



Siemens ICM



Balanced Scorecard Hall of Fame™ Case Studies



Abstract

Siemens IC Mobile offers a complete range of mobile solutions, including mobile devices infrastructure and applications. It is a fast-growing business in a fiercely competitive, burgeoning wireless industry faced with the need for rapid product innovation and operational excellence. Senior management at this 29,000-person business unit of Siemens AG wanted to strongly link its strategic direction to everyday operations, and selected the Balanced Scorecard as a robust framework for managing within an environment of constant change. Linking its scorecard to the Six Sigma program, in little more than a year Siemens implemented the BSC from the boardroom to the shop floor, ensuring that the entire organization was aligned to the strategy and that executing it became everyone's job. The results were impressive: sales increased 76% to EUR 9 billion, and earnings jumped 127% to EUR 692 million in fiscal year 1999/2000.

Organizational Background

Siemens AG

Germany-headquartered Siemens AG has about 450,000 employees worldwide and operates in fields as diverse as power, automation and control, transportation, medical, lighting, and information and communications.

Siemens Information and Communications

Competing in communication technology markets, Siemens Information and Communications has about 114,000 employees. It is organized into three business groups:

- Information and Communication Mobile
- Information and Communication Networks
- Siemens Business Services

Siemens Information and Communication Mobile Group

The Siemens Information and Communication Mobile Group (IC Mobile) offers a complete range of mobile solutions including mobile devices, infrastructure, and applications. Devices include mobile phones, wireless modules, mobile organizers, and cordless and corded phones, as well as products for wireless home networks. The infrastructure portfolio includes the complete range of mobile network technologies from base stations and switching systems to intelligent networks (e.g. for prepaid services). Applications cover UMTS services for unified messaging, location based services, and mobile payment. For the fiscal year 2000 (which ended September 30, 2000), IC Mobile recorded sales of EUR 9 billion and EBIT of EUR 758 million. The group employs 27,450 employees worldwide, and has a 50% holding in Fujitsu Siemens Computers.

Competitive Pressures in the Mobile Marketplace

Mobile communications is arguably today's fastest growing and most competitive industry. In 2004, there were over 180 million cell phone users, surpassing the number of traditional land lines. Moreover, as a rough guesstimate, analysts predict that by 2010, 50% of mobile users will use mobile Internet services. In this environment, new product introduction is rapid. To remain competitive, suppliers have to launch new mobile phone models approximately every three months.

Value Creation Strategy

Siemens IC Mobile's mission is to lead information, communication, and entertainment solutions for the mobile world, offering solutions that enable people to share knowledge and emotions, any time, any place. The group is active in extremely diverse markets and cultures. It understands the customer requirements of an increasingly mobile world. Using its technological excellence and global presence, Siemens IC Mobile provides comprehensive solutions for the customer's satisfaction and success.

Why Siemens IC Mobile Chose the BSC

Given the growth potential within the mobile communications marketplace, the IC Mobile senior management team identified a compelling opportunity to drive up market share and secure a significant portion of new business.

Achieving this would require the successful implementation of IC Mobile's strategy. The group management believed that its processes for strategy implementation were too complex, leading to the disconnection of strategic direction from everyday operational activities.

The Balanced Scorecard was identified as the most effective tool for simplifying strategy implementation and thereby reconnecting operational activities with the direction of the strategy.

Furthermore, as a third benefit, the management team had identified a pressing need for a robust framework for managing within an environment of constant change. And as Dr. Bernhard Gueldner, Director, Management Systems and Communications Mobile Business Excellence at Siemens AG, says, "Scorecard activities are change activities."

Results Achieved

Financial: For the FY 1999/2000, IC Mobile achieved sales of EUR 9 billion, up from the previous year's EUR 5.1 billion. Since launching its Balanced Scorecard, Siemens IC Mobile has seen sales rise by more than 75%.

Order income rose by 92% over FY 1998/1999 figures to EUR 10.4 billion.

Customer: On introducing the Balanced Scorecard, Siemens IC Mobile was ranked as the world's sixth-largest mobile phone provider in terms of market share. It is now in fourth place. It is working toward its goal of being one of the top three players in mobile business worldwide.

Process: "Cost of nonconformance," a key performance indicator at the business unit-level, has fallen by 50% in several business units. This result was achieved through driving process improvements.

Net median savings for Six Sigma black belt projects (essentially continuous process improvement projects) stood at 150,000 EURO per project for the period Q2 1999/2000 to Q4 1999/2000.

