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*WIPO WORKSHOP ON EFFECTIVE  
INTELLECTUAL PROPERTY ASSET  
MANAGEMENT BY SMEs*

# *IP valuation, exploitation and finance*

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## ***Content***

- Introduction to intangible assets
- Why do we value them?
- Lifing of intangible assets
- Overview of valuation methodologies
- Key considerations
- Discussion

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# *Introduction to intangible assets*

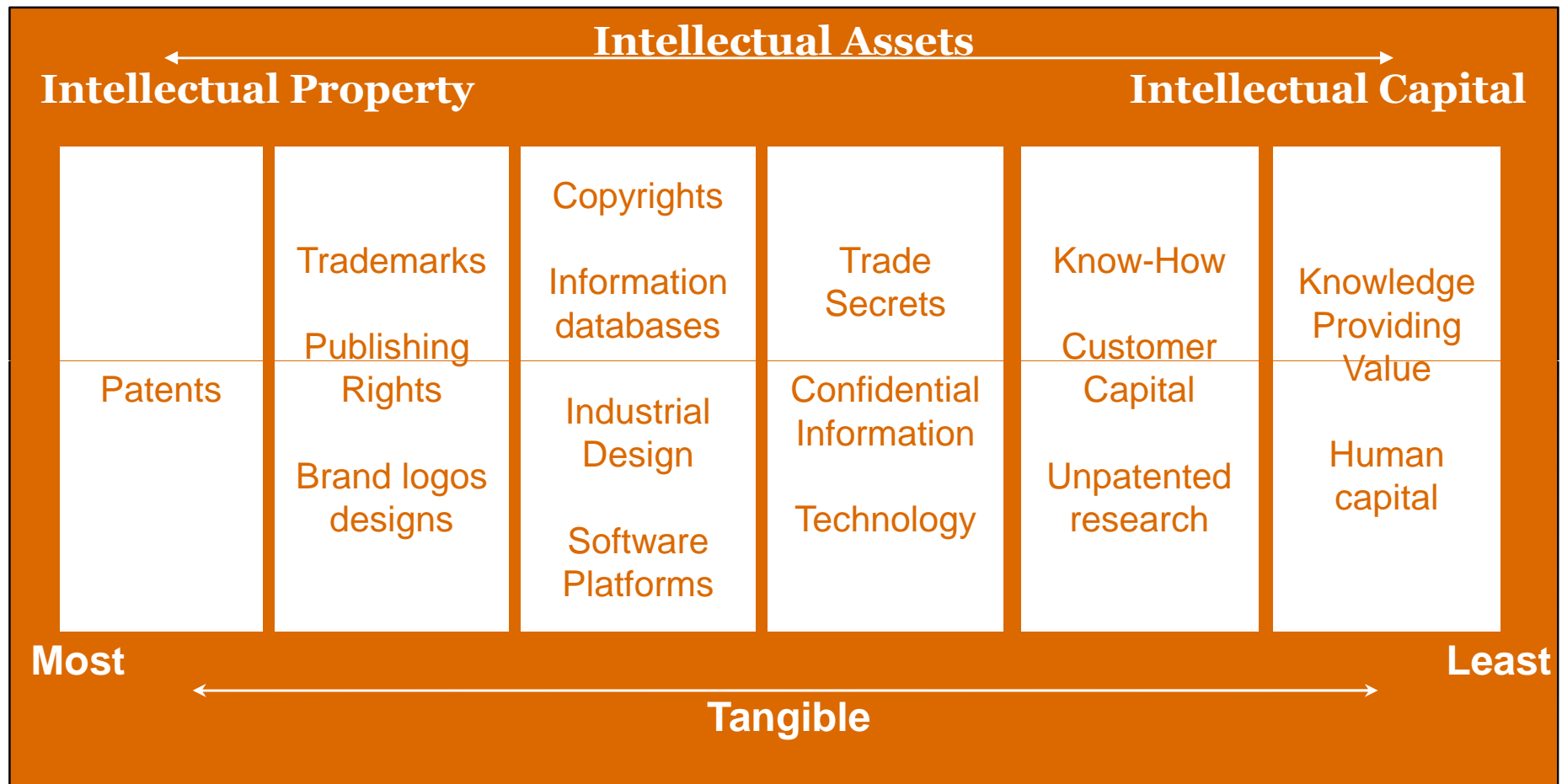
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# *Intangible assets defined*

According to Valuation of Intellectual Property and Intangible Assets, Second Edition, by Gordon V. Smith and Russell L. Parr, 1994, (“Smith and Parr”), page 83:

“Intangible assets are all the elements of a business enterprise that exist in addition to working capital and tangible assets. They are the elements, after working capital and tangible assets, that make the business work and are often the primary contributors to the earning power of the enterprise. Their existence is dependent on the presence, or expectation, of earnings”

# What are Intangible Assets?



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# *Why intangible assets are important*

PwC research shows that total intangible assets comprise, on average, more than 70% of companies' value.

Intangible assets may be the only thing of significant value in the business.

This is because:

- They provide barriers to entry
- They differentiate products (even commodities)
- They can have a long life (e.g. brands / trademarks)
- They may be capable of being leveraged into new geographic or product markets (e.g. Virgin)

They are often capable of legal enforcement/ transfer and of producing revenues in their own right .

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# *Why do we value them?*

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# ***Exploitation and management – IP audits***

What is our return on investment in the IP? (e.g. brand investment)

Should we consider co-branding or a brand extension? Would this add value?

Should we continue developing a particular piece of technology or not?

Do we own non-core IP that we could out-license?

Could we get more out of our core IP?

Is our IP adequately protected and insured at an appropriate level? (patent threats, design-around risk etc)



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# *Transactions, licensing and financing*

Should I sell/buy a piece of IP outright or license it?

What is the right price/royalty rate?

Should the licensing agreement be exclusive or non-exclusive?

What is the correct balance between upfront fee and ongoing royalties?

At which stage of development of a piece of IP do we sell it? What is the upside potential and downside risk?

Could I convince a bank or PE house to provide financing using the IP as collateral, and how much could I get?



**It is likely that the IP valuation will be challenged by the other party and its advisors**

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# *Disputes and litigation*

Where infringement of patents has occurred, can we measure the resulting loss in profits and/or IP value?

