Industry Case Study Series on IP-Management

SCHÖCK BAUTEILE
Schöck Isokorb®
A milestone in the building trade

By Alexander J. Wurzer & Harald Braasch

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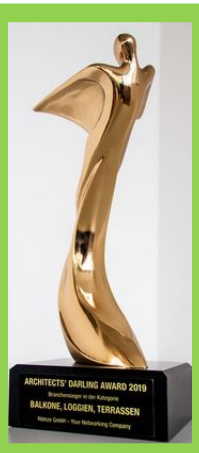

Eberhard Schöck

Center for International Intellectual Property Studies | CEIPI
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CEIPI MASTER OF IP LAW AND MANAGEMENT

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PART I

About Schöck

Born in 1935, inventor and entrepreneur Eberhard Schöck developed a keen interest in crafts and the building trade while his parents built their family home: a passion that would shape his entire life. By deciding to become a civil engineer after an apprenticeship as a bricklayer, he laid the foundations to his entrepreneurial future. Initially, he worked in construction management for several years, before he decided to set up his own business under his family name in 1962. The only resources the company had available at the time were the company founder's entrepreneurial drive, his inventive spirit and willingness to succeed, a small bank loan, a five-strong team of builders, and Schöck's wife, who supported him with back office duties. Over the years, the service range offered was repeatedly adapted in line with demand and the company's capabilities – without losing its focus on groundbreaking inventions and making construction more efficient. Shortly after the company's inception, the company founder began to toy with the idea of concentrating on mass-produced products for the building trade in order to improve the efficiency and quality of construction. As a result, the company expanded into the concrete elements segment (e.g. light wells) in 1967. It was not long until Schöck introduced technologically more advanced basement windows and light wells made of plastic reinforced with glass fibre to the market.

During a skiing holiday in the late 1970s, where he had spotted black mould at a ceiling, civil engineer Eberhard Schöck came up with the idea for today's main product. Soon after, he identified so-called thermal bridges as the cause of the problem. Thermal bridges are localized areas within buildings whose thermal conductivity is higher than that of adjacent areas. This thermal conductivity results in greater heat loss which, in turn, causes adjacent areas to cool down. Due to the difference between the outside and inside temperature of the room, ceilings and walls are cooled from the outside, causing a build-up of condensation. After his initial analysis of the problem, Schöck began to draw first sketches of his Isokorb®, today's main product first launched in 1983. The Isokorb® is a load-bearing heat insulation element which aims at reducing thermal bridges resulting from cantilevered building structures such as balconies. The term “cantilevered” is used in the building trade to refer to components projecting from the basic footprint or cubature of a building. These would typically include balconies but also bay windows or deliberate architectural choices to create dramatic effects (e.g. entire storeys). Uninsulated cantilevered components such as reinforced concrete balconies or steel beams cause a dual thermal bridging effects. Due to their geometry, these elements act like cooling fins and the material-related thermal

bridging effect causes substantial heat dissipation since the reinforced concrete or steel penetrates a heat insulating layer.

The Isokorb® combines two previously incompatible properties: apart from being an insulating component which reduces thermal bridges, it is also an integral part of the building structure. It consists of an insulation body, a tensile bar, a shear force bar and a pressure bearing elements.

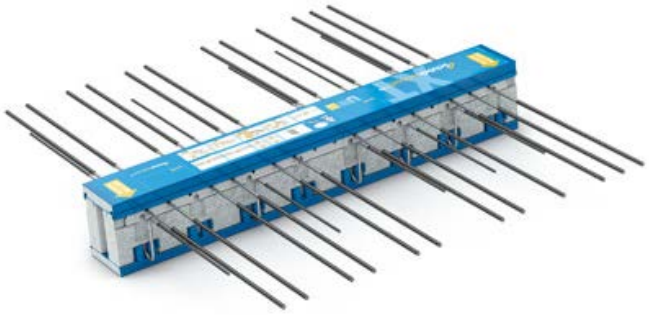
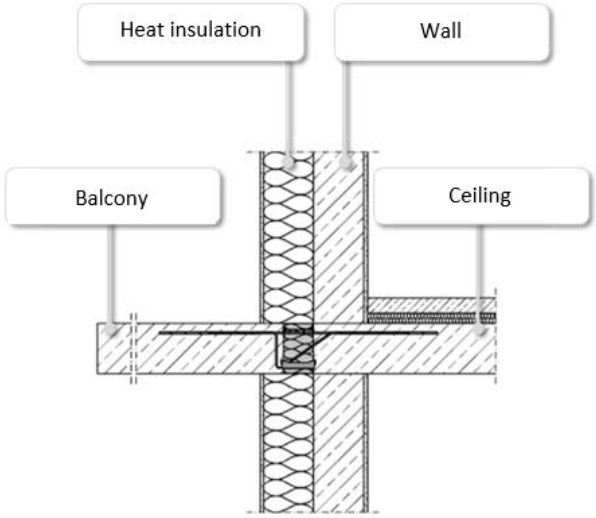


Figure 1: Schöck Isokorb® Type KXT: Heat and sound insulation for cantilevered concrete balconies

The load-bearing elements are the tensile bar, the shear force bar and the pressure bearing elements. They are the key elements providing the static function of the component as they bear the tensile and compressive forces of the balcony. Polystyrene hard foam is used for the insulation body itself. In addition to the pressure bearing elements made of ultra-high-performance fine-grain concrete, the insulation body is responsible for the heat insulation performance of the component. It is aimed at suppressing the build-up of condensation on cooler external walls by avoiding thermal bridges. The critical temperature here is 13 degrees: this is where condensation begins to form. Condensation can lead to growth of mould on walls and ceilings.

