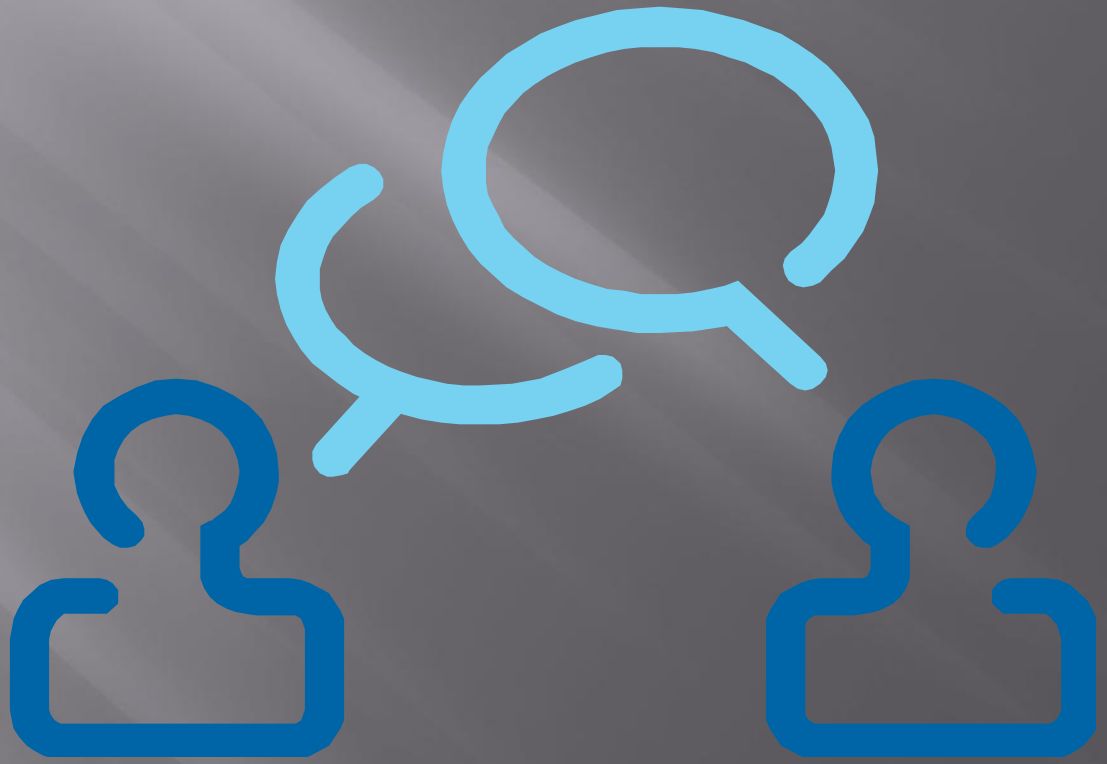
SESSION 2
ORGANIZATIONS AS MACHINES

2 volunteers



Forecast

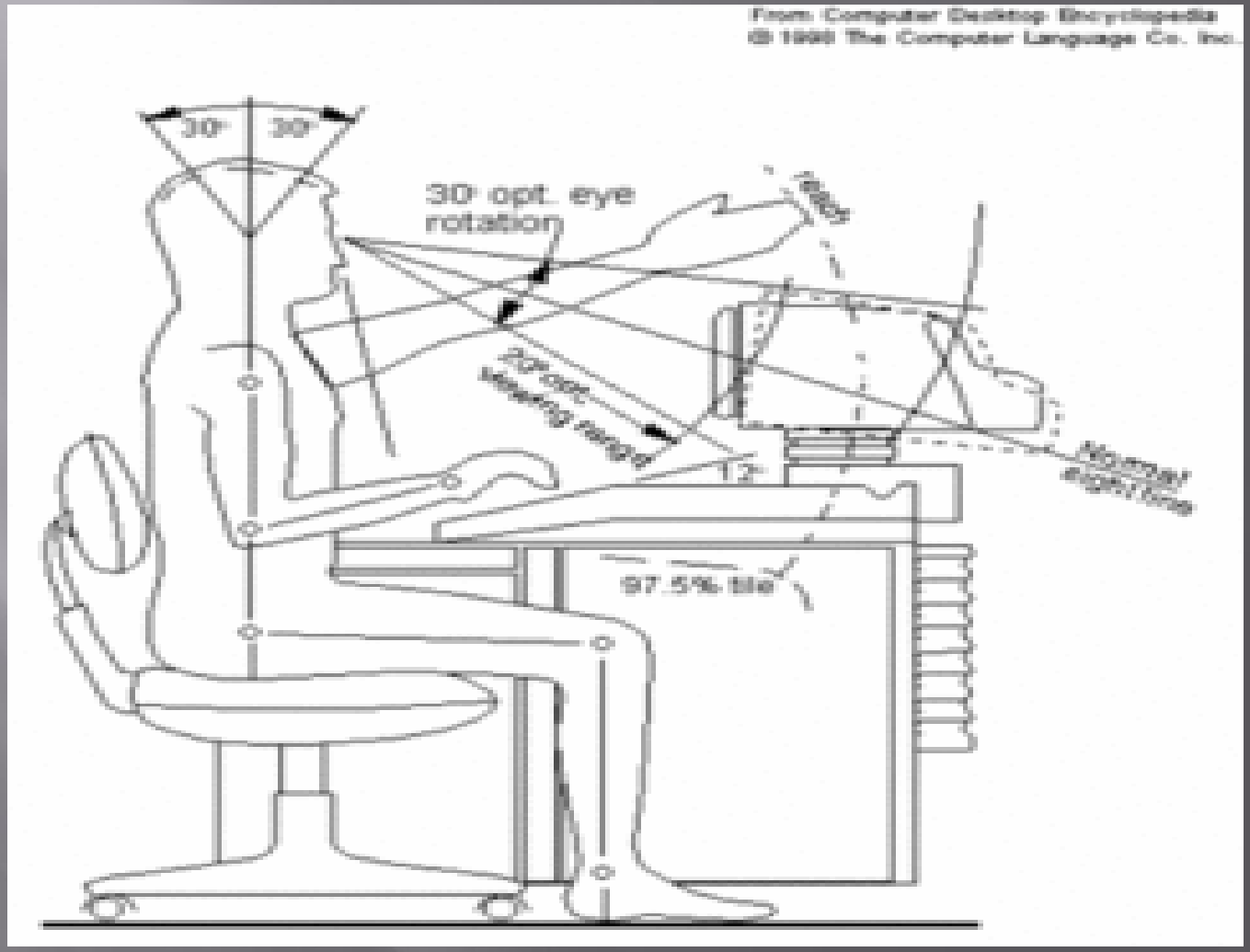
- **World Future Society's forecast for 2007**

- "the robotic workforce will change how bosses value employees," which notes that "businesses will 'hire' whatever type of mind that can do the work—robotic or human."

Some Theories

- **Scientific Management Theory** (1890-1940)
- **Bureaucratic Management Theory** (1930-1950)
- **Human Relations Movement** (1930-today)

