Technology Transfer, an Added Value Opportunity for SMEs

Tel-Aviv, February 27th 2002

Eli E. Guastalla

e-mail: notage@tin.it

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   - Economical value of I.P.
   - Technology transfer in practice

1. INTRODUCTION

- Elements for Competitiveness
- Role of SMEs
- Inventions and Innovation
- Technology Transfer

PATHS OF T.T.

- **Technology diffusion** (formal offer, ads …)
- **Technology acquisition** (request, …)
- **TT Co to Co** (from SME to large enterprise,…)
- **From R&D to Industry**
- **Dedicated firms** (licensing etc…)

SOME DEFINITIONS

Technology: Study of applied science referred to transformation and production processes

SOME DEFINITIONS

Innovation = Successful Industrial application of new systems and methods

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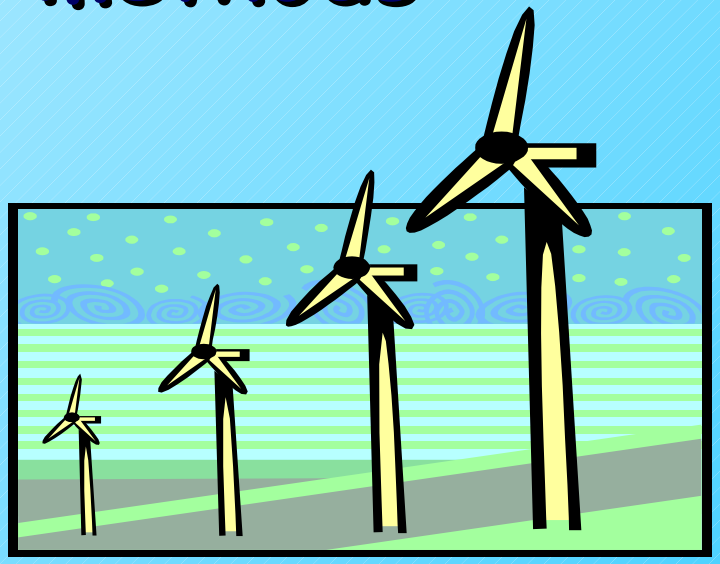