Figure 2: Representation of a sectional drawing with a



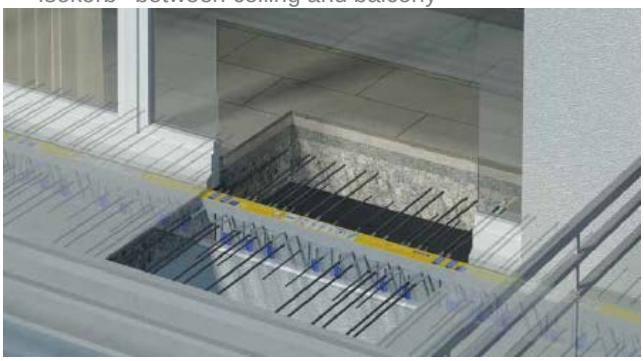
detailed Schöck Isokorb® model

At the construction site, the Isokorb® is incorporated into structure of a precast concrete balcony which is be delivered directly to the site before casting the concrete of the slab. Alternatively, the balcony slab can be poured on site. In this case, the heat insulation element is inserted in the reinforced structure and subsequently set in concrete.

Since the product was first launched, the different material combinations and product features have undergone continuous improvement. Every single element of the component has been enhanced and adapted for various applications, and improved in its performance. Improvements, further developments and optimizations include the pressure bearing elements, the bearing of transverse forces, as well as the heat insulation performance. A special Isokorb® was devel-

oped for refurbishment projects. With the introduction of the German Energy Savings Act in 2009, the Isokorb® XT was relaunched with further improvements to its heat and sound insulation capacity, and with Neopor® first being used inside the insulation body.

Figure 3: Cross-section of the installation situation of an Isokorb® between ceiling and balcony



Schöck Bauteile GmbH is now a subsidiary of Schöck Group, an enterprise with worldwide operations and a turnover of more than EUR 130 million, consisting of 13 companies and counting 650 employees. Its headquarters are located in Baden-Baden, in the southwest of Germany. The company focuses on developing pre-finished components which form part of the structure of a building and simultaneously offer highly favourable physical benefits, in particular in terms of preventing thermal bridges or impact noise in the building. The main product, the Isokorb®, comes with more than 12,000 standard types and solutions for use with concrete, steel and wood. This makes Schöck is the leading specialist in this segment. The company also deals with reinforcement technology for industrial construction, tunnel construction, bridge construction, infrastructure construction, and the construction of power plants.

The company's high innovation performance is closely linked to its well-structured idea and innovation management involving all employees. Through close partnerships with universities and research institutions, the company gains targeted access to external know-how, both from basic research and applied research.

The challenge

Preventing thermal bridges

Energy saving has now become a generally accepted political objective. Its implementation, however, is fraught with great controversy. Energy saving is a complex topic overall. Typically, “energy saving” refers to a set of measures aimed at reducing energy consumption. The goal of such measures is usually to increase energy efficiency, i.e. to optimize the ratio between the actual useful energy required and the energy used. Another aim is to achieve an absolute reduction in the useful energy needed. The German government has set itself the goal of reducing energy consumption by 20% by 2020 compared to 2008. The heating efficiency of buildings is at the core of these efforts. With a share of about 40 percent in Germany's energy consumption, buildings are one of the largest energy consumers. 70 percent of this share is attributable to the domestic energy consumption, of which the greatest part accounts for heating. Another widely accepted assumption is the notion that a substantial proportion of the energy used for heating can be saved if heat insulation is thoroughly planned and professionally implemented. Heat insulation refers to the reduction of heat

loss via the thermal envelope of a building. This is to prevent heated indoor spaces from cooling out. As a general rule, heat insulation requires an examination of the external surfaces of a building such as walls, floors, roofs, doors, and windows. Various building materials, components, as well as supplementary construction techniques are used in order to achieve heat insulation of external surfaces. The aim is to reduce heat loss, which occurs as a result of thermal conduction and thermal radiation. One of the main characteristics of the heat insulation materials used is that their thermal conductivity is particularly low. Various indicators are used in order to evaluate and describe heat insulation measures. These include thermal conductivity (λ). This coefficient describes how much heat passes through a material. A low λ value means low thermal conductivity, high resistance and therefore good heat insulation. Steel, for example, is known for its very high thermal conductivity while insulation materials are characterized by very low thermal conductivity. The Isokorb® creates a thermal break between the ceiling and the balcony where the ceiling slab penetrates the heat insulation, and prevents the otherwise uninhibited heat transfer along the reinforced concrete from the inside to the outside.

The better the overall heat insulation e.g. a building envelope becomes, the attention is required in order to prevent thermal. When neglecting the effect of thermal bridges in refurbished buildings, this has led to increased mould build-up in the past, partly because of the altered usage of the building, but mainly because of insufficient ventilation. From a structural point of view, the cause are often thermal bridges in the thermal envelope.

Thermal bridges have a negative impact on the building and its inhabitants. The following aspects must be taken into account when refurbishing a building and appropriate measures must be taken:

- **Increased energy consumption**
  Greater heat dissipation occurs at thermal bridges. This leads to increased energy consumption. In well-insulated buildings, thermal bridges can cause additional heat loss of more than 30 percent of the energy needed during the winter months.
- **Impairment of thermal comfort**
  In the winter months, thermal bridges lead to very low surface temperatures due to increased heat dissipation from the inside of building components. Cold surfaces are perceived as uncomfortable due to their lower radiant heat. This can cause discomfort to residents, which often leads to the heating being turned up to heat up the ambient air. This results in increased heating costs. To ensure a comfortable indoor climate, the surface temperatures of external parts should be no lower than 3 °C below the ambient air temperature and never fall below a temperature of 10 °C.
- **Poor hygiene**
  At thermal bridges, low inner surface temperatures can lead to condensation. When warm and moist air meets a cold surface and is cooled down to a temperature below the so-called dew point, condensation begins to form. In combination with wallpaper paste and paint, dust accumulating on wet surfaces provides an ideal breeding ground for harmful mould. The risk of mould growth is particularly high in kitchens and bathrooms because humidity levels in these rooms are much higher there than in other living spaces. From a

hygiene perspective, a relative humidity between 40 and 60 percent is ideal. Significantly higher or lower humidity values should be avoided.

