestic markets. A harmonised standard would address this problem, but not necessarily the issue of access posed by the need to get security clearance. In order to address this, the amount of information held classified should also be at a minimum and steps should be taken to ensure the secrecy prerogative is not mis-used (for example, it might be reviewed by independent external parties).

The role of commercial companies in developing standards and in pushing at an EU level for those standards to be the dominant one where there is competition between standards, appeared to be a concern for a number of participants. Yet participants were reticent to provide specific examples and offer indications of how this perceived problem emerges in the security product field and how it should or might be addressed. Still, it seems important to flag the possibility that such efforts to influence may exist, and also that when developing the harmonised certification schemes, care must be taken to avoid imbalance between the influence exerted by specific states.

Any implication that standards emerging from the open processes of standardisation agencies were subject to this kind of influence was strongly resisted from those participants working in those fields. However, one such participant said that, generally speaking, the harder it is to reach a consensus between parties to a standard-setting process, the more generic the resulting standard is likely to be. This is because greater generality can avoid the kind of specification that might meet resistance from particular players. The greater generality of EU standards was given as an example of what is likely to occur from processes involving many players with potentially incompatible preferences. To the extent that greater harmonisation is attempted with respect to the content of standards, one potential effect may be the greater generality of the resulting standard.

# 6 The Market in Testing

Inconsistent test results between laboratories is a problem for the security product market, as other strands of HECTOS work indicate. One early idea to solve inconsistent test results among labs was to minimize the number of test labs in a scheme – or even allow for only one lab. There is a risk that this restriction may undermine competition not only in the market for testing but also slow growth in the market in products. Such a move is likely to favour national laboratories and large testing institutes that have a significant presence in furthering research and development in the specific area or field. Reducing the number of testing laboratories may influence the standard-setting process in ways that make standards become more onerous for producers. The more expensive testing is and the longer it takes, the more reluctant manufacturers – especially newer, smaller players, will be to enter the market. However, unburdened of competitors, testing houses may find it difficult to resist the temptation to make testing procedures more elaborate so as to generate further business for themselves - to the detriment of manufacturers and consumers. Only allowing one or very few test laboratories in a scheme may exacerbate this, resulting in cumbersome and complex certification processes. Once again, there is a need to balance the potential benefits of a system that ensures consistent test results with the risks of overly-onerous testing procedures. It is important to mention that the HECTOS framework does allow for multiple test laboratories in the harmonised schemes.

What kinds of actions, if any, can and should regulators take to address these risks? The participants in our study did not provide many positive suggestions for this, but we here flag the following possibilities. One approach might be to nationalise this part of the business of testing houses, so that they are no longer so responsive to a profit motive. Another might be to devise a set of principles that should be followed by testing houses when determining procedures and then incentivising testing houses to follow these, perhaps by means of an independent oversight body.

# 7 Conclusion and recommendations

As this report has outlined, standard-setting, testing, and certification processes can present potential barriers to competition as well as facilitating markets. Similarly, harmonisation should explore steps to ensure the process is as open, transparent, streamlined, and cheap as possible. In terms of facilitating the litigation of illegal behaviour, some potential courses of action could be explored. For example, regulators could consider requiring parity of resources between parties to a case or imposing a ceiling on the legal resources that can be committed by either party. The possibility of enabling cases to be heard by experts in (partially) closed sessions could also be explored. Establishing a procedure by which royalties can be determined is one possible way in which responses to calls for procurement can be facilitated and litigation supported. In terms of the role of testing houses**,** regulators may consider nationalising the relevant parts of the business and/or establishing enforceable (even if only in 'soft' terms) standards for testing so as to prevent the self-serving development of overly cumbersome procedures.

