

STANDARD SETTING, INTELLECTUAL PROPERTY RIGHTS AND ANTITRUST¹

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1. A PROBLEM AT THE CROSS SECTION BETWEEN INTELLECTUAL PROPERTY AND COMPETITION, WITH PARTICULAR REFERENCE TO THE *INFORMATION AND TELECOMMUNICATION TECHNOLOGIES (ICT)* INDUSTRIES.

Among the various perceptions of a problem – the interface between intellectual property and competition - which continues to attract academics as well as law and economics practitioners to the point of forming a last frontier in intellectual property and antitrust law, there is one which covers intellectual property protection for those technologies subject to standardisation processes. It concerns an aspect which, on close examination, is upheld by an apparent contradiction, since owner conditions associated with the intellectual property issue come up against the rather “open” characteristic of the standards, as technology sharing represents a condition for market access. It is this specific characteristic of standards, as requisites for running an industrial business, which warns from the outset of the significant contact and contrast profiles that can occur with norms set up to protect competition within the market, inasmuch as property rights on a given technology do not simply mean the possibility of launching an invention and marketing it – which are the options normally recognised for the intellectual property rights holder – but control over the possibilities of competition in the technology market and in the downstream market of those products which incorporate that technology.

The contents of this outline described above are destined to increase in the case of *de jure* standards (as opposed to industry standards or *de facto*), i.e. when the technology has achieved the standard, not as a result of a selective process through market laws (and failures), but the product of a legally significant process of selection and certification, put into being by subjects who may occasionally coincide with the owners of the technology intellectual property rights. The fact that investment, sometimes of considerable sums, has been requested for research and development necessary to develop a technology, imposes resorting to defending ownership. In such circumstances, the standard loses its open character and the problems increase because, as well as the need for some kind of transactional co-ordination between market players, there is the additional dispersion of intellectual property rights. In almost the majority of cases, the relationship between technology applying for standardisation and intellectual property rights is far from a one to one proportion. In other words, as we shall see later, the technology enabling the management of a certain entrepreneurial activity seems, from the point of view of intellectual property rights, to be fragmentary and characterised by

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complementary parts. It is even less true that all rights and all technology tend to be concentrated in one subject's hands; the technical complexity of certain sectors inevitably leads to the merging of different inventions, developed in different contexts and protected by procedures which are not necessarily homogeneous. From the junction between these two circumstances emerges the necessity for a co-ordinating activity on different levels, between all market players who hold a fraction of the technology being submitted for selection or chosen as standard. The more it is covered by a quantity of patents (or other rights) which are reciprocally dependent, the more institutions of the consortium type – within which claims are mostly sophisticated mechanisms of cross-licensing and patent pooling – become the characteristic feature of the industry. But the very phenomenology of the organisational forms, put in place to regulate the activity in question independently, ends up by arousing the suspicion of antitrust.

In the present market context, moreover, standardisation –which has been hitherto discussed but which requires further details which will follow directly – is common to several markets, though with differing importance, and before that to several technologies. This observation is a warning of how the issue concerning aspects of intellectual property rights and competition in relation to each other requires more often than not, differing treatment, according to the industries in question.

On this basis it should be noted that the reasons for standardisation must today be traced back to all the economically relevant sectors of the de-verticalized dimension of technology based markets. This is due to the very complex nature of the commodities being considered with reference to information and communication technologies, in which physical components are integrated with non-physical (typically, hardware and software), the production and development of which involves a plethora of subjects. The plurality of such players at different levels in the production value chain, and their total or partial independence, create problems endemically of compatibility and interoperability between the systems. From this point of view the computer industry appears emblematic, since it is possible to retrace phases diachronically which have brought about the market's present configuration, starting from IBM's near-monopoly in the 60's and 70's of the last century. So much so that the company is present in the markets of all the components needed to build the entire computer, compatibility between the various levels is guaranteed by that integrated character of the industry. In a situation such as that described, the problem of competition is truly horizontal, between perfectly integrated subjects, regarding two perfectly interchangeable products supplied to the consumer. If, however, there are no competitors, or one of the vertically integrated competitors takes advantage of its already leading position to delay innovation or obstruct other companies from entering the market, the response on the part of the antitrust is by no means straightforward - as history has demonstrated - on account of the consequences which any remedial measure may have even after a lapse of time. Once again the antitrust issue which affected IBM, and the direction adopted by the industry afterwards, though it was confined to only one sector, indicates the delicacy of the problem.