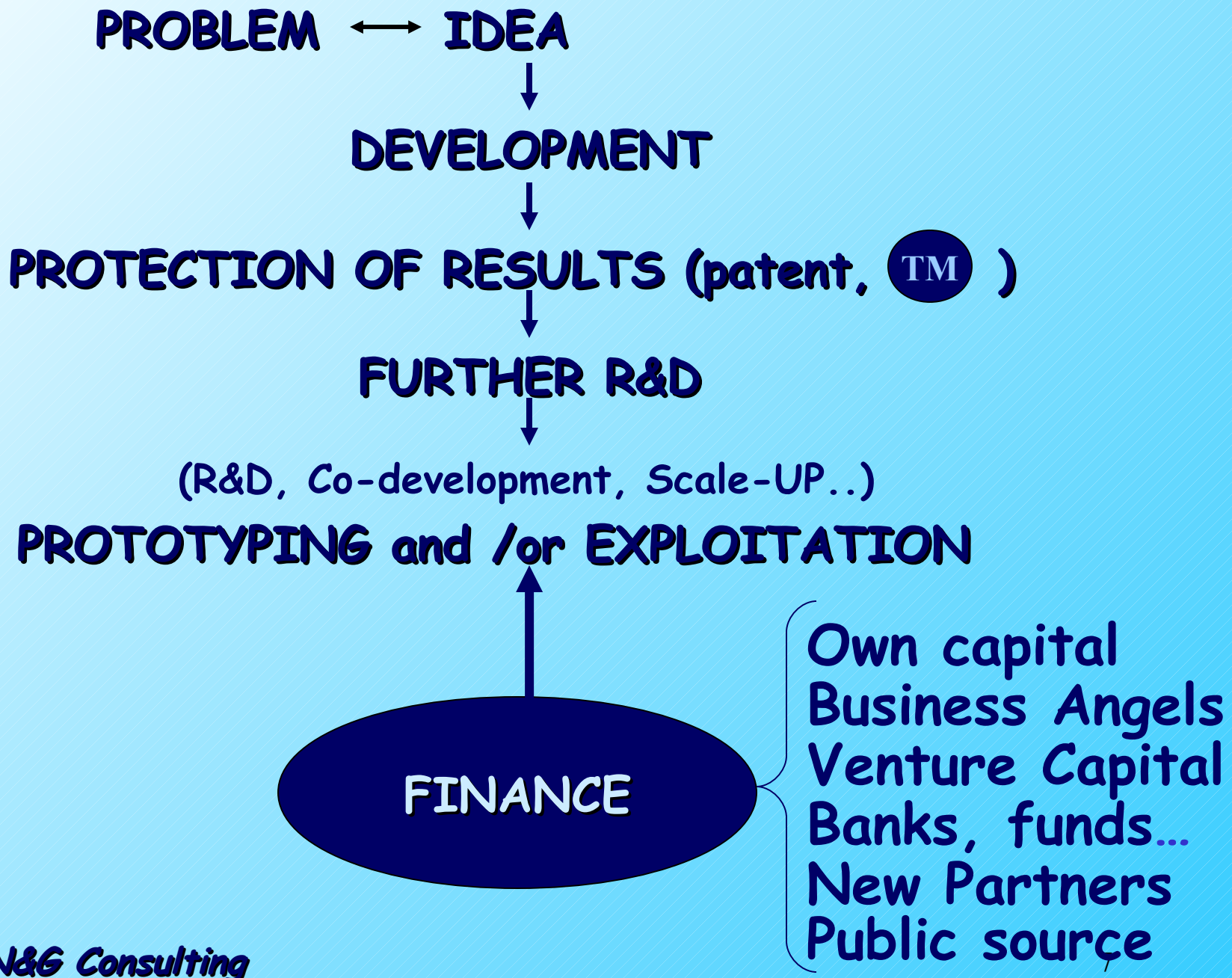

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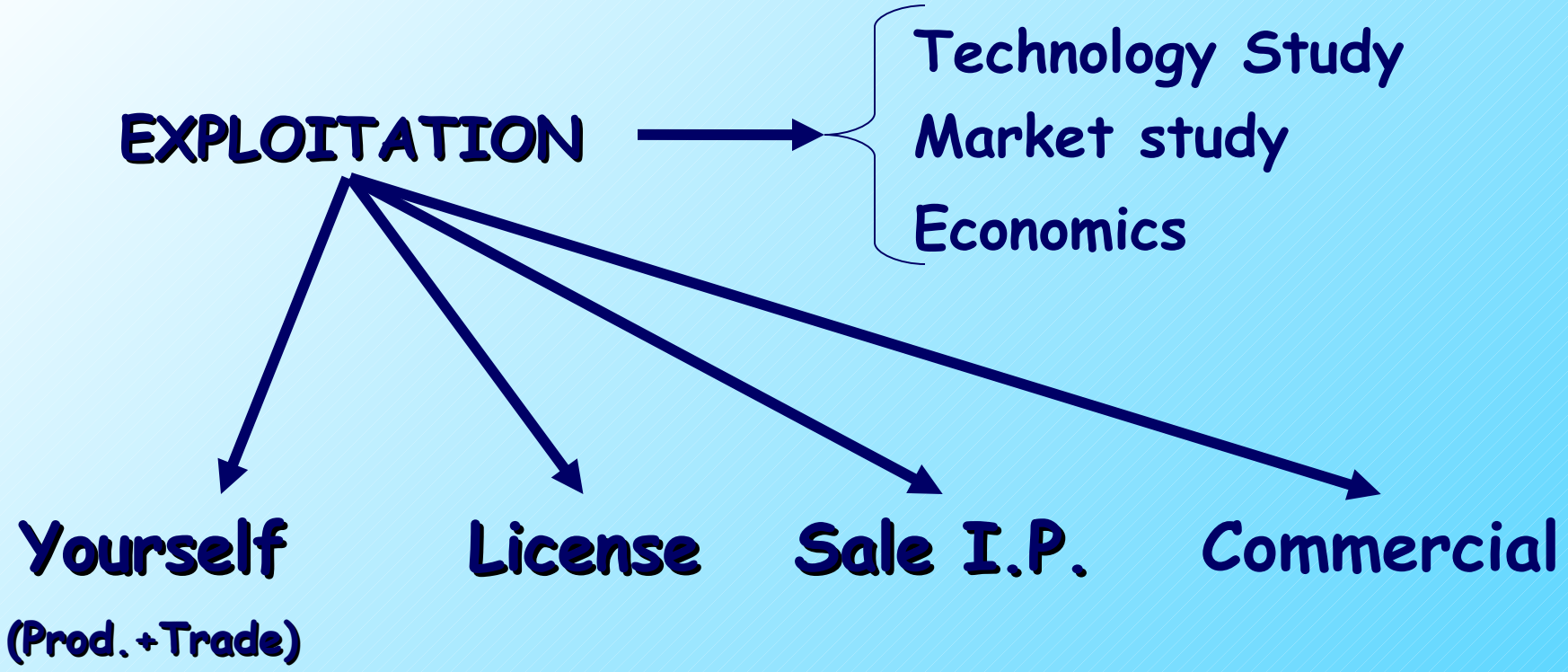


