

# The Value and Practice of Third Party Primary Research

**John Marcantonio**

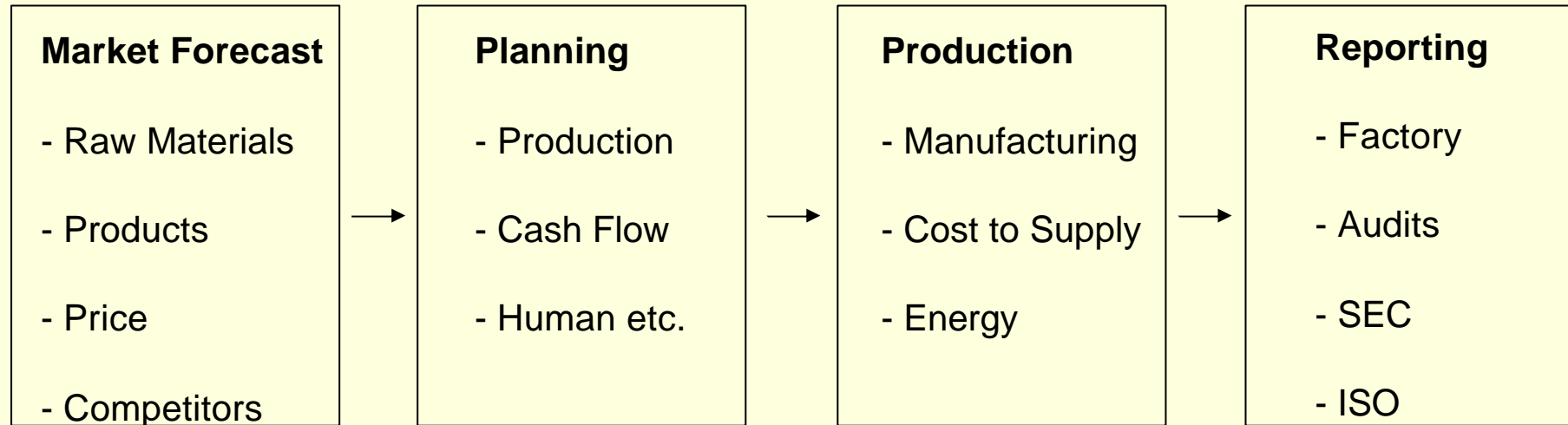


**Seminar - City Information Group  
Thursday 8 June 2006**

# AGENDA

- Where does Marketing / Competitor Research fit?
- Why is such research important for the chemical industry?
- When does original research matter?
- What is the alternative cost?
- The research steps
- Tricks of the “Trade”
- Analysis / Report
- Summary

