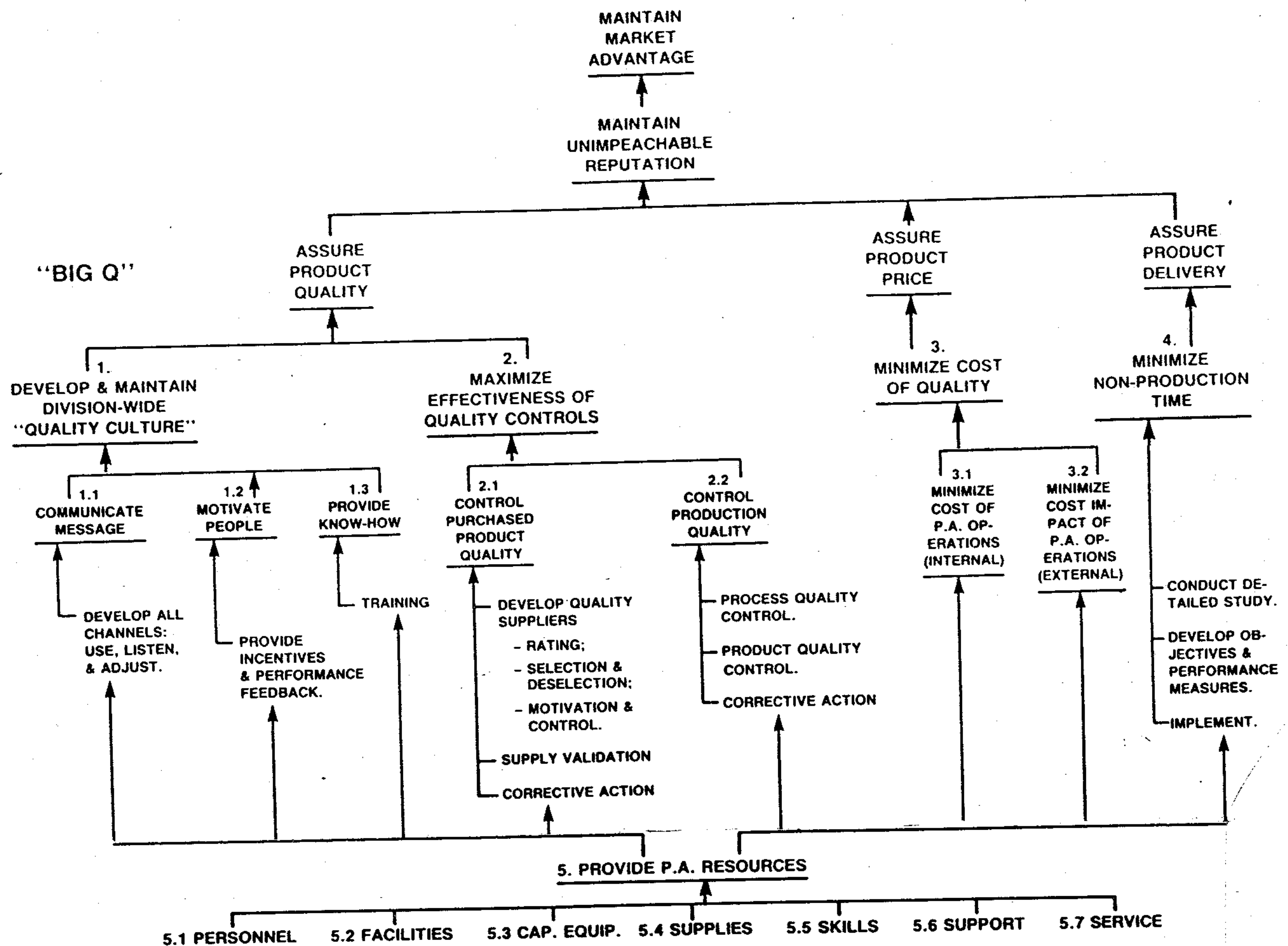


PRODUCT ASSURANCE QUALITY OBJECTIVES — 1985

The chart of "Quality Objectives -- 1985" shows all Product Assurance objectives as supporting the goal of Maintaining AVCO's Market Advantage through the subgoal of an Unimpeachable Reputation for consistently delivering a quality product at the agreed price, and on time. These goals are also supported by subobjectives not shown here and which are not the direct or indirect responsibility of Product Assurance.



In addition, even those goals and objectives which are shown here are not necessarily the exclusive responsibility of Product Assurance. As an example, the third level objectives (on the Chart) -- "the big Q", assuring product quality, price, and delivery -- are ultimate objectives of virtually every organization within AVCO Systems Division. Specifically, these three dictate four specific objectives to which Product Assurance is committed:

- 1 Maintaining a Division-wide "Quality-Conscious Culture".
- 2 Maximizing the Effectiveness of Quality Controls.

- 3 Minimizing the Cost of Quality Without Compromising Product Quality.
- 4 Minimizing the Time of both Quality Operations and Required Corrective Action.