BUSINESS PLAN

Set up the bus

2.STRATEGIC MANAGEMENT OF I.P.

…… the abstract study of science and technology will not , necessarily, bring along desired and expected innovation. …..Only a close contact among creativity, technology,planning, market, financial and human resources and development policy, can guarantee, to individual to society and general economy a real return and benefits, to balance the huge Resources dedicated……

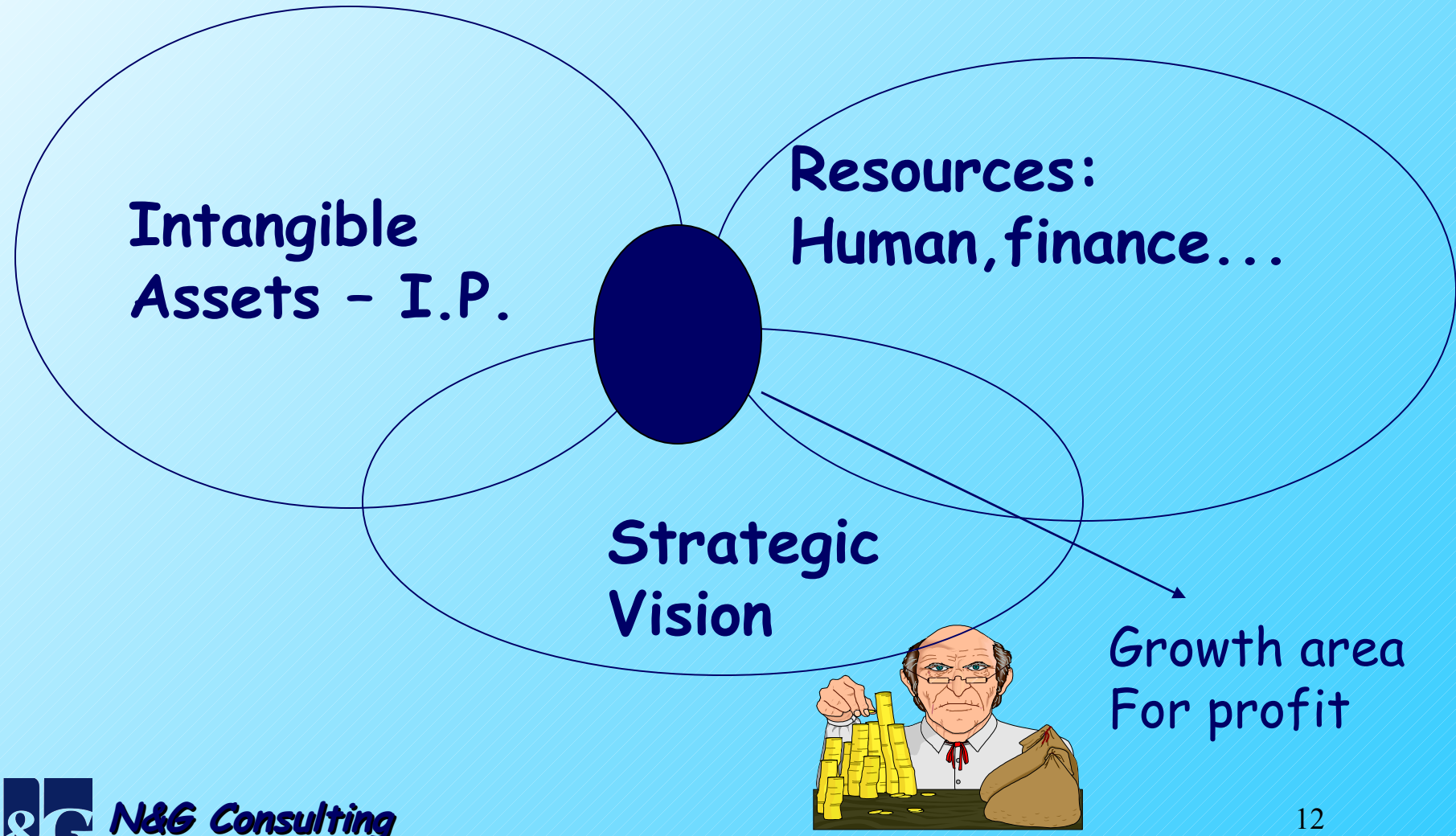
INTELLECTUAL PROPERTIES VALUE MANAGEMENT