- **Risk to the building structure**
  In addition to mould growth, the build-up of condensation near thermal bridges can lead to permanent damp inside a component and cause structural damage. This often results in crumbling masonry or rotten wood, which may affect the load-bearing capacity or stability of building components. In addition, the thermal conductivity of damp components is higher, which increases the thermal bridge effect and causes inner surfaces to cool down even further. Deficiencies, structural damage or health hazards caused by many thermal bridges can be minimized by means of structural measures.

When insulating a building from the outside, a balcony penetrating the insulation constitutes a powerful thermal bridge. The large surface area and excellent thermal conductivity of reinforced concrete transfer the heat from the interior to the outside like a cooling fin. This results in the ceiling slab cooling down and causes a significant risk of damp damage. A similar effect is caused by concrete canopies, terraces, external walls, or garage roofs penetrating insulating layers.

The latest generation of the Schöck Isokorb® XT provides optimal heat and sound insulation for balcony connections. With a 120 mm thick insulation body and the optimized HTE Compact® pressure bearing elements, its heat insulation capacity was improved by more than 50% compared to the standard Schöck Isokorb® with an insulation body thickness of 80 mm. This innovation permits the installation of cantilevered balconies in certified passive houses for the first time.

Figure 4: Schöck Isokorb® XT for reinforced concrete structures

In spite of the legal requirement for heat insulation in new buildings and millions of euros of investment in existing buildings, at least 70 percent of residential properties in Germany still have insufficient or no insulation. According to government estimates, modernized building services and professional renovation could result in energy savings of up to 80 percent, especially in buildings constructed between 1945 and 1978. Experts believe this estimate is overly optimistic. The heat loss through the external walls of a typical residential building are a significant. Since the political objective of insulation continues to exist and the 40 percent reduction of CO2 emissions in buildings by 2020 aimed for by the German government is unlikely to be reached without raises of the insulation standards, market research organizations and industry representatives expect the market to grow further. At the end of 2012, an EU directive on energy efficiency was adopted. It includes a common framework for measures to promote energy efficiency. Member states must implement these measures in national law in a timely manner. Since the construction industry is character-

ized by particularly high energy consumption, EU member states are encouraged to provide targeted incentives in order to gradually optimize the overall energy efficiency of buildings. According to various studies, the European insulation market is going to be worth approx. EUR 21 billion by xxxx.

Demand for heat insulation depends primarily on the development of the construction sector (new buildings, refurbishments and renovations). Strong regional differences could be observed in this respect last year: Especially in countries like Spain, Portugal, and Greece, which were hit particularly hard by the economic crisis of 2008/09, the construction industry has experienced a strong decline. By contrast, the construction sector in countries like Turkey or Russia has seen a significantly more positive development. Country-specific demand for heat insulation also depends on the overall economic situation of a country, including such factors as unemployment rates or disposable income, as well as demographic developments. The decisive factors affecting a country's demand, however, are the speed and extent to which its government implements the EU directive in national law, as well as the sense of urgency related to improving the energy efficiency of buildings perceived by the population. In a number of countries, the number of residential and commercial new builds has fallen sharply as a result of the economic crisis. As a consequence, renovations and refurbishments of existing buildings play a significant role in the development of the heat insulation market, especially because it is likely to take a few more years until the new construction sector in several countries will have recovered. In some countries, there is considerable potential in the renovation and refurbishment sector since a large proportion of existing buildings were fitted with poor insulation in the past. The development of the demand for insulation materials due to increased renovation and refurbishment activities, however, depends on the willingness and financial strength of the respective governments to achieve their energy efficiency goals.

Schöck's Isokorb® is the undisputed market leader. Due to the large number of variants available, there is hardly any construction situation the Isokorb® is not suitable for. Both in new construction and in balcony retrofits, the Isokorb® brand is synonymous with an entire product category among structural engineers, structural physicists, architects, contractors, and manufacturers of prefabricated parts. However, there is little scope for improving Schöck's market position through further product differentiation. Schöck enjoys excellent brand awareness among all relevant customer groups as well as great emotional loyalty. The brand is strongly associated with attributes like competence, great technical safety, professionalism, reliability, solution orientation, innovation, likeability, partnership, efficiency, speed, and flexibility.

When it comes to customer perception, product differentiation is considerably more difficult to enforce. For this reason, Schöck decided to perform a critical review of its IP strategy. Senior management wanted to know what options were available in order to achieve a targeted optimization of customers' perceptions of Schöck's products by means of IP, and how these options could be implemented from an operations perspective.

PART II

IP strategy

The primary focus within the scope of the realignment of Schöck's IP strategy was on the appropriate cost-benefit-ratio for the company's patent activities. In addition, Schöck wanted to examine how effective prohibitive rights could be developed which would provide the company and its core product with a sustainable, profitable, and enforceable USP in the market. The starting point was a patent strategy which was primarily focused on the inventive activities of R&D and based on technological functionalities. The company's IP strategy did not provide for the requirement that IP should protect actual USPs (Unique Selling Propositions) in order to create a UCP (Unique Communication Position) and achieve premium prices by means of the IP position. Prohibitive rights had not been systematically derived from customer benefits in the past.

The customer focus of the new IP strategy helps to steer the creative effort involved in designing prohibitive rights in a meaningful direction when looking at the company's competitive environment. The winning formula is very simple and can be summarized by the 4P concept. The 4P concept is derived from incorporating IP into market-oriented corporate governance. The starting point is a unique selling point (USP), which is also communicated to the customer (UCP) and benefits from legally enforceable exclusivity due to IP. This combination results in opportunities for achieving premium prices with the customer:

USP + UCP + IP = achievement of premium prices

IP thus becomes a success factor in increasing competitiveness through consistent customer focus in innovation management. The 4P concept is visualized in the figure below.

