



[Alvin W. Boese Papers.](#)

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Production problems  
to much shipping

Water a/c pte might be  
better

Problem on tape slow growth  
possibly 10 year program  
because to get it available

in market  
hold sales status quo

lying sales price

lets look at tapes for  
athletic

# MEMO

3/5/62

FROM YOUR 3M  
REPRESENTATIVE

GOLDEN

Redgath John Carey Balse  
Jane Courtney Watson  
Aiken May Martin Corbin  
Moffet Dealers Mueller

Art & Craft

Bob Markli

Doc Halpin

110 E 63rd

New York, N.Y.

Mueller

Testing of product

Joe La Buda

4-6 weeks test program

David Owen

Go proto type route  
Cut back eng.

Detail

Dental program

Anal and dressers

General review

over

microscopic  
to expensive  
2 1/2 - 2 times  
presently and  
product

GIFT WRAP AND FABRIC DIVISION

MINNESOTA MINING AND MANUFACTURING COMPANY

... WHERE RESEARCH IS THE KEY TO TOMORROW



# MEMO

FROM YOUR 3M  
REPRESENTATIVE

*Polypyrrolic breathable*

*Presentation*

*Poorly organized*

*to promotional not*

*total program disorganized  
and not carefully planned*

*Go*

GIFT WRAP AND FABRIC DIVISION

MINNESOTA MINING AND MANUFACTURING COMPANY

... WHERE RESEARCH IS THE KEY TO TOMORROW





cc - ~~A.~~ W. Boese, 42-2E  
J. A. Searles, 42-4E

January 24, 1962

TO: R. J. MAY, 42-2W

FROM: A. H. REDPATH, 42-2W

Dear Bob:

I may have overlooked advising you that now that you are General Sales and Marketing Manager of our Division, you automatically become a member of the Division Operating Committee, of which I am Chairman, and also a member of the Long Term Planning Committee, of which Bob Mueller is Chairman.

I am asking Jim Searles, Secretary of our Operating Committee, to see that you are set up to get all copies of minutes and notifications of future meetings. Mr. Boese will advise you of all meetings of the Long Term Planning Committee since he is Secretary of that group.

AHR/hm

# MINNESOTA MINING AND MANUFACTURING COMPANY

cc C. B. Sampair

SAINT PAUL 6, MINNESOTA

INTEROFFICE CORRESPONDENCE

SUBJECT: Retail Tape and Gift Wrap  
Planning Committee

February 20, 1961

A. W. BOESE

J. E. CORBIN

L. W. LEHR

A. H. REDPATH

R. L. SHEPPARD

6884  
6895

6368  
5061

R. J. May -

With the new organization changes, we are also making some changes in our committee structure. Mr. Redpath will be setting up a Division Operating Committee which will be made up primarily of department heads and which will be concerned more with the immediate and short-range future plans and problems.

To insure that we give real attention to growth of our Retail and Gift Wrap Division, I am organizing a Planning Committee and would like you to be a member of that Committee. In this Committee we will concern ourselves only with long-range plans for growth and will discuss not only internal product plans but possible acquisitions, etc.

Our first meeting of this group will be held on Thursday, March 9, in the Tape Conference Room at 9:00 A.M. Between now and the time of the meeting, I would like each of you to give some thought to subjects for discussion which will be confined to future growth plans. I am asking Mr. Al Boese to be secretary at these meetings.

*RWM*  
R. W. MUELLER 6891

RWM:RL

*You will be  
out of town?*



# MINNESOTA MINING AND MANUFACTURING COMPANY

cc: 3M Management Committee

ST. PAUL, MINNESOTA

INTEROFFICE CORRESPONDENCE

SUBJECT: Planning Committee Meeting  
Held February 22, 1962

March 1, 1962

## MINUTES OF A MEETING

A joint meeting of the Industrial and Retail Tape and Gift Wrap Division Planning Committee was held February 22, 1962, commencing at 8:30 A. M. In attendance were:

R. W. Adam		
L. M. Berlin	/ A. W. Boese	
E. L. Decker	J. E. Corbin	W. A. Aitken
A. L. Donaldson	R. J. May	R. W. Mueller
G. W. Engdahl	A. H. Redpath	J. A. Searles
D. J. Joyce		

Dr. J. L. Rendall was asked to attend a portion of the meeting pertaining to polypyrrolidone polymer products. G. J. Pyle and E. L. Rzepecki were also present during the portion of the meeting pertaining to the Double-Coated "SCOTCHFOAM" family of products.