In bankruptcy, who owns the licenses and the intellectual property controlled by the company going bankrupt?

What is the appropriate standard definition of value which should be used (e.g., investment/strategic value, market value or fair value)?

Am I receiving the royalty income I deserve? Is my licensee complying? (royalty audits)



**It is likely that the IP valuation will be challenged by the other party and its advisors (potentially in court) or by independent arbitrators**

# *Financial reporting – FAS 141 and IFRS 3 (R) requirements*

All companies on listed exchanges in most countries are now required to perform a purchase price allocation exercise for all acquisitions of businesses, which involves the identification, valuation and recognition of intangible assets

Recognition criteria for intangibles:

*Contractual or legal right*



*“Separable from the business”*

It is presumed that fair value can be reliably measured



It is likely that the IP valuation will be challenged by the **company’s auditors** and possibly also by **regulators**

# ***Financial Reporting - Example list of intangibles from IFRS 3***

## ***Contract-based***

- Service or supply contracts
- Licensing, royalty agreements
- Construction permits
- Employee contracts
- Lease agreements

## **Customer-related**

- Contractual relationships
- Order/production backlog
- Non-contractual relationships
- Customer lists

## **Marketing-related**

- Trademarks and tradenames (Brands)
- Non-compete agreements
- Trade dress
- Internet domain names

## **Technology-based**

- Patented technology
- Unpatented technology
- Trade secrets
- Databases
- Computer software

## **Artistic related**

- Musical works
- Video and audiovisual material
- Pictures, photographs
- Plays, operas and ballets

# ***Financial Reporting - the Purchase Price Allocation (PPA)***

## ***Step 1***

### ***Understand the transaction***

- Consideration of “facts and circumstances” (structure / rationale for transaction)
- Measurement of purchase price

## ***Step 2***

### ***Purchase price allocation process***

- Identification of Assets and Liabilities (including self generated intangible assets within acquired business not recorded on balance sheet)
- Estimation of remaining useful lives
- Fair Value calculation of acquired tangible and intangible assets

## ***Step 3***

### ***Treatment of goodwill and impact on financial statements***

- Calculation of remaining goodwill
- Review of impact on future earnings
- Consideration of impairment test procedures

# *Taxation and tax planning – IP management centres/ holding structures*

- Many international companies choose to hold and manage their IP centrally, often in tax-friendly jurisdictions (e.g. Cyprus, Netherlands, Switzerland etc).
- Where IP is transferred within a group, how do we determine the appropriate disposal proceeds for tax purposes?
- Can we establish the base cost of an intangible asset for the purposes of calculating a taxable gain on transfers, either within an international group or as a result of a third-party disposal?
- How do we demonstrate that transfer pricing arrangements are consistent with the allocation of intangible value within the group?
- How do we determine an appropriate arms-length royalty rate?



The IP valuation is likely to be challenged by **tax authorities**

# *Lifing of intangible assets*

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# *Estimating the useful life of intangible assets*

- Estimating the useful life is important in determining the value. Generally the longer the life, the more valuable the intangible asset.
- There are also accounting requirements that govern what life is ascribed and the subsequent effect on the profit statement.
- Indefinite life is allowed for accounting purposes
  - BUT beware the impairment test
- If not indefinite, then how long?
  - Requires judgement
  - Will affect earnings
- Clearly has a value impact



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# *Useful Life Determination*

- Many factors are considered in determining the useful life:



Longevity



Typical product life cycles for the asset



Technical, technological, commercial, event or other types of obsolescence



Market share - industry, demand, competitors



Evidence of ability to adapt to changes in market conditions, investment

Consider relationship between different intangible assets, or between intangible and tangible assets (e.g. drug patents and trademarks)

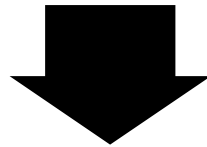
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## *Useful life determination – examples:*

- Please estimate the useful economic life for the following trade names:
  - Gillette
  - Facebook
  - Marlboro
- Leveraging the brand to extend the life of products

