

The Logistics of Ideas:

A Technology Approach to Strategic IP and Intellectual Asset Management.

Aalto TK - 1.2.2023

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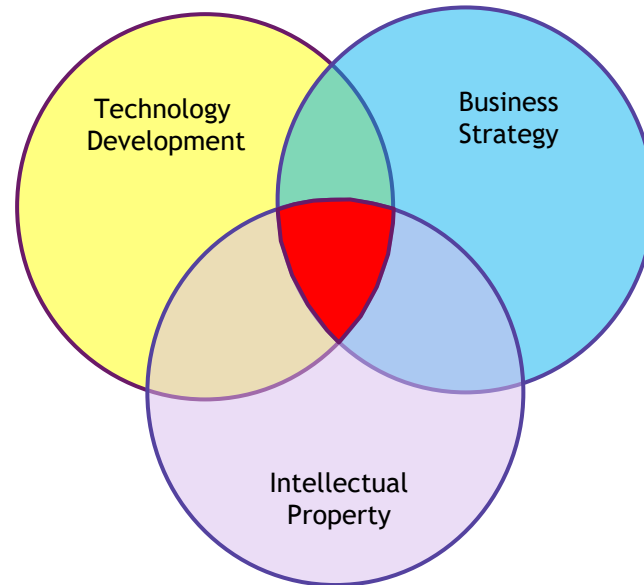
Introductions - your speaker today: Roberto Castagno

- ▶ Lived in Torino, Trieste, Roma, Lausanne, Tampere.
- ▶ Master degree in Electronics Engineering, University of Trieste, Italy, 1993
- ▶ PhD in Telecommunications (video signal processing), Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, 1998
- ▶ Joined Nokia Tampere in 1999
 - ▶ 1999-2006: R&D, (multimedia) technology management, business development
 - ▶ 2007 - 2020: IPR strategy, IP business development, M&A, technology asset management
- ▶ Since April 2020: Head of IPR, Neste.
- ▶ Lecturer at Tampere University
 - ▶ 2003-2013 Signal Processing Lab (“Digital Video Coding” course)
 - ▶ 2017- .. Faculty of Industrial Management “Technology and Intellectual Asset Management”
- ▶ Hobbies: running, skiing, swimming, diplomacy, railways.

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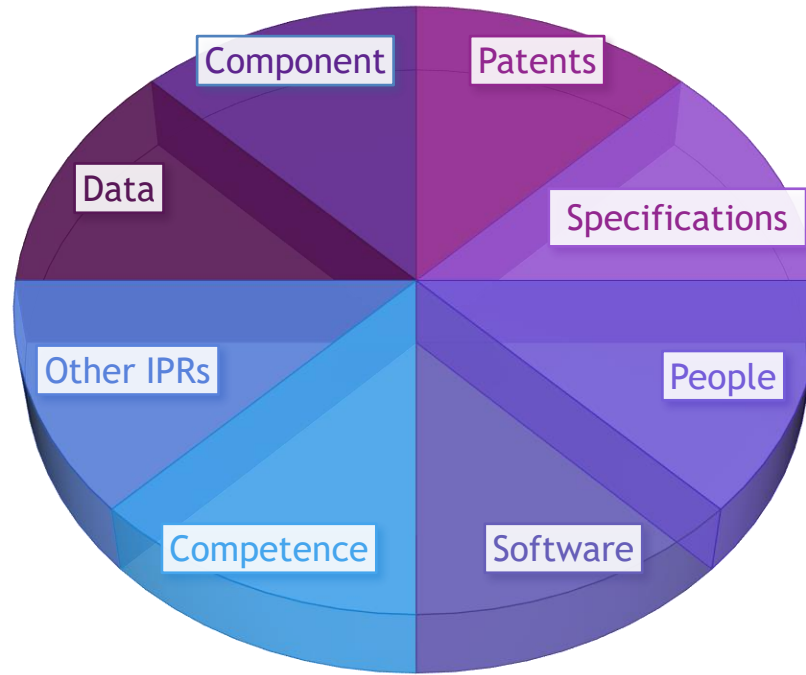
- ▶ Introductions
- ▶ What is a patent: from protection to control
- ▶ Integrating IPR in your company's business strategy
- ▶ Creating value with IPR
- ▶ A patent approach vs. a technology asset approach
 - ▶ Filing
 - ▶ Risk mitigation
 - ▶ M&A due diligence

Patents describe and establish legal control on technology assets



Control enables **openness**, not closeness
("patent" derives from Latin "patēre"="to be open, accessible")

