THE FRANZ EDELMAN AWARD
Achievement in Operations Research

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THE FRANZ EDELMAN AWARD

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What could Coca-Cola, the U.S. Coast Guard, HP, DaimlerChrysler, and Sloan-Kettering Cancer Center possibly have in common? In addition to being household names, they have all demonstrated significant impact through the deployment of operations research. Their work has been recognized by INFORMS and they are all being honored as finalists in the 2007 Edelman competition.

These organizations have used operations research to tackle a wide range of challenging, invigorating problems: Coca-Cola Enterprises streamlined the delivery of its popular beverages; the U.S. Coast Guard secured the American homeland by returning aircraft speedily to its fleet; Hewlett-Packard developed a new method of coping with hidden economic risks as it acquires materials to manufacture electronics; DaimlerChrysler addressed the auto industry’s fierce pressures in pricing and promotion through an inventive decision-support system; and Sloan-Kettering improved treatment plans that extend the survival rate and quality of life of cancer patients. All of these organizations
have deployed O.R. tools in ways that change the world.

The Edelman competition allows all of us a brief look at the math embedded deep inside the business processes that run an enterprise. It also provides us, the O.R. community, with an opportunity to celebrate our successes, and to illustrate to business executives, government leaders, physicians, marketers, and truck drivers that mathematical modeling betters their lives.

Operations research has an aura that our community understands very well. It is an exciting discipline combining the beauty and rigor of mathematics with the creativity of models and algorithms, and harnessing the power of computation. Today operations researchers capitalize on the available computational, data, and communication infrastructure to drive deployment of our innovations. And with each deployment we discover a new set of opportunities, a next wave of problems to study.

And why not? Operations researchers like those competing in this year’s Edelman competition always push the frontiers of what’s solvable. That’s our own little way of treading great paths.
Richard Larson said a couple of years ago that “O.R. is the world’s most important invisible profession.” Most of the people who fly commercial airlines in today’s busy world don’t realize that O.R. is at the very heart of running a successful airline. Without O.R., airlines could not effectively do the strategic and tactical planning, and make the real-time decisions, necessary to compete in a complex environment. Successful airlines use O.R. to:

- Do the fleet and facility planning critical to long-term survival
- Build competitive schedules
- Schedule flight crews, airport personnel, and reservation agents
- Dynamically price their seats on hundreds of thousands of flights and destinations
- Make a wide variety of product design decisions
- Recover from irregular operations caused by weather, air traffic control, mechanical problems, and other unplanned disruptions

The list could go on and on. The point is that O.R.-based systems and O.R.-based analysis drive critical decisions that spell the difference between success and failure, yet the traveling public and most of the people employed by airlines don’t have an appreciation for the role O.R. plays.
We have seen over the past several decades where O.R. has transformed many organizations and has been the difference between success and failure. Today, it is even more crucial for executives in all kinds of organizations, whether big or small, private or public, to know about O.R. and, when appropriate, use O.R. to make their most critical recurring and nonrecurring decisions.

Global competition has never been more intense, and the complexity of today’s business environment requires the very best decisions that executives can make. Those executives who don’t embrace O.R. will be at a distinct competitive disadvantage because progressive executives in competing organizations are turning to O.R. to improve their bottom-line results.

Operations research is even more important today than it has been in the past. Over its more than 50-year history, the science of O.R. has evolved through the research of thousands of O.R. professionals in academia and in the private and public sectors. Consequently, O.R. can be applied to a wide variety of problems in every economic sector. In addition to the advances in scientific methods, advances in the speed, capacity, and economics of today’s computers are allowing O.R. professionals to attack and solve problems that even a few years ago would have been impossible to overcome. Huge problems with millions of variables, requiring access to vast amounts of data, can now be solved in real-time at a reasonable cost.

In short, as evidenced by the Edelman Competition, O.R. has proven again and again that it has the power to transform organizations. The time has never been better for progressive executives to use O.R. to create a competitive advantage for their organizations.
Seeing is Believing: A Graphical Representation of the Value of O.R.

by Jeffrey M. Alden

Cumulative Dollar Benefits from Edelman Finalist Projects, 1984 to 2006

(Quantified Benefits, realized plus 2 years anticipated, in 2006 dollars)

Typically, six finalists per year sorted with highest impact first

Many important benefits from the 141 finalist projects did not lend themselves to monetary evaluation. Even so, the documented monetary impacts, over the recent history of the Edelman, approach $100 billion.
The Franz Edelman Award
Every once in a while, operations research doesn’t just save you money and resources. It changes the way you think.

That was what happened at Warner Robins Air Logistics Center (WR-ALC), the winner of the 2006 Edelman Award. Before using operations research, the WR-ALC leadership team associated success with a shop full of aircraft, like the giant C-5 Galaxy transport, waiting to be serviced. After applying operations research (O.R.) to help rush these aircraft back to the Iraqi war and Afghan theaters, leadership began shooting for a new goal: having the fewest aircraft possible on the shop floor – and the remaining aircraft serviced and aloft.

The Warner Robins Edelman submission was not a case of an ailing organization in need of an operations researcher in a white hat coming to the rescue. In many ways, their story is more interesting.

Even before using O.R., Warner Robins was a Shingo Award winner for using lean initiatives to reduce turnaround time in aircraft repair. In what turned out to be a fortunate coincidence, the lead author for Warner Robins, William Best, was taking O.R. courses at the University of Tennessee. After he learned about Critical Chain Project Management (CCPM) techniques that were uniquely relevant, WR-ALC collaborated with the university and Realization Technologies to bring still greater improvements to the way that Warner Robins repaired aircraft.

In the end, WR-ALC reduced its turnaround time from 360 to 250 days with lean initiatives, to only 160 using O.R.

It did a lot more. The center returned five additional C-5 aircraft to the U.S. Air Force’s operational inventory. That’s important, because each day a C-5 is in the repair dock, the U.S. Air Force loses $42,000 representing the work that aircraft could have done. Warner Robins saved American taxpayers $50 million with their speeded processes. The increase in C-5 availability also generated 180 million ton-miles of airlift capability during wartime, when that capability is needed most. Warner Robins is now applying these important principles learned on C-5s to the other aircraft that it repairs.

Of greater certainty is that the impact of O.R. at Warner Robins has had an effect well beyond the numbers. Each day these additional aircraft are flying, the Air Force’s ability to support the nation’s global reach mission is advanced exponentially. Major General Thomas Owen, the Commander of the WR-ALC, has repeatedly stated, “that the gains made within the C-5 programmed depot maintenance are far beyond what we could have imagined in my tenure as the C-5 Program Director. These gains illustrate the power of operations research and it’s paying huge dividends to America’s Airmen, Soldiers, Sailors and Marines everyday!”
People often wonder about the man for whom the Edelman Award was named. I first met Franz Edelman in April 1970. I had come to Princeton, New Jersey for an interview with the RCA Operations Research Group headed by Franz and located at the Sarnoff Labs there.