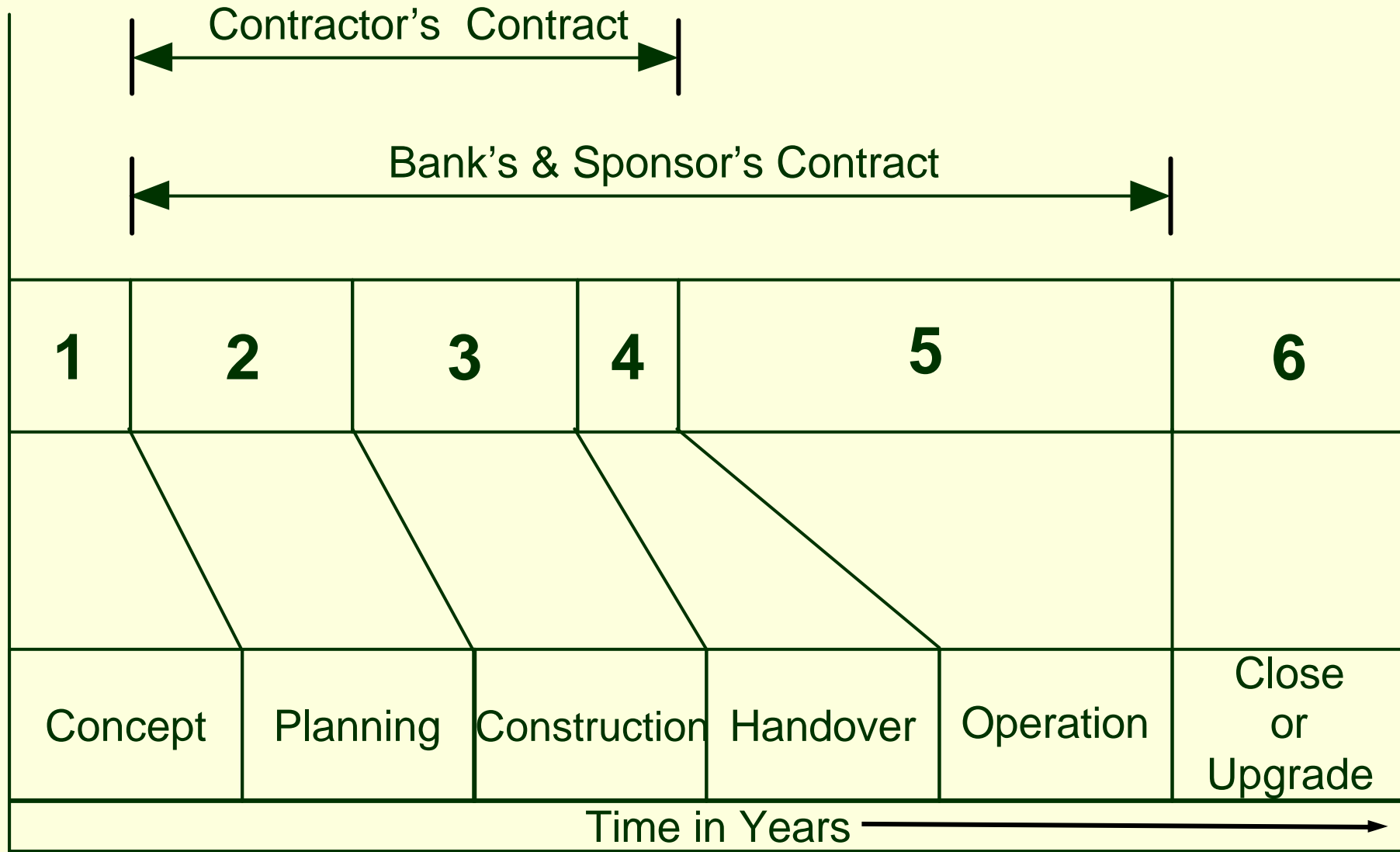
# THE FOUR BOX BUSINESS SYSTEM PRINCIPLE



