



JRC SCIENCE AND POLICY REPORT

Fight against counterfeiting of goods related to IP infringing

Technical report of DG JRC.G.06 on analysis of Due Diligence for fight against counterfeiting of goods related to IP infringing

Gianmarco Baldini, Mariachiara Tallacchini, Igor Nai Fovino, Ioannis Vakalis, Antonia Rana, Michel Chiaramello, Vincent Mahieu, Emilio D'Orazio

2015

European Commission

Joint Research Centre
Institute for the Protection and Security of the Citizen

Contact information

Gianmarco Baldini
Address: Joint Research Centre, Via Enrico Fermi 2749, 21027 Ispra (Varese), Italy
E-mail: gianmarco.baldini@jrc.ec.europa.eu
Tel.: +39 0332 78 6618

JRC Science Hub
<https://ec.europa.eu/jrc>

Legal Notice

This publication is a Science and Policy Report by the Joint Research Centre, the European Commission's in-house science service. It aims to provide evidence-based scientific support to the European policy-making process. The scientific output expressed does not imply a policy position of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication.

All images © European Union 2015

JRC95089

EUR 27168 EN

ISBN 978-92-79-47149-0 (PDF)
ISBN 978-92-79-47148-3 (print)

ISSN 1831-9424 (online)
ISSN 1018-5593 (print)

doi:10.2788/78206

Luxembourg: Publications Office of the European Union, 2015

© European Union, 2015

Reproduction is authorised provided the source is acknowledged.

Abstract

This report analyses how Due Diligence concepts, which includes Corporate Social Responsibility (CSR) and Supply Chain Management Responsibility (SCMR) can be applied to the fight against counterfeit related to IP infringing. We intentionally decided to limit the study in this report to the market portion of counterfeit products related to IP infringing. Counterfeit products can be a wider set than just IP infringing products.

1	<i>Introduction</i>	7
1.1	Scope of the report	7
1.2	Overview of the problem	7
1.3	Drivers for IP infringing	8
1.4	Drivers for policies to fight IP infringing behavior	8
1.5	Domains	9
1.5.1	Textiles (non luxury goods)	9
1.5.2	Electronics/Integrated Circuits/Telecommunications	9
1.6	Current Barriers and Challenges	9
2	<i>Due Diligence and Corporate Social Responsibility</i>	11
2.1	Definition of Due Diligence	11
2.2	Corporate Social Responsibility (CSR)	11
3	<i>International Accountability Standards</i>	12
3.1	Standards and Corporate Social Responsibility (CSR)	12
3.2	International Accountability Standards and protection of Intellectual Property Rights 13	
4	<i>Responsible Supply Chain Management (RSCM) and protection of Intellectual Property Rights</i>	13
4.1	Stanford’s RSC framework	14
4.2	Other RSC approaches	15
4.3	Technological implementation of Responsible Supply Chain Management	18
4.4	Conclusions on Responsible Supply Chain Management (RSC) and protection of IP rights	18
5	<i>Recommendations</i>	19
6	<i>Conclusions and Future Developments</i>	22
7	<i>References</i>	23
A.1)	<i>Case Studies</i>	25
A.1.1)	Siemens	25
A.1.2)	Telefonica	27
A.1.3)	Inditex	28
A.1.4)	EICC- Electronic Industry Citizenship Coalition	30

Revision History

Revision	Date	Author(s)	Description
0.1	8/01/2015	JRC team	First draft
0.2	11/02/2015	JRC team	Second draft
1.0	05/03/2015	JRC team	Final version

List of Authors

Name Surname	Organization
Gianmarco Baldini	European Commission - Joint Research Centre
Maria Chiara Tallachini	European Commission - Joint Research Centre /Universita' la Cattolica, Piacenza
Igor Nai Fovino	European Commission - Joint Research Centre
Ioannis Vakalis	European Commission - Joint Research Centre
Antonia Rana	European Commission - Joint Research Centre
Michel Chiaramello	European Commission - Joint Research Centre
Vincent Mahieu	European Commission - Joint Research Centre
Emilio D'Orazio	Politeia

Executive summary

Intellectual Property (IP) is a key driver for growth and innovation in Europe but it can be hampered by the growing threat of IP infringing products. In this context, IP infringements should be understood as any breach of an intellectual property right (e.g., trademark, copyright, patent). Commercial-scale IP infringements are a global phenomenon and are present in the Internal Market. The economic returns on their distribution and sale are such that there will always remain an incentive to engage in such activities. Given the speed with which these activities can be developed and exploited in today's inter-connected global market place, it is important to endorse effective preventive mechanisms supported by precise detection systems. These mechanisms are essential to dissuade IP infringements and thus increase the incentives to engage in legitimate and sustainable businesses that are growth and employment enhancing.

In this report, we will focus on the fight against IP infringing activities related to the counterfeiting of goods. For example, the creation and distribution of "fake goods". Other aspects like online infringement of copyright will not be addressed in this report.

Preventive measures to fight against IP infringing activities can take both organizational and technological forms. Organizational measures are centred on the implementation by businesses of Due Diligence rules and best practices, while technologies are available to assist firms in tracking and tracing legitimate products and to empower citizens and law enforcers to detect IP infringing products.

This report is mostly focused on the application Due Diligence concepts to the fight against IP infringing including the potential application of Corporate Social Responsibility (CSR) and Responsible Supply Chain Management (RSCM). This report is a reduced version of a larger report on Due Diligence, which is available on request.

JRC has also drafted in 2014 another report which provides a a) survey of technologies to fight against IP infringing activities and b) a description of approaches and technologies to empower citizens and law enforcers to detect IP infringing products. This additional report is also available on request.

The structure of the report is following: Section 1 provides an introduction and an overview of the problem. Section 2 defines the concept of Due Diligence and Corporate Social Responsibility. Section 3 gives an overview of the main related standards for Due Diligence. Section 4 presents the main theoretical frameworks for CSR and RSCM and their applicability to fight against IP infringing. Section 5 provides recommendations. Finally, section 6 concludes the report. Annex 1 presents and discuss some case studies of the application of Due Diligence to fight against IP infringing.

Glossary

BSR	Business for Social Responsibility
CSR	Corporate Social Responsibility
ESR	Environment Social Responsibility
IAS	International Accountability Standards
IP	Intellectual Property
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
MNC	Multinational Companies
NGO	Non Government Organization
OECD	Organisation for Economic Co-operation and Development
RSCM	Responsible Supply Chain Management
SCC	Supplier Codes of Conduct
SISSCR	Study of Supply Chain Responsibility
SSC	Sustainable Supply Chain
WIPO	World Intellectual Property Organization

1 INTRODUCTION

1.1 Scope of the report

This report analyses how Due Diligence concepts, which includes Corporate Social Responsibility (CSR) and Supply Chain Management Responsibility (SCMR) can be applied to the fight against counterfeit related to IP infringing. We intentionally decided to limit the study in this report to the market portion of counterfeit products related to IP infringing. Counterfeit products can be a wider set than just IP infringing products.

1.2 Overview of the problem

Intellectual property is a key driver for growth and innovation in Europe but it can be hampered by commercial scale IP infringing activities that undermine investment, growth and sustainable employment in legitimate innovative business ventures (European Commission, (2014)). Given the speed with which these activities can be developed and exploited, affordable preventive schemes and precise detection systems are essential. Criminal organizations are often involved in IP infringing activities. It has been suggested that as much as 80% of IP infringing activities are due to organized crime (UK Home Office Home Office, (2013)). As a consequence, there is a two-fold negative impact in terms of lost fiscal revenues and enhanced funding of criminal activities.

The OECD report on the Economic Impact of Counterfeiting and Piracy (Angharad, (2012)), identifies two principal markets for counterfeiting:

- In the first (the primary market), counterfeiters and pirates infiltrate distribution channels with products that are often substandard. Consumers unwittingly purchase these products, thinking that they are genuine.
- The secondary market involves consumers who, under certain conditions, are willing to purchase counterfeit or pirated products that they know are not genuine.

In "Strategies to detect and reduce counterfeiting activity" (Berman, (2008)), Barry Berman identifies four distinct types of counterfeiting/piracy. In the following table, we use similar terms to the ones used in (Berman, (2008)):

Table 1 Types of counterfeit

Sound alike	Where consumers are aware that they are purchasing an inexpensive copy due to the product's low price relative to the authentic good, the lack of traditional packaging, and/or the unusual distribution channel. The consumer has knowingly purchased a counterfeit product and the loss in sales to the genuine product owner is relatively limited because the counterfeit and the authentic product are targeted to different markets (i.e., this consumer would never have purchased the authentic product).
Tear Down	Where genuine products are reverse engineered on the basis of stolen blueprints to produce cheaper versions of the main product. This form of IP infringement can have both business and societal impact, because the producer of genuine copies can lose market share to the copies or they can be negatively impacted by the low quality copies. In addition, safety issues can also be present in some domains (e.g., electronics components used in avionics, automotive).

Outsourced products	These are products manufactured by outsourcers of the original, which the genuine product manufacturer is unaware of. An example is provided in (GIDEP, (2006)). The problem of this type of IP infringement is that the product is very similar or identical to the genuine article because it comes from the same manufacturing plant/service supplier.
Non-conformant products	The fourth form of IP infringement is related to products produced by outsource suppliers that do not meet a manufacturer's/ suppliers' standards but were not properly labeled as seconds or destroyed. These products are reclaimed and resold as first-quality products. Another variation of this case are products, which are refurbished to lower quality of standard because the refurbishment process is usually not 100% able to attain the same quality. This issue is particularly relevant in the electronics/automotive sector. It is questionable if this case can be classified as IP infringing

Note that the *consumer* term used in Table 1 can be a firm like a manufacturer or retailer. The definition of adequate corporate quality practises is essential to avoid the introduction of counterfeit products in manufacturing/supply chain or distribution processes.