A few minutes before my presentation was to start, in bounded a slightly stocky, bearlike figure with bushy eyebrows and a Lincoln beard. He had a big, infectious smile on his face and greeted me with a very warm handshake. And then he got me talking. The details of this first meeting with Franz are lost in the crevices of my memory, but I was drawn in by his welcome and the rapport he created.

To this day, I have wondered what made me accept that RCA job offer. Was it the type of problems they were helping solve, or the level of mathematical rigor, or the acres of green grass surrounding the facility? And it always comes back to Franz’s unbridled enthusiasm, his childlike smile and his youthful optimism. Yes, it was that twinkle in his eyes that did it!

And it was not like he had put on a show for me that day. That is the way Franz was. Every day.

Behind this warm and optimistic personality of Franz lay a strong drive to shape and mold things, to move things in a direction that he felt was right and appropriate. I felt the mentoring and the nudging right away. While working on a model early on, I was focused on the purity of my equations and assumptions. Franz said to me one day, “Who is going to use this? Go wrestle with the data and get muddy and dirty. Find out what the data is trying to tell you. And then see if you can model that.” It was easy to pay attention to him, not because he was the superboss, but because he practiced what he preached. And he was very successful at it. He had established and was heading RCA’s Operations Research Group – one of the first such groups in North America. “Our business success lay,” he repeated often, “in focusing on solving business problems, examining data and worrying about implementation from the very beginning.”

His drive and zest for living showed in his personal and professional lives. They ranged from his three-hour drives just for a Nathan’s hot dog in New York City, calling up Chrysler’s Lee Iacocca (formerly of Ford) to get a souped-up Ford Mustang convertible when Ford had officially stopped producing it, personally pledging prize money (along with three others) for the first TIMS Practice Competition (which later became the Edelman Prize), getting TIMS to sanction extra pages for practice papers in Interfaces, to his insistence on showing hard-dollar payoffs from implemented systems and models.

Franz was a man who enjoyed life and shared his wisdom and good humor with those around him. He was a quintessential practitioner of OR/MS, and it is indeed appropriate that our most prestigious practice award is named in his honor.
I have often heard observers suggest that the claimed impact of the projects described at the Franz Edelman Award competition must surely be exaggerated for the benefit of the judges, but our research suggests, to the contrary, that in many cases the benefit of these applications far exceeds anything claimed. The fact is that many Edelman applications live on long after the competition, with benefits accumulating year after year. In many cases, these long-lived applications have provided a competitive advantage to the host firm and have also allowed the O.R. groups responsible for these applications to flourish.

The key lesson from these Edelman finalist applications is that focusing the attention of the O.R. group on one critical, complex, and difficult problem within the organization can result in O.R. becoming a strategic asset of the firm. These firms think of their O.R. work as providing ongoing support for a key activity of the organization rather than as a basket of separate projects. Here are just a few examples from Edelman finalists where O.R. practitioners have done this:

- Procter and Gamble was a finalist in 1996 when it reengineered its North American supply chain. Since then, the Global Logistics Group has flourished by applying similar O.R.-based methods to reengineer P&G’s supply chains all over the globe.

- Merit Brass, a regional plumbing supplies company in the Midwest, was a finalist in 1992 for a highly successful inventory control application. More than ten years later, this application was still seen by management as providing a competitive advantage for this company.

- General Motors was the Edelman Prize winner in 2005 for O.R. work on
improving the efficiency of their assembly lines. This group has been working on this same critical problem since 1991 with outstanding results: According to an external evaluator, GM now owns four of the five most productive assembly plants in the US.

- Crew pairing at American Airlines/Sabre was an Edelman finalist in 1990, and 15 years later O.R. people at Sabre are still developing algorithms and methods to put crews on planes, and customers are still buying this work.

- IBM was an Edelman finalist in 1989 with an early effort at supply chain optimization. The company won the Edelman prize in 1999 with essentially the same application, although much further developed and more widely applied.

- Yellow Freight Systems was a finalist in 1991 with their shipment routing and network design optimization application. In 2003, Yellow acquired their major (and larger) competitor. The fact that Yellow came out on top in this merger has been attributed to their greatly superior line-haul operations resulting from further development of the original Edelman O.R. work.

Focusing O.R. attention on one critical problem for a long period of time is not the only way for O.R. to be successful, but it has some advantages:

- Senior management appreciates the fact that someone has taken ownership of a critical, complex, problem area.
- Even modest success, perhaps accomplished using rudimentary O.R. tools, is immediately apparent and reaches the attention of senior executives quickly.
- Sustained success with improving costs or revenues over a period of time is usually possible as the O.R. group comes to understand the problem better and apply more sophisticated methods to achieving improved solutions.
- As benefits keep building, the solution will be seen as a source of competitive advantage and, hence, a strategic asset of the firm.
- Sustained success brings with it significant rewards for the O.R. practitioners, including additional resources, consultation on unrelated projects, and a growth in the prestige and recognition of the group.

Sometimes unintended consequences occur. The O.R. group may see itself as a source of skills and knowledge and may take an entrepreneurial step and spin out of the host organization (Aeronomics that became Talus that was bought by Manugistics spinning out of Delta Airlines), or management may recognize the asset value of the O.R. group and sell it off (Sabre was sold by American Airlines). Generally, such “unintended consequences” have allowed the O.R. practitioners to prosper.

Edelman finalists’ presentations contain many lessons about successful O.R. practice, with many of the applications living on for 10 or 20 years after the competition. The history of these works provides a rich source of data to help us to understand why some O.R. groups are so successful, whereas others fail to prosper.
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2006 Edelman Award Recipient
Warner Robins Air Logistics Center, “Warner Robins Air Logistics Center Streamlines Aircraft Repair and Overhaul”
At a time of war, the U.S. Air Force maintenance hub reduced its repair time for C-5 Galaxy transports from 360 to 250 days using lean initiatives, then further improved its turnaround time to just 160 days with Critical Chain Project Management, an O.R. technique. The work saves American taxpayers $50 million a year and decreases the demand to truck materiel through the Iraqi combat zone, saving lives as well.

2005 Edelman Award Recipient
General Motors, “Increasing Production Throughput at General Motors”
Using operations research to achieve one of its signature benefits — greater efficiency — GM has saved over $2 billion through improved productivity at 30 assembly plants in 10 countries.

2004 Edelman Award Recipient
Motorola, Inc., “Reinventing the Supplier Negotiation Process at Motorola”
Combining O.R.-aided methods such as innovative bidding, online negotiations, and scenario-based optimization analysis, Motorola launched a comprehensive system to support the company’s sourcing process.

