

Summary Report

by Sarah MATHESON, Reporter General
John OSHA and Anne Marie VERSCHUUR, Deputy Reporters General
Yusuke INUI, Ari LAAKKONEN and Ralph NACK
Assistants to the Reporter General

2017 – Study Question – General

Quantification of monetary relief

Introduction

This Study Question concerns the quantification of monetary relief in relation to the infringement of intellectual property (*IP*) rights. This Study Question is not concerned with accounts of profit and other relief in which the unlawful profits of the infringer are rendered to the right holder.

Specific issues in relation to FRAND (fair, reasonable and non-discriminatory) royalties in the context of standard essential patents are outside the scope of this Study Question. However, to the extent that reasonable royalties are relevant to the quantification of damages more generally, that is within the scope of this Study Question.

The primary objective of this Study Question is to study methods of quantification of damages in use in different jurisdictions, in all fields of technology, and explore which methodologies might lead to a more harmonised and consistent recovery of damages. An aligned purpose of this Study Question is to examine how monetary damages should be calculated in accordance with fair and objective methodologies.

In this Study Question:

- the term ***IP rights*** includes patents and supplementary protection certificates, petty patents and utility models, trade marks, rights to prevent unfair competition or passing off, copyrights, semiconductor topography rights, database rights and design rights, but excludes trade secrets, rights of confidence and rights in know-how;
- the term ***damages*** refers to monetary relief as provided for in relation to IP rights, including but not limited to i) actual loss suffered by the right holder as a result of the infringing activity, e.g. loss of sales or price erosion; ii) the “injury proven” as referred to in paragraph 6(a) of AIPPI's Resolution on Q134 – “Enforcement of Intellectual Property Rights – TRIPS” (Rio de Janeiro, 1998); and iii) reasonable royalties awarded when actual loss is not proven;

- the term ***IP rights in suit*** refers to those IP rights found infringed in respect of which the court will need to quantify damages.

The Reporter General has received reports from the following Groups in alphabetical order: Argentina, Austria, Australia, Belgium, Bulgaria, Brazil, Canada, Chile, China, Denmark, Ecuador, Estonia, Finland, France, Germany, Hungary, Israel, Italy, Japan, Latvia, Luxembourg, Mexico, Malaysia, New Zealand, Norway, Panama, Paraguay, the Philippines, Poland, Portugal, the Republic of Korea, Spain, Singapore, Sweden, Switzerland, Thailand, Turkey, the United Kingdom (**UK**), the United States of America (**U.S.**), Vietnam.

40 reports were received in total. The Reporter General thanks all contributors for their helpful and informative reports.

The reports provide a comprehensive overview of national and regional laws, and policies and procedures relating to the quantification of monetary relief. This Summary Report does not attempt to reproduce the detailed responses in any given report. If any question arises as to the exact position in a particular jurisdiction, or for a detailed account of any particular answer, reference should be made to the original reports. See <http://aippi.org/committee/quantification-of-monetary-relief/>.

In this Summary Report:

- references to reports of or responses by one or more "Groups" may include references to Independent Members;
- where percentages of responses are given, they are to the nearest 5%; and
- in Part IV below, some conclusions have been drawn in order to provide guidance to the Study Committee for this Study Question.

I. Current law and practice

1) What rules and methods are applied when quantifying actual loss?

There appears to be consensus amongst the Groups responding to this question that several different ways of approaching the quantification of actual loss exist, including at least (1) quantifying the lost sales/profits of the right holder; (2) using a hybrid approach and quantifying the right holder's lost sales but applying the infringer's profit margin to these sales; and (3) assessing a reasonable royalty. Methods (2) and (3) are proxies for method (1).

There is much variability as to the precise methods for quantifying actual loss, details of which can be found in the Group reports¹.

¹ Austria, Bulgaria, Canada, China, Ecuador, Estonia, Finland, France, Germany, Israel, Latvia, Mexico, New Zealand, Panama, Portugal, South Korea, Switzerland, UK

In particular, please describe:

a) The method used to determine the diversion of sales, i.e. the part of the infringing sales that the right holder would have made but for infringement

The problem is how to estimate sales of the right holder, when those sales never happened. Sales may have been diverted to the infringer. It is also possible that those sales would never have happened due to the general condition of the market, or it is possible that the right holder could have sold more products than the infringer in the same period.

Broadly, the Groups' views fall into the following categories.

- **100% diversion:** All infringing sales of the infringer would have been made by the right holder, but for the infringement².

- **Construct a model of the market:** Assess the extent to which the products are substitutable and the availability of other substitutable products in the market in order to estimate the proportion of the sales of the infringing product that, but for the infringement, would have been sales made by the right holder, taking into account the capacity of the right holder to meet the demand. Other relevant factors in this assessment include: price of the products; geographic reach; prominence and reputation in the market; pre-sales and after sales service and warranty offerings of the parties; advertising spend; and price erosion³.

- **Estimate loss based on specific facts relevant to the right holder:** The right holder can present facts to prove likelihood that they were deprived of specific business transactions because of the infringement. This method is appropriate, e.g. in cases in which either the infringer or their customers have purchased the infringing product from the right holder in the past. Alternatively, the right holder may convince the court that they have lost an abstract, non-specific fraction of a larger number of business transactions. If the right holder and the infringer are direct competitors, it is likely that the right holder has suffered actual loss. The actual amount of the loss is still to be determined if the right holder would not have been able to attract all the business that the infringer has made with the infringing product. The right holder can establish their loss by presenting past and present turnover figures in respect to their competing product or – absent past figures – by producing substantiated turnover projections⁴.

² Argentina, Spain

³ Australia

⁴ Germany

- **Variable diversion:** Estimate the substitution rate, i.e. the rate at which the right holder's and infringer's products compete with each other on the market. The substitution rate is estimated by looking at aspects such as the similarity/overlap in design, quality, price and venue of sale. If the similarity of these aspects is high, so is the substitution rate. In that case, it is assumed that many of the infringing products were sold to the detriment of the right holder's sale of the genuine product. If the infringer's product also competes with products other than the right holder's, it is normally assumed that some of the infringing sales would have gone to other competitors, and the right holder cannot claim damages for these sales. Separate from the question of substitution rate, if it is established that the right holder has experienced a drop in sales or negative impact on projected sales after the infringement occurred, this is an indication that the right holder has experienced a loss of sales due to the infringement⁵.

b) What level of profit margin is taken into account

Assuming that damages are calculated using a hybrid approach of the lost sales of the right holder multiplied by the profit margin of the infringer (rather than the lost profits of the right holder), it is relevant to consider how the profit margin of the infringer is established.

As a general rule, the Groups⁶ report that courts appear to support an approach of deducting variable costs from sales turnover, but not fixed costs. However, there is much variability and there appears to be no rigidly defined common position. On some level, the approach proposed by the Austrian and Swiss Groups (profit margin = relevant sales turnover – relevant costs) is simple and general enough to address many situations. It allows for numerous options for evaluating the profit margin, the exact options being selected as the most appropriate for the case at hand.

The Argentinian Group reports that its courts have adopted some rules of thumb. The practical consensus is that the profit margin should be calculated as 10-30% of gross sales. The Mexican Group reports that the rule of thumb in Mexico is 40%.

2) What rules and methods are applied when quantifying a reasonable royalty?

A number of Groups⁷ support the use of a hypothetical negotiation as a construct to establish a reasonable royalty. This is generally regarded as involving a negotiation between a willing licensor and a willing licensee. Although it is irrelevant that one (or both) parties would not in practice have agreed to make the deal, the (assumed)

⁵ Denmark, France, U.S.

⁶ Australia, Austria, Belgium, Denmark, Estonia, France, Germany, Italy, Japan, Malaysia, South Korea, Spain, Switzerland, UK, U.S.

⁷ Australia, Estonia, Germany, Portugal, UK, U.S.

willing parties will generally have the attributes of the actual licensor and the actual licensee. Detailed aspects of the negotiation can be found in the relevant reports.

However, a significant number of Groups⁸ responding to this question take the view that a reasonable royalty should be established by valuing a licence through various data points, such as the duration of the licence. These are of course factors that would be relevant to a hypothetical negotiation as well, but can be applied without the construct of a hypothetical negotiation. Again, details can be found in the relevant reports.

A number of Groups⁹ report that the royalties as a proxy of damage suffered by the right holder do not have to be "reasonable" royalties as such, just compensatory royalties that estimate the damage to the right holder. Other Groups¹⁰ do not distinguish in the context of this question between reasonable royalties and "other" royalties, but simply discuss the calculation of reasonable royalties. It is not in any case clear that there is a substantive difference between these two concepts since it is difficult to see how unreasonably high royalties might not overcompensate, and perhaps the issue, if one exists, is that reasonable royalties have not been high / "reasonable" enough to be sufficiently compensatory.