1.3 Drivers for IP infringing

There are different incentives for IP infringing activities, which are briefly listed here:

1. *For manufacturers:* Competitive advantage against other supplies by providing low-cost goods or components. This is especially relevant for second tier suppliers.
2. *For consumers:* Lower prices in comparison to the authentic products.
3. *For consumers:* Peer pressure from other customers (for example within the younger generation). See (Pamela at al., (2011)).
4. *For consumers:* Anti-big business attitude by consumers, who consciously buy IP infringing products to undermine reputable multi-national brands
5. *For criminal organizations:* to profit from the difference in price between counterfeit and authentic products.

1.4 Drivers for policies to fight IP infringing behavior

The following elements drive the need for new policies to fight IP infringing behaviours:

- 1) *Impact on business, investment and jobs.* IP infringing products have an impact on the design and development of products, because they reduce the returns to investment in IP and therefore into innovative and new products and processes. This risk translates to an impact on the economy especially when the economy is dominated by sectors that are IP dependent.
- 2) *Decreased tax revenues.* Apart from the major impact on revenue losses (which translates to lower applicable taxes) by companies producing genuine products, IP infringing products will often be produced, distributed and sold in the grey or black market and thus again undermine national fiscal budgets.
- 3) *Undermine consumer trust and demand in the relevant market.* A market with relatively high levels of IP infringing products not only undermines investment in the relevant product categories but also undermines consumer trust and therefore general demand for such products. For example if e-commerce is seen to be risky, consumers will increasingly turn away from this form of retail service.
- 4) *Fight against organised crime.* Reducing the revenues that can be made from IP infringing behavior will reduce a significant source of funding for organised crime (UK Home Office Home Office, (2013)).

- 5) *Product quality and safety*. In the area of “Consumer interest”, existing guidelines require companies to adopt the necessary measures to guarantee the quality and the safety of goods and services produced, ensuring their conformity to health and safety standards for the protection of consumers. Even if IPR are not explicitly mentioned, it is possible to affirm that IP protection is an integral part of the product’s quality and safety; therefore, the safeguard of “consumer interests” represents a solid basis for considering IP protection as a corporate responsibility issue.

1.5 Domains

Since all markets can be impacted by IP infringements, a choice was made to focus on very specific domains: a) textiles and (b) electronics. The case studies presented in Annex 1 are mostly related to these two domains.

1.5.1 Textiles (non luxury goods)

Counterfeit goods in the textile industry have grown in volume in recent years and the range of goods subject to infringement has increased significantly. The four most IP-infringing areas in the textile industry are (see Textile Centre of Excellence <http://www.textile-training.com/>):

1. High quality woven worsted with selvedge (selvedge are self-finished edges of fabric)
2. ‘Noble fibres,’ including cashmere
3. Interior furnishing textiles
4. Branded apparel and accessories

1.5.2 Electronics/Integrated Circuits/Telecommunications

In the defence market, many cases have been reported of IP-infringing products. The detection of such infringing parts usually occurs when there is a product or system failure, and the subsequent investigation of the root cause failure reveals that a part, or the entire product, is not authentic. However, product failures are not always linked to an associated IP infringement since testing focuses on the technical specificities of the relevant product. In many cases, without proper root cause analysis, the failure is attributed incorrectly to other causes. Examples of IP-infringing electronics in the defence market can be found in (GIDEP, (Jan 2006)) and (GIDEP, (March 2006)). The consequences of IP-infringing components go beyond lost revenues of the electronics industries. Such components affect electronic products by degrading their performance, damaging further the reputation of the industry and reducing the market range. Some sectors in the electronics industry can be more vulnerable to IP-infringing products than others. For example, defence hardware systems or airplanes systems are often in service for long periods, which makes them particularly susceptible to IP-infringements, due to problems with the availability and obsolescence of parts used in such systems as described in (Stradley et al. (2006)).

1.6 Current Barriers and Challenges

The purpose of this section is to identify and describe the main barriers and challenges in the fight against IP infringing:

1. Business companies hardly discuss or tend to minimize the negative aspects of IP infringing of their products for fear or negative impact to their reputation. This aspect reduces the amount of information available on IP infringing to decision makers and enforcement authorities.

2. The negative economic incentives (i.e., fines, legal actions) to reduce IP infringing are clear both for companies and users. The positive economic incentives to buy authentic products are clearer for the companies (e.g., increase sales) but they are less clear for the users. The awareness of the user towards the negative effects of IP infringing product should be raised in the general public. However, this action of raising public awareness can hardly succeed if the focus and rationale for it merely refer to economic damages. Indeed, economic damages represent the main concern raised by the European Commission. However, it should be made clear that economic damages can be understood as the quantitative dimension that broadly accounts for, and summarizes damages to a variety of social goods and values (e.g. public health, human rights, etc.).
3. Business companies have still difficulties to quantify the benefits of implementing and deploying technologies against IP infringing. In part, this is due to an incomplete perception of the associated costs of IP infringing due to lost sales/revenues or negative image impact.
4. The protection of IP rights in a business companies is often not part of the main company processes where the protection should be enforced (e.g., supply chain). For example, IP protection is controlled by the legal department, which may not have direct interactions to the manufacturing of distribution processes of the company. This separation of knowledge and expertise, values, and related responsibilities negatively impacts the effectiveness of solutions against IP infringing.
5. In some domains, there is not enough awareness of the negative impact of IP infringing products which can go beyond the loss of sales or negative image impact. For example, semiconductors used in safety related applications like automotive or healthcare can have lower quality standards if they are IP infringing.
6. Tier One or Tier Two Suppliers can be geographically distant from their clients (e.g., manufacturers of finished goods). In addition, the suppliers could operate in regulatory environments which are less severe or effective than their clients. This distance makes very challenging for the firms to gain visibility into the actual practices of suppliers located in these geographies, limiting their ability to monitor and prevent labour and environmental violations as well as IP leakages.
7. The importance of the human factor in the protection of IP infringing in business companies is still not fully understood but it has been reported as a significant cause for IP infringing.

2 DUE DILIGENCE AND CORPORATE SOCIAL RESPONSIBILITY

2.1 Definition of Due Diligence

Due Diligence is normally considered as the set of procedures put in place by a company when it has to decide whether to engage a supplier or not. Such procedures should be very detailed and should consist in verification systems documenting the level of risk posed by a supplier with regard to compliance and possible violations that might occur. On the basis of this verification, a company evaluates whether and how it should engage the supplier. This can be considered as a *narrow* definition of Due Diligence.

A *broader* definition of Due Diligence is provided in the OECD Guidelines for Multinational Enterprises and the UN Framework: Due Diligence is a process that is part and parcel of decision-making and risk-management systems and, as such, allows companies to identify, prevent and mitigate their effective or possible negative impact and to account for the ways in which they solve issues (OECD, 2011, Commentary: par.14)¹. As stated by the OECD Guidelines, due diligence should be especially put in place with regard to suppliers.

According to the Danish Council on Corporate Social Responsibility, “Due Diligence is about how companies ensure that they are aware of, and can describe, the risk of violations taking place and their potential harm. [...] Companies must implement initiatives which limit the risk of violations occurring and [...] [must] demonstrate due diligence by ensuring the following basic steps: policies, risk assessment, implementation, reporting” (Danish Council on Corporate Social Responsibility, 2010:7).

In the light of this definition, Due Diligence is the entire process originating from the overall approach to sustainability and supply chain management adopted by a company, informing and comprehending all of the company’s activities, especially when it comes to supply chain management.

2.2 Corporate Social Responsibility (CSR)

Corporate social responsibility (CSR) can be defined – and indeed has been defined – in countless and often conflicting ways. In order to avoid the problem of establishing the exact meaning of a term when this meaning is not yet shared nor defined, CSR has been used as an “umbrella term” for all the debates dealing with the “responsibilities of business and its role in society” (Scherer and Palazzo, 2007: 1096), including subfields like business and society, business ethics, or stakeholder theory.

In the absence of a broad consensus on a definition of CSR and in the presence of a strong disagreement about the appropriate role of the corporation in society, “CSR is best understood not as a concept, a construct, a theory but as a *field of scholarship*”, an area of study “without paradigm” because in it there is no prevalence of a particular theoretical approach or a particular method (Crane et al., 2008: 6-7). We will adopt this understanding of CSR in the report.

We present in their essential lines three of the main approaches in the current business ethics management literature that have attempted to construct a more encompassing view of social reality and that have in turn informed a broader perspective of the purpose of the firm:

1. First, stakeholder theory is probably the most longstanding approach aimed at the reconceptualization of the firm as an entity with multiple purposes. Its different levels allow to take into account social reality, which affects corporations and is affected by them (descriptive level); to reflect on the fact that sound management must consider all

¹ See also OCSE - Punto di Contatto Nazionale Responsabilità Sociale d’Impresa, 2011:5.
Fight Against IP infringing
Technical report

the groups which are part of that social reality (instrumental level); and to acknowledge that the rights of those groups provide these same groups with some legitimate “stake” in how the firm is run (normative level) (Donaldson and Preston, 1995).