2003 Edelman Award Recipient
Canadian Pacific Railway, “Perfecting the Scheduled Railroad: Model-Driven Operating Plan Development”
Adoption of a newly optimized fixed-schedule railroad approach, including associated benefits from infrastructure and locomotive fleet investment and business process improvements, trimmed costs by CAD$300 million.

2002 Edelman Award Recipient
Continental Airlines, “A New Era for Crew Recovery at Continental Airlines”
A globally optimized crew recovery solution deals successfully with several high-profile events such as the December 2000 and March 2001 Nor’easter snowstorms, the June 2001 Houston flood, and the September 11th terrorist attack. Throughout, Continental recovered from each event in record time and generated overall benefits worth tens of millions of dollars.

2001 Edelman Award Recipient
In early 1999 two models showed that revenue at risk for Merrill Lynch, due to the advent of electronic trading and the commoditization of trading, ranged from $200 million to $1 billion. As of September 2000, the Integrated Choice strategy helped client...
assets reach $93 billion in the new offer. During the first nine months of 2000, net new assets totaled $11 billion and the number of accounts increased 72%.

**2000 Edelman Award Recipient**

Jeppesen Sanderson, Inc., “Flexible Planning and Technology Management at Jeppesen Sanderson, Inc.”

Jeppesen Sanderson’s customer service level began to deteriorate when a growing product line of more than 100,000 charts overwhelmed its production system. The company developed a suite of optimization-based decision support tools that improved planning in each production area and revealed the value of OR/MS to Jeppesen managers. Jeppesen is now fully committed to O.R., with O.R.-based decision support systems spreading to all areas of the company, and realized cost reductions of $3 million.

**1999 Edelman Award Recipient**

IBM, “Extended Enterprise Supply Chain Management at IBM Personal Systems Group and Other Divisions”

AMT consists of an optimization engine, a simulator, and a series of data extraction modules. It is used to study a wide range of issues, including inventory budgets, turnover objectives, customer service level targets, effects of new product introduction and supply chain scenario analyses.

**1998 Edelman Award Recipient**

Bosques Arauco, S.A.

One of the largest Chilean forest firms, Bosques Arauco employs optimization systems designed by a team from the University of Chile. The impact of these systems has been organizational and financial, with Bosques Arauco reporting a total saving of $5 million over a total annual timber production of $140 million.

**1997 Edelman Award Recipient**

Société Nationale des Chemins de Fer Français (SNCF) and SABRE Decision Technologies

The national railroad of France, Société Nationale des Chemins de Fer Français (SNCF) and Sabre Decision Technologies teamed up to address the problem of train capacity allocation. The implementation of Rail Plus, composed of a Workset manager and modules on profitability, feasibility, capacity allocation, and routing, is credited with an overall profit increase of 3% to 5%, reductions in manpower and schedule development time, and improvements in planning and scenario evaluation.

**1996 Edelman Award Recipient**

South African National Defense Force (SANDF)

A joint Deloitte & Touche and SANDF team created models to determine the size and shape of SANDF. The project resulted in force design savings of more than 22%.

**1995 Edelman Award Recipient**

Harris Corporation/Semiconductor Sector

IMPreSS, a linear-programming-based production-planning system, produces plans for six major product lines encompassing over 18,000 individual products, enabling Harris to achieve 95% on-time delivery of on-time delivery on commitments made since 1992.

**1994 Edelman Award Recipient**

Tata Iron & Steel Company, Ltd.

An optimization-based model was designed in 1985-1986 for guiding marketing strategies in Tata’s product mix area; the model is now used throughout the company. Since 1986, the model has contributed a cumulative benefit of $73 million in increased profits.

**1993 Edelman Award Recipient**

AT&T

Over 400 Call Processing Simulator (CAPS) studies increased 800-number revenues by more than $1 billion in a $5 billion market. One reorganization yielded an 8% increase in calls completed, at annual savings of over $24 million in customer operating costs; an increase of $2 million in AT&T revenue in 1992, $3 million in 1993, and a projected $7 million per year for each following year.
1992 Edelman Award Recipient

New Haven Health Department

To combat the spread of HIV/AIDS via needle sharing among New Haven's drug injectors, a legal needle exchange program was implemented. A new data collection and analysis was developed that provided the needed parameters for mathematical models. Results suggest that the program has reduced HIV/AIDS incidence by 33%.

1991 Edelman Award Recipient

American Airlines

American Airlines pioneered revenue management as an effective way to manage its seat inventory. The airline used sophisticated O.R. models to determine the overbooking levels of each flight and to allocate each flight's seat inventory to a variety of market/fare classes. By optimally overbooking flights and dynamically pricing the seats based on forecast demand, American Airlines generated an estimated $1.4 billion in incremental revenue over a three-year period.

1990 Edelman Award Recipient

Health Care Financing Administration

Diagnosis Related Groups (DRGs), developed to measure hospital output in quantitative terms, required a search for structure through millions of patients' records plus the merging of clinical and statistical decision methods. Medicare, 20 states, and 18 other countries are currently using DRGs; Medicare payments to hospitals alone produced a projected reduction of $18 billion in 1990.

1989 Edelman Award Recipient

ABB Electric, Inc.

O.R. models built sales strategies and accurate prediction of sales through extensive segmentation and attribute choice modeling. Predictions, integrated into production models, guided long-term supply and customer preference and helped make ABB an industry leader in 1988.

1988 Edelman Award Recipient

City of San Francisco Police Department

An optimization-based decision support system for patrol officer deployment allows for “fine-tuning” of optimal scheduling, producing a 25% increase in patrol units available when needed; in addition, response times declined 29% and traffic citations increased 62%. Total benefit? Over $14 million annually.

1987 Edelman Award Recipient

Syntex Laboratories, Inc.

A decision calculus model for salesforce size and deployment was devised by Syntex managers, with a time horizon of three years. Model predictions proved to be more accurate than standard forecasts and in financial terms resulted in increases of $25 million.

1986 Edelman Award Recipient

Southland Corporation (CITGO Petroleum Corp. Subsidiary)

Optimization-based decision support and process control systems aided managers at CITGO in such crucial areas as crude oil acquisition, spot-market buying and selling, logistical operations, and price volume strategies. Forecasting models addressed corporate price and volume. Together, they contributed approximately $70 million in profit improvement per year.