The IP strategy for innovation and market leader Schöck is derived from its superior market and brand position. Marketing is responsible for developing competitive customer benefits for the company's offerings, matching these customer benefits with the target groups' willingness to pay a certain price, ensuring communication with customers and making the offerings available to the customer. In the context of market-oriented corporate governance, the marketing function is not just limited to designing and selling marketable products and services.

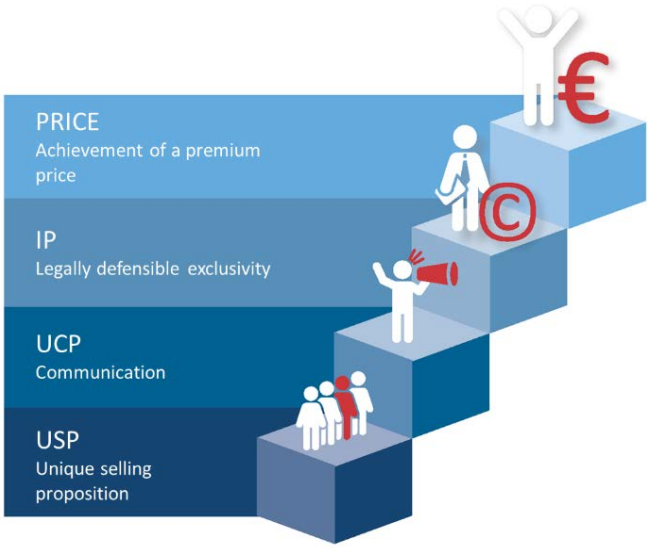


Figure 5: A customer-focused approach to IP based on the 4P concept

Instead, Schöck adopts a customer-focus and analyses its customers' emotional loyalty on a regular basis. This makes the marketing function a management task.

Looking at IP from this perspective, it becomes one of the available marketing tools to be used as part of the marketing mix. The marketing mix is a set of marketing tools aimed at achieving relevant marketing and business objectives such as market share, premium prices, sales volume, image or reputation. The marketing strategy provides guidance on how to achieve the company's marketing objectives by using the available marketing tools within the scope of the marketing mix. When taking a customer-focused approach to IP and a company's offerings, IP becomes a marketing tool which needs to be incorporated and taken into account in the marketing mix. What is special about intellectual property rights is that this marketing tool creates legally enforceable positions against the competition. Traditional marketing tools are divided into four categories: product, price, communication, and distribution.

The 4P concept illustrated in the figure above describes an inner logic reflecting how IP is applied to competitive differentiation at Schöck in order to successfully achieve premium prices. The USP is the critical factor for success in this respect. It is expressed in the UCP as communication measures which are perceived as unique by the customer. The USP provides a customer benefit aimed at the customer's willingness to pay a premium price. This customer benefit is legally protected by means of IP.

The hierarchy of objectives for the integration of IP in the marketing function within the context of market-oriented corporate governance is illustrated in the figure below. When taking a consistent approach to IP based on customer decision-making criteria, IP goals within the scope of a business model are derived from business objectives. IP goals are desired and expected effects in the market and must be integrated with the marketing strategy. The ultimate goal of IP is to achieve an exclusive, sustainable, and legally enforceable market position.

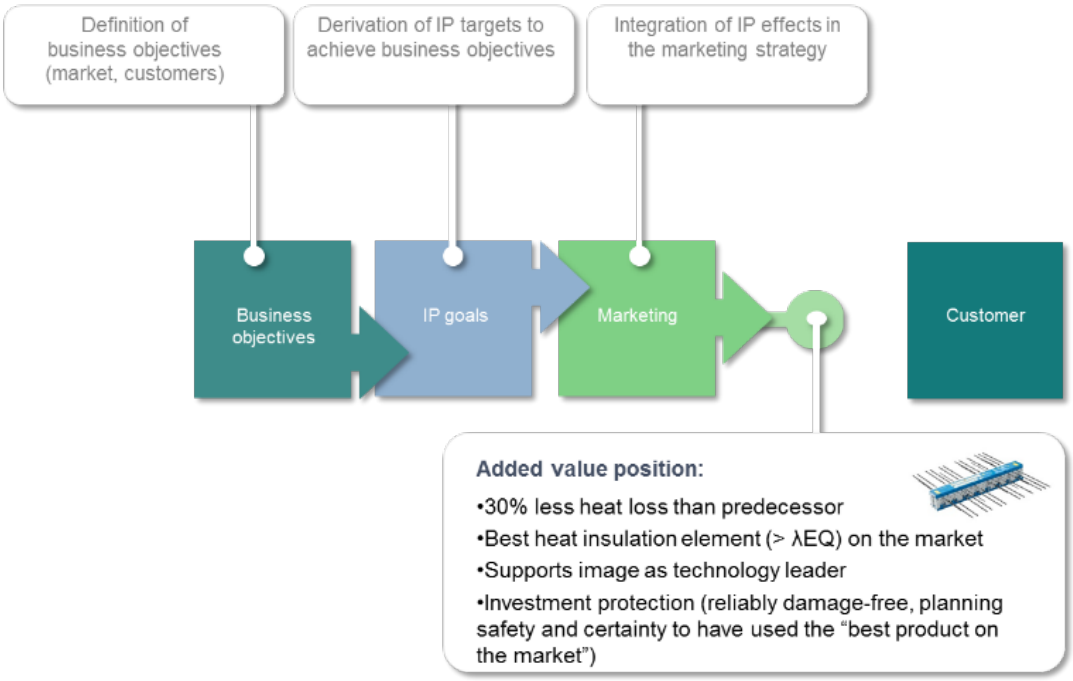


Figure 6: Hierarchy of objectives in the integration of IP in the marketing function at Schöck

To integrate the IP strategy in the marketing function, the main lines of argumentation for convincing customers and influencing their decision-making had to be analyzed. The key criteria in the eyes of the customer can be summarized as follows: heat insulation, investment protection, safety. The focus with regard to the criterion of heat insulation is on communicating the highest possible heat insulation performance of the component for the building. The rationale behind the investment protection argument is based on the fact that the Schöck Isokorb® is installed in the building structure and must therefore provide a performance guarantee in order to ensure a long lifespan for the building. The safety argument relates to the entire lifecycle of the component – from planning and installation to utilization and dismantling. To ensure that these arguments are covered by the brand personality, the brand personality was analyzed and its overlap with the lines of argumentation used was studied. The results are presented in the figures below.

