Values-Driven Organization Design at Celestica

Values in practice; a work in progress.

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When organizations are being designed, there are choices to be made.

Organization redesign is under way at Celestica Inc., based on adherence to an explicit set of values developed by employees. This article describes the process being followed and results to date.

Why is it that companies that provide the same product or service, using identical technology, do things differently? They have different personnel policies, decisions are made at different levels, information is shared to a different extent, people are rewarded for different behaviors and, in general, there are different norms and expectations. The reason for these differences can usually be traced to a different set of values and assumptions about workers, held by those who have been influential in forming and sustaining the organization.

When organizations are being designed, there are choices to be made. These choices elected are driven by *values*. In most cases the values are implicit — not publicly declared — but they are nevertheless a determining force. In other instances, values are articulated, but design choices do not match. It is important to differentiate between *values espoused* and *values in practice*.

Up-Front Values

Therefore, in undertaking any organization design or redesign effort, it is essential that values be explicitly agreed upon up front. One then has a reference point for deciding on design choices. In 1994 Celestica Inc. was faced with this challenge.

Celestica is an international company headquartered in Toronto, Canada, with annual revenues in excess of (U.S.) $5 billion, providing a broad range of services including design, prototyping, assembly, testing, product assurance, supply chain management, worldwide distribution, and after-sales service. Its customers include industry leading original equipment manufacturers (OEMs), primarily in the computer and communication sectors. Since mid-1996 it has grown from an organization with 2500 employees and two facilities, in Endicott, NY and Toronto, CN, to one of over 20,000 employees with 31 manufacturing and design sites in the United States, Canada, Mexico, the United Kingdom, Ireland, the Czech Republic, Thailand, Hong Kong, Malaysia, Brazil, and China.

In 1994, stimulated by the realization that significant changes would be required in order to grow and sustain competitive advantage, an organizational redesign strategy was initiated at the Toronto facility, which today has 5100 employees. It was essential to reduce costs, accelerate the rate of new product introduction, and generally increase response capability in addressing any issues encountered in day-to-day activities, at every level, which impeded goal attainment. In addition, there was a need to increase manufacturing capacity on the Toronto site, with no available real estate to expand.

Taking a New Approach

After considerable exploration to select a change process, it was elected to follow a Sociotechnical Systems (STS) design model (Halpern, 1995). This approach was chosen because it is grounded in an explicit set of values and principles, acknowledging that objectives cannot be achieved through technological improvements alone.

Celestica management had concluded that, in order to succeed, it would be necessary to focus equally on non-technical elements to establish a more competent, high-performance, high-commitment work environment.

In the words of President and CEO Eugene Polistuk, "I firmly believe that one of the key competitive advantages any enterprise has is its people. Basically, the competition can buy similar equipment, raw materials, and even get access to intellectual property in a short period of time. But the real differences between successful and unsuccessful companies are the employees. When you empower them by providing training and information, you give them the ability to compete both individually and as a team."

The Process

The redesign process chosen is depicted in Figure 1, affectionately referred to as The Snake Chart. A nine-person resources team, consisting of internal consultants, was formed to facilitate the effort. This process consisted of awareness heightening sessions for all managers, to introduce them to the notions of organization design choices, STS principles (Cherns, 1976); reflecting the interaction of internal and external technical and social

systems, and the change model. This was followed by the formation of a senior management steering committee to oversee the process. All employees were then invited to similar awareness heightening presentations and volunteers were solicited to serve on design teams. The next step was to engage all members of the organization in the development of Celestica's values (see Figure 2) which would be the foundation for redesign decisions. This was accomplished over a period of many months, during which time design teams identified values and principles actually in practice, in contrast with those needed to achieve the envisaged high-performance organization. After endorsement by the steering committee, an exercise was undertaken to identify areas of non-compliance with the Celestica's values. Organizational design alternatives were generated, selected, implemented, and monitored for effectiveness. A mechanism, consisting of periodic audit surveys and follow-up action, was then put in place for continuous evaluation and modification.

Outcomes

This process has led to a number of organizational changes. Work teams have been established within the manufacturing departments. These are groups of 15-40