# *Useful Life*

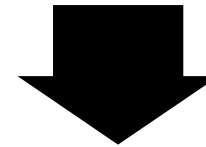
## *Finite lifetime*



- Patents
- Technology
- Order Backlog
- Customer Relationships
- Most brands

## *Potential indefinite lifetime*

*Indefinite life does not mean infinite life!*



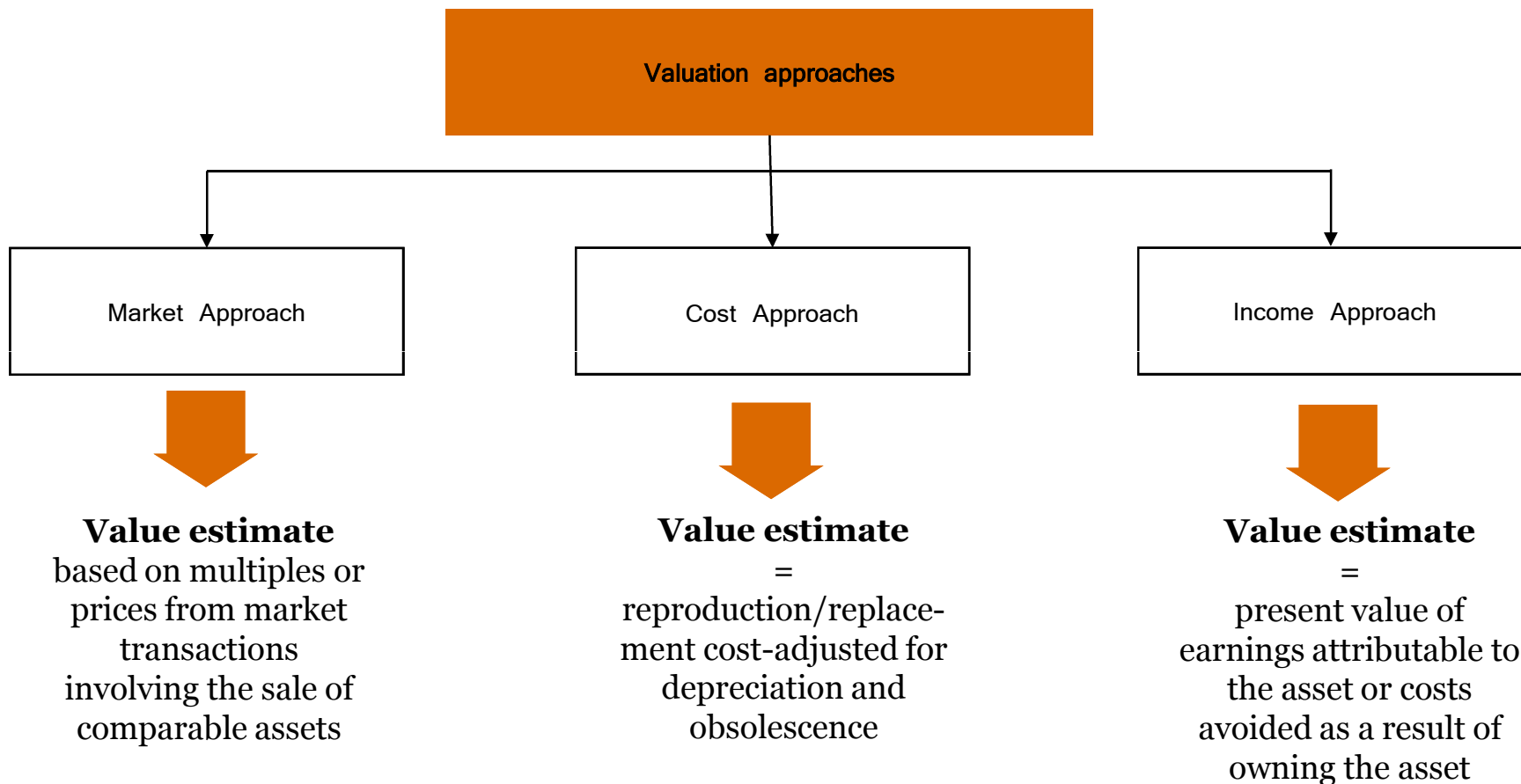
- Some brands
- Some broadcasting licenses

***Major PwC lifing research initiative underway***

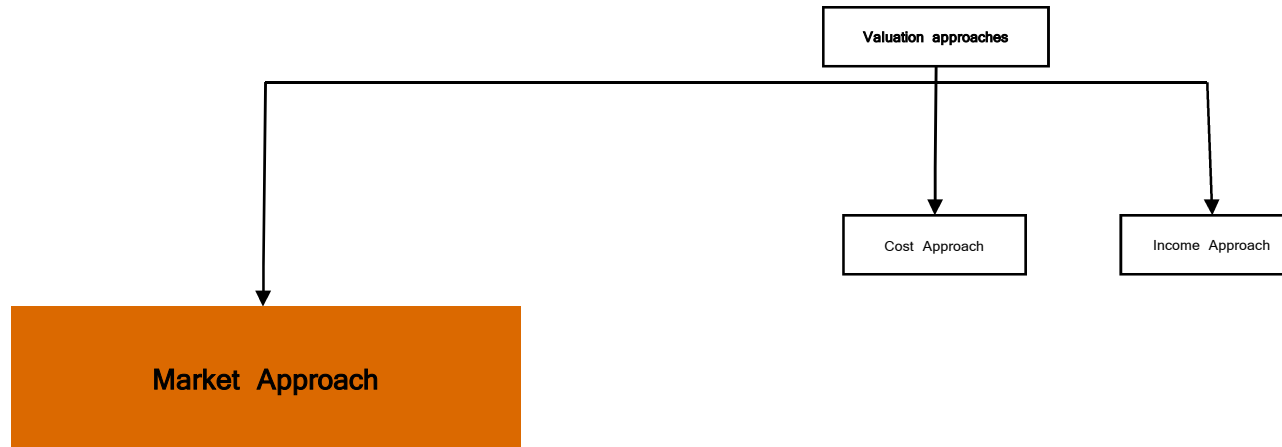
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# *Overview of valuation methodologies*

# Valuation approaches - Overview



# *Market approach*

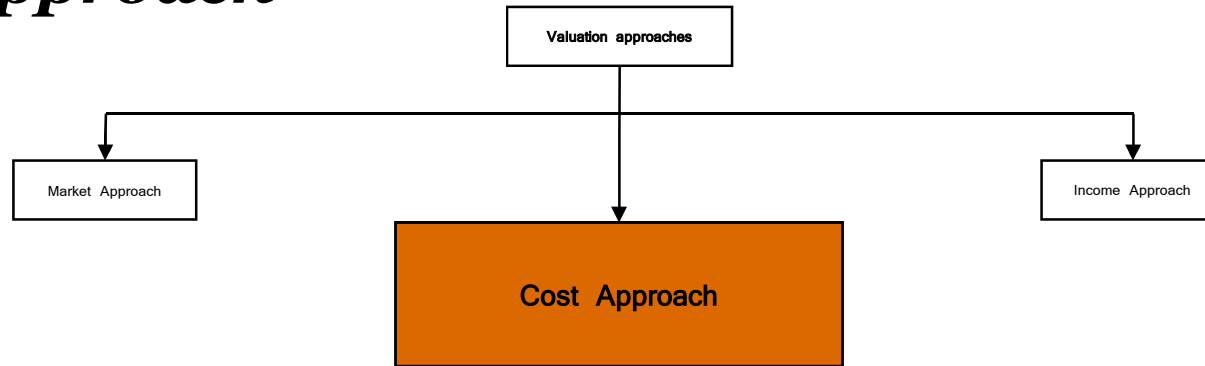


Difficult to apply to intangibles: sufficient number of transactions of truly comparable assets is rarely available

Market data is also used in income approach valuations:

- comparable profit benchmarks to compute excess earnings; and
- market royalty & licensing rates to compute royalty savings