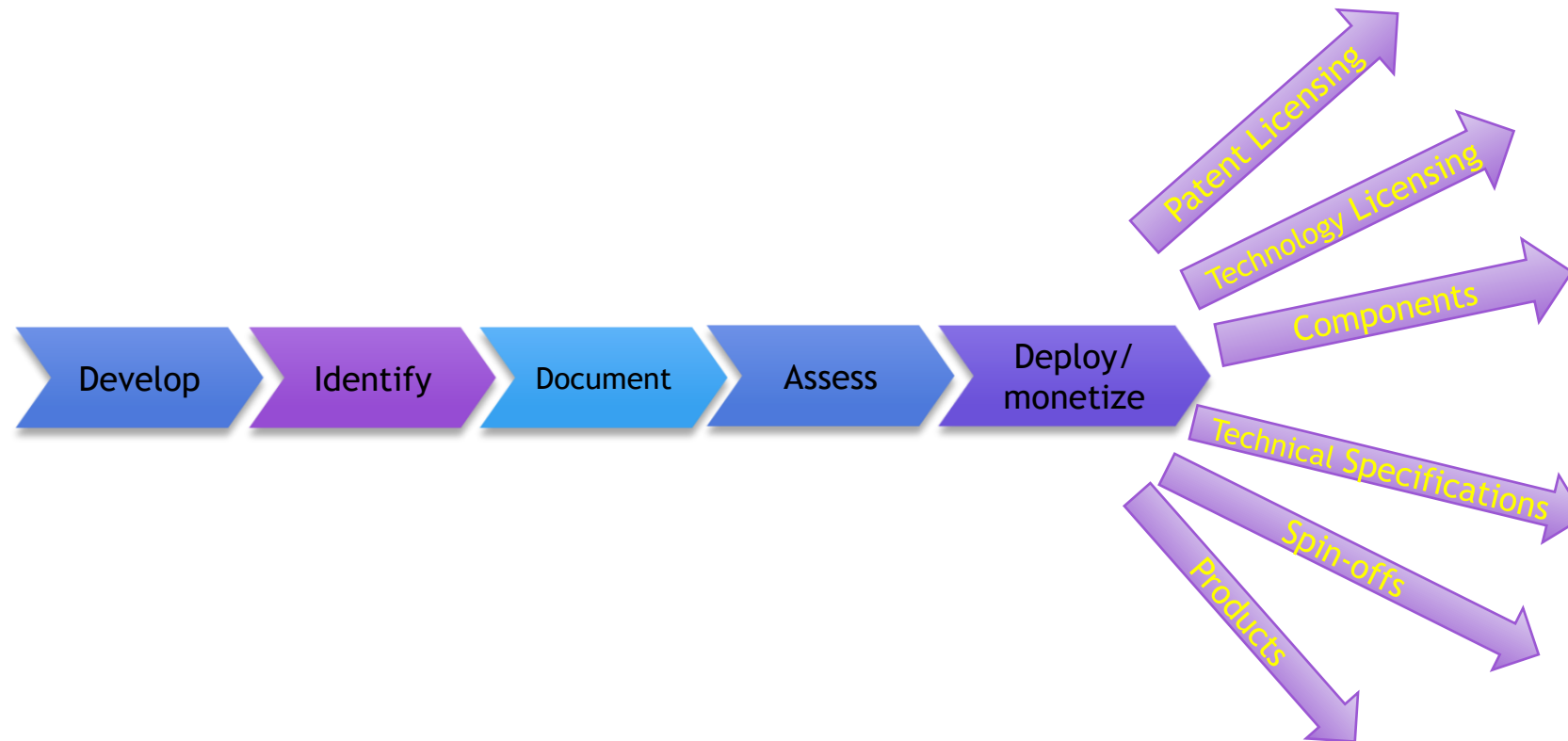
Technology Asset



Technology assets

- ▶ A Technology Asset is an abstraction that regroups the many instantiations of “technology”:
 - ▶ Data (e.g. sensor data, medical records etc)
 - ▶ Software that implements it
 - ▶ Patents and other IPR that describe it and establish ownership
 - ▶ Competence and know-how
 - ▶ People
 - ▶ Specifications and documentation
- ▶ The term “Intellectual Assets” can sometimes be misleading

The core activity of technology companies is to develop and manage Technology Assets