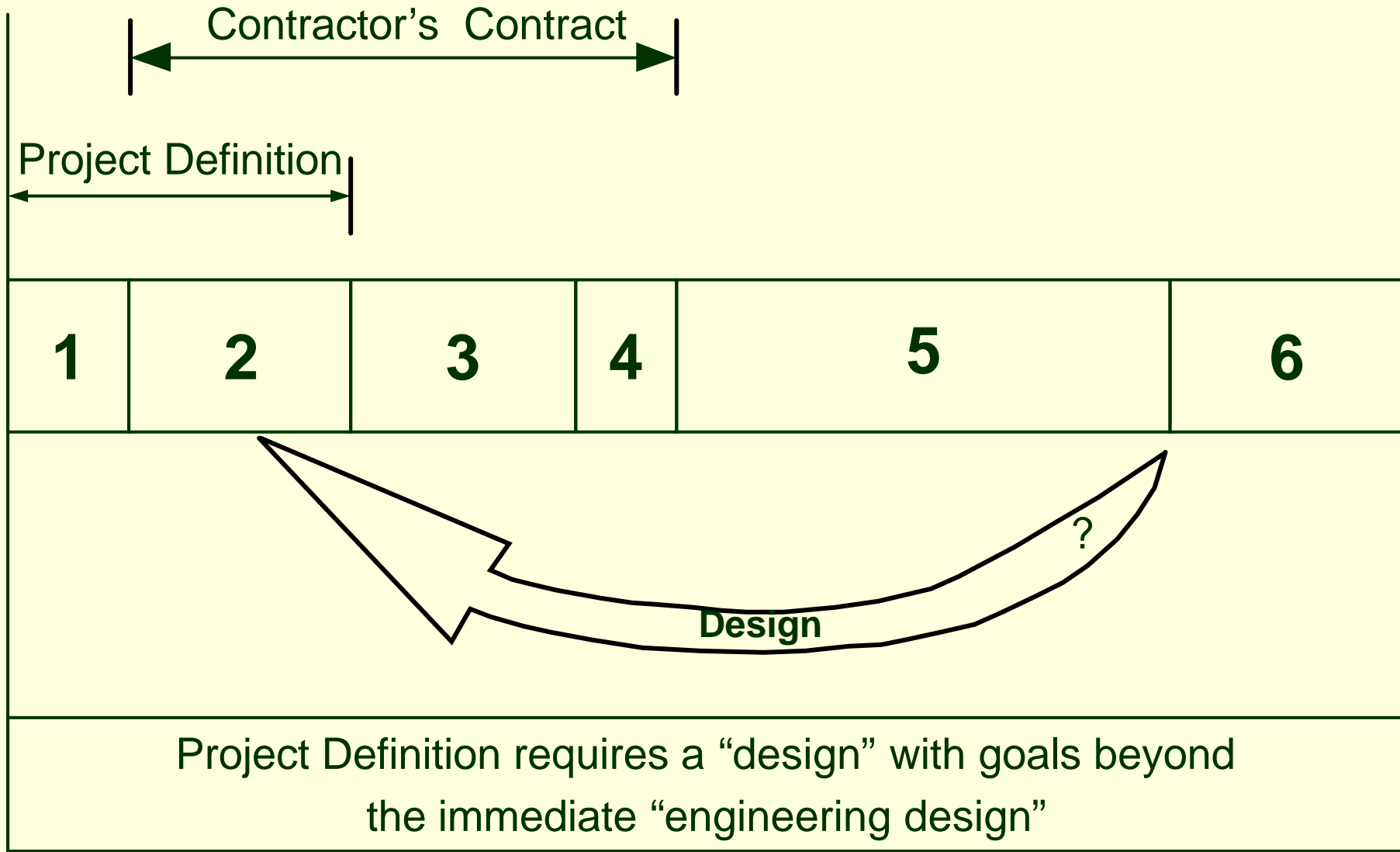
**1 YEAR TIME HORIZON**

**Compliance to SEC standards has become a key issue**

# PROJECT DEVELOPMENT CYCLE



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# CHEMICALS RESEARCH NEEDS A WORLDWIDE FOCUS



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# EXAMPLES OF “THE CHEMICAL INDUSTRY” RESEARCH PROJECTS OVER 20 YEARS

The Chemical Industry touches all our lives covering chemicals as well as related products e.g.

- Synthetic sapphire for missiles
- Stretch fibres e.g. spandex
- Brake / clutch linings
- Domestic rubbish handling
- Cat litter
- Carpets
- Windows

**None of the above have published studies!**  
**All require special techniques to build a “business case”**

# IMAGE OF CHEMICAL INDUSTRY

- High technology
- Lots of metal (pipes / tanks / steam)
- Dangerous products
- Expensive equipment
- High risk / high reward
- Sells to itself

- Mature
- “Black Art”
- Cyclical
- Oil price related
- Synthetic

Image does not relate to products that people buy!

# SYNTHETIC BONES



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# TYPICAL CAPEX FOR CHEMICAL PLANTS

Plant / Product	Size (Kilotons p.a.)	\$ million
PET	130	90
BDO	65	115
Acrylic Acid	160	240
Caprolactam	120	550
Ethane to Ethylene	600	600
Naphtha Cracker	1,000	2,000
Refinery	15,000	7,000

- Plant technologies typically have a ten year life span!
- Pre-operating expenses = 5% of CAPEX approx!