"... the real differences between successful and unsuccessful companies are the employees."
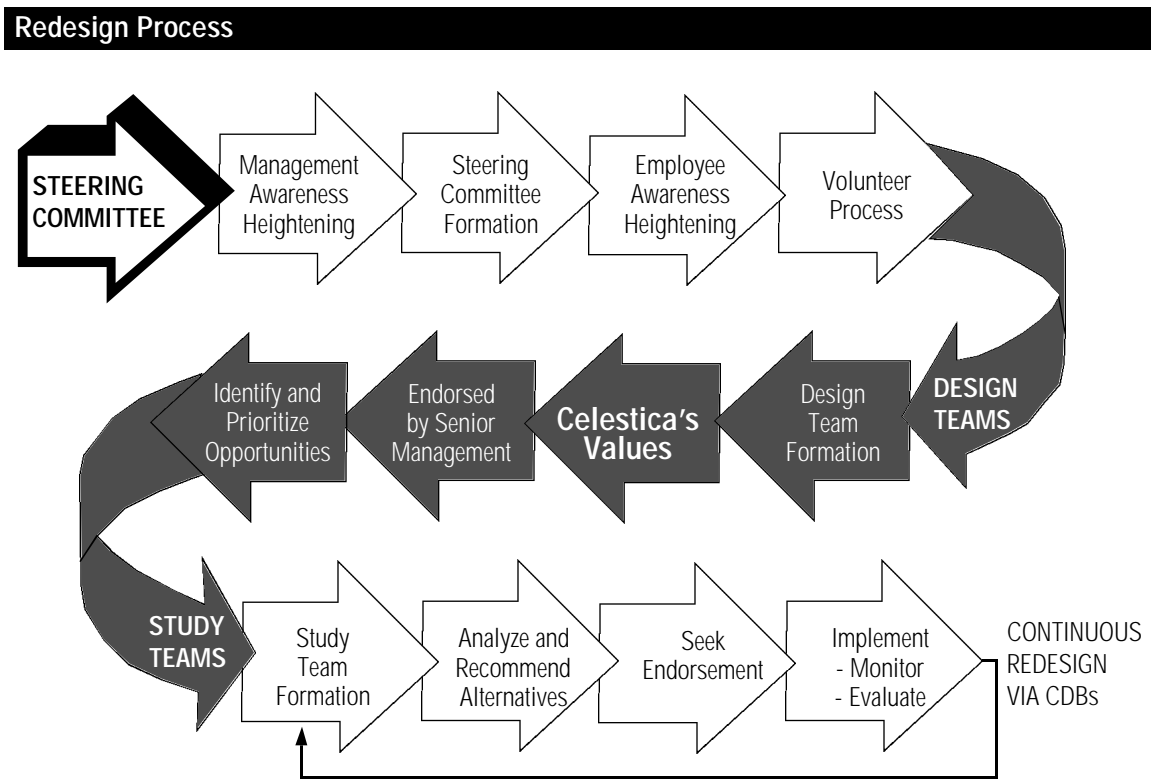Celestica president and CEO Eugene Polistuk

Redesign Process

Figure 1.

At Celestica, we are proud of our history in the technology industry. We compete to win in the global marketplace with products and services that delight our customers. We are committed to providing superior value to our stakeholders. Our key competitive advantage is our people — technology alone will not guarantee our future. Creativity, commitment, and our passion for responsiveness allow us to thrive in a changing business environment. To ensure continued financial success, pride in our workplace, and high morale, we are committed to achieving Celestica's goals through adherence to these stated values and principles:

People — We are responsible and trustworthy. We have a sense of ownership and perform best when:
- Respect for the individual is demonstrated and we treat each other with dignity and fairness
- Diversity and equity are embraced in all our policies and practices
- Status differentials are based only on business requirements
- Conflict is resolved in a direct and timely manner
- Work is stimulating and challenging
- There is a balance between work and personal life
- The leadership team sets an example by demonstrating commitment to these values and principles

Partnerships — Mutually beneficial relationships with customers, suppliers, educational institutions, and the community are essential.
- The highest standards of ethical behavior are followed in all of our dealings
- We understand and anticipate our partners' needs and capabilities, and help them plan for future requirements
- Suppliers and other partners are recognized as an extension of our team
- We support and encourage community involvement

Customers
Celestica's success is driven by our customers' success.
- It is easy to do business with us
- We respond to our customers' needs with speed, agility, and a "can do" attitude
- We are competitive with our commitments and we meet them

Quality — Quality is defined by the customer.
- Requirements are clearly defined, communicated, and understood
- We strive for error-free work and defect prevention
- Variances are detected and permanently corrected at the source, ensuring that defects do not escape to the customer
- Continuous improvement is designed into every aspect of our business
- Quality is everyone's responsibility
- We do not compromise quality

Teamwork and Empowerment
We work together to achieve Celestica's goals.
- We support Celestica's goals over a team's or individual's business goals
- Teams have the necessary skills, resources, information, and authority to self-manage both social and technical issues
- Roles and responsibilities are clearly defined and understood
- Adaptability, flexibility, and initiative are expected from all
- We willingly undertake any task required for the effective operation of our business
- Leadership roles and activities are shared
- Decisions are made: at the source; based on input from those affected; considering both business and individual needs
- We are accountable for our actions and responsibilities
- We challenge boundaries and practices to initiate improvement
- We encourage activities that build teamwork and high morale