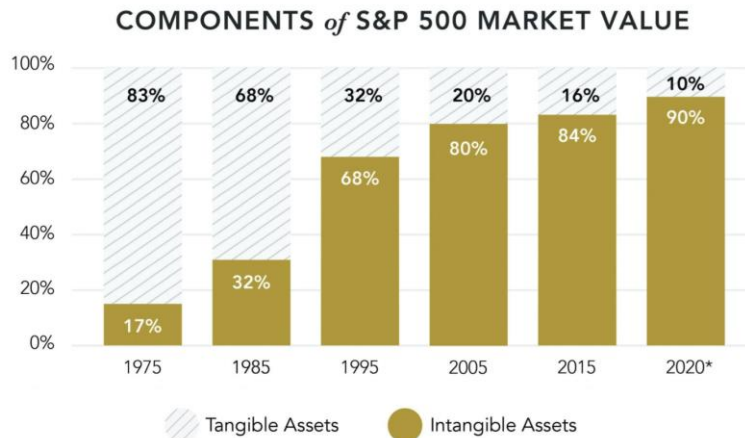


IPR: from protection to control

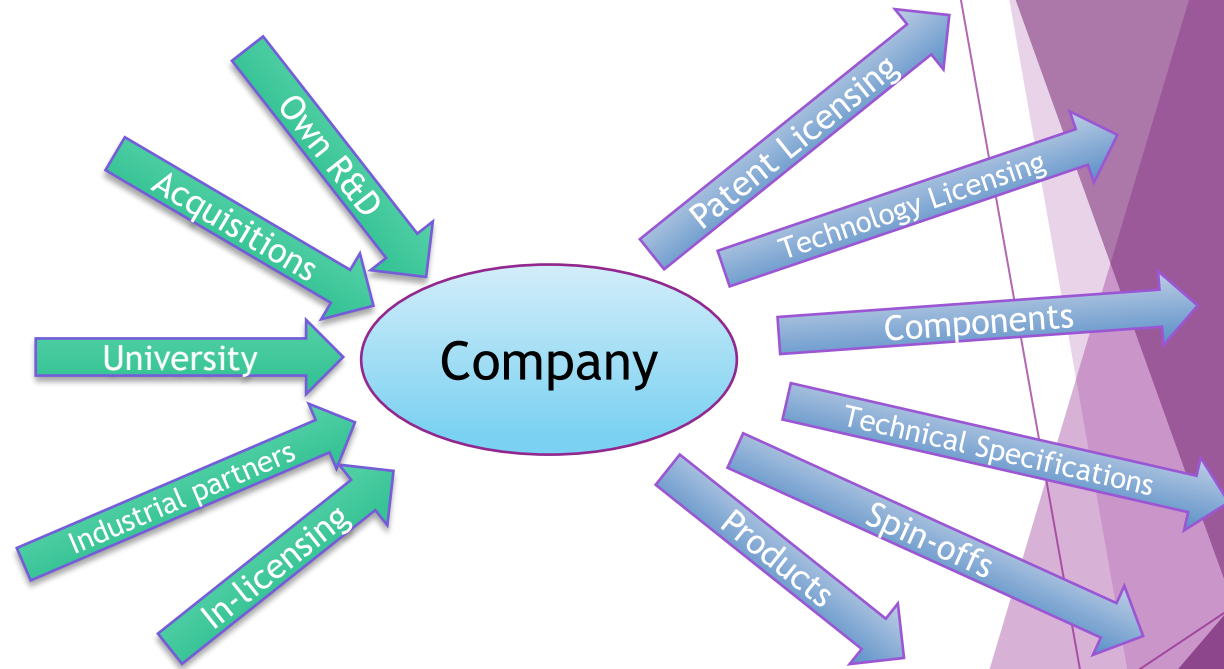


Increasingly complex,
hybrid value chains

IPR secures Freedom to Operate in an increasingly complex and hybrid value chain



SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020
*INTERIM STUDY UPDATE AS OF 7/1/2020



Freedom to Operate is not just about “staying out of trouble”. It’s about opening up a broader range of opportunities to realize the value of a Company’s technology assets.

Integrating IPR in your business strategy

Business-driven IPR strategy

- Assess how IPR can help Business teams achieve their desired **strategic positioning**
 - Exclusivity
 - Collaboration
 - Sharing/market building
 - Possible “standardization” and patent pooling.
- Identify **core technology assets** that need to be accessed, acquired, developed and controlled in order to achieve that positioning.
- Formulate and implement a **IPR patent filing strategy** that captures the newly developed core technology assets
 - Patent filing as a continuous “diary of the innovation journey”
- Utilize IPR analysis for the **assessment of the business landscape**
 - Competitors
 - Partners
 - Possible M&A targets

Business-driven IPR management: from Protection to Access & Control

Enable **access** and/or **control** on the key **technology assets** that the Company needs in order to achieve the desired **strategic positioning**.