The prerogative member states of the EU enjoy to determine security policy domestically and the secrecy it protects is clearly the single most serious barrier to competition in the EU security product sector, when it comes to procurement activities. Yet it is unlikely to change unless the political will to do so materialises. It must also be acknowledged that the ability to classify aspects of standards is clearly considered vital to national security by states. It is well beyond the scope of this project to comment or make recommendations on this issue, but it is important to point out that, given the status quo, the potential of harmonisation to address anticompetitive behaviour could be limited. Therefore, a harmonised approach should seriously consider this issue. Even though being challenging to accomplish, a common security mark and harmonised security requirements are mechanisms which may mitigate anticompetitiveness.

# 8 References

[1] Communication From The Commission To The European Parliament, The Council And The European Economic And Social Committee, Security Industrial Policy, COM(2012) 417 final, July 2012

HECTOS

# Annex 1

## PARTICIPANT INFORMATION SHEET

| | |
|---|---|
| **Study Title:** | **Competition Issues Arising with Standardisation and Certification in the Security Product Sector** |
| **Investigator(s):** | **Dr Katerina Hadjimatheou and Prof. Tom Sorell** |

**Introduction**

You are invited to take part in a research study. Before you decide, you need to understand why the research is being done and what it would involve for you. Please take the time to read the following information carefully. Talk to others about the study if you wish.

(Part 1 tells you the purpose of the study and what will happen to you if you take part. Part 2 gives you more detailed information about the conduct of the study)

Please ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

**PART 1**

**What is the study about?**

This study aims to gather the views of stakeholders and lawyers on the competition issues arising in the context of testing, evaluation, and certification of security products (all kinds of security products from CCTV; biometrics; explosives detection; fences; locks etc).

We are interested in finding out about issues such as:

- cases in which hard-to-comply-with standards or hard-to access certification are used as a barrier to imports and as a hidden support for domestic companies
- the ways in which countries or companies might be able to continue to game the system even in the light of greater efforts towards harmonization
- potential tensions between greater harmonization and, for example, innovation
- how procurement regulations might come into play in these areas

This study will inform a larger EU-funded project about standardization and certification of security products (from CCTV to biometric access control to locks and gates and body-scanners). The project is called HECTOS. You can find out more about it by reading the text in the box below.

HECTOS

**HECTOS project abstract**

There are very few evaluation and certification procedures in Europe for physical security products that are mutually recognized by EU Member States. As pointed out in the EC Communication on Security Industrial Policy, this leads to fragmentation of the market, with negative impacts on both suppliers and users.

HECTOS is an EC-funded security research project that aims to address some of these issues. Its aim is to identify mechanisms to evaluate the performance of security products as well as to evaluate their compliance with interoperability, regulatory, ethical, privacy, and other requirements. The project will produce elements for a roadmap for the development of harmonized European certification schemes for

**Do I have to take part?**

It is entirely up to you to decide. We will describe the study and go through this information sheet, which we will give you to keep. If you choose to participate, we will ask you to let us know by email and to consent verbally on the phone to confirm that you have agreed to take part. You will be free to withdraw at any time, without giving a reason and this will not affect you or your circumstances in any way.

**What will happen to me if I take part?**

You will participate in a short (20-45 minutes) recorded telephone/Skype interview with us (Kat Hadjimatheou and Tom Sorell). We will ask you some questions, all of which you will have had a chance to look at in advance as we will send them by email.

**What are the possible disadvantages or risks of taking part in this study?**

We do not envisage any risks to you or your work because we will not be asking sensitive or personal questions. You may discuss conduct that is anticompetitive or otherwise reflects badly on the reputation on the workings of your employer or other actors in the sector. For this reason your anonymity will be preserved and reference to any companies, standards, or products discussed will be edited out of the report.

**What are the possible benefits of taking part in this study?**

Benefits to you include an opportunity to discuss issues affecting your work, some of which are widely known but rarely acknowledged officially. Your views will be fed into a report that will be read by the project partners (testing houses, standards institutes, technology developers) back to the European Commission, which may be able to take action to improve aspects of the current arrangements, to the benefit of your work and the sector as a whole.

**Expenses and payments**

No expenses or payments are offered as your involvement will be by means of a phone call or skype call.

**What will happen when the study ends?**

The results gathered from the interviews will be explored in a written report, which we will deliver to the project in October 2017.

