

Business Model Glossary for CARILON POLYMERS Business

Alignment – When strategies, systems, and behaviors in an organization “line up” consistently – all individuals are focused on common goals and objectives.

Application Development - The process of developing a new application and extend the use of existing applications that use CARILON Polymers including scoping the work, conducting the testing, preparing the sample for trial, and supporting the customer trial as needed.

Balanced Scorecard – A collection of performance measurements that span all key business objectives (financial, internal, customer, etc.)

Beacons – The most critical performance factors for a business.

Benchmark – Compare one or more performance factors of a business to similar factors for other businesses. Objective is to understand a business’ performance relative to its competition.

Best Practices – The operational/management practices that result in best value driver performance.

Business Model – A framework for running a business. Elements include mission, vision, values, purpose, case for action, beacons, strategy, business processes, key business activities, key performance measures, value drivers, business performance reviews, business unit structure, and investment lookback process.

Business Performance Review (BPR) – A review/discussion of the status of the managerial P&L, value drivers, scorecard measures, etc. relative to their targets that is focused on understanding and dealing with performance gaps. The intent of the review is to remove obstacles, barriers, etc. to dot movement.

Business Unit Structure – Element of the Business Model that describes why the business is organized the way that it is.

Case for Action - Describes business imperative for improving performance from current level.

Competencies/Capabilities – The knowledge, skills, abilities that are necessary for high employee performance and business success. Distinctive competencies/capabilities provide a business with an advantage that is not easily duplicated or copied by its competitors.

Competitive Advantage – The particular elements within a company that give it an edge over its’ competitors. Securing competitive advantages is central to a business strategy. Factors that provide competitive advantage include product features/functions, delivery time, place/location, price, and brand/perception.

Cost of Capital – The interest rate that a business is charged by financial institutions for borrowed money. It is used as a measure of the soundness of an investment – only those investments that provide a return greater than the cost of capital will have a positive impact on the business’ intrinsic value.

Customer Service – The support to the customer after a sale has been made. This definition includes activities such as solving technical problems associated with the use of our product, logistical problems, or product specification problems.

Customer Intimacy – A business strategy that creates a competitive advantage by customizing products/services to customers needs based on a detailed understanding of the customers’ specific wants/needs.

Distinctive Competencies/Capabilities – Superior business processes, skills, systems, or knowledge that provide a business with an advantage that is not easily duplicated/copied by its competitors.

Dot Movement – A visual representation of the impact of value driver improvement, investments, and/or strategy change on the financial beacons of a business – generally shown as graphically with “Revenue Growth” on one axis and “ROI or ROACE” on the other.

Dot Partner – A service-oriented organization whose focus is on providing value to other organizations. Their role is to help move their client’s dot as opposed to moving their own dot.

Drill Down – The process of developing an understanding of the business in an increasing level of detail.

Financial Beacons – The critical financial performance factors for a business. Examples include return on investment (ROI) and revenue growth.

Financial Profit and Loss Statement – A summary of financial information that addresses external (auditing) requirements.

Gap Analysis – Understanding the difference between target and actual performance with the intent of developing specific action plans to move the actual closer to the target.

Governance – The principle of managing an organization that promotes/allows financial and capital performance accountability at the appropriate business level.

Guiding Principles – An organizations purpose, mission, vision, and core values. Offers a sense of who we are and what we are about as a company.

Histogram – A collection of historical data on actual value drivers performance from both internal and external sources. Used to identify best practices.

Holistic – More complete, well-rounded. A holistic approach to the Business Model provides a framework that addresses both “hard” business processes and “soft” people systems.

Intrinsic Business Value – Present value of future cash flows based on an unbiased expectation of those cash flows and the associated level of risk.

Key Business Activities (KBA) – The business activities with the greatest impact on the organization’s beacons.

Key Performance Indicators (KPI) – Operational measures of the effectiveness of key business activities.

Lookback Process – A process to review the financial performance of past investments – how well did the investment performs relative to the exceptions.