IPRs are a key enabler of the “**Logistics of Innovation**”

Strategic IPR management creates value in multiple ways



Enabling Company's positioning

- Exclusivity (at feature/product/market level)
- Differentiation
- Lowering costs for access to technologies
- Market creation (including sharing)



Intrinsic value of the patenting process

- A systematic “what are we doing better” thinking improved the quality of our innovation process



Disincentive to assert IPR against Company

- Explicit or implicit “balance of terror” lowers the costs of access to technologies



Winning at the perception game: Company as an innovation leader

- Healthier relationships with suppliers, partners, customers



Improving our business insight

- IPR as part of business and technology landscaping



Revenues from technology out-licensing

- A strong IPR position supports our licensing value proposition

A patent approach vs. a technology asset approach

Patent	Technology
Patent Filing	Describing and establishing control on technology assets
Patent Risk Analysis	Technology Landscape and Freedom to Operate 2.0
M&A: Evaluating the Patent Portfolio	M&A: Evaluating the technology assets

▶ Patents and IPR do not have a life of their own.
They exist to the extent they describe and enable control of a technology asset.

Filing Patents vs. Describing Technology Assets

Identifying a technology asset is like writing a scientific paper

Ask yourself these five key questions

(courtesy of my PhD advisor Prof Murat Kunt)

1. What is the problem
2. How have others solved it until now
3. Why the other solutions are not good enough and why is my solution better
4. What my solution exactly is
5. How can my solution be used in practice

Identifying a technology asset is like writing a scientific paper

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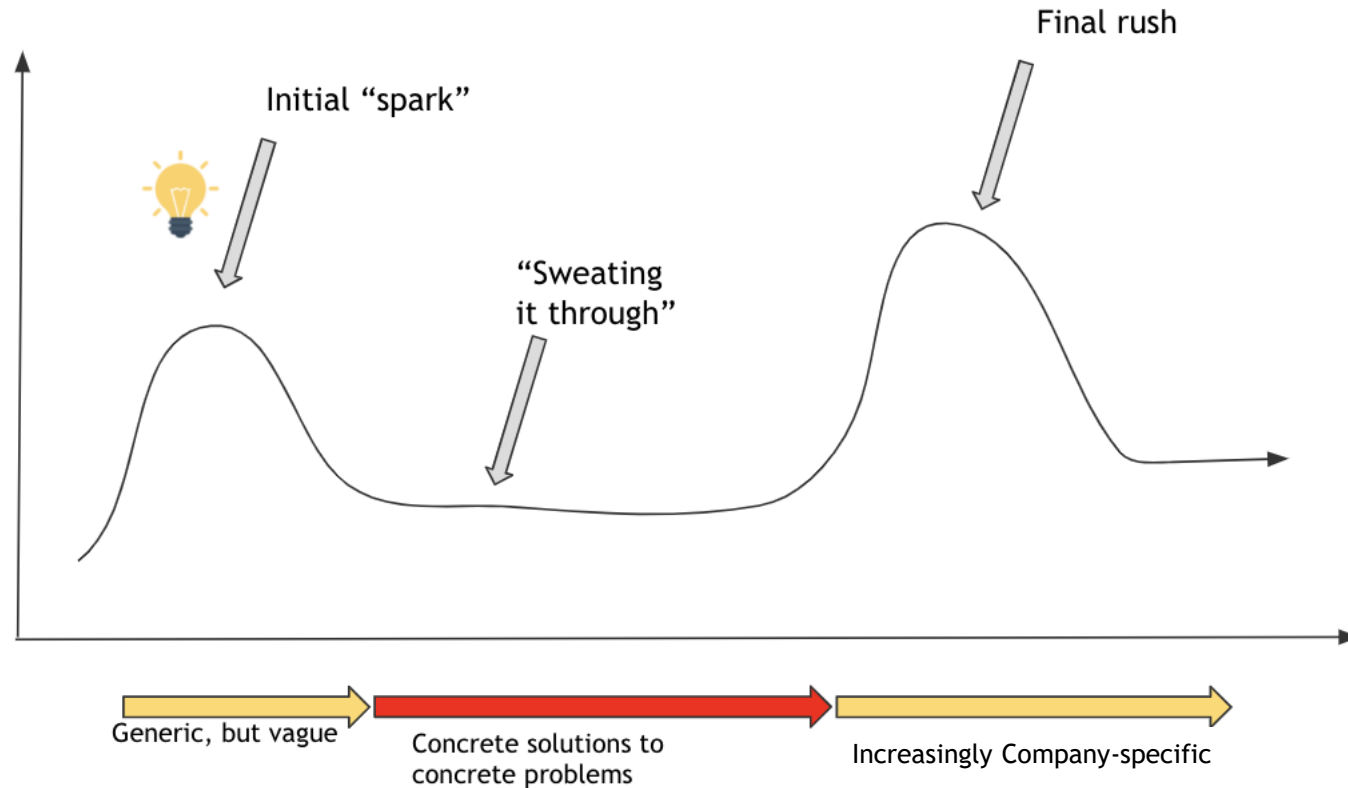
1. What is the problem (***“Field of the invention”***)
2. How have others solved it until now (***“Prior art”***)
3. Why the other solutions are not good enough and why is my solution better (***“Summary of the invention”***)
4. What my solution exactly is (***“Claims”***)
5. How can my solution be used in practice (***“Embodiments”***)