The difference in terminology could also arise due to the different starting points for assessing royalties. Where the starting point is a hypothetical negotiation, the objective is to model a negotiation and it might be assumed that the parties in a hypothetical negotiation would only come to an agreement once they can agree on a reasonable royalty. However, where the determination of royalties does not start from a hypothetical negotiation, the objective is simply to determine a royalty which functions as a proxy of the loss suffered by the right holder and compensates adequately. "Adequate" may not equate to "reasonable" for the reasons explained above.

In particular, please describe:

a) The royalty base

The royalty base defines the sum of money that is "taxed" by the application of a royalty on it. It is related to, but not quite the same as, the question of conveyed goods, and smaller components forming part of a larger assembly.

Around a third of Groups¹¹ responding to this question appears to consider that the royalty base should in principle be the net sales figure of the product in question, i.e. the gross sales price less variable costs such as discounts, rebates, tax, duties, etc. The net sales figure is the sum that the

⁸ Belgium, China, Ecuador, Japan, New Zealand, Norway, South Korea, Singapore, Sweden

⁹ e.g. France

¹⁰ Belgium, China, Germany, Ecuador, Estonia, Japan, Korea, New Zealand, Norway, Singapore, Sweden, Switzerland, UK

¹¹ Australia, France, Portugal, U.S.

seller receives. If fixed costs were to be deducted from net sales, the result would be the profit.

Other Groups¹² are less definitive about what the royalty base should be. It does not necessarily have to be the net sales figure, or a figure defined in advance.

b) How relevant comparables among licence agreements are defined

Deciding when a licence agreement is a valid comparable is a difficult problem, because so many different variables may be the same or slightly different in relation to any two licences. They may for example have the same 5-year term but one licence may include right to sub-license while the other does not. These differences can have considerable economic significance. It is not trivial to decide whether such differences means that specific agreements are not relevant comparables.

The approach favoured by most Groups¹³ is to examine the proximity or closeness of connection between the situation at hand, and licence agreements, e.g. whether the same IP is and was in issue, and other relevant factors. Factors considered relevant by Groups is to be found in their reports.

Other Groups¹⁴ report that courts are less concerned with detailed comparisons between factual situations, or prefer to assess royalties using theories for what would have been agreed, and that comparables are only used as a sanity check.

c) How a reasonable royalty is quantified in the absence of relevant comparables

When there is no benchmark royalty against which to compare, a court will need to use a different way of establishing a reasonable royalty. In the main, Groups¹⁵ that addressed this question adopted a model which simulates a negotiation for a licence, which involves considering questions such as:

- the price impact of non-infringing workarounds,
- the nature of the licence (non-exclusive, exclusive, sub-licensing rights);
- the term of the licence;
- territorial limitations;
- bargaining power;

¹² Austria, Brazil, Canada, China, Denmark, Finland, Germany, Switzerland

¹³ Belgium, Brazil, China, Denmark, Finland, France, Germany, Italy, Panama, Sweden, UK, U.S.

¹⁴ Austria, Canada

¹⁵ Canada, Finland, Germany, Israel, Japan, Sweden, Switzerland, UK, U.S.

- the impact on the overall price of a product which incorporates the licensed technology, etc.

The UK Group reports that where comparable licences or other compelling evidence is not available, the royalty may be assessed by the "available profits" method, i.e. an assessment of the profits that would be available to the licensee absent a licence, and apportioning such profits between the licensor and the licensee. It is assumed that the parties could have accurately predicted this in advance and had it in mind when negotiating the hypothetical licence. The split between the licensor and licensee will depend on the industry area.

For some Groups¹⁶, the decision-making is not as clearly rule-driven, but that does not mean that the court could not come to the same or similar view. The Hungarian Group reports that in the absence of relevant comparable licence agreements, the court may define a royalty rate with due respect to all circumstances of the case. However, cases have been reported where the court did not define a royalty rate at all for lack of comparables and refused the respective claim.

d) The nature of the royalty, e.g. lump-sum, percentage of revenues or profit, a mix?

In general, Groups¹⁷ that responded indicated that the nature of the royalty is driven by the facts of the case.

No uniform rule or practice emerges from these responses. This is to be expected, because the determination of the specifics of the royalty is a very fact-sensitive enquiry, driven by the dispute before the court at the time. However, the responses do illustrate some factors that may be taken into account when the court decides on the royalty. For example, if the relatively uniform licensing practice in the industry in question is to include a lump sum for damages for past infringement and a running royalty for the future, the court may adopt that same structure when deciding reasonable royalties.

3) What rules and methods are applied when quantifying the infringer's profits, as part of quantifying damages?

As this Study Question does not examine accounts of profit, this question relates only to the infringer's profit insofar as that is relevant to damages which compensate the claimant for its own loss of profits. There may be underlying reasons why this method is in use, including the reluctance of the claimant to disclose its own profit levels. One cited reason for this is that it is difficult or cumbersome to protect confidential information about the right holder's profit levels in litigation¹⁸. It appears that the infringer's profit level is a proxy for the claimant's profit level.

¹⁶ Belgium, Denmark, France, Hungary

¹⁷ Austria, Brazil, Canada, Estonia, Germany, Hungary, Israel, Italy, Sweden, Switzerland, UK

¹⁸ in around 25% of Group reports.

While the details differ, a number of Groups¹⁹ answering this question appear to be agreed generally that the court will need to apportion the infringer's profits that are attributable to the use of the IP right, as opposed to the whole of the profits from the sale of the infringing item. The court will examine the extent to which the economic value of an infringing product resides in the embodiment within it of the infringed IP. In addition to an apportionment, the court will need to decide how a "profit" differs from the income generated by sales, i.e. turnover. In one form or another, each of these national approaches as reported comes very close to the Swiss approach, which is to examine the infringer's net profits, which equals the gross profit plus interests less the costs relating to the realisation of the profit.

A point made by the UK Group is that the infringer's profits are potentially relevant to the calculation of damages in two instances: (1) the "available profits" method of calculating the reasonable royalty; and (2) unfair profits or additional damages. The "available profits" method is used when there are no comparable licences, and the profit made by the infringer is allocated as between the infringer and the right holder as a proxy for a royalty.

The EU Enforcement Directive (2004/48/EC), provides that, for infringements where the defendant knew, or had reasonable grounds to know, that it was infringing, unfair profits made by the defendant should be taken into account when awarding damages. Unfair profit is not all profit made by the defendant from a knowing infringement. Instead, the court will consider that the defendant has made unfair profits and as such will increase the damages otherwise payable where it considers that a claimant will not be adequately compensated by reference to (1) lost profits, moral prejudice and expenses; (2) a reasonable royalty; or (3) an account of profits. This would apply where, for example, an infringer has made no direct financial profit from infringement, but has gained reputation on the back of loss-leader infringements. Such expansion, though not a profit in the usual direct sense, is to be treated as a contingent profit nonetheless.

In particular, please describe:

a) The method to determine the profits resulting from the infringement, i.e. resulting from the use of the IP right

The approaches adopted by the Groups fall into the following main categories:

- Entire profits from the sale of the infringer's goods²⁰;
- Apportioned profits²¹, for example Infringer's profits = profits x "causality factor" whereby profits = sales – costs, where the causality factor is used to adjust according to how much of the profit is driven by the IP right;

¹⁹ Australia, Denmark, Estonia, Norway, South Korea, Switzerland – except Malaysia who did not mention an apportionment

²⁰ Brazil, China, Denmark, France

²¹ Germany

- Anticipated profits or cost savings that an infringer would derive from use of the patented product or process²².

b) What level of profit margin of the infringer should be taken into consideration

Answers from Groups responding to the question range from deducting variable costs from turnover²³, through “semi-gross” profits²⁴, gross profits²⁵, net profits²⁶ and usual industry profits²⁷ to all the profits obtained by the infringer²⁸, and a discretionary estimation by the judge²⁹. There appears to be no consistent position across jurisdictions.

The German Group describes the process as being in two stages. The infringer is obliged to surrender all profits made as a result of the infringing acts. The share of the infringer’s profits to be surrendered must be judged by determining whether and to what extent the profits realised were based on the product’s technical features or other decisive factors in the consumers’ decision to buy the product that were a result of the use of the invention. This is estimated in the sole discretion of the trial judge under consideration of all facts of the individual case.

The French Group states that the net profit approach cannot be ruled out in situations in which the infringing activity represents a very significant part of the infringer’s total activity or turnover. This justifies the taking of fixed costs into account or even indirect costs in order to assess the level of the infringer’s profit which is attributable to the infringement.