Managerial P&L (Profit and Loss) - A tool that allows a business to understand how their key work activities relate to financial performance. May or may not contain all information contained in a traditional P&L.

Marketing Excellence – Includes developing and implementing marketing strategy, identifying and implementing marketing business processes, and maintaining the appropriate sections of CMM to support the business.

Operational Excellence – A business strategy that creates a competitive advantage by providing a product/service at the best total cost and convenience to the customer.

Organization Structure – The choices for unit boundaries, job definitions, reporting relationships, and shape/physical layout that supports the work and helps enable the organization's strategy and goals to be met.

People Strategy – A planned approach to acquiring, developing, and using a workforce that will deliver a competitive advantage.

Portfolio Management – Process of balancing the types of assets held by the business so that the overall risk/reward of the business as a whole meets the established targets.

Premier Company – An entity with sustained world-class performance in all aspects of its business. Attributes of a premier company include: financial strength, management quality, product quality, innovativeness, community responsibility, and the ability to attract, develop, and retain a talented and diverse workforce.

Process Map – A flow diagram that shows all the major processes that are involved in a business activity. Value drivers are derived from analyzing which processes have the greatest impact on dot movement.

Product Leadership – A business strategy that creates a competitive advantage by providing leading edge products/services that cannot be easily/cost-effectively provided by competitors.

Profitable Growth – Sustained growth in revenue and net income that is built upon investments which, on average, return at least the cost of capital.

Scorecards – Performance measure that allow all people in the business to understand status and progress of business toward targets. Can be used to measure the performance of value drivers, financial beacons, etc.

Shareholder Value – Equals intrinsic business value less the value of outstanding debt. Key measures which indicate business performance in increasing and balancing Shareholder short and long term value are ROI, revenue growth, cash on gross, and incremental value added.

Strategy – A clear definition of how the business will achieve and exploit distinctive capabilities for competitive advantage and thereby win against specific competitors for targeted customers on a sustained basis.

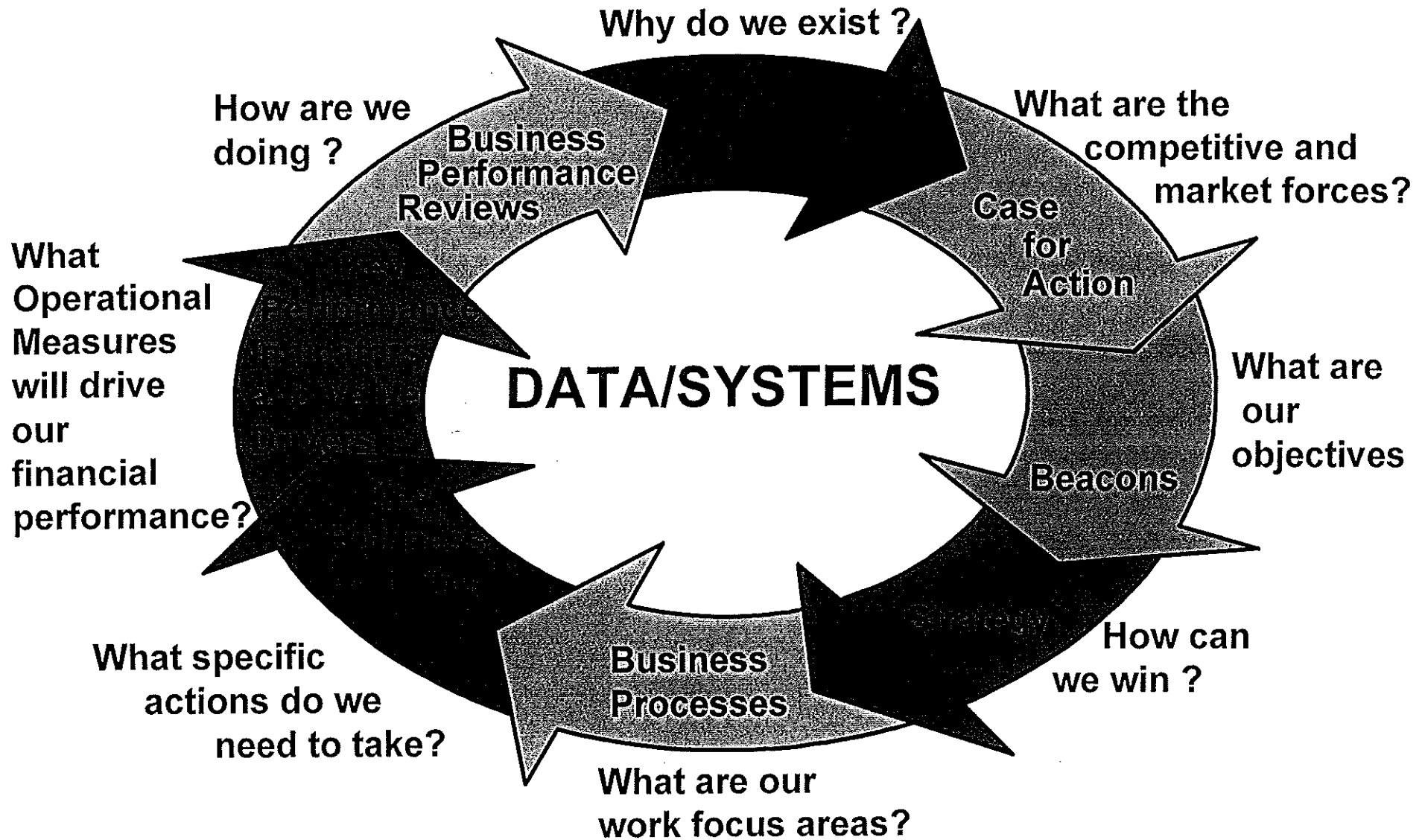
Strategy Renewal Process - The evaluation of a business strategy (in terms of how well the strategy allowed the business to meet its financial beacons) and the subsequent decision to either re-commit to or change the strategy.