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Status ICM: FY 99/00

IC mobile

Networks



Solutions



Devices



FY 99/00*

Δ previous FY

	FY 99/00*	Δ previous FY
Orders received	10,400	+ 93%
Sales	9,000	+ 76%
EBIT	758	+ 127%
Employees	27,400	+ 20%

* financial figures in Million Euro

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Siemens IC Mobile BSC

Construction

Mobile Balanced Scorecards have been created at the business-unit level within Siemens IC, although not yet at the IC Mobile level.

The first business unit Balanced Scorecard was constructed in early 1999 within a single telephone facility. However, the sheer speed of events in the mobile telephony market has led to difficulties in following a logical sequence of Balanced Scorecard constructions for each business unit. Since early 1999, IC Mobile has sold several business units and purchased others. Consequently, the construction process, along with the implementation phase, is at markedly different maturity levels within the business units.

Scorecard Perception

Perceptions of the value of the Balanced Scorecard vary in relation to the differing level of BSC maturity within IC Mobile's business units. According to Bernhard Gueldner, those units well versed in Balanced Scorecard usage regard it highly and view it as a crucial framework for strategy deployment. Best practices are rewarded through the Siemens corporate program "top+." However, those units still in the early stages of their Balanced Scorecard adoption are just learning about the power of the BSC and therefore have some way to go before fully appreciating its efficacy.

Management Workshops

The Balanced Scorecard is constructed during workshops involving each unit's senior management team, typically held over a three-to-four month time frame.

Creating the scorecard is an inherent element of Siemens IC Mobile's four-stage process from strategy formulation to operation.

1. Business assessment
2. Development of business strategy
3. Operationalize business strategy
4. Operations

The Four-Phase Process: From Strategy Formulation to Operations

Dr. Gueldner provides an overview of how Siemens IC Mobile works through these four phases and their subelements in order to formulate and implement business strategy.

First, he says, there is a whole chain of activities on different managerial levels that have to happen in order to transform this strategy from words into action. To insure even smoother operations and higher-performance organization Gueldner says the group uses best-in-class management tools, which we call the management value chain. "The first step of the management value chain is to assess our business. That means we know what value disciplines we are in, we know how the environment looks, and we know our strengths, our opportunities, and our weaknesses."

Once the business has been assessed, the business strategy is developed, ending up with the critical few objectives.

"With these critical few objectives, each of the terms is important," says Gueldner. "We define objectives that tell us where we want to go. They are few—in the order of three or four, and they are critical. That means, if we miss one, we will fail, so we we have to reach all of them."

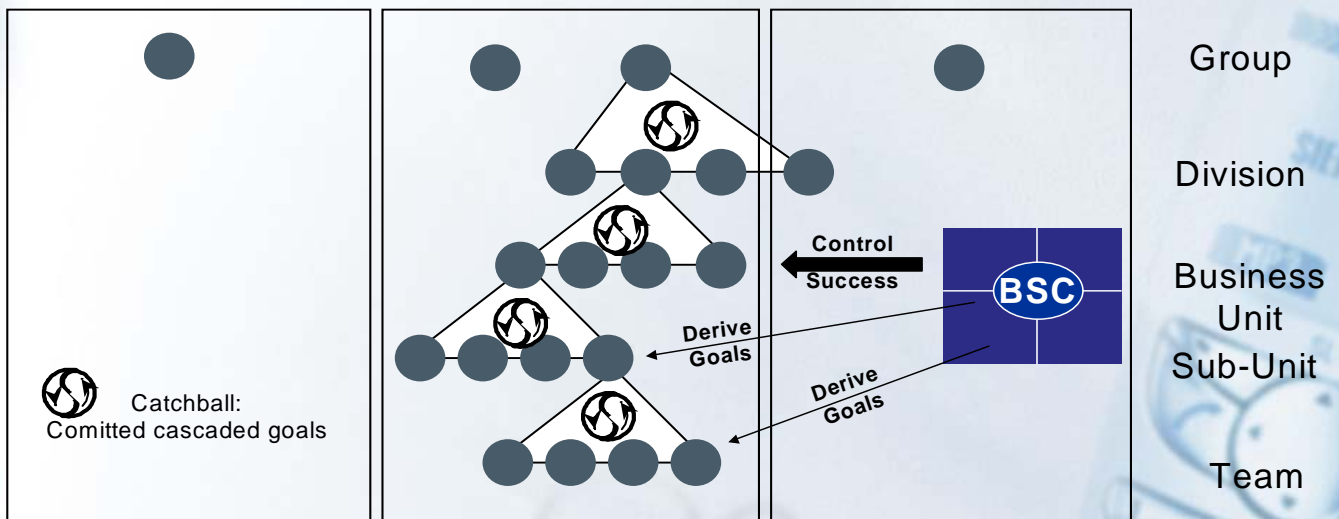
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Critical Few Objectives: Cascading Strategic Goals Along Business Processes