- Definition:

1) Proactive management of I.P. tending to maximise company's value

2) Integration of I.P. strategy with global company's strategy

IN BRIEF



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EXPLOITATION OF I.P.

- Are I.P important for the company?
- What are existing intangible assets?
- To what extend does I.P. help us to reach company's goals?
- How are competitors behaving ?
- Are there technological spaces to fill up or to integrate?
- Are present investment in technology providing adequate return?

…..EXPLOITATION OF I.P.

- Is there a policy to protect I.P.?

- Is there a consistent licensing policy?

- Is there a consistent fiscal and financial policy in presence of I.P.?

I.P. FOR THE BENEFITS OF INVESTORS AND SHAREHOLDERS

- Market share protection
- Price premium
- Costs reduction via licensing operations
- Protection of KH and PI
- I.P. as negotiations element (JV,M&A..)

3. ECONOMICAL VALUATION OF I.P.

I.P. VALUATION METHODS

- Empiric
- Scientific

Used for
- Patents (process and/or product)
- Trade Marks

When to be Used
- M&A, JV, Audit
- Balance Sheet,
- Funds Search ….

SCIENTIFIC METHODS

1) Recalculated historical cost

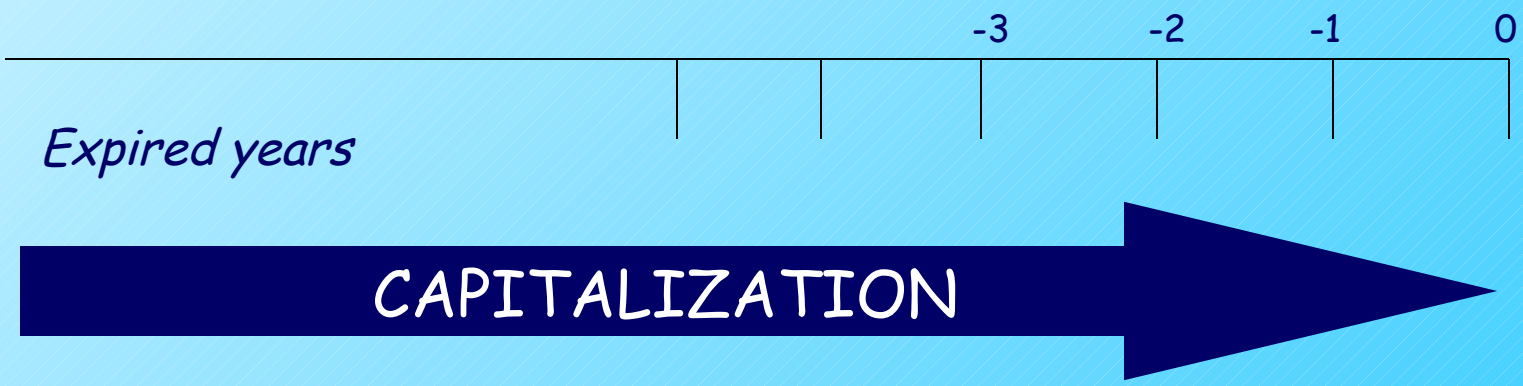
2) Market Potential

1) HISTORICAL COST

- R&D Cost
- Patenting cost (filing, extensions, annuities …)
- Overheads
- R&D Personnel
- Marketing and Promotion Cost
- Equipment Amortisation

1 a) HISTORICAL COST

- All considered cost must now be adequately capitalized to obtain a financial real cost consistent with valuation date