Continuing along the same lines it must be underlined that, in situations of perfect vertical integration, intellectual property depends on that very integration, as the company holds property right protection for all levels composing the value chain, and prevents the penetration of outsiders. Examined in terms of horizontal competition, all those who are vertically integrated will have their own protection for their respective technology. The industry only has to break down on one of its levels for the whole

configuration of the market to change radically, both in terms of competitive dynamics and of the attitude and strategies concerning intellectual property. From this observation steps must be taken to identify the many different profiles of the relationship between intellectual property and standardisation, and assess them in terms of the norms for such activities, which determine market access and the existence of competitive conditions.

2. DIACHRONIC DIMENSION OF THE STANDARDISATION PHENOMENON.

The need to make commodities, services and equipment compatible and interoperable is probably an intrinsic feature of the market, which is rooted in the division of work and is enriched with the complexity of profiles through modification of the industry over time. The problem and its solution – therefore, the identification and acceptance of standards – are phenomena which are genuinely linked to industrialisation. There are nevertheless characteristic features of some industries capable of imposing totally original configurations on these two aspects. In the ICT field and telecommunications in particular, a significantly different trend can be identified, simply on account of the intense rate of change in technology which, while the aim is unaltered (the circulation of information), by its progressive increments has upturned its original matrix. It is hardly superfluous to remind ourselves that the telephone, PC and internet appeared in different moments in history and have been characterised by different evolutionary chains of events.

Where ICT industries are more closely concerned, starting from the relative simplicity of the available technology (at the end of the XIX century there was probably only telegraph), three historical phases can be seen; the last of which is in progress.

Initially the ICT industry was characterised by legal monopolies, especially in the telecommunications sector. The theory of the natural monopoly and all its connections recommended the provision everywhere of a reserve in favour of state entrepreneurial subjects or state controlled bodies, closely integrated in a vertical direction. Consequently, geographical national boundaries also indicated the area limits of maximum expansion for the national ICT industry's commercial policy. Competition in this initial phase was unlikely to be inter-state, whereas inter-regional competition did exist in the sense that the various systems were compared – including the question of standards – through their respective national examples. The period in question had its peak with the founding of the International Telegraph Union (ITU, which became International Telecommunications Union) in 1860. Although the scenario has significantly changed compared to the original structure described here, the competition phenomenon between political systems makes us aware of the value a choice of standard can bear on a macro-economic level, since in the hands of such organisations the standard itself, once the pre-liberalisation phase was over, lent itself to being used as an instrument for the protection of the national industry, in the form of a non-tariff entry barrier.

Regarding intellectual property there seems to have been little importance attached to this instrument on an empirical level; the national monopolies which participated on the state's behalf during the standardisation processes did not need to resort to monopolies to ensure their own advantageous positions. On the other hand, the standardisation processes were guided by public bodies, made up of members from the various states (though these might well have been represented by the national monopolies).

As was said at the beginning (ref. *retro*, par.1), at least within the ICT industries, the liberalisation of telecommunications markets and the consequent phenomenon of de-verticalization of the industry have brought about the need for different players, at different levels on the value chain. Liberalisation indicates the second relevant moment in the industry's evolution. The plurality of subjects nevertheless gives rise to its own Tower of Babel-type problems, where the presence of several languages brings about the risk of misunderstanding. It is clear that the presence of many components which constitute a complex commodity implies, for functional reasons, the need for solutions which guarantee inter-communication, compatibility, interoperability between levels, whatever the number of companies operating on the same level.