Idea to Market

Offer to Cash

Problem to Solution



- Everybody knows his/her contribution to the 'global' critical few objectives (●)

BSC Helps Translate Strategy into Action

After developing the business strategy, Siemens puts it into operation by using the Balanced Scorecard. “We get our linkage model...we do process mapping, we get the Balanced Scorecard, we get the key performance indicators, the targets and so on,” explains Gueldner, “and then we come from making the strategy operational to the operations themselves.” This involves project management tools, using cross-functional teams, and dealing with specific topics and for that we use Six Sigma.”

Strategy Map

The Siemens IC Mobile strategy map is too sensitive to describe in full, but some key elements are described here. For example, a couple examples of its linkages are:

- The strategic objective “increase market share,” is driven by objectives such as “increase customer satisfaction” and “decrease nonconformance costs”
- “Decrease warranties,” is driven by “increase product quality,” which in turn is driven by “identify [and rectify] key processes responsible for poor quality”

Operations Alignment

Although the Balanced Scorecard within IC Mobile was not developed in a conventional top-down cascade, commonality is still present across business-unit scorecards.

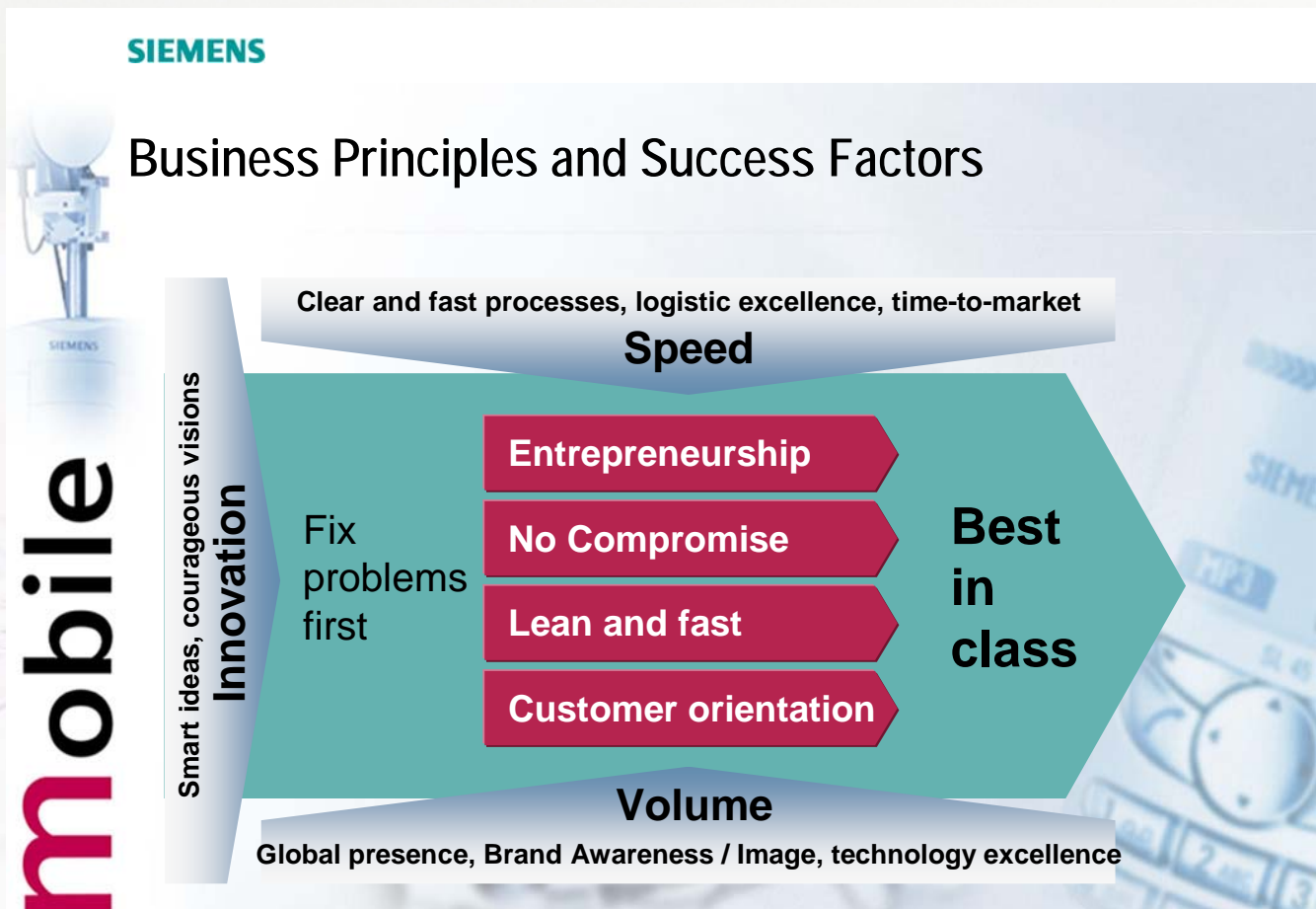
Most notably, a major input into each unit's Balanced Scorecard are IC Mobile's three critical success factors (CSFs) and four business principles.