1985 Edelman Award Recipient

Weyerhaeuser Company

The VISION decision simulator was developed to implement dynamic-programming-based improvements in raw materials returns at Weyerhaeuser. Operational benefits to date exceed $100 million in increased profits, and management philosophy has been changed.
Congratulations to the 2007 Edelman Teams from 2006 Edelman Honoree

USCAP
1984 Edelman Award Recipients (dual)
Blue Bell, Inc.
Models for inventory targets, manufacturing requirements, and production scheduling were used with a seasonal demand-forecasting technique and diagnostic computer simulation to reduce inventories. Inventory reduction over 18 months was more than $100 million.
The Netherlands Rijkswaterstaat and the RAND Corporation
An integrated system of models was developed to evaluate mixes of new facilities, changes in operating rules, and adjustments to prices and regulations. The system has resulted in a national water management policy, with savings in the hundreds of millions of dollars in investment expenditures and over $10 million in estimated annual savings.

1983 Edelman Award Recipient
Air Products and Chemicals, Inc.
A large mathematical model was developed to control deliveries of liquid oxygen and nitrogen to customers at minimum cost with improved reliability. Savings are over $2 million annually.

1982 Edelman Award Recipient
Arizona Department of Transportation

1981 Edelman Award Recipient
ANR Freight System

1980 Edelman Award Recipient
Kelly-Springfield Tire Company

1979 Edelman Award Recipient
The Greater New York Blood Program

1978 Edelman Award Recipient
Cahill May Roberts, Ltd.

1977 Edelman Award Recipient
Syncrude Canada, Ltd.

1976 Edelman Award Recipient
American Telephone & Telegraph

1975 Edelman Award Recipient
Xerox Corporation

1974 Edelman Award Recipient
Canadian National Energy Board

1973 Edelman Award Recipient
The Babcock & Wilcox Company

1972 Edelman Award Recipient
The Pillsbury Corporation
Wow! I thought being a judge was going to be easy. But I quickly realized that reaching a wise decision was not so easy after all.

I have been privileged to be involved with every Edelman Competition since the late 80s, and have served in all the different associated roles. That included being a judge on seven occasions, three times as chair. For me, except for the time when my team from AT&T won the Edelman Competition, serving as a judge was by far the proudest and most important aspect of my experience with the competition, although I must admit it is more fun to be a coach.

I discovered that when I was chair it was different. Then, in addition to judging, I had to be concerned with the many administrative aspects of the competition, such as recommending other judges. In addition, because my management skills were tested during the judging sessions,
the discussions became heated at times, and I was expected to facilitate the judging process so that the panel reached a consensus in an amiable, fair, and timely fashion.

Now what about being a “judge?” After the great feeling I had from being appointed, there followed a deep sense of responsibility to do the best job possible. I also felt tremendous pride in joining a team of judges that included many of the best practitioners and academics in our field.

There is much due diligence required: reading the draft papers, contributing during the judges’ paper-review session, acting as a corresponding judge for one of the teams, and of course, on the day of the competition, carefully observing every Edelman presentation and then participating fully in the judging process.

I might add that it was my impression that every judge with whom I served was committed to making sure the best example of implemented operations research work was selected to be the first-place winner. Note: I said “work.” Only the judges see both the draft paper and all the presentations. The Edelman Award is given for the best example of outstanding applied Operations Research work, not for the best presentation. This is a very important point.

I have many fond memories of serving as an Edelman judge. If you get a chance to be a judge, take it. You won’t regret it. It will be one of the greatest experiences you will have in our profession!
That’s what I felt as my team left the stage after fielding questions at the 2005 Edelman competition. While the project we presented spanned almost eighteen years, involving hundreds of people in General Motors, the challenge of pulling together our story fell to a handful of us to complete in just a few short months. Let me remove all doubt – it was a lot of work!

Early the previous December, our coach, appointed by the Edelman committee, called with congratulations – we had been named a finalist! The initial “to do” list was deceivingly short: (1) write a paper, (2) prepare a presentation, and (3) arrange for testimonials. A careful reading of the competition guidelines revealed a variety of other tasks, some straightforward, others not.

We wrote the paper readily; with our large team we were able to effectively divide and conquer. We spent the bulk of time creating the presentation and planning testimonials. Our project was well known within GM, but this was a new audience, one not necessarily familiar with the challenges of the automotive industry or the difficulty of achieving implementation in a company as large as GM. To help tell our story, we included video from two GM executives, an external industry expert, and a plant implementation team.

As the competition drew near, I grappled with final details: video editing, PowerPoint slides, a script to make sure we stayed on time, and last-minute questions from...
everybody on the team. All this for a simple presentation?

Finally our team met on site. We were all together for the first time since I had submitted a brief entry six months before. Our rehearsal showed weaknesses. We were stiff, and most of us struggled with the teleprompters. After a pep talk from our lead executive, we gave it another try. This felt better – not professional, but more relaxed and definitely passable. Then, just a few last tweaks to the slides and script.

The next day, everything was prepared; we just needed to wait for our turn. After laboring on this for months, I had most of the presentation memorized; I could recite verbatim the videos that we spent hours editing down to a couple of minutes each. No butterflies, just ready to get it done. Winning would be nice, but my goal at that point was to do a good job for the team: not only the few individuals on site, but also the hundreds of people around the world who really made the difference by driving implementation into the company’s daily operations.

It was over before I knew it, and it had gone as well as I could have hoped. Regardless of the outcome … I felt satisfaction and relief.
The Franz Edelman Award Process
Every year the Franz Edelman Award process begins with a call for entries in early September. Organizations are asked to provide a two-page summary of a completed practical operations research (O.R.) application and describe results that had significant, verifiable, and, preferably, quantifiable impact on the performance of the client organization.

Typically, several dozen entries are received and reviewed by the Franz Edelman Award Committee. The committee consists of about three dozen experienced O.R. practitioners and academics from organizations such as: AT&T, Columbia University, General Electric, IBM, Mayo Clinic, Merrill Lynch, MIT, the University of Western Ontario, and the University of Lancaster. Semifinalists are selected in early November, and the further selection of finalists is completed by mid-December.

The committee names as semifinalists a dozen or more entries that have a reasonable chance of becoming finalists if the verification process supports the entries’ claims. To this end, each of the semifinalists is assigned a Verifier who works behind the scenes to validate the claims made by their assigned entry.

The verifier’s primary role is to completely comprehend the O.R. work presented in the assigned entry summary, as well as its potential impact, and to convey this information to the rest of the selection committee. The verifier will communicate directly with the entrant’s O.R. team, the users of the work, and client management. Verification is a crucial element of the competition, as it ensures that only the highest-quality O.R. work makes it to the Edelman Award finals. All verifiers are provided with written guidelines and sample
verification reports, and novice verifiers are paired with experienced verifiers.