Although there were already standards at the time of pre-liberalisation as conditions of communication between macro areas, when liberalisation took place these standards assumed their current role of indispensable elements for guaranteeing the function of the commodities and the reliability of the ICT industry services. To this observation another must, however, be added, concerning the transformation of the conditions within which the industry is operating, as the national monopolies are progressively being eroded and removed, the unit is being replaced by the plurality and the reserved possibility of entering the market depends only on the technical condition that guarantee of conformity is given with the specification for the correct functioning of the goods supplied or the service provided within an increasingly complex value chain. Consequently there is a change in the overall attitude towards intellectual property, and as far as the topic of this study is concerned, towards those technologies which claim to be essential for interoperability and can thus guarantee a competitive advantage.

An example which is often referred to are second and third generation telecommunications protocols, indicating the changed importance of intellectual property rights. At the time of GSM, when liberalisation was still incomplete, there were about one thousand two hundred patents relevant to the network's functioning. About fifty were considered essential and were concentrated in the hands of ten subjects. The scenario changed significantly with UMTS, when there were about two thousand relevant patents, two hundred of which were essential, divided among forty operators. These figures confirm not only the changed relevance of the role of intellectual property, but also the inequality which was pointed out at the beginning between technology, rights and ownership.

The plurality of subjects, the markets' competitive nature, the increasing irrelevance of national borders affecting the supply of goods and services, the number of intellectual property rights on a qualifying technology are the ingredients in the new context, within which co-ordination is becoming an indispensable condition for action, and from other points of view, a necessary requirement for avoiding duplication of resources destined for research and development. The system for selecting standards, firstly guaranteed by the presence of standardisation public bodies, is no longer a response to industry wants, in which, under the pressure of strong competition, the rate of obsolescence of the goods and services is increasing exponentially and with it that of the standards. The slow rate which had in fact been a function of preserving national companies' monopolistic position in the pre-liberalisation era, is now probably the greatest disadvantage of the processes of standard-setting in the public field. The differential between the relevant time lapses in the selection and technology protection processes supply the reason for this argument. The participation of the standardisation body, in fact, brings in the communication of detained rights on a certain technology which is

due to be deemed standard. If, for example, the patent has not yet been emitted, the relative application has not yet been published, and the necessary eighteen months from deposit have not elapsed, the obligation to reserve judgement lies with the standardisation body, thus guaranteeing that the information is not divulged. And in any case if the standard selection procedure lasts too long, this impossibility of divulging the technology, even when the relative application for patent has been published and the patent issued, the result may be the loss of any competitive advantage. As a consequence, the incentive not to participate or not to behave in a co-operative way – avoiding declaring the existence of relevant patents - is very high and results in choices of standards which are not widely shared or appreciated in terms of quality.

Spontaneous co-ordination by the industry is a direct consequence of the market's structural change and of the unsuitability of the public standard selection procedure. This is resolved on the one hand through technical superiority and the possibility of anticipating the standard's identification itself with respect to the products' life cycles (anticipatory standardisation); on the other hand, the accentuated selective scope of the standard implies risks for accessing markets and consequently for competitive processes. Liberalisation is therefore a source of pluralism and influences both market composition and the value chain structure; it inevitably however creates the need for co-ordination of the plurality of players involved, which can have damaging results in the market itself, wherever it is resolved through price or quantity restrictions or the supply of low quality goods.

