IP strategy practice and case studies

Thomas Bereuter

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Succeeding in technology commercialisation and negotiation

Prepared by
Paul Germeraad

Edited and presented by
Thomas Bereuter

What decision makers in High-growth technology businesses and their IP professionals must know about IP

Defining the right IP strategy

Definitions

Intangible assets that are the result of creativity, e.g. patents, designs, trademarks, copyrights, trade secrets.

Intellectual Property (IP)

A course of action designed to achieve a long-term or overall aim.

Strategy

A course of action designed to use intangible assets to reach an organization's long-term goals.

IP strategy

KEY TAKEAWAYS FROM FAILURE CASE STUDY

IP strategy

- Not enough trust building, cooperation- and negotiation-experience
  -> win-lose contract but reluctant to renegotiate the exclusive license
- No plan to enforce contracts and patent rights (despite planned offensive use)
- Insufficient trade secret protection, reducing options after patents lapsed

IP management

- Pivoting lacked structured handling to build upon earlier achievements: poor documentation

Business strategy

- Without customer continuity, strong dependence on external growth financing

WHAT AN IP STRATEGY IS NOT

- ❌ A legal topic that can be outsourced
- ❌ Where to file for priority and how to delay costs for patents
- ❌ A collection of IP policies
- ❌ Only relevant for big companies
- ❌ A reaction to competitors' patents
- ❌ A tool that turns IP into *the* business

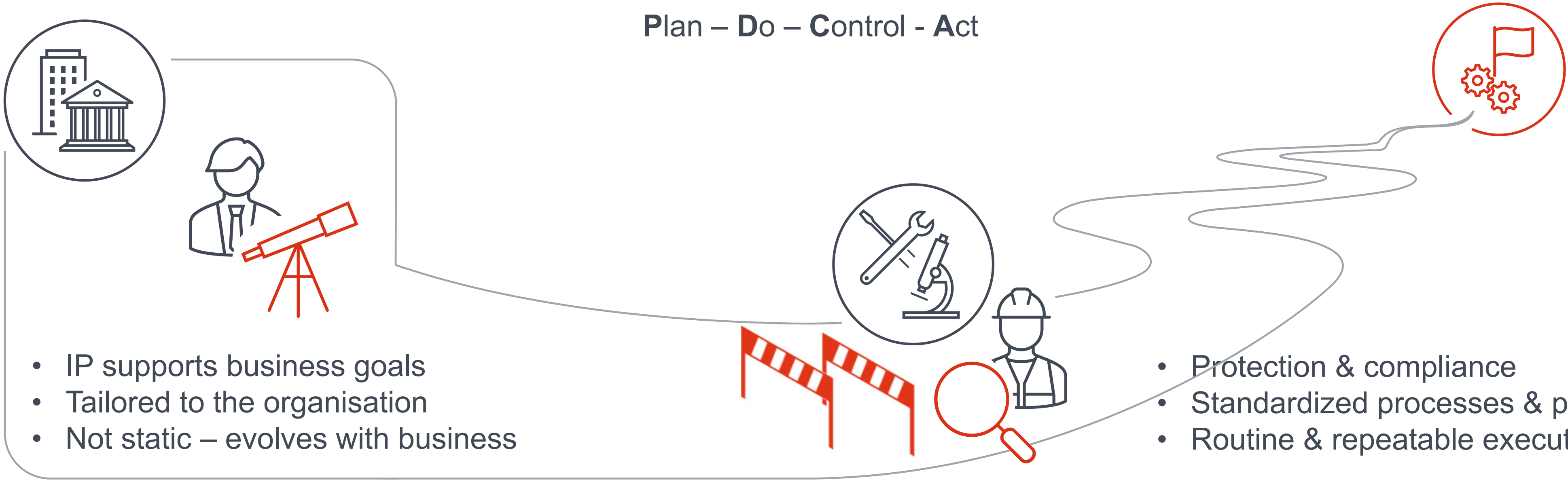
ACHIEVING BUSINESS GOALS

IP Strategy – long-term perspective

systematic approach – **IP Management**

Actual → **Target**

Plan – **D**o – **C**ontrol - **A**ct



- IP supports business goals
- Tailored to the organisation
- Not static – evolves with business