Ergonomics


From Computer Desktop Encyclopedia
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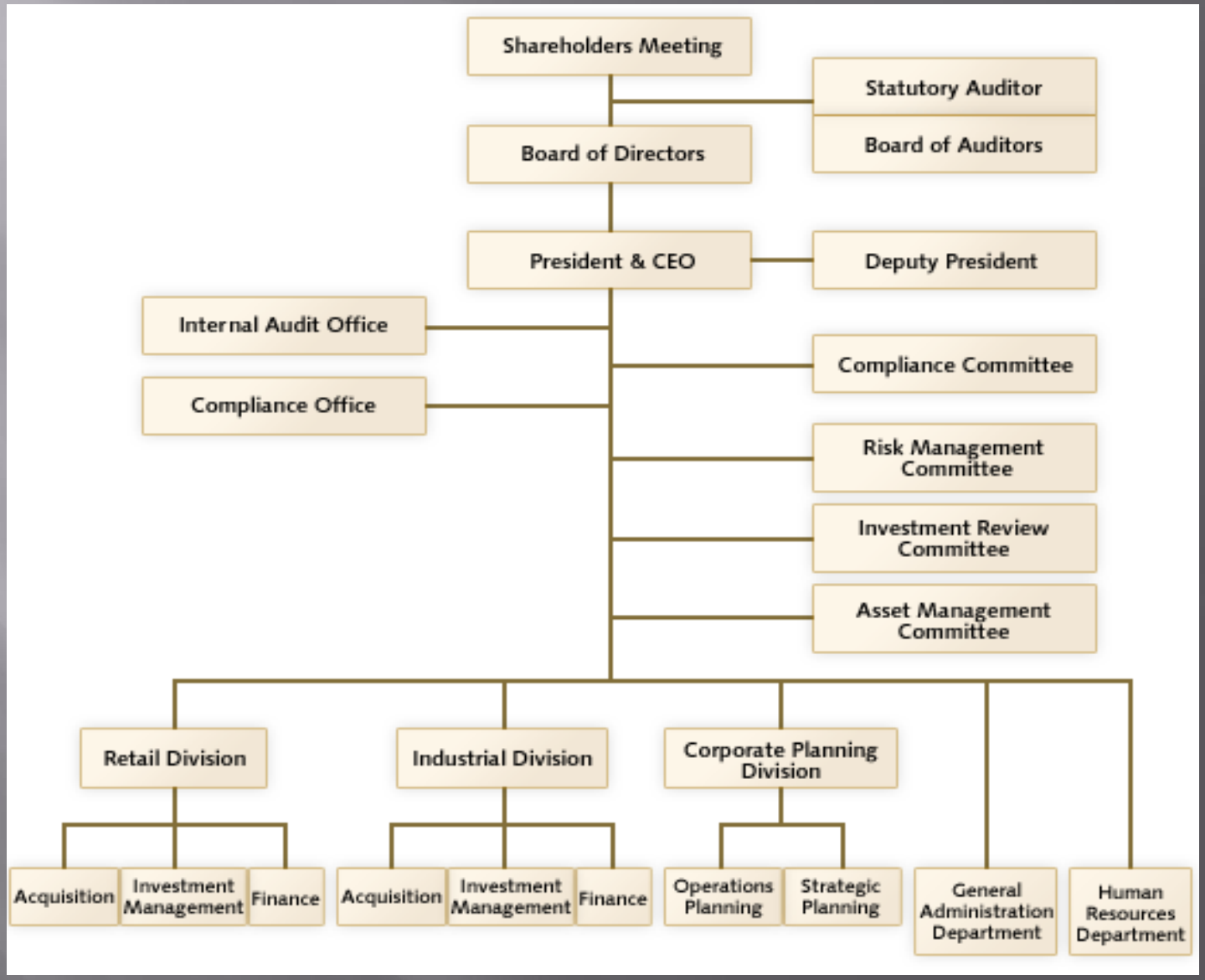
30°
30°
30° opt. eye rotation
20° opt. viewing range
Normal sightline
97.5% line