1. G. W. Engdahl reviewed the status of the M-50 Fiber program and pointed out that in spite of the decisions made in regard to the M-50 Fiber, it is possible to do other things with the polypyrrolidone polymer which might be of interest to our divisions. For example, a polypyrrolidone film is highly impermeable to gas transmission, but oddly enough will allow passage of relatively large quantities of water vapor. This indicates that the film would have some interesting packaging uses and perhaps wide use in the clothing and upholstery field where its ability to "breathe" would provide a real comfort advantage. Present cost of \$2.50 a pound is high now, but would be expected to come down with process refinement and volume use.

The Tape Division is spending one-half of one man's time working with Central Research and Dr. Rendall investigating this program. G. W. Engdahl recommended that our divisions go on record stating we have an interest in polypyrrolidone off-shoots and urge that the Management Committee not release any position 3M might have, except for fiber, until we have had a chance to explore the field more thoroughly.

L. M. Berlin has a detailed market report on M-50 Film. A. H. Redpath believes that the Medical Products group is interested in M-50 Film as a possible backing for a "breathable" medical film tape. G. W. Engdahl will check with Dr. Rendall and our Legal people to see whether our current non-exclusive contract with GAF still involves the original requirement of a 20,000,000 pound plant by 1965. It is possible this requirement is no longer effective.

R. W. Adam suggested that our recommendation be worded such that we retain the right to use M-50 Films, polymers, polymer modifications, and possibly even fibers internally, even though others might purchase the opportunity to develop these products for general sale.

G. W. Engdahl will prepare a letter for presentation to the 3M Management Committee stating our interests and asking that our position be heard before irrevocable decisions concerning our patent position are made.

2. A. L. Donaldson reported on a visit he and J. G. Huddleston made to Di-Noc Chemical Arts. This visit was arranged through R. R. McKenzie as a result of Mr. Cross' suggestion to the tape people during the tape presentation to the Management Committee. Mr. Cross felt that some of our new products, such as Double-Coated "SCOTCHFOAM", might tie in nicely with the Di-Noc decorative laminate line. He also felt that our divisions might have the ability to assist or handle the marketing of the Di-Noc decorative line. A. L. Donaldson reported that this trip was primarily to gather and give information and that no discussion was held with regard to the possibility of our marketing Di-Noc products. No particular attention was paid to the photographic end of the Di-Noc operation. It was felt that this was adequately covered by other 3M groups.

In the decorative field it was learned that much of their business is in the automotive field. They need expanded industrial sales and marketing coverage in order to adequately exploit their decorative laminate line. Discussion brought out the fact that Di-Noc laminates would seem to tie in nicely with a number of our decorative tape products such as our #850 line, embossed metal finish film, adhesive transfer tapes, thermosetting bonding tapes, Double-Coated "SCOTCHFOAM", #471, Colored Paklon, etc. Our divisions have an appetite for expanding into fields where decorative laminates have a market.

R. W. Mueller developed the point that we should be alert to marketing more "complete products" where our technologies could contribute. He pointed out that we believe increased profit can be obtained by selling a complete package rather than selling simply laminating tapes. This philosophy, of course, can be extended into other areas where our tapes are components of a more highly developed product.