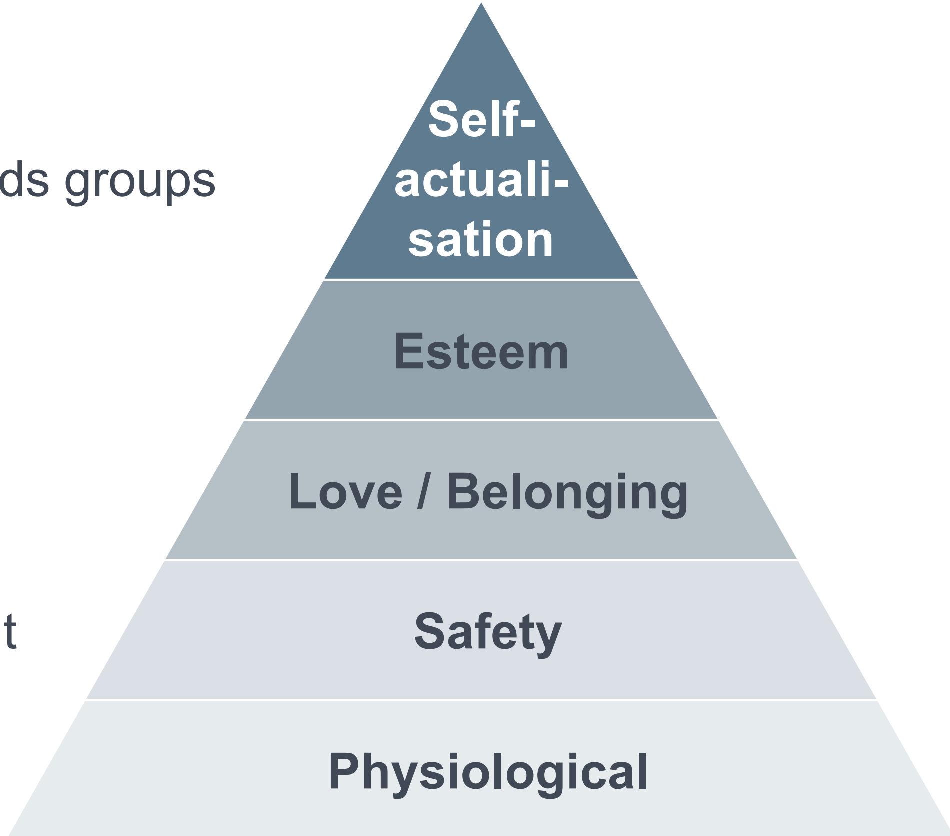
- Protection & compliance
- Standardized processes & policies
- Routine & repeatable execution

What is the goal and how can it be reached?

Goal: A sustained advantaged business position

1. Unique desired performance characteristics
2. Unique low cost
3. Unique trusted product

IP strategy to achieve generic business goals



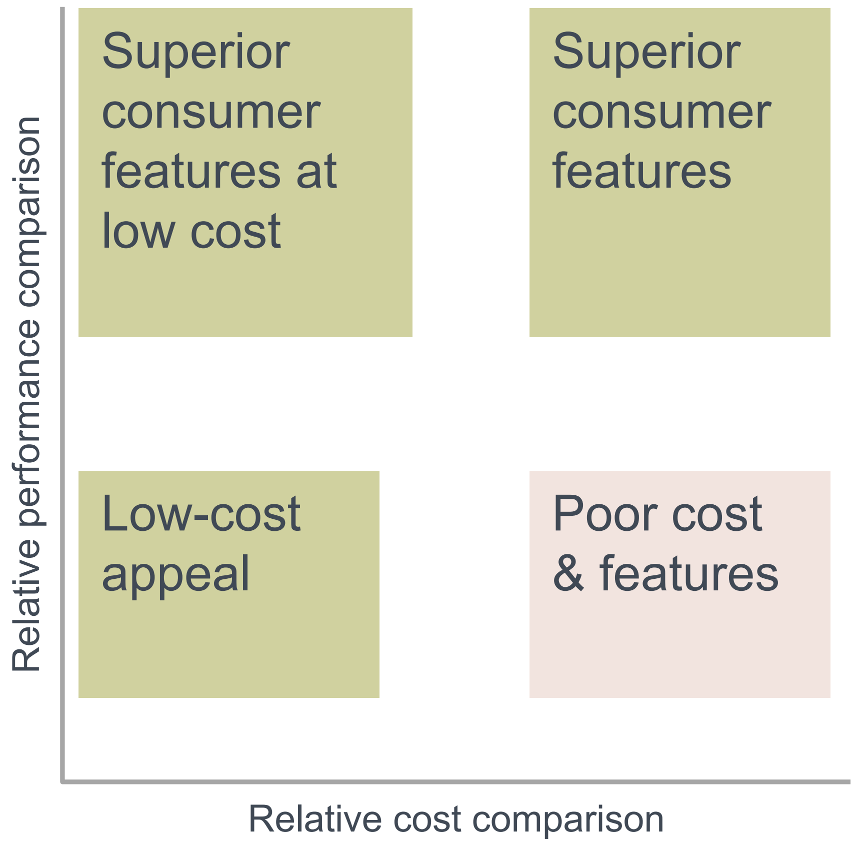
IP goals	Business goals
Regulatory & standards groups	Influence industry
In-licensing	Speed R&D
Out-licensing	Full exploitation
Portfolio management	Advantaged position
Freedom to operate	No surprises

Business segments clustered by "IP strategy type"