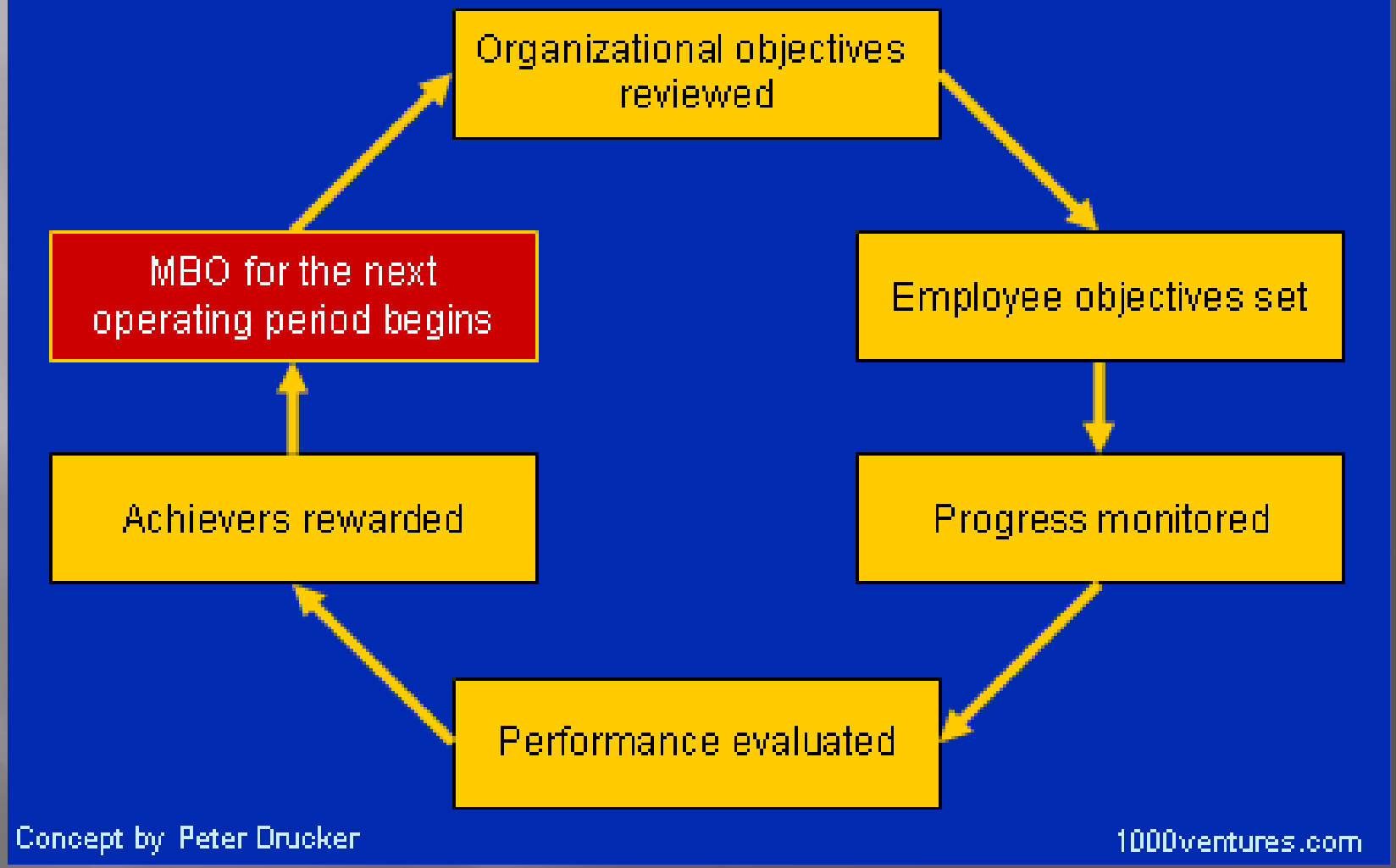

Shareholders Meeting
Statutory Auditor
Board of Auditors
Board of Directors
President & CEO
Deputy President
Internal Audit Office
Compliance Office
Compliance Committee
Risk Management Committee
Investment Review Committee
Asset Management Committee
Retail Division
Industrial Division
Corporate Planning Division
Acquisition
Investment Management
Finance
Acquisition
Investment Management
Finance
Operations Planning
Strategic Planning
General Administration Department
Human Resources Department

Management by Objectives

- Management by objectives (MBO) is a systematic and organized approach that allows management to focus on achievable goals and to attain the best possible results from available resources. It aims to increase organizational performance by aligning goals and subordinate objectives throughout the organization. Ideally, employees get strong input to identify their objectives, time lines for completion, etc. MBO includes ongoing tracking and feedback in the process to reach objectives.

Management by Objectives (MBO)

The Five-Step MBO Process



Goals

- The major outcome of strategic road-mapping and strategic planning, after gathering all necessary information, is the setting of goals for the organization based on its vision and mission statement.

- A goal is a long-range aim for a specific period. It must be specific and realistic. Long-range goals set through strategic planning are translated into activities that will ensure reaching the goal through operational planning.

Objectives

- An objective is a specific step, a milestone, which enables you to accomplish a goal. Setting objectives involves a continuous process of research and decision-making. Knowledge of yourself and your unit is a vital starting point in setting objectives.