In this same connection it was brought out that we sell the Wood Tape Division of Elliott Bay Lumber Company a considerable quantity of transfer tapes. Elliott Bay laminates these tapes to a natural wood veneer stripping which is sold to both the manufacturing and after-market furniture trade. Elliott Bay has approached us to see whether or not we would be interested in taking over that end of their business since they have inadequate industrial, retail, and after-market coverage. Elliott Bay Lumber Company is primarily a producer. They have world-wide timber holdings and feel they cannot devote sufficient attention to the Wood Tape Division part of their business. They feel a marketing organization such as ours could more efficiently exploit the potential of their product. We have not discussed this with them, and do not know whether our interest could be best served by purchasing that division, purchasing patents or patent rights, or obtaining some type of exclusive license. We do believe, however, that the Wood Tape line would definitely add to the marketing



package previously discussed. The Wood Tape line is complimentary to decorative tape products and to the Di-Noc decorative laminates and could easily be tied into the overall picture.

It was agreed that this entire matter would be taken up with the Management Committee by R. W. Mueller before making any contact with the Elliott Bay Lumber Company. It was emphasized that there should be no contact with Elliott Bay before this subject can be cleared with our 3M top management.

3. J. A. Searles reported on our 3M PVC facilities and operations. This report was particularly detailed in terms of manufacturing capacity and cost, and will not be duplicated here. The gist of his report was that \$300,000 was spent by tape orbit divisions for PVC production development. Presently owned equipment could produce PVC film at a cost of 49¢ per pound for 1.5 mil. Additional investment would be required to reduce this cost.

The Magnetic Tape Division is growing less and less interested in the use of PVC film. The future administration of this operation might better be done by a Tape Division -- dependent on the needs of our Tape Divisions for PVC film. The Retail Division should tell us (assuming satisfactory economics and quality) how rapidly they can move toward substantial volume uses. The Retail Division will study this and call a separate and smaller meeting. Both Industrial and Retail should explore the possibility of supplying International Division.

4. R. W. Mueller further developed the theory of increased concentration on the manufacture and sale of end products involving our technologies. He suggested that each of us review the possibilities in this area and submit specific situations of interest for our next meeting, tentatively to be held the latter part of April.

5. G. J. Pyle and E. L. Rzepecki reported on our Double-Coated Foam family line. The status is as follows: Patent position looks encouraging. Trademark is OK. January sales of \$3,000 are expected to double in February, both figures being on forecast target. Chicago alone, where considerable sales effort has been expended, now has customers who will use Double-Coated Foam at an annual rate of \$50,000. Today we have no comparable competition. We can expect competition, but do not particularly fear it. Price appears OK. Our need for dispensing equipment is critical. We need a Double-Coated Foam with greater internal strength. We need a product with the holding characteristics of Double-Coated Foam, but thinner than our present 1/16" material. There are additional minor problems such as odor, but generally the program looks extremely encouraging. Major markets appear to be:

1. Wall mounted hardware and dispensers
2. General miscellaneous holdings
3. Display, movie, and TV set area including trade shows and retail point of purchase advertising
4. Construction field including wall panelling, tile, light weight acoustic ceilings, etc.

5. OEM component use in electrical connectors, flat cables, back-up plates, etc.
6. Retail markets including Single-Coated Foam and low density products

It was pointed out that 3M has inside tracks to a family of products based on this technology. This family includes sound absorptive materials, vibration damping materials, sealing products and padding products, etc.


Today our manufacturing capacity is 9" and 10" widths -- by September, 24" widths. Over 300 accounts have been sampled today. We have the opportunity to develop a wide range of foam densities and a variety of foam materials such as vinyl, neoprene, and others. We also have an appetite and capability to make other foam objects in addition to sheets and tape.

6. J. E. Corbin introduced the subject of plastic horseshoes -- an idea developed by one of our ribbon salesmen. This salesman reports that a small company has developed a nylon horseshoe. Some type of arrangement to obtain the rights to this company's pending patents might be worked out. It appears that there is a domestic racing horseshoe market of \$10,000,000 per year and the world-wide horseshoe racing market is \$80,000,000 per year. Reynolds Company has an aluminum horseshoe on the market today.