Values – An expression of the desired behaviors of the people in an organization. Values articulate how an organization will achieve its mission and vision. Shell Oil Company has 5 corporate values: Belief in People, Trustworthiness, Excellence, Innovation and Sense of Urgency.

Value Chain Analysis – Breaking a business up into its key activities and assigning cost and value added to each activity for the purpose of identifying possible areas of competitive advantage. A business may be a part of a value chain that encompasses several businesses.

Value Driver – A key operational measure that links work (Operational activities) to financial results, typically expressed as a ratio of output per input. Value drivers measure either efficiency or effectiveness.

BUSINESS MODEL OVERVIEW



BUSINESS MODEL KEY ELEMENTS

- ➔ Mission/Vision/Values
- ➔ Case for Action
- ➔ Strategy
- ➔ Financial Beacons
- ➔ Business Unit Structure
- ➔ Relationship Between Business Unit Groups
- ➔ Managerial P&L/Scorecard
- ➔ Value Drivers
- ➔ Business Performance Reviews
- ➔ Resources Allocation and Investment Lookback Process
- ➔ Strategy Development and Renewal Process

How will a Business Model help?

A Business Model:

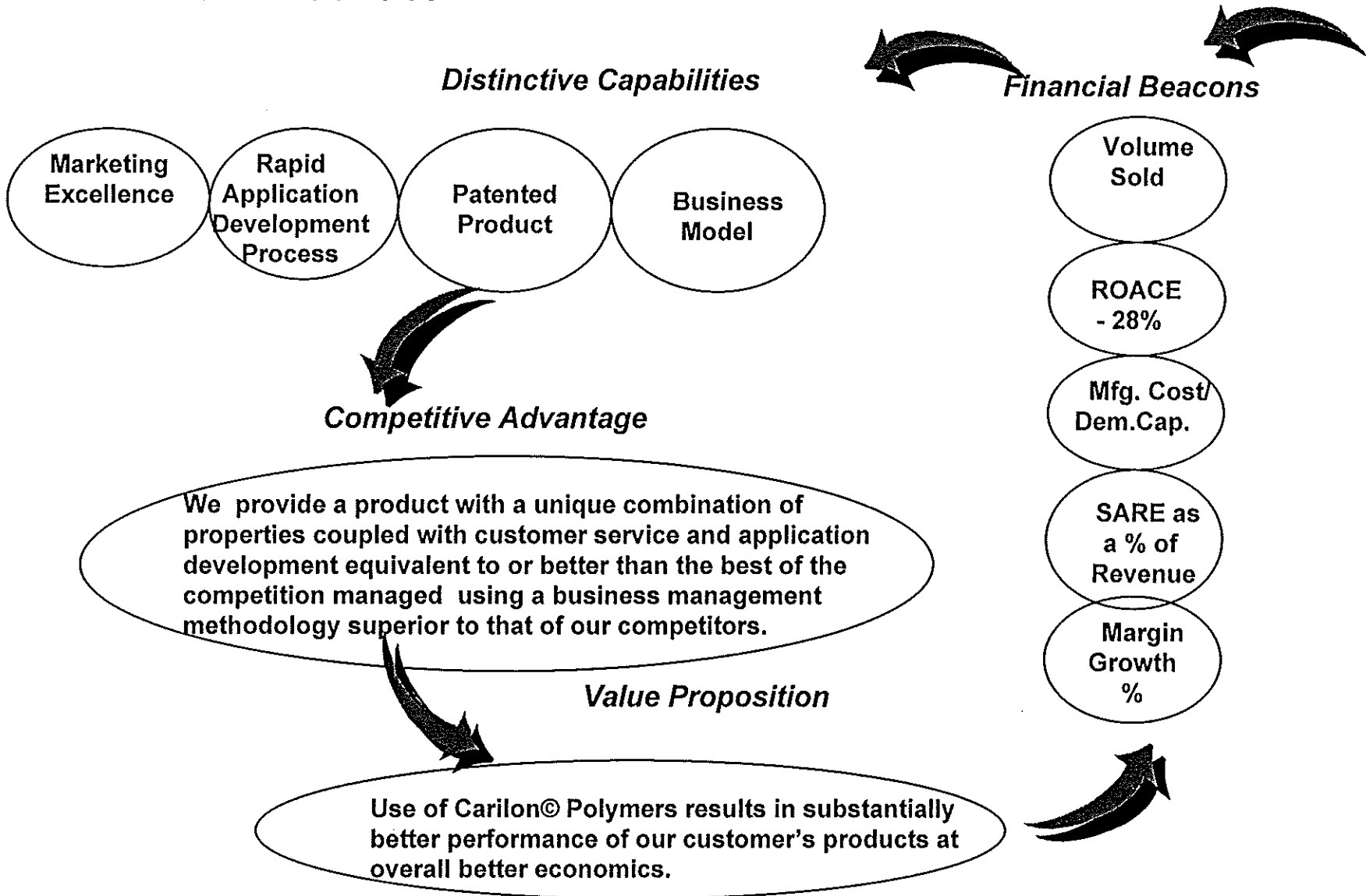
- ➡ Is a process that results in a clear description and shared view of the purpose, strategy and goals of the business
- ➡ Assists all in understanding their individual roles in achieving those goals
- ➡ Provides a common language about the business
- ➡ Drives toward ruthless prioritization and resource allocation around the work that is critical to business success
- ➡ Utilizes data, measurement, and best practices to improve the work that is done.