4) What rules and methods are applied, both when quantifying actual loss and quantifying a reasonable royalty:

a) In relation to conveyed goods

The objective of this question was to examine the quantum of damages when the infringing product forms part of a set of products sold together. It is without prejudice to any competition law rules that may forbid the bundling of products.

As reported by the U.S. Group, the U.S. has plentiful jurisprudence in this area. For both patents and trade marks, where the patentee cannot prove that

²² U.S.

²³ Austria

²⁴ Belgium

²⁵ France, Italy, Spain, U.S.

²⁶ France, Italy, Spain, Turkey, U.S.

²⁷ Hungary

²⁸ Brazil

²⁹ Germany

the "Entire Market Value Rule"³⁰ (**EMVR**) applies on the facts, unpatented collateral products will typically only be considered in determining the royalty rate. Georgia-Pacific factor 6³¹ reflects the principle that in the hypothetical negotiation the plaintiff would seek compensation for all of the disadvantages that it would suffer as a result of licensing the patent in suit to the defendant. Thus, if as a result of selling patented products that the plaintiff also sells other products at the same time ("convoys sales") or later ("derivative sales"), the plaintiff may be motivated to request a royalty in relation to those other products. If the patentee can prove that the EMVR applies on the facts, then unpatented, collateral products may be compensable as part of the royalty base. A patentee may include the value of the convoys sales in its lost profits calculation or as part of the royalty base if (1) the infringing and non-infringing product form a functional unit; and (2) the patentee's loss was reasonably foreseeable.

This approach has found favour in a number of other jurisdictions³². A subtly different approach has been adopted in Denmark, in which the scope of damages depends on market practice in relation to the goods in question. A minority of jurisdictions³³ consider that convoys goods should not be included within the scope of quantified damages, even if causation is shown.

b) Where the infringing product forms part of a larger assembly

The objective of this question was to examine the situation in which a small component of a complex product composed of many parts is found to infringe.

The U.S. Group reports that the U.S. also has plentiful jurisprudence in this area. For patents, Georgia-Pacific factor 13³⁴ has been used by the courts in two ways. First, it has been used to separate the value of the patented and non-patented elements embedded within the royalty base. Separately, this factor has been used to adjust a royalty upward or downward based on the defendant's contribution to the success of the patent-embodying product. The governing substantive legal rule - the "Entire Market Value Rule", or EMVR, described above - indicates that "where multi-component products are involved in patent litigation the combination of a royalty base and royalty rate must reflect the value attributable to the infringing feature of the product, and

³⁰ In summary, a rule used by the U.S. courts to apportion to the patent holder some part or all of the entire market value (or base) of a product, as the starting point for calculating damages.

³¹ From *Georgia-Pacific v U.S. Plywood Corp*, 3.8 F.Supp. 1116, 1120 where the court listed a series of factors that could be used to determine a reasonable royalty rate. Factor 6: "The effect of selling the patented speciality in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoys sales."

³² Australia, France, Italy, Japan, New Zealand, Sweden

³³ Hungary, Malaysia, Spain, South Korea

³⁴ Factor 13: "The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer."

no more. The EMVR in the context of royalties requires adequate proof that (1) the infringing component must be the basis for customer demand; (2) the infringing and non-infringing components must be sold together; and (3) the infringing and non-infringing components must be analogous to a single functional unit.

In relation to trade marks, the rule is simpler: where an infringing product is sold (i.e. the product includes an infringing mark) along with a non-infringing product, it is typically up to the infringing party to prove how much of the sales may be attributed to the non-infringing product. In relation to copyright, when the infringing work inextricably intermingles non-infringing material with the plaintiff's protectable material, profits are apportioned to exclude "the elements of profit attributable to factors other than the copyrighted work."

This approach has also found favour in a number of other jurisdictions³⁵. Again, a subtly different approach has been adopted in Denmark, in which the scope of damages depends on market practice in relation to the goods in question.

In Hungary and Italy, if the infringing product forms part of a larger assembly, it is the value of the infringing products only which can be used as a basis for quantifying actual loss and quantifying a reasonable royalty. In Belgium, there is no case law in this area, but a judge would likely determine a percentage of the value of the assembly that would be relevant for damages.

c) Where the IP rights found infringed are routinely licensed together with other IP rights as a portfolio?

The objective of this question was to address the impasse between claimants who cannot practically sue on every patent in their portfolio – in the case of large portfolios, this could take many years, even decades; and the fact that it could be argued that is not rational for a defendant to pay royalties on patents that have not been asserted, and found valid and infringed. Of course, in practice, royalties are routinely paid for patents that have never been found valid and infringed, or even litigated, when licences for large multi-patent portfolios are taken.

A number of Groups³⁶ support the recovery of royalties only for the rights litigated. The Australian Group reports that this issue has not been considered by an Australian court. However, principles relating to the determination of a reasonable royalty require assessment only of the IP right held to be infringed. Where a portfolio licence is considered to be a relevant guide in assessing a reasonable royalty, an Australian court would likely seek to assess the importance of the infringed IP right amongst the portfolio of IP rights to try to discern what proportion of the portfolio licence fee can be attributed to the infringed IP right.

³⁵ Australia, China, France, Japan, Spain, South Korea, Sweden, UK

³⁶ Australia, Hungary, Spain, South Korea, UK, U.S.

The Chinese Group states that royalties should be reasonably determined by considering the role of the IP rights found infringed in the portfolio.

US courts encourage the use of comparable licence agreements but only if accompanied by an appropriate analysis of the differences between those agreements and the hypothetical licence, including any adjustments to the comparable license royalties that should be made to arrive at a reasonable royalty.

The UK Group reports that in circumstances where the IP rights found to have been infringed are not generally exploited by the manufacturer but are instead routinely licensed together as a portfolio with other IP rights, the court will generally offer compensation on the basis of what royalties are normally sought by the IP owner. With the advantage of an existing licensing regime, the court has the direct and analogous evidence to assist it in making an apportionment between the infringed IP right and the other IP rights, especially where previous licences by the IP owner already record such an apportionment and royalty rate. However, there is no rule of law which prevents the court from taking other general considerations into account, even when it has evidence of existing licensing practice. “... *The ultimate process is one of judicial estimation of the available indications ...*”

In contrast, in Denmark, there has been a decision suggesting that relief ought to be granted against a defendant unless that defendant takes a licence to the whole portfolio including patents not litigated.

The Japanese Group outlines a compromise position: if the IP rights found infringed are normally included in a portfolio, the calculated rate of royalty for each right is theoretically lower. However, if it would be unreasonable to use such calculated rate as it may be too low, it can be adjusted.

d) When the damage suffered by the right holder is related to competing goods which do not implement the infringed IP rights?

Some Groups³⁷ say that it is irrelevant whether the right holder’s competing goods implement the infringed IP rights. This is based on the rationale that an IP right is a negative right which allows the prohibition of infringement, but whether the right holder practices the IP does not matter.

The Hungarian Group observes that the right holder’s own sales may be parasitic: if the right holder’s sales have decreased as a consequence of the launch of a competing product, there is no causal link. In such a case, the right holder cannot claim damages from the infringer, but he can claim the infringer’s enrichment due to the infringement (including a reasonable royalty).

Other Groups³⁸ note that a head of damage may relate to competing goods of the right holder, but causation needs to be shown.

³⁷ Australia, Israel, Spain

³⁸ France, Japan, UK

The Chinese Group comments that this factor should be considered when determining the amount of compensation. The damages suffered by the right holder related to competing goods which do not implement the infringed IP rights should be deducted.

5) Are any of the rules and methods addressed in your answers to 1) to 4) above different when considering the damage suffered by the right holder or by its licensee?

Around half of the Groups³⁹ indicate that the rules/principles are the same. There are no Groups that report that the principles to be applied are different. In Austria and Spain, whilst the rules and methods are the same, the resulting quantum could be different for the proprietor and a licensee due to the different interests at stake.

The Australian and UK Groups note that there can be no double recovery.

6) What kinds and types of evidence are accepted for proving:

a) The quantum of actual loss

Around three quarters of the Groups⁴⁰ report that there are no real restrictions, apart from relevance.

The UK Group states that when proving the quantum of actual loss, the right holder may submit evidence from its officers and/or expert accountants showing, e.g. its market share, profit margin and any reduction in price/margin/sales/market share which are alleged to have been caused by the defendant's actions. This might take the form, e.g. of witness statements or financial data.

The Malaysian Group explains that the evidence allowed includes:

- testimony in trial from defendant's witness;
- testimony in trial from a director or dealer/agent of the claimant;
- testimony in trial from a person who is familiar with the market rate for the selling price for the works in the industry;
- audited accounts and loss of sales; and
- expert accounting evidence.