**Remember: Little published product data, save from specialist consultants**

# WHAT DOES A PROFESSIONAL COMPANY DO ABOUT INVESTMENTS?

Would you be happy meeting SEC rules and Bank Compliance, with a thorough study?

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**2. Nah!**                      Back of envelope works better!

The trend is for the 2<sup>nd</sup> View, particularly in Asia

# WHEN DOES ONE NEED ORIGINAL RESEARCH AND WHEN NOT?

Firstly, Tecnon OrbiChem is a heavy user of published research as a first step for its studies!

Many firms base their project's business model on the following sources:

- Conferences
- Industry journals
- Trade statistics
- “Fact finding tours” – junkets
- Visits to potential customers
- The internet
- Information houses (multiclients)

Such sources are fine but form the first step in our project

# CHEMICALS TYPICAL INFORMATION REQUESTS: PURPOSE AND COSTS

Requirement	Timing	Cost £ Thousands
1. Data for meeting	Tomorrow / next week	< 1 - 3
2. Preliminary review	1 month / Off the shelf report	3 - 20
3. Customer list / Profiles	2 – 3 months per region	20 - 50
4. New Market Application	3 – 4 months	20 - 70
5. Feasibility study	4 – 5 months	90 – 250
6. Process Benchmarking	5 months	150
7. “Schedule A”	1 year	250 - 500

Research should ideally cover Markets, Customers, Competition and Costs and be accurate! A Feasibility Study = ‘Go’ or ‘No Go’ document, but definition varies.

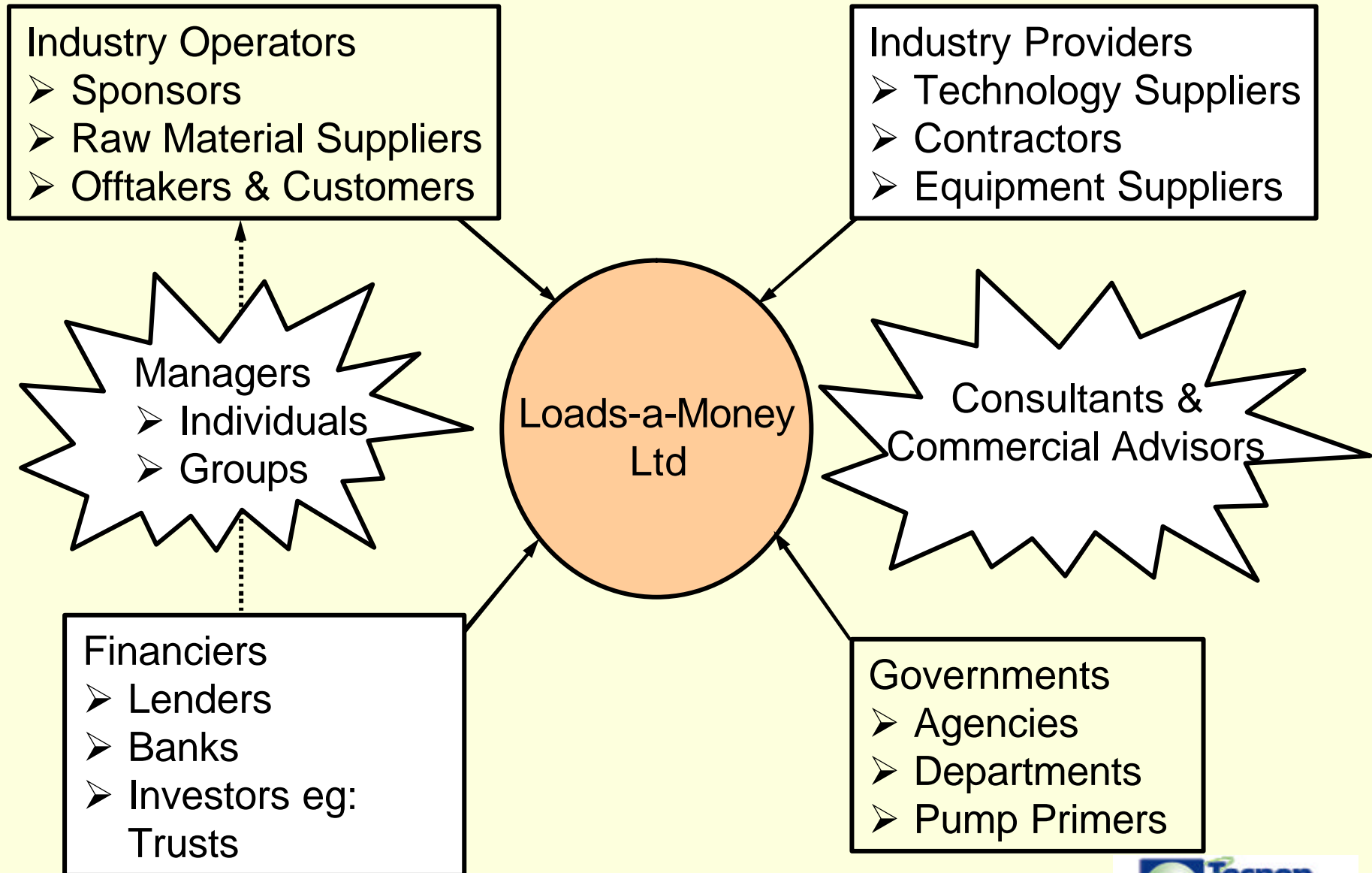
# WHAT IS THE ALTERNATIVE COST?