Discussion developed the fact that 3M would probably only have interest in this field if it were possible to attach the shoe to the hoof with some type of adhesive. We would then be able to market a complete shoe and adhesive system. Veterinarians at the University of Minnesota feel that it is unlikely that an adhesive would do the job. It is extremely unlikely that a pressure sensitive adhesive, even combined with a foam such as our Double-Coated Foam, would be adequate. J. E. Corbin will follow up with our A C & S Division.

The meeting was adjourned at 12:30 A. M.

Respectfully submitted,

  
A. L. Donaldson  
42-2W

/lp

# MINNESOTA MINING AND MANUFACTURING COMPANY

ST. PAUL, MINNESOTA

INTEROFFICE CORRESPONDENCE

SUBJECT:

September 28, 1961

## MEETING MINUTES

The Retail Tape and Gift Wrap Division's Planning Committee meeting was held on Wednesday, September 6, at 10:00 a.m., in the Tape Conference Room. Present at this meeting were Messrs. Boese, Corbin, Lehr, Mueller, Redpath, and Sheppard. Messrs. Carey, Caruson, Martin, and Parsons attended as guests.

### I. ART MATERIAL

R. R. Martin gave a presentation on 3M Brand Art Fabric #8400 and other new product possibilities being considered for the arts and crafts field. Information on the size of the market, who is in it, and distribution policies were discussed. Also, results of a field trip in which 28 out of 31 dealers contacted ordered 3M Brand Art Fabric was covered along with the sales pitch given the dealers.

Physical samples of the new products under consideration and marketing plans are to be discussed at a forthcoming meeting.

Mr. Redpath also requested a review of prices and discounts. Mr. Mueller asked that a more detailed presentation of the products considered for this field be presented at a future meeting.

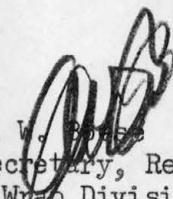
### II. DRIVING MAT and PUTTING SURFACE

Mr. Bill Caruson presented two new products which are being worked on in Profab:

- A. Golf Driving Pad
- B. A Golf Putting-Green Fabric

General interest was expressed by the group, both for the specific products presented and the opening of a new market which could absorb other products. Mr. Caruson was asked to carry on evaluation of the product and to get a more detailed picture of the market for a future presentation.

Mr. Caruson also was to advise Mr. Drew of our interest in the products.

  
A. V. Boese  
Secretary, Retail Tape and Gift  
Wrap Division Planning Committee

/js



# MINNESOTA MINING AND MANUFACTURING COMPANY

ST. PAUL, MINNESOTA

INTEROFFICE CORRESPONDENCE

SUBJECT:

June 23, 1961

## M E E T I N G M I N U T E S

A meeting of the Retail Tape and Gift Wrap Division's Planning Committee was held in the third floor Conference Room on Friday, June 16, at 10:00 a.m. Those present included Messrs. R. Corbin, L. Lehr, R. Mueller, A. Redpath, R. Sheppard, and A. Boese, Secretary.

Dr. Noponen, Profab, presented the background of his interest in paper yarns with the result that interest developed to acquire the Delttox Rug Company, manufacturers of twisted paper yarn rugs. He outlined the company's history and reasons for looking for new backing, and presented samples of knitted and woven fabrics developed by Delttox. The product make up of Delttox, mainly rugs, had no interest.

It was agreed that the Retail Tape and Gift Wrap Division had no interest in the acquisition, which is being pursued with Mr. Buetow. However, the product development of paper yarns will continue in Profab if a negative 3M decision on acquisition is forthcoming, and the Division wants to continue interest in the development.

Dr. Noponen will advise the committee of the outcome of the negotiations with Delttox as well as keeping contact on future product development programs.

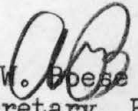
### Brand Name for Medical Products

Mr. Lehr presented the resistance in the medical field to the use of "SCOTCH" Brand for the definitive products for this field. He presented Rod Richardson's survey which indicated a preference for 3M Brand plus a name for each product. The committee unanimously agreed to this change.

