



MPM Program – Sales Prespective

Sales Leads vs MPM Program

Sales leads are valuable where the company is not already communicating with the prospect and the decision will be made on price and delivery.

High performance CFT product decisions are generally made based on lowest total cost of ownership. This requires activity long before a request for quotation is made. Whether the order will come in 6 months or 24 months the pursuit should be continuous.

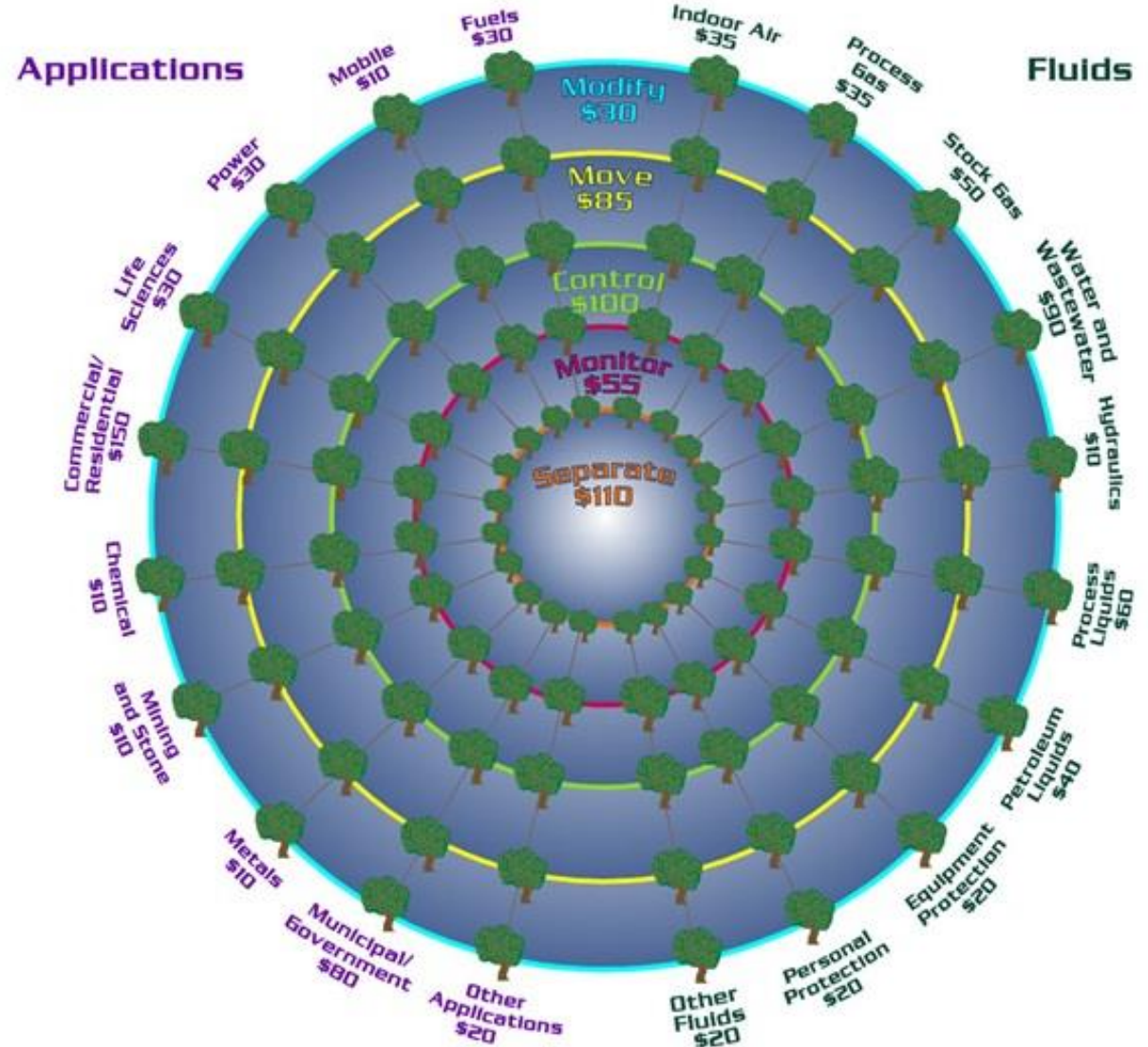
By forecasting the purchases for each prospect a much more effective sales program can be initiated.

