



Intellectual Property Rights – How shall I protect my innovations and my business models?

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Agenda

- 09:30 – 9:50 Welcome and Introduction of Business Ideas (All)**
- 09:50 – 10:45 Protection Strategies – Input (Elisabeth)**
- 10:45 – 11:00 Break**
- 11:00 – 12:00 Definition of Protection Strategy for Business Models/ Ideas (All – Groups or Individual)**
- 12:00 – 12:50 Presentation and Feedback (All)**
- 12:50 – 13:00 Wrap Up (Elisabeth)**

Introduction to Protection Strategies – Agenda

1. Options to protect innovations
2. Patents, copyright and trademarks
3. IPR procurement and utilization
4. Options to protect business models
5. Conclusion

Learning objectives

How can we protect innovations and business models from imitation?

- Which options do we have to protect innovations?
- What are advantages and disadvantages of different protection mechanisms?
- Which protection strategies are suitable for which kind of business models?
- What should we consider when deciding for a protection strategy?

1. Options to protect innovations

Some IPR of a cell phone

Trade marks

- Apple
- Product "iPhone 6"
- Software "iOS", "iTunes" etc.

Patents

- Data-processing methods
- Semiconductor circuits
- Chemical compounds
- ...

Copyrights

- Software code
- Instruction manual
- Ringtone
- ...

Trade secrets

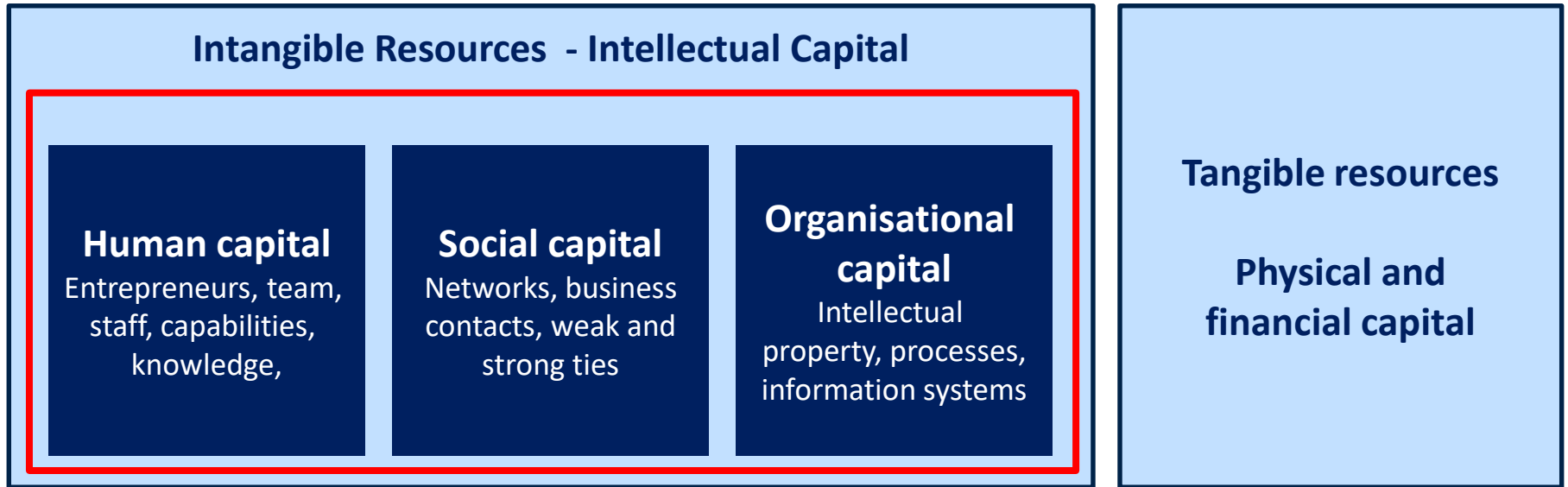
???

Designs (some of them registered)

- Form of overall phone
- Arrangement of buttons in oval shape
- Three-dimensional wave form of buttons
- ...



Theoretical Background



Source:: Grichnik et al. (2010), p. 168

Overview of protection strategies

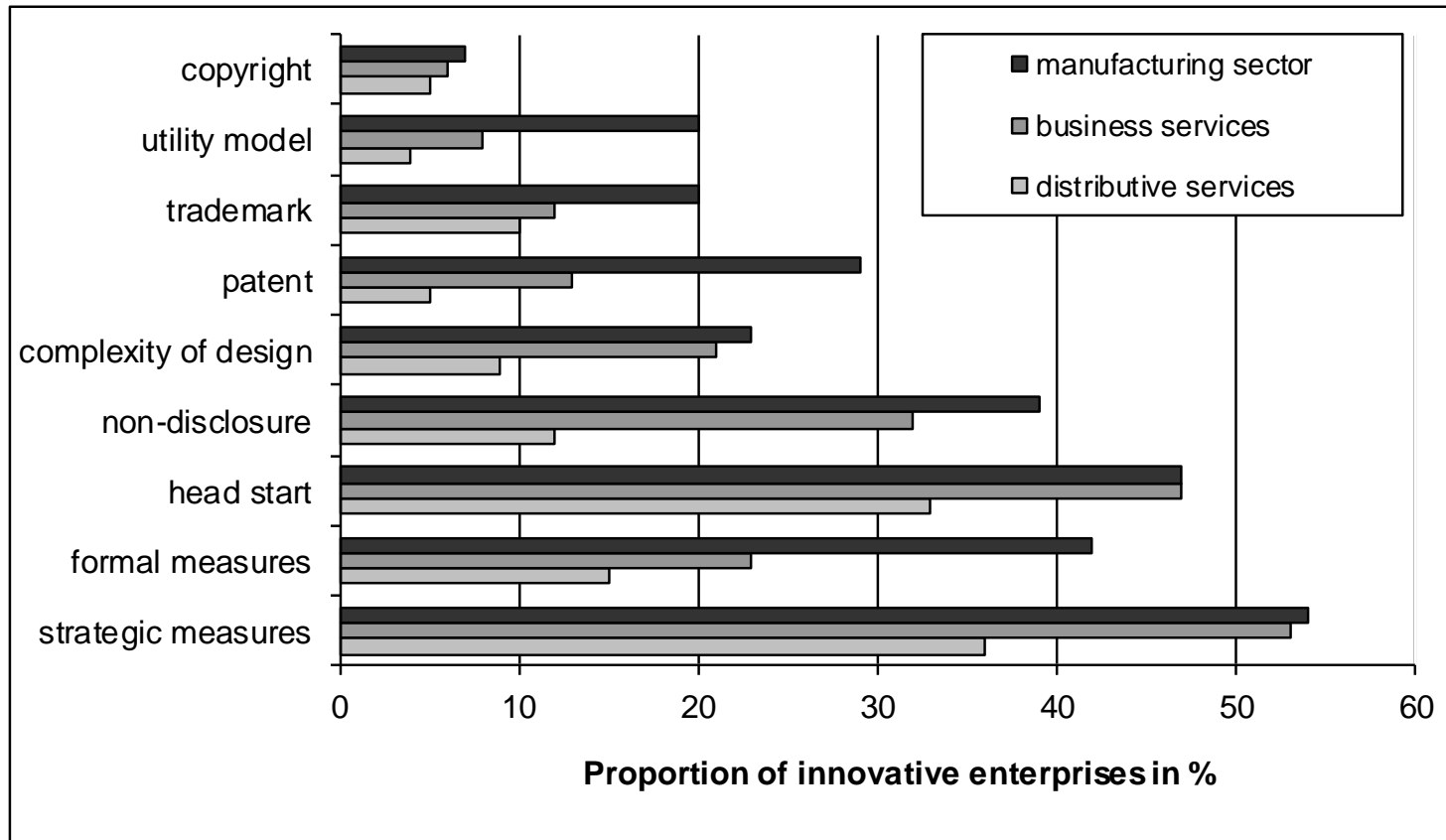
Legal protection strategies

- Patents
- Registered designs/ design patents
- Utility models
- Copyright
- Registered trademarks
- Variety protection
- Trade secrets
- Non-disclosure agreements

Factual protection strategies

- Timing advantage/ first mover advantage
- Marketing Concepts
- Complexity of product design
- Complexity of value chain
- Partner network
- Customer retention (complementary products and accompanying measures)
- Complementary business assets

Legal or strategic protection mechanisms?