Critical Success Factors

- Speed—Clear and fast processes, logistics excellence, and time-to-market
- Innovation—Smart ideas and courageous visions
- Volume—Global presence, brand awareness/image, and technological excellence

Business Principles

- Entrepreneurship
- No compromise
- Lean and fast
- Customer orientation



Common Business Processes

The following three common business processes are standard within the business units:

- Idea to market
- Offer to cash
- Problem to solution

Each unit's Balanced Scorecard reflects this process view of operations and insures that process improvement objectives are supported by strategically important key performance indicators (KPIs).

Some KPIs, such as cost of nonconformance, are common across business unit scorecards. Siemens IC Mobile's senior process engineer, Dr. Guenter Leyendecker, explains the importance of this particular KPI. "Nonconformance costs are a central element of the scorecard. We calculate the percentage of the contribution of business processes to nonconformance cost. Managers of these processes are responsible for reducing their costs of nonconformance and they have their own particular targets for reduction."

Best Practice Sharing Events

As Balanced Scorecards are being created throughout Siemens AG, forums such as "Scorecard User Clubs" are held to facilitate the dissemination of scorecard learning and experience.

User groups consider topics such as:

- The implication of the Balanced Scorecard on the budgeting process
- Balanced Scorecard communication mechanisms
- Tools for IT implementation
- The Balanced Scorecard and the procurement process
- The Balanced Scorecard and e-business

In addition, annual Best Practice Days are held to focus on specific best practices; each event attracts about 100 participants from across Siemens.

Building Awareness

Policy Deployment

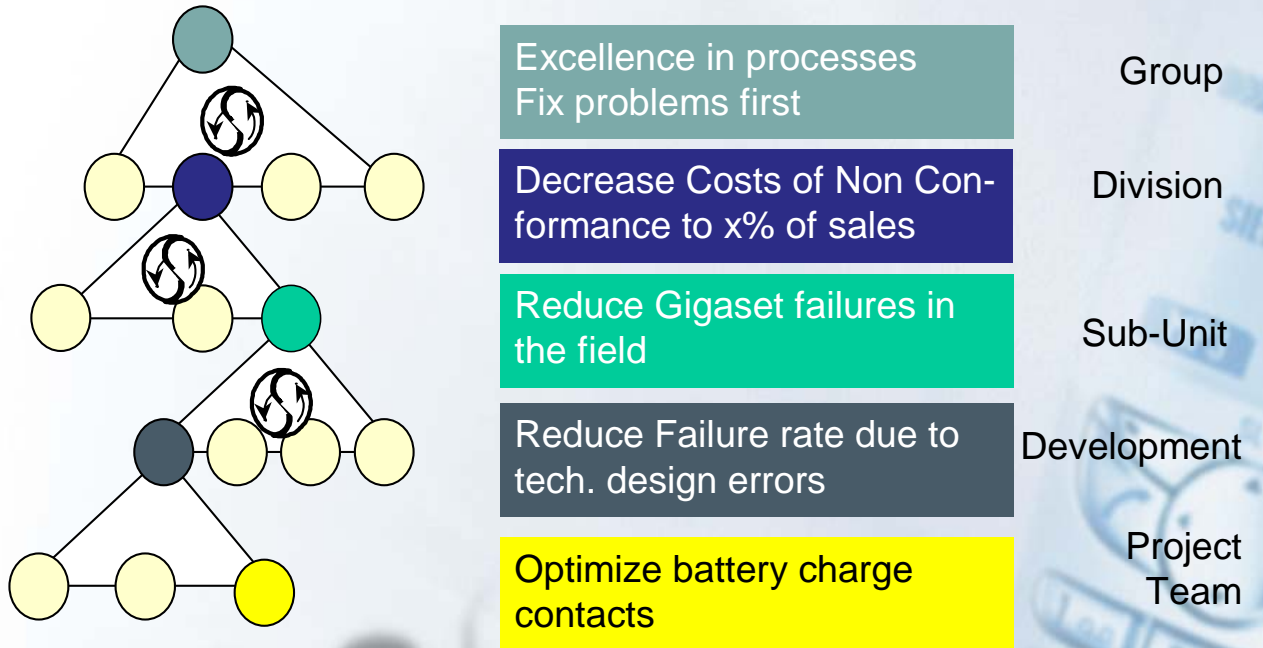
Ensuring that everybody within IC Mobile understands its strategy is largely achieved through the company's policy deployment process, through which employees from one level make a commitment to specific targets with the level above. This process, known as "Hoshin Planning" or "catch-ball" insures that strategic goals are cascaded all the way from group level to shop floor level.