Technology and Processes
Our success is based on innovation and technology leadership

- We make optimal use of resources and adhere to defined processes
- We strive for simplicity and ease-of-use in the design of processes
- Processes and systems are understood and developed with input from those responsible for execution
- We use tools, technology, and processes best suited to sustain our competitive advantage

Communication — We take time to listen and ensure understanding.
- Information is shared to maximize understanding, commitment, and ownership
- Communication is clear, timely, honest, accurate, and takes place directly between concerned parties
- We constructively offer and accept feedback

High-Caliber Workforce
We maintain a high-caliber workforce.
- We attract and retain people with the best qualifications, skills, aptitudes, and attitudes that match our long-term requirements and work culture
- We are trained and qualified to be proficient in our jobs
- The development of appropriate technical, interpersonal, and team skills is a shared responsibility between Celestica and each employee
- We are responsible for effective knowledge transfer, skills development, and succession planning
- Development and job opportunities are known and accessible to all employees.
- We are committed to continuous learning.
- We have a flexible workforce in which employment arrangements may differ; we are committed to making employment a rewarding experience for both Celestica and the individual

Compensation and Recognition — Our compensation programs are competitive and influenced by overall company success
- We know what is expected of us and how our contribution is measured.
- Ongoing poor performance is not tolerated.
- We encourage innovation and risk-taking, and treat errors as opportunities to learn and grow
- Skills, knowledge, and contributions to the achievement of goals are key elements that influence compensation, recognition, and opportunity
- Individual, team, and company achievements are recognized in a fair and consistent manner
- We celebrate our successes

Environment
We take pride in our workplace and are a responsible corporate citizen
- Each of us is obligated to maintain a safe, clean, healthy, and secure work environment
- Our workplace is a showcase of our capabilities
- We promote a healthy lifestyle
- We protect the environment.

Making It Work
The transition to a workplace consistent with these values and principles will take time, patience, and ongoing participation from all of us. This will be a continuous process and there will be obstacles along the way, but with tolerance and perseverance we will succeed.

Figure 2.

people, working in shifts around the clock, responsible for the entire process from receipt of kitted parts to packing of final product. These teams are characterized by personnel with high levels of multiple skills, capable of conducting their own inspection and repair, maintaining their equipment, and carrying out significant leadership and administrative functions (such as training coordination, vacation scheduling, hiring, performance tracking, etc.). Team development is supported through extensive technical, interpersonal, and managerial training.

One can see the influence of many of Celestica's values driving the redesign choices selected, for example (values are italicized):

- Work is stimulating and challenging
- *Quality is everyone's responsibility*
- Adaptability, flexibility, and initiative are expected from all
- *We willingly undertake any task required for the effective operation of our business*
- We are accountable for our actions and responsibilities
- *Leadership roles and activities are shared.*

Redesigns were also implemented within many of the support departments. For instance, we implemented more timely, accurate product costing (finance), streamlined new employee processing (human resources), improved on-time delivery of parts (supply chain management), and improved access to consumables (stores). Particularly significant changes were introduced in the prototype lab, consisting of the development of graphical manufacturing process instructions. This has led to substantial improvements in quality, cycle time, and processing capacity.

- We use tools, technology, and processes best suited to sustain our competitive advantage
- *We strive for simplicity and ease-of-use in the design of processes.*

Other initiatives introduced at the site level to support these changes include:

- Skills transfer to manufacturing: There has been a gradual shift of responsibilities and skills from support functions, primarily engineering, supply chain management, and maintenance, to improve response capability in dealing with technical and customer-related problems.
- Variances are detected and permanently corrected at the source, ensuring defects do not *escape to the customer.*

- Customer Focused Teams (CFT): Teams have been established that include most of the functions required to support individual customers. A CFT operations manager leads the team, which includes a customer accounts manager, production personnel, engineering (manufacturing, quality, and test), and supply chain management. There are plans to add other functions to support the customer (such as equipment maintenance), with the intent of creating a "no-excuses" team that will have the capability of satisfying all customer requirements.
- Decisions are made at the source, based on input from those affected considering both business *and individual needs.*
- Teams have the necessary skills, resources, information, and authority to self-manage both social *and technical issues.*
- Modifications to operational training: An enhanced training process has been introduced.

It includes appointment of ten new site sector trainers who are responsible for preparation and delivery of technical training material, along with continuous assessment of manufacturing employees' qualifications.

This approach is supported by a more structured and planned approach to the provision of training. Skills matrices have been developed, identifying skill and knowledge requirements for each individual on the manufacturing work teams, and a training plan established to achieve these objectives.