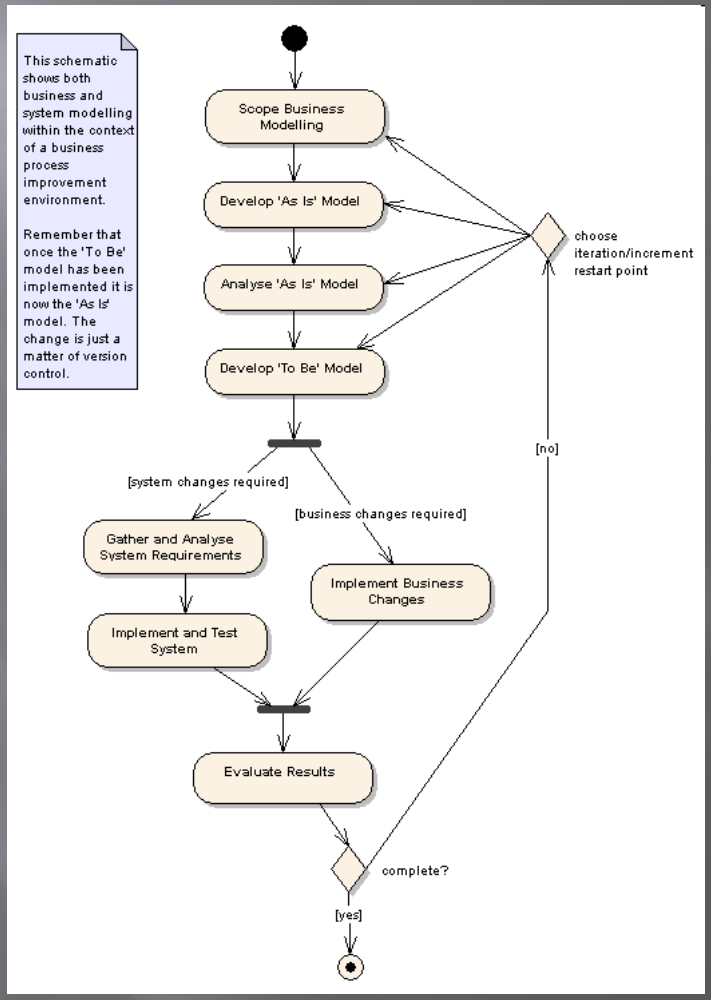
Applying Feedback Analysis

- Undertake a feedback analysis to compare actual results with expectations. Whenever you take a decision or action, write down what you expect to happen. Review results at regular intervals, and compare them with expectations. Use this feedback analysis as a guide to reinforce strengths and eliminate weaknesses as well as for the next round of setting objectives.