The organization identifies its critical few objectives (CFOs), an example being "unbroken processes." Goals for achieving this CFO are set at the business unit level. Then employees representing the subunit level commit to reaching these goals by setting their own aligned targets. Deepening the cascade, teams then go through the same commitment/target setting process at both team and individual employee levels.

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A Cascading Example: From Business Goals to Shop Floor Actions

Problem to Solution --> Offer to Cash



Everybody in the organization knows to which global objectives he/she contributes

Personal Scorecards

The use of target agreements between different organizational levels is intrinsic to policy deployment within IC Mobile. Through this practice, teams commit to targets and employees commit to personal targets. Such target agreements are a key component of the “operationalize business strategy” phase of IC Mobile’s strategy formulation and devolution process

IC Mobile is strengthening this personal target agreement process by involving representatives from the human resources (HR) function. HR representatives play a key role in facilitating the employees’ progress towards their personal targets.

Budgets and Strategy

Within Siemens IC Mobile, the primary methodology for process improvement is Six Sigma. Therefore key initiatives within this process-based organization are typically delivered through the Six Sigma principles. Six Sigma is a performance excellence standard, first introduced and exemplified by Motorola, articulated as 3.4 parts per million defects or better. As a comparison, studies suggest that a reject rate of around Four Sigma, or about 6,000 defects per million, is not uncommon amongst larger companies.

A typical Six Sigma process has five steps:

- Define process initiatives and targets
- Measure data effectiveness, including variables
- Undertake analysis to determine the real causes of problems
- Improve performance
- Monitor and control new processes

According to Dr. Leyendecker, IC Mobile was attracted to the Six Sigma methodology for several key reasons:

- A proven and standard methodology was required for an organization the size of IC Mobile
- Six Sigma can be applied to all kinds of processes
- Six Sigma is applied in improvement projects according to the specific customer-focused process targets
- Six Sigma leads to measurable process improvements, based on data
- Six Sigma provides a structured road map for improvement

A Six Sigma Example

Reducing the warranty costs, a major contributor to the cost of nonconformance, provides a powerful example of how Six Sigma works.

First, nonconformance costs are assigned to the three key processes of IC Mobile—idea to market, offer to cash, and problem to solution. Then, starting with “problem to solution,” a root cause analysis is undertaken to discover the real causes of the warranty cost. This may be in any of the three processes: as examples, incomplete orders in the “offer to cash” process or a design fault in the “idea to market” process. The goal is to identify the causes for the roots and correct the problem to lead to a sustained reduction of the warranty costs.

Dr. Leyendecker describes a key benefit of Six Sigma: “Six Sigma makes the correlation between the processes and nonconformance. To reduce costs we have to improve processes and so have to identify the right screws to turn. These screws are often difficult to find, and Six Sigma provides a systematic methodology for their identification.”

Moreover, fixing this process problem directly feeds up to the CFO a chain of unbroken processes, a key objective within business units’ Balanced Scorecard.