2. Second, a recent thread of CSR theory has focused on the “political role” of the firm (Scherer and Palazzo, 2011). Starting from the observation that corporations have become active players in the governance of societies, especially at the global level and often alongside governments, scholars from this strand of research believe companies’ decisions are not just related to the pursuit of economic goals, but also to the respect of the interests and rights of those who are governed by those decisions.
3. Lastly, a more recent strand of CSR research has focused on “Business and Human Rights Debate”. Human Rights have not played a role in CSR in the past. Similarly, CSR has had little influence on what is now the “business and human rights debate”. According to some scholars (Wettstein, 2012b), a closer investigation of the two debates would allow for the formulation of an expansive conception of corporate human rights obligations. Such a conception does not stop with corporate obligations to respect human rights, but includes a focus on proactive company involvement in the protection and realization of human rights.

3 INTERNATIONAL ACCOUNTABILITY STANDARDS

3.1 Standards and Corporate Social Responsibility (CSR)

In 2011 the European Commission presented a Communication with the aim of relaunching the EU’s strategy concerning Corporate Social Responsibility (CSR) for the 2011-2014 period (European Commission, 2011). Since 2001 the European Commission acted as a pioneer in the promotion of CSR policies across Europe, contributing to remarkable progresses in this domain. CSR is now understood as “the responsibility of enterprises for their impacts on society” (European Commission, 2011: par.3). The purpose of enterprises is now twofold: a) they should be aimed at “maximising the creation of shared value for their owners/shareholders and for their other stakeholders and society at large” and b) they should “identifying, preventing and mitigating their possible adverse impacts” (European Commission, 2011: par. 3).

For effectively enacting CSR, companies are invited to adhere to a *core set* of principles and guidelines internationally acknowledged which constitute “an evolving and recently strengthened global framework for CSR” (European Commission, 2011: par. 3.2).

These principles and guidelines are:

- The OECD Guidelines for Multinational Enterprises, recently updated;
- The UN Global Compact;
- The ISO 26000 Guidance Standard on Social Responsibility;
- The ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy;
- UN Guiding Principles on Business and Human Rights.

The term “standard” generally indicates an instrument defining rules on what those who adopt the standard should do and should not do. At the international level, so-called “International Accountability Standards” (IAS) are of particular importance. They are the result of transnational initiatives aimed at encouraging and guiding corporate social and environmental responsibility. They represent forms of *soft law*, which, contrary to *hard law*, are not legally binding; as a consequence, “standardizers” can hardly have a hierarchical authority, and it is difficult for them to impose sanctions and to make use of rigorous enforcement mechanisms.

Despite these limitations, IAS represent a realistic and suitable solution for social and environmental issues in the global economy (Gilbert et al., 2011) especially in the light of the limited direct applicability of international law to non-state actors, such as enterprises.

3.2 International Accountability Standards and protection of Intellectual Property Rights

All the International Accountability Standards that have been taken into consideration include important references to the management of the *supply chain* as one of the most sensitive areas for corporate responsibility, in which companies must show a marked responsible attitude.

However, none of these standards contains a reference to the protection of *intellectual property rights* as a matter of corporate social responsibility and of sustainable supply chain management. Only the OECD Guidelines briefly refer to IPR, but they do not consider IPR as a “sensitive” supply chain issue the company should exert a “responsible” control on. This clearly indicates how IPR protection in the supply chain is a weakly perceived question from the CSR point of view, and how this is not qualified as a “risk” that the company should cope with. However, the tools offered by these standards, such as the definition of a due diligence approach for the control of the company’s activities and of its supply chain, appear as extremely relevant and appropriate for IP Protection as a matter of corporate responsibility. Moreover, such tools are immediately applicable to IP protection issues. It would only be necessary to better clarify that these instruments could and should be extended and applied to IPR protection, in a “responsibility” perspective. The requirement to protect consumers’ health and to guarantee product quality, as mentioned in the OECD Guidelines and in the ISO 26000, represents a further element to rely on for better explaining the necessity to control and prevent IP infringement in the supply chain.

4 RESPONSIBLE SUPPLY CHAIN MANAGEMENT (RSCM) AND PROTECTION OF INTELLECTUAL PROPERTY RIGHTS.

Over the last few years, a growing number of companies have put increased attention on issues related to RSC, intangible assets and IPR (for example, patents, trademarks and trade secrets).

IP protection represents a major driver for strengthening the command of the supply chain. Protecting IP is critical for the company’s value. However, companies should be concerned about potential infringements of both their own IP and of the IP of other companies in the supply chain. Suppliers could use inauthentic raw materials or components and introduce poor quality or unsafe counterfeit products, thus creating health and safety issues and causing adverse impacts on consumers and society (The Conference Board, 2012)².

This is why IP protection and anti-counterfeiting should be integrated among the supply chain sustainability issues to be closely monitored. The strategy for protecting IP in the supply chain could build on the existing RSCM practices and companies could extend their current procedures concerning quality, labour and environmental compliance in the supply chain to IP protection. For instance, an effective way for protecting IPR (Intellectual Property Rights) in the supply chain could be represented by the introduction of *traceability* programmes.

Traceability policies have the objective of identifying the “history, distribution, location and application of products, parts and materials, to ensure the reliability of sustainability claims” (UNGC & BSR, 2014:6), by guaranteeing the accuracy of all the information concerning products’ quality and safety since the early stages of raw material procurement and of product manufacturing. Companies increasingly put traceability policies in place as evidence of good

² See also Center for Responsible Enterprise and Trade (CREATe.org), 2012.
Fight Against IP infringing
Technical report

business practice and as an effort to respond to the challenges posed by the growing complexity of supply chain webs. The large number of suppliers and sub-suppliers and the opaqueness of some areas of the supply chain are driving business, governments and stakeholders' demand for greater transparency. As we have already mentioned, there are logistical and financial barriers to seeing beyond direct suppliers and gain visibility in subcontractors' practices. Although firms are making huge efforts in auditing and certifying their first tier suppliers, real risks may lie further down the supply chain.

The analysis of management and business ethics literature shows that there are many academic frameworks on RSC and IPR. However, few academic models are aimed at applying RSC issues to IPR, with the exception of recent essay by several scholars of Stanford Graduate School of Business: Barchi Gillai, Sonali V. Rammohan and Hau L. Lee (2014). Therefore, their essay is a key reference for this report and it is described in the following section.

4.1 Stanford's RSC framework

Making reference to the case of Nike (Porteous, Rammohan, Cohen, and Lee, 2012; Porteous and Rammohan, 2013), Gillai, Rammohan and Lee (2014) propose a holistic, collaborative and proactive approach that moves away from sole reliance on audits and compliance in order to focus more on preventive measures and practices (such as due diligence mechanisms) aimed at supply chain sustainability. They show how a RSC framework can be applied to IP protection to the extent that there are similarities between Social, Environmental and Ethical Responsibility (SER) and IP issues. For these reasons, Stanford scholars suggest RSC practices to decrease and discourage IPR violations throughout the supply chain.

“Sense and Response” Responsible Supply Chain Framework

Management		Visibility		Response Practices				
Leadership and resources	Policies and procedures	Proactive Risk Assessment	Visibility into violations	Proactive Practices to Prevent Violations	Supplier Capability Building	Incentives to promote compliance	Reaction to violations	Penalties for violators

Figure 1 – Stanford's RSC framework

Source: Gillai, Porteous and Rammohan, 2013:2; Gillai, Rammohan and Lee, 2014:7.

An important point to underline is that this academic framework differs from traditional approaches. Indeed, it is based on incentives by companies to encourage *collaboration* with their suppliers (such as stakeholders) in order to identify root-causes and take corrective actions whenever a violation is identified. In other words, it proposes *proactive* practices aimed at preventing problems before they arise. Gillai, Rammohan and Lee's model is *holistic*, because it targets social, environmental and ethical issues in the supply chain, including IPR³.

Figure 1 describes the “sense and response” RSC framework by the above mentioned Stanford academics (Gillai, Porteous and Rammohan, 2013; Gillai, Rammohan and Lee, 2014). They developed it making reference to CREATE's Leading Practices managements system, insights from members of Stanford Initiative for the Study of Supply Chain Responsibility (SISSCR), existing literature and CSR reports. As the figure shows, the model is based on three main categories: management systems, visibility methods and response practices.

³ See also Lee, 2014.
Fight Against IP infringing
Technical report

According to the American scholars (Gillai, Rammohan and Lee, 2014:7-9), the role of *management system* is relevant to implement responsible practices across the supply chain and to develop IP protection into the culture of the company and its business operations. In the main, an advanced management system may help to prevent IP infringements inside the company and its supply chain. As a consequence, the establishment of a centralized corporate IP department may be helpful to coordinate and even out the company's IP policies, procedures and strategies throughout the supply chain. In short, the only work by the legal department of a given company may not be enough to take effective, strategic and operational actions to safeguard IPR.

However, this system does not work without sufficient recourses. Therefore, evaluation and assessment of risks by management system are fundamental to improve resource allocation and increase the overall effectiveness of IP strategies. Budgeting depends on risk prioritization. For all these reasons, Gillai, Rammohan and Lee (2014:9) recommend for companies to classify their at-risk IP into categories (e.g., high value, medium value and low value) in order to develop different policies for the protection of IP in each category. Predictably, high values IP should require the most solid and costly protection mechanisms.

In addition to importance of management systems to safeguard IPR in the supply chain, *visibility methods* are another "cornerstone" of Gillai, Rammohan and Lee's framework. As we argued above, budgeting depends on IP risk prioritization. This is also possible thanks to visibility methods which include reactive visibility methods into IP violations after they arise and proactive risk assessments before IP infringements arise on all relevant supply chain members. On the whole, the Stanford academics recommend for companies to establish due-diligence mechanisms and audits in order to monitor IP protection as part of holistic supplier assessments. Indeed, through reactive and proactive visibility methods, companies can gain an understanding of potential IP risks, determining strategies to improve and strengthen their supply chain.