1. No original research is done!
  - Missed cycles
  - Capacity overhangs
  - Price Wars

} Costs = \$ millions
2. Equivalent Person Cost = \$200 – 300 K.p.a.
3. Transatlantic Airfare = \$2,000 to \$4,000
4. Banks ask for Third Party Report just as project is to go
  - Construction delays
  - Others decide to invest
5. Wrong Project Philosophy – Cost = \$ Millions

**Conclusion Research is cheap**

# WHO ARE THE PROJECT STAKEHOLDERS?



# STARTING A PROJECT: NEEDS

You have been given a “plum” assignment:

- Find out about market competitors’ costs!
- What prices are being charged?
- How fast is the market growing and where?
- What does the customer need – where is the value added?
  - Basic “table stakes”
  - Product Differentiation
  - What is he/she prepared to pay?
- What will prices/margins be over 10 years?
- How much will a plant cost +/- 30%?

**Why should anyone tell you? What is in it for them?**

# TECNON ORBICHEM

## MARKET ANALYSIS METHODOLOGY



# OUR BUSINESS PHILOSOPHY

1. Any business needs an advantage i.e.
  - Market
  - Cost
  - Process technology (cost or customer preference)
2. Market (Prices) go up and down over a cycle
3. In the beginning there is the market and at the end there is the market
4. Bucking the market means having an extra edge! Usually this is to shut down older plants – not that easy!

# STARTING A PROJECT: APPROACH

1. Take one year to do this? Not normally an option. That Boss!
2. Evaluate what can be done internally and externally
3. Get an agreed “brief ” or **Scope of Work!**

## NOTE

- ⇒ For SEC purposes, most firms need to have an independent third party report at some stage in a project or Acquisition  
i.e. “the industry report”
- ⇒ Chemical projects take 1 year to plan and 3 – 4 years to build i.e.  
Five year immediate crystal ball plus ten year forecast

Boss wants to report progress in 9 months plus project must make 30% ROI

# ALL ORIGINAL RESEARCH COMPRISES

- Desk research/Data assembly on the subject
- Directory Searches
- Telephone screening
- Preparation of Dummy Tables based on the above
- Questionnaire or Aide memoire preparation – several versions
- Telephone interviewing
- Field research
- Write-up of individual discussions
- Final Market or Cost Data preparation
- The Report or Presentation