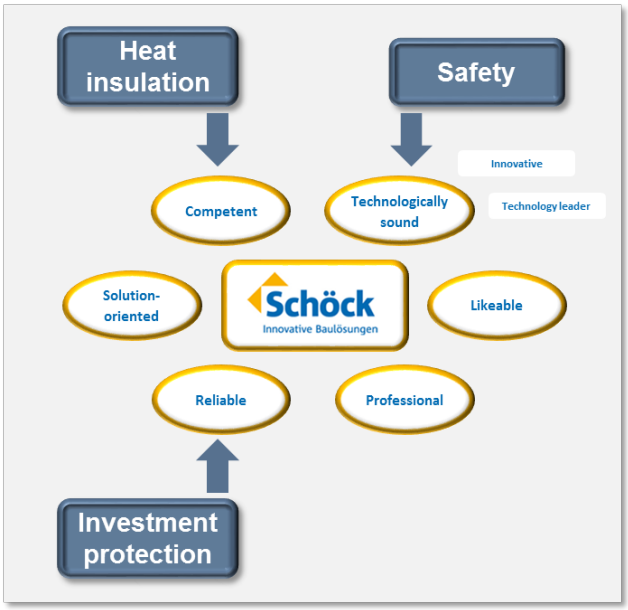


Figure 7: Analysis of product argumentation in conjunction with Schöck's brand personality

In order to integrate IP with the primary value chain at Schöck via the marketing function, the value generation by means of prohibitive rights was analyzed in order to optimize their integration. Using the example of a patent, a schematic representation of that value generation is presented in the figure below. The function of the patent is based on its prohibitive or barrier effect against third parties. This barrier effect creates a unique position in the market. This USP must be internalized in the business model in the form of economic benefits. These economic benefits can be measured in the form of cash flows which, in turn, reflect the patent value.

In competitive differentiation, the desired effect on the market is to provide a product with greatest possible exclusivity in terms of customer benefits by means of its USP. Speaking in terms of prohibitive effects, this means that prohibitive rights must be designed in such a way that they prevent the competition from offering similar customer benefits. This is the case with patents which prohibit the competition from offering technological solutions providing a similar customer benefit in the eye of the customer, for instance. The barrier effect of such patents is therefore primarily aimed at prohibition and the competition instead of focusing exclusively on the patent owner's technological competence. This is why a distinction should be made in IP strategy between prevention of imitation and designing market positions. While prevention of imitation focuses on the patent owner's own technological solution in providing a customer benefit, designing market positions is all about preventing competitors from gaining access to a specific customer benefit by means of strategic prohibition.

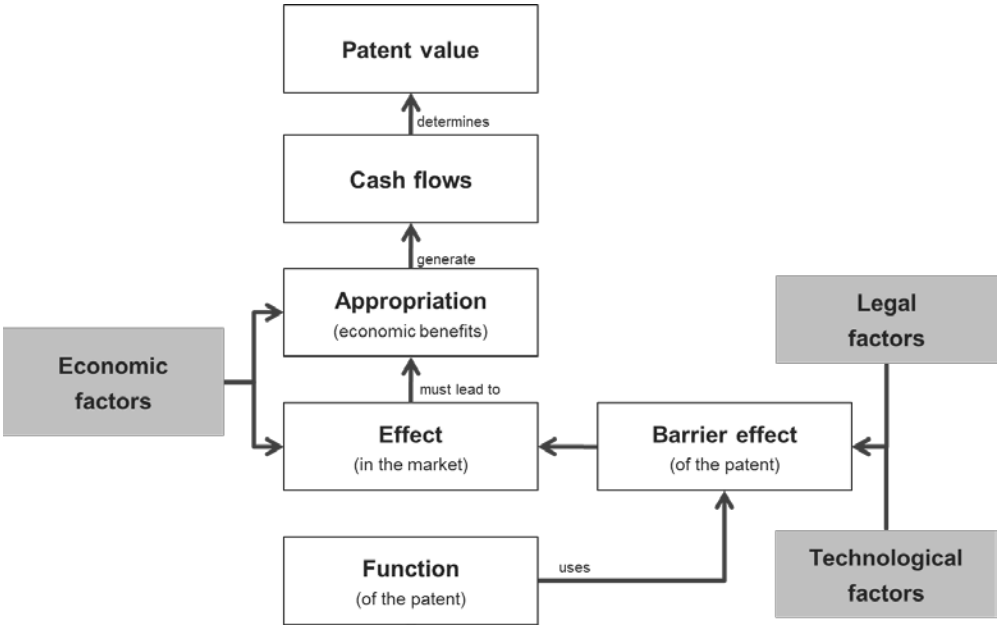


Figure 8: Schematic representation of value generation with patents in accordance with DIN 77100 Patent valuation – General principles for monetary valuation

The central task in drafting the IP strategy for Schöck was to design prohibitive rights in line with the desired effects, which, in turn, were derived from the business model. The process introduced for this purpose is illustrated in the figure below.