### Dr. Golden's Contract

Mr. Lehr also presented the need for a continuation of a consulting contract for Dr. Golden. It was agreed that this should be continued, which Mr. Lehr will communicate to Dr. Golden with the details of the contract to be spelled out later.

The meeting was adjourned with another to be held within sixty days.

  
A. W. Boese  
Secretary, Retail Tape and Gift  
Wrap Division Planning Committee

/js



Personnel in attendance at the joint Planning Committee Meeting,  
Monday, March 13, 1961 were:

R. W. ADAM  
A. W. BOESE  
J. E. CORBIN  
E. L. DECKER  
G. W. ENGDAHL  
L. W. LEHR  
R. W. MUELLER  
A. H. REDPATH  
R. L. SHEPPARD  
A. L. DONALDSON

*A. H. Baese*

Minutes of Meeting - Monday, March 13, 1961  
Tape Conference Room - Industrial Tape Planning Committee  
Retail Tape and Gift Wrap Planning Committee

The initial meeting of the Planning Committees for the Industrial Tape Division and the Retail Tape and Gift Wrap Division was jointly called to consider their function as a long range planning organization. R. W. Mueller explained that these Committees should recommend objectives which will result in policy to guide the various operating and staff functions. Once Division objectives are established, the following are among the subjects the Committee might discuss:

- New Products internally developed. (R. W. Mueller)
- New Products obtained through acquisition. (R. W. Mueller)
- Long range price and distribution policies. (A. H. Redpath)
- Organization. (A. H. Redpath)
- Long range planning for manufacturing facilities, their location, and capital expenditures. (A. H. Redpath)
- Expansion of product lines in areas where we have good or unusual sales coverage. (R. L. Sheppard)
- Product lines which utilize existing manufacturing capacities and technical know-how. (R. W. Adam)
- Committees should forecast strategic position. (G. W. Engdahl)

A. L. Donaldson commented that products are the medium of business conduct, however, this Committee is not solely a New Product Committee . . . it is not a substitute for centralized responsibility for new product activity . . . it must perform completed staff work.

Typical questions suitable for Committee discussion and action are:

- "How diversified a line of products will we have in ten years?"
- "How can we maintain our present percentage profit contribution to 3M?"
- "Which are the most promising new product areas for each Division?"

The importance of business analysis and the part that Market Research plays in business analysis was emphasized by R. W. Mueller, R. L. Sheppard and several others.

E. L. Decker commented that the Industrial Tape Division is set up to provide complete market and business analysis. Market research can be scheduled without interference from or with day-to-day business problems. R. L. Sheppard introduced discussion on market research as performed in the Graphic Products Group. R. W. Mueller suggested that each Division investigate the "Richardson Concept" of Market Research. It is conceivable that each Division might consider buying time for one trial program, preferably in an area where current marketing staffs are not expert. Both Divisions, however, went on record as opposing a company-wide staff marketing organization. R. W. Mueller further recommended that each Division should study other market research methods. He pointed out that we need to strengthen our market research capabilities and asked these Committees to recommend methods of reinforcing our market research capabilities.

Minutes of Meeting  
Monday, March 13, 1961

- 2 -

R. Richardson will be invited to give a presentation before a joint Planning Committee meeting, hopefully in May. (Suggested by R. L. Sheppard, approved by all.)

Each Division should make a list of business fields of experience to use in planning the direction of growth. (R. W. Mueller) The next Planning Committee meetings will be separate and scheduled for early May.

"Centralized Responsibility for New Product Activity" - A. L. Donaldson. Entire presentation appended. Conclusions - New products are vital to our Divisions' economic existence. The centralization of responsibility under a New Product Manager will expedite and maximize profits from new products by:

- Fostering New Product ideas.
- Screening New Product ideas.
- Directing business analysis of New Product ideas.
- Directing market research.
- Defining market and product performance requirements.
- Programing New Product effort.
- Coordinating inter-departmental New Product effort.
- Scheduling New Product effort.
- Controlling cost.
- Directing field test program.
- Directing test selling and promotion.