# INDEPENDENT THIRD PARTY SHOULD BE

- Independent
- Honest – Project is a dud! Drop it!
- Experienced
- Able to gather sensitive information – not industrial espionage
- Have a good reason to ask awkward questions
- Rational
- Presentable (to banks / board etc)
- Have an understanding of the market
- Cost-effective! Note that an equivalent person in the USA costs \$250 – 350K

# ORIGINAL RESEARCH: THE STEPS (1)

## 1. Desk Research

### AIMS

- Familiarisation
- List of contact numbers
- Dummy market tables
- Customer lists

## 2. Telephone Screening

- Who makes?
- Who really buys?
- Who is just an agent?
- Who may be worth a visit?

## 3. Preparation (Questionnaire)

- 10 most important questions

# DESK RESEARCH

## WHERE DO CONTACT NAMES COME FROM?

1. Library sources (DTI UK closed down – criminal)
2. Kompass Directory
3. Specialist Directories – RAPRA for Plastics
4. Trade Associations – CEFIC, NPRA, EPCA
5. On-line Directories
6. Government Agencies e.g. Invest in Wales, Nigeria etc.
7. CIA Website or US Trade Development Agency
8. Exhibitions/Conferences

# DESK RESEARCH

## WHERE DOES BACKGROUND COME FROM?

### 1. Web based searches

- EC Commission Reports (EU Publications)
  - Innovation Directorate
  - R&D Directorate
  - Environment Directorate
  - Industry Directorate
  - Competition Policy Directorate
- Analysts Report .ppt
- PowerPoint Conference (subject)

### 2. Books

- Kirk-Othmer Encyclopedia of Chemical Technology
- Ashford's Dictionary of Industrial Chemicals

### 3. Conference Papers – back issues (Reed etc.)

# DESK RESEARCH

## WHERE DOES BACKGROUND COME FROM?

4. **Company Reports** – Form 20F
5. **Company Product Literature** / Manuals for Customers
6. **Trade sources**
  - United Nations – always late
  - Collator / Compiler
  - Verbant
  - Dutch Customs / Saudi Customs etc - this requires a special visit
  - Port Authority Literature

# ORIGINAL RESEARCH: THE STEPS (2)

## 4. Telephone Interviewing

- Start calls to customers: smallest first
- Ask for:
  - Product Development Manager
  - R&D Manager
  - Person who deals with buying 'X'
- Use open questions like:-
  - “ Which product do you prefer?”
- Let respondents talk

## 5. Revise “Dummy Table” and Prepare Material to give out

# ORIGINAL RESEARCH:THE DUMMY TABLE

R006R\_Gw : Report

## WORLD : PARAXYLENE SUPPLY / DEMAND BALANCE

(1,000 Metric Tons)

	1995	1996	1997	1998	1999	2002	2005
Capacity to Produce	11,223	12,490	15,081	17,561	19,886	25,296	25,696
Production	10,740	10,864	11,721	13,106	14,141	16,498	19,244
Capacity Utilisation %	95.7	87.0	77.7	74.6	71.1	65.2	74.9
Capacity to Consume (at 100% Utilisation)							
for DMT	2,994	3,185	3,224	3,251	3,370	3,408	3,408
for PTA	8,358	9,585	11,790	13,850	15,123	17,524	17,859
Total	11,353	12,770	15,014	17,101	18,493	20,933	21,268
Consumption							
for DMT	2,557	2,507	2,548	2,655	2,750	2,965	3,200
for PTA	7,876	8,445	9,542	10,454	11,391	13,534	16,044
Total	10,433	10,952	12,090	13,109	14,141	16,499	19,245
Inventory Rise / (Fall)	322	(64)	(306)	(3)	-	9	233

# OUTPUTS FROM DESK RESEARCH

- Telephone contacts list (mostly of customers)
  - 50% will be obsolete or misleading, so aim to get double of any sample that is deemed necessary
- Visit lists for later
- Dummy Table on markets, value, volumes
- Key points for telephone questionnaire
- Assignments for team members