- We are trained and qualified to be proficient in our jobs.
- *The development of appropriate technical interpersonal and team skills is a shared responsibility* between Celestica and each employee.
- *We are committed to continuous learning.*
- Introduction of an open job-posting process: One of the key issues identified during the social system analysis was a concern expressed by employees that they were unaware of promotional and developmental opportunities available. Therefore, a process has been implemented whereby all positions to be filled are publicized and all individuals who believe themselves to be qualified are invited to apply. This ensures that all interested parties receive consideration.
- Developmental and job opportunities are known and accessible to all employees.

Decisions are made at the source, based on input from those affected considering both business and individual needs.

- Increased emphasis on housekeeping. The appearance of facilities is of utmost importance, particularly since existing and potential customers are frequently touring. A study team established standards and measurement criteria, and put in place a monitoring mechanism consisting of regularly-conducted audits and completion of a "scorecard" with designated accountability at various locations across the site.
- Each of us is obligated to maintain a safe, clean, healthy, and secure work environment.
- *Our workplace is a showcase of our capabilities.*
- Improvement to data transfer from customers: Converting specification data from customers into formats to permit scheduling, parts acquisition, manufacturing, and shipping was a painstaking task. A system was designed to electronically process the data, with resultant significant improvement in time, effort, and accuracy. This has contributed substantially to being more responsive to rapidly-changing customer needs in new product introduction — a mainstay of the contract manufacturing business.
- It is easy to do business with us.
- *We respond to our customers' needs with speed and a "can do" attitude.*
- We are competitive with our commitments and we meet them.
- Increased workforce flexibility: In the contract manufacturing business, a flexible workforce is essential to support large fluctuations in customer demand within a very short time frame. A new part-time work arrangement was formulated to address this requirement, that achieved three objectives: 1) work schedules consistent with the expressed needs and preferences of a part-time workforce; 2) maintenance of a high skill level within this group; 3) reduction of the number of temporary employee classifications to streamline the hiring process.
- *We have a flexible workforce in which employment arrangements may differ.* We are committed to making employment a rewarding experience for both the individual and the employee.
- Alternative work schedule: A number of work schedules evolved over the years in manufacturing, in an effort to accommodate a large hourly workforce with varying needs (for example, students, weekends-only, and specific shift employees, etc.). This was found to be quite disruptive in a number of cases, impeding

transfer of information between shifts, balance of skills across all shifts, and often necessitating excessive overtime coverage. After review of a number of options, it was decided to move to a 3-on/4-off, 12-hour schedule.
- *We challenge boundaries and practices to initiate improvements.*
- Mutual work schedule exchange: Working afternoon, night, and weekend shifts often prevents employees from participating in family events and personal activities. A system has been designed to allow individuals of similar skills to exchange work schedules by mutual agreement.
- *There is a balance between work and personal life.*

Positive Results

As a consequence of this redesign effort, considerable performance improvements have been realized. In the business unit where these changes were initially implemented:

- Productivity has doubled, with the resultant increase in manufacturing capacity without additional labor requirements or capital expenditure
- Manufacturing cycle times decreased eight-fold, with resultant substantial decreases in work-in-process inventory
- Quality, as measured by defects per unit, has improved by a factor of two.

In addition, surveys have revealed a substantial increase in employee satisfaction related to the areas where the redesign has focused. Comments include: "I've waited 27 years for this sort of thing. This is great!" "I used to worry about getting quality ideas and commitment from my co-workers. Now my biggest fear is not capitalizing on their vast potential." "What I like about the STS process is that the change has been driven by the employees — those responsible for execution — as opposed to management dictating how it's going to be." "This stuff really works. We are able to deliver to the customer on time with last minute requests because we've improved the process."

The Redesign Process Continues

Celestica recognizes that the redesign process is never-ending. Many areas are yet to be addressed. To ensure the continuation of change to improve, continuous design boards have been established within manufacturing. These boards are composed of a cross-section of

employees within a particular unit, and they meet for about eight hours each month. Their role is to: audit progress related to redesign implementation, identify where objectives are not being realized, and recommend corrective actions; monitor adherence to Celestica's values and suggest alternative practices, as appropriate; deal with recommendations from work unit members regarding continuous design, and form task forces for this purpose as needed; ensure consistency of practices amongst various work teams; and address problems that cannot be resolved at the work team level.

Diffusion To Other Sites

The past year has seen the acquisition of more than 29 locations by Celestica across North and South America, Mexico, Europe, and Asia. This has raised the question of how to diffuse Celestica's values — considered to be corporate imperatives since many locations have customers in common and a consistent image is vital. A process is under way to provide education and training to other sites and provide consultation assistance from the corporate high performance initiatives team, composed of internal organizational change consultants, to facilitate redesign specific to each locale.

Conclusion

High-performance work organizations with competitive advantage will not be established by merely improving the way in which things are now done. A new model, based on different values and principles, needs to be developed and used to guide organizational design directions.

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