Impact	Sales Leads	MPM Forecasts
Profitability Focus	No	Yes
Value of Pursuit	Undetermined	Yes
Timing	Often Too Late	Years or Months Ahead of Decision
Ability to Validate Lowest Total Cost of Ownership	Random	Part of Program
Guidance for Promotional Expense Allocation	Poor	Excellent
Guidance for Sales Targets by Location, Industry, and Product	Poor	Excellent
Reliance On Sales Commissions and Distributor Mark Ups	Higher	Lower

\$400 Billion CFT Market

- The \$400 billion CFT market can be likened to an orchard where the supplier is looking for the easy gate to pick the fruit.
- You can pick the fruit (increase revenues) by industry and then product or by product and then industry.
- With the rapid growth of IIoT and Remote O&M there are opportunities to simultaneously pick multiple fruit with one effort.
- Therefore working out a Most Profitable Market Strategy based on knowledge about the entire orchard is very valuable.
- Organization of the sales effort can be enhanced with reliable MPM forecasting.

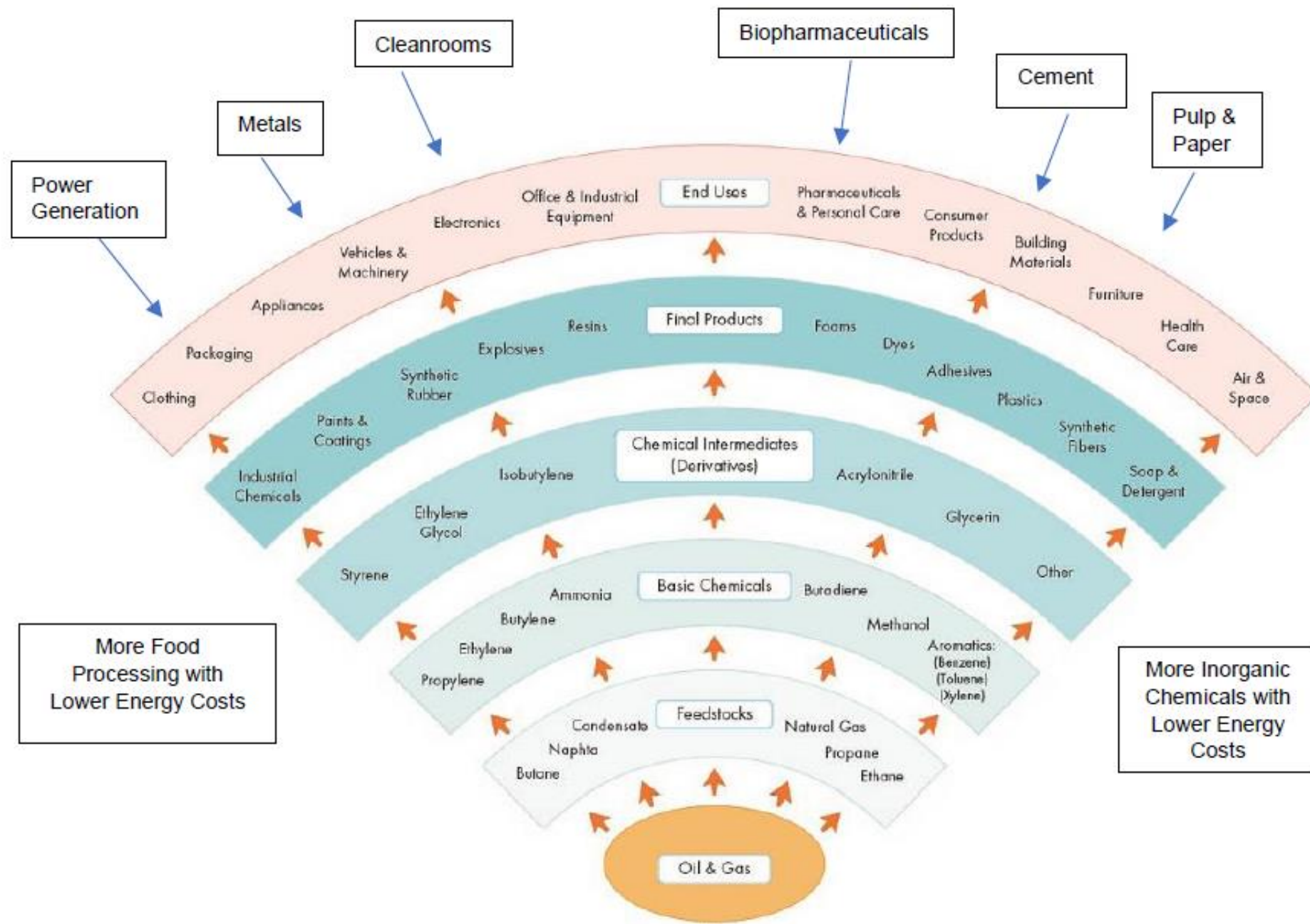
Fluid Treatment and Control Easy Gate
(Dollars in Billions)