The third historic phase which characterises the ICT industry is that which can be defined as the technological convergence, in which the value chains of different goods and services tend to overlap and become confused, on account both of the multifunctional nature of some goods (like the radio mobile telephone which also becomes a terminal for surfing on the internet), and of the industry's tendency towards a new vertical integration, for costs and strategic reasons. The prospect of technological convergence makes the whole scenario far more complex, both from a technical point of view – in that the standard takes on a transversal character across many industries and for diverse functions (such as viewing the contents of a telephone terminal) – and on the legal and economic side, because the high profiles are accentuated from the point of view of competition and new problems arise, involving the circulation of information and the inter-action which some technologies allow (alluding obviously to terrestrial digital television). The identification of relevant markets in the antitrust analysis is just the right case to examine for a full understanding of the legal complexities deriving from an eminently technological phenomenon of convergence between providers of access, content and technologies.

This technological convergence charges the scenario with further problems besides those of identifying a standard which guarantees total interoperability and inter-platform compatibility among all information and telecommunication systems. The chances to access the contents under conditions of technological neutrality – i.e. independently of a specific terminal – and therefore the greatest need for contents available to the user, result in a growing need for protection and resorting to intellectual property rights. But accessing contents also means having the right of information, active and passive, and to express opinions, made possible meanwhile due to the reliability and general acceptance of the technology, the fact that the service gives total coverage, and that the gauge of the intellectual property net is not so fine as to compromise users' rights, in the first place, and the next generation of inventors and developers in second.(see art. II- 11

of the European Constitution). This last circumstance would prejudice the processes of cumulative innovation which are features of the current technological contexts.

From the point of view of those who offer the contents, the challenge of the technological convergence means above all the necessity of sharing the digital commodity without any risk of unauthorised forms of appropriation which, in the scenario of the global village described, have dilated beyond belief. A strong form of protection risks compressing certain liberties and certain processes, but a weak form would not be capable of giving adequate incentives to the authors of the contents and would result in higher prices, ultimately damaging the consumer.

3. DEFINITION AND PHENOMENOLOGY OF STANDARDS.

An operative definition of standard is contained in § 159 European *Guidelines for the application of art. 81 to horizontal co-operation agreements*, referring to the normalisation agreements. Standards are “technical or quality requirements with which current or future products, production processes or methods may comply”. The definition does not clarify the reason for which it is necessary to adhere to the specifics, i.e. that bidding by the standard is a way of ensuring the interoperability and compatibility of the product, process or method, with complementary commodities in every section of the vertical spine of the value chain. Given that the meaning of every definition of standard can only be grasped when understanding its functional character in the industry, it should be clarified that structurally the standard is nothing more than a relevant fraction of information. This characteristic, besides justifying the possibility of resorting to the intellectual property rights protection of monopolies, evokes the idea that information is a public good. However the fact that these specifics can also be produced by private individuals, possibly even without intellectual property rights protection, has caused economists to talk about standards as impure public good. It is a question of whether the production of this information can be assigned to the free forces of the market, or publicly subsidised, or created by public-type bodies, with totally different consequences in each case.

It can therefore be seen that technically the choice of standard on the part of a delegated public body is only one of the ways of ensuring interoperability and consequently the plurality of individual market players, it being equally possible for a private body to accomplish this function, or else for the free market forces to bring out a generally accepted standard, even though in some cases (accepted) *ob torto collo*. It can be inferred from a historical reconstruction that the typology for selection which require resorting to a private consortium-type organisation or a public body is the one in which the problem of forms of organisation arises from the need to manage technologies which are protected by a multiplicity of intellectual property rights. Conversely, at least in the computer industry, interoperability and compatibility between the hardware and software parts, within the latter, between operating systems and applications, can also be guaranteed outside the mechanisms of intellectual property rights, that is to say through the open source system.

Where the standard is identified by a public authority, there is the advantage that, being directly involved in the standardisation procedures, it succeeds in guiding the process, guaranteeing the general adoption of the standard at a later date over a particular area, so that homogeneity of the solutions is ensured. And ensuring the homogeneity or the tendency unity of the standard is the only way to avoid, for

example, in the terrestrial digital TV sector, the so-called *box failure*, i.e. paralysis of the system because of too many standards, approved by different organisations of which none is prevalent, through rights or muscle, over the others. This circumstance would reproduce, *mutatis mutandis*, a similar situation to that of total absence of standards.