From this group of semifinalists, the Edelman Award Committee then selects the six best entries to advance to the Franz Edelman Award finals. Each finalist must begin the preparation of a journal-quality paper and a 40-minute presentation. Each of the finalist teams is assigned an experienced Coach to advise them throughout the process. A coach’s major obligation is to ensure that the team’s paper and presentation conveys the work clearly to a general operations research audience. Often, a coach is paired with one or more assistant coaches who lend another perspective to the process.

Two months prior to the spring INFORMS Practice Conference, finalist papers are distributed to the judges. The judges study each of the papers and, shortly thereafter, discuss them amongst themselves. Each finalist is assigned a focal point judge who conveys feedback from the judging committee to the finalist’s coach. The judge’s feedback helps to identify areas where further information and development is required in the finalist presentation in order for the judges to make a proper decision.

On the day of the competition, each team gives a 40-minute presentation, followed by a 10 to 15-minute period of questioning by the judges. After the presentations are complete, the judges sequester themselves until they reach a decision on which of the finalists best exemplifies the ideals and standards of the Franz Edelman Award for Achievement in Operations Research. Relevant factors considered include the difficulty of the obstacles surmounted, the technical solution, implementation, and the total impact and value of the project.

Following the competition, the finalists will work with the special editor of the January/February issue of Interfaces to make any final adjustments to their papers. All finalists are invited to reprise their work at a session of the annual INFORMS meeting in the fall, with the first-place team giving a keynote address. All of the finalists’ presentations are available on DVD for sale in the fall at http://www2.informs.org/Edelman
For more than 70 years, professionals worldwide have relied on Jeppesen for the information they need to reach their destinations safely and successfully. We rely on operations research solutions to deliver industry-leading navigation and operations management solutions.

Jeppesen congratulates the 2007 Franz Edelman Finalists. As the Edelman winner in 2000, we salute INFORMS and all the past winners and finalists for promoting the value of our discipline through excellence in operations research practice.
The Verification Process

The 2007 Verifiers

The Edelman Award Committee wishes to thank the following individuals for their dedication and service as verifiers for this year’s Edelman Award.

Each of the semifinalists is assigned a verifier who works behind the scenes to validate the claims made by their entry. A verifier’s primary role is to understand an applicant’s O.R. work and its impact in detail, and to then convey this to the rest of the committee, both orally and in a written report. Verification is a crucial element of the competition since it ensures that only the highest-quality O.R. work with verified impact makes it to the Edelman Award finals.

Verifiers:

- Sudhansu Baksi, AT&T Laboratories
- Srinivas Bollapragada, General Electric
- Tony Brigandi, AT&T Laboratories
- Bruce Bukiet, New Jersey Institute of Technology
- Calvin Chiu, ChoiceStream, Inc.
- Mary Crissey, SAS Institute
- Alfred Degbotse, IBM
- Joe Discenza, Smart Crane
- Sid Hess
- Yoshi Ikura, SaiTech
- Chuck McCallum
- R. John Milne, IBM Systems and Technology Group
- Patricia Neri, Southwest Airlines
- Graham Rand, University of Lancaster
- John Ranyard, University of Lancaster
- Anne Robinson, CISCO
- Randy Robinson
- Rick Rosenthal, Naval Postgraduate School
- Mike Rothkopf, Rutgers University
- Rina Schneur, Verizon Laboratories
- Leon Schwartz, Informed Decisions Group
- Thomas Spencer III, Walden University
- Steve Strauss, AT&T Laboratories
- Bill Tarantino, Naval Postgraduate School
- Amy Wilson, Blue Cross Blue Shield of Minnesota
The Coaching and Judging Process

The 2007 Coaches and Judges

The Edelman Award Committee wishes to thank the following individuals for their dedication and service as coaches and judges for this year’s Edelman Award.

The major role of the coach is to ensure each team’s papers and presentations convey the work in a manner that may be well understood by a general operations research audience. Often, a coach is paired with an assistant coach who lends another perspective to the process; this can be particularly helpful after the first few drafts of a paper or presentation have been circulated.

The judges must work together, evaluating the evidence to determine which finalist is most deserving of the Franz Edelman Award for Achievement in Operations Research. The award is for implemented work that has had significant, verified, and preferably quantified impact.

Coaches:
- Layek Abdel-Malek, New Jersey Institute of Technology
- Sudhansu Bakshi, AT&T Labs
- Bruce Buckiet, New Jersey Institute of Technology
- Calvin Chiu, ChoiceStream Inc.
- Alfred Degbotse, IBM
- Joe Discenza, Smart Crane
- Howard Finkelberg, BBDO Seidman
- R. John Milne, IBM Systems and Technology Group
- Patricia Neri, Southwest Airlines
- Randy Robinson
- Thomas Spencer III, Walden University
- Doug Samuelson, Infologix
- Steve Strauss, AT&T Labs
- Bill Tarantino, Naval Postgraduate School
- Amy Wilson, Blue Cross Blue Shield of Minnesota

Judges:
- Brian Denton, Chair, Mayo Clinic
- Srinivas Bollapragada, General Electric
- Jeff Camm, University of Cincinnati
- Mary Crissey, SAS
- Stephen Graves, MIT
- Peter Norden, Columbia University
- Graham Rand, Lancaster University
- Anne Robinson, CISCO
- Bob Smith, Monmouth University
The purpose of the Franz Edelman competition is to call out, recognize, and reward outstanding examples of operations research practice in the world.

The annual Edelman Award competition brings together top examples of innovation from large and small, profit and nonprofit, corporate and governmental organizations from around the world. The common theme characterizing all the final competing teams is the use of sophisticated analytical tools employed in operations research to make a major impact on an organization and the people it serves.

Abstracts from past Edelman Award winners are available through Interfaces Online, and full-text versions of some of the Interfaces papers are available in an online archive. Videotapes of past competitions, suitable for teaching, marketing, or publicizing O.R. practice successes, are available for purchase from INFORMS.

The award is named in honor of Franz Edelman, one of the forefathers of O.R. in North America.

After fleeing his native Germany in the late 1930s to escape Hitler and his Nazi regime, Franz found himself in England, where
he was interned as an alien and sent to Canada for an interlude of lumberjacking. He received his undergraduate education at McGill University and later obtained a Ph.D. in applied mathematics from Brown University.

Franz joined the RCA Corporation as an engineer and became involved in computational problems. Initially a physical-science problem solver, Franz rapidly came to envision the great value of computer systems in business. His imagination and dedication made him a quintessential practitioner of operations research.

Franz established RCA’s Operations Research Group, one of the first such groups in North America. Having become Vice President of Business Systems and Analysis, he retired from RCA after 30 years of service to form Edelman Associates, an O.R. consulting firm. The Franz Edelman Award Fund was named in his memory to advance the profession to which he contributed so much.
The Edelman Laureates

The men and women who author Edelman finalist papers are deemed Franz Edelman Laureates.