Source: based on Gottschalk et al. (2002), S. 94ff.

Examples for strategic mechanisms

Customer retention

Activities to create **factual or emotional ties**

- factual: contractual/via contract, techno-functional
- emotional: Satisfactory quality of services (Garcia/Rennhak 2006, p. 3)

Development of **long-term business relations**

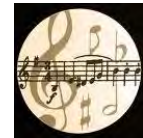
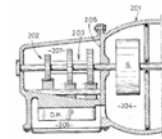
- Trusting cooperation (Burr et al. 2007, S. 254)

Supply of **complementary services** to support the commercialization of innovations (Teece 1986)

- Often to be found on downstream value creation stages (Burr et al. 2007, S. 252f.)

Intellectual Property Rights

Patent	Technical invention	Application and examination (20 years)
Copyright (Adjacent rights)	Literary, scientific, and artistic works, including computer software	No application (C: 50-70 years post mortem, RR: 25 years)
Trademarks	Trademark, business designation, indication of source	Use and/or application and examination (every 10 years)
Utility models	Technical invention (function)	Application, no examination (10 years)
Registered design	Design	Application, no examination (25 years)
Trade secret	Knowledge not generally available and thus providing a competitive advantage	Efforts to keep trade secrets
Variety protection	Protection of new plant variety	Application and examination (25/30 years)



What is the commercial value of intellectual property rights?

- **Means of protection and exchange for negotiations**
- **Additional Use: income, testing new markets**
- **Signal function: (future) sustainability for investors, cooperation partners, customers**

2. Patents, Copyright and Trademarks

Patentability – 3 Criteria

1. Novelty

- Invention should not be state of the art
- State of the art comprises all global knowledge which was accessible for the public prior to the invention in question / concerned/affected invention

2. Inventive step

- Inventive step means that the novelty sufficiently differentiates from the state of the art
- Therefore, very small changes are excluded.

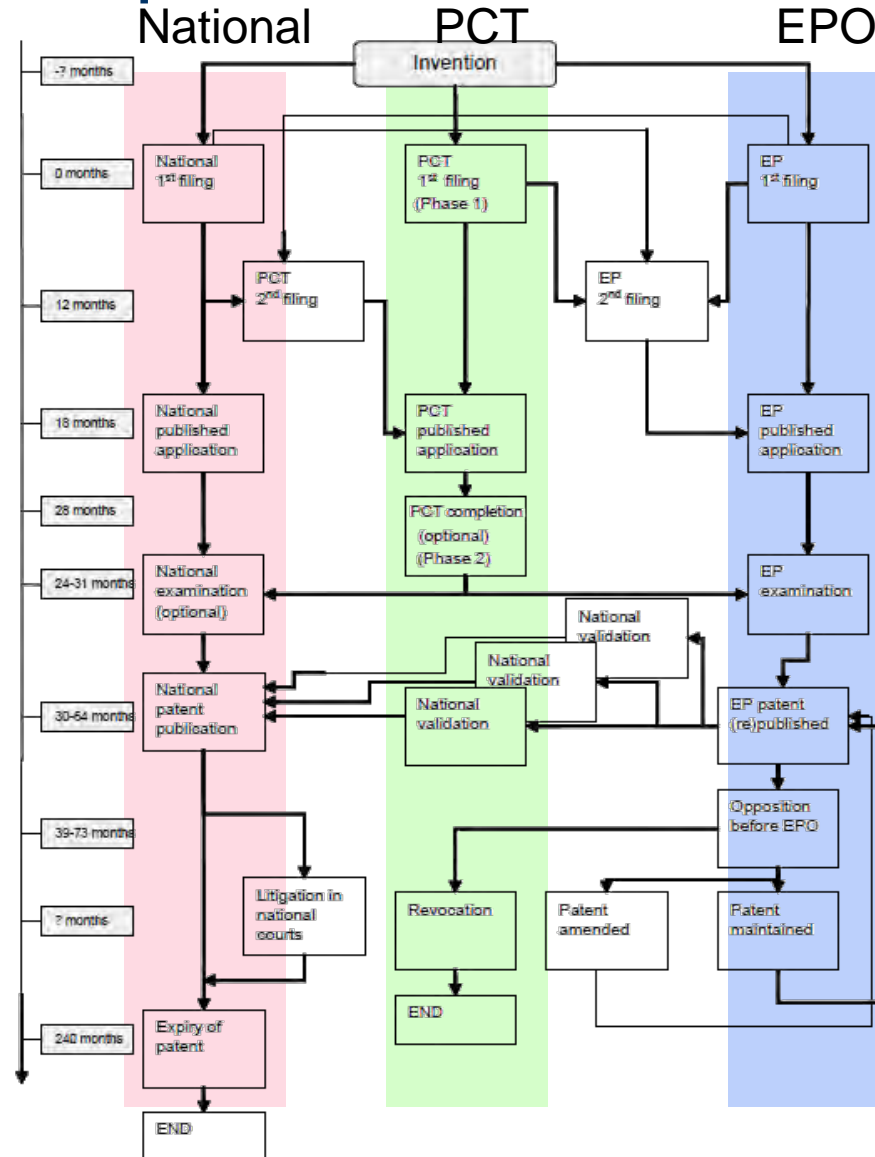
3. Industrial applicability

- Needs to be reproduceable. There is industrial applicability in case of applicability in commercial or agricultural fields/markets

Three main routes to a patent

12 months priority (30 months PCT)

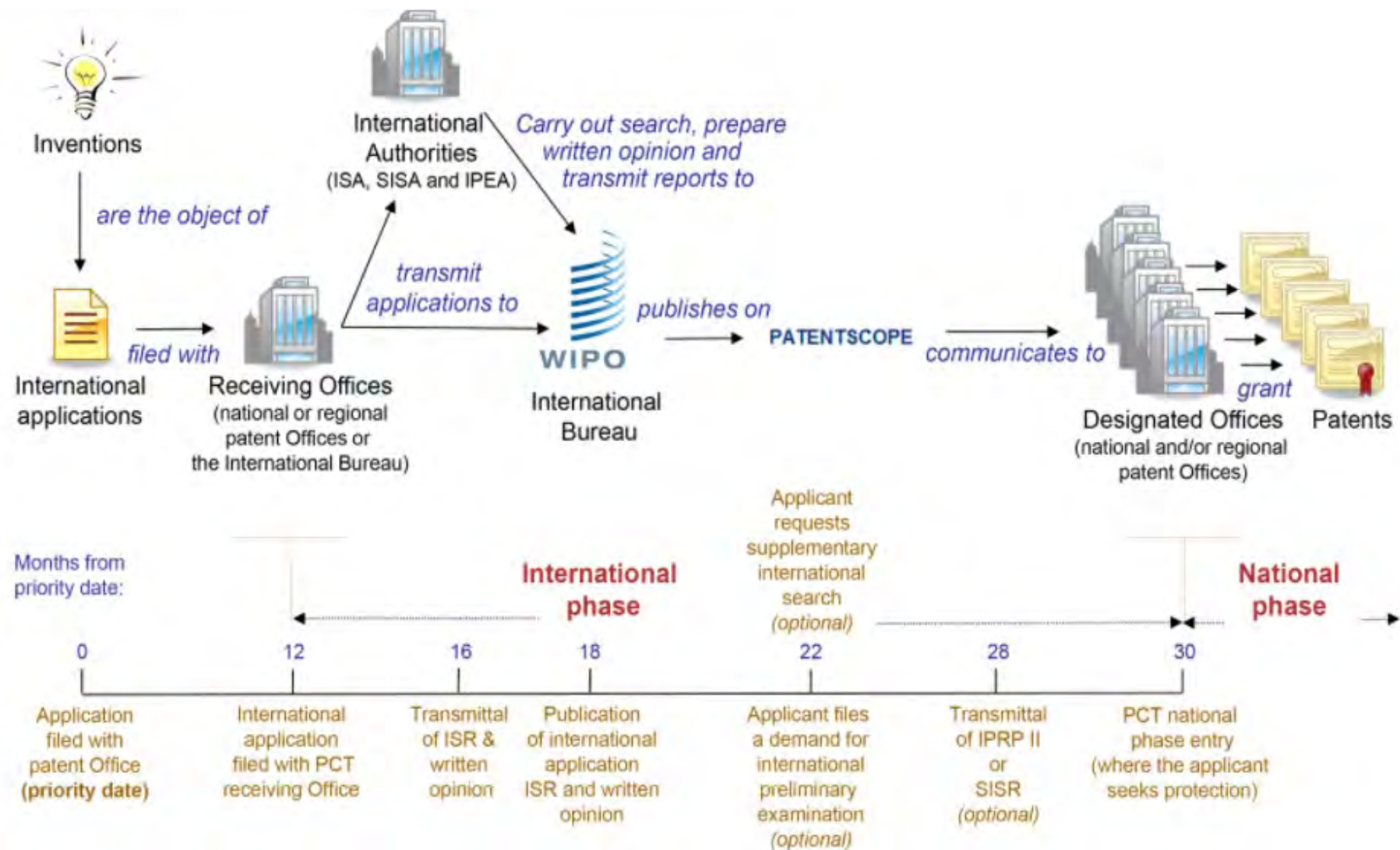
- The applicant can also choose direct route, Paris route if they are seeking protection in a few countries.
- They can also directly file separate applications at the same time in all countries in which they want to protect their invention.
- They can file in a Paris Convention country, and then file separate applications in other Paris Convention countries within 12 months from the earliest filing date.
- PCT route is easier, and more cost-effective.