This breakdown includes the maintenance of direct lines of communication between various segments of new product activity and top management. The above listed functions are continuous and result in frequent reappraisals of our strategic product position.

*AWB*

A. W. Boese

/eb/

Att/



A. L. Donaldson



"Centralized Responsibility for New Product Activity" - A. L. Donaldson

Delivered: Joint Planning Committee Meeting  
Monday, March 13, 1961 - Tape Conference Room

It might be well to ~~paraphrase~~ <sup>preface</sup> my remarks by stating that I make no claim to originality nor invention. I heard the other night that if a man steals from one, he is branded a thief. If he steals from many, he has done research. I claim to have done some research on the subject of New Products. Many of you will hear your own ideas expressed or paraphrased. This should be considered complimentary and perhaps the price of team effort.

For the purpose of this discussion, a New Product will be defined as that which captures new dollar markets or protects existing dollar markets in a new way. It protects existing dollar markets against changes in market requirements or competitive methods. For the purpose of our activity in the Industrial Tape Division, a New Product must be sufficiently different in construction and/or application so that it will be benefited by the special attention which a New Product System might give its program.

It should be a self-evident truth that in a dynamic economic society, a company must grow or die. It cannot maintain a status quo. Growth means an expanding product line, that is, New Products. According to surveys,\* it is common place for major manufacturing companies to realize 50% of their sales on products which have been introduced within the past ten years.

If we do not propose to abandon our future to the whims of chance, we must consider New Product development to be a management process. If New Product development is a management process . . . it needs to be managed! Management means organization and control.

At this point, we might ask why New Products need to be managed. Again resorting to statistics of industry averages,\* we find that seven out of every eight technical development hours are spent on products which do not make the grade commercially. These figures do not include time spent on basic research. Is this a waste? It is a waste if it is possible to bring New Products to fruition more efficiently. Further looking into statistical comparisons shows that it takes 40 ideas to get one New Product, and that of all the New Products placed on the industrial market, only 50% succeed commercially.

After having defined New Products and stated our dependency on New Products for our very existence, let us consider the two sources of New Products. One: New Products can be internally developed based on field requirements, laboratory discoveries, or independent ideas of the "spark of genius" variety. In all of these situations, the products and market are developed within our existing organization. The second source for New Products, however, comes from acquisitions. Conceivably, we might buy a company complete with its product line,

\* Five hundred companies (all types) studied in depth 150 companies most successful in New Products; 200 executive conferences with 5,000 executives; an analysis of 1,000 written sources — Booz, Allen & Hamilton, Management Consultants.

technology, sales and marketing functions. We might also buy a patent, an industrial process, or even an idea. Whether new products are internally developed or acquired through purchase, the balance of my remarks on new product evolution applies equally to either situation.

We can categorize the phase of a new product's commercialization program into four major areas. This is an arbitrary decision, but will suffice for our purposes today.

The first new product stage is the idea stage. Included in this phase of new product activity would be a search to determine whether the potential new product meets one or more of our current business objectives. In this phase is the screening process which should take place to eliminate those ideas which can at the outset, be discarded as unworthy of further development effort.

The second new product stage is classed as the business analysis stage. It is at this point that market research is begun and the specifications are set down to determine the product's performance for satisfying the market requirements.

In the third new product stage, we start the evaluation of the product and the beginning of market development. It is here that technical development is accomplished and manufacturing feasibility determined. It is here that laboratory and field testing is accomplished to prove the performance of the product against the market requirements.

The fourth new product stage consists of test selling on a commercial scale. Sales techniques and merchandising procedures are explored and developed during the commercial test sales program.

Let us again look at statistics.\* For every expense dollar devoted to the four new product stages mentioned above, industrial averages show that 4¢ is devoted to the first stage, 5¢ to the second stage, 51¢ to the third stage and 40¢ to the fourth stage. Let us look at this another way. For every hour of time expended in these four new product stages, three minutes is devoted to the first stage, six minutes to the second stage, 36 minutes to the third stage and 15 minutes to the fourth stage. Consider that only 50% of the new products being placed on the market today succeed, and we might conclude that more time and money devoted to the first two stages of product evolution would result in a better batting average.