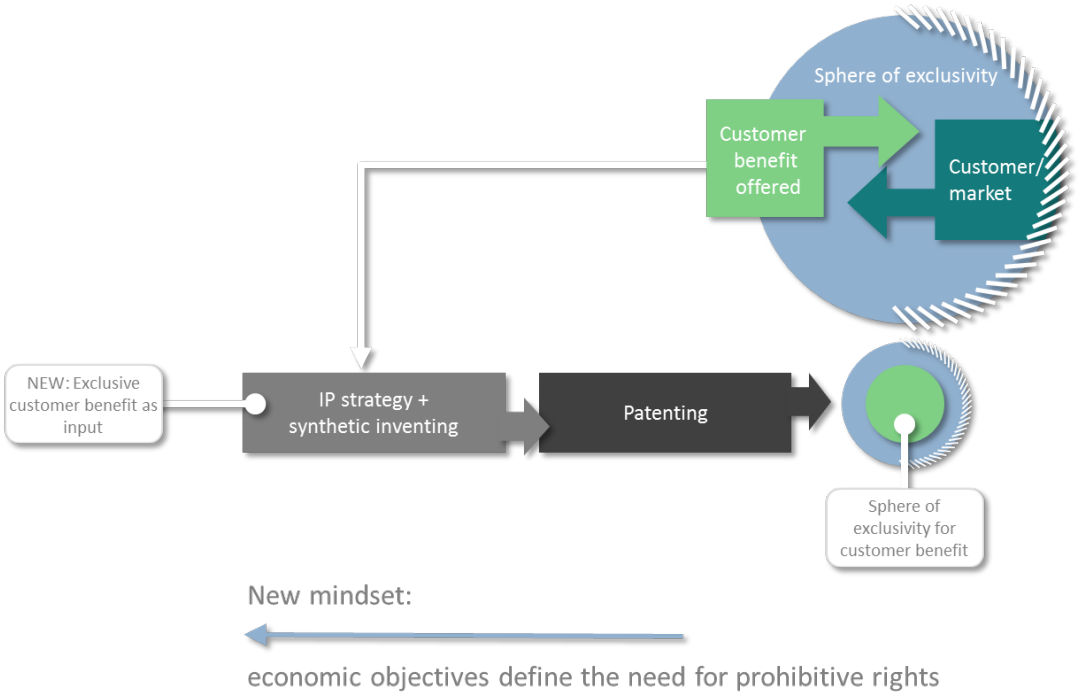


Figure 9: Reversed mindset for optimizing the design of prohibitive rights at Schöck

Entrepreneurial thinking about IP is required in order to implement the IP strategy goal of an exclusive offering. The term refers to a market and innovation orientation aimed at growth and market success – a way of thinking which is typical for Schöck. Actively and purposefully influencing customer decisions is not a priority in the classic patent process. Entrepreneurial thinking is future-oriented. Senior management must make decisions now in order to shape the future. The clearer the vision for the future, the better a business can develop in this direction. The decisive factors in this respect are the identification of future scenarios which may become relevant for Schöck and a highly specific definition of what constitutes business success. These scenarios and definitions form the basis for strategy planning and implementation.

This type of entrepreneurial thinking must also be applied to IP and the development of an adequate IP management culture. It is expressed in an IP process which derives the need for IP from future scenarios oriented at the market and the customer. The starting point of this IP process is not an invention or an intellectual exercise requiring protection, but rather the desired future market position to be achieved by means of the business model. As is customary in management, decisions are made based on considerations re-

lated to the future market position. An example of this way of thinking is innovation management. The guiding principle of innovation management is the market success of an innovation and the business model required in order to achieve it. From these considerations related to a success scenario for the innovation and the related success factors, the necessary measures are derived and the stage gate process is executed.

This type of thinking inspired by market success and the required influencing factors is reflected in Schöck's redesigned patent process, which is illustrated in the figure above. It involves the usual retropolation in strategic entrepreneurial thinking, i.e. the exact opposite of extrapolation. Retropolative thinking starts with a desired future situation and asks what measures and interactions are required in order to make this situation become reality in the future. Essentially, this involves anticipating future effects of IP and designing appropriate IP accordingly.

A prominent example of the importance of retropolative thinking are patent applications. As soon as it is clear what customer benefits an innovation offers, these customer benefits must be made exclusive vis-à-vis the competition. To this end, the competition must be prevented from offering the same customer benefits. The fundamental question is therefore how a competitor would achieve these customer benefits. In order to answer this question, potential technical solutions must be looked at. If these potential solutions are characterized by a sufficiently high level of novelty and inventiveness, they can be used as the basis for designing prohibitive rights in line with patent law. It is obvious that this process is essentially not about a company's own R&D efforts, but rather about developing prohibitive rights with a prohibitive effect within the scope of an innovative business model. Technical know-how is needed in this process in order to design such rights. Technical know-how is therefore the source of all technical and creative efforts, but not the trigger for the development of inventions. This IP process is therefore more synthetic than the traditional IP process which starts with an invention rather than the need for prohibition. What is more, the inventive process in the traditional approach to IP is strongly linked to a company's own technological developments while synthetic inventing is primarily about designing prohibitive rights and customer benefits, bearing in mind the competition and its resources.

PART III

Summary and benefits for Schöck

The IP strategy of market and innovation leader Schöck was developed with a unique market and brand positioning in mind. The central product, Isokorb®, is available in dozens of variants for virtually all construction situations. Both in new construction and in balcony retrofits, the Isokorb® brand is synonymous with an entire product category among structural engineers, structural physicists, architects, contractors, and manufacturers of prefabricated parts. However, there is little scope for improving Schöcks market position by means of even stronger product differentiation. The benefit for Schöck is the sustainable protection of its market position against substitution, new market entrants, and established competitors. In particular, this requires the design of technology-related prohibitive rights based on the desired market position, as well as on the business model and potential scenarios. An IP portfolio structured in this way can sustainably secure Schöck's revenue and earnings stream and contribute to growth.

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What is the MIPLM?