A patent application remains secret (i.e. unpublished) within the first 18 months after filing the application

If the maintenance fees are paid continuously, a patent expires 20 years after its application date

Filing Procedure (PCT Overview)



Source: WIPO 2017

Data available from patent documents

Inventor



Applicant/ owner



Priority patent

Technology classification

Backward citations

(12) **United States Patent**
De Vries

(10) **Patent No.:** **US 8,047,052 B2**
(45) **Date of Patent:** **Nov. 1, 2011**

(54) **AUTOMATIC DETERMINATION OF AN EMISSION VALUE FOR A MOTOR VEHICLE**

(75) Inventor: **Dominic De Vries**, Tübingen (DE)

(73) Assignee: **Arktik GmbH**, Hamburg (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 175 days.

(21) Appl. No.: **12/510,489**

(22) Filed: **Jul. 28, 2009**

(65) **Prior Publication Data**
US 2010/0024521 A1 Feb. 4, 2010

(30) **Foreign Application Priority Data**
Jul. 31, 2008 (EP) 08161582

(51) **Int. Cl.**
G01N 7/00 (2006.01)

(52) **U.S. Cl.** 73/23.31; 73/114.69

(58) **Field of Classification Search** 73/23.31, 73/114.69, 114.71
See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS
4,934,419 A * 6/1990 Lamont et al. 141/94
5,105,651 A * 4/1992 Gutmann 73/23.31
5,343,906 A * 9/1994 Tibbals, III 141/83
6,216,527 B1 * 4/2001 Beecham et al. 73/23.31
6,234,390 B1 * 5/2001 Rabe 235/384

6,988,033 B1 * 1/2006 Lowrey et al. 701/123
7,580,808 B2 * 8/2009 Bos 702/27
7,640,185 B1 * 12/2009 Giordano et al. 705/23
2003/0110075 A1 * 6/2003 Shioda et al. 705/13
2004/0093264 A1 * 5/2004 Shimizu 705/13
2008/0154671 A1 * 6/2008 Delk 705/7
2010/0161391 A1 * 6/2010 Ashby et al. 705/13
2010/0217535 A1 * 8/2010 Seidel 702/24

* cited by examiner

Primary Examiner — Freddie Kirkland, III
(74) *Attorney, Agent, or Firm* — Kauth, Pomeroy, Peck & Bailey LLP

(57) **ABSTRACT**
The invention concerns the automatic determination of an emission value for a motor vehicle. For this purpose, a system for the automatic determination of an emission value for a motor vehicle 4 is described that comprises the following: a fuel quantity sensor 1, an identification device 3 for registering an account identification, an account database 7 containing at least one account information item for each of a multitude of accounts 8, and a determination device 6, where: the fuel quantity sensor 1 determines a fuel quantity added to the tank and transmits it to the determination device 6; an account identification registered by the identification device 3 is transmitted to the determination device 6 and is associated with the fuel quantity added to the tank; and where the determination device 6 determines the emission value on the basis of the fuel quantity added to the tank and at least one account information item of the account 8 associated with the account identification. This permits a simple and reliable determination of the emission value that also meets with a high degree of acceptance by the users.

15 Claims, 4 Drawing Sheets

Publication number

Granting date

Application date

Abstract

Interesting numbers on litigation

Despite Idenix mega-award, **median damages down 40% relative to last year**



Trends

- **\$2.5B** Largest patent infringement award in US history granted to Idenix (Merck)
- **9%** fewer patent cases filed in 2016 v. 2015
- **33%** Patentee success rate steady
- **80/20** Jury versus bench proportion continues to rise (up from 75/25)
- **15x** Median jury award over 15x greater than median bench award in last 5 years
- **52%** of appealed decisions were modified in some regard

Fig 11: Median damages award: NPEs vs. practicing entities (in \$M)

■ NPEs
■ Practicing entities

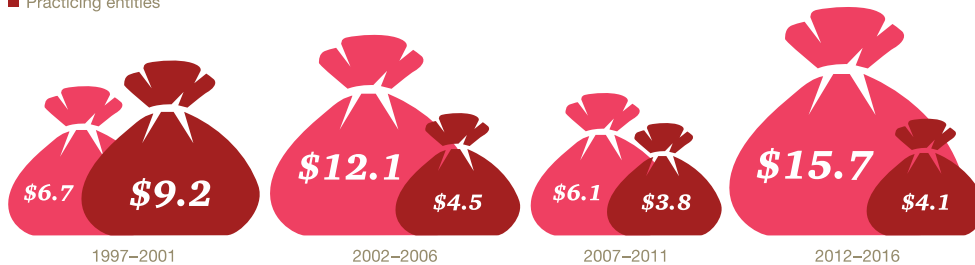
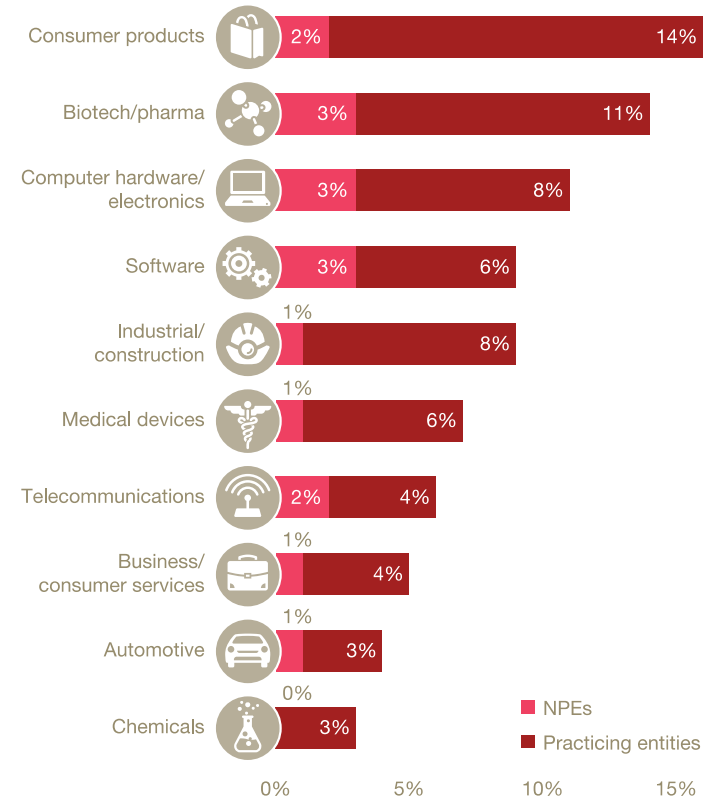


Fig 15: Distribution of cases: top ten industries: 1997-2016



Source: <https://www.pwc.com/us/en/forensic-services/publications/assets/2017-patent-litigation-study.pdf>