Where are the high growth most profitable markets?

This is a difficult and continuing challenge to answer because

- The outlook can change quickly. Just within the last few months Exxon and Chevron announced multi billion shale extraction investments in the U.S.
- Ramifications of changes in one market affect the others. The expansion of oil and gas extraction to make the U.S. the dominant oil and gas supplier will have direct impact on
 - Oil and gas transport, gas processing and refining
 - Construction of LNG, petrochemical and plastics manufacturing
- It will have indirect impact on many U.S. industries which serve the oil and gas industry and those for whom energy is a major cost
- It will have a negative impact on investment in subsea, tar sands and oil and gas investments in ROW



LTCOV-Lowest Total Cost of Ownership Validation

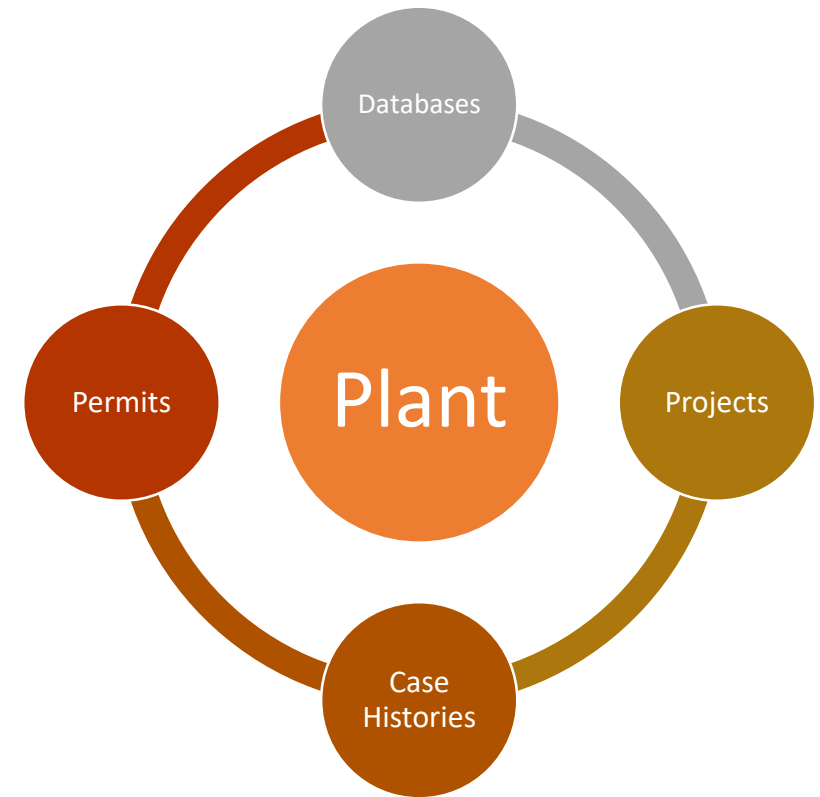
- Validation of lowest total cost of ownership requires convincing decision makers. The supplier is equivalent to the lawyer making a case to a jury.
- The other side will be making their arguments to counter the supplier.
- The process is sequential and continuous.
- The process is made by multi media: websites, magazine articles, conference speeches, and in person.
- Validation needs to be based on accepted
 - Process variables
 - Labor, downtime, energy and other costs
- Subject matter expert testimony is more convincing if the expert has a body of evidence to support his conclusion.