## *Cost approach*

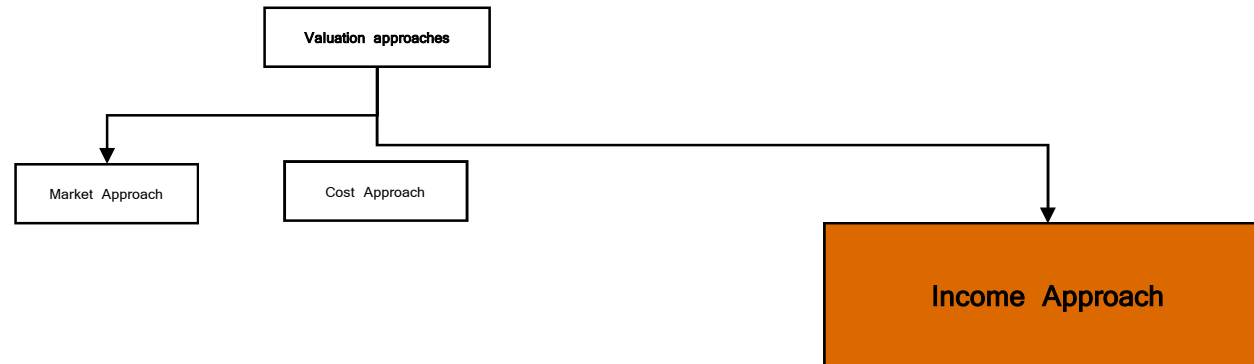


Inappropriate for most intangibles: fails to capture expected returns to the asset

Appropriate for intangibles that do not directly generate cash flows: e.g. software for internal use and workforce

Sometimes appropriate as a second approach to check whether income approach results are reasonable: make or buy decision, assets with a short history, assets that can be reproduced

# *Income approach*



Most common approach for intangibles:

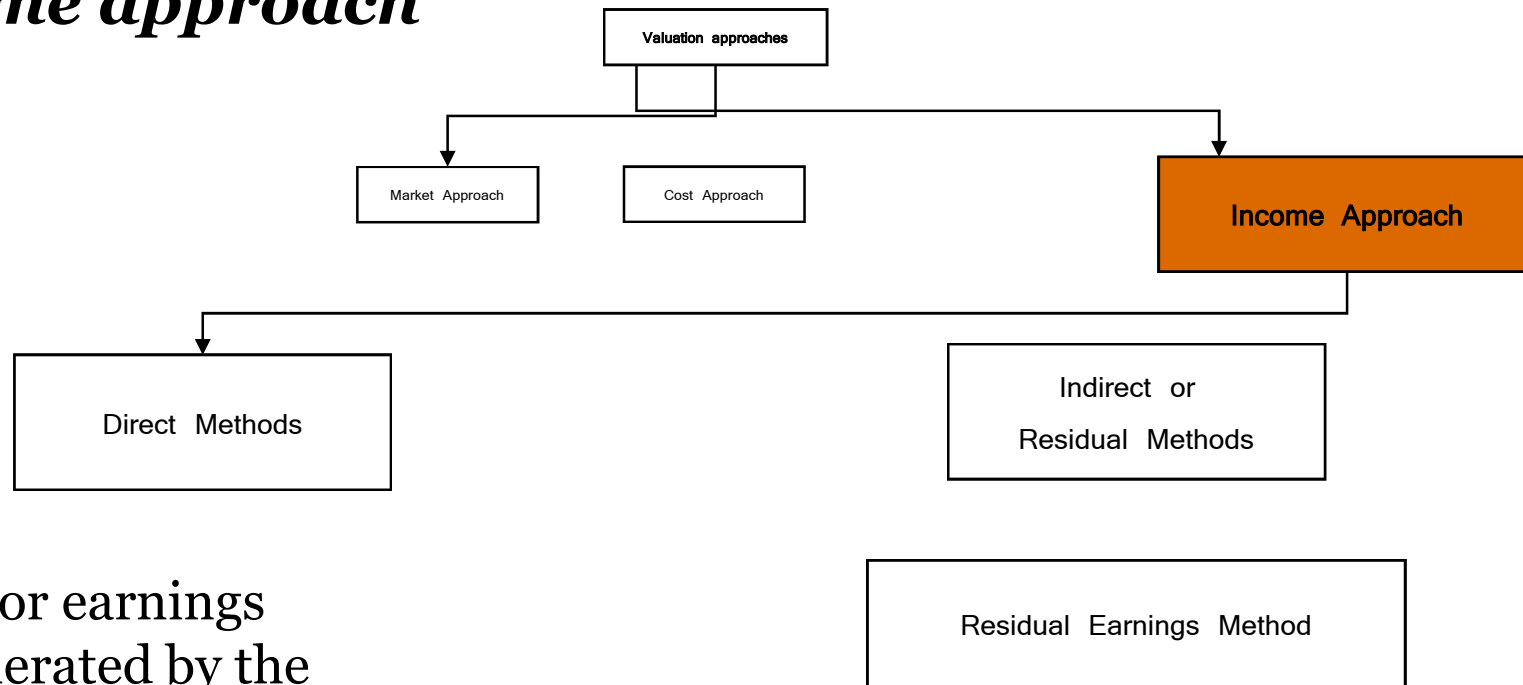
- captures expected future returns to the owner; and
- is able to estimate values for unique assets when market transaction data is not available

Several variations of the Income Approach:

- based on cash flows or earnings generated by the intangible asset or
- based on the costs saved by the intangible asset.

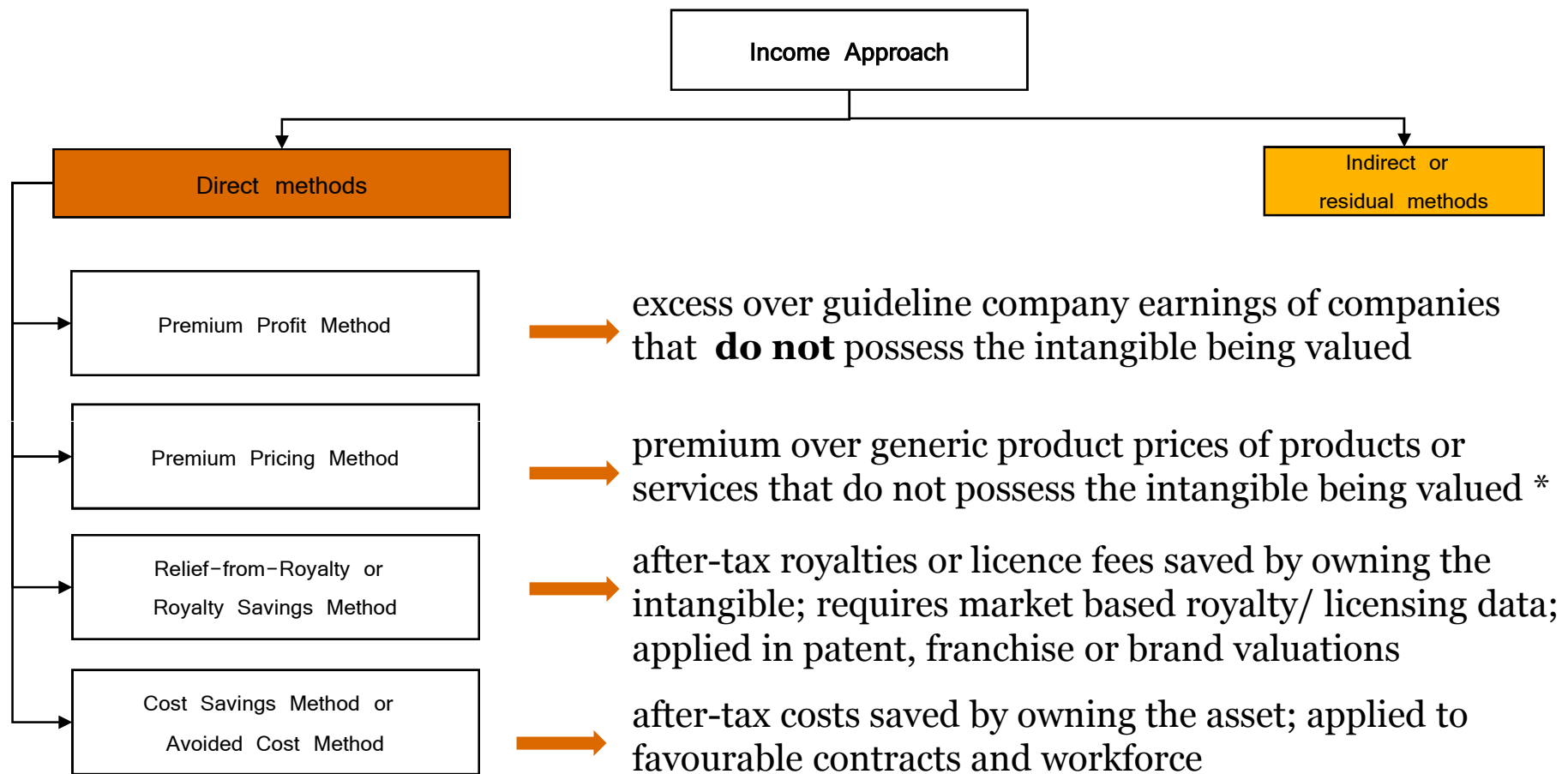


# *Income approach*



- CF or earnings generated by the intangible or expenses saved by the intangible are estimated directly by reference to market benchmarks

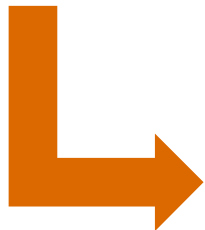
- Residual earnings left after deducting from after-tax operating earnings the fair returns on all other assets employed (Multi-period Excess Earnings Method – MEEM)



*\*PwC has developed an Advanced Brand Valuation method, which allows the measurement of brand equity in consumers' minds using market research data*

## ***Typical methodologies for example intangible assets***

<b>Example intangible assets</b>	<b>Typical valuation method</b>
Brand / trademark →	Market benchmarks and income based method (e.g. relief from royalty and excess earnings)
Customer relationships →	Income based method
Key employees / non-compete agreement →	Income based method
Software →	Replacement cost



- Which cash flows?
- What discount rate?
- Overall cross checks (Return on assets, residual goodwill etc)

**Always preferable to apply two or more methodologies to cross check results**

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## ***Relief from royalty / royalties foregone method***

Used in valuing many types of IPR, on an international basis and across industries

Based upon profitability analysis and market data for benchmarks

Royalty rate generally expressed as a percentage of revenue

Value based upon the likely future royalty stream that could be earned from licensing out

Value = after tax present value of the stream of future royalty savings/potential future royalty payments

Can generate misleading results - important to recognise difference between real world licensing deals and a theoretical licence used to estimate the fair market value of an outright sale of the asset

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## ***Relief-from-Royalty Method Concept***



The royalty savings are the expected cash flows for the subject intangible asset

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## ***Relief-from-Royalty Method***

### ***Valuation steps***

- 1 Determine appropriate royalty rate
- 2 Multiply with matching valuation base
- 3 Subtract tax expenses
- 4 Calculate the present value of royalty savings
- 5 Compute the tax amortisation benefit (TAB) → if necessary (discussed later)

## ***Worked example of Relief from Royalty method***

### **Relief from royalty method – valuation of trade mark**

Licence to distribute product granted to 2020

Royalty: 2%  
 Discount rate: 10%  
 Tax: 30%

#### **Variables**

- Royalty rates
- Discount rate
- Useful economic life

Business forecasts for exploitation by hypothetical licensee

		2012	2013	2014	2015	2016	2017	2018	2019	2020
Sales		500	500	500	500	500	500	500	500	500
Royalty rate	2%									
Royalty earned		10	10	10	10	10	10	10	10	10
Tax payable	30%	3	3	3	3	3	3	3	3	3
After-tax cash flow		7	7	7	7	7	7	7	7	7
Discount rate	10%									
Discount factor		0.95	0.87	0.79	0.72	0.65	0.59	0.54	0.49	0.44
Discounted Cash flow		6.7	6.1	5.5	5.0	4.6	4.1	3.8	3.4	3.1
<b>NPV</b>		42.3								

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# ***Royalty rate determinants***

## **The need for both parties to secure a satisfactory return**

The nature and geographical scope of the licence

The strength and importance of this intangible asset

The probable level of continuing sales

The commercial obligations undertaken

The relative negotiating strengths of each party

*Georgia Pacific case – 15 factors*

## ***Some methods for determining an appropriate royalty rate:***

Market Comparables – analysis of licensing agreements in the marketplace

Excess Operating Profit – comparison of margins enjoyed by the company exploiting the subject IP to those of companies that do not own similar IP (e.g. contract manufactures)

Return on Assets – Subtract market returns on tangible assets from forecast operating profits; the remainder is attributable to all intangible assets and must be apportioned between the different intangibles

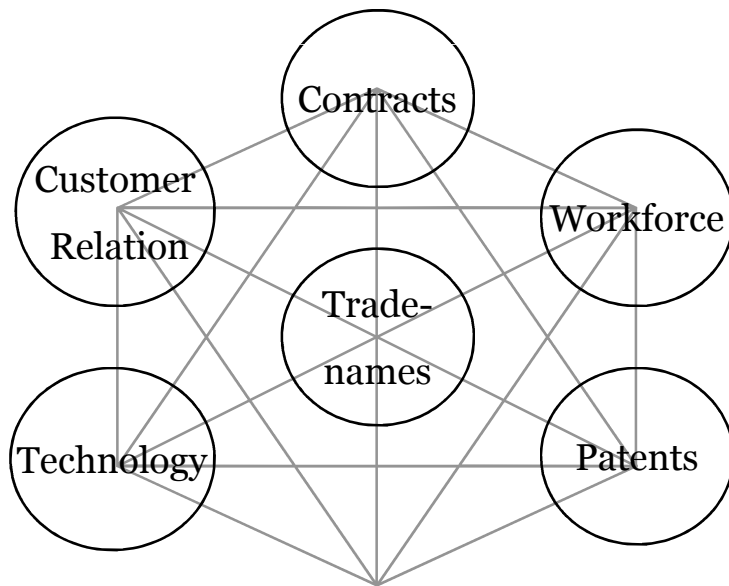
“25% rule of thumb”



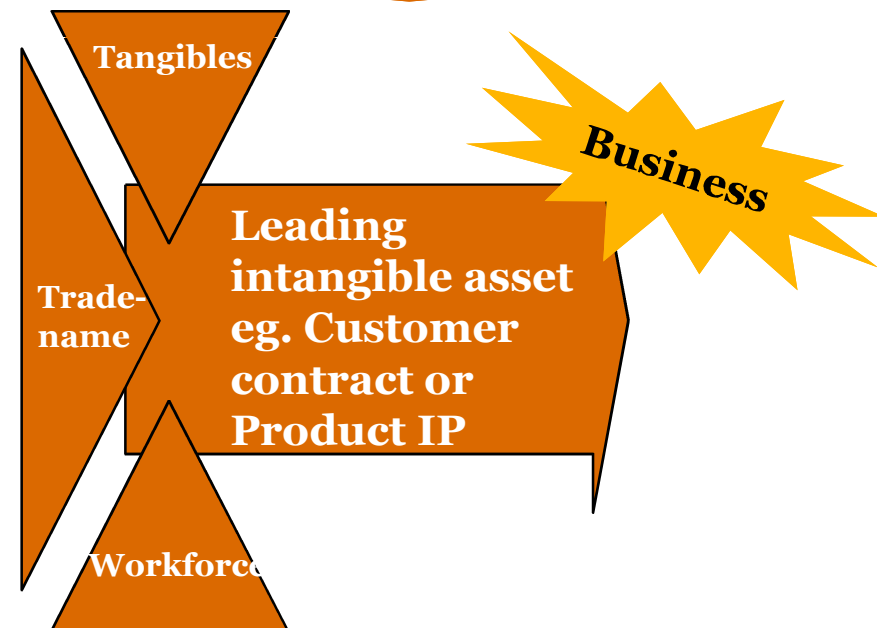
# Multi-Period Excess-Earnings Method (“MEEM”)

Identify hierarchical relationship between assets

How are all identified Intangible Assets linked?



Which intangible asset drives the business?  
Which assets contribute?  
Use MEEM to value the key asset



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## ***Multi-Period Excess-Earnings Method (“MEEM”)***

### ***Valuation steps***

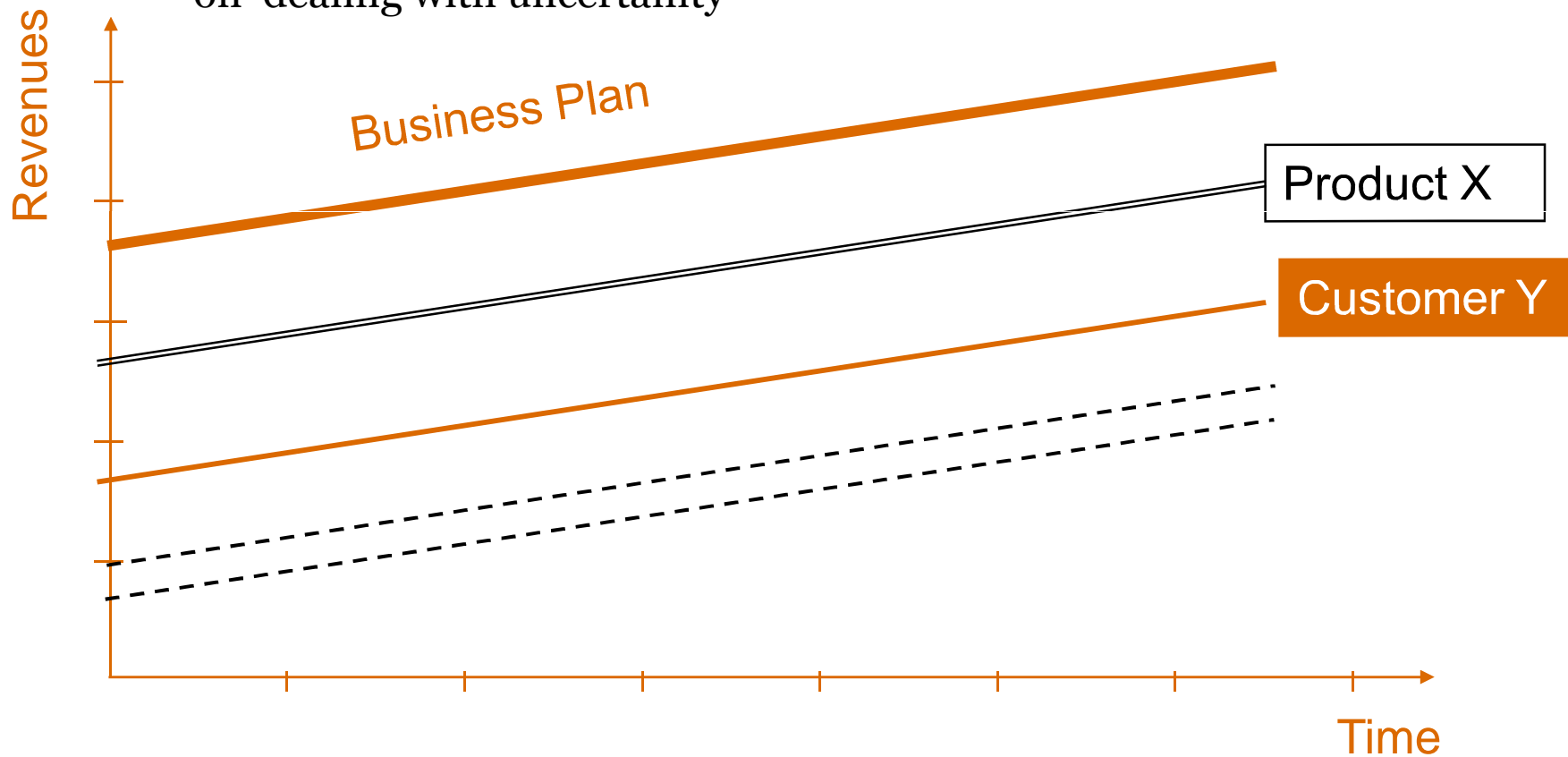
- 1 Derive future cash flows for subject intangible asset
- 2 Subtract tax
- 3 Apply contributory asset charges (CAC)
- 4 Calculate present value of future cash flows
- 5 Compute the tax amortisation benefit (TAB) → if necessary