Carilon Polymers Vision

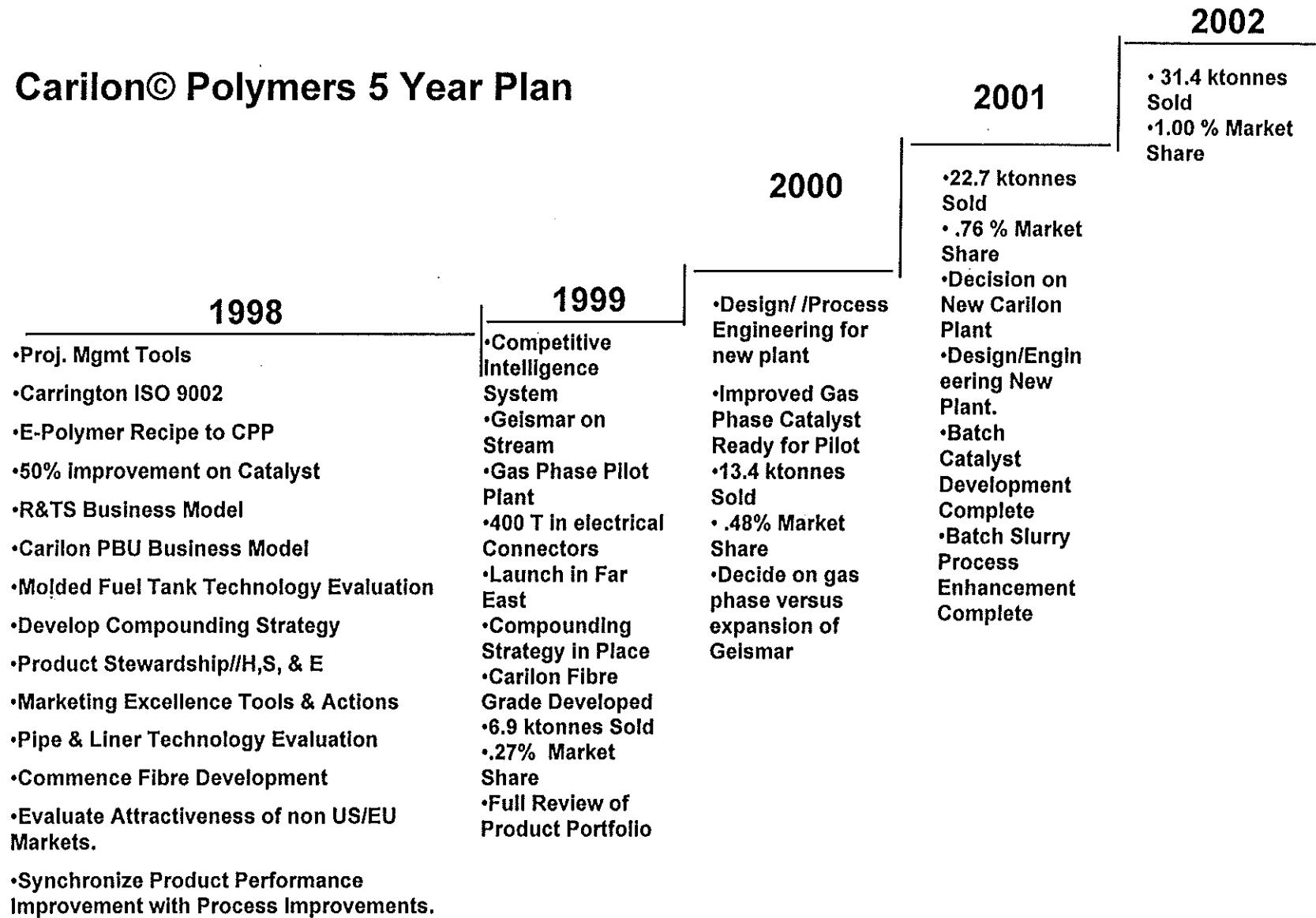
Polyketones will become one of the top five polymers in the world and Shell will be the market leader in Polyketones

Future Business Idea

Investment



Carilon© Polymers 5 Year Plan



Carilon Polymers Strategic Objectives and Options

Purpose

The strategic objectives of a business are measurable milestones that if achieved will move the business from its current state to the future state.