Lastly, *response practices* are the third important aspect of this approach. They include reactive and preventive actions on IP infringements in the supply chain. Especially, Gillai, Rammohan Lee (2014:10-15) focus on proactive practices to prevent IP violations and decrease risk factors. For this reason, in the context of this RSC framework, collaboration between companies and their supply chain members has a crucial role in improving IP security along the supply chain and finding appropriate business partners through due diligence mechanisms.

To sum up, **Stanford's framework is one of the few existing models that apply RSC issues to IPR**, using a holistic, proactive and collaborative approach. With regard to management and business ethics literature, founding similar or different academic models is not easy because of peculiarity of this issue. Nevertheless, we briefly describe several RSC models which may be complementary to some aspects of Gillai, Rammohan and Lee's approach in the next section. This is needed because of some limits intrinsic to the Stanford's vision. These limits consist primarily of a lack of definition for CSR as well as of Due Diligence (for example Stanford use the generic term Environment Social Responsibility or ESR). Both these dimensions should be clearly established in a sound European framework in connecting CSR and IPR. The additional frameworks analysed in this report aim to allow an integration of the proposed similarities of the Stanford model and a specific European framework aligning the "similarities" to European values and rights--which we think is essential to make this framework convincing and effective for the European civil society.

4.2 Other RSC approaches

Apart from Gillai, Rammohan and Lee's (2014) essay, we chose 7 theoretical frameworks of different perspectives reviewing 31 academic papers. These 7 models are consistent with Stanford's approach to the extent that they propose a holistic, proactive and collaborative orientation towards RSC, although they do not apply RSC issues to IP protection. For this reason, there are many similarities between Stanford's RSC framework and these 7 models. However,

these 7 approaches have a high level of abstraction. Nevertheless, they may enrich and strengthen Gillai, Rammohan and Lee's (2014) study, drawing more attention to transparency, integrity, openness, interconnectedness, traceability and governance aspects into relationships between companies and supply chain members concerning IP protection, without remembering the importance of alignment between financial goals and sustainability goals in order to prevent IP violations before they arise.

A brief summary of the 7 approaches is provided in the following bullet list:

1. A supplementary approach to Stanford's model may be Bouzon, Hedler Staudt, Rodriguez and Ferreira's (2012) framework for Sustainable Supply Chain (SSC) management concerning sustainable development. According to this qualitative model based on the triple bottom line for sustainability (society, environment and economy) (Elkington,1998; Xu and Cong, 2011; Wu and Pagell,2011), the SSC offers the means to overcome the pressures imposed by the population, government and other stakeholders on companies in order to pursue sustainability. Therefore, the goal of the SSC is to achieve flows of products, services, information and capital, providing the maximum sustainable value for all business stakeholders, where cooperation between company and its supply chain is crucial (Seuring and Müller, 2008).
2. According to Jiang (2009), the inclusion of social and environmental aspects in the supply chain decisions has changed the inter-organizational governance models, resulting in the involvement of all stakeholders in decision. How the buying companies govern their suppliers is important for RSC. On the other hand, Supplier Codes of Conduct (SCC) is a relevant tool by companies to manage and monitor their suppliers' ethical and socially responsible practices (Waddock, Bodwell and Graves, 2002; Roberts, 2003). Many western buying companies impose SCC on their suppliers in developing countries but many of suppliers cannot fully comply with SCC or even cheat in SCC.
3. Vurro, Russo and Perrini (2009) presented several studies of mediating processes in which sustainability is integrated and managed along the supply chain, and ascertain that the best performances take place in integrated approaches that are based on long-term cooperation, knowledge sharing and skills development with members both upstream and downstream the supply chain. With regard to this specific aspect, there is a strong similarity between this research and Stanford's framework. In fact, according to Gillai, Rammohan and Lee (2014:12), the prospect of long-term relationship with the buying company can motivate a supplier to take action in order to minimize IP infringements.
4. Nabour, Kiridena and Gibson (2011) propose an agency theory approach applied the issues around supply chain integration and collaboration, towards enhancing operational performance. They describe a classification of supply chain integration and collaboration that distinguishes the relationship-oriented "collaboration" from structural configuration-oriented "integration". The three scholars argue that agency theory attempts to address the problem of (lack of) "goal congruence" between the principal and the agent resulting from the potential opportunistic, self-seeking behaviour of the agent which is presumed to be in conflict with the "utility maximization"-oriented interests of the Principal. The problem is often characterized by differences in attitudes towards risk, divergence in decision-making preferences, bounded rationality, an information asymmetry.
5. Vermeulen and Seuring (2009) sustain that social, environmental and ethical responsibility is shared with business partners along the whole supply chain as described in the concept of business management. Vermeulen and Seuring (2009) derive the observation that all practitioners (market, NGOs and governments) apply the basic assumption that business-to-business supply chain cooperation, geared by western consumer and civil society pressures, may be effective in improving environmental and social conditions in developing countries.

6. Seuring and Müller’s analysis (2008) argues that it is necessary to distinguish between two strategies that are labeled as “supplier management for risks and performance” and “supply chain management for sustainable products”. In the first, environmental and social criteria are taken up to complement economically based supplier evaluation. In the second, environmental and social standards play a central role in enabling this. In fact, focal companies ask their suppliers to perform according to the guidelines set by environmental and social standards, which might be documented by implementing related management systems for environment (e.g., ISO 14001) and society (SA 8000).
7. An interesting study is Pagell and Wu’s (2009) one that is based on 10 case studies. They sustain the ability to be innovative by a given company has been linked to sustainability. Indeed, an organizational capability to innovate is then a precursor to successful SSC management. Their analysis suggests that being proactive and committed can only be effective if the business model and the environmental and social elements of sustainability are aligned. In turn, sustainability becomes integrated in the organization when the organization has both a managerial orientation toward sustainability and an innovation capability. In other words, sustainability is an integral part of business by companies and is incorporated in every aspect of their supply chain.

Table 2 Other RSC approaches beyond Stanford RSC framework

STANFORD RSC FRAMEWORK (2014)	<ul style="list-style-type: none"> • Management – Visibility – Response Practice • Intellectual Property Rights to be protected in the supply chain through a holistic, proactive and collaborative responsible supply chain management approach
SSC FRAMEWORK (2012)	<ul style="list-style-type: none"> • Sustainable development in supply chain • Governance programs and transparency in relationships between companies and supply chain members
JIANG’s STRUCTURAL FRAMEWORK (2009)	<ul style="list-style-type: none"> • Open communication at buyer, supplier and factory-worker levels is essential for improving compliance with Supplier Codes of Conduct. • of developed countries MNCs should understand the pressures they put on suppliers in developing countries and assist them in coping with these pressures over time.
VERMEULEN & SEURING’s FRAMEWORK (2009)	<ul style="list-style-type: none"> • Supply chain sustainability is to be achieved through the collaboration of multiple actors and supply chain governance; • Governments, NGOs and the public opinion play a significant role with regard to responsible supply chain management.
SEURING & MÜLLER’s FRAMEWORK (2008)	<p>Two strategies are to be employed for supply chain sustainability: one evaluates suppliers, the other one evaluates products.</p> <ul style="list-style-type: none"> • “Suppliers management for risks and performance”: assessing suppliers’ social and environmental records; • “Supply chain management for sustainable products”: definition of lifecycle-based standards for the social and environmental performance of products.
VURRO, RUSSO & PERRINI’s MODEL (2010)	<ul style="list-style-type: none"> • Supply chain governance described in terms of “centrality” and “interconnectedness”; • The more supply chain are centralized and the more supply chain actors are interconnected, the more the firm can exert influence over suppliers; • This facilitates the adoption of an integrated approach, consisting in knowledge sharing, long-term cooperation, skills development upstream and downstream the supply chain.

<i>NATOUR, KIRIDENA & GIBSON'S FRAMEWORK (2011)</i>	<ul style="list-style-type: none"> • Collaboration and visibility are to be enhanced in the relationships between the company and its suppliers; • Supply chain partners should be allowed to exercise shared control over supply chain operations, so as to build supply chain confidence.
<i>PAGELL & WU'S MODEL (2009)</i>	<ul style="list-style-type: none"> • Long-term well-being and social justice principles for every member of the supply chain; • In order for sustainable goals to be achieved, they have to be aligned with financial goals; • Supply base continuity is an important goal, implying transparency, traceability, supplier certification.

Figure 1 Summary of RSC frameworks

4.3 Technological implementation of Responsible Supply Chain Management

Various technologies can be used to support Responsible Supply Chain Management frameworks described in the previous sections. There is an extensive literature of the technologies used for Supply Chain Management and it is reported in a related report on the survey of technologies for fight against counterfeiting related to IP infringing.

Some key technologies are:

1. Technologies to support the traceability of goods in the supply chain (e.g., RFID)
2. Information systems to share and present information on the components and goods provided by suppliers at regional and global level.
3. Technologies for goods authentication, which can be used to detect non-compliant goods in specific points of the supply chains.
4. Analytics to identify misbehaviors or gaps in the supply chain.
5. Sealing technology to ensure that the goods transported in specific segments of the supply chain are protected against tampering.