# MEEM

## Valuation steps

1.

Derive future cash flows for subject intangible asset (e.g. customer contracts or product IP) – also see relevant case study on dealing with uncertainty



# ***MEEM***

## ***Valuation steps***

**3.**

Apply contributory asset charges (CAC)

Question:

Would the subject intangible asset generate the same revenues on a stand-alone basis?

**NO**

The owner has to lease assets to generate those revenues

Concept of contributory asset charges

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## ***MEEM***

### ***Valuation steps***

Possible contributory asset charges (CAC):

Working Capital

Machinery &  
Equipment

Other Intangible  
Assets

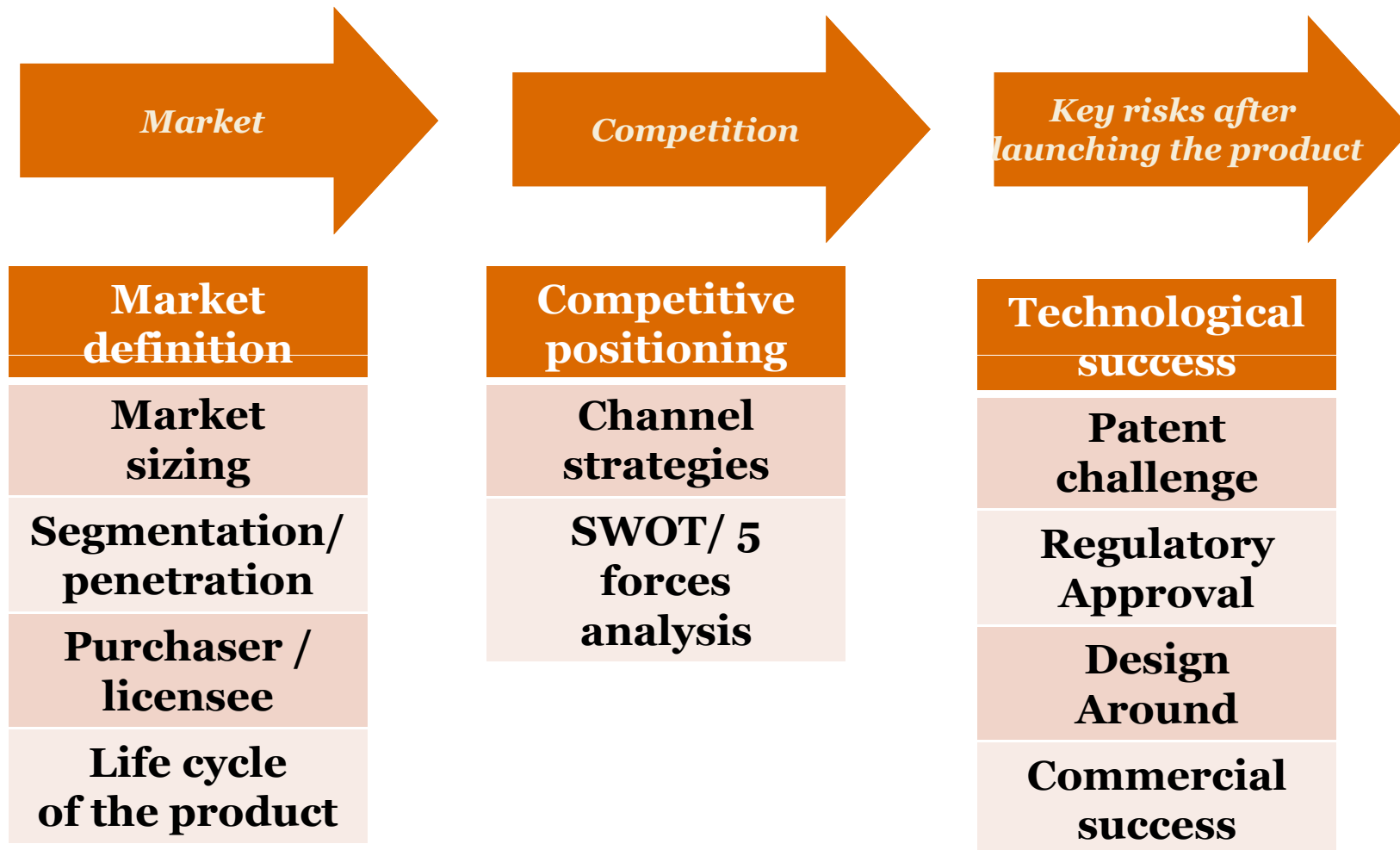
Assembled  
Workforce

Land & Buildings

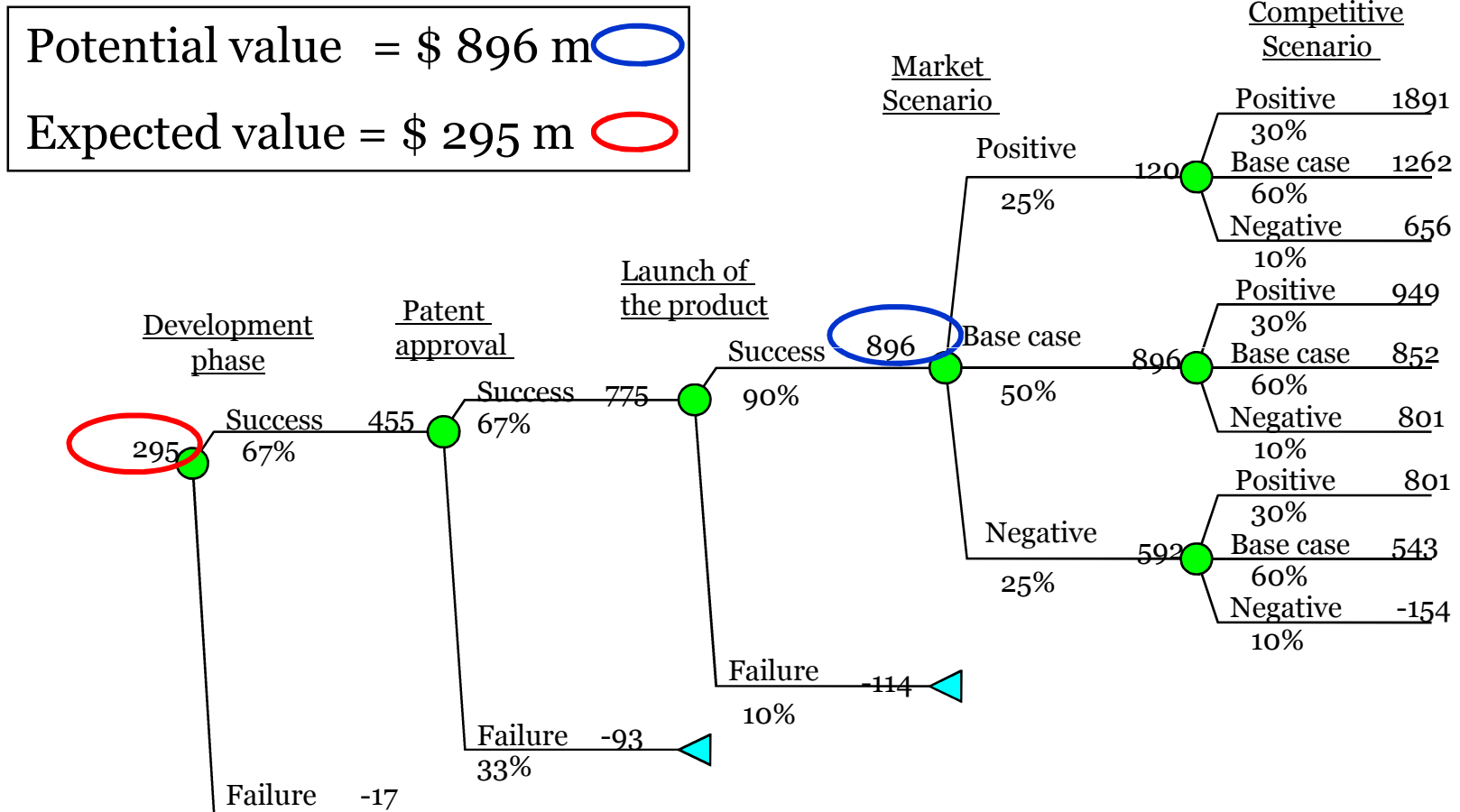
# ***MEEM Approach Example***

(in thousand €)	2012	2013	2014	2015
Revenues	1,000.00	800.00	500.00	300.00
Costs	750.00	600.00	375.00	225.00
<b>Profit before tax</b>	<b>250.00</b>	<b>200.00</b>	<b>125.00</b>	<b>75.00</b>
Taxes @ 40%	100.00	80.00	50.00	30.00
<b>Net income</b>	<b>150.00</b>	<b>120.00</b>	<b>75.00</b>	<b>45.00</b>
<b><u>Contributory Asset charges</u></b>				
Land & Building	10.00	8.00	5.00	3.00
Machinery & Equipment	25.00	20.00	12.50	7.50
Working capital	15.00	12.00	7.50	4.50
Workforce	9.50	7.60	4.75	2.85
Trademarks	20.00	16.00	10.00	6.00
Total Asset Charges	79.50	63.60	39.75	23.85
Cash Flow after tax	70.50	56.40	35.25	21.15
Present value factor	0.9174	0.8417	0.7722	0.7084
Present value of cash flows	64.68	47.47	27.22	14.98
<b>Value of key intangible</b>	<b><u>154.35</u></b>			

## *Example - Reflecting uncertainty (1)*



## Example - Reflecting uncertainty (2)





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# *Key considerations*

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# ***Key considerations***

Ensure correct definition of assets and who owns them – then identify/carve-out the cash flows that it generates

Select an appropriate valuation methodology and cross-check against other approaches

Depending on the purpose of the valuation, it may be important to seek expert legal advice, particularly if it relates to a transaction or dispute

Valuation of IP is a subjective area involving a high degree of technical complexity - seek expert assistance when a lot is at stake

In most cases, IP valuations will be challenged and consequently the experience and credibility of the valuer is of paramount importance

It is usually worthwhile to consider ways of improving your income or reducing your costs through improved utilisation of your IP e.g. Tax restructuring, financing options, strategic partnerships etc

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# *Discussion*

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