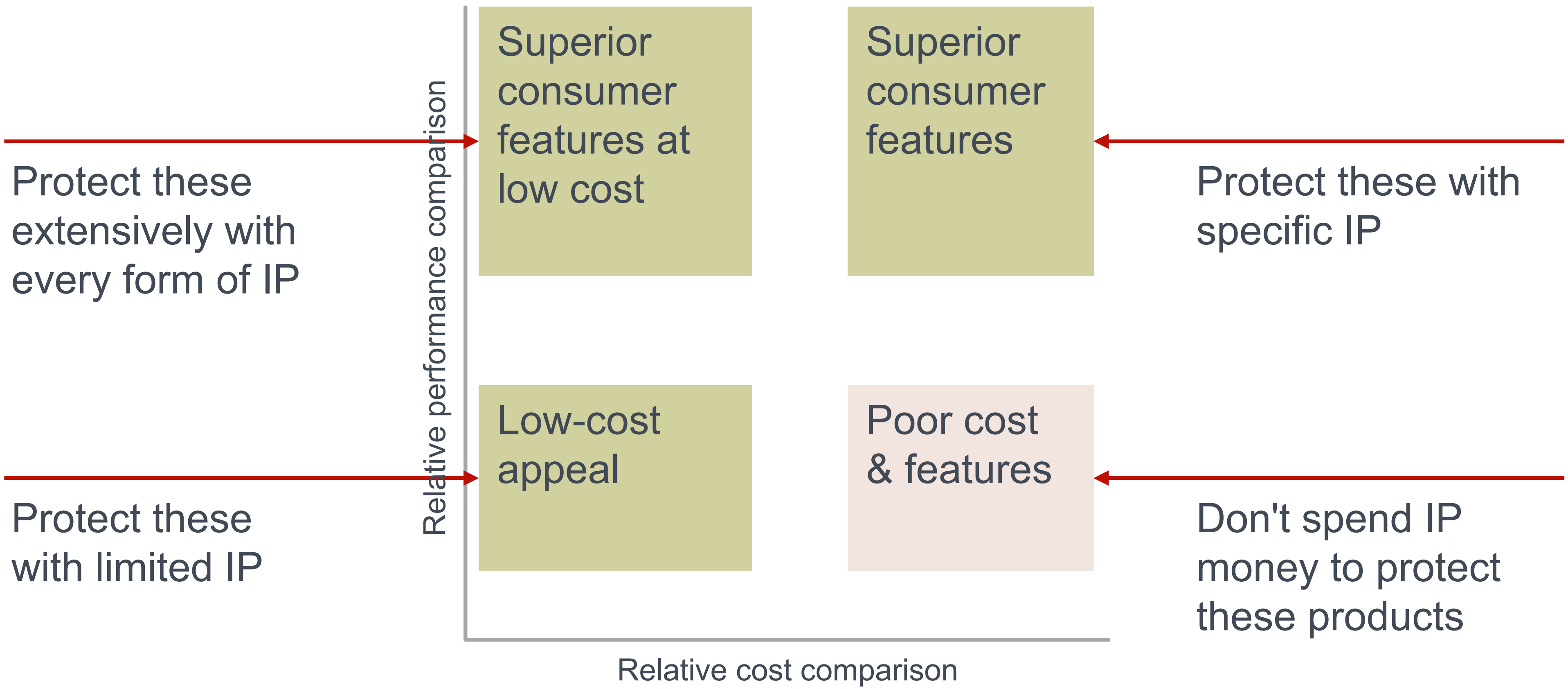
	TIME TO PROTOTYPE			
TIME TO MARKET	**LONG – Science discovery**	**MEDIUM – Engineering principles**	**SHORT – Create design and manufacture**	
LONG- Government regulations	biotech, self-driving cars, artificial intelligence in med tech	chemical drugs, medical equipment, aerospace	power, gas, petrochemicals, mining, regulated telecom	
MEDIUM - Industry standards	drug research and discovery tools, cosmetic research tools, functional food	mass software, computers, networking equipment, semiconductors	chemical products & polymers, industrial gas products, packaging materials, building materials	automobile, mass consumer products
SHORT- Customer expectations	specialty consumer products (perfumes, robot toys)	management information systems, enterprise solutions	specialty food, ingredients, specialty chemicals, electronic equipment, industrial controls	newspapers, news programs, clothing, food

What are the business goals from relative competitive position?