Quality Control

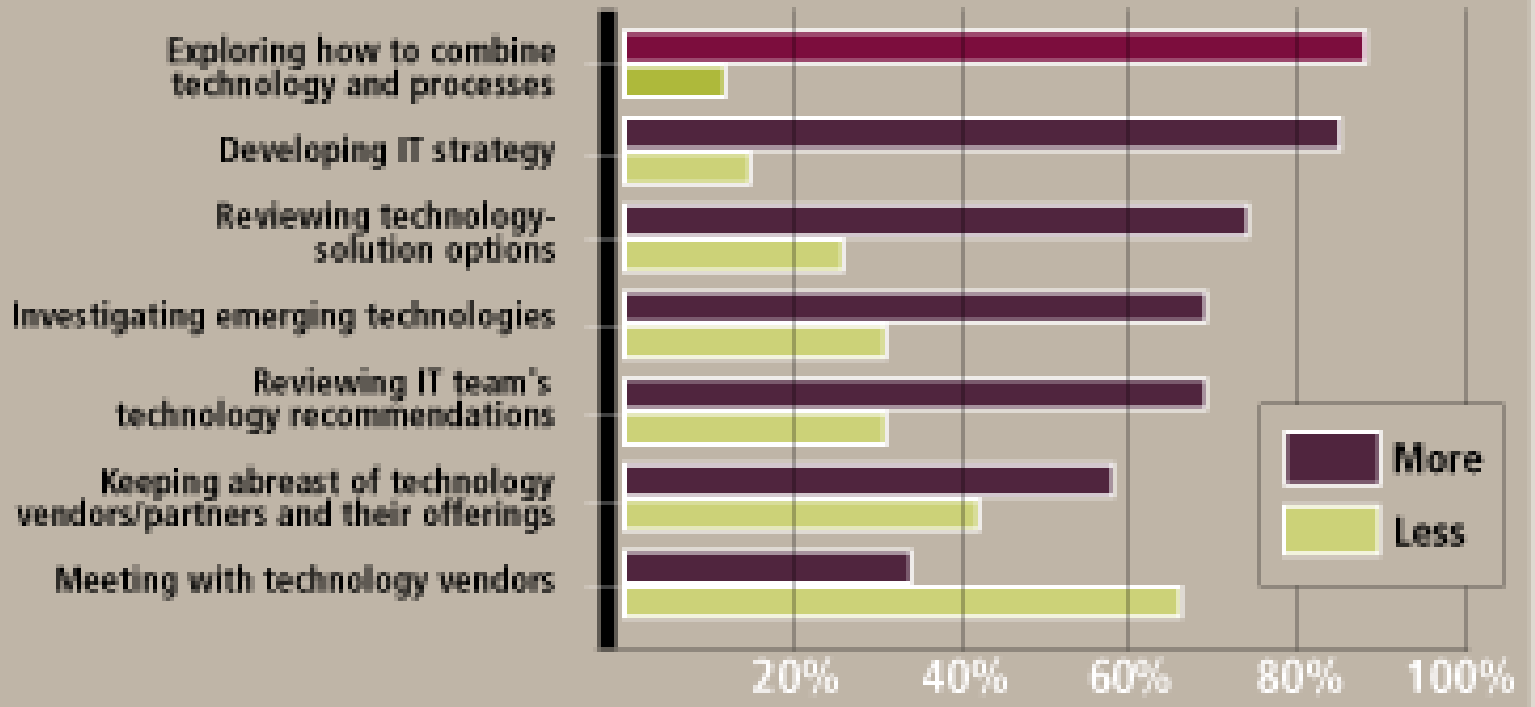
- In all production processes, we need to monitor the extent to which our products meet specifications. In the most general terms, there are two "enemies" of product quality: (1) deviations from target specifications, and (2) excessive variability around target specifications. The methods provided in Quality Control are on-line or in-process quality control procedures to monitor an on-going production process

Business Process Improvement



Time Management

Looking ahead 12 months, do you anticipate spending more or less time on the following activities?



BASE: 290 CIO/CTO/VP of IT respondents
DATA: Optimize "Defining the CIO" survey, March 2005