Strategic Objective #1 – Champion: Simon Barnard

Gap to Be Closed:	Plant Capabilities Fully Explored
Objective:	Carrington Production at Design Rates
Measurement:	Key Process Variables Targets are met. CORE Project Milestones Production Rates. Sales Equivalent to Production

Options to Achieve the Objective

1. Add CTN Representative to PBT. Set up structures to ensure effective communication between manufacturing and appropriate parts of the business. In particular, ensure that sales and marketing have enough information to sell all production.
2. Adhere to RDS best practices for plant maintenance and problem solving.
3. Mobilize global R/TS support to optimize process technology
4. Improve plant reliability by meeting all CORE project milestones.
5. Determine key process variables and set targets. Modify plant operation to meet target.

Strategic Objective #2 – Champion: Wanda Callahan

Gap to Be Closed: Business Model Implementation.

Objective: All employees associated with the Carilon Business have a clear understanding of:

1. How they add value to the business.
2. How to prioritize their work.
3. Access to the information needed to make business decisions within their sphere of influence.
4. A clear understanding of Business Strategy and Business Performance.

Measurement: 75% rating on an employee survey that objective has been met.

Options to Achieve the Objective

1. Implement the Business Model at the PBU Level.
2. Implement the Business Model for Technology.
3. Implement the Business Model for Marketing.

Strategic Objective #3 – Champion: Eric Noyrez

Gap to Be Closed: Marketing Excellence

Objective: Identify and Penetrate Target Markets

Measurement: Meet Sales Volume Targets

Options to Achieve the Objective

1. Implement the Marketing Strategy
2. Implement the Business Model for Marketing.
3. Implement customer service processes.
4. Implement Quality tools such as COA's and OFI's.
5. Implement CMM.

Strategic Objective #4 – Champion: Wout Goutzee

Gap to Be Closed: Rapid and Effective Application Development Process

Objective: Achieve Sales Volume Targets

Measurement: # Specifications/Quarter

Sales/# Specifications

Specifications that make it to Customer Trial.

Options to Achieve the Objective

1. Implement Product Strategy.
2. Implement the Business Model for Marketing and Technology ensuring integration of the two functions business models.
3. Develop and Implement Application Development Process.

Carilon © Polymers Balanced Scorecard

A balanced scorecard is used to allow an organization to assess its performance in more than just the financial arena. This scorecard will use measures to assess performance in the following areas:

1. Strategy Implementation
2. H, S, & E
3. Financial
4. People

Strategy Implementation

1. CPP Report Out on KBA's
2. Marketing Business Model KBA's
3. Business Model Implementation
4. R&TS Report out on KBA's
5. Strategic Objective Option Status

H, S, & E

1. % of safety issues resolved with 3 months of identification at Manufacturing and Lab Facilities.
2. 0 first aid cases.

Financial

1. Volume sold.
2. Margin Growth.
3. ROACE
4. Manufacturing Cost/Demonstrated Capacity.
5. SARE as a % of Sales.

People

1. % of Budget allotted to training events.
2. % of Employees that share learnings with peers following training events.

Carilon Strategic Objective: Plant Capabilities Fully Explored

Champion: Simon Barnard

Status as of May 1998.

Gap to be Closed: Plant Capabilities fully explored

Objectives:

1. CPP production at marketable quality
2. CPP production at maximum achievable rates
3. CPP cost base as low as possible consistent with objectives 1 & 2
4. CPP reliability of supply maximised

The objectives are being addressed by the four key activities below.
In addition to the KBA's and drivers, KPI manufacturing beacons have been identified to cover cost and demonstrated capacity.

KBA #1 Increase Plant Capacity

Goal: Increase CPP annual production capability to 4.2 kt by end 1998.
Achieve actual production of 3.1 kt in 1998
Increase CPP annual production capability above design capacity in 1999

Sequential Process Step	Status & date round 1	Status & date round 2
1. Analyse plant and process to determine bottlenecks	Post start-up experience Q1 97 analysed for major problem areas.	Q1 98 actual experience of steady running has been analysed and next steps identified.
2. Develop plan to solve	CORE phase 1 & 2.	CORE 3 proposal
3. Obtain Funding	Achieved Q2 1997	Under discussion April/May 98. Aim to present to PBT June 98 then Shell UK approval during June 98.
4. Implement changes	Phase 1 complete 11/97 Phase 2 on target for completion 7/98	If approved June 98, implementation planned to finish end 98 for some parts, Q2 99 for others.
5. Monitor effectiveness of changes	Production in 1st 5 months post phase 1 has exceeded that in 12 months prior to phase 1.	
6. Report	Daily, Monthly and PBT production reports distributed as appropriate. Lost Time Accounting system set up and ongoing.	
7. Modify plan as learning occurs	CORE 1&2 scope has been modified several times as learning has occurred. Eg hydrocyclone replacement cancelled, nibs sorter added.	
8. Return to step 1		