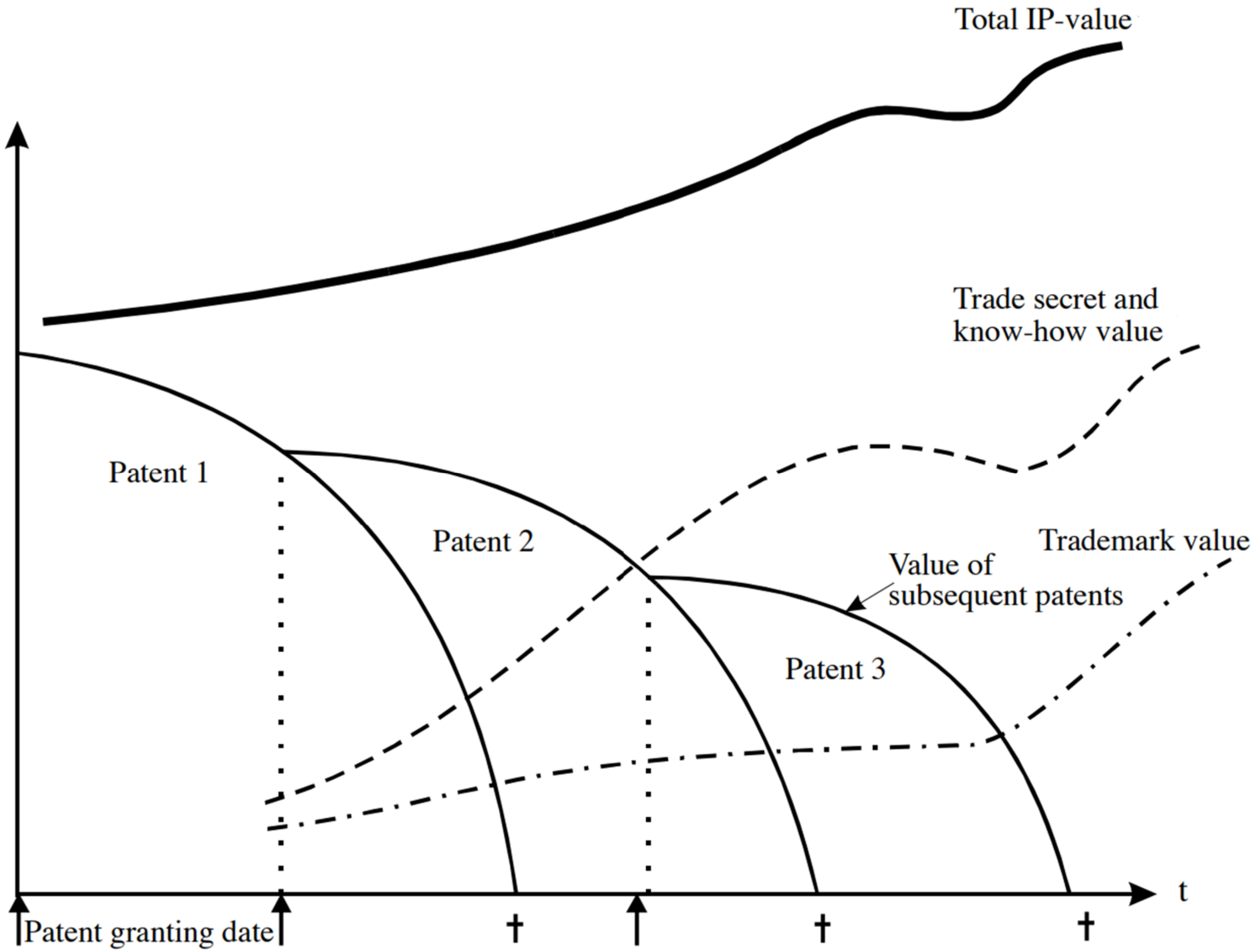
- Each organization has a mission and goals to be in one of the three "green" quadrants
- Corporate brand requires all products have same "image or brand promise"



Conclusion: IP strategies should support a company's relative competitive position