These objectives are expanded upon in subsequent narrative, along with the following indispensable subobjective:

- 5 Provide Resources sufficient to achieve objectives 1 - 4.

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OBJECTIVE 1
"QUALITY CULTURE" -- DIVISION WIDE

A Quality Product is one which meets the customer's expectations; a Quality Process is one which produces the quality product without rework, i.e., it does it right the first time. ASD Product Assurance is committed to Quality in Product and in Process, an objective which, however, can be achieved only to the degree that it is internalized by all ASD personnel. Put simply, the success of the Quality Mission is dependent on a genuine "Quality Culture" (see Corporate General Policy Letter #18, June 1, 1984).

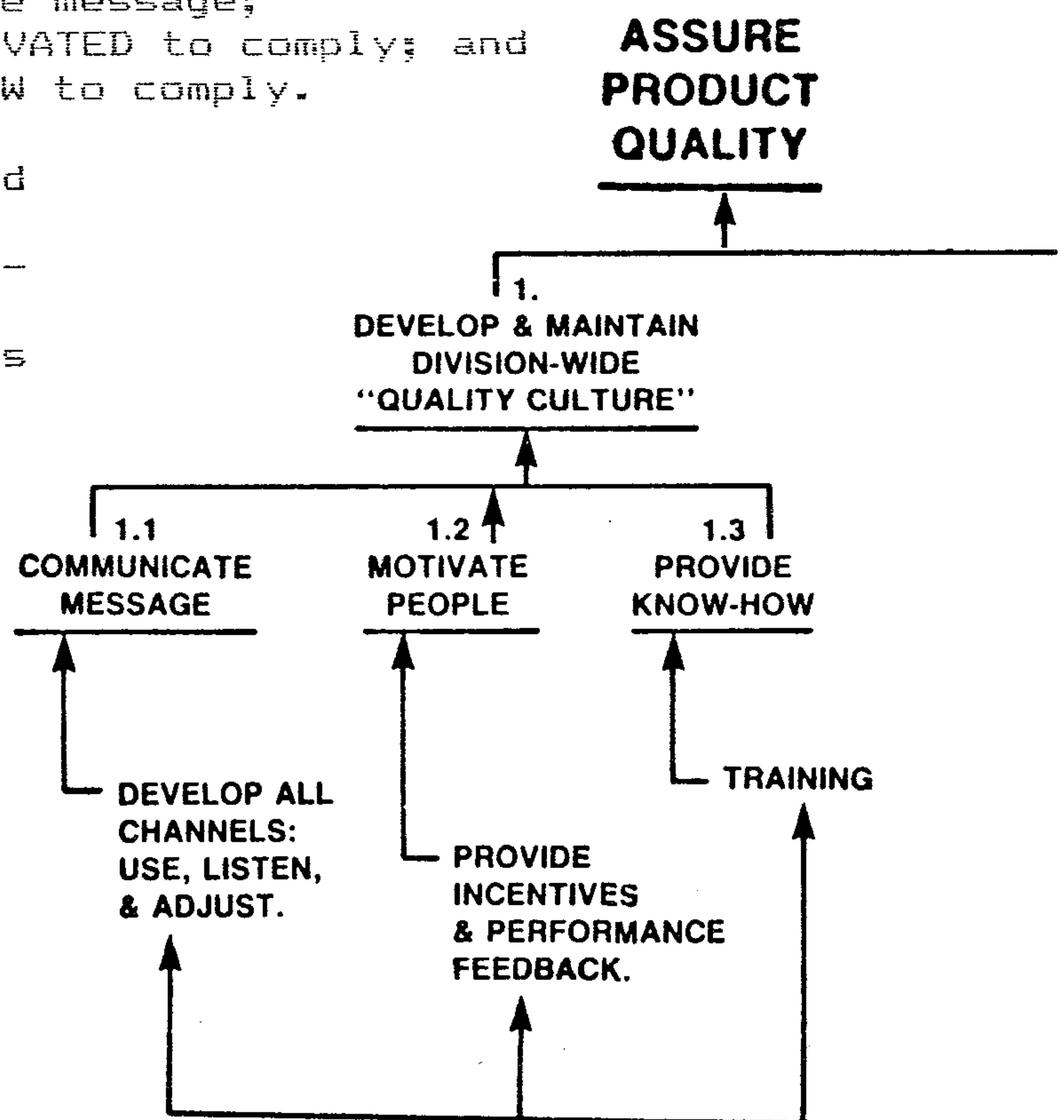
The responsibility for Quality is not unique to Product Assurance, but Product Assurance's role in the Quality Mission is unique. The maintenance of the Quality Culture itself -- the assurance of its pervasiveness, depth, and coherence -- requires the support of accurate measurement and assessment of product, process, and management efforts. The baseline for such measurement and assessment includes test and inspection results, statistical analyses, and corrective action effects -- all intrinsic elements of the most basic "quality control" operation (versus "product assurance"); but it goes far beyond that. It also involves the incorporation of less "tangible" data, from elements requiring the employment of nonparametric statistics (eg. social statistics) at the most "scientific" level to observations in those areas of social and workplace management which are more "art" than "science". With its direct, daily, and total involvement in the dynamics of the Quality Mission, it is most appropriate for Product Assurance to provide the "window" on the Quality Culture, i.e., to provide management and motivational information, and, where designated by Division Management, to implement controls.