4.4 Conclusions on Responsible Supply Chain Management (RSC) and protection of IP rights

From the analysis of proposed frameworks for Responsible Supply Chain, we can highlight that an integration and alignment of IPR within CSR (from all the identified frameworks) can benefit the protection of IP rights for the following reasons:

1. It supports traceability of the goods and their components in the manufacturing and distribution phase. Traceability provides a more effective control of supply chain and can support the identification of gaps where IP infringing products can be inserted.
2. It enhances the supplier certification and control of quality of the products and components provided by the suppliers.
3. By applying high quality processes, the management of the overall supply chain is improved. As highlighted in the cited references in Figure 1, an effective protection of IP rights is difficult to coordinate in a large company (e.g., a multinational) because it is distributed along the entire value chain. RSC can reduce the leakages of IP property and support an improved coordination and communications among the different parts of the company (e.g., legal department, manufacturing, procurements of supplies).
4. The collaboration and visibility with suppliers is enhanced by RSC frameworks with the results that the risk of IP infringing is reduced.
5. Because RSC provides processes and tools to increased traceability and visibility of the overall chain, the response time and consequence in case of an IP infringing action is reduced.

Because an integration between CSR and IPR can prove more convincing and effective for the European civil society, that may become more attentive and caring about IPR implementation as a direct citizens/consumers' interest and value. Indeed, citizens' empowerment can only start from citizens' authentic appreciation of what is at stake.

5 RECOMMENDATIONS

The following is a list of recommendations addressed to companies concerning responsible supply chain management and IPR protection in the supply chain through due diligence mechanisms. The aim is to help companies better handle the emerging issue of IPR protection in a sustainability perspective, on the basis of the results of the analysis conducted in the present research. These recommendations represent therefore an attempt to synthesize the numerous useful indications provided by the study of recent CSR perspectives, international accountability standards, management models, practical guidelines, case-studies, good practices and codes of conduct carried out in the present report, seeking to illustrate the indispensable steps that a company should make for achieving the goal of IPR protection in a sustainability perspective.

As mentioned, the present set of recommendations and the results of this report is addressed to companies, but could also be taken into consideration by public decision-makers for the elaboration of specific policies to influence company's behavior in the field of RSCM and IPR protection.

→ **ADOPT A COLLABORATIVE APPROACH WITH SUPPLIERS AND THE OTHER STAKEHOLDERS**

Companies, suppliers and stakeholders should collaborate in order to identify and address the root-causes of non-compliance, taking corrective actions whenever a violations take place. Integration and alignment between the company and its supply chain is important for sharing responsibilities, information and risks, for setting goals, for exchanging feedbacks on performance and for laying the foundations of risks prevention. A *transparent and open communication* is part and parcel of such collaborative approach. Frequently communicating with suppliers and stakeholders in terms of problem-solving fosters mutual trust and the spread of an information-sharing culture along the supply chain.

→ **CONSIDER DUE DILIGENCE AS THE ENTIRE RESPONSIBILITY APPROACH OF THE COMPANY: CORPORATE RESPONSIBILITY MEANS ACTING WITH DUE DILIGENCE**

As the analysis of international accountability standards has shown, the UN "Protect, Respect, Remedy" Framework and the OECD Guidelines on Multinational enterprises present a broad definition of due diligence. According to these major standards, due diligence is the *entire* complex of actions undertaken by the company to prevent and redress its own negative impacts; this process informs and comprehends all of the company's activities, especially when it comes to responsible supply chain management. According to the OECD Guidelines, due diligence should prevent and mitigate risks of negative effects not only with regard to human rights, but also in the areas of environment, corruption, consumer interests, industrial relations and labour. Due diligence should therefore be considered in a *holistic* manner. Only a *holistic* approach of this kind ensure prevention of problems, thus making a company's attitude truly *proactive*. Indeed, being proactive means preventing problems before they arise. In other words, company should move away from sole reliance on compliance in order to focus more on preventive measures and practices: compliance approach is not enough.

According to a slogan of ABB Group, “prevention is better than cure” in order to reduce sustainability and IP risks.

→ **ALIGN BUSINESS GOALS WITH SUSTAINABILITY GOALS**

Alignment and understanding within the company can be achieved only if the *top management* clearly communicates its firm commitment to sustainability and if all functions actively involved trained to take sustainability and RSCM into account in their activities. Also, it is important to raise citizens’ awareness about alignment and need for integration between CSR and IPR, especially according to a European vision of both CSR and IPR.

→ **TRAIN SUPPLIERS ON IPR PROTECTION IN A “CONTINUOUS IMPROVEMENT” PERSPECTIVE**

As we could see throughout this report, there is still little awareness about the necessity to include IPR protection among corporate responsibility issues. Companies are slowly realizing that the lack of IPR protection policies may result in serious damages to the quality of their products, and therefore, to stakeholders. This kind of awareness is all the more lacking in suppliers and sub-suppliers, which, in many cases, do not even know what are exactly patents, trademarks, copyrights, and, more generally, what constitutes IPR infringement. A first step to orientate suppliers’ behaviour with regard to IPR protection consists in setting clear expectations from the outset: the development and the dissemination of a third party Code of Conduct represents the first step in this respect. *Siemens’ Compliance System* may be a model for other companies. However, distributing a Code of Conduct is not enough. The most effective way in order to raise such awareness and to avoid the occurrence of IP infringements consists in providing training to suppliers.

→ **EMPOWER CONSUMERS: PROVIDE TOOLS FOR CHOOSING ONLY QUALITY PRODUCTS AND DISSEMINATE INFORMATION ON THE RISKS OF COUNTERFEIT PRODUCTS**

One of the key-actors of the counterfeiting business is the consumer. Consumers may find it convenient to buy counterfeit products because of their lower prices, without knowing the risks posed by such low-quality products, or may simply be unaware that they are buying counterfeit products, without knowing how to tell the difference between genuine and counterfeit products. An important move companies should do in order to prevent the spread of counterfeits consists in directly addressing consumers, informing them about the risks they are exposed to by buying counterfeits and about the negative impacts counterfeits may have on the environment, for instance. Through the access to these information, consumers would be empowered and put in the best conditions in order to make a fully aware choice.

→ **ADOPT TRACEABILITY FOR SECURING IPR PROTECTION ALONG THE SUPPLY CHAIN**

Traceability policies represent one of the most effective tools for fighting risks of counterfeiting along the supply chain. Indeed, traceability means transparency of information on the quality and the safety of products and of their components. Implementing a traceability policy may take time, require significant efforts and be costly, as it implies gathering detailed information on suppliers and sub-suppliers, constantly checking every stage of production, from raw material procurement to product manufacturing. However, traceability policies ensure full control over the supply chain, thereby reducing risks of violations and negative effects and facilitating the prevention of IP infringement and counterfeiting. Indeed, traceability, by allowing for the certification

of the product quality and safety, minimizes risks of adverse impacts on the environment or on consumers' health caused by counterfeiting of products' components, and at the same time, significantly reinforces the brand image.

→ **DEFINE AND COMMUNICATE CLEAR QUANTIFIABLE GOALS FOR IMPROVING PERFORMANCE ON TRACEABILITY**

Companies should set themselves clear sustainability goals in order to evaluate their own performance and strive for improvement. For the purpose of IPR protection, it would be feasible and recommendable to set quantifiable traceability goals and define a timeframe for their achievement.

→ **HIGHLIGHT AND POSITIVELY EXPLOIT THE EUROPEAN VISION OF CSR AND IPR**

It should be recalled that not only CSR, especially the European view of it (see Annex I), but also the European vision of IPR are not neutral towards ethical values. For instance, in the European patent law a “moral clause” exists limiting patents (both in the 1973 Munich Convention at Art.53(a) and in Directive 98/44/EC at Art.6). However, ethical issues concern all IPR. These connections between CSR and IPR should be positively exploited in order to enhance their similarities and synergistic potential.

Integration between CSR and IPR can prove more convincing and effective for the European civil society, making it more attentive and caring for IPR implementation as direct citizens/ consumers' interest and value. Indeed, citizens' empowerment can only start from citizens' authentic appreciation of what is at stake.

The report did not include only the Stanford's vision as this reveals some limits from a European perspective. These limits consist primarily of a lack of definition for CSR as well as of Due Diligence. Both these dimensions should be clearly established in a sound European framework in connecting CSR and IPR. The additional frameworks analysed in this report aim to allow an integration of the proposed similarities of the Stanford model and a specific European framework aligning the “similarities” to European values and rights--which we think is essential to make this framework convincing and effective for the European civil society.

→ **ADOPT A BROAD UNDERSTANDING OF WHAT “ECONOMIC DAMAGE” MEANS**

Corporate Social Responsibility (CSR) policies started from, and have developed towards, the awareness that corporations are part of the society, share citizens' values, and can themselves be seen as citizens. This is a major difficulty in trying to build the “similarities” between CSR and IP values. Focusing only on the economic side of IP, and enforcing them only in the name of unspecified “economic damage”, introduces a significant “dissimilarity” between CSR and IP, as society is less and less eager to recognize and respect IPR independently from their “social value”: what the European Commission Action Plan also has to admit when complaining about citizens' disaffection towards IPR.

Indeed, citizens/users' awareness of the negative effects of IP infringements should be raised in the general public. However, this action of raising public awareness can hardly succeed if its focus and rationale merely refer to economic damages. It should be explained that “economic damages” express the quantitative dimension referred to that accounts for, and summarizes damages to a variety of other social goods and values (e.g. public health, human rights, etc.).

→ **DO NOT RADICALLY SEPARATE COUNTERFEITING ISSUES AND IPR ISSUES**

While it is important to outline the differences between counterfeiting and IP infringement—and to show how a specific behavior may represent either one or the other, or both—a complete separation of them can result in a less convincing policy, especially as to the goal of raising awareness amongst citizens and if IP is primarily presented from the perspective of economic loss.