▶ Having credible answers to these question is not a patenting matter.
It is **THE** business matter

Patenting: the diary of your innovation journey

- ▶ *“We do not have time to do patenting. We are too busy getting the products out”*
- ▶ Do not delay your filings until the last minute!
 - ▶ Late filings that narrowly cover your final product will likely capture years of your unique constraints
 - ▶ File also the solutions that you do not implement
 - ▶ The one you discard today might become mainstream tomorrow
 - ▶ The technology asset is much more than just the final solution, and your patenting strategy should reflect that

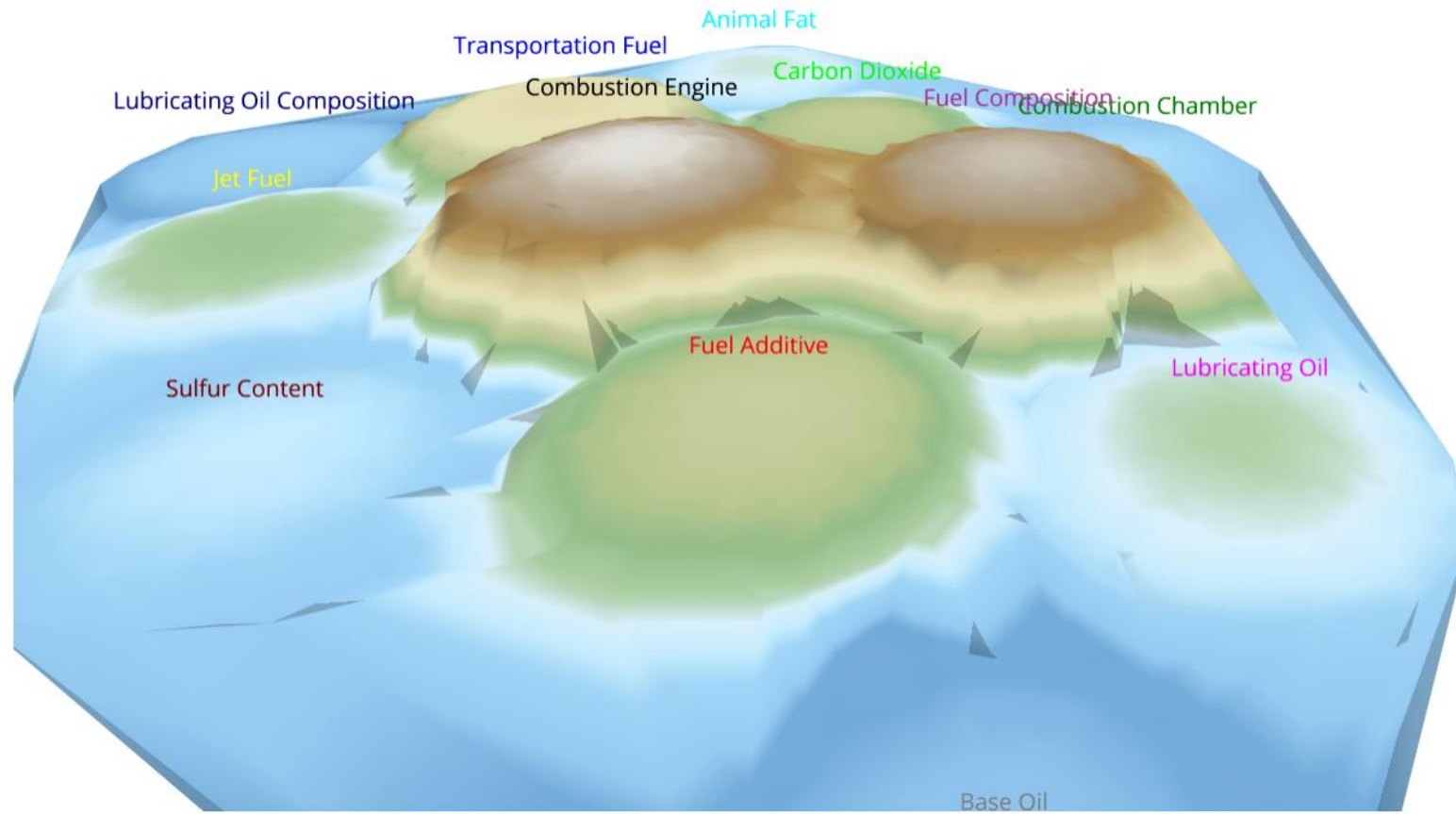
The intermediate incubation period is the most prolific for patenting