The 21st century marks a new era as our economies increasingly rely on knowledge-based production processes and services. Consequently, the institutions responsible for education and research in the field of intellectual property law in Europe must provide appropriate training for staff from the respective professional environments to acquire or reinforce their ability to initiate, control, protect, exploit and increase the value of intangible assets. The knowledge-based economy integrates research and development activities, innovation, industrialization and the marketing of products and services including intangible assets and completely revolutionizes enterprise management. It creates new professions specialized in dealing with intangible assets: this branch of law attracts consultants and intellectual property experts from among managers, jurists and lawyers. Indeed, every innovation process generated by new economic activities assumes the intervention of the law, the installation of tools and structures for developing or planning in order to control the intangible assets and to optimize their valorization. It has therefore been the duty of CEIPI, University of Strasbourg, as a leading center for Intellectual Property Studies in Europe, to propose a master program on "IP Law and Management" (MIPLM) since 2005, which complements the existing training course for engineers, scientists and lawyers. This "European" master program features a continuous training scheme aimed at experts in the field of intellectual property. It provides a genuine education program based on an investigation carried out in large enterprises in Europe. The teaching staff comprises academics and experts from various countries, renowned for their work and competence in dealing with the impact of intellectual property on the policy of enterprises.

M. Yann Basire
Director General of CEIPI.

Intellectual property has become a crucial factor and driving force in the knowledge-based economy. The economic development and the competitiveness of companies increasingly depend on the generation and exploitation of knowledge. Intellectual property can convert investment in corporate knowledge creation into economic benefits. Thus IP-based appropriation strategies form the basis for creating wealth and competitive advantages for companies from their R&D and innovation activities. The development and implementation of sustainable strategies for IP exploitation require a concerted integration of the disciplines involved in order to achieve an interdisciplinary perspective on IP. In a knowledge-based economy, companies can only achieve a competitive edge by combining the economic, legal and technological sciences. IP management within such a holistic approach provides optimized appropriation strategies and thus essentially contributes to the creation of wealth within a company. Accordingly, IP management needs skilled managers who can combine the economics of intangible assets in an intellectualized environment with multidisciplinary knowledge in order to maximize the benefits of IP. A new type of competencies, skills and underlying knowledge enters the arena of management and management education. The increasing impact of intellectualized wealth creation by investment in knowledge, R&D and innovation followed by its exploitation and IP-based appropriation calls for seminal new education concepts. The CEIPI program "Master of IP Law and Management" offers such a new type of management education. It follows an intrinsically multidisciplinary approach to meet the challenges and requirements of the knowledge-based economy. This master program combines legal, economic and management sciences and includes lectures from leading scholars in the field of IP law and management. Its ultimate objective is to qualify experienced IP professionals for acting as practically-skilled IP managers with a sound knowledge of the principles of wealth creation in our knowledge-based economy.

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Concepts of the Studies

Intellectual property and economics in the present context are two disciplines that exist in parallel.

Experts are found in each discipline, but with a lack of mutual understanding and training. Both "worlds" are nowadays bridged by experts, called IP managers, who link both disciplines through knowledge and experience. The CEIPI studies pursue a holistic approach and engage experts for the developing market of an IP economy. They are experts for basic economic management processes with specific assets. Management is understood in the broad sense of an overall company management and accordingly divided into six general functions:

- 1. Strategy
- 2. Decision
- 3. Implementation
- 4. Organization
- 5. Leadership
- 6. Business Development

On the basis of this differentiation skills should be allocated to management functions, and relevant knowledge to the functions and skills. The teaching concept focuses on both areas, skills and knowledge, as relevant to business with intellectual property.

Skills can be allocated to the specific management functions as relevant to the practical work within IP management. The skills are thus determined by the daily challenges and tasks an IP manager encounters.

For example, the "Decision" function includes skills such as "valuation and portfolio analysis techniques", and "Organization" as a function requires skills to manage IP exploitation and licensing including economic aspects as well as contractual design and international trade regulations with IP assets.

Special knowledge of economy and law is required in order to implement and deploy these skills in business. This includes knowledge of economic basics such as function of markets and internal and external influence factors. Additional management knowledge is also included such as value-added and value-chain concepts.

The legal knowledge includes contractual and competition law, and special attention will be paid to European and international IP and trade law, e. g. litigation, licensing, dispute resolution. Following this concept, IP law and management can be combined in clusters formed of specific skills and knowledge defined within each management function.

The lectures have a high international standard; the lecturers possess a high reputation and long experience in the teaching subject with academic and practical backgrounds.

The top-level experts come from the fields of law, economics and technology. The experts and the students work closely together during the seminar periods. Exchange of experience and, as a consequence, networking are common follow-ups.

Participants & their Benefits

This European master's program was designed especially for European patent attorneys, laywers and other experienced IP professionals.

Its ultimate objective is to qualify experienced IP professionals to act as IP managers with the practical skills and knowledge to deal with the new challenges of wealth creation and profit generation. Participants acquire first and foremost a new understanding of how intellectual property works in business models and are conveyed the necessary skills to achieve the systematic alignment of IP management and business objectives.

The course provides an international networking platform for IP managers and in addition enables participants to build long-lasting relationships and to further develop relevant topics within the field of IP management. Being part of this international alumni network also offers new job opportunities and publication possibilities.