Timing of IP rights

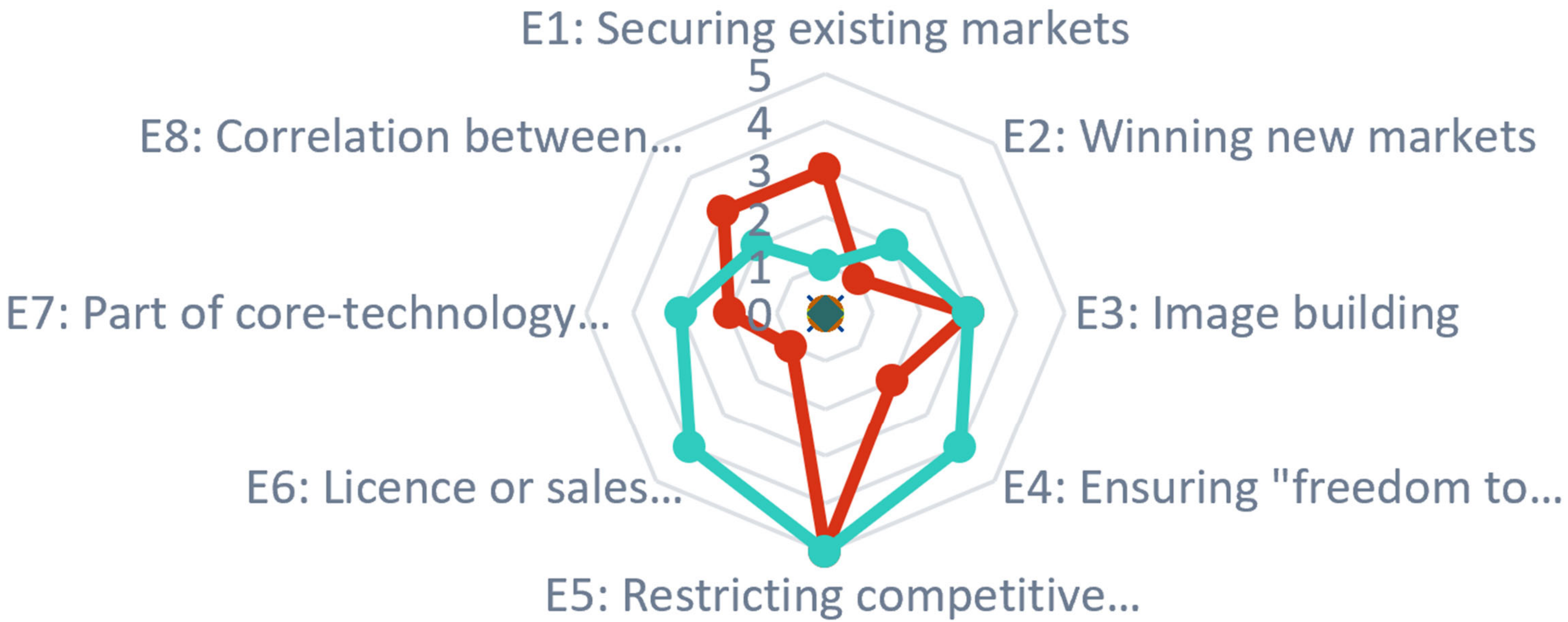


Granstand, O.: Strategic Management of Intellectual Property. CIM Working Paper 1999

IP strategies to support company's global market positions

Focus IP on the top 20% of countries that generate 80% of the sales & profits

IPSCORE: STRATEGY



IP strategy questions explained

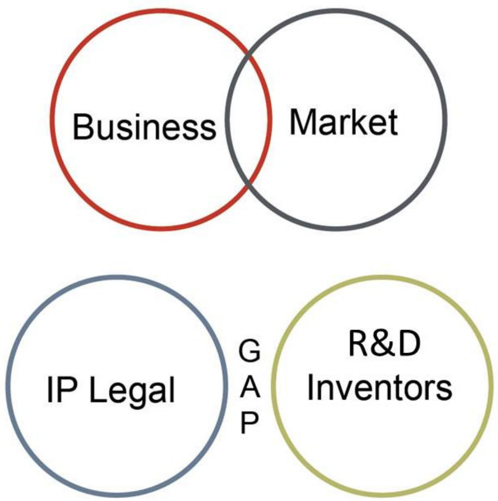
E1: Is the object of the patent to secure position held in existing markets?	**Patents can be used to secure the right to produce or sell a product or service in the markets you know. Clusters of patents can be accumulated which, by acting as barriers, make it particularly difficult for competitors to penetrate the market.**
E2: Is the object of the patent to win new markets?	Patents can play a part in ensuring the right to invade and conquer new markets. Clusters of patents can be accumulated/amassed which, by acting as barriers, make it particularly difficult for competitors to penetrate the market.
E3: Is the object of the patent part of an image-building process?	Patents can be used to demonstrate that a company is innovative, for example, and a forerunner in technological development - or they can be used for some other form of image building.
E4: Is the object of the patent to ensure "freedom to operate" - to ensure the space for your own development activities?	Patents can be used as elbow room for the company's future technological development so that access to subsequent utilisation in the market is ensured. It is important to be ahead of your competitors in recognising the potential in a technological area.

E. Strategy questions	Explanation
E5: Is the object of the patent to restrict competitive development?	Patents can be used to capture areas of technology. This will obstruct future competitive development and competitive access to operate in given markets. |If there are already a number of patents within the area in question, it will be extremely difficult for the competitor to develop his own products.
E6: Does the company use the patent for licence or sales agreements?	Patents can form the basis for establishing licence or sales agreements for technological knowledge, or they can be an instrument in cross-licensing agreements.
E7: Does the patent form part of the company's core-technology areas?	A patent can be part of one or more of the company's core-technology areas, either independently or in connection with other company patents.
E8: Is there alignment between the patent and the company's business strategy?	There are various ways in which a patent can contribute to the company's business strategy - or vice versa, so that a particular patent field benefits from the support of the business strategy.

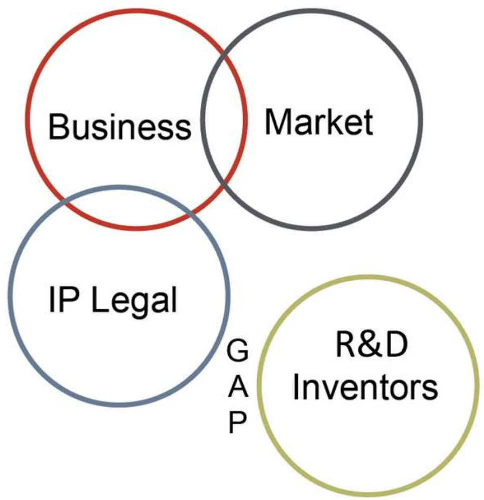
Informed decision making

In IP driven companies all stakeholders are integrated with overlapping responsibilities to create a **sustained advantaged position** for the corporation.