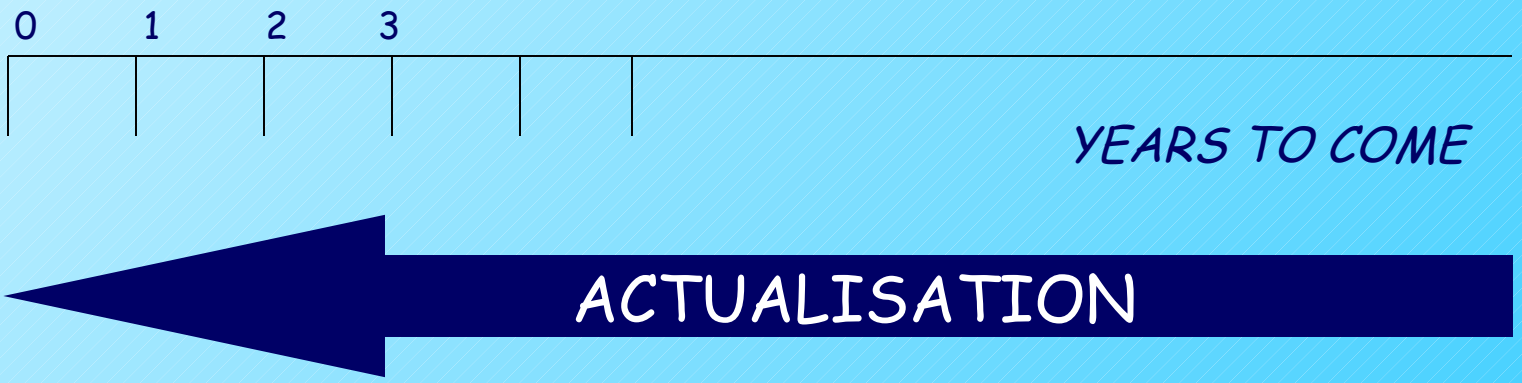
2) MARKET POTENTIAL

- Reference market study
- Estimation of expected market share
- License value (how much would a third party pay to obtain a license for said I.P.)
- Royalties value
- Down payment

2 a) MARKET POTENTIAL

- *All considered incomes have to be actualised with the aim to obtain correct financial values…*

…… And do not forget



… commercialised patents go through technical obsolescence

New patents have technological and Commercial risk

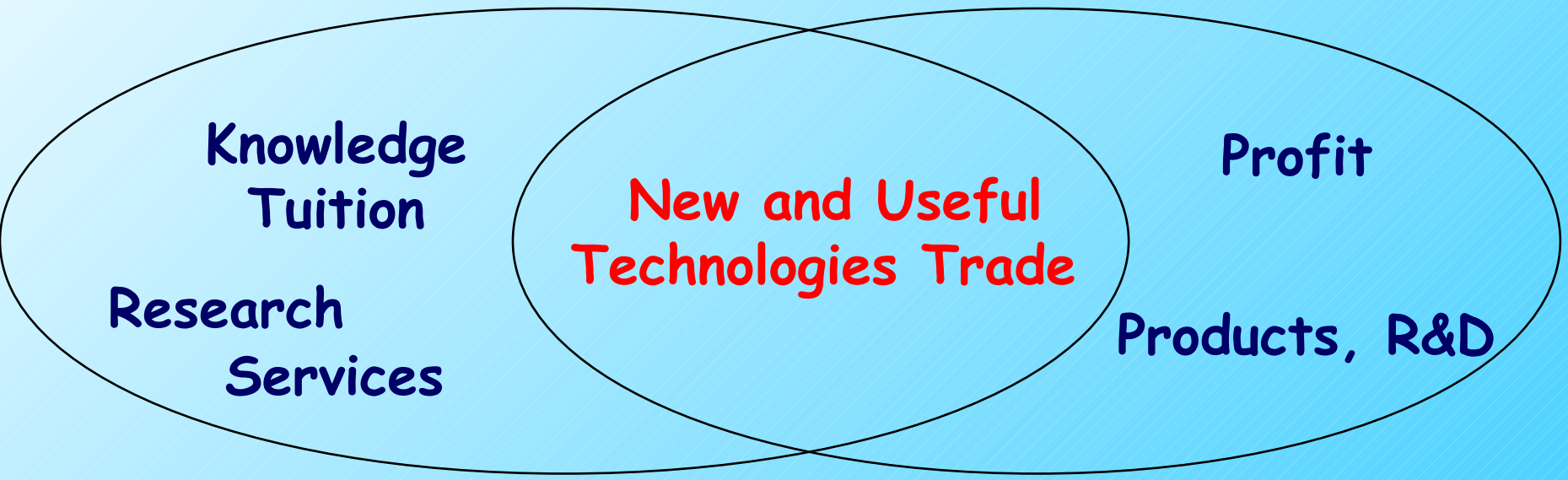
So….we must introduce financial, technical, Commercial , legal risk factors

……..another method we use, under special circumstances, namely pl-x®, refers to the fluctation value of a given "basket" of stock optios (in a given time) , of selected firms , operating in a similar field of activity of the analized technology ……..