Patenting is not just looking forward, but also looking back



Filing should be driven by technology strategy priority (and not by occupations of empty spaces)



Where do you want to spend a family beach holiday ?



Patent Risk Analysis vs. Technology Asset Landscape

Technology landscaping and risk assessment

- ▶ Q: “Can you please tell me if by entering the market with this product I might infringe some patent?”
- ▶ A: “Yes”.

**You must be diligent:
understand and respect third party IPR**

Technology landscaping and risk assessment

- ▶ Think in terms of technology and business landscaping, rather than patent landscaping
- ▶ Patents are a fundamental element, but the analysis is part of the broader business understanding
- ▶ Who are your competitors, how are they positioned and how are you going to be positioned against them
- ▶ What are the key technology control points
- ▶ What are their and your technology asset that bring value to the business, and how are they reflected in the patent portfolio.

Technology landscaping and risk assessment

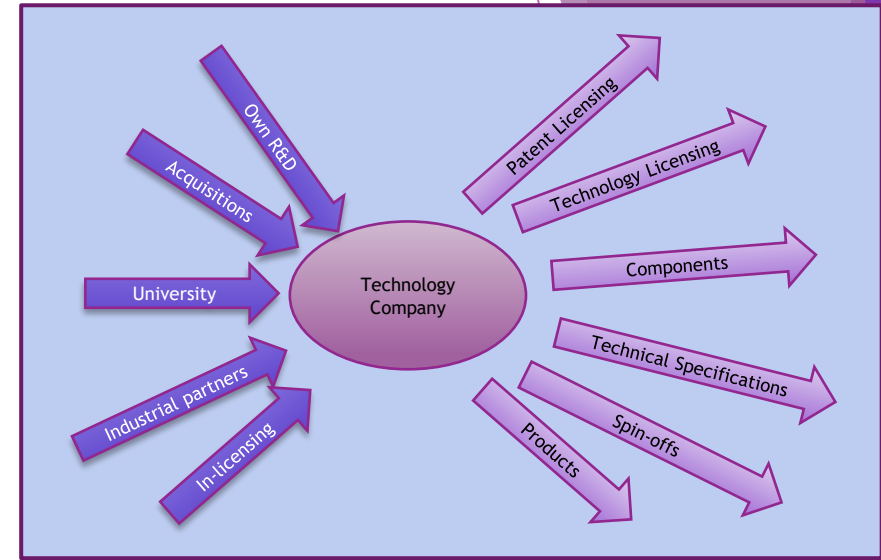
- ▶ The patent portfolio analysis can provide:
 - ▶ Support and validation of the business hypothesis (e.g. “main competitors are A,B,C, but C has clearly the most credible portfolio”).
 - ▶ Help spot some “unexpected” player from e.g. parallel industries.
- ▶ The business team should not expect the bulk analysis of 10K’s of patents to tell them who are their competitors.

Freedom To Operate 2.0



From:

“Keep me out of trouble”



To:

“Open up a broader range of opportunities to realize the value of our technology assets”

Intellectual Property Rights are not about building fences..



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Intellectual Property Rights are about building Bridges

Marshall Phelps “Burning the Ships”



Photo: Flickr user Alan Stark

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