Most new products fail because the idea or its timing was wrong . . . not for lack of technical or marketing know-how. This means that we have the technical, marketing, and sales staffs required to promote almost any acceptable product. It emphasizes, however, the importance of adequate business analysis to insure ourselves that the new product idea and the timing of market introduction are at the optimum for realization of profit.

\* Booz, Allen & Hamilton.



By the way, I <sup>should</sup> ~~would~~ like to emphasize, at this point, that current changes in our Division New Product organization is not an indication of failure on the part of those who have previously shared this responsibility. Rather, this reorganization is a recognition of the changing needs of the Industrial Tape Division resulting from many factors which might be lumped under the general heading, "Division Maturity".

In a new product effort we might wonder why inadequate ideas or poor timing are not immediately recognized. There are perhaps two major reasons. One, lack of direction. Two, inadequate follow-up, business analysis, or other performance in the New Product evolution process. To offset problems of lack of direction, the Division Planning Committees have been established. To offset inadequate scheduling, cost control, and business analysis, a New Product System is being developed. We can solve these problems of inadequate New Product organization by bringing increasing attention from top management to bear on the problem. In doing this we have also decided to centralize responsibility for new product evolution. In the Industrial Tape Division we have centralized responsibility in a New Products Manager. He is responsible and accountable to the Division General Manager for:

1. Recommending and initiating New Product objectives and programs.
2. Planning screening activity.
3. Developing and directing business analysis (market research) and business objectives.
4. Recommending technical development programs.
5. Directing inter-departmental teams (sponsor system).
6. Directing field testing and initial selling programs.
7. Keep short communication lines open between various operating departments, New Product activity, and top management.

Because we are going to use existing departmental facilities, certain responsibilities will be delegated, but the New Product Manager is still accountable for these activities in the New Product area. This means that we are now organized to deal with all coordinated laboratory effort, marketing effort, and sales effort, and to see that everything is done that needs to be done to further profitable New Product commercialization. The laboratory functions through existing New Product, product control, and technical service groups. Marketing functions through Product and Industrial Marketing coordinators backed up by the statistical services. Sales functions through field representatives with New Product responsibilities.

In order to make this system work, it is important that the General Sales and Marketing Manager and Technical Director delegate specific responsibility and authority to the Marketing Manager and the Division Sales Manager, as well as various Laboratory Managers and Supervisors respectively to eliminate bottlenecks.

In summary then, we have established a new product goal: That is to expedite and maximize profits from New Products by:

- Fostering New Product ideas.
- Screening New Product ideas.
- Directing business analysis of New Product ideas.
- Directing market research.
- Defining market and product performance requirements.
- Programing New Product effort.
- Coordinating inter-departmental New Product effort.
- Scheduling New Product effort.
- Controlling cost.
- Directing field test program.
- Directing test selling and promotion.

This breakdown includes the maintenance of direct lines of communication between various segments of New Product activity and top management. The above listed functions are continuous and result in frequent reappraisals of our strategic New Product position.

We expect to concentrate our efforts and reject non-productive ideas promptly. We expect to relinquish proven products quickly.

We have then a system which provides specific responsibilities relatively uncomplicated by conflicting interests which will result in efficient completion of task - profitable sales of New Products.

We aid division planning and management <sup>through</sup> centralized responsibility for New Products. The operation of the system makes use of existing division organization, people, and skills without interfering with the day-to-day pursuit of business. Coordination is the key to this accomplishment.

The system will provide that individuals may grow in responsibility within their present areas of effort and/or may grow by associating themselves with a specific major New Product. All organization should be set up to allow reasonable personnel turnover without jeopardizing the task.

The system concept is such that it can be applied to a wide range of workloads and product technology.

# MINNESOTA MINING AND MANUFACTURING COMPANY

ST. PAUL, MINNESOