

# *How does IP-backed lending differ from traditional asset-backed lending?*

Dr André GORIUS

President, GOVALIA

President, IIPCC France & Benelux

Chair, IP & Finance Task Force, LESI

Founding Member, AMAVI



- Traditional asset-backed lending:
  - Uses tangible assets like real estate, equipment, inventory, or receivables as collateral.
  - These are physical assets with generally established markets
  - Market values and comparables are followed-up and statistics exist values.
- IP-backed lending:
  - Uses intellectual property (IP), such as patents, trademarks, copyrights, or trade secrets, as collateral.
  - These are intangible assets whose value comes from
    - The legal rights and protections they provide
    - Their supposed ability to generate future revenue

# Some details concerning Tangible Assets-Backed lending

- Real Estate
  - Commercial real estate-backed loans are often used by companies to finance expansion, purchase new properties, or fund operations.
  - Residential mortgages are another example, where individuals use their home as collateral to secure the loan.
- Equipment
  - A construction company might take a loan to buy heavy machinery like bulldozers, cranes, or excavators, with the equipment itself serving as collateral. If the company cannot repay the loan, the lender can seize and sell the machinery to recover the funds.
  - Equipment leasing is another form where the equipment itself secures the loan for businesses that need assets but want to minimize upfront capital expenditure.

# Some details concerning Tangible Assets-Backed lending

- Inventory
  - A retail company might use its inventory as collateral to secure a loan to cover short-term cash flow needs. If the company defaults, the lender can seize the inventory and sell it to recover the loan amount.
  - Inventory financing is particularly useful for businesses that need to maintain stock levels, especially during high-demand periods (e.g., the holiday season in retail).
- Other examples
  - Accounts Receivable
  - Vehicles
  - Plant and Machinery
  - Commodities (metals, agro products, ...)

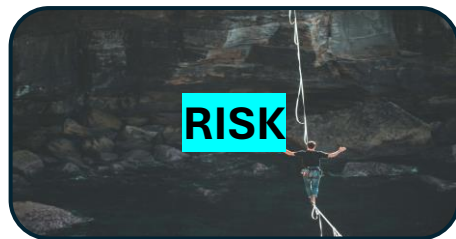
# Some General Common characteristics

- They are tangible
- There is generally an established market value
- They are (more or less) liquid: can be sold quickly/easily on an open market
- They can depreciate (technological obsolescence...) or appreciate (real estate, ...)
- There are benchmarks of Loan-To-Value (LTV) ratios – typically 60%-80% in Real Estate
- They are generally able to generate future revenues

# What Does A Typical Investor/Lender Look at?



- Factors influencing value
- How to measure value?
- How to assess sustainability?



- Factors influencing risk?
- Strength of the IP?
- Is there a plan B?

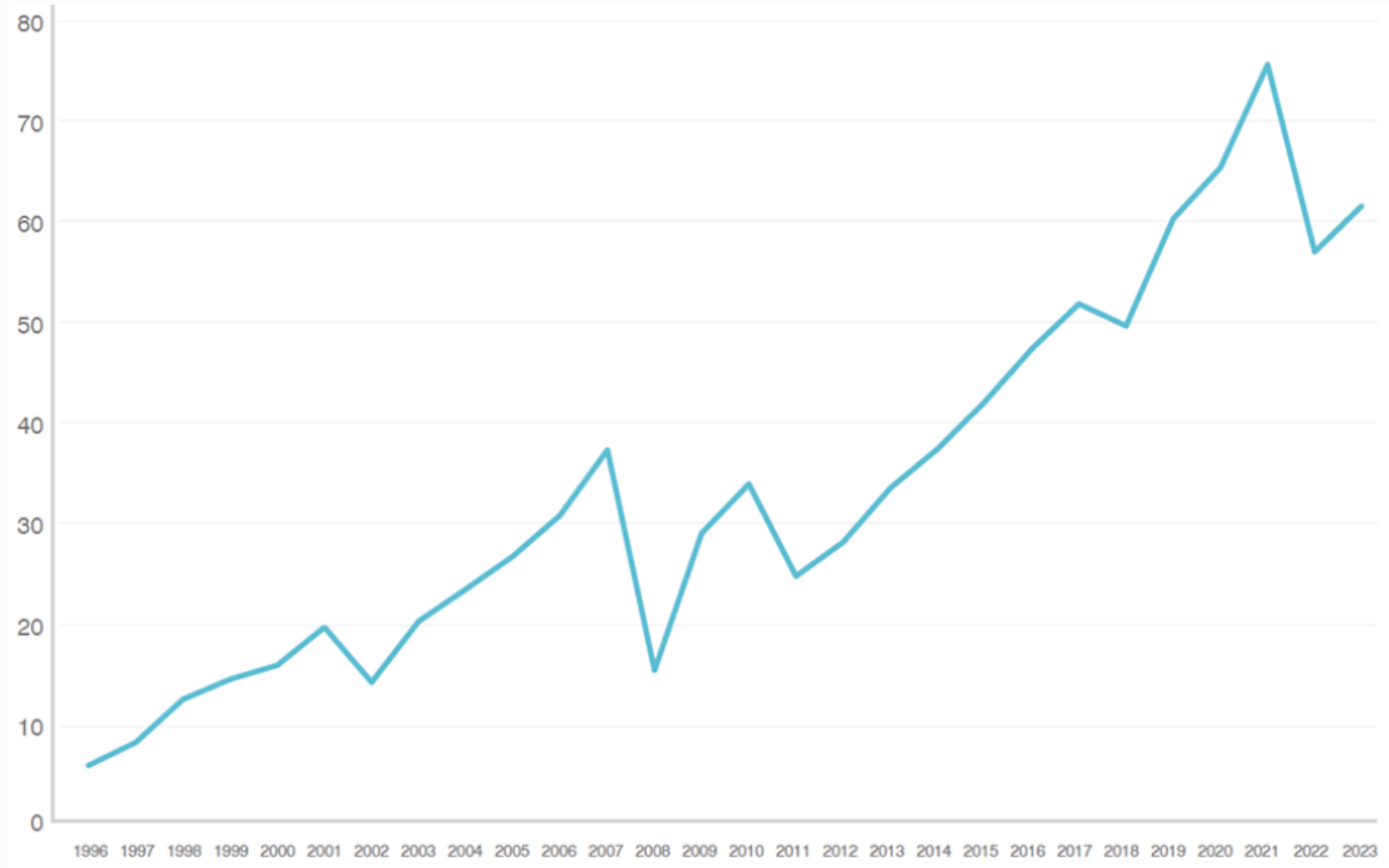


- What is a typical return?
- How does it compare to fixed assets?

- There is no established market for IP assets
- Value is an opinion ‘see previous presentations’
  - Depending on time
  - Depending on facts and circumstances at a given time
  - Depending on perceptions of riskiness
- This implies that the presentation of the IP asset’s value must be convincing for the lender (see previous presentations)
  - Perception of risk
  - Perception of minimum value
  - Recovery of (part of) the loan in case of default
  - ...

# WW Intangible Value

Figure 1: Global Corporate Intangible Value (USD trillion)



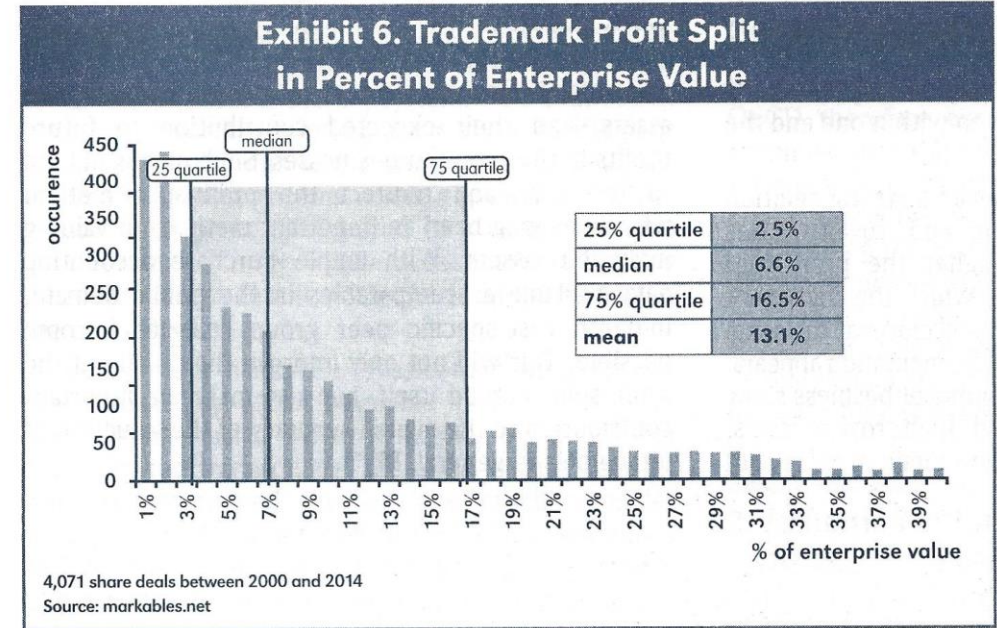
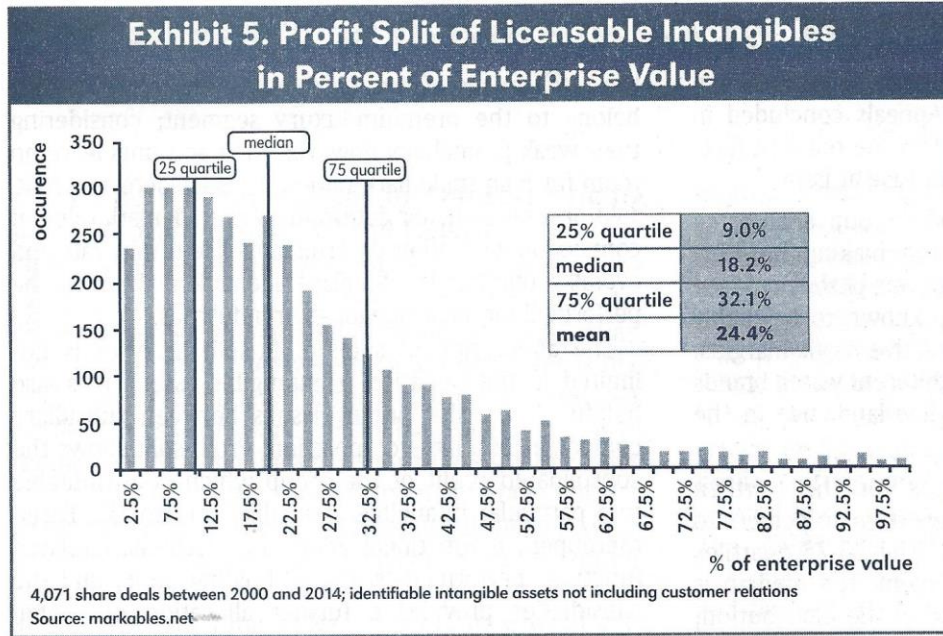
Source: Brand Finance Global Intangible Finance Tracker (GIFT) 2023

[https://www.wipo.int/global\\_innovation\\_index/en/gii-insights-blog/2024/corporate-intangible-assets.html](https://www.wipo.int/global_innovation_index/en/gii-insights-blog/2024/corporate-intangible-assets.html)

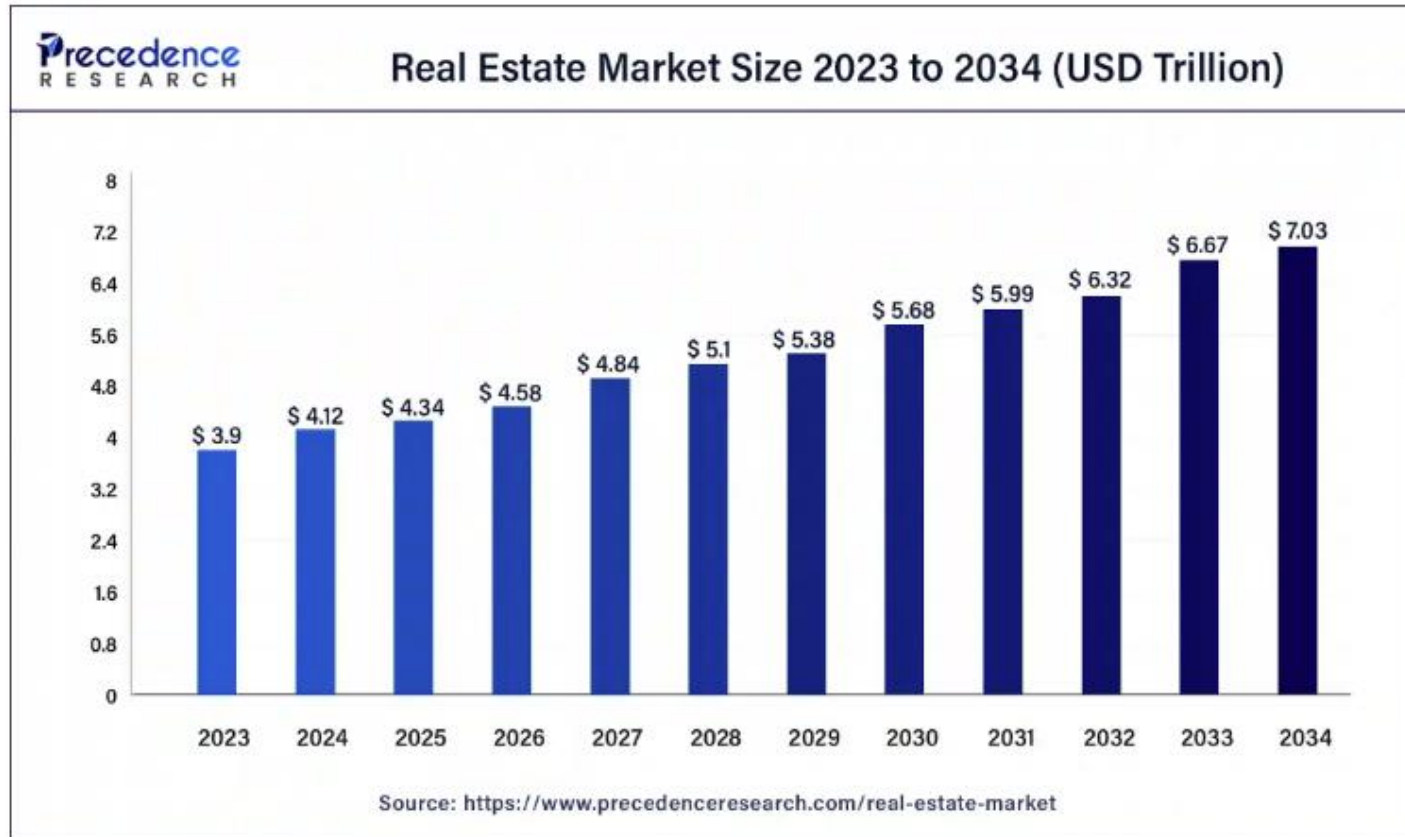


# IP Constitutes a Relevant Part of Intangibles

Source : Les Nouvelles, December 2015, Vol L N°4, Binder et al., pp 203-212



The median share of licensable IP assets is around 25% of company values, in a range 10% - 45%



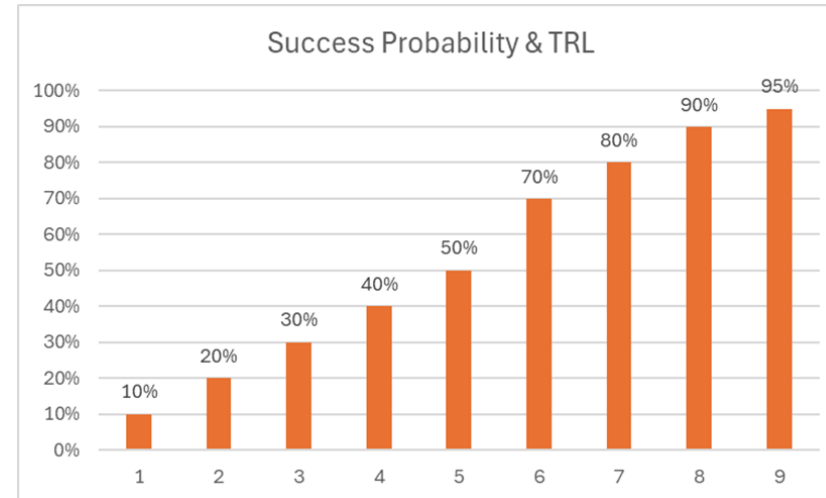
In comparison, the Patent Market Size is estimated at \$1 Billion in 2023, and estimated to grow to \$3 Billion in 2032

[<https://www.fortunebusinessinsights.com/patent-analytics-market-102774>]

# Perception of Risk

- For IP Assets under creation, risks are generally very high:
  - Success Probability vs. TRL

|              |   |
|--------------|---|
| <b>TRL 9</b> | Actual system proven in operational environment       |
| <b>TRL 8</b> | System complete and qualified                         |
| <b>TRL 7</b> | System prototype demonstrated in relevant environment |
| <b>TRL 6</b> | Technology demonstrated in relevant environment       |
| <b>TRL 5</b> | Technology validated in relevant environment          |
| <b>TRL 4</b> | Technology validated in lab                           |
| <b>TRL 3</b> | Experimental proof of concept                         |
| <b>TRL 2</b> | Technology concept formulated                         |
| <b>TRL 1</b> | Basic principles observed                             |



- Success Probability in Pharma Developments
  - Phase I (Discovery & Development) : ~ 50-60%
  - Phase II (Preclinical) : ~ 30%
  - Phase III (Clinical): ~ 50-60%
  - Regulatory Review : ~ 80-90%

# Liquidity (“selling rapidly at stable, transparent prices”)

- Rapidly
  - IP assets are generally prisoners of the owner’s ability to exploit them
  - Aiming towards liquidity implies encouraging various ways of monetizing the asset, e.g.
    - Licensing
    - Technology Transfers
    - Plan B approaches (e.g. usage of the IP in other markets - see my presentation last July)
- Transparent Pricing
  - By definition, IP Assets are **unique**
  - This implies that pricing can only be **subjective**
  - At best, finding comparable transactions is acceptable (Market Approach for patents, see Prof. Zagors and Dr. Gorius’s presentations)

# Stable Prices? IP Valuation is strongly time-dependent

- The value of an IP Asset is generally determined by the revenues approach, in conjunction with one or two other methods
  - This implies it is essentially determined by the **perception** of the valuer has of **the future revenues** it will generate
- Even if one uses exclusively the Market Approach e.g. for patents, the economic conditions at the time of valuation impact the valuation
- Example: post-COVID 19, most values needed to be reassessed

- Better economic conditions may lead to increase the value of an IP asset; example of the COVID crisis:
  - E-commerce platforms: habits seem to have changed for long
    - Amazon: \$ 386 Bn in 2019, \$ 575 Bn in 2023 : +50%
  - Usage of online facilities for meetings
    - Zoom: \$330M in 2019, \$4400M in 2023 (13,3x)
  - Telemedicine
    - Teladoc:\$550M in 2019, \$2600M in 2023 (4,7x)
  - Online entertainment, etc.

# Stable Prices? Downsides but also Upsides

Mechanically, the control of risks over time increases the value of some IP assets: a simple, but representative example

| <u>Year</u>                    | <u>2025</u>       | <u>2026</u>       | <u>2027</u>       | <u>2028</u>       | <u>2029</u>       | <u>2030</u>       | <u>2031</u>       | <u>2032</u>      | <u>2033</u>      | <u>2034</u>       | <u>2035</u>       |            |
|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|------------|
| Cash In                        |                   |                   |                   |                   | \$ 1,00 M         | \$ 2,00 M         | \$ 3,00 M         | \$ 4,00 M        | \$ 5,00 M        | \$ 5,00 M         | \$ 5,00 M         |            |
| Cash Out                       | -\$ 1,00 M        | -\$ 2,00 M        | -\$ 2,00 M        | -\$ 1,00 M        | -\$ 0,50 M        |                   |                   |                  |                  |                   |                   |            |
| <b>Net Cash Flow</b>           | <b>-\$ 1,00 M</b> | <b>-\$ 2,00 M</b> | <b>-\$ 2,00 M</b> | <b>-\$ 1,00 M</b> | <b>\$ 0,50 M</b>  | <b>\$ 2,00 M</b>  | <b>\$ 3,00 M</b>  | <b>\$ 4,00 M</b> | <b>\$ 5,00 M</b> | <b>\$ 5,00 M</b>  | <b>\$ 5,00 M</b>  |            |
| <b>Cumulated Net Cash Flow</b> | <b>-\$ 1,00 M</b> | <b>-\$ 3,00 M</b> | <b>-\$ 5,00 M</b> | <b>-\$ 6,00 M</b> | <b>-\$ 5,50 M</b> | <b>-\$ 3,50 M</b> | <b>-\$ 0,50 M</b> | <b>\$ 3,50 M</b> | <b>\$ 8,50 M</b> | <b>\$ 13,50 M</b> | <b>\$ 18,50 M</b> |            |
| <b>Discount</b>                |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| <u>Period</u>                  | <u>0,5</u>        | <u>1,5</u>        | <u>2,5</u>        | <u>3,5</u>        | <u>4,5</u>        | <u>5,5</u>        | <u>6,5</u>        | <u>7,5</u>       | <u>8,5</u>       | <u>9,5</u>        | <u>10,5</u>       | <u>TY</u>  |
| Rate - Factor                  | 15,0%             | 93%               | 81%               | 71%               | 61%               | 53%               | 46%               | 40%              | 35%              | 30%               | 27%               | 23%        |
| DCF                            | -\$ 0,93 M        | -\$ 1,62 M        | -\$ 1,41 M        | -\$ 0,61 M        | \$ 0,27 M         | \$ 0,93 M         | \$ 1,21 M         | \$ 1,40 M        | \$ 1,52 M        | \$ 1,33 M         | \$ 1,15 M         | \$ 7,68 M  |
| Cumulated DCF                  | -\$ 0,93 M        | -\$ 2,55 M        | -\$ 3,96 M        | -\$ 4,58 M        | -\$ 4,31 M        | -\$ 3,38 M        | -\$ 2,17 M        | -\$ 0,77 M       | \$ 0,75 M        | \$ 2,08 M         | \$ 3,23 M         |            |
| NPV 10 years                   | \$ 3,2 M          |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| Terminal Value                 | \$ 7,7 M          |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| <b>Total Value 01/01/2025</b>  | <b>\$ 11 M</b>    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| <b>Discount</b>                |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| <u>Period</u>                  |                   |                   |                   |                   | <u>0,5</u>        | <u>1,5</u>        | <u>2,5</u>        | <u>3,5</u>       | <u>4,5</u>       | <u>5,5</u>        | <u>6,5</u>        | <u>TY</u>  |
| Rate - Factor                  |                   |                   |                   |                   | 8,0%              | 96%               | 89%               | 82%              | 76%              | 71%               | 65%               | 61%        |
| DCF                            | \$ 0,00 M         | \$ 0,00 M         | \$ 0,00 M         | \$ 0,00 M         | \$ 0,48 M         | \$ 1,78 M         | \$ 2,47 M         | \$ 3,06 M        | \$ 3,54 M        | \$ 3,27 M         | \$ 3,03 M         | \$ 37,90 M |
| Cumulated DCF                  | \$ 0,00 M         | \$ 0,00 M         | \$ 0,00 M         | \$ 0,00 M         | \$ 0,48 M         | \$ 2,26 M         | \$ 4,74 M         | \$ 7,79 M        | \$ 11,33 M       | \$ 14,60 M        | \$ 17,64 M        |            |
| NPV 10 years                   | \$ 17,6 M         |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| Terminal Value                 | \$ 37,9 M         |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |
| <b>Total Value 01/01/2029</b>  | <b>\$ 56 M</b>    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                   |            |

Lower risk

# What about Default (Data from S&P)?

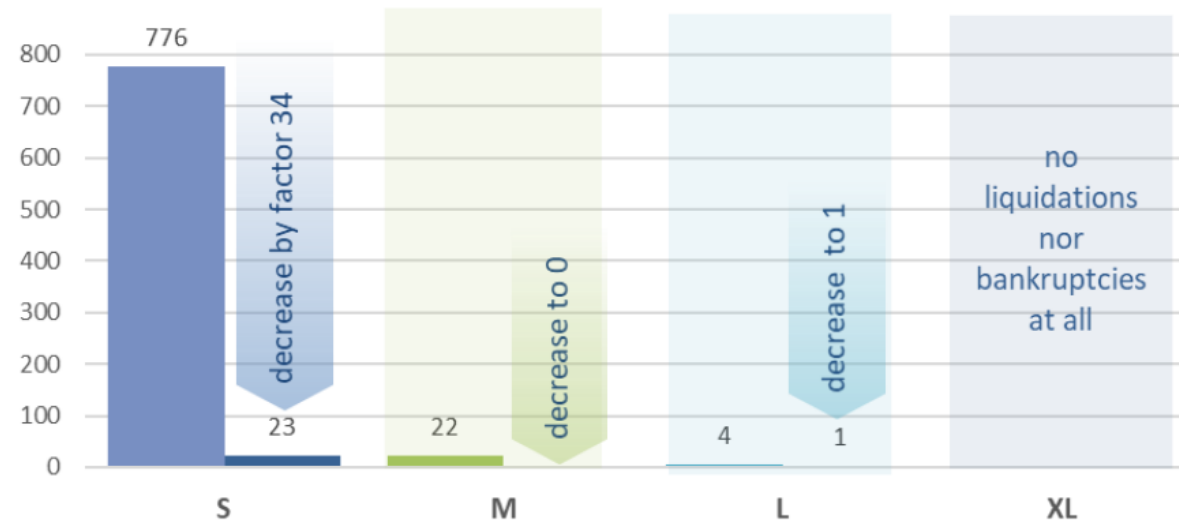
| Sector                         | Current Default Rate |
|--------------------------------|----------------------|
| Energy (Oil & Gas, Utilities)  | 3% – 5%              |
| Real Estate - Residential      | 2% - 3%              |
| Retail                         | 4% - 6%              |
| E-Commerce                     | 2% - 3%              |
| Travel and Leisure             | 6% - 8%              |
| Healthcare and Pharmaceuticals | 1% - 2%              |
| Automotive                     | 4% - 6%              |



# What impact of IP and default rates?

## Banks: IP in corporate lending

liquidations + bankruptcies in comparison: all companies vs. companies with valuable patents (>10 mUSD)



For small sized companies (S) , the default risk was **reduced by factor 34.**

For large medium sized (M) companies with valuable patent portfolios the **default rate went down to 0.**

For large (L) companies with valuable patent portfolios the **default rate went down to 1.**

For the very large companies (XL) there was no default at all

© IntraComGroup  
Prof. Zagors

# Due Diligence – The standard Process

1. Preliminary Assessment: loan purpose and borrower profile
2. Financial Analysis: P&L, B/S, Cash Flow Statement, Key Financial ratios
3. Business Plan
  - Management and leadership
  - Industry and market analysis
4. Credit History: credit reports, credit scores, ...
5. Value: collateral review, inspection, ...
6. Legal and Regulatory Compliance, ESG Factors
7. Loan Structuring and Terms
8. Post-Approval Monitoring