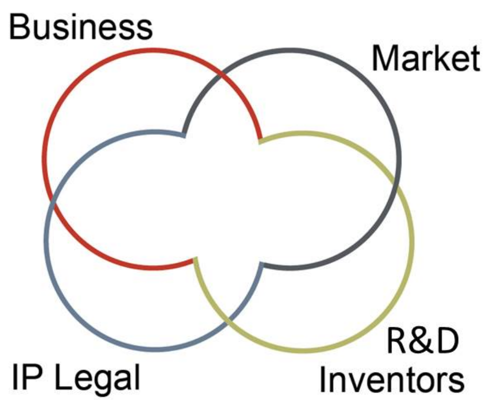
Most companies



Aligned companies



IP driven companies



THE BUSINESS PERSPECTIVE OF IP – A DICTIONARY

IP term	Explanation	Business term
IP prosecution	Strategic investments providing cost advantages and pricing premiums.	**Asset investment**
Exclusion/ injunction	Grants the right to exclude others, commanding premium prices and higher profit margins.	**Market power**
Licensing revenue	Generates revenue and imposes costs on competitors, creating a sustainable cost advantage.	**Cash flow & sustainable cost advantage**
Licensing expense	Part of the product's cost structure, affecting profitability.	**Cost of goods sold (COGS)**
IP infringement	Use strategically during negotiations to shape relationships and benefit from competitors' strengths.	**Partnership opportunity or negotiation leverage**

Source: IAM Magazine 2009, Putting the IAM function at the heart of corporate strategy

REASONS TO PATENT

MARKET ACCESS

01

NEGOTIATING

02

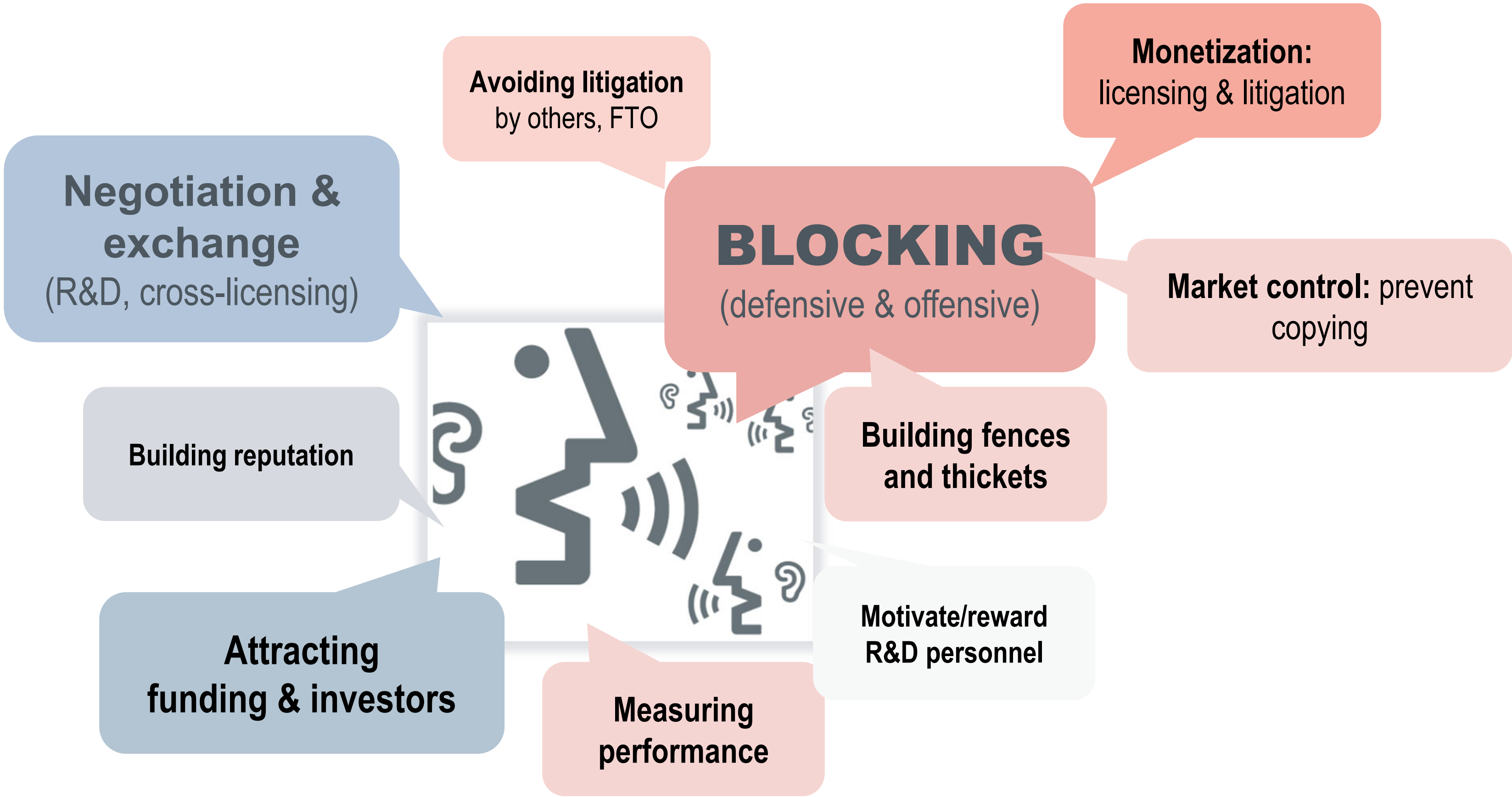
See https://www.4ipcouncil.com/smes-corner/4-reasons-patent

FUNDING

03

STRATEGIC VALUE

04


Avoiding litigation by others, FTO
Monetization: licensing & litigation
Negotiation & exchange (R&D, cross-licensing)
BLOCKING (defensive & offensive)
Market control: prevent copying
Building reputation
Building fences and thickets
Motivate/reward R&D personnel
Attracting funding & investors
Measuring performance

EPO SME case study: AEROGEN

Aerogen's nebulisers enable liquid medication to be transformed into a fine particle mist, delivering a broad range of drugs deep into the lungs of critically ill patients, which results in drug deposition rates far greater than can be achieved by conventional aerosol technologies.

- Protected by 14 patent families
- 60 % gross margin platform - a strong IP position allows considerable premium to competitors (priced 40 to 50-fold over basic products)
- Cheaper products on offer are quite different and generally not patent-protected

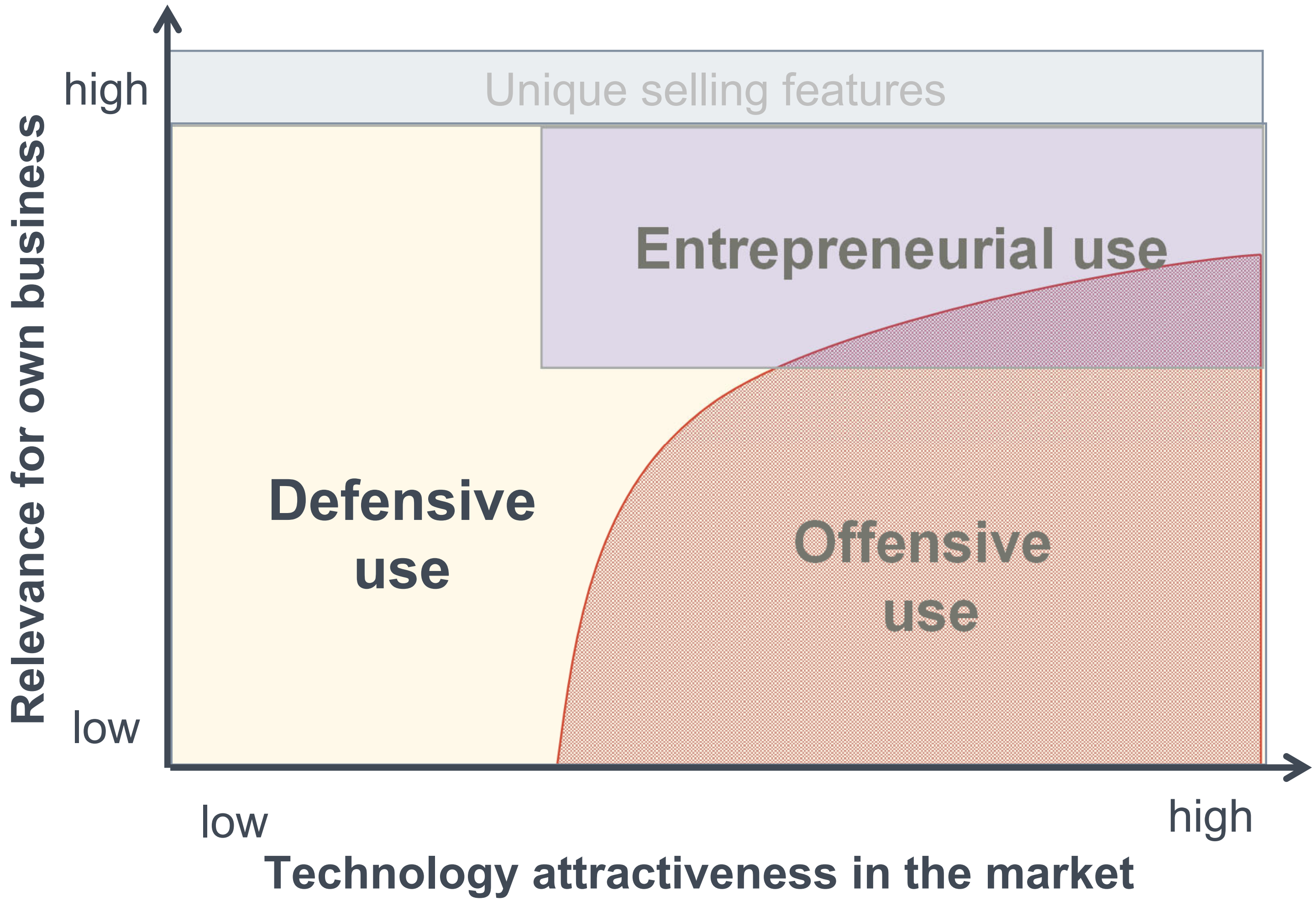
EPO SME CASE STUDIES | AEROGEN
https://tinyurl.com/epo-Aerogen

Strategic IP plan for Aerogen's aerosol product

We will hereafter:

- define the strategic plan for Aerogen
- reviews strengths, weaknesses, threats and opportunities;
- presents a series of statements relating to Aerogen's vision, mission, values and objectives;

Value extraction through technology access



Strengths, weaknesses, threats & opportunities

This strategic plan addresses the following key strengths, weaknesses, threats and opportunities for Aerogen's Aerosol drug delivery for ventilated patients' business area:

Strengths:
- #1 global brand of aerosol drug delivery systems thanks to patented vibrating mesh technology
- Motivated staff and leadership

Opportunities:
- Modern patients and physicians expect high-performance / high-technology solutions
- Aerosol drug delivery category continues to grow

Weaknesses:
- Minimal relationship management with end-users
- Innovation & Aesthetic Design
- Limited resources

Threats:
- Competitive styling and aesthetics
- Shorter product life-cycles
- Potential competition from Asian tech and marketing savvy giants

Vision

The vision for Aerogen’s aerosol drug delivery for ventilated patients business area in five years' time is:

- To be the global market leader in acute care drug delivery for ventilated patients
- To offer the best business opportunity for its strategic partners in the world.
- To develop the business in a higher price/lower volume/high performance market
- Aerogen's IP portfolio will provide visibility, protection and serve as a testament to the Business uniqueness and high-performance

Mission

The mission of Aerogen's aerosol drug delivery for ventilated patients business area is:

- To adopt its corporation vision of brands that do wonders
- To offer products of higher price point that strategic partners can upsell
- To be cost effective by ensuring there are no IP related surprises
- To cause its IP to help securing a high level price/performance for products and services

Values

- Aerogen operates in accordance with the highest standards in all relationships with customers, suppliers, environment and the community.
- Aerogen fosters a climate which encourages innovation and diligence amongst staff and rewards accordingly.

Business objectives

Longer term business objectives of Aerogen’s aerosol drug delivery for ventilated patients' business area IP portfolios are summarized as:

- To achieve double digit growth
- To extend selectively: Invest to win in selected geographies; steady Growth
- To build presence in existing market presence areas – **Europe, North America, Brazil, Japan, China, Korea, SE Asia** –, and add specific areas – **Eastern Europe/Russia, India** –

Key IP strategies

- Order of priority:
  - Ensure Freedom to Operate
  - Develop IP creation and portfolio management (patent fencing)
  - Regulatory planning
  - In-licensing for Open Innovation
  - Out-Licensing for geographic expansion or incremental revenues
- Focus on competition coming from medical device manufacturers who will not respect Aerogen's IP
- Focus on fast following entities comprised of Medtronic, Covidien and Dräger who will have IP to block Aerogen.

Key IP strategies (2/2)

- Choose between licensing-in vs. design around IP of competitors
- Filing patents in Europe, North America, Brazil, Japan, China, Korea, SE Asia, Eastern Europe/Russia, India
- Develop offensive long-range R&D (filing and maintaining patents broadly) for Aerogen's Vibronic® vibrating mesh technology
- Develop R&D and IP posture of defensive maintenance next-generation & incremental R&D (filing and maintaining patents lightly) palladium-nickel plate technology

IP SWOT

	Strengths	Weaknesses	Opportunities	Threats
No surprises	Existing products sell well	Entry of high perf. low cost competition	Business & IP landscapes/alerts	China competition
Sustained advantaged position	Vibrating mesh	Weak Pipeline	Brand name & Sales channel	New higher perf. lower cost tech.
Full exploitation	Strong sales in major markets	Weak Geographic Out-Licensing	Selective licensing	Competitor controls other markets first
Speed R&D	Strong internal team	Weak technology/ IP/scouting	Integrated tech./ IP sourcing	Others have strong O.I. programs
Regulatory influence	Good relationships	Perception as “scheme"	Leverage R&D leadership	Others have friendly regulators

Key takeaways

- IP supports your business strategy — not the other way around.
- IP strategy defines the direction — IP management wins the battles.
- Use tools to tailor the IP strategy — but don’t copy the tools.
- Informed decision making requires communication — internally and externally.
- Learn from failures — speed up by learning from failures of others.