HECTOS

**Will my taking part be kept confidential?**
Yes. We will follow strict ethical and legal practice and all information about you will be handled in confidence. Further details are included in Part 2.

**What if there is a problem?**
Any complaint about the way you have been dealt with during the study or any possible harm that you might suffer will be addressed. Detailed information is given in Part 2.

**This concludes Part 1.**

**If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.**

---

## PART 2

**Who is organising and funding the study?**
The study is organised by Dr Kat Hadjimatheou and Prof Tom Sorell as part of the HECTOS project, which is funded by the European Commission.

**What will happen if I don't want to carry on being part of the study?**
Participation in this study is entirely voluntary. Refusal to participate will not affect you in any way. If you decide to take part in the study, you will need to provide verbal consent, which means confirming when prompted that you have given your consent to participate.

If you agree to participate, you may nevertheless withdraw from the study at any time without affecting you in any way.

You have the right to withdraw from the study completely and decline any further contact by study staff after you withdraw.

**Who should I contact if I wish to make a complaint?**
Any complaint about the way you have been dealt with during the study or any possible harm you might have suffered will be addressed. Please address your complaint to the person below, who is a senior University of Warwick official entirely independent of this study:

**Head of Research Governance**
Research & Impact Services
University House
University of Warwick
Coventry
CV4 8UW
Email: researchgovernance@warwick.ac.uk
Tel: 024 76 522746

HECTOS

**Will my taking part be kept confidential?**
Yes. The interviews will be anonymized, meaning that we will make sure that names and any information identifying specific individuals, companies, standards, or products are carefully edited out. Professional transcribers approved by Warwick University will transcribe the interviews and then delete their recordings. Access to the transcripts will be encrypted. The original recording of the interview will also be wiped from the recorder as soon as the digital files are uploaded. There are no plans for the data to be used by anyone other than the researchers.

The transcripts of the interviews will be stored on a secure server for a minimum of ten years in accordance with research practice at the University of Warwick (Research Data Policy: available at http://www2.warwick.ac.uk/services/rss/researchgovernance_ethics/research_code_of_practice/datacollection_retention/research_data_mgt_policy ). There is no maximum set storage time, but after this period Warwick University library staff and representatives from the Department of Politics and International Studies will review access to the data may be removed and decide whether the dataset should be removed.

**What will happen to the results of the study?**
The results gathered from the interviews will be explored in a written report, which we will produce in October 2017. The report will feed into the broader work of the HECTOS project, which aims to produce elements for a roadmap towards EU harmonization of the standardization and certification of security products. It will be seen by other project partners (technology institutes, researchers, and standardization bodies) and by officials of the European Commission. We will ask if you would like us to share this report with you in draft form, to give you a chance to comment, and again when it is finalized.

**Who has reviewed the study?**
This study has been reviewed and given favourable opinion by the University of Warwick's Humanities and Social Science Research Ethics Committee (HSSREC):

**What if I want more information about the study?**
If you have any questions about any aspect of the study, or your participation in it, not answered by this participant information sheet, please contact:

**Kat Hadjimatheou, k.hadjimatheou@warwick.ac.uk, +44(0)7837549931.**

**Thank you for taking the time to read this Participant Information Sheet.**

HECTOS

# Annex 2

## CONSENT FORM

**Title of Project: Competition Issues Arising with Standardisation and Certification in the Security Product Sector**

**Name of researchers:** Dr Katerina Hadjimatheou and Prof. Tom Sorell

Please initial box

1. I confirm that I have read and understood the information sheet provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. ☐

3. I understand that my participation will be recorded and I agree for the researchers to use anonymized verbatim quotations. ☐

4. I understand that my data will be securely stored for a minimum of 10 years, in line with the University of Warwick's Research Data Management Policy. After that time, the storage and retention of the data will be reviewed by University staff. ☐

5. I agree to take part in the above study. ☐

| Name of Participant | Date | Signature |
|---|---|---|
| Name of Researcher taking consent | Date | Signature |

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 606861.