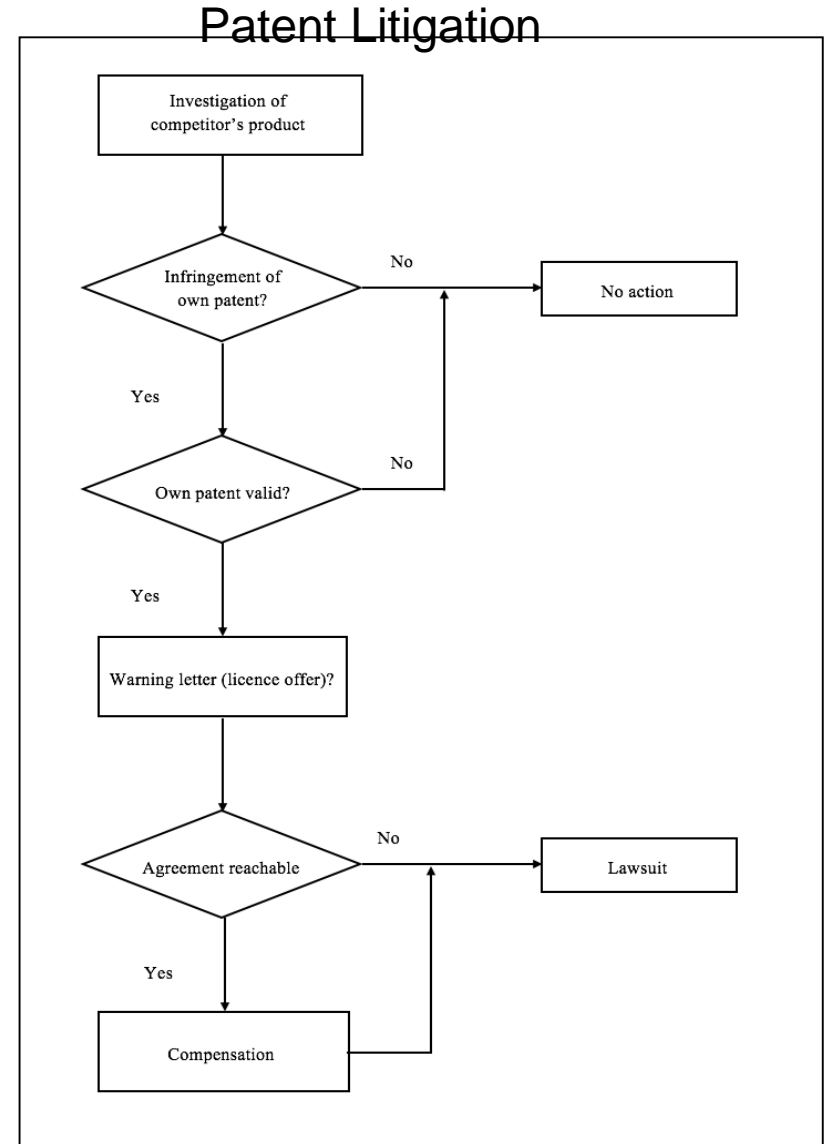
Counterfeits vs. infringement

Counterfeiting and Infringement are two phenomenon of the same genus but different species

All **counterfeits** are **infringements**, but not all **infringements** are **counterfeits**

There are different ways another party may infringe on your patent, including:

- **Direct Infringement:** This occurs when a product covered by a patent is manufactured without permission.
- **Indirect Infringement:** An indirect infringer may induce infringement by encouraging or aiding another in infringing a patent.
- **Contributory Infringement:** This occurs when a party supplies a direct infringer with a part that has no substantial non-infringing use.
- **Literal Infringement:** This exists if there is a direct correspondence between the words in the patent claims and the infringing device.



Copyright – What is protected?

What is protected?

- Literary and artistic works
- Books, brochures,
- **Computer programs/ software**
- Musical works, with or without text, audiovisual works
- Art, architecture
- Drawings, caricatures, technical drawings
- Dramas, plays, musical theatres
- **Data bases**
- Maps, plans, overviews

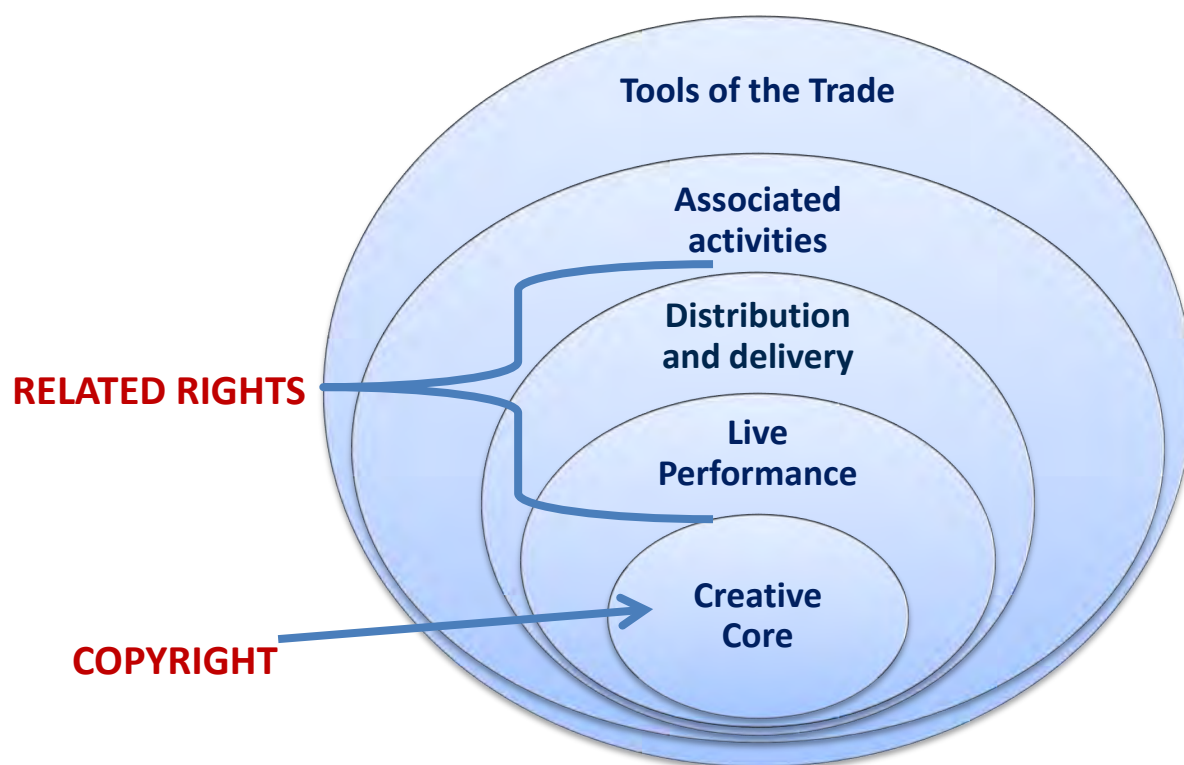
What is unprotected?

- Ideas, concepts
- Facts, information
- Names, titles, slogans, short phrases (can be protected as a trademark)
- Official legislative texts
- Crafts and designs (a few countries allow it to be protected as registered designs)

Related Rights – What is protected?

Neighboring rights to copyright, cover activities and things that involve a copyright protected works in the sense of bringing it to public. Usually the work of the following three groups fall under related rights protection:

- Performing artists (e.g. musicians, dancers, singers, actors, performers)
- Phonogram producers (e.g. vinyl, CDs, digital recording)
- Broadcasting organizations (e.g. radio, tv)



Creative Industry

•Tools of the Trade:

Theatre equipment ; Film equipment; Sound equipment
Bookbinding equipment

•Associated activities:

Build, operate transfer;
Restoration; Craft industries

•Distribution and delivery:

Multimedia; Libraries/archives;
Film, Cinema; Photography

•Live Performance:

Festivals; Exhibitions;
Broadcasting;
Musical; Dance; Opera

Terms of Protection

- **Copyright: 50 (70) years p.m.a.**
- **Related rights 50 years (20) after fixation, etc.**

General Principles:

- National treatment: Each country decides on own duration, in-line with major treaties and agreements!
- Minimum protection
- Law of the country where protection is claimed, Independence of law of country of origin
- Dispute settlement under general rules of public international law

Types of Trademarks

Signs must be distinctive, non-generic, not offensive

- Words, letters, numbers
- Slogans
- Logos, drawings, pictures
- Colors, shapes
- Packaging (distinctive!)
- Sounds (jingles)
- Olfactory marks (future)



Signs which may **NOT** constitute trademarks:

- Deceptive and descriptive marks are not registerable
- Signs contrary to morality or public order are not registerable
- Emblems of States or intergovernmental organizations may not be registered or used as trademarks
- Customary in trade (generic)

Thermos

Lady Di

beauty24.de

How to Obtain Trademark Protection?