**You have identified the Universe but not individual Planets**

## ORIGINAL RESEARCH: THE STEPS (3)

6. Arrange “**Fieldwork**” at key contacts – e.g. competitor - but always smallest first
7. Always say that it is “your” study, but if contact asks, **do not lie** about who THE client is – just decline to answer
8. Assemble **new data**
9. Follow **phone calls** and **leads**
10. Write up **notes** as interview reports – what are they not saying? **Cross check** by saying ... “I did some work in Japan that suggests that you have 30% of the market”
11. New Market Table (or Process Cost Table) assembled
12. Draft Report
13. Peer Review / SWOTS
14. Final Report

# THE QUESTIONNAIRE OR AIDE MEMOIRE (1)

1. Nobody wants to be interrogated but ... most people are flattered by somebody asking for their opinion
2. Any interview must seem as if it is a conversation
3. Aide memoires are a script in a “scene for a play”
4. Interviewer starts with the basics e.g. synthetic sapphire:
  - I am doing a project on synthetic sapphire
  - Do you use synthetic sapphire or perhaps synthetic diamond?
    - Answer ‘No’: Oh, I was told that you might because ...
    - Answer ‘Yes’: Oh, that is exciting ... are you the person to talk to about applications?
5. The aide memoiré should not exceed 12 questions (10 is even better)

## THE QUESTIONNAIRE OR AIDE MEMOIRE (2)

6. The questions are “prompts”. Let the respondent talk  
The more he/she talks, the more relaxed a person feels
7. Midway e.g. Question 4 or 5 you can propose your view on the market size by volume, value and growth rate:
  - Synthetic sapphire only used for air to air missiles ... is that right, is that about 10,000kg per year in the UK but 10 times in the USA, or is this wrong?
8. Do not be afraid of looking foolish. The respondent may destroy your numbers. The response is ... oh, somebody is trying to lead me astray then ... what do you think?
9. Respondent may want to know how you got the numbers. Explain and offer to send “preliminary info”

# THE QUESTIONNAIRE OR AIDE MEMOIRE (3)

10. Always include a figure which you know is wrong! It can be explained away later. The incorrect figure will separate those respondents who are really knowledgeable from those who may want to:
  - a) Mislead
  - b) Not show lack of knowledge
  - c) Want to get rid of you
  
11. Remember interviewing is “give and take”. Offer information in return. You may need to ask supplementary questions and the respondent is under **no** obligation to help
  
12. If you are hesitant on the phone or a visit, you may not get collaboration – **practice** using “role play” first

# WHAT HAPPENS IF NO INFORMATION IS BEING GIVEN OUT? (1)

## 1. Have you done sufficient 'Desk Research'?

- Got enough background to seem fluent/confident about the subject?
- Got the right targets? Agents and distributors often do not know much and see information as power
- Are you using the "onion principle"?
- Did you ruin the biggest contact in the market?

## 2. Are you pushing too hard?

- Softer questions at the beginning may be better
- Patience helps – one good interview of an hour could be worth 10 short ones