# Due Diligence for IP Backed Loans must be specifically tailored

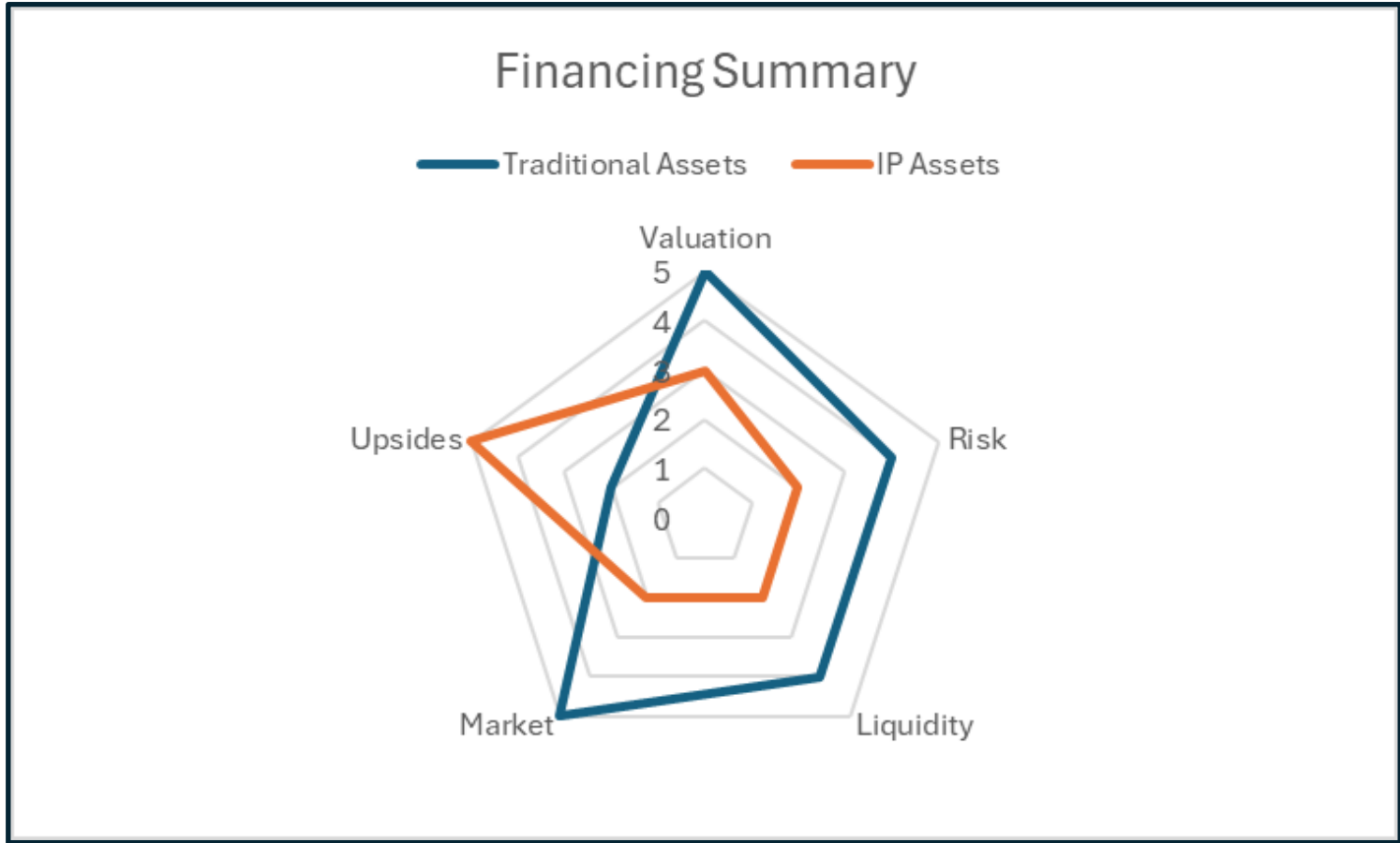
1. Usage of the loan (R&D / operation expenses, capacity development,...)
2. Usage of the IP and IP Valuation (well, you know the hurdles by now!)
  - Rigorous, standardized process
  - Expert Reports
  - **STANDARD and PREMISE of value are Key**
3. Revenues Projections / Cash Flow Projections
4. IP Ownership and Legal Status
5. IP-Specific Legal Risks
6. Collateral Considerations
  - Liquidity
  - Default alternatives (including other markets, identification of potential buyers, etc.)
7. Time is key: Ongoing Monitoring & Regular Appraisals
8. Risks Management: Insurance?

# Default and Recovery Process

- Liquidity
  - Recovery Rates for Tangible Assets is generally high (60-80%)
  - Recovery Rates for IP Assets may be as low as 10-20%
- Legal and transactional complexity
  - Separability of the IP Asset
  - Transferability of rights, enforceability after default
  - Possibility of
- Market Demand for IP Assets:
  - Finding potential buyers may be tricky, even impossible for highly specialized assets
  - Valuation: Liquidation Values are generally much lower than Market Values (discounts up to 90% even 100% are possible)
  - Time to recovery might be much higher than for tangible assets

# In Synthesis

Potential Upsides:  
Appreciation of the Asset and Company performance due to strong IP assets