Three alternative routes allow companies to register and obtain titles for protection of trade marks & designs

The National Route (PTOs)

- Individual applications with National PTOs
- fees for every national protection
- Protection according to national law
- Translation costs

The International Route (Madrid via WIPO)

- 1 fee at WIPO and Individual fees to be paid to designated National Offices
- Translation Costs (EN,FR,ES)
- A 'bundle' of rights' is granted, but each right is subject to the national laws of the designated country

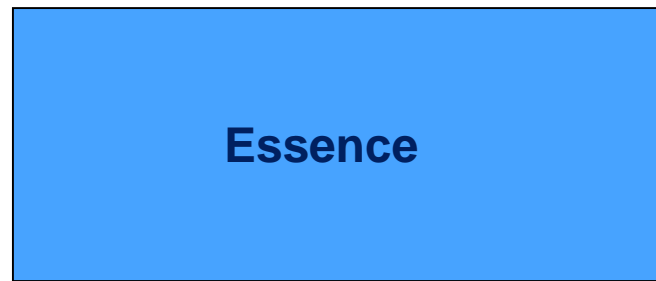
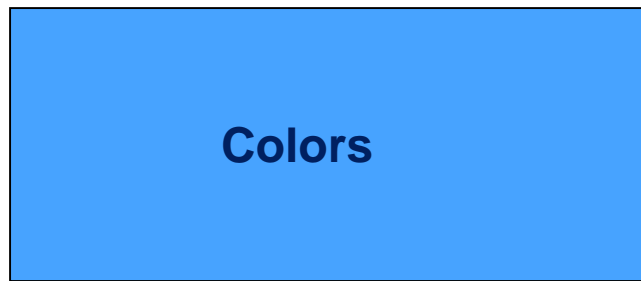
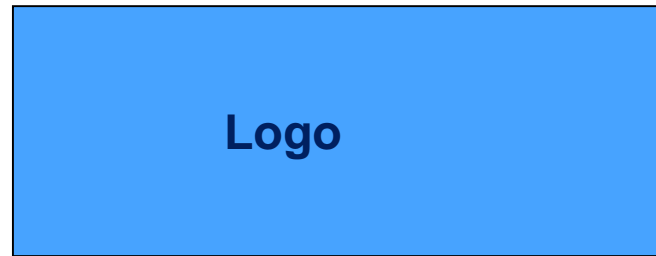
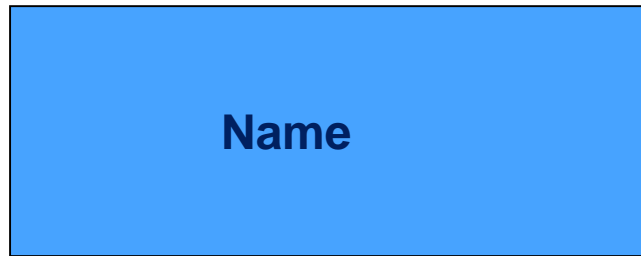
The Community Route (OHIM) for EU only

- 1 registration office: OHIM
- 1 fee (no translation costs)
- 1 right valid throughout 27 countries (unitary right)

Brand Attributes

Brand Name

Short , Distinctive, Avoid generic / line extended names



Brand Essence

- A brand must “leverage a compelling truth”
 - >Linux stands for freedom as opposed to Microsoft’s monopoly
- A brand should mean a single powerful thing: the essence
 - >Essence of Volvo is Safety, Essence of Tata is trust

Some Brand Makeover Examples



Brand Touch Points



Source: Davis/Longoria (2003)

Further Information

German patent and trademark office (auch in Berlin):

Patent- and trademark data base

Application, research, support for small companies, courses

European Patent Office:

Online toolkits for SMEs, self-study courses

Patent data base

World Intellectual Property Organisation:

Information on all multilateral conventions, online toolkits and information material

3. IPR Procurement and Utilization

Licensing

License fee:

Per application (quantity-based)

Percentage of profit or sales

(revenue or profit-based),

Upfront fixed fee

License types:

Exclusive right of use,

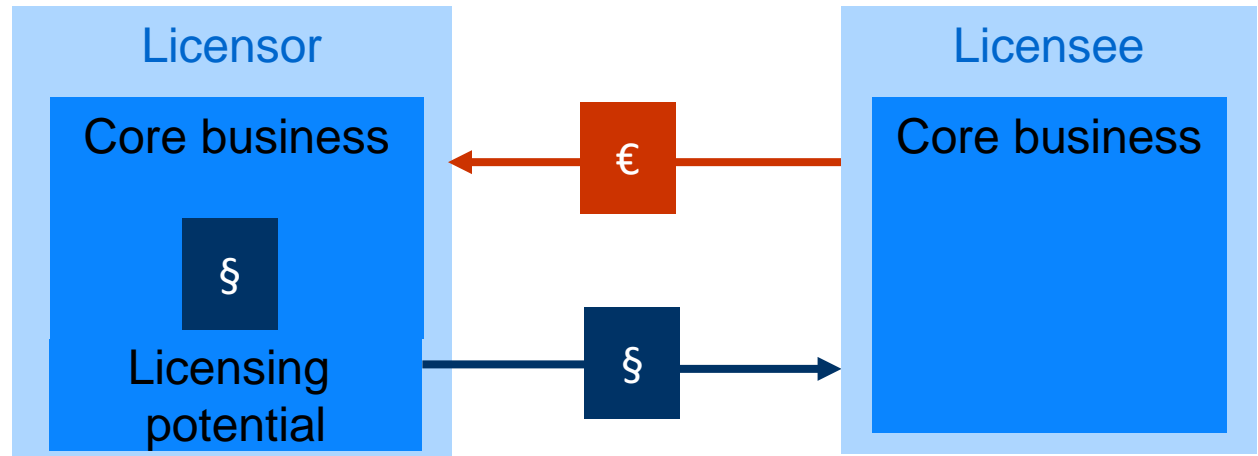
semi-exclusive cooperation (spectrum of applications,
regions, time period)

Simple user right

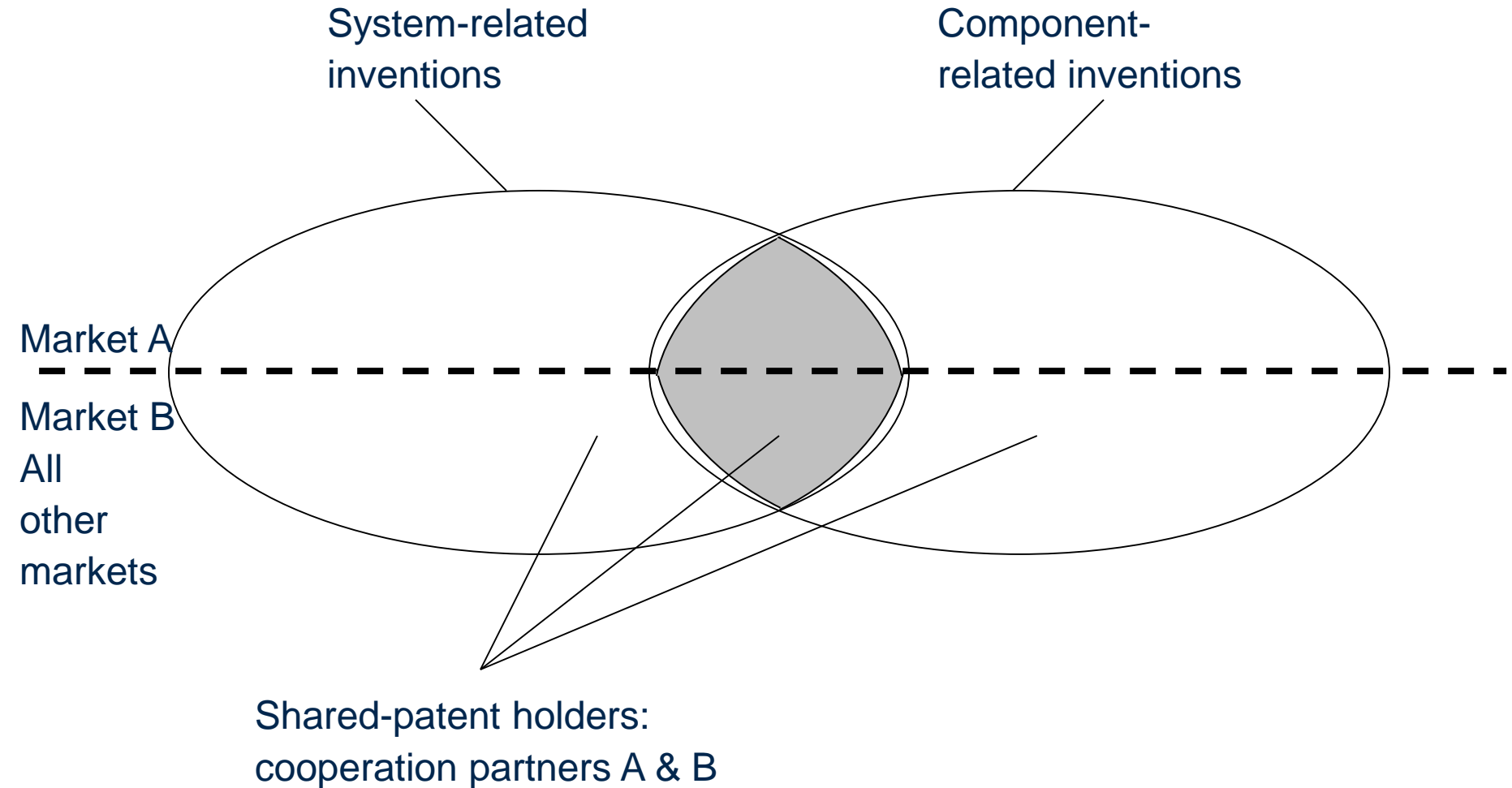
Negotiation plays an important role for licensing deals