The solution of the *de facto* standard resorts to the market and relies on the powers of self-discipline and agreement among the operators. In the case of a *de facto* standardisation, the law is survival of the fittest (such as that of Microsoft's operating system) – which does not necessarily mean the best – here standardisation is created exclusively (or prevalently) by the players involved, these are the procedures presiding over a standard's selection. It is well-known that in the context of markets characterised by feedback effects – like the markets of the network industries – the prevalence of a product over its competitors depends, even if only partly, on an effect known to economists as *tipping*, on the basis of which the consumers' appreciation of a product increases in function of the increased consumption by others. In other words, that product's market share changes because the consumers, more or less rationally, bet on the success it will have and on the disadvantages of being left out of a consumer circuit attested on a product with certain characteristics. The question appears rather complex and relevant to products relating to contiguous markets, where a company, already dominating one market, tries to extend its power to the other exploiting the described effects. In the prospect of technological convergence, overlapping of various profits is likely to cause an increase in these problems to the point of non-governability. The issue is tackled, but not resolved, in a decision by the US Court of Appeals for the fourth circuit (*Sun Microsystems, Inc., v. Microsoft Corporation*, of 26th June 2003, still unpublished), referring to the controversy in which Sun Microsystems tried to obtain a preliminary injunction against Microsoft for marketing middleware products based on .NET technology (the Microsoft competitive version of Sun's *Java*), on the supposition that Microsoft would have exploited its domination of the upstream market of operating systems as a leverage to reach the (distinct) middleware market (defined as *the* market for “general purpose, Internet-enabled distributed computing platform”). Evidently the prospect that a certain programming technology might in actual fact become a standard, in a market already characterised by considerably dominant positions upstream and with the prospect of using a single terminal for several functions (web browsing, telecommunications, inter-active applications) must be a cause for reflection.

4. PROBLEMS ASSOCIATED WITH THE STANDARD'S OWNERSHIP TYPE, RESULTING FROM CERTAIN MARKET CHARACTERISTICS.

Besides the existence of vertical interconnection network externalities and the tipping effect described above, the modern ICT industry markets display some characteristics which, with regard to diffusion of intellectual property rights, impose a careful analysis and a measured dose of wisdom in assessing the operators' behaviour.

The kinds of investments, in industries such as terrestrial digital television or third generation radio-mobile telecommunications services, make it expensive to participate in the market and constitute a selection filter for participants. In other words, at least in some sections, the ICT industry demonstrates the characteristics of an oligopoly and highly concentrated power within the market. The fact that the standard is then used to control access to other operators, results in the control over the selection processes for the standard being naturally an excluding factor, capable of leading to monopoly situations. The existence of intellectual property rights over the technologies and

contents, combined with power of access control, transform the mechanism of competition into a system in which the winner appropriates the entire market value, rather than just the marginal increase linked to its contribution. The competitive arena tends to reward the strongest on the precept that the “*winner takes all*”, such that the rule of the game becomes competing *for* the market, rather than *in* the market. Moreover, once the prime position has been attained – and here yet another aspect is introduced – switching costs, the costs of migration emerge and have to be sustained by the consumers when switching from one product to another. Considering that high technology goods usually also have a high tendency to become obsolete, the limited rationality of consumers makes them become “fond” of a certain product, a comparison of conversion costs in use with the evolution of the technology, while it discourages enterprise on the side of the consumer, protects the position of the technology’s actual incumbent producer. Applying this logic to the standard, it is clear that quality and customer approval are not necessarily in proportion. In addition, reasons of *backward compatibility* favour, instead of undermine, existing standards, propitiating their further application.