Past lecturers and academics

Prof. Jacques de Werra,
University of Geneva

Prof. Estelle Derclaye,
University of Nottingham

Prof. Christoph Geiger,
University of Strasbourg

Prof. Jonathan Griffiths,
School of Law, Queen Mary,
University of London

Dr. Henning Grosse Ruse-Kahn,
Faculty of Law, University of Cambridge

Prof. Christian Ohly,
University of Bayreuth

Prof. Christian Osterrith,
University of Constance

Prof. Yann, Ménière,
CERNA, École des mines de Paris

Prof. Cees Mulder,
University of Maastricht

Prof. Julien Penin,
University of Strasbourg, BETA

Prof. Nicolas Petit,
University of Liege

Prof. Alexander Peukert,
Goethe University,
Frankfurt/Main

Prof. Jens Schovsbo,
University of Copenhagen

Prof. Martin Senftleben,
University of Amsterdam

Prof. Bruno van Pottelsberghe,
Solvay Business School

Prof. Guido Westkamp,
Queen Mary University London

Prof. Alexander Wurzer,
Steinbeis University Berlin

Prof. Estelle Derclaye,
University of Nottingham

Prof. Ulf Petrusson,
Göteborg University

Past lecturers and speakers, practitioners and institutions

Arian Duijvestijn,
SVP BG Lighting Philips

Dr. Lorenz Kaiser,
Fraunhofer-Gesellschaft

Peter Bittner,
Peter Bittner & Partner

Kees Schüller,
Nestlé S.A.

Thierry Sueur,
Air Liquide

Heinz Polsterer,
T-Mobile International

Dr. Fabirama Niang,
Total Group

Philipp Hammans,
Jenoptik AG

Leo Longauer,
UBS AG

Nikolaus Thum,
European Patent Office

Bojan Pretnar,
World Intellectual Property Organization

Romain Girtanner,
Watson, Farley & Williams

Prof. Didier Intès,
Cabinet Beau de Loménie, Paris

Malte Köllner,
Köllner & Partner Patentanwälte

Dr. Dorit Weikert,
KPMG

Keith Bergelt,
Open Innovention Network

Selected companies

3M Europe S.A.
ABB Corporate Research Center
ABB Motors and Generators
AGC France SAS
Agfa Graphics
Air Liquide
Airbus Defence and Space
Akzo Nobel NV
BASF Construction Chemicals
Boehringer Ingelheim Pharma
British Telecom
Clyde Bergemann Power Group
Danisco/Dupont
DSM Nederland
Fresenius Medical Care
Groupe Danone
Jenoptik
Kenwood
Nestec Ltd
Novartis AG
Philips
Plinkington
PSA Peugeot Citroen
Rittal
Sanofi/Aventis
SAP SE
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ST-Ericsson
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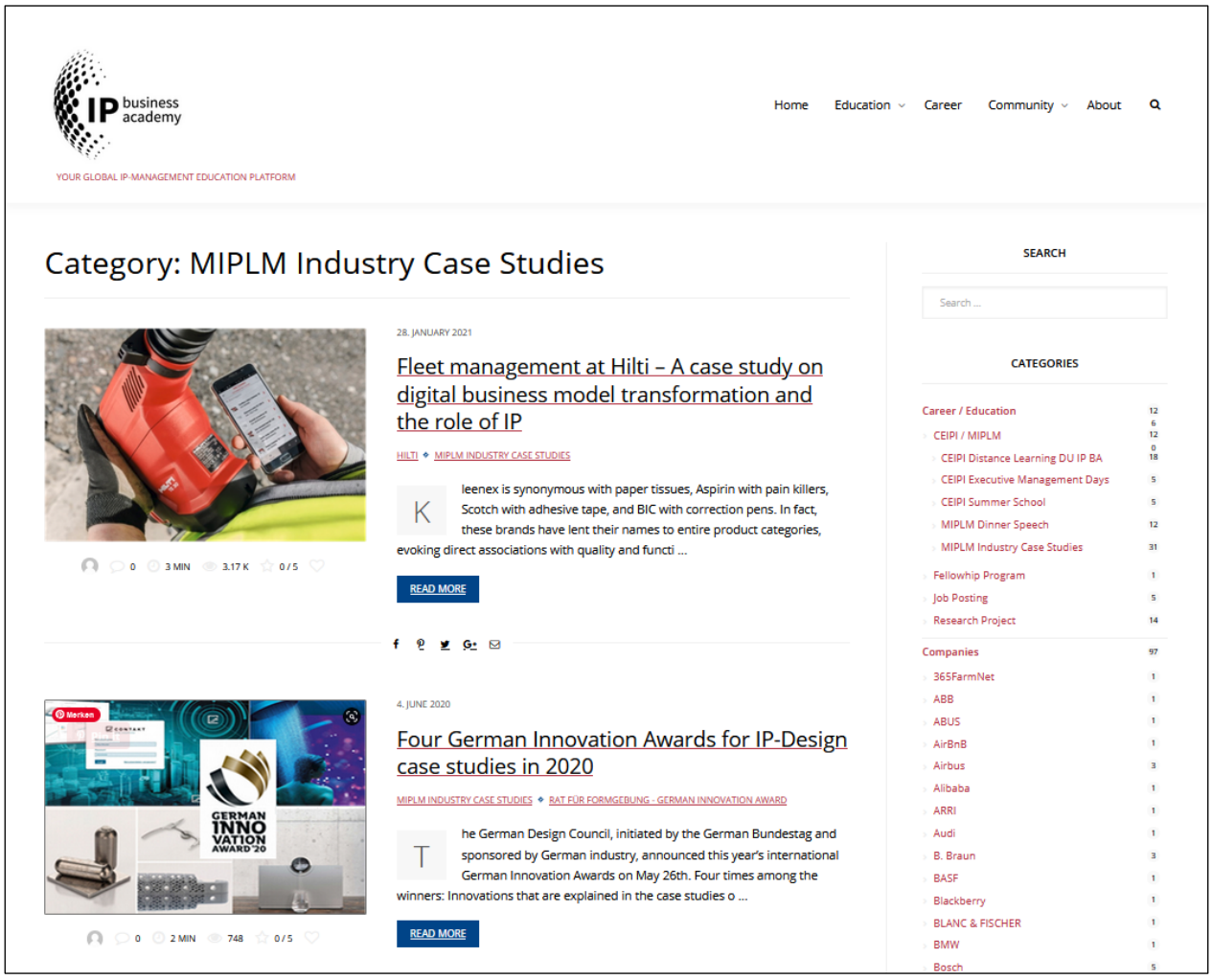

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