Good negotiation requires:

- To know at all times what you want
- Understand the company's position
- Demonstrate personal and professional integrity
- Find the courage to end negotiations rather than accept poor terms.

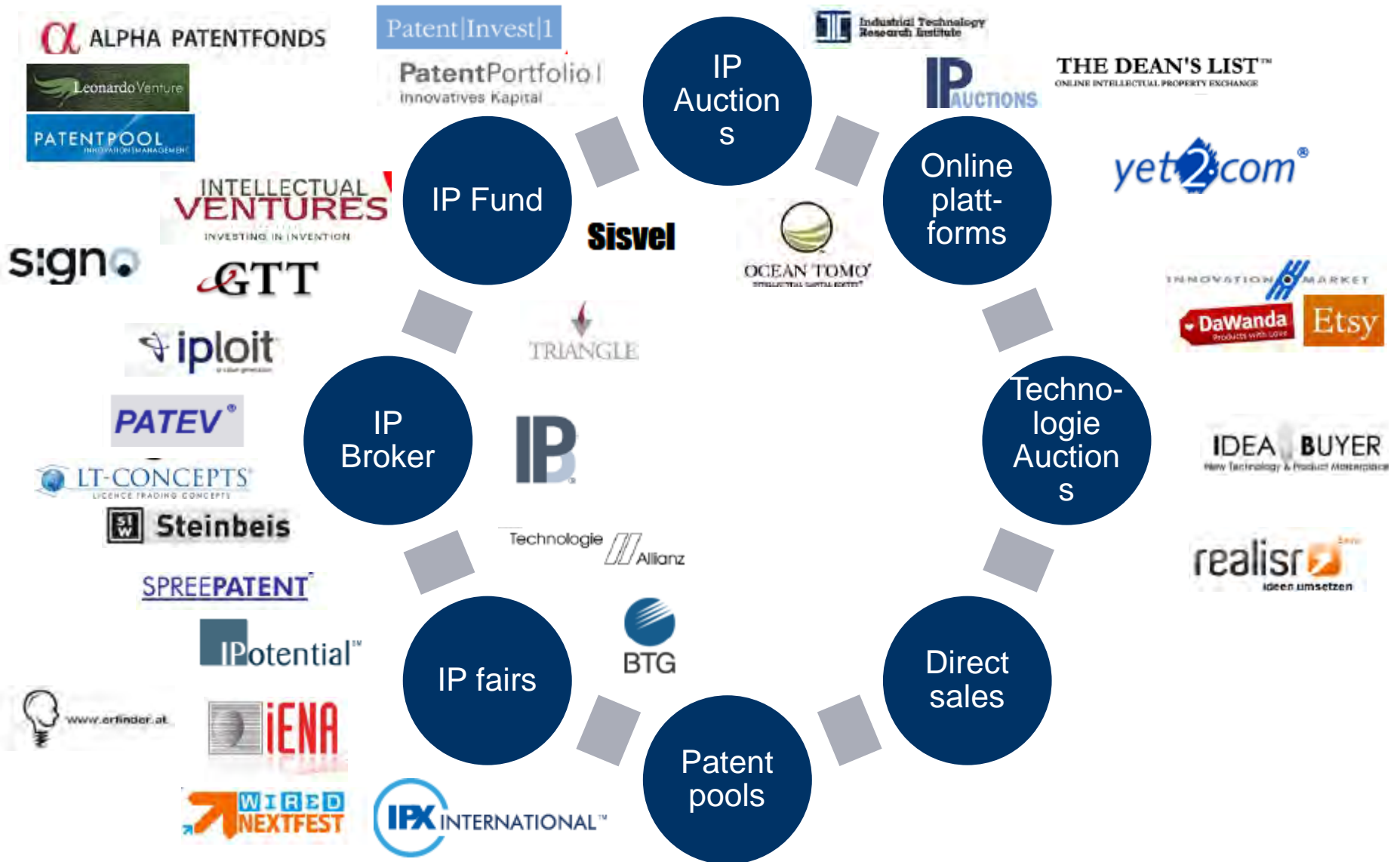


Shared or Distributed Patent Ownership

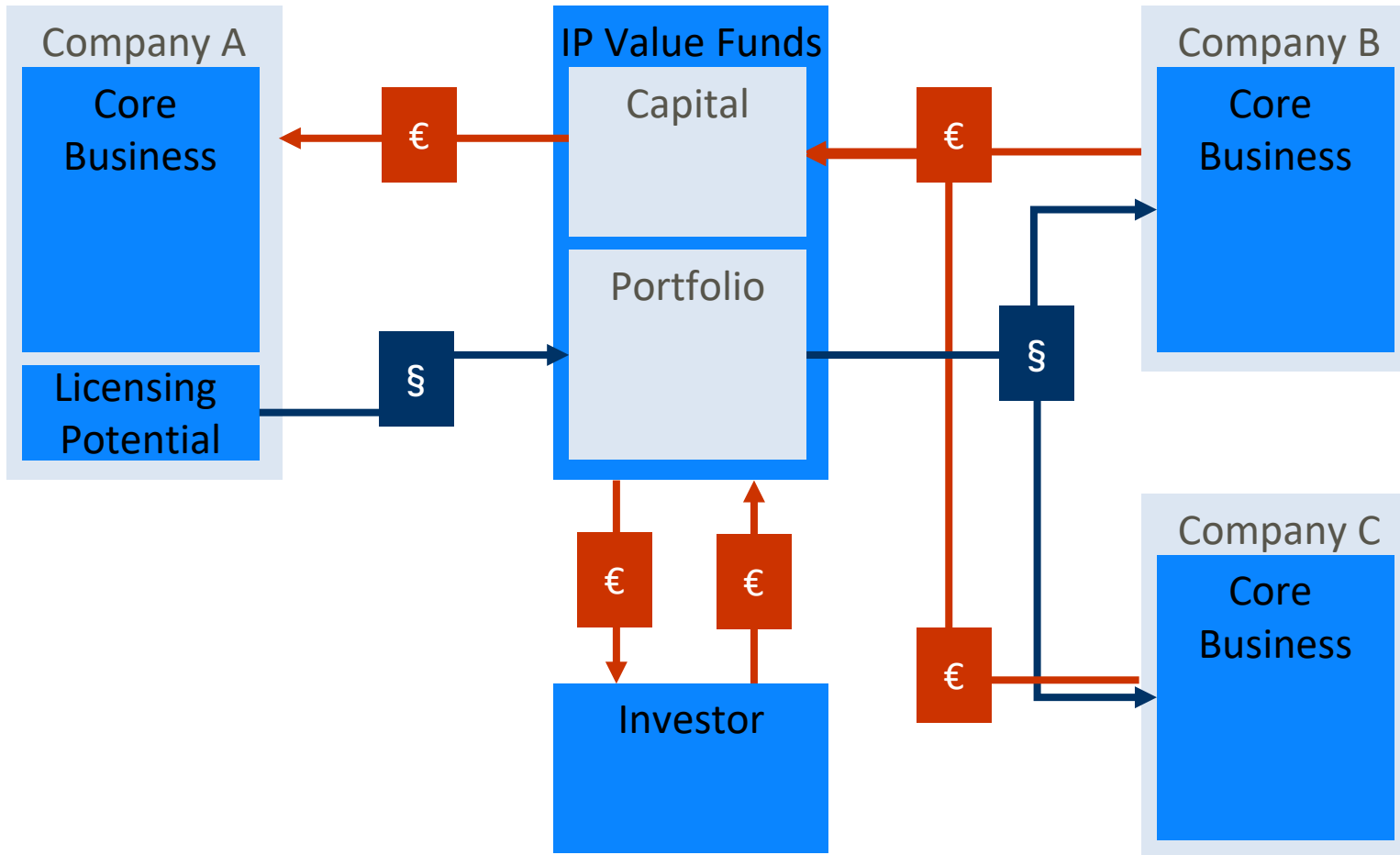


Source: Gassmann, Bader (2007)

Procurement and monetization opportunities



IP Monetization – IP Monetization Funds



Source: Scheffer , Rehn 2007

New strategic utilization options?

FAZJOB.NET LEBENSWEGE SCHULE FAZ.NET F.A.Z.-E-PAPER F.A.S.-E-PAPER