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Linking BSC and Six Sigma Example: Costs of Non Conformance (NCC)

- NCC is a typical performance indicator in consumer business
- Reduction of NCC is part of the Balanced Scorecard on Business Unit Level
- Warranty cost are a major contribution to NCC

- Strategic Target Setting: Lower NCC
- Task: Correlation of NCC and (Sub-)Processes incl. the right Key Performance Indicators
- Start at Problem to Solution (NCC easily visible)
- Continue with root cause analysis
- Push through to Idea to Market (Design for Six Sigma)

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Information and Communications

Putting It All Together

Dr. David Norton, President of Balanced Scorecard Collaborative, summarizes how the various process improvement mechanisms work together at Siemens IC Mobile like this: "Siemens is using the Balanced Scorecard right at the top to get the strategic priorities clear, that's process 1. Process 2 is the cascading where you use a catch-ball type approach to bring this down and personalize it. And then process 3 is Six Sigma, which basically identifies...the initiatives you're going to put in place to make this happen and what you've done is rather than confuse the organization by giving them three, four, or five processes, you weave it all together and give it one name and roll it out as one program....Powerful."

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Integrating Balanced Scorecards and Six Sigma: Case study NCC

BSC

Shop Floor Projects with measurable contribution

Target setting

Correlation with Business Processes

Definition of Concrete Measures

Application of Best in Class Methodology

Process Performance Indicators

Cost Effect

Objectives

Core Problems

Improvement levers

Define concrete actions

Implement actions

Monitor progress

Business Process
IM
OtC
PtS

Major Measures
9
24
9

Six Sigma Projects
9
30
5

KPIs
5
18
1

NCC Potential*
3*
106*
84*

PtS = Problem to Solution OtC = Offer to Cash IM = Idea to Market * Example Data

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Feedback Systems

For reporting and analyzing performance data, Siemens IC Mobile has built an intranet-based information warehouse. This tracks Balanced Scorecard performance at business unit, process, and subprocess levels.

Strategic Learning

At Siemens IC Mobile the Balanced Scorecard is reviewed within quarterly—and in some case monthly—management meetings. Balanced Scorecard performance is tracked using a red, amber, and green traffic light system. Through this system, any required improvement actions and initiatives are identified and launched.



Mobilize Change

Executive Leadership

On launching the Balanced Scorecard effort, overall sponsorship was provided by Rudi Lamprecht, a member of the managing board at Siemens AG and president of IC Mobile. Lothar Pauly, a board member of IC Mobile, and Dr. Ulrich Viethen, responsible for business excellence within IC Mobile, supported him as key scorecard champions.

On a practical implementation level, Dr. Bernhard Gueldner and Dr. Guenter Leyendecker, as senior process engineers and internal consultants, play a key role in rolling out the Balanced Scorecard to the twelve business units.

Drs. Gueldner and Leyendecker also lead the efforts to align IC Mobile's use of the Six Sigma methodology with the Balanced Scorecard, through their role as members of the "business excellence team." The team has the mission to improve the process performance within IC Mobile to best-in-class level.

The leader of each business unit assumes the role of project leader for unit-level construction and implementation of the Balanced Scorecard. Internal consultants such as Drs. Gueldner and Leyendecker provide support.

The Critical Role of Executive Commitment

Siemens IC Mobile's experience of working with the Balanced Scorecard reinforces a key scorecard learning, as Dr. Gueldner states: "It is absolutely critical that senior management is both committed to the scorecard and actively participates in driving the scorecard within the business unit."

Learn More

Siemens IC Mobile Web site:

<http://www.ic.siemens.com/mobile/de/>

BSCol Hall of Fame

Balanced Scorecard Collaborative Hall of Fame winners have achieved breakthrough performance largely as a result of applying one or more of the five principles of a Strategy-Focused Organization: Mobilize Change Through Executive Leadership; Translate the Strategy to Operational Terms; Align the Organization to the Strategy; Make Strategy Everyone's Job; and Make Strategy a Continual Process.

Other selection criteria include: implement the Balanced Scorecard as defined by the Kaplan and Norton methodology; present the case at a public conference; achieve media recognition for the scorecard implementation; produce significant financial or market share gains; and demonstrate measurable achievement of customer objectives. Hall of Fame honorees are nominated by the Collaborative's in-house experts and are personally selected by Balanced Scorecard creators Dr. Robert Kaplan and Dr. David Norton.

Balanced Scorecard Collaborative, Inc.

Balanced Scorecard Collaborative, Inc. (BSCol) is a new kind of professional service firm dedicated to the worldwide awareness, use, enhancement, and integrity of the Balanced Scorecard (BSC) as a value-added management process. Led by Balanced Scorecard creators Drs. Robert Kaplan and David Norton, BSCol provides consulting, conferences, training, publications, action working groups, software certification, and online services. For more information, please call us at 781.259.3737, or visit us on the web where you can join Balanced Scorecard Online for the latest insight and resources at bscol.com.