Authors of finalist papers are recognized with this distinction, and each is formally presented with The Franz Edelman Medal.

Laureates are recognized for their significant contribution to work that each year is selected as representative of the best applications of operations research in the world.

The Laureate recognition is distinct and separate from membership in the Franz Edelman Academy.

The Edelman Academy

Each year, a limited number of organizations may be inducted as members of the Franz Edelman Academy.

The primary client organization, or beneficiary of the finalist work, is inducted into the Academy at the annual Edelman Award Ceremony.

In addition, organizations that played a major role in the work, and therefore deserve academy membership, may also be inducted. The most common example would be an organization that provided the professionals who did the majority of the O.R. work.

The membership of the Franz Edelman Academy represents 36 years of extraordinary contributions to society through the innovative application of operations research.
CONGRATULATIONS TO THE EDELMAN AWARD WINNERS, BOTH PAST AND PRESENT.

We salute the honorees of the 2007 Edelman Awards. As the Edelman Award winner in 2001, Merrill Lynch applauds INFORMS for understanding the value of excelling in operations research and management science. It benefits decision-making and business performance, ultimately helping clients achieve not just wealth but achieve life. As an inductee into the Edelman Academy, we are excited to join and to help establish this new tradition.
Nothing But the Best: The 2007 Franz Edelman Finalists
Introduced in the pages that follow are the five finalists for the 2007 Franz Edelman Award.

Over the past several months these teams have demonstrated to the judges that their work is among the finest examples of operations research in the world. One of these organizations will be recognized as the best in class, the first-place recipient of the 2007 Franz Edelman Award.

Each finalist’s work is described here in a shortened summary. Full papers will be published in the January/February 2008 issue of Interfaces, the INFORMS journal dedicated to improving the practical application of O.R. to decisions and policies in today’s organizations and industries.

The Finalists for the 2007 Franz Edelman Award Are

Coca-Cola Enterprises
U.S. Coast Guard
Hewlett-Packard
DaimlerChrysler
Memorial Sloan-Kettering Cancer Center
Project Summary

Coca-Cola Enterprises, the world’s largest bottler and distributor of Coca-Cola products, has grown significantly in the last two decades, increasing its number of vehicles from 13,000 in 1986 to 54,000 today. Coca-Cola Enterprises’ fleet is nearly the largest in the world, second only to that of the U.S. Postal Service.

With such a vast system and the goal of having the most efficient fleet possible, Coca-Cola Enterprises (CCE) used operations research to improve the scheduling of its trucks.

The beverage industry has become a highly competitive market. Operating in that market, CCE management wants to provide world-class customer service, optimize its labor and assets, reduce natural resource consumption, and provide its employees with a productive, rewarding working day.

CCE achieved its goals by implementing a vehicle-routing optimization model, the result of a joint cooperation between CCE, the software company ORTEC, and Tilburg University.

In addition to handling the unique characteristics of Coca-Cola Enterprises, the implementation transitioned smoothly from prior business practice. During the initial phase, CCE limited the degree by which the new routes differed from the prior routes. Subsequent phases allowed the changes to increase gradually. In this manner, change rolled out at a tolerable pace.

The impact includes annual cost savings of $45 million. Missed deliveries have dropped, increasing customer satisfaction.
and diminishing lost sales. The reduction in miles driven has resulted in reduced consumption of fossil fuels, and less pollution.

The success of the approach has burgeoned. Implementation has begun at other Coca-Cola bottling companies (including Coca-Cola HBC, which serves 25 mainly eastern European countries) and beer distributors (including Carlsberg, Heineken, and Inbev). At Inbev, the return on investment was realized within a single year and the planning process has improved significantly.

Organizational Overview
Coca-Cola Enterprises is the world’s largest marketer, producer, and distributor of products of The Coca-Cola Company. These products extend beyond traditional carbonated soft drink categories to beverages such as still and sparkling waters, juices,
isotonics, energy, milk-based, coffee-based drinks, and teas. Popular brands distributed by CCE include Coke, Dasani, Sprite, Barq’s, Fresca, Hi-C, Nestea, Powerade, Minute Maid and others. In addition to these Coca-Cola brands, the enterprise also distributes beverage brands of several other companies.
Project Summary

Americans rely on the U.S. Coast Guard, not only to rescue them during disaster at sea, but also at this time of concern about national security. To fulfill its role at maximum efficiency, the Coast Guard’s rescue craft and other aircraft must always be in excellent condition.

The U.S. Coast Guard Aircraft Repair and Service Center (ARSC) applied operations research to a number of projects to increase readiness, reduce cost, and streamline supply chain management. These projects provided critical decision support for planning various repair and maintenance activities at ARSC.

The quantifiable benefits of these projects include reductions in inventory by 20%-70% for critical parts; 10% savings in repair costs by using maintenance information for component repair planning; enhanced safety and capability of Coast Guard missions; and a 50% increase in throughput of the H60 Programmed Depot Maintenance line, resulting in a reduction in deferred depot maintenance burden on the Coast Guard from a peak of $23.6 million to just $6.5 million.

Operations research transformed the culture at the ARSC planning and analysis group from a “data rich and knowledge poor” decision support culture to a higher-level, evidence-based decision-making culture.
Organizational Overview

The U.S. Coast Guard is a military, multimission, maritime service within the Department of Homeland Security and one of the nation's five armed services. Its core roles are to protect the public, the environment, and U.S. economic and security interests in any maritime region in which those interests may be at risk, including international waters and America's coasts, ports, and inland waterways.

The U.S. Coast Guard provides unique benefits to the nation because of its distinctive blend of military, humanitarian, and civilian law enforcement capabilities.
Project Summary

Supply chain risks due to uncertainty in product demand, component price, and availability can do serious damage to a company’s top- and bottom-line performance. The Procurement Risk Management (PRM) Group at HP has employed operations research to develop and implement a mathematical model, a business process, and software to measure and manage supply chain risks.

The PRM framework involves quantifying uncertainty to measure sourcing risks using the forecast scenario approach, and the proactive management of these risks using portfolios of structured contracts.

An operations research-based HPRisk suite of PRM software was developed to support the implementation of the risk management process. The PRM process and software have been implemented for over $7 billion worth of HP’s spending over the past year, covering a range of procurement situations from direct procurement of components to indirect and services procurement. In direct procurement, PRM has been applied
to standard components such as memory and hard-disk drives, and to custom components such as microprocessors and assemblies. In indirect and services procurement, PRM has been applied to energy spare parts and advertising procurement.