Key Value Driver:

Additional Capacity

Delta (CORE spend + Staff man-hour cost)

Proposed frequency of monitoring: 2 monthly

KBA #2 Increase Production of Saleable Product

Sequential Process Step	Status & date round 1	Status & date round 2
1. With R&TS devise a programme to identify the key process variables	Problem statement and analysis of available data completed by multidisciplinary team 22 & 23 April 1998. 6 step investigation plan developed.	
2. Set up plant trials to investigate	<ol style="list-style-type: none"> 1. establish base line. Completed May 98. 2. stabilise slurry ex reactor before processing. In progress May 98. 3. bypass methanol resin bed 4. reduce reactor residence time by higher Pd dosing 5. earlier cooling during starvation phase to reduce polymer temperature (uncontrolled residual polymerisation) exposure . 6. reduce seed concentration to minimise recycling of product 	
3. Analyse data		
4. Propose solutions to improve quality either through changed procedures, PCR's or projects.		
5. Obtain funding if required and not already provided.	Some provision made in CORE 3 proposal.	
6. Implement changes		
7. Report		
8. Consider further changes as learning occurs		

Key Value Driver:

tonnes sold per month

Delta (CPP + SRTCA Staff man-hour cost for quality activity)

Proposed frequency of monitoring: 1 monthly

KBA #3 Reduce Variable Costs

Goal: Identify and Monitor key variable costs and reduce consumption

Sequential Process Step	Status & date round 1	Status & date round 2
1. identify the most costly variables	Budget costs per tonne: 1. CO + C2= £524 2. steam £294 3. catalyst £190 4. electricity £185	
2. target variables with the highest potential return	<ul style="list-style-type: none">• monomer• steam• (catalyst reductions give longer cycle times and less plant capacity)• (electricity improves with increasing plant utilisation)	
3. analyse where improvement can be made	<ul style="list-style-type: none">• Monomer recovery system• Reduced steam consumption in distillation	
4. implement	Monomer recovery is a CORE 2 project Distillation control completed May 98.	
5. monitor	awaiting performance data.	
6. report		
7. return to 1		

Key Value Driver:

Variable Cost per tonne

Delta (Staff man-hour cost)

Proposed frequency of monitoring: 1 monthly

KBA #4 Optimise Maintenance Activities

Goal: Implement the most cost effective balance between maintenance cost and plant availability

Sequential Process Step	Status & date
1. analyse equipment maintenance requirements and methods based on criticality	RCM and RBI study sessions February & April 98. Completion planned June 98.
2. identify actions via procedures or projects to improve maintenance effectiveness.	Ongoing. Rollout for awareness and procedures July 98. Projects included in CORE 3 proposal.
3. Balance cost versus business gain.	Integral part of the RCM process.
4. Implement changes	Started with some procedures.
5. Monitor	Start in July with KPI's and Value Driver.
6. Report	

Key Value Driver:

TCOM* (Maintenance Fixed Cost + Margin of Lost Production)

Maintenance Fixed Cost + RCM study & project cost

Proposed frequency of monitoring: 1 monthly

* Total Cost Of Maintenance including loss due to unavailability of plant for production. Assume all product can be sold.

Key Business Activities

Candidate Key Business Activities *(KBA's)*

- ¶ Identify and develop **winning value propositions**
- ≠ Use Understanding of Key Customer Plans and needs to broaden PK use and identify all potential suitable applications.
- ≠ Assure sales plans in existence and in accordance with marketing plans.
- ≠ Define and Optimize Distributor/Compounder Network for EE/CAM.