HERAUSGEGEBEN VON WERNER D'INKE, JÜRGEN KAUBE, BERTHOLD KOHLER, H

Rat rund ums Geld: „Meine Finanzen“

Frankfurter Allgemeine
Wirtschaft

Montag, 26. Januar 2015

POLITIK WIRTSCHAFT FINANZEN FEUILLETON SPORT GESELLSCHAFT STIL TECHNIK & MOTOC

Home Wirtschaft Unternehmen Elektroautohersteller Tesla gibt seine Patente frei

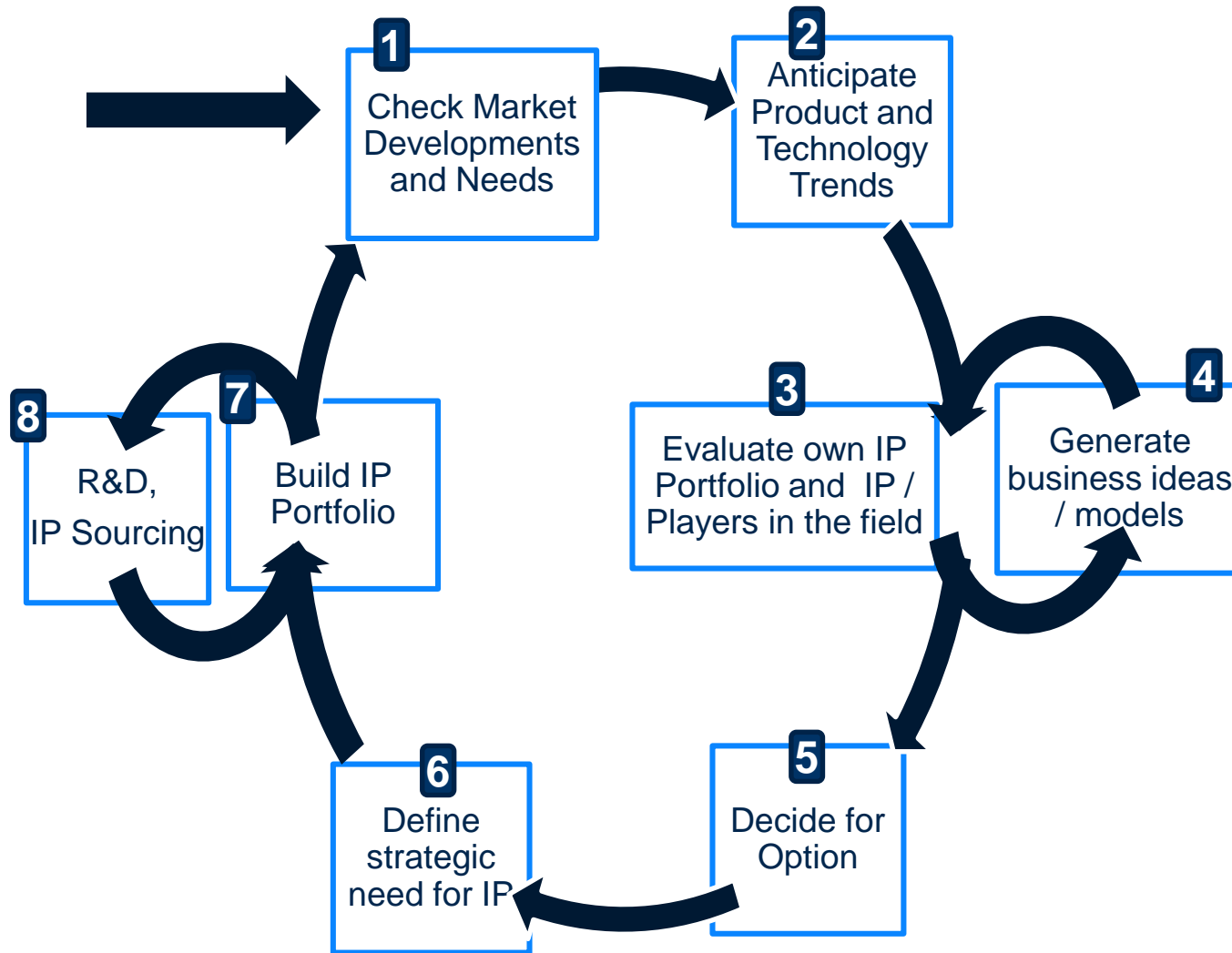
Elektroautohersteller
Tesla gibt seine Patente frei

„Alle unsere Patente gehören euch“: Um dem Elel
verhelfen, geht der amerikanische Hersteller Tesl
und gibt seine Patente für die Konkurrenz frei.