- Evidence: A good lawyer assembles all the evidence and presents it in a way to support his assertions.
- McIlvaine has created decision guide templates which can be expanded to provide the body of evidence.
- A subject matter expert who helps prepare and then is most knowledgeable about the decision guides becomes subject matter ultra expert (SMUE) and provides the most credible testimony.

MPM Forecasts for Each Plant are also Produced Cost Effectively

- The top 550 companies with 60% of CFT purchases operate 10,000 plants.
- MPM for the individual plants is important in terms of service and purchase of general performance products.
- Most CFT purchasers have environmental emissions as well safety issues resulting in availability of detailed government information.
- The production of power in MWh, tons of iron, ethylene or pulp can all be determined and accurate MPM forecasts made.
- 95% of CFT purchases are made for existing plants whether it be replacement or expansion.
- The purchase of high performance products can be anticipated months or years in advance.
- Sales leads are not the route to selling high performance products.
- McIlvaine maintains plant and project databases for many industries



550 Purchasers buy 60% of the CFT Products and Services

Industry	No. Included
Total	555
Chemical	40
Electronics	15
Food	40
Metals	30
Mining	20
Oil and Gas	50
Pharmaceutical	30
Power	70
Pulp & Paper	50
Refinery	60
Stone	50
Wastewater	50
Water	50

LTCOV for Individual Purchasers

- 550 companies buy 60% of CFT products
- 5000 companies buy 85% of CFT products
- 12,000 companies buy 90 % of CFT products
- Trend toward centralized purchasing with LTCOV
- Forecast for each product in each division for a prospect is invaluable as a collaboration tool for local sales people
- MPM market program is most effective if the largest individual purchasers are included
- Large potential to sell multi product packages and to provide total solutions
- Cost of the MPM program can be shared among divisions

Forecasts are Built on Facts such as Production by Country

For most CFT products sales revenues are a function of the production of a plant or country. For the power industry it can be capacity or hourly generation. For the chemical industry the tons per year of product produced is the basis. Future production can be estimated from the project databases which McIlvaine maintains.

Ethylene Production 1000 tpy									
	2016	2017	2018	2019	2020	2021	2022	2023	2024
Austria	596	631	669	709	752	797	845	895	949
Belgium	2930	3106	3292	3490	3699	3921	4156	4405	4670
Finland	393	417	442	468	496	526	558	591	626
France	4407	4671	4951	5249	5563	5897	6251	6626	7024
Germany	6836	7247	7681	8142	8631	9149	9698	10279	10896

MPM Forecasts for Each Plant

Ethylene Production in France

As of 2017		
Location	Company	1000 tpy
Berre (Aubette)	LyondellBasell	470
Dunkerque	Versalis	380
Feyzin	A.P. Feyzin	250
Gonfreville	Total	525
Lavera	Naphtachimie	740
NDG	ExxonMobil	425

Forecasts by Product for Each Process in Each Plant

Forecasts can be made for each plant based on the production of chemicals at that plant. An ethylene plant might also make polyethylene. Some plants making chlorine reuse it in multiple processes. The CFT MPM for each process can be predicted using production forecasts.

Forecasts of Purchases by Individual Companies

Valve Purchases by Large Companies Home Based in France and Germany - 2019			
Company	Home	Industry	\$ millions
Air Liquide	France	Chemical	84
EDF	France	Power	583
Engie	France	Oil & Gas	143
LaFarge Holcim	France	Stone	72
Sanofi	France	Pharma	50
Schlumberger	France	Oil & Gas	57
Total Refineries	France	Refinery	235
Total SA	France	Oil & Gas	339
BASF	Germany	Chemical	311
Covestro	Germany	Chemical	65
Evonik	Germany	Chemical	73
Heidelberg	Germany	Stone	36
Linde	Germany	Chemical	82
Merck	Germany	Pharma	50
Uniper	Germany	Power	51

MPM Forecasts for Each Product for Each Major Purchaser

The forecasts for specific sizes and designs of products can be made based on the systematically gathered evidence behind the MPM program