In Poland, all kinds of evidence are accepted for showing actual loss, lost profits or reasonable royalties. This includes in particular: contracts; invoices;

³⁹ Argentina, Australia, Austria, Brazil, Canada, Denmark, Estonia, Finland, Germany, Hungary, Italy, Japan, Latvia, Luxembourg, Malaysia, Mexico, Singapore, South Korea, Spain, Sweden, Switzerland, UK, U.S.

⁴⁰ Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Denmark, Ecuador, Estonia, Finland, France, Hungary, Italy, Japan, Luxembourg, Malaysia, Mexico, Norway, Paraguay, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Thailand, UK, U.S.

and similar materials, e.g. press articles, books, publications, official pricelists published by market players. For copyright, this can include data from collective management societies, and especially the rates approved by the Copyright Commission which has powers to accept timetables used by those societies. Expert opinion where the expert will represent special knowledge related to a particular market or general economic knowledge testimony of witnesses will also be accepted.

According to US practice, properly estimating patent damages requires an economic analysis of both the actual market and the projected market absent the infringement. Both fact and expert opinion evidence are accepted under appropriate circumstances. The patent owner often seeks to prove causation in fact using four factors: (1) a demand for the patented product; (2) an absence of acceptable non-infringing substitutes; (3) the manufacturing and marketing capability to exploit the demand; and (4) the amount of profit the patent owner would have made.

Also applicable in relation to b) below, a feature of these systems is that evidence from the parties' own experts is allowed, but that is not accepted wholesale by the court and is tested by cross-examination. In contrast, other Groups report a more controlled approach to the type of evidence that is admitted at the outset.

For an example of the latter, in Germany, experts may be court-appointed, and the parties' own expert opinions are treated as "mere" statements of a party. In Denmark, unilaterally obtained expert reports are typically not admitted, unless they have been prepared *before* the proceedings were initiated. However, anticipated reforms will allow production of a unilaterally obtained expert report prepared *after* the proceedings were initiated, but only as a response to any unilaterally obtained expert reports filed in the case that were prepared before the proceedings were initiated.

b) The quantum of reasonable royalties

Around half of the Groups⁴¹ report that there are no real restrictions in relation to the evidence allowed on the quantum of reasonable royalties.

The Australian Group reports that the quantum of reasonable royalties would be proved by evidence from an executive of the right holder as to other similar licensing practices of the right holder. This may be supported by expert evidence on past licensing practices in the relevant industry. Similarly, the UK Group reports that for proving the quantum of reasonable royalties, the court will accept expert accounting evidence on past licensing practices. The right holder may also disclose previous licences under an appropriate confidentiality regime. A defendant is entitled to seek pre-action disclosure of existing licences in order to assess the value of the right holder's claim.

⁴¹ Australia, Argentina, Austria, Canada, Denmark, Ecuador, Estonia, Finland, France, Hungary, Italy, Japan, Luxembourg, Malaysia, Mexico, Norway, Paraguay, South Korea, Spain, Sweden, Thailand, UK, U.S.

The U.S. Group indicates that any relevant factual evidence establishing the royalty base, and any factual evidence relevant to any of the Georgia-Pacific factors may be used, as well as expert opinion evidence in appropriate circumstances. The Canadian Group reports that the plaintiff may adduce direct evidence of past royalties (including royalties charged by other companies) to support a claim to reasonable royalties. In addition, expert opinions based on admissible evidence may be admitted in some cases (e.g., general industry practices).

The Brazilian Group states that only documentary evidence is accepted on quantum.

For example, is expert accounting evidence on past licensing practices accepted?

More than half of the Groups addressing this question⁴² indicate that expert accounting evidence is allowed.

The Japanese Group reported that, in practice, the types of evidence used often to prove the amount of a reasonable royalty are ledgers (accounting books), license agreements with other companies, and texts about royalty rates (e.g. "*Royalty Rate*", published by Research Center, Japan Institute of Invention and Innovation).

7) What mechanisms (e.g. discovery) are available to the right holder to assist with proving the quantum of actual loss or reasonable royalties?

A number of common themes emerged from the answers provided by Groups. It appears to be possible to seek orders for:

- Evidence seizure or *saisie*^{43,44};
- Production of specific, identified documents⁴⁵;
- The supply of information / a statement⁴⁶;
- The supply of specific information e.g. names of manufacturers or names of customers⁴⁷;

⁴² Argentina, Australia, Brazil, Canada, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Mexico, Norway, Paraguay, Poland, Singapore, South Korea, Spain, Sweden, Turkey, UK, U.S.

⁴³ Argentina, Belgium, Canada, Denmark, Finland, France, Luxembourg, Norway, Panama, Sweden,

⁴⁴ Under French law, the *saisie-contrefaçon* is widely used to obtain proof of infringement of IP rights, being a procedure which permits the right holder, upon authorisation by the court, to call upon (generally) a bailiff to record infringement.

⁴⁵ Argentina, Belgium, Bulgaria, Denmark, Finland, France, Hungary, Japan, Luxembourg, Norway, Panama, Poland, South Korea, Sweden

⁴⁶ Austria, Belgium, Chile, Germany, Luxembourg, Switzerland

⁴⁷ Denmark, Estonia, Italy, Norway, Poland, Spain, Sweden, Turkey, UK

- Documentary discovery⁴⁸, including access to company accounts, sales records and information concerning costs and overheads;
- Oral discovery / depositions⁴⁹;
- Interrogatories⁵⁰;
- Discovery from non-parties⁵¹;
- An investigation / testimony⁵²;
- Judicial statements / affidavits / oaths⁵³;
- Cross-examination of the parties⁵⁴;
- A bailiff's statement⁵⁵;
- Judicial sequestration of documents to secure evidence⁵⁶;
- Information / discovery allowing the right holder to choose its damages theory⁵⁷.

The U.S. Group reports that during discovery, the following documents are obtainable from parties and non-parties as well to prove the quantum of monetary remedies: sales data, costs data, pricing documents, product distribution, licenses, business plans, and marketing plans. Testimonial depositions of accounting, marketing, and sales personnel, and of financial or economic expert witnesses, may also be conducted. Interrogatories and requests for admission may also be used in a patent damages analysis.

Whilst a significant number of Groups in total report that some type of mechanism is available for securing evidence, the most common mechanism (production of specified documents) appears to be unavailable in the jurisdictions of two-thirds of Groups that submitted reports. This suggests that improving access to evidence remains a priority, especially as much of the economic evidence concerning infringement is usually uniquely in the possession of the infringer.

⁴⁸ Australia, Canada, Israel, Malaysia, New Zealand, Singapore, UK, U.S.

⁴⁹ Canada, U.S.

⁵⁰ Israel, U.S.

⁵¹ Canada, Israel, U.S.

⁵² Belgium, Luxembourg

⁵³ Belgium, Luxembourg

⁵⁴ Belgium, Luxembourg

⁵⁵ Belgium, Luxembourg

⁵⁶ Belgium, Luxembourg

⁵⁷ UK

8) How, if at all, does the quantification of damages for indirect/contributory infringement differ from the quantification of damages for direct infringement?

About two-thirds of Groups⁵⁸ (24) say there is no difference.

Six Groups⁵⁹ explain that there is no effect on the principles applied. However, the ultimate amount awarded may be different from that of damages assessed for direct infringement. This is because the nature and surrounding facts of the liability are different. In turn, the economic impact of those acts may be different.

9) Are forward-looking damages (e.g. damage in relation to an irreversible loss of market share) available:

- **if an injunction has also been granted;**
- **only if an injunction has not been granted; or**
- **not at all?**

This question is relevant to a number of different situations. One is where the court chooses not to award a permanent injunction to prevent future infringement, and the question is whether the defendant should be allowed to continue infringing with impunity. Another is where damage continues to be suffered in the future even though all infringement has ceased because an injunction has been issued.

Of the Groups that answered this question, it appears that forward-looking damages are available in around two-thirds (22) of Groups, and not available in about a third (10) of Groups⁶⁰.

The U.S. Group reports that since the Supreme Court's decision in *eBay v. MercExchange*, trial courts have been permitted to award forward-looking royalties in lieu of injunctive relief. The Australian Group also reports that forward-looking damages are available where an injunction has been granted. This may relate to an irreversible loss of market share, or an essentially irreversible drop in price. In these circumstances, damages will be awarded on the basis of the present value of the future loss, adopting accepted accounting principles to calculate that value. The New Zealand Group explains that the granting of an injunction does not prevent the award of damages to compensate for future loss. For example, damages of this kind may be awarded in case where a generic pharmaceutical that has entered the New Zealand market is found to infringe a patent. Any permanent depression of the government reimbursement price will be part of the patentee's actual loss. The court will also make orders to prevent further infringing conduct.

⁵⁸ Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Ecuador, Estonia, Finland, France, Germany, Italy, Japan, Luxembourg, Malaysia, Norway, Panama, Paraguay, Portugal, Spain, Sweden, Switzerland

⁵⁹ Hungary, Israel, Latvia, New Zealand, UK, U.S.

⁶⁰ Including Brazil, Bulgaria, China, Estonia, Malaysia, Mexico, South Korea, Turkey.

In addition, two Groups⁶¹ say that forward-looking damages are available if an injunction is granted, and three Groups⁶² say that in their jurisdictions forward-looking damages are available regardless of whether an injunction has been granted.

Around a third of the Groups (13)⁶³ report that forward-looking damages are available in principle, but in the case of some Groups they are rarely sought and/or granted because such damages are difficult to prove. In some, separate proceedings are needed unless the future damages have presently crystallised⁶⁴. Most groups do not have any case law on this issue to guide the courts.

10) Is the bad faith of the infringer taken into account in the assessment of the damage?

Ten Groups⁶⁵ (about a quarter) indicated that bad faith is not taken into account.

Nineteen Groups⁶⁶ (around half) indicated that it is taken into account in some circumstances, e.g. for punitive or exemplary damages, or greater damages for wilful infringement.

Some Groups⁶⁷ indicated that bad faith as such is not taken into account, but damages may only be available if negligence or intention on the part of the defendant is established, e.g. it may be negligent if a defendant fails to conduct patent searches that a prudent business would carry out. In Norway, acting intentionally or with gross negligence results in double reasonable royalties being assessed. The Argentinian Group states that negligence involves knowingly and willingly being in breach of “applicable obligations of care which are expected from a prudent and good businessman.” In Italy, bad faith is defined as awareness of the existence of the IP right and of its violation.

The Australian Group explained that additional damages may be awarded having regard to the flagrancy of the infringement and any other matter considered relevant by the court, e.g. the need to deter similar infringements, the conduct of the infringing party after the infringement (or being informed of it) or any benefit shown to have accrued to that party because of the infringement.

⁶¹ Latvia, Spain

⁶² Israel, Italy, UK

⁶³ Belgium, Canada, Denmark, Ecuador, Finland, France, Hungary, Japan, Norway, Singapore, Sweden, Switzerland, Thailand

⁶⁴ Austria, Germany

⁶⁵ Brazil, Chile, France, Mexico, Panama, Poland, South Korea, Singapore, Spain, Turkey.

⁶⁶ Argentina, Australia, Belgium, Canada, China, Ecuador, Estonia, Israel, Italy, Latvia, Malaysia, New Zealand, Paraguay, Portugal, Sweden, Switzerland, Thailand, UK, U.S.

⁶⁷ Argentina, Austria, Denmark, Finland, Germany, Hungary, Japan.

11) How do courts take into account the damage suffered because of the time between the date of the infringing acts and the date of the award of damages taken into account?

This question was not directed to the interest that may be applied to damages, but to the situation in some jurisdictions which require full information about damages suffered to be filed with the claim. In those jurisdictions, damages suffered after the claim has been filed cannot (obviously) be specified in the claim itself. Jurisdictions which bifurcate liability/infringement from damages⁶⁸ do not require the substantive, initial claim to specify the precise quantum of damages sought.

All Groups appear to have a mechanism of some kind to enable recovery of damage suffered after a claim has been filed but before trial/judgment (although the exact mechanism varies). Damages may be claimed right up to the final decision⁶⁹, until the end of proceedings at first instance⁷⁰, until the last court hearing before judgment⁷¹. Damages awarded can include damages until the date of award, potentially also forward-looking damages⁷², or the damages claim may be updated until judgment is handed down⁷³.

II. Policy considerations and proposals for improvement of your current law

12) Are there aspects of these laws that could be improved?

Two Groups indicate that their current law does not require improvement⁷⁴, while a third of Groups⁷⁵ consider that improvements would be useful in relation to the quantification of monetary relief.

The Austrian Group indicates that actual damages are rarely claimed as business secrets would need to be disclosed, and would like in camera review of this type of evidence. It would also like to see adjustments to the cost of proceedings in cases of low-level, low-profit infringement.

In Canada, the choice between damages and an account of profits is subject to judicial discretion. The Canadian Group would prefer that the circumstances in which an election between damages and an account of profits can be made by a party are specified.

In Swiss law, claims for monetary relief are often rejected for lack of evidence of injury, enrichment or a quantifiable gain (based on a strict approach of the difference theory), including the royalty method when the plaintiff cannot prove its intention or

⁶⁸ e.g. Germany and the UK, amongst others.

⁶⁹ Argentina, Belgium, France.

⁷⁰ Austria, Germany.

⁷¹ China, South Korea.

⁷² Switzerland.

⁷³ Finland, Sweden.

⁷⁴ Brazil, France.

⁷⁵ Belgium, Bulgaria, Sweden, UK, U.S, Argentina, Estonia, Finland, Japan, Malaysia, Panama, Spain.

ability to enter into a licensing agreement with the infringer or a third party. The Swiss Group proposes a relaxation of the difference theory to allow courts to apply the royalty method more broadly, e.g. also when the injured party has neither the intention nor the ability to enter into a licensing agreement.

The Chinese Group would like a system for punitive damages (as would the Korean Group), and states that the requirement of the right holder to prove the causal relationship between the infringing action and the actual losses of the right holder is expected to be lowered moderately.

The Danish Group reports that generally their laws function well, but it is possible for the infringer to profit from the infringement, even after paying damages. It would be desirable if there was clearer authority for the court, at its discretion and taking account of all circumstances, to quantify damages on the basis of the infringer's profits. This could discourage infringement, as such damages would mean that the infringer would not profit from the infringement.

The Hungarian Group states that rules on the disclosure of evidence by the defendant, as well as rules on contributory damages and damages of conveyed goods, could be improved to facilitate the enforcement of IP rights for right holders.

The Latvian group states that the court should be entitled to double or even triple the amount of damages in the case of wilful infringements or infringement that is not discontinued after receiving a cease or desist letter or initiating court proceedings. This proposal is especially important where a licence fee is a measure of damages. If the infringer knows they are only liable to pay a licence fee if infringement is established, there would be little initiative for the infringer to acquire rights to use the IP lawfully. The benefit of waiting to be sued after receiving a cease and desist letter (or even before receiving a cease and desist letter), and then paying a reasonable royalty, would be that with every passing day the limitation period will cut out more liability for past infringement.

The Portuguese Group suggests a de minimis level of quantum, being a royalty of 1% of the total sales of the infringer.

13) If the court determines a reasonable royalty by reference to a hypothetical negotiation, which of the following approaches should apply?

A hypothetical negotiation depends critically on the assumptions to be made about the negotiation. For example, the value of the patent being licensed depends on the perception of its strength. The value of a patent of unknown validity would necessarily be lower than the value of a patent of assumed validity, which in turn could be lower than the value of a patent which has been determined by a court to be valid since in the last case the perception of the whole market/industry is that the patent is very strong. This question 13 aims to explore this aspect in more detail.

- **The court's assessment of the hypothetical negotiation should be under an assumption that all the IP rights in suit are valid and infringed**

Fifteen Groups are in favour⁷⁶, 18 against⁷⁷.

The UK Group is against on the basis a hypothetical assessment should only take place after liability is established. The hypothetical exercise is an inherently rough estimation, rendered further inaccurate if some of the rights in suit later turn out to be invalid and/or not infringed. For example, where a royalty is assessed as a percentage value of four infringing elements, but only two of those are actually held to infringe a valid patent, then the assumption that all IP rights in suit are valid and infringed artificially inflates the royalty rate. This would be an unfair and unjust outcome for the defendant and, arguably, contrary to the Enforcement Directive as it could be construed as punitive damages.

– **The court should first be required to find that all the IP rights in suit are valid and infringed**

Eleven Groups are against⁷⁸, 17 are in favour⁷⁹.

The UK Group notes that if the parties agree, there is no need for the court to find that all the IP rights in suit are valid and infringed.

14) If the court does not determine a reasonable royalty by reference to a hypothetical negotiation, what factors and what evidence should be relevant in that determination?

Setting a reasonable royalty is a very fact-sensitive inquiry. Therefore, many factors may be relevant.

The Swedish Group offers the view that:

Unilateral offers made by right holders or infringers, without acceptance from the other party should normally be considered irrelevant as evidence.

This addresses the situation when much of the debate between the parties focuses on superseded or not accepted offers, which are of low probative value when it comes to the actual issues to be determined. While it may be difficult to exclude unilateral offers entirely, this would not exclude a view as to the normal evidential value of unilateral offers, absent special circumstances.