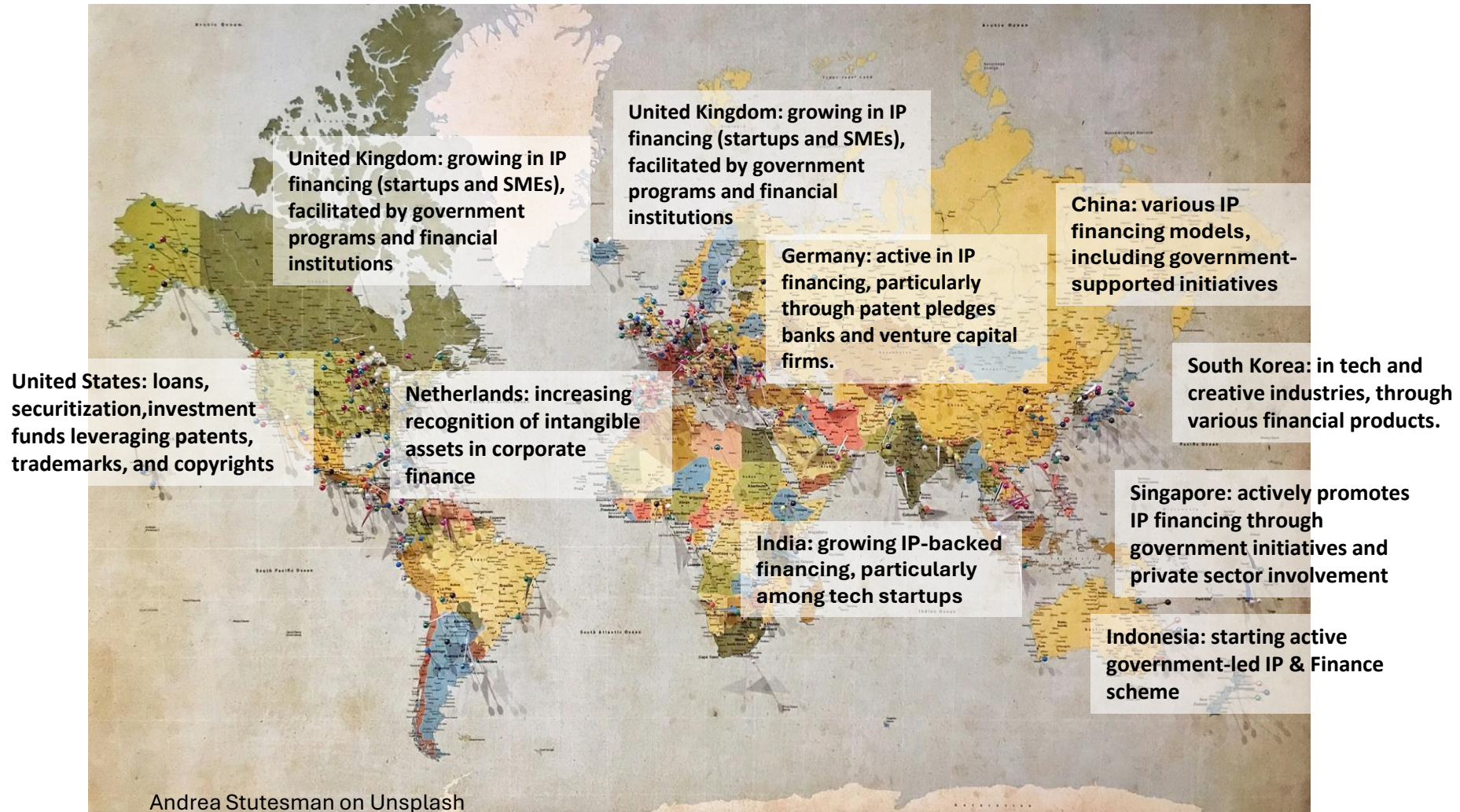


Due Diligence Process must be adapted

Potential Upsides and Risk mitigation (insurance, diversification) can make IP Financing attractive. Strong Regulations are helpful.

# IP-Backed Financing Around the World

See also <https://www.wipo.int/publications/en/series/index.jsp?id=241>



# Association for Management and Valuation of Intangibles

For IP Valuation, [AMAVI](#)  
Has a cross-disciplinary vocation



## Block 1

### Fundamentals of IP Valuation

1. Why Value IP
2. Understanding the key features of different forms of IP
3. Financial concepts and theories required for IP Valuation

## Block 2

### Financial Valuation of IP

- 2.1 Deterministic valuation approaches
- 2.3 Probabilistic valuation approaches
- 2.4 Context and Purpose of Valuation

## Block 3

### Valuation Process and Report

- 3.1 Establish overall context and purpose of valuation
- 3.2 Collect information, do analysis and due diligence, make decisions
- 3.3 Perform valuation
- 3.4 Risk analysis, sensitivity analysis, further due diligence
- 3.6 Conclusion of value



# Thank you for your attention

**[andre.gorius@gmail.com](mailto:andre.gorius@gmail.com)**

**+336 7896 1501**