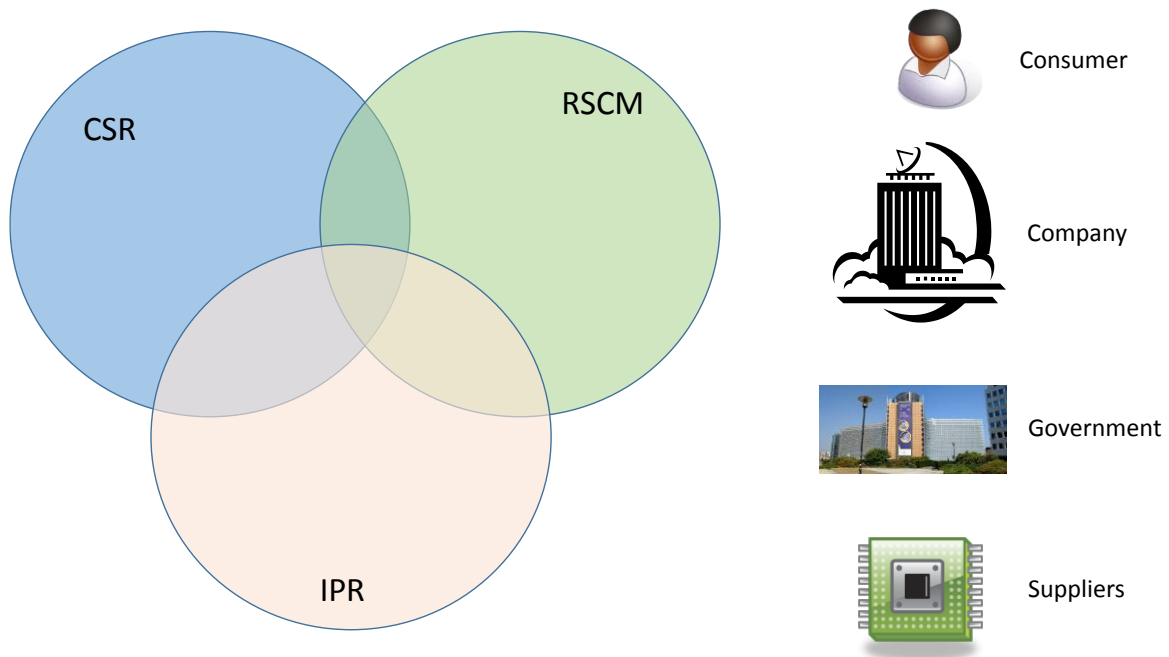
Maintaining a connection between the two domains of counterfeiting and IP may provide a stronger rationale for the EU policies and a better motivation for EU citizens in caring for IP respect. In fact, even if awareness is raised about IP infringements and their consequences, this awareness has to convince and motivate citizens towards respect.

6 CONCLUSIONS AND FUTURE DEVELOPMENTS

This technical report has provided an overview on CSR and RSCM, the main research activities in this field and their applicability to fight against counterfeiting related to IP infringing.

Even if CSR and RSCM have been developed for specific objectives, which go beyond the fight against IP infringing, they can be very useful frameworks when integrated with technology enablers.

On the other side, CSR or RSCM may not be enough to address all the wide spectrum of IP infringing issues. As described in the figure below, CSR, RSCM and IPR could be overlapping sets and there is need for complementary approaches and frameworks. Another approach, which has been investigated by the JRC is related to the empowerment of the end-users in the fight against counterfeiting through mobile applications and technologies.



7 REFERENCES

European Commission, (2014), Action Plan on the enforcement of Intellectual Property Rights. http://ec.europa.eu/internal_market/iprenforcement/action-plan/index_en.htm. Last accessed 12/11/2014.

UK Home Office Home Office, (2013). Understanding organised crime: estimating the scale and the social and economic costs. Research Report 73. Hannah Mills, Sara Skodbo and Peter Blyth https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/246390/horr73.pdf. October 2013.

Angharad, (2012). Maturity in Responsible Supply Chain Management. A WHITE PAPER Angharad H. Porteous, Sonali V. Rammohan, Shoshanah Cohen, and Hau L. Lee, Stanford University, December 2012.

Berman, (2008). Berman, Barry, "Strategies to detect and reduce counterfeiting activity." *Business Horizons* 51, no. 3 (2008): 191-199.

Pamela et al., (2011). Pamela S. Norum, Angela Cuno, (2011) "Analysis of the demand for counterfeit goods", *Journal of Fashion Marketing and Management*, Vol. 15 Iss: 1, pp.27 – 40.

GIDEP, (2006), "Agency action notice: Orange County Man Sentenced to Nearly 16 Years for Selling Subpar Flight-Critical Aircraft Parts and for Offering to Sell Fighter Plane Parts to China," Tech. Rep. AAN-U-06-018, Jan. 26, 2006.

GIDEP, (2006), "Suspect Counterfeit CY37032P44-125AI, Microcircuit," Tech. Rep. EE-A-06-06B, Mar. 20, 2006.

EICC – Electronic Industry Citizenship Coalition (2012), *Code of Conduct* available at <http://www.eiccoalition.org/standards/code-of-conduct/> (last accessed on 5 September 2014)

Inditex (2001), *Code of Conduct for Manufacturers and Suppliers Inditex Group*, available at http://www.inditex.com/documents/10279/28230/Grupo_INDITEX_codigo-de-conducta-de-fabricantes-y-proveedores_ENG.pdf/ade5106d-f46a-487b-a269-60c2e35cdcf4 (last accessed on 5 September 2014)

Gillai, B., Porteous, A.H. and Rammohan S.V. (2013), *The Relationship between Responsible Supply Chain Practices and Social, Environmental, and Operational Performance*, Stanford: Stanford Global Management Supply Chain Forum.

Gillai, B., Rammohan S.V. and Lee H.L. (2014), *Similarities in Managing Supply Chain Sustainability and Intellectual Property*, Stanford Graduate School of Business.

Seuring, S. and Müller, M. (2008), "From a literature review to a conceptual framework for sustainable supply chain management", *Journal of Cleaner Production*, 16(15): 1699-1710.

Siemens (2009a), *Enabling Innovation Through Knowledge and Intellectual Property Management*, white paper, Siemens AG, Berlin, Muenchen;

Siemens (2009b), *Leveraging Suppliers for Strategic Innovation*, Best Practice Brief, Siemens AG, Berlin, Muenchen.

Siemens (2010), *Business Conduct Guidelines 2009*, Siemens AG, Berlin, Muenchen

Siemens (2011), *Patents, Standards and Norms at Siemens. Corporate Intellectual Property and Functions*, Siemens AG, Berlin, Muenchen

Siemens (2014a), *The Company. Siemens 2014*, Siemens AG, Berlin, Muenchen.

Siemens (2014b), *Annual Report 2013*, Siemens AG, Berlin, Muenchen

Siemens (2014c), *Additional Sustainability Information to the Siemens Annual Report 2013*, Siemens AG, Berlin, Muenchen.

Telefónica (2010), *Supply Chain Responsibility Policy – Telefonica Group*, [Telefónica SA](#), Madrid,

Telefónica (2011), *Telefónica response to the consultation on the implementation of the Intellectual Property Rights Enforcement Directive*, Telefónica SA, Madrid

[Telefónica](#) (2012), *2011 Corporate Sustainability Report*, [Telefónica SA](#), Madrid

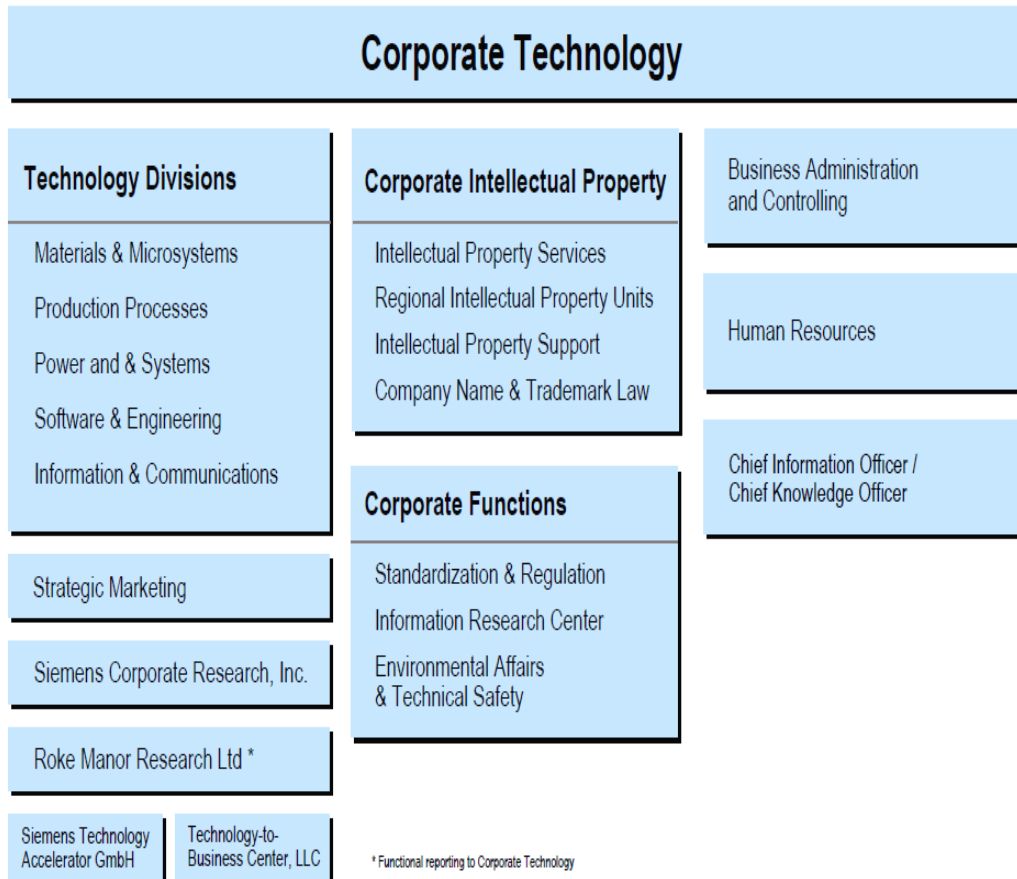
Telefónica (2014), *“Be More Sustainable. 2013 Corporate Sustainability Report”*, [Telefónica SA](#), Madrid

Vermeulen, W.J.V. (2008), “Sustainable global product chains: actors, systems and mechanisms at three levels”, paper present at 14th Annual International Sustainable Development Research Conference.