⁷⁶ Argentina, Australia, Austria, Belgium, Brazil, Canada, Italy, Latvia, Mexico, Poland, Portugal, Sweden, Switzerland, Turkey, U.S.

⁷⁷ Bulgaria, China, Denmark, Ecuador, France, Germany, Israel, Japan, Malaysia, Norway, Panama, Paraguay, Singapore, Spain, South Korea, Thailand, UK.

⁷⁸ Argentina, Austria, Belgium, Canada, Japan, Latvia, Norway, Poland, South Korea, Sweden, Turkey.

⁷⁹ Bulgaria, China, Denmark, Ecuador, Estonia, France, Germany, Israel, Malaysia, Mexico, Panama, Paraguay, Singapore, Spain, Thailand, U.S.

The main factors that emerge from the Groups⁸⁰ responding to this question are as follows:

- royalties accepted by the plaintiff in previous licenses on the same IP rights;
- royalties accepted by the plaintiff in previous licenses on similar IP rights;
- royalties generally accepted in third parties' licenses regarding comparable licensors and IP rights;
- cost of implementing non-infringing workarounds;
- commercial relationship of the parties;
- research and development costs;
- marketing efforts;
- scope and duration of licence;
- profit margins attained by the right holders;
- the going rate of royalty in the related technical field;
- the existence of other IP rights in relation to the product; and
- the effect of convoyed goods.

15) Should the quantification of damages depend on whether injunctive relief is granted, e.g. should forward-looking damages for a loss of market share be available if an injunction is also being granted or only if an injunction is not granted?

Sixteen Groups⁸¹ report that quantification of damages should not, in principle, be conditional on injunctive relief.

Turning to the specific question of whether forward-looking damages for a loss of market share should be available if an injunction is also being granted or only if an injunction is not granted, a number of Groups⁸² propose that forward-looking damages should be granted for a loss of market share, despite an injunction being granted. This seems well founded: even if the sale of infringing products has stopped, there is no guarantee that the right holder will win back its market share if the market equilibrium has been affected. The Hungarian Group points out there may be cases where an injunction cannot be granted for public health, public safety or military reasons, which should not influence the availability of forward-looking damages.

⁸⁰ Argentina, Austria, Belgium, China, Hungary, Japan, Latvia, Malaysia, Mexico, Norway, Poland, Singapore, South Korea, Spain, Sweden, Switzerland, U.S.

⁸¹ Argentina, Australia, Brazil, China, Denmark, Ecuador, Estonia, France, Germany, Italy, Spain, Sweden, Switzerland, Thailand, Turkey, UK.

⁸² Austria, Canada, Malaysia, Norway, Panama, Poland.

Some Groups⁸³ advocate against forward-looking damages per se.

The U.S. Group takes the position that forward-looking damages should be conditional on whether an injunction is granted. Thus, if a patentee pursues a damages theory that would include a paid-up licence including alleged infringing activity occurring in the future, courts will typically not permit the patentee to both obtain a paid-up licence for future infringement and to issue a permanent injunction against the infringing activity. This is typically addressed by the court forcing the plaintiff to elect a theory of damages. The position of the Belgian Group is similar.

III. Proposals for harmonisation

16) Is harmonisation of the quantification of damages desirable?

A large majority of Groups⁸⁴ (32) indicate that harmonisation is desirable.

The Austrian Group would also agree with harmonisation, but not for introducing punitive damages. The Chilean Group suggests a minimum of harmonisation, in the sense that courts shall award at least (minimum) damages based on the royalty method in case of wilful or negligent infringement, in order to take into account the specific nature of IP and to comply with TRIPS.

In total, including Austria and Chile, 33 out of 39 Groups (85%) consider harmonisation desirable.

A smaller number of Groups⁸⁵ (5) oppose harmonisation, with the most common reason given being that the quantification of damages depends on local factors and conditions, and local laws already address the local situation well.

17) Please propose the principles your Group considers should be applied when quantifying actual loss

The themes most commonly emerging from the responses of the Groups⁸⁶ are:

- Lost profits of the claimant, loss to the claimant through price erosion, should be recoverable, even if exact amounts are difficult to predict.
- It should be possible to use proxies for the purposes of estimation, if information regarding a specific aspect is not available. For example, in certain circumstances the infringer's profit margin may be an estimate of the right holder's loss. However, proxies should be allowed to produce excess recovery when the actual information is available but a party simply chooses, for tactical reasons, not to use it.

⁸³ Bulgaria, Japan, South Korea.

⁸⁴ Argentina, Australia, Belgium, Brazil, Bulgaria, China, Ecuador, Estonia, Finland, France, Germany, Hungary, Israel, Italy, Japan, Luxembourg, Malaysia, Mexico, New Zealand, Norway, Panama, Paraguay, Poland, Portugal, South Korea, Spain, Sweden, Thailand, Turkey, UK, U.S., Vietnam.

⁸⁵ Canada, Chile, Denmark, Latvia, Singapore.

⁸⁶ Argentina, Australia, Austria, Bulgaria, Brazil, Canada, China, Ecuador, Estonia, France, Germany, Hungary, Italy, Japan, Luxembourg, Malaysia, Mexico, Switzerland, UK, U.S.

- Evidence gathering should be improved so that it becomes possible to claim actual losses of the claimant.
- Confidentiality measures should be improved so that the protection of key information such as the claimant's profit margins becomes possible.
- Recovering for convoyed sales is desirable as long as there is causation / nexus.
- Accounts of profit should be available, if damages would be low.
- Some way of ensuring that damages are not de minimis, making enforcement still commercially viable so that companies are not forced to ignore infringement because it would be uneconomic to take action.
- Damages for price erosion and other phenomena not eliminated fully by an injunction should be considered.

In some of the responses of the Groups it is possible to detect a feeling that infringement has become economically viable as a business model, because the damages that are imposed are not high enough to deter infringement. There is no groundswell of opinion suggesting that the basic principle of compensating the right holder for their loss is incorrect. Rather, the yardstick of (just) compensating the right holder for their true losses does not equate to adequate damages. However, there appears to be no majority view that punitive damages are required in all areas of IP.

One way in which quantification could be improved is to recognise it is an inexact science and permit courts to estimate loss, within the bounds of the evidence produced, rather than requiring the right holder to prove every penny of loss. A further measure would be to improve evidence gathering processes to put the court in a position where it has the factual evidence necessary to determine damages rather than requiring to do so in a factual vacuum.

For example, the UK Group believes that loss should be quantified as follows.

- In cases where the claimant and defendant are in competition with one another by awarding the claimant their lost profits on sales the claimant would have made but for the defendant's acts of infringement.
- Damages may also be awarded to compensate for the reduction in the claimant's prices which had been made to counter the defendant's competition, and for continuing reduced sales and price depression for a period after the infringement had been brought to an end by injunction.
- That in relation to infringing sales where the claimant cannot show that the defendant's sale has caused them to lose the profit on a corresponding sale, the claimant may nevertheless recover a reasonable royalty.
- That where a claimant has lost convoyed sales, that these should also be reflected in the compensation of loss calculation to the extent that these lost convoyed sales are directly attributable to the infringing act.

The U.S. Group considers that the primary factor in quantifying actual loss is fairness both to the patentee and to the accused infringer. Excessive damages may discourage legitimate economic activity and reduce incentives to innovate. However, damages should be sufficient to adequately compensate the patentee for the added risk and investment they have made in innovation. Notwithstanding that most US cases are based on reasonable royalty damages in competitor–v–competitor cases, lost profits, price suppression, and convoyed sales can all address these goals, and the greater goal of ensuring adequate compensation for unauthorized use of the invention. Although the existing framework for determining damages remains somewhat uncertain and unpredictable, progress has been made during the past decade or so and this trend should continue. The concepts of apportionment and attribution of the value of the patented technology to the innovation of the patented subject matter—and not to other unpatentable or other elements that were known in the prior art that may have been included in the claim—is appropriate and should continue. Damages should have a nexus to the value of the innovation and the value that it contributes to society.

18) Please propose the principles your Group considers should be applied when quantifying reasonable royalties, explaining in particular:

The themes most commonly emerging from the responses of the Groups⁸⁷ are:

- reasonable royalties should be available when actual loss cannot be shown;
- other licence agreements of the same IP are highly relevant;
- other licence agreements for different IP might be found as relevant;
- what are the costs of non-infringing alternatives;
- the infringer's means to pay;
- advantages of the product in question/invention vs alternatives (including licence fees with alternatives);
- profitability of the invention;
- development costs of the invention.