KBA: #1 Identify and develop winning value propositions including products and service offerings

KBA Goal: Develop a portfolio of winning value propositions that result in revenue growth of 300 % per year and a bottom price not lower than \$1.50.

Sequential Process Steps	Time Spent hrs/month	\$M
1. Prove Carilon is superior in either product properties, customer process, or both.		
2. ID full decision making line to included specifiers and moulders.		
3. Make value proposition unique to other Carilon propositions.		
4. Take to Customer.		
5. Customer agrees to test and buy.		
6. Customer continues to buy.		
7. Value proposition is used with new customers.		
Totals:		

Key Actions

1. Identify 20 new application opportunities for value propositions by September 1, 1998.
2. Define 4 potential value propositions per quarter.
3. Initiate test of >50% of value propositions with customer per quarter.
4. Determine best practice for developing/using value propositions.

Candidate Value Drivers

#1 KBA:

Identify and develop winning value propositions including products and service

#1,2,3 Process Step Rank 1:

Develop winning value propositions.

Goal Statement - Process Step #1,2,3:

See Key Actions # 1, 2, and 3.

<p><u>Effectiveness Value Driver</u></p> <p>Number of specifiers recognizing value and developing business</p> <p>Number of winning value propositions</p> <p>Target = 3</p>	<p><u>Efficiency Value Driver</u></p> <p>Number of Winning Value Propositions</p> <p>Hours spent to develop Value Propositions</p> <p>Target = .1</p>
<p><u>Effectiveness Value Driver</u></p> <p>Number of Winning Value Propositions ranked as low</p> <p>Number of winning value propositions</p> <p>Target > 50%</p>	

KBA: #2 Use Understanding of key customer plans and needs to broaden PK use and identify all potential suitable applications.

KBA Goal: Grow Revenue at Key Customers by 50% over first application.

Sequential Process Steps	Time Spent hrs/month	\$M
1. Identify and select key customers.		
2. Analyze plans and needs of key customers and specifyers.		
3. Adjust prices and offerings based on analysis.		
4. Complete sales.		
Totals:		

Key Actions

1. Select 30 key customers by July 1, 1998.
2. For each customer identify suitable applications.
3. Develop 5 new offerings including price per quarter.
4. Implement a quarterly video conference to discuss learnings.

Candidate Value Drivers

#2 KBA:

Use understanding of key customer plans and needs to broaden PK use and identify all potential suitable applications.

<p><u>Efficiency Value Driver</u></p> $\frac{\# \text{ New Sales}}{\# \text{ of Hours Invested}}$ <p>Target = Actual to begin with</p>	<p><u>Effectiveness Value Driver</u></p> $\frac{\text{Actual Lead Time to get sale}^*}{\text{Initially estimated time to get sale}^*}$ <p>Target = 90%</p> <p>* Time starts when key customer identified * Time stops when product is sold</p>
<p><u>Effectiveness Value Driver</u></p> $\frac{\% \text{ Revenue Growth}}{\text{Key Customer}}$ <p>Target = 50%</p>	

KBA: #3 Assure Sales Plans in existence and in accordance with marketing plans.

KBA Goal: 100% Compliance with commercial action plans resulting in 300% revenue growth per year.

Sequential Process Steps	Time Spent hrs/month	\$M
1. Identify and select key Accounts.		
2. Develop key account plans.		
3. Implement key account plans.		
4. Monitor Progress.		
5. Continually update commercial action plan.		
Totals:		

Key Actions

1. Update key account plans by September 15, 1998.

2. Verify Chemist is monitoring progress and generating reports.

3. Update and communicate commercial actions plans - each sales person.

Candidate Value Drivers

#3 KBA:

Assure Sales Plans in existence and in accordance with marketing objectives.

<u>Efficiency Value Driver</u>	<u>Effectiveness Value Driver</u>
<u># Customer Visits</u> Week Target = TBD	<u>Total Revenue</u> Sales Person Target = TBD