## 3. Have you allowed for the respondent to do his normal job?

e.g. production managers usually have early morning crises

# WHAT HAPPENS IF NO INFORMATION IS BEING GIVEN OUT? (2)

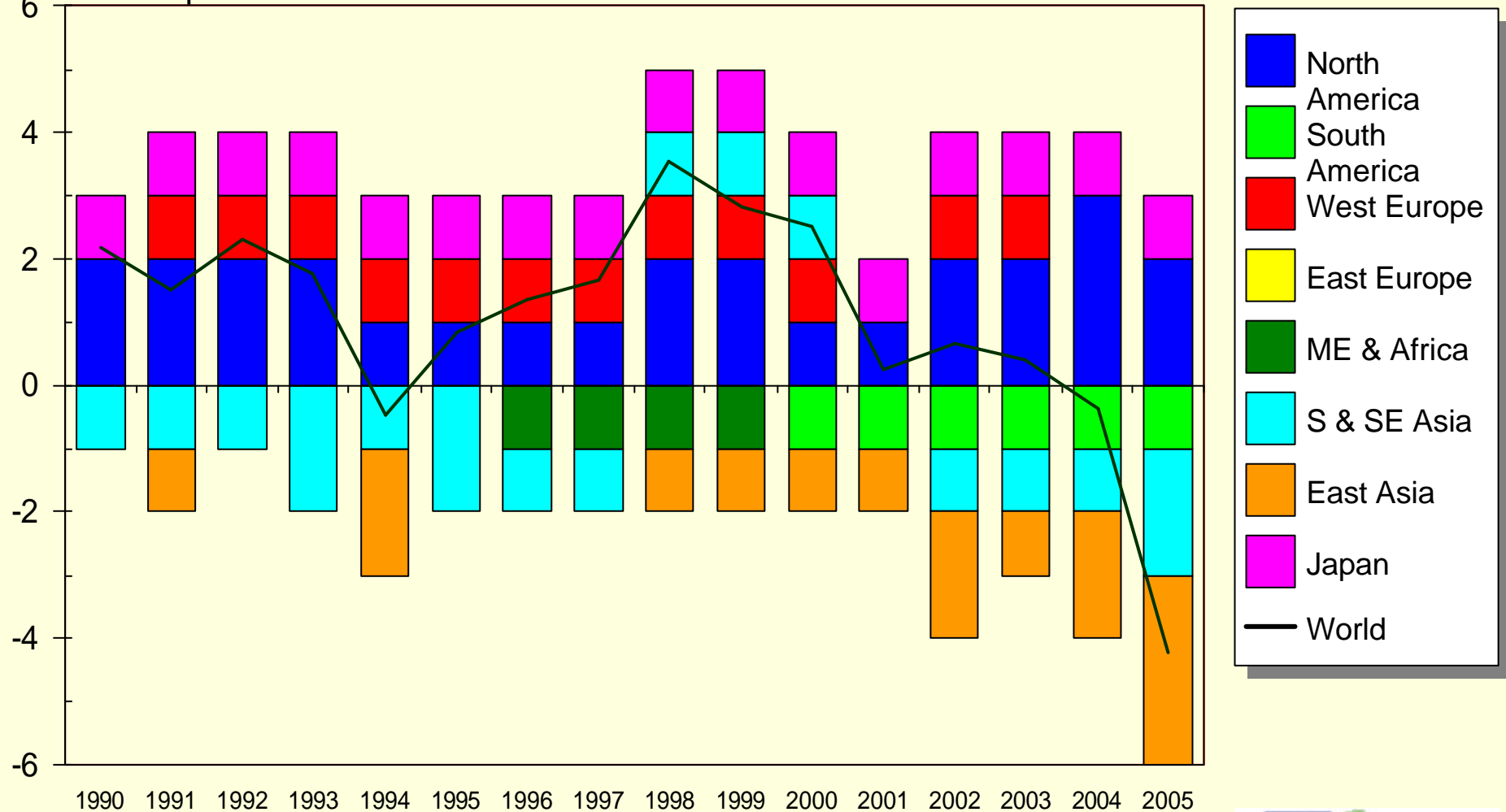
4. **Are the respondents typically closed mouthed**  
e.g. detergent suppliers:
  - Could one see them in a neutral setting like a conference?
  - Is there a consultant or trade body who could arrange contacts?
  
5. **Ask the respondent about competitors** rather than his/her own business
  
6. **Ask more customers** about the market
  
7. **Revise plan with “your client”** - it may mean a study in another country and an analysis of results by analogy

**99% of all respondents will talk. The 1% who don't come as a shock**

# EXAMPLE OF REPORT ANALYSIS

## SURPLUS / (REQUIRED) PTA at 95% UTILISATION

No. of 500 ktpa Units



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- Where does Marketing / Competitor Research fit?
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# IMPLEMENTATION OF MARKET RESEARCH STUDY - EXAMPLE