It should by now be clear that the standard’s importance in industry development, the crucial role of intellectual property rights in protecting considerable fractions of information necessary to guarantee compatibility and interoperability, and access to a particular economic activity, as well as the numerous failures of the market, make it indispensable to create a system of adequate rules. Up to now, as will be shown below, Europe has, perhaps unconsciously, adopted a low-profile attitude in regulation policy for establishing norm agreements, limited to the sketchy regulations in the Guidelines for the evaluation of horizontal agreements under art. 81 of the Treaty.

5. THE U.S. PERSPECTIVE.

As previously underlined several times, proof of regionalisation of the standardisation procedure, at least as far as information and communication technologies are concerned, is found in policies - albeit only partially coincidental - adopted by Europe and the US. The latter, in particular, after an initial trial period carried out by public standardisation bodies, showed, mostly thanks to private industry initiative, to prefer mutual consent standardisation consortia methods or, otherwise known as, spontaneous organisations. It is necessary, however, to consider that the standardisation phenomenon is directly connected to industrialisation and, in during rapid and powerful technical and economic progress, the answers that industry is looking for must be compatible with the time needed in getting products to market. This explains why, given that standardisation processes carried out by public bodies are generally longer than a product’s life cycle, American industry has equipped itself differently by creating self-organisation bodies. Such a process of private entity creation - the *standard setting organisations* (SSO) - appeared to be far more necessary when the importance of the so-called *anticipatory standardisation* was understood, meaning approving product and process specifications before prior to production; an action which can conform the market, transmitting reliable signals regarding a certain technology’s future, with obvious effect from the point of view of research and development investments.

The virtue of an inverted temporal sequence, where the standard definition precedes the creation of a given market - obviously influencing results - can be appreciated if we

consider the events related to terrestrial digital television in Europe, where the DVB consortium identified the MHP standard earlier than the (uncertain) moment of going over to digital from analogical television. From the operator's point of view, the Digital Video Broadcasting experiment proved successful, due to intense end user participation in the end product, without apparent intent or hidden collusion or predation.

In the US, for obvious antitrust reasons, the intrinsic "cartel" nature of the aggregation process among private industries (whether consortia, associations or partnerships) interested in standardisation processes, has become one of the alarming factors dangerous to SSO development and to the benefits of spontaneous co-ordination between businesses. It goes without saying that exchanging information - which represents a predominant part of SSO activities - in all forms together with decisions in selection, exclusion, quantification of royalties and licensing conditions, could have been read directly or indirectly as equivalent to restriction in competition processes.

As regards the north American reality, the scholars' thoughts started earlier on, warning of possible danger for the markets which SSO activities were interested in, not forgetting to underline, however, the definite advantages that these activities would generate in terms of cutting co-ordination and transaction costs, pushing for innovation and ultimately, the wellbeing of the end consumer. This second circumstance was nevertheless opposed by U.S. courts, due to the *Sherman Act* provisions, on the subject of horizontal agreements between companies, with particular regard to price fixing or/and division of geographical markets. As known, nevertheless, in American law some typologies of horizontal agreements are considered restrictive to competition *per se*; therefore, forbidden without hope of redemption (e.g.: the case of *United States vs. Topco Assocs.*, 405 U.S.596 (1972) for a market's horizontal division between competitors). For other agreements, however, the evaluation criteria in antitrust analysis is that of *rule of reason* and, hence of a "critical judgment", within which the presumed restrictive nature of the agreement is only relative.

In order to clarify the legal context, more with reference to the antitrust discipline, and with clear intent of "encouraging the development and promulgation of voluntary standards" the US Congress is on the point of adopting a law that introduces an antitrust treatment appropriate for standardisation agreement. The Standards Development Organisation Advancement Act (SDOAA) of 2003 (named H.R. 1086) was approved by the House of Representatives on 10th June 2003 and is now under examination by the Senate.