4. Options to protect business models

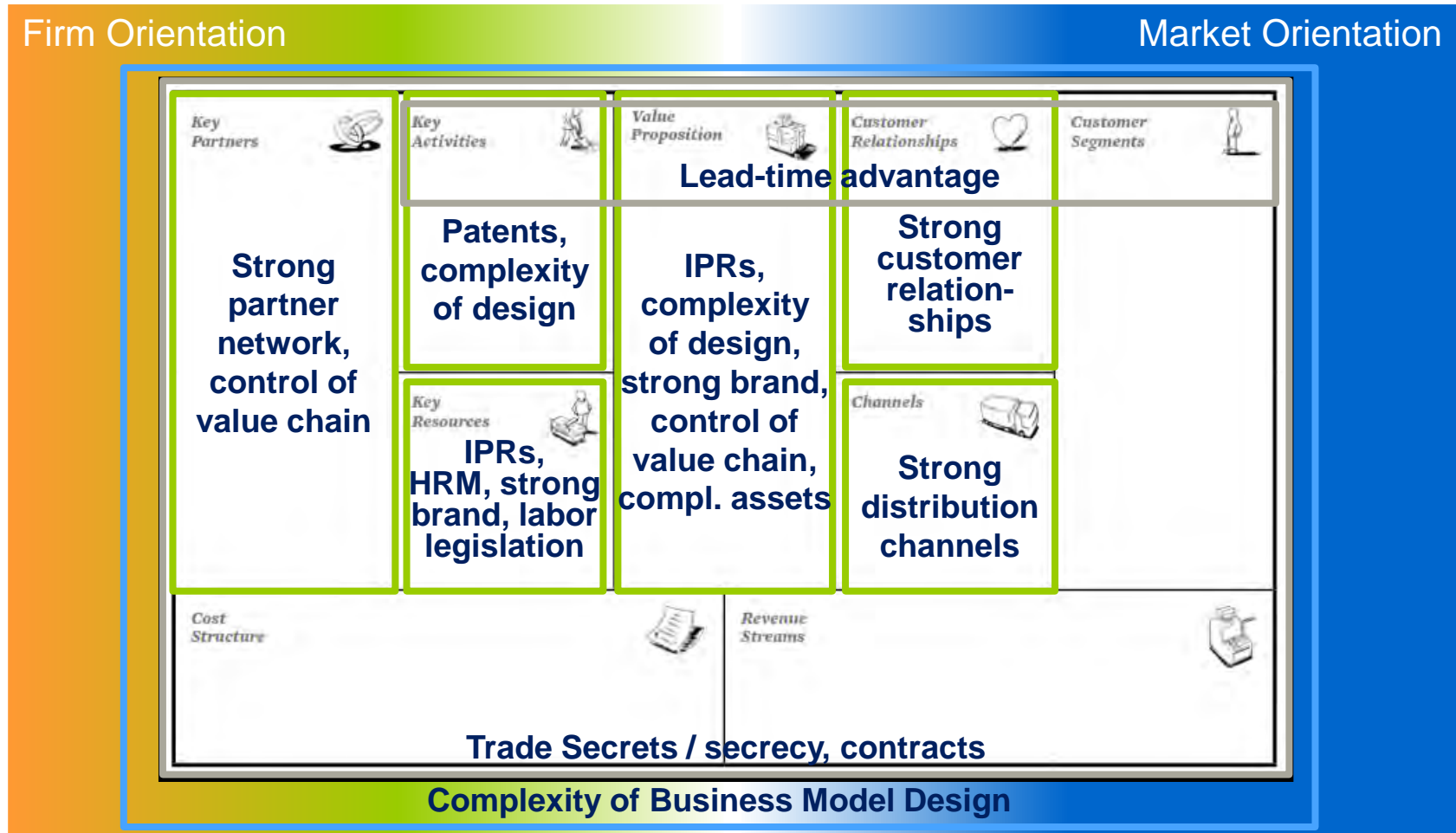
Business Driven IP Management Process



- Business driven IP management aligns the IP strategy with business models, which are derived from future market demands.
- IP strategy is used to define the future IP portfolio. The portfolio in turn is the basis to derive courses of action.
- Business driven IP management concentrates on protecting key products of the respective business segment.

Quelle: Kuffer et al. (2009)

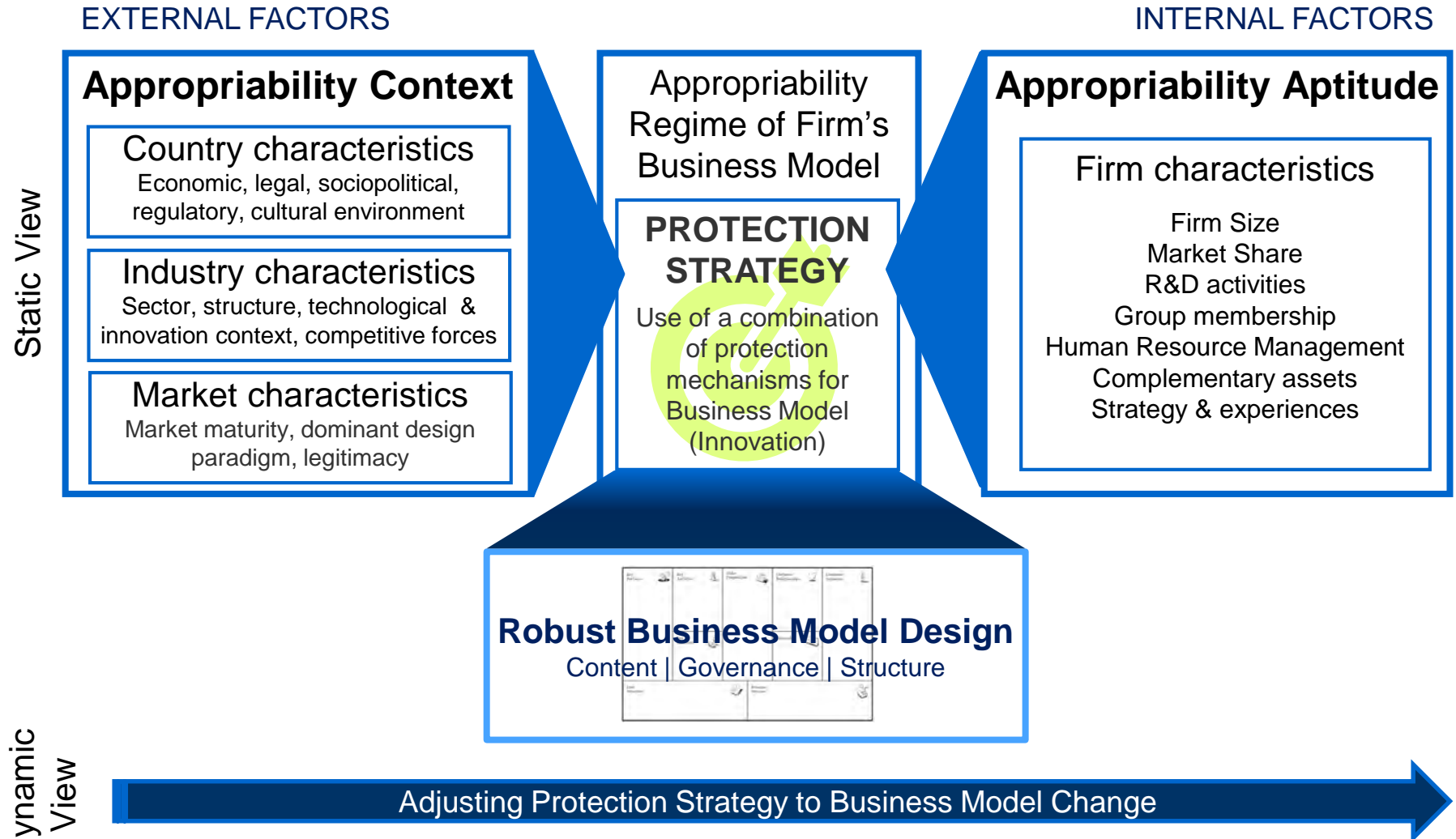
Options to protect business models



Exemplary protection mechanisms for business model components –

Source: Roeder 2016

Business Model Protection Framework



Source: Roeder 2016

5. Conclusion

How can innovations and business models be protected from imitation?

- Always a combination of legal and strategic protection mechanisms
- IPR has strong synergy effects to improve competitive position, and additional source of income
- Financial aspects, business sector norms, signalling effect for customers (marketing), employees (recruiting und retaining), and cooperation partners



Thank you for your attention!

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Literatur

- Burr, W., Stephan, M., Soppe, B., & Weisheit, S. (2007). *Patentmanagement: Strategischer Einsatz und ökonomische Bewertung von technologischen Schutzrechten*. Stuttgart: Schäffer-Poeschel.
- Davis, S., & Longoria, T. (2003). Harmonizing your touch points. Brand Packaging Magazine, 1-4
- Garcia, A. G., & Rennhak, C. (2006). Kundenbindung–Grundlagen und Begrifflichkeiten. Herausforderung Kundenbindung, Wiesbaden, 3-14
- Gassmann, O., & Bader, M. (2007). *Patentmanagement*. Berlin: Springer.
- Gottschalk, (2001) Innovationsverhalten der deutschen Wirtschaft: Hintergrundbericht zur Innovationserhebung 2001 (S. 96 ff.)
- Grichnik et al. (2010) Entrepreneurship : unternehmerisches Denken, Entscheiden und Handeln in innovativen und technologieorientierten Unternehmungen
- Kuffer, F.; Boese, D. A.; Stelzer, B.; Brecht, L. (2009), Business Driven Intellectual Property Management, Proceedings of the 2nd ISPIM Innovation Symposium, Huizingh, Torkkeli, Conn, Bitran (Hrsg.), Lappeenranta University of Technology Press.
- Roeder, A. (2016) Gaining competitive advantage through the application of protection strategies in business models. Masterarbeit an der Freien Universität Berlin, Fakultät für Wirtschaftswissenschaft, Berlin, 2016.
- Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. Research policy, 15(6), 285-305.
- WIPO 2017: <http://www.wipo.int/pct/en/faqs/faqs.html>



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