A quality conscious culture does not become a reality by describing it, nor by declaring it as the "duty" of all employees. It is a worthy management objective which can be

met only by committing effort and resources to certain subobjectives. Getting people to "internalize" any message has three rather obvious requisites:

- (1) they must HEAR the message;
- (2) they must be MOTIVATED to comply; and
- (3) they must KNOW HOW to comply.

Most importantly, it should be recognized that efforts to bring these three conditions about will not work in isolation. Like the legs of a tripod which must be joined or fall, these represent subobjectives in an interdependent system: specific responsibility for their coordination (if not their actual implementation) must be strategically seated in one organizational unit.



1.1 COMMUNICATE MESSAGE

The message: do it right (meet the customer's expectations of product, cost, and delivery) the first time. The communication of this message must be in complete harmony with motivational and training strategies, not as a demand, but as a shared expectation among members of a professional team. Moreover, it must be more than publicizing; the message must be passed steadily through every communication channel available. Likewise, communication involves listening, sensitizing ourselves to feedback on how extensively the message is being received and internalized -- and adjusting our communication strategy accordingly.

1.2 MOTIVATE PEOPLE

Motivational strategy supporting the objective of a genuine quality culture throughout the Division should be built upon a system of very clearly defined, thoroughly understood, and logically consistent incentives and sanctions.

People do not have to be told to take pride in Quality; they DO take pride in Quality. Underlying the widespread adoption of the term, "Human Resources" is the recognition that people do see themselves as "resources", as being useful, as being of value. They take pride in the quality of their accomplishments.

Assuming people know what it is they are supposed to do (3.1.1.1), and how to do it (3.1.1.3), and still perform otherwise -- then the workplace system of incentives and sanctions is running counter to the objective. It is almost certain that system is rewarding counterproductive behavior and punishing quality!

Promotions, raises, and awards all have their place and, handled properly, do provide real quality incentive. However, they all have one severe limitation: they cannot be handed out on a daily basis, something vital to forming attitudes of daily quality-consciousness.

Consistent and immediate performance feedback from peers, direct supervisors, and the overall job environment itself is far more powerful than anything periodic. It will support the formal periodic system, or it will negate it.

The apparent elusiveness of these daily feedback elements is a pure consequence of habit formed in dependence upon the traditional periodic methods. Yet, they are defineable, structurable, and manageable. Suggestion systems, quality circles, and job enrichment programs all provide opportunity both for the employee's identification with the product and for highly positive personal feedback. Supervisory "coaching" techniques (versus watchdogging and ramrodding) can complement these institutional approaches in the minute-to-minute work environment. In general, a healthy product must be seen as the natural fruit of a healthy organization; thus, all management efforts must reflect a constant striving for the quality of life for everyone within the organization. The challenge is to insure that these methods are orchestrated in total harmony -- it would be fatal to this objective to see them as independent elements and literally invite disharmony.

1.3 PROVIDE KNOW-HOW

None of the above happens by chance, nor works by instinct. People take pride in quality; but that does not mean they instinctively know what it is in a given product or process. A prominent industrial leader, on the board of four prestigious engineering schools, recently noted that many new engineers graduate thinking the quality function belongs to another vocation. If engineers have to be taught what quality is, then we can't assume the employee population at large fully understands it.

It is perhaps even more obvious that dynamics of "behavioral modification" needed to establish a new social culture (i.e., our "quality culture") are not instinctive to the members of our technically oriented industry. Clearly, formal training is needed, as broad and deep within the Division as the cultural reform mandated by Corporate Headquarters is intended to be.

Summarizing Objective 1, it must first be recognized that quality consciousness has always been Company policy, certainly an implicit objective of all ASD organizations, and an explicit objective of the "quality organization" (Product Assurance). Corporate General Policy Letter #18 (June 1, 1984), initiated by the Vice President, Quality, now makes the "Quality Culture" an explicit objective of each AVCO Unit (Division) and of each part of each unit's organization. General Policy Letter #18 also places responsibility for organized and coordinated implementation of that policy at ASD upon the General Manager. Consequently, it is the objective of Product Assurance, since quality is its "focal" objective, to provide the General Manager with the monitoring and control capability necessary for the full implementation of this Corporate Policy.

None of the foregoing means that Product Assurance will be taking the responsibilities of management, motivation, or training related to Quality from any ASD organization. Specifically, it is Product Assurance's objective to support each organization in its fulfilling those responsibilities in any manner designated by the General Manager. In particular, the function of Human Resources at ASD is currently in an early development stage and the role of that organization will certainly be evolving in those areas in the upcoming months. It is a specific objective of Product Assurance to aggressively collaborate with other Directorates in the development of shared or compatible Quality Culture "OMB"s ("objectives to manage by").

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