UNIVERSITY - INDUSTRY

Science as a goal

Increase knowledge for profit



Free circulation of ideas, publications, glory

Secrecy and competition

Royalty rate for in-licensing (rule of thumb)

Industry	0-2%	2-5%	5-10%	10-15%	15 % →
Aerospace	50	50			
Automotive	52.5	45	2.5		
Chemical	16.5	58	24.5	1	
Computers	62.5	31	6.5		
Electronics		50	25	25	
Pharma	23	32	30	12	3
Telecom	40	35	25		

Royalty rate for out-licensing

Industry	0-2%	2-5%	5-10%	10-15%	15 %
Aerospace		40	55	5	
Automotive	35	45	20		
Chemical	18	57	24	1	
Computers	43	57			
Electronics		50	15	10	25
Pharma	1.5	21	67	8.5	2
Telecom	11	41	29	16	3

4. Technology-Transfer in practice

LICENSING CHECKLIST

- Have you any IP that could be licensed?
- Do you know any possible licensee?
- What licensing terms are you seeking for?
  - * Non exclusive
  - * Exclusive (be aware of US and EU antitrust laws)
- Who will own IP in case of improvements?

LICENSING CHECKLIST

- Could you give technical support?
- Do you want large front payment and low royalties or viceversa?
- What royalty will you charge?
- Are you sure the licensee will exploit the license?

PARTNER SCREENING CHECKLIST

- Is the company well known in industry?
- Is the company able to supply references?
- Have you checked company accounts?
- Are you impressed by the staff?
- Is the company keen to innovation?

POTENTIAL PITFALLS

- Licensee changes its business plans
- Licensee goes bankrupt or change ownership
- There is a lack of trust between parties
- Licensee finds another source of IP
- Licensee do not stick to agreements

T.T. – Which method to chose ?

1. License, acquire, cooperate ?

2. Is there a "fit" between the technology and the adapted method ?

…… On top of vendor's wish

Technical and strategic elements …….

1. Inability to copy the technology
2. Uncertainty regarding the technology and its market (size, duration…)
3. Short life cycle of technology or good
4. New strategic choice which require rapid implementation (m&a, diversification…)

…… Other factors to consider

Type of agreement is supported by internal reasons and offers different levels of technology learning

Accuracy and results of tests and analysis previous to entering TT deal

Management implication, skills ability, licensing traditions, NIH syndrome

And let us start the dance..

And remember, the average of

successful T.T. deals is
(amount of deals averaged with market share)

approximately about 2% !!!

TECHNOLOGY TRANSFER

- Technology analysis and development stage
- Appointment objective
- Meetings with inventor and opinion leaders
- Market, competitors, value
- Product positioning,
- Summary profile and invention's description

TECHNOLOGY TRANSFER

- Market analysis (existing and potential)
- Partner search (industrial, financial…)
- Presentation of product and parallel to it…
- Identification of appropriate contractual and negotiation model (N.D.A. intent,options,licensing,r&d coop…)

PARTNER SCREENING CHECKLIST

- Have the company funds to invest?
- Does the company decide quickly?
- Does it have the "non invented here syndrome"?
- Does the company have all the skills?

EXPLOITATION ROUTES FOR I.P.

- I.P. Sale

- I.P. License

DIFFERENT WAYS FOR LICENSING

Exclusive

Non OR Semi Exclusive

Territorial limitations

Period limitations

Limited Use or distribution channel

Performance conditions

Mixed Salad

ECONOMICAL ISSUES

Option / Mile Stones

Front Payment , Lump Sum

Royalties on Sales / Purchasing

Mixed Forms / Minimum Royalty

Flat Royalty (per unit)

Cross License

Co-Development / Common Ownership

Tel Aviv February 27th 2002

Thanks for your attention

Eli E. Guastalla
<notage@tin.it>,<elieli@tin.it>