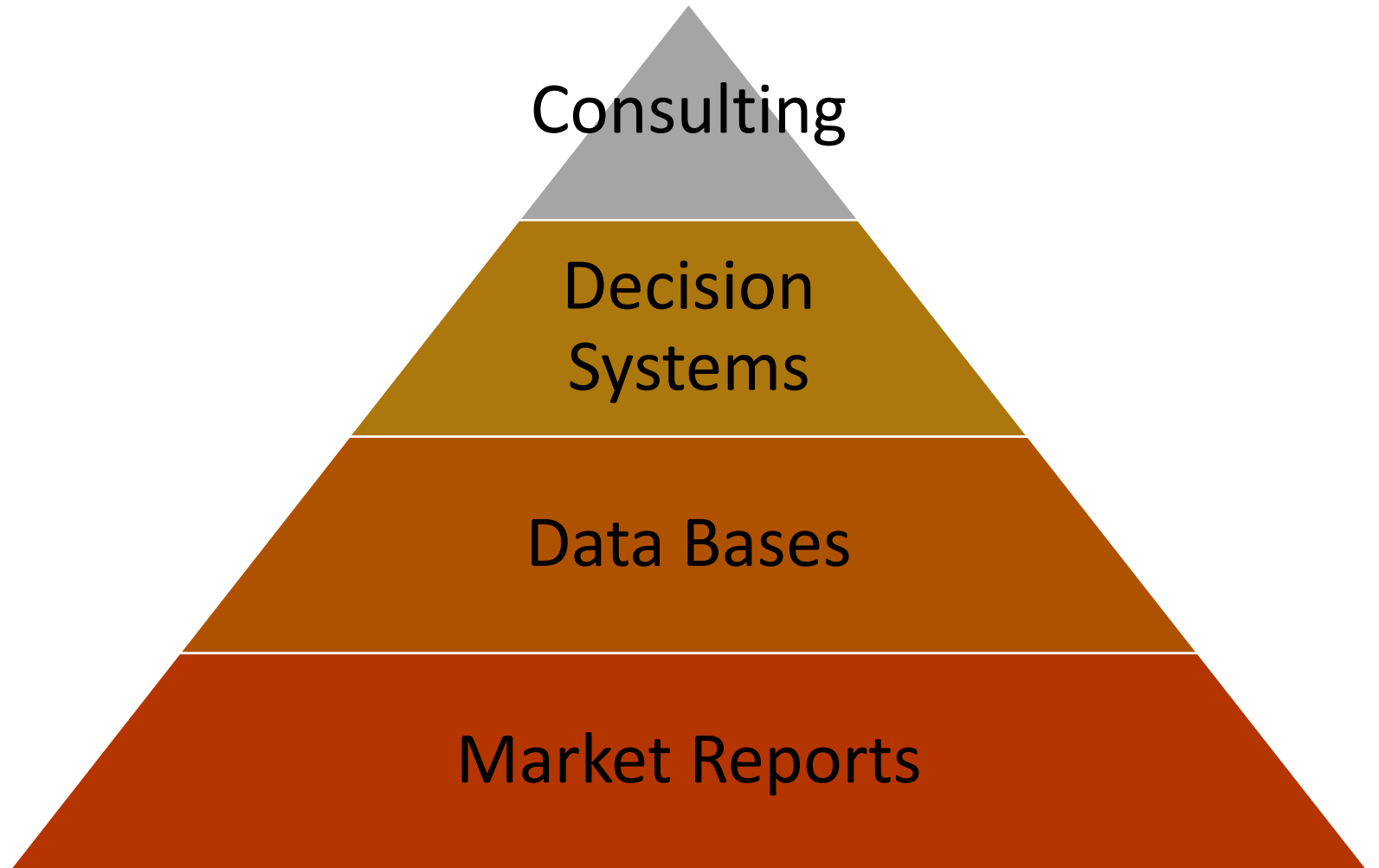
Product	Present Market \$	Growth Rate %	High Profit %	Market Share	MPM \$
<i>Petrochemical - World</i>					
Trunnion Ball Valve - Isolation					
Floating Ball Valve - Isolation					
Ball Valve - Control					
<i>Individual Purchasers - All Ball Valves</i>					
Chevron					
ExxonMobil					
LyondellBasell					



Basis for MPM Program

Custom MPM reports are prepared based on the extensive Serviceable Obtainable Market Forecasts contained in the Mcilvaine multi-client market reports.

The custom reports utilize the extensive information in the project and plant databases plus lowest total cost of ownership information appearing in the decision systems.



More Information

For more information on Markets click on

<http://home.mcilvainecompany.com/index.php/markets>

For More information on Databases click on

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