The meaning of this set of rules, of which there is trace in the preparation and text of the proposed law, needs to be traceable within the evolution of the antitrust legislation as far as research and development activity is concerned. In fact in 1984, Congress had already passed a law known as the *National Co-operative Research Act* (NCRA), with the intent to protect R&D cartels from any antitrust intervention, especially in relation to treatment that the same form of co-operation are regulated within other legal systems (as for example in the Japanese or EC systems). It is necessary to start by saying that all the successive legislation regarding antitrust treatment of negotiated phenomenon bound to innovation is attributed to the NCRA for introducing the concept that then became fundamental to antitrust analysis within the ICT industry and therefore, also regarding standardisation agreements. It hints of the notion of the knowledge market or, as it has also been defined, innovation market, where it means not a product's market, but a market for the technology necessary to create that product, being autonomous object of creation and with its own existence. The presence of an autonomous technology market

is, obviously, the factor that unites, in many aspects, research and development agreement with standardisation agreement, because of how the innovation process is grasped. Appreciating the innovation market - which is an upstream market as opposed to goods production or the supply of a service based on technology (downstream market)- derives from understanding the risks to the competition processes which both activities quoted could have on downstream markets development and justify the parallel path followed by the antitrust regulation.

With the NCRA it was foreseen that the standard for evaluating research and development agreement would have been the *rule of reason*. Moreover, treble damages were excluded in case of proved responsibilities for restricting competition (limited to those agreements that were notified to the Department of Justice or the Federal Trade Commission) and institutes the loser-pays-for-all rule as far as reimbursing legal costs in the cases of frivolous lawsuits; this last provision is also applied for the agreements not notified. Some of the “conditions of favour” accounted for by the NCRA, as mentioned, were subject to the obligation to notify the Federal Trade Commission or the Department of Justice of those involved parties, as well as the agreements’ nature and subject.

Although significant, the NCRA, nonetheless, has been judged by as an operation now partially superfluous [in as much as the law courts were already oriented for applying *rule of reason* for research and development agreements; e.g.: *Northrop Corp. vs. McDonnell Douglas Corp.*, 705 F.2d 1030 (9th Cir. 1983)], or incomplete, also in consideration of the current law enforced within the European Community. Actually, during the 1990s a proposal was put forward to extend favourable treatment in terms of antitrust to those agreements having the co-ordinated development of research and development as a subject, even when this agreement, as a further step in development, would embrace combined production and marketing. Taking advantage of a circular innovation model, the Schumpeterian matrix, it was possible to sustain that the same logic could even be applied to those agreements that were pushing beyond the provision of research and production, finishing up with marketing; the reason for this lies in the conviction that the increase of innovation would have been higher if the information gained in the successive stages had flowed back in the previous stage of planning and execution of the research and development efforts.

The federal legislator partly collected criticism and comments, mainly of academic derivation, and in 1993 modified the NCRA, introducing the *National Co-operative Research and Production Act* (NCRPA, coded as 15 U.S.C. §§ 4301-4306) and extended the ruling sphere of the first to agreements which also related to production. To get a whole picture, it is necessary to point out that some parties believed that both the NCRA and its successor were normative interventions of little innovation value; this explains industry’s cool reception and why the impact on the market was modest. Very different, for research and development activities, the situation in Europe where, because of EC Regulation 2659/2000 of 29 November 2000, the exemption of block is now extended as per art. 81.3, of the EC Treaty, research and development agreements (including phases of exploiting results) between competitors in which the combined market share does not exceed 25% of the relevant whole market of those products which could be improved or substituted with the goods cited in the agreement (art. 4.2). Prior to the EC Regulation 2659/2000, the same exemption, for a market share of 20% was provided by in the EEC Regulation 418/1985 of 19 December 1984, predecessor of the current one.

The reference to the two American sources quoted will prove to be important, because the bill H.R.1086 entered with its full title along the original tracks started by the NCRA in 1984.

The real propelling factor of private standardisation processes follows the recognition of the importance of the technical standards developed within the voluntary phenomenon by the *National Technology Transfer and Advancement Act* 1995 (NTTAA, coded as 15 U.S.C. 272), consequences of which thousands of original specifications coming from public bodies had progressively been reduced and substituted by new ones. The principles that lead to the development of a standard on a voluntary basis are then merged in the circular A-119 of the *Office of Management and Budget*, as modified in 1998. In particular, it predicts, that: (a) all parties potentially interested in a standardisation process must be informed of development activities; (b) the possibility to participate in the process of standard identification or standard modification must be given indiscriminately to all; (c) there must be a balance of interest within the standard development activity, so that it is not dominated by one individual or group; (d) the essential data regarding the proposed standards and the respective final versions must be easily accessible; (e) once the various points of view and obvious objections have been taken into consideration, it must be seen that a substantial agreement has been reached on all relevant aspects; (f) it must be possible to express a position, that will be examined, and have the right to appeal against a negative decision. The circular quoted is important because the proposed law defines the SSO, as every organisation, national (i.e. US) or international, that plans, develops, establishes and co-ordinates mutual standards using procedures that respect the requisites of free access, balance of interests, debates, right of appeal and principle of consent, as expressed in the circular A-119. Therefore, if only *per relationem*, the circular contains some principles that if applied, would give consent to determine the scope of the subjective application in law.

As far as the objective scope is concerned, the cover granted by the proposed law concerns the general development of the standard, defined, as every action undertaken by an SSO, with the aim to develop, promulgate, revise, amend, appeal, interpret and in each case maintain a mutually agreed standard, or, use this standard in the evaluation procedures, inclusive of all matters of political evaluation regarding intellectual property within the SSO. The definition of the standard it refers to, is in *section 12(d)(4)* of the NTTAA, where it states that the technical standards are all “performance-based or design specific technical specifications and related management practices”.

Particularly important, especially in view of the possible direction that the European normative will take on this subject, is the exclusion from the definition - and therefore from the protective limits of the law - of some activities. It is worth underlining that the relative regulations are literally those of the NCRPA. In the first place, the exchange of data between competitors relative to costs, sales, profit margins, prices, marketing or distribution of a product, a process or a service cannot be considered as a the development of a standard, unless the said exchange is not reasonably required with the aim to develop or promulgate the standard or to be used with conformity to the evaluation procedure. Moreover, on a requisite of reasonability for the hypothesis of information exchange legality, doubts were already raised, as commented by the NCRA, because the formula appeared vague and indeterminate. Bill H.R. 1086, however, excludes the possibility of considering a development of standard process, an

agreement which results in the division of markets between competitors, or in price fixing either goods and/or services.

As was said before, the *proprium* of the unwritten norm application is understood in the light of the precedent in the research and development field. And, in fact, technically the legislator intends to renew the NCRPA, extending the application of the *rule of reason* to standardisation agreements, in consideration of research components, which characterise the development of standards. In conclusion, as well as a softened judgment criteria on the harsh antitrust point of view, the law foresees that the amount of compensation in the hypothesis of an antitrust injury should be limited to actual damage to be proved in a law court. In short, the amount of legal costs in cases of frivolous lawsuits follows the loser-pays-for-all rule (so-called *English rule*); this is not normally recognised by the American legal system, where everyone pays for their own legal costs (so-called *American rule*). Obviously, the reference to the NCRPA normative includes the extension to the SSO of the administrative burden foreseen as a condition to be admitted in the favour of the normative. In particular, the SSO is obliged, within 90 days from the start of the development activity (or from the enforcement of the law, if later) to notify the existence of the development activity to the Attorney General of the Department of Justice, or rather to the Federal Trade Commission, indicating the SSO's characteristics and attaching documents confirming the body's nature and activity plus any other information deemed necessary by the NCRPA.