The Groups are split (see question 13)) on the question of whether infringement and validity should be assumed for the purposes of the hypothetical negotiation. From a practical point of view, many hypothetical negotiation exercises will be conducted by courts in circumstances where infringement and validity have in fact been found. The remaining question is then whether comparable licensing agreements should have been negotiated in similar circumstances. On that question the Groups appear to be agreed that the proximity of circumstances between the dispute in question and the circumstances of the comparable licences is a relevant matter.

⁸⁷ Argentina, Brazil, Canada, China, Ecuador, France, Hungary, Italy, Japan, Malaysia, Mexico.

The UK Group's view on calculating reasonable royalties provides a good summary of the views of many Groups responding to this question.

- Where the claimant exploits the IP right by licensing, they should be able to recover the royalty that they would have charged the infringer, had the infringer acted lawfully by seeking and obtaining a licence. This should reflect as close as is possible the actual licence that would have been granted. For example, if the defendant had previously entered in 3 consecutive 1 year licences to use a copyright work, if they only infringe it for 3 weeks after the expiry of the licence then the licence imposed should reflect that payment would have been agreed for 1 year. This is necessary to ensure that defendants do not intentionally infringe and get pro rata damages for their use when licences are not available for short periods,
- Where the claimant does not exploit the IP right either by manufacturing or by licensing, they can still recover damages by way of a licence royalty, based on a hypothetical party in the position of the claimant who licences their IP rights.
- When working out a royalty rate where there are no prior comparables of the claimant, regard should be had to the licensing practices of competitors or other parties in the same industry or field.
- Any hypothetical negotiation must be made under the assumption that the rights are valid and infringed (and rates based on any comparable licences not framed under those assumptions should be adjusted upwards accordingly).
- Prior licensing practices or rates in other fields may be relevant, but only in cases where the claimant can show that there is good reason for the court to apply such rates, e.g. the industries in question are in some way analogous. The UK Group does not however believe that this would be a common source of comparable licences and would only be available on certain fact patterns.

In the view of the Japanese and Italian Groups that a reasonable royalty for the purposes of damages should be higher than a "real" royalty that would have been agreed, which would assist when there is under-recovery of damages.

a) The relevance, if any, of a hypothetical negotiation and whether the hypothetical negotiation should be under the assumption that the IP rights being negotiated were or were not found valid and infringed

Eleven Groups⁸⁸ support the relevance of a hypothetical negotiation between a willing licensor and a willing licensee in the position of the parties prior to the enforcement action being commenced. Eight Groups⁸⁹ support the concept that the hypothetical negotiation should start from the assumption that the

⁸⁸ Argentina, Australia, Austria, Bulgaria, Canada, Denmark, Estonia, Finland, Germany, Switzerland, U.S.

⁸⁹ Argentina, Australia, Bulgaria, Denmark, Finland, Germany, Switzerland, U.S.

rights are valid and were infringed, while two Groups⁹⁰ disagree at least to some extent. There were no views expressed disapproving of the hypothetical negotiation.

The Canadian Group is of the view that in a case of innocent infringement, the court should determine the royalty rate that would have been negotiated by the parties if the validity and infringement of the patent had not been determined. However, if the infringement was knowing or wilful, the court should consider the rate that would have been negotiated for a valid and infringed patent.

b) The relevance, if any, of prior licensing practices or prior going rates for licensing the IP rights in suit

Three Groups⁹¹ were of the opinion that prior practices are highly relevant. Two Groups indicated that prior practices⁹² are of some relevance. A third of all Groups submitting reports⁹³ support the relevance of a prior practices / going rates, and there no opinions to the contrary expressed.

The German Group states that comparable licenses should also be taken into consideration for calculating past damages. The result of free negotiations (cf licences entered into under duress, e.g. the threat of a permanent or interim injunction) can be a good indication for the licence analogy. However, there might be deductions taking into account legal uncertainty or early-licensing discounts which should not apply for past damages, so that there might be a need for adjustments.

c) The relevance, if any, of prior licensing practices or prior going rates for licensing other IP rights of third parties that may or may not be similar to the IP rights in suit

The Groups⁹⁴ that have expressed an opinion on this question appear to agree that, at the very least, prior licensing practices for other IP rights of third parties are of *some* relevance where no prior going rates for licensing the IP rights in suit are available. The degree of relevance varies by the nexus between those licences and the dispute at hand.

The U.S. Group states that the value of licensing of other IP rights that are not similar to the IP rights in suit can be highly misleading and unduly prejudicial to either party. Particularly in the U.S., it is important to frame the issues carefully for the jury in order to avoid confusion or waste of time.

⁹⁰ Canada, Estonia.

⁹¹ Austria, Denmark, Estonia.

⁹² Bulgaria, Canada.

⁹³ Argentina, Austria, Denmark, Estonia, Australia, Bulgaria, Canada, Switzerland, China, Germany, Spain, U.S.

⁹⁴ Argentina, Australia, Austria, Belgium, Bulgaria, Canada, China, Denmark, Germany, Norway, Spain, Switzerland, U.S.

19) Please propose, in relation to actual loss and reasonable royalties:

a) How conveyed goods should be dealt with

With one or two exceptions⁹⁵, the Groups that expressed an opinion on this question indicated that provided the nexus between damage to the claimant flowing from infringement of the IP right in suit and the sales of the conveyed goods⁹⁶ is established, there is no issue in principle with quantifying damage in relation to conveyed goods. There are many ways to define the nexus, e.g.:

- **Argentina:** The decrease in sales of conveyed goods as a result of the infringement must be computed on the basis of calculation of the loss of profit and, if applicable, on the basis of the royalties, provided they form a functional unit with the good the subject of the IP right, and irrespective of whether the infringer could have foreseen the loss of the right holder by the conveyed goods.
- **Canada:** There should be a rebuttable presumption that profit on conveyed goods is recoverable if the plaintiff can establish that the defendant would not have made those sales but for the infringement.
- **Japan:** For actual loss, the right holder should be allowed to claim damages for lost profits of conveyed sales when the relationship between the infringing and the non-infringing products is such that if the infringer had not sold their infringing products, they could not have sold their non-infringing products either; and the right holder can prove that if the infringing products had not been sold, the right holder could have made profits by selling not only their products that compete with the infringing products but also those that compete with the non-infringing products. For reasonable royalties, it is desirable to take into account not only the profit from the infringing product but also the profit from the non-infringing product that is sold with the infringing product. The rate of royalty may be higher if the use of the patented invention helps sell the non-infringing products, which contributes to an increase in profit to the infringer.

b) How competing goods of the right holder, not making use of the patent, should be dealt with

A number of Groups addressed this question as being related to conveyed goods, the question being whether infringement of an IP right for one product would enable recovery of damages in respect of a wider selection of products.

⁹⁵ South Korea, Spain.

⁹⁶ Argentina, Australia, Austria, Belgium, Canada, China, Estonia, France, Germany, Hungary, Italy, Japan, Latvia, Malaysia, Mexico, Norway, Paraguay, Portugal, Sweden, UK, U.S.

This may explain why some Groups⁹⁷ dismissed competing goods as irrelevant, or stated⁹⁸ that it should be dealt with as per conveyed goods.

Other Groups⁹⁹ addressed this question as focussing on whether the sale of competing but non-infringing products of the right holder could be depressed by infringement of the IP right. It is the latter sense that is more squarely within the intended scope of this question. In summary, if the critical element of causation is established, Groups generally see no problem with this head of damage.

c) How damages should be determined when the infringing product forms part of a larger assembly

This question is related to conveyed goods and the Groups responding to this question addressed the issue in the same way, i.e. if the causal element is shown between infringement and the larger assembly, then damages should be assessed on the basis of the larger assembly. In the case of an assembly, the causal element/nexus is between infringement and the whole assembly instead of between infringement and conveyed goods sold with the infringing product.

The UK Group, whilst in favour of harmonisation towards a set of common criteria, believes that any attempt to enumerate when they will be available would be wrong – as it would not be possible to tie these to the myriad of factual possibilities.

The range of possibilities mooted by Groups¹⁰⁰ include:

- damages shall be calculated considering the value of the entire assembly only if the infringing product is not functionally and commercially autonomous, and the infringing product is decisive on the election of the customer;
- honest and reasonable parties would only agree on a royalty that is attributable to the patented aspect of the assembly (it should be queried to what extent this happens in reality, with large portfolios);
- the significance of the infringing component should influence the value of the reasonable royalty;
- whether the infringing product is irreplaceable to the completed product (i.e. without substitute product, e.g. for the consideration of the costs or the technology) when determining the role that the part plays in the

⁹⁷ Australia, Belgium, Bulgaria, Germany, Estonia, Spain, Switzerland.