This wide range of application illustrates the power and portability of the PRM approach. Savings of over $425 million over the past six years have been obtained. The benefits of implementing PRM are thanks to material costs savings, cost predictability, assurance of supply, and inventory cost reductions. Given the risk-sharing aspects of PRM, suppliers have also benefited substantially. Plans are in
place to extend the use of the PRM process and tools to a majority of HP’s spending in direct and indirect materials.

Procurement Risk Management is transforming HP’s planning, procurement, and supply chain processes, as well as HP’s relationship with its suppliers, through a win-win risk-sharing partnership.

Organizational Overview

HP is a technology company that operates in more than 170 countries around the world. HP explores how technology and services can help people and companies address their problems and challenges, and realize their possibilities, aspirations, and dreams. HP applies new thinking and ideas to create more simple, valuable, and trusted experiences with technology, continuously improving the way our customers live and work.

HP provides infrastructure and business offerings that span from handheld devices to some of the world’s most powerful supercomputer installations. The company offers consumers a wide range of products and services, from digital photography to digital entertainment, and from computing to home printing.
Project Summary

Pricing decisions play an important role in the marketing-mix plan of most companies, but especially so at automakers like DaimlerChrysler. Automakers keep their manufacturer’s suggested retail and wholesale prices fixed throughout the year, then customize pricing through seasonal incentives that reflect supply and demand conditions. The magnitude of these decisions is a staggering $45 billion per year across automakers in the U.S. market alone. Just a 5% increase in pricing efficiency can result in $2 billion in savings for American automakers.

Working with J.D. Power and Associates, the Chrysler Division of DaimlerChrysler implemented a J.D. Power price elasticity tool called PIN (Power Information Network) to optimize and customize the company’s pricing decisions.
The model prototype is used to predict the impact on market share and sales volume of incentive programs offered by the company’s Chrysler Group, as well as the impact on vehicles of competitors’ incentive programs.

The PIN approach helps management assess different possible incentives for each combination of product (a vehicle model, such as Jeep Grand Cherokee), acquisition method (cash, finance with multiple terms, lease), and incentive-program type (cash back, promotional APR, cash/promotional APR combination). The PIN model allows DaimlerChrysler to optimize pricing decisions at the levels of local market, region, and national markets.

DaimlerChrysler has estimated that the consistent and thorough use of the PIN Incentive Planning System has generated annual savings of $500 million.
Organizational Overview

DaimlerChrysler was created in November 1998 through the merger of Daimler-Benz AG and Chrysler Corporation. The group can look back on a tradition that stretches over more than one hundred years and is marked by the pioneering achievements of both predecessor companies. Today, DaimlerChrysler is a leading supplier of superior passenger cars, SUVs, sports tourers, minivans, and pickups, as well as the world’s largest manufacturer of commercial vehicles.
Project Summary

As the world’s oldest and largest private cancer center, and widely regarded as the best cancer institute, Memorial Sloan-Kettering Cancer Center (MSKCC) seeks next-generation cancer treatment advances to enhance their ability to treat patients effectively, both in terms of improved care and reduced cost. Operations researchers working with Sloan-Kettering devised sophisticated optimization modeling and computational techniques to implement an intraoperative 3D treatment-planning system for brachytherapy (the placement of radioactive “seeds” inside the tumor) that offers a safer and more reliable treatment. The real-time intraoperative planning system eliminates preoperation simulation and
postimplant imaging analysis, saving an estimated $459 million a year on prostate cancer care alone.

Quality of life is improved through reduction (45%-60%) of complications, due to plans that deliver less radiation to healthy tissue. This has a profound impact on the cost for interventions to manage side effects. The procedure uses significantly fewer seeds and needles. Thus, the procedure time is shortened and less invasive, and there is less blood loss. In addition, patients experience less pain and recover faster.

The system removes the operator-dependent quality associated with planning and has the potential to establish standard quality assurance guidelines.

The national distribution of this system allows achievement of consistent treatment planning across different clinics, thus reducing the vast variability in treatment plan quality. Further, the resulting plans limit urethral dose, decrease operator dependency, and reduce the influence of the learning curve associated with prostate brachytherapy. These all have important consequences for the outcome of treated patients. In training, the system allows for dynamic dose correction, thus ensuring that even inexperienced clinicians and residents can develop plans distinguished by quality.
Organizational Overview

The world’s oldest and largest private cancer center, Memorial Sloan-Kettering Cancer Center has devoted more than a century to patient care as well as to innovative research, making significant contributions to new and better therapies for the treatment of cancer. More than 21,000 patients are admitted to Memorial Hospital annually, and MSKCC accommodated nearly a half million outpatient visits at its Manhattan and regional sites combined.
The Institute for Operations Research and the Management Sciences
The hallmark of a professional scientific society is its capacity to generate intellectual capital that not only promotes the growth of a profession, but also creates the basis for reaching solutions that better society as a whole. Another role is to provide the forum for the growth of social capital that allows the like-minded to gather, network, and discuss ideas and theories that further professional development by deliberating hypotheses and advancing concepts that ultimately can resolve societal problems.

The Edelman Competition is a grand example of the intersection of intellection and social capital. The finalists in the competition are unveiling their achievements (intellectual capital) in operations research and competing at a conference as invited speakers (social capital) in front of their peers from many organizations.
While many of the finalists demonstrate the large cost savings that their projects have accomplished, what often goes unsaid is how they have helped their companies remain competitive and survive in the marketplace, thereby saving jobs, providing products and services at fair prices to consumers, and adding to the economic growth in communities.

However, it’s not always about money and business. Edelman finalists have paved the way in understanding and addressing public policy issues that can be viewed as controversial in diverse topics such as needle exchange and nuclear nonproliferation. In other cases, operations research methodologies have provided organizations with the wherewithal to make tremendous paradigm shifts in how they see and approach their businesses, causing others in the marketplace to respond in kind.

For over 35 years, the Edelman Competition has brought forth some of the best demonstrations of what operations research has accomplished. The intellectual capital that these groups have contributed to the profession is remarkable, and covers many industrial sectors, government, and military. Their willingness to share their deliberations and accomplishments with colleagues is a testament to a strong and vibrant profession, and a commitment to the social capital that binds them together. What they have achieved for their organizations also speaks to the solutions that better society in terms of productivity gains, economic improvements, understanding issues, and making better decisions.

As the professional scientific society that sponsors the Edelman Competition, INFORMS is proud of its affiliation and of its many volunteers that take part in the finalists’ selection process and judging. These members give freely of their time, contributing to the social capital fabric of the profession while capturing the significant intellectual capital generated by the contenders. These volunteers and contestants make the Edelman what it truly is – a world-class competition of the best-in-class O.R. applications.
2006 DVDs ON SALE NOW!