A.1) Case Studies

A.1.1) Siemens

With regard to IP protection into RSC, Siemens is one best example of a company that has established a centralized Corporate Intellectual Property into Corporate Technology department (Figure 5) in order to perform key tasks, such as ensuring that the company’s R&D successes are safeguarded from competitors. It can be considered as a best practice.



© Siemens AG, CT, 2004

Figure 5 – Siemens’ Corporate Technology. Source: Siemens, 2014:9

This department focuses on IP Services, Regional IP Units, IP Support, Company Name & Trademark Law. In other words, it coordinates the company’s IP policies, IP protection measures, and IP strategies, while still allowing individual divisions to align their IP strategy to their business plans, environmental factors, as well as the institutional framework in the respective region of activity. It is responsible for providing legal and strategic counseling on IP issues for the company, including overseeing due diligence and negotiation of IP transactional matters into supply chain.

Further, CT⁴ strategically handles the intellectual property of Siemens. Around 430 experts help the German company register patents and trademarks, establish them, and put them to profitable use (Siemens, 2014b:92; 2014c:10). On the whole, Siemens currently holds approximately 60,000 patents granted worldwide, of which more than 21,000 patents and IPR are related to its Environmental Portfolio (Siemens, 2014a:9). However, safeguarding trade secrets is crucial, because trade secrets are an important part of IP. Thus, the German MNC intends to prevent and detect unauthorized use of Siemens intangibles assets, using an open and effective communication between company and suppliers. However, this type of communication requires accurate and truthful reporting, maintaining sound processes and controls according to management's authorization. Besides, Siemens claims that *confidentiality must be maintained with regard to its internal confidential or proprietary information that has not been made known to the public. Non-public information from or concerning suppliers, customers, employees, agents, consultants and other third parties must also be protected in accordance with legal and contractual requirements.*

Confidential or proprietary information may include, in particular:

- 1) details concerning a company's organization and equipment, prices, sales, profits, markets, customers and other matters of business
- 2) information on manufacturing or research and development
- 3) internal reporting figures.

The obligation to maintain confidentiality extends beyond the termination of the relevant relationship, since the disclosure of confidential information could cause harm to Siemens' business, suppliers, clients or customers no matter when it is disclosed (Siemens, 2010:18).

According to Siemens (Siemens, 2009a; Siemens, 2009b), given the competitive nature of today's global economy, it is imperative that companies protect their intellectual assets and capabilities, safeguarding corporate IP across a global environment of partners and suppliers. In order to protect their IP, Siemens recommends companies to a) select compatible partners; b) honour everyone's property interests; c) limit information access on a need-to-know basis; d) institute organizational and technical security provisions; e) tightly restrict full access. In other words, for protecting IP, Siemens suggests that (a) companies should select partners and suppliers that complement their business and sustainability strategy. On the contrary, choosing partners that have competing aspirations is counterproductive over the long term, especially when jointly developing a project's IP. Furthermore, companies (b) can foster partner collaboration by letting their partners and suppliers build their own IP. Implementing complementary IP and maintaining that differential bonds partners together. Since many partners will want to maintain their own IP protections, it is important to honor these requests. The best way of mutually protecting everyone's IP is to establish legally binding nondisclosure agreements. Besides, companies (c) should provide their partners and suppliers with access to their IP on a need-to know basis. Partners should only have access to their particular piece of the IP puzzle (e.g., by using design models that do not need a complete history tree). Moreover, companies (d) should define keystone portions of their IP and guard it within their own organizational and technological borders. This requires companies to understand what IP is strategically crucial, map it out for special protection and keep it safe. Finally, Siemens (e) recommends companies to limit the number of people who are entitled to have full access to their IP.

To sum up, understanding of sustainability by Siemens and best practices by the German company seems to be perfectly consistent with the holistic, proactive and collaborative approach of Stanford's RSC framework (Gillai, Rammohan and Lee, 2014), with relevant attention to transparency, integrity and integration into relationships between company and supply chain

⁴ With regard to Siemens, CT is a worldwide network with primary locations in Germany, the U.S., China, Russia, India, and Austria.

members. The Supplier Sustainability Toolkit, risk-based approach, systematic approach to proactive and reactive inspection, and the Siemens Compliance System (where “Prevent” is a significant action level) may be a model for other companies. Further, the German MNC sustains that there is no safe company without safe supply chain. In turn, there is no safe supply chain without IP protection. Establishing a centralized Corporate Intellectual Property at Siemens is important to safeguard IPR throughout the supply chain. For all these reasons, Siemens appears to be sort of “model case” in the light of the RSC approaches that we discussed in the previous Sections.

We conclude this paragraph, quoting Horst Fischer, Corporate Vice President at Siemens: “Any company, wishing to prosper in the next millennium, will also have to efficiently manage its IP portfolio... For this reason it has become essential that every manager in the enterprise – not just those working in the corporate legal department – appreciates and understands not only what IP is, but how it can be more effectively exploited throughout the supply chain” (WIPO, 2012:2). Therefore, according to Winfried Büttner, Head of Corporate Property and Functions at Siemens, “in this era of globalization and growing international competition, a company’s future depends on its intellectual property. That’s much more the case today than ever before. And protecting IPR has several impacts on RSC” (Siemens, 2011:2).

A.1.2) Telefonica

With regard to IPR into RSC, the Spanish company aims to prevent IPR infringements, particularly those caused by the Internet, but also those caused by counterfeiting and piracy (Telefónica, 2011).

For Telefónica, these problems require a global approach, working on fostering access to legal content and not just on limiting consumer action (and choice). As a consequence, this holistic approach should balance the several elements needed to create a sustainable market for creative content. In fact, the Spanish Group claims that counterfeiting of goods could be a criminal act, as serious implications for the health and safety of consumers could be involved, and is normally undertaken within an organized criminal context. Illicit sharing of content in breach of third parties IPR could be also a criminal act but is not usually considered as such but as a civil infringement, and so requires a different approach than that taken for counterfeiting. Indeed, according to the Spanish MNC, merely finding more effective ways to monitor and punish consumers for IPR infringements works. For this reason, Telefónica recommends to examine the root causes of this activity, rather than continuing to pursue the “stick” of enforcement of IPR infringement as the only tool. Pursuing only a punitive approach for illicit file-sharing will not solve the problem

In this context, collaboration between the company and its supply chain members is fundamental for the prevention and prosecution of IPR violations.

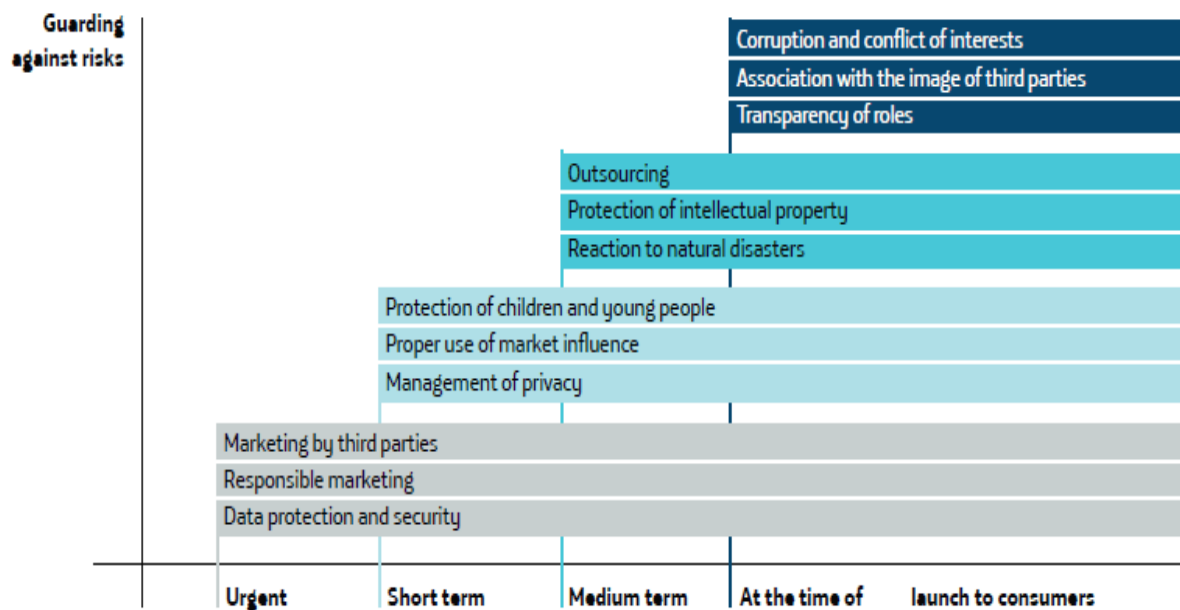


Figure 2 Telefonica

For all these reasons, Telefónica uses a holistic approach to the issue of content creation, consumption and protection. In fact, Telefónica’s Business Principles Office implements policies and procedures to prevent IP infringements. The Business Principles Office, as part of its role of day-to-day management of the code of conduct, is responsible for identifying and evaluating risks associated with breach of the principles from the point of view of both economic impact and reputational impact. The model defines a high level of awareness and guarantees more efficient allocation of resources to manage the risks identified. According to the Telefónica approach, IP rights entail “medium-term risks” (Figure 8). Hence, the Telefónica’s model is consistent with Gillai, Rammohan and Lee’s (2014)’s RSC framework in which budgeting depends on risk prioritization as we described in previous Sections.

A.1.3) Inditex

Established in 1963 in Spain, Inditex is one of the few multinational companies in the apparel industry to have adopted a code of conduct aimed at its suppliers. Made up of over 1,500 suppliers around the world, Inditex is constantly striving to achieve the goal to bind its group and its value chain to the respect of the values of social and environmental responsibility⁵. In this regard, the Code of Conduct for Suppliers, written in 2001, establishes “minimum standards of ethical and responsible behavior which must be met by the manufacturers and suppliers of the products commercialized by Inditex in the course of its business, in line with the corporate cultures of Inditex Group firmly based on the respect for Human and Labour Rights” and is applied to “all manufacturers and suppliers that take part in the purchasing, manufacturing and finishing processes” (Inditex, 2001:3).

In particular, the Code includes the following principles:

- *No forced labor*: the suppliers must not resort to the use of forced labor;

⁵ See <http://www.inditex.com/en/sustainability/suppliers>. (last accessed on 5 September 2014)
Fight Against IP infringing
Technical report

- *No child labor*: Suppliers must not employ child labor;
- *No discrimination*: Suppliers must not engage in any kind of discrimination both in the areas of recruitment, compensation, employment contracts, whether based on race, age, religion, nationality, sexual orientation or political affiliation;
- *Respect for freedom of association and collective bargaining*: Suppliers must provide their workers with the right of association, union membership and collective bargaining;
- *No harsh or inhumane treatment*: Suppliers must treat their employees with dignity and respect;
- *Safe and hygienic working conditions*: Suppliers must provide their workers with a safe and healthy work environment;
- *Wages are paid*: Suppliers must provide their workers with a minimum wage sufficient to meet the needs of primary importance;
- *Working hours are not excessive*: Suppliers must adjust the working day in accordance with current regulations or with the contract of employment;
- *Regular employment*: Providers must not impair the rights of employees under the law;
- *Traceability of production*: Suppliers must not assign any work to third parties without the prior written permission of Inditex (this is key for IP from what has been said above and should be drawn out as very important) ;
- *Health and safety of products*: Suppliers are responsible for the safety of all the products supplied to Inditex;
- *Environmental awareness*: Suppliers must strive at all times for the protection of the environment and for the compliance with the rules in force;
- *Confidentiality of information*: Suppliers must preserve the integrity and confidentiality of information received in consequence to the trade relationship with Inditex (also key for IP protection of trade secrets) ;
- *Code implementation*: Suppliers must implement programs designed to implement the Code.

Suppliers will be required to appoint a person responsible for the implementation and application of the Code; they must also communicate the Code to all of their employees and to anyone involved in the Inditex supply chain (Inditex, 2001:3-6).

To test suppliers' respect of its Code of Conduct, Inditex has established a compliance program conducted by its CSR experts or by external specialists. This program is divided into six phases:

1) *Raising awareness*: The compliance program starts with the provision of training on the Code of Conduct performed locally, addressed to all suppliers.

2) *Pre-Assessment*: In order for the company to establish business relations only with suppliers who comply with the Code, suppliers will be subject to an ex-ante evaluation. The suppliers that pass this evaluation will sign the Inditex's Minimum Requirements statement, which is a document that includes Inditex's requirements in terms of social responsibility, labor and environment.

3) *Social and environmental auditing*: once the Inditex's Minimum Requirements statement is signed, the experts perform the first audit on the supplier. This test, carried out by internal auditors as well as by independent external auditors, includes the following initiatives: inspections in factories without notice, meetings with the managers of factories, employees, union representatives and staff who deal with health and safety, the control of due diligence documents on management systems, payroll, ledgers on hours of work, production records, employee records, permits, etc.. and finally the verification relating to waste management and consumption of water and energy.

4) *Assigning a rating*: Based on the inspections carried out, each supplier will be awarded a score depending on the level of compliance with the Code. The company classifies its suppliers as follows:

- A-rated Supplier: conforms to the Code of Conduct.
- B-rated supplier: if the supplier fails to comply with one of the issues addressed in the Code.
- C-rated supplier: if the supplier violates one of the most sensitive issues of the Code.
- Supplier subject to corrective action: suppliers that violate critical aspects of the Code are subject to a corrective action plan.

5) *Application of corrective action plans*: plans of action have the dual objective of defining measures to mitigate and / or remedy violations of the Code of Conduct identified during the audit, and of preventing future violations. In case there is a breach, suppliers who wish to preserve their business relationships with Inditex will launch immediately a corrective action plan and for that purpose the supplier will be able to count on the support and commitment of the CSR team of Inditex.

6) *Monitoring Programmes*: after processing the corrective action plans, there are a number of checks carried out periodically and whose purpose is to verify whether the improvement works have been initiated and implemented in a timely manner.

A.1.4) EICC- Electronic Industry Citizenship Coalition

Founded in 2004 with the idea of proposing a standard on the ethical, social and environmental issues of the supply chain in the electronics industry, the EICC (originally called “Electronic Industry Code Conduct”) is currently the largest worldwide coalition dedicated to the “electronics supply chain responsibility” gathering around one hundred companies and thousands of suppliers committed to upholding the rights and welfare of workers and of the communities involved in the global supply chain.

An analysis of the Code of Conduct allows us to detect some interesting aspects for the purposes of our research. In section D on Ethical Principles, precisely in step 4, there is an explicit reference to intellectual property rights; In fact, the code states that “intellectual property rights are to be respected; transfer of technology and know-how is to be done in a manner that protects intellectual property rights”. (EICC, 2012:7) In respect to the use of the mechanism of due diligence, we observe that the term recurs in the section devoted to the ethical principles in relation to the responsible sourcing of minerals: the code specifies that member companies should have a policy that ensures that the purchase of minerals used in the production is not going to finance, directly or indirectly, armed groups responsible for serious human rights violations in the Democratic Republic of Congo or neighboring countries. Therefore, companies should “exercise due diligence on the source and chain of custody of these minerals and make their due diligence measures available to customers upon customer request”. (EICC, 2012:7).

Despite the limited scope of due diligence, there is an entire section in the Code (E) dedicated to the management system that includes the following elements:

- 1) *Company Commitment*: Through a statement, the company takes on social and environmental responsibility and commits to continuous improvement;
- 2) *Management Accountability and Responsibility*: In this phase, the company identifies its representative who will implement and periodically check the status of the management system;
- 3) *Legal and Customer Requirements*: This process is designed to identify, monitor and implement the laws and regulations in force, the needs of the customers and the norms of the Code;
- 4) *Risk Assessment and Risk Management*: in this phase the company is concerned with identifying environmental risks, risks to health and safety, and those related to working practices and ethics; Furthermore, once it identifies them, it tries to contain them through procedural control measures.
- 5) *Improvement Objectives*: The company will carry out implementation plans to improve the results in the social and environmental fields.
- 6) *Training*: The company provides training plans for managers and workers aimed at implementing policies, procedures and the improvement objectives set out above.
- 7) *Communication*: This is the process through which the company communicates to employees, suppliers and customers the information on its policies, practices, expectations and outcomes.
- 8) *Worker Feedback and Participation*: with this process, the company is able to assess the implementation by employees of practices and conditions provided for in the Code, to obtain feedback and encourage continuous improvement.
- 9) *Audits and Assessments*: the company will carry out periodic self-assessments to ascertain compliance with the requirements of the law, the content of the Code of Conduct and the contractual provisions of customers in the field of social and environmental responsibility.
- 10) *Corrective Action Process*: in this phase, the company will seek to promptly correct deficiencies identified during assessments, inspections, investigations and internal or external audits.
- 11) *Documentation and Records*: This is the stage of the creation and preservation of documents and records
- 12) *Supplier Responsibility*: This is the process to communicate to suppliers the requirements of the Code and monitor their compliance with the Code (EICC, 2012:9-10)



*

*

Europe Direct is a service to help you find answers to your questions about the European Union
Freephone number (*): 00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet.
It can be accessed through the Europa server <http://europa.eu>.

How to obtain EU publications

Our publications are available from EU Bookshop (http://publications.europa.eu/howto/index_en.htm),
where you can place an order with the sales agent of your choice.

The Publications Office has a worldwide network of sales agents.
You can obtain their contact details by sending a fax to (352) 29 29-42758.

European Commission

EUR 27168 EN – Joint Research Centre – Institute for the Protection and Security of the Citizen

Title: Fight against counterfeiting of goods related to IP infringing

Authors: Gianmarco Baldini, Maria Chiara Tallachini, Igor Nai Fovino, Ioannis Vakalis, Antonia Rana, Michel Chiaramello, Vincent Mahieu, Emilio D'Orazio

Luxembourg: Publications Office of the European Union

2015 – 34 pp. – 21.0 x 29.7 cm

EUR – Scientific and Technical Research series – ISSN 1831-9424 (online), ISSN 1018-5593 (print)

ISBN 978-92-79-47149-0 (PDF)

ISBN 978-92-79-47148-3 (print)

doi:10.2788/78206

JRC Mission

As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States, the scientific community and international partners.

*Serving society
Stimulating innovation
Supporting legislation*

doi:10.2788/78206

ISBN 978-92-79-47149-0