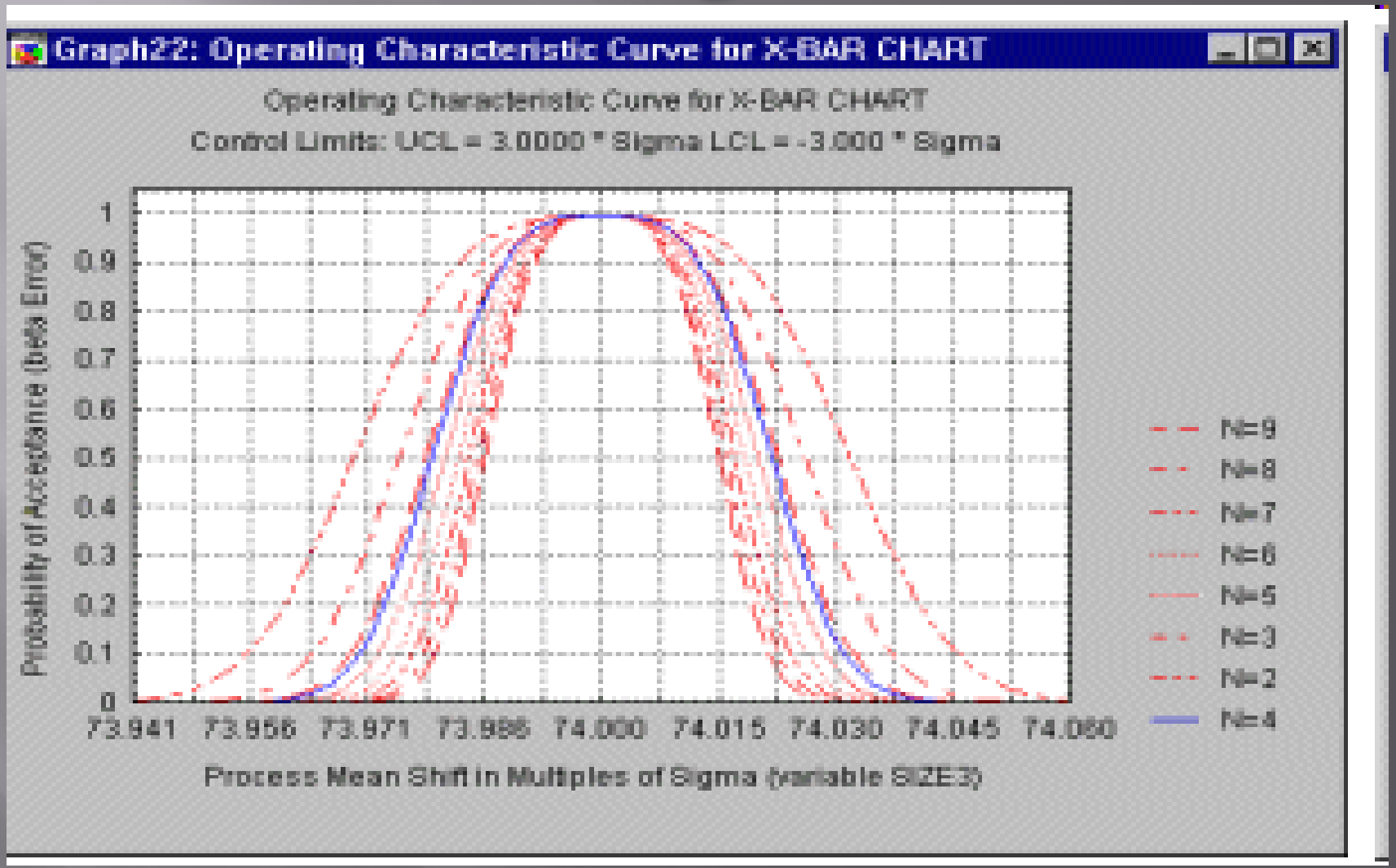
Six Sigma Quality

- Just what is Six Sigma? Six Sigma is a reference to the level of quality produced in a manufacturing process. Most traditional companies believe that 99.9% good quality is a terrific achievement. Perhaps by historical standards it is. However, consider what 99.9% good quality would mean in everyday life in the United States:
- Unsafe drinking water once per week
- No electricity for nearly one hour per month
- 500 wrong surgical procedures per week
- 2 short or long landings at most airports each week
- 20,000 wrong drug prescriptions per year
- 2,000 lost articles of mail per hour

Perhaps 99.9% is not so good.

- World class companies ship products to their customers with 99.99966% good quality. From a statistical point of view, this means that they are shipping Six Sigma quality--no more than 3.4 parts per million defects. This is nearly zero.

Six Sigma


Graph22: Operating Characteristic Curve for X-BAR CHART
Operating Characteristic Curve for X-BAR CHART
Control Limits: UCL = 3.0000 * Sigma LCL = -3.000 * Sigma
Probability of Acceptance (Beta Error)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
73.941
73.956
73.971
73.986
74.000
74.015
74.030
74.045
74.060
Process Mean Shift in Multiples of Sigma (variable SIZE3)
N=9
N=8
N=7
N=6
N=5
N=3
N=2
N=4

Job Analysis

- **Methods** – the minimum requirements to perform the job
- Knowledge of production and process
- Cognitive and mechanical abilities
- Psychomotor abilities
- Working conditions

- **Time measurements** – the cycle /production time required to produce a good or service to the performance standard set by the organization

NOC Codes

http://www5.hrsdc.gc.ca/NOC-CNP/app/occupation_index.aspx?lc=e

Examples

- Loblaw's Merchandise – BPS process tracker