Animal Health Institute, United States Commercial Aviation Partnership, Omya AG/Hustadmarmor AS, Travelocity, Warner Robins Air Logistics Center

edelman.informs.org/DVD
The Institute for Operations Research and the Management Sciences (INFORMS) is the largest professional society in the world for professionals in the field of operations research (O.R.).

Since the pioneering days of people like Franz Edelman, operations researchers have taken pride in quietly improving the world. Saving billions of dollars annually, model-based support solutions developed by INFORMS members are now relied upon in such diverse areas as airlines, telecommunications, health care, homeland security, the armed forces, and government. Research pioneers in O.R. disciplines represented by INFORMS have contributed importantly to the development of algorithms and

...
methodologies now employed widely in engineering, science, and business. Contributions to applied math, including optimization, stochastic processes, simulation, game theory, statistics, and decision science, are especially well known.

INFORMS is often a leader in identifying the world’s foremost researchers - for example, honoring Nobel Prize winners John F. Nash and Harry Markowitz before they were recognized by the Nobel Academy.

The society serves the scientific and professional needs of O.R. educators, investigators, scientists, students, managers, and consultants, as well as the organizations they serve, by such services as publishing 12 scholarly journals that describe the latest O.R. methods and applications, and a membership magazine with news from across the profession. The society organizes national and international conferences for academics and professionals, as well as members of the society’s special interest groups. The Institute serves as a focal point for O.R. professionals, permitting them to communicate with each other and reach out to other professional societies, as well as the varied clientele of the profession’s research and practice.

INFORMS advances operations research by:
- Encouraging and rewarding excellence
- Communicating all aspects of operations research to management, policy makers, and the public
- Providing education and career development opportunities to operations researchers
- Attracting young people and all those with talent and skill to the field of operations research.

INFORMS is a member of the International Federation of Operational Research Societies (IFORS).
The Historical Role of the College for the Practice of Management Science
by Russell P. Labe, Vice President for Practice of INFORMS

The Origins and Stewardship of the Franz Edelman Award

The College for the Practice of Management Science, or CPMS, the practice section of INFORMS, was the original source and creator of the Edelman Award. Back in the early 1970s, members of CPMS were discussing the need to capture success stories associated with operations research. At that time, CPMS was part of TIMS, The Institute of Management Sciences. As they are today, most practitioners were focused on solving a particular problem, getting the solution implemented, and then moving on to the next interesting challenge. There was very little motivation to publish and tell the world about the work and its value. So, the idea came about to hold a competition that would encourage practitioners to make their accomplishments more public.

Legend has it that the Edelman Award was born in 1971 in a hotel room where a few members of CPMS decided to get the idea off the ground by personally pledging prize money for the first competition. If my sources are correct, those four CPMS members were Gene Woolsey of the Colorado School of Mines; Dave Hirshfeld of MathPro, Inc.; Herb Halbrecht of Halbrecht Associates; and Franz Edelman of RCA Corporation.

In the early years, the award was known as the TIMS Prize. Shortly after Franz’s sudden death in 1982, a proposal was made by H. Newton Garber to change the name to the Franz Edelman Award. Franz established the O.R. group at RCA, one of the earliest industrial O.R. groups in North America.
He worked at RCA for over 30 years and is considered among the fathers of innovation. Newt was one of Franz’s earliest recruits to RCA and continued to direct the O.R. group after Franz’s retirement. Newt himself became personally identified with the prize because of his dedicated stewardship, serving as a judge for over 30 years.

Over the years, the prize has grown in stature, in complexity of the competitive process, and in the extent of effort required every year to make it happen. Throughout this evolutionary process, CPMS has continued to be a caring steward and proponent of growth. One of the key steps in the evolution was the idea of assigning a coach to each of the finalist teams. The coach is familiar with the intricacies of the competition and helps each team deliver the highest-quality paper and presentation they can. Coaches are essential to the success of the competition. Coaching requires a significant investment of time over a five to six-month period, helping the finalists position their work, providing feedback on the paper and presentation, and preparing for potential tough questions from the judges.

A second major change came in the 1980s when we first began to videotape the presentations to the judges. The videotapes represent an excellent documentation of the work, O.R. contributions, and public statements by senior executives about the value of the work. The videotapes are used by many professors as part of their curriculum to expose students to some of the best applications of O.R. Of course, today the videos are captured on DVD.

Today, running the competition requires many volunteers. The prize committee involves 30-40 people, mostly members of CPMS. This includes 12-15 verifiers, 6-10 coaches, 8-10 judges, and 25-35 reviewers who read the nominated papers and provide feedback. The chairperson of the committee typically serves a two-year term. They have the responsibility of making all the details come together. All of these dedicated people have other jobs and daily responsibilities, but find time to make the competition happen. They have kept the Edelman Award alive and healthy, and we owe them a great debt. I would have liked to include a list of all the chairpersons, judges, and coaches throughout the years, but due to time limitations, we could not accurately gather all that information. We offer heartfelt thanks to CPMS for preserving this crown jewel for future generations of O.R. students, teachers, and practitioners.
Call for 2008

Franz Edelman Award Applications
INFORMS and CPMS, the Practice Section of INFORMS, are pleased to announce the 37th International Competition for the Franz Edelman Award for Achievement in Operations Research. The competition will take place at the 2008 INFORMS Conference on O.R. Practice.

Any work done in recent years is eligible, unless it has already been described by a Franz Edelman Award finalist. Previous publication of the work does not disqualify it. Anyone is eligible for the competition except a member of the judging panel.

The purpose of the competition is to recognize and reward outstanding examples of O.R. in practice. The prize is awarded for implemented work, not for a submitted paper or for the presentation describing the work. The client organization that used the winning work receives a prize citation; the authors receive a cash award. In addition, finalist organizations become members of the Franz Edelman Academy; authors receive the Franz Edelman Medal and are officially recognized as Laureates.

To submit, provide a 2-page summary of your achievement and a 60-word abstract, plus the name, address, phone number, and affiliation of each author by Friday, October 12, 2007.

Complete instructions will be announced online at www.scienceofbetter.org/Edelman.

Each finalist group will give an oral presentation of its work at the 2008 INFORMS Conference on O.R. Practice in Spring, 2008.

See you at the 2008 Franz Edelman Award competition!
www.scienceofbetter.org/Edelman
Challenges? Bring them on.
Operations researchers will turn them into opportunity and innovation.

General Motors congratulates the 2007 Franz Edelman Finalists
Bombardier Flexjet* gives you more flexibility than any other fractional jet ownership program. Forget having to select from limited program options. Only Flexjet lets you fly the exact hours you need, with the benefits you desire – all provided by the industry’s best people delivering the highest standards of service. If you want the ultimate level of flexibility in fractional ownership, you can have it. Fueled and waiting.

Call 1-800-FLEXJET or visit flexjet.com.
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Thank you...
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