⁹⁸ Austria, Hungary, UK.

⁹⁹ Argentina, Canada, China, France, Italy, Japan, Latvia, Paraguay, Singapore, Sweden, U.S.

¹⁰⁰ Argentina, Australia, Austria, Belgium, Canada, China, Estonia, France, Germany, Italy, Japan, Latvia, Paraguay, South Korea, Spain, Sweden, Switzerland, Thailand, UK, U.S.

realization of the profits of completed product. If there is no substitute product, higher damages shall be awarded;

- whether the infringing product is usually sold as part of a larger assembly (a logically connected question is whether the infringing product is a standalone product or whether it can only be sold as part of a larger assembly);
- The whole assembly should be taken into account when its sales or value was negatively affected by the indirect infringement.

20) Please propose principles your Group considers should be applied when quantifying the damages for indirect/contributory infringement in circumstances where there is no direct infringement of the IP rights in suit

The economic significance of indirect/contributory infringement may be lower. For example, the sale of an indirectly infringing steering wheel would likely have different economic consequences compared to the sale of an indirectly infringing cup holder for a car, and both would be different to the sale of a directly infringing car.

Nine Groups¹⁰¹ thought that there is no difference. Four Groups¹⁰² thought that if there is no direct infringement there should be no claim for damages for indirect infringement. According to the Swedish Group (and the Spanish Group expressed a similar sentiment):

... the same principles should be applied for quantifying damages for indirect or contributory infringement as for direct infringement. All consequences of the infringement should be covered by liability for damages. As for contributory infringement, damages should be based on the value of the part that has been marketed and sold. Damages based on sale of the entire product should only come into question if the infringement causes sales to cease completely.

The Canadian and Malaysian Groups suggest that it is relevant to examine the extent of the indirect/contributory infringement and the degree to which it influenced the third party to infringe the patent; as well as whether the behaviour was wilful or negligent.

The Philippines Group states that damages should be calculated on the basis that a contributory infringer is liable to the same extent as a direct infringer.

21) Please comment on any additional issues concerning any aspect of quantification of damages you consider relevant to this Study Question

The Argentinian Group states that the reasonable royalty without the application of any enhancement or increase should not be generalized as a standard to address infringement, to avoid the risk of having the infringers incorporating such compensation as a considered cost of market entrance, and therefore weakening the damages system.

¹⁰¹ Argentina, Australia, Austria, France, Italy, Japan, Portugal, Thailand, UK.

¹⁰² Estonia, Germany, South Korea, U.S.

The Spanish Group says that a reasonable royalty should take into account factors such as (1) any royalty entrance (e.g. any fixed lump sum up-front fee); (2) any annual minimum guaranteed royalty irrespective of actual sales; and (3) royalties in light of actual sales.

The Finnish Group requests that AIPPI consider studying whether different IP rights should be subject to different methods and principles for quantifying monetary relief. Due to the varying nature of the different IP rights, it is not evident that a general harmonization following a “one size fits all” principle is appropriate.

The French Group states that an account of profits of the infringer should not be a separate category, so as to avoid rewarding infringement.

The U.S. Group reports that recent developments in the law of attribution and apportionment, requiring greater specificity when the entire market value rule can be applied and requiring evidentiary support for determination of the royalty base and the royalty rate, have been beneficial, and wishes to see continued development of these trends in the law. This includes attributing only damages to the value that is provided by the innovation reflected in the patented subject matter and not overcompensating the patentee by awarding damages for other unpatented features or other elements that were known in the prior art.

Industry sector views included in these proposals for harmonisation

The following consultation with industry was reported.

- The Belgian Group reports that a large variety of industry sectors is represented through lawyers who took part in their report, including (but not limited to) chemistry, life sciences (pharma, biotech, agro,..), metallurgic, power/energy, finance, food and beverage, entertainment, fashion, art;
- The Chinese Group notes that the views from Eyebright Medical Technology (Beijing) Co., Ltd. (a company from medical device industry) are included in Part "III. Proposals for harmonization.";
- The report of the Spanish Group includes views from the pharmaceutical sector.

IV. Conclusions

From the reports the conclusion can be drawn that the Groups generally agree that harmonisation is desirable regarding the quantification of monetary relief.

A very large majority of Groups would like to see harmonisation of the rules on quantification. The main reason given is that frequently there are very few rules in national laws, or the different national laws give rise to inconsistencies making it more difficult to properly recover losses in relation to infringement committed more broadly in several jurisdictions

One of the main themes that emerged is whether damages should be calculated using a hybrid approach, such as the lost sales of the right holder multiplied by the profit margin of the infringer, instead of the lost profits of the right holder derived from the lost turnover and profit margin of the right holder. A number of Groups reported that, because right holders can be reluctant to state their own profit margins, they

prefer to instead claim damages based on the infringer's profit margin. This approach allows confidentiality to be preserved in their own margins, and information about margins does not become public or known to the infringer, but will not be guaranteed to track the actual losses of the right holder accurately. It may therefore overcompensate the right holder, especially as the infringer is unlikely by definition to have sunk R&D costs to the same extent depressing its margins and could therefore well have a higher profit margin than the right holder. Of course, the lower R&D costs of an infringer could be a springboard effect if the infringer has "borrowed" from the R&D of the right holder. If no springboard effect is present, the recovery of damages in this way could thus be more lucrative for right holders than selling products themselves. If a springboard effect is present, its effect must be estimated in some way and the infringer's profit margin can be a proxy. A strong view expressed by a number of Groups was that the objective of damages is to compensate the right holder, but not overcompensate the right holder.

To address these problems, it may be useful to consider increasing the possibilities for obtaining evidence in relation to quantum, and provide for effective methods of maintaining confidentiality in the right holder's confidential information (and also in the infringer's confidential information). The right holder should not have to suffer more than the infringement, e.g. by being forced to make confidential information public.

It is also clear that evidence gathering mechanisms are still not available and/or implemented uniformly, such that economic evidence concerning infringement, which is usually uniquely in the possession of the infringer, can be obtained.

The main focus of this Study Question is on quantification. It would therefore be useful if a non-exhaustive list of factors to be considered could be set out, both for actual loss, and for reasonable royalties.

For actual loss, Groups are of the view that the objective is to compensate the right holder for the losses suffered as a result of the infringement. While this can be viewed, e.g. through the lens of sales diversion, from the right holder to the infringer as described by the French Group, it is difficult to prove "lost sales" would have happened. This assumes that every sale "stolen" by the infringer is a sale lost to the right holder. This will not always be true: sales of the infringer could have been (considerably) more than those of the right holder or they could have been less. The market for the products in question might have been about to boom, or to crumble. A right holder's trade mark rights for a patented product may enhance sales of that patented product, whereas the infringer's sales under a different trade mark may be less.

Due to the obvious fact-sensitivity of the enquiry, and the inevitable lack of critical facts (e.g. the right holder's lost sales that never happened), it seems clear that estimation mechanisms and proxies must be employed. Rather than leaving a right holder without relief, the court should be prepared to make a judgment based on the evidence that is available (but not go outside the bounds of that evidence). To assist the court, evidence gathering mechanisms should be improved.

For reasonable royalties, the majority view of the Groups addressing the issue is that a hypothetical negotiation model can be used, but it does not have to be the only

mechanism that is used. It certainly helps with cross-checking against other quantification models. It involves a negotiation between a willing licensor and a willing licensee. Although it is irrelevant that one (or both) parties would not in practice have agreed to make the deal, the willing parties will generally have the attributes of the actual licensor and the actual licensee. A non-exhaustive list of factors relevant to the hypothetical negotiation is described in relation to question 18) above.

There is a clear desire to harmonise the rules on convoyed goods and infringing products that form part of a larger assembly. In both cases, Groups addressing these issues focus on causation, and the role played by the infringing product "in the convoy" amongst its fellow travellers or in the larger assembly of which it forms part. The more significant the infringing product is, the greater a claim should lie on the convoy of goods or the whole assembly.

There also appears to be majority support for recovering for forward-looking damages. These are extremely difficult to quantify. In addition to the normal levels of uncertainty with evidence regarding damages, estimates about events in the future must be made. However, if a reasonable estimate can be made, the present value of damages regarding future events is possible to calculate.

For example, where there is price erosion, and where the right holder alleges that the price erosion is permanent (i.e. it will be unable to lift its prices after an injunction is granted to enjoin sales of the infringing product) or that it will take a period of time to recover its price after an injunction is granted, the court will endeavour to assess the period over which losses continue to be suffered even after the grant of an injunction. This will be assisted by evidence from market experts, economists and/or accountants. The future loss will be reflected in an award representing the present value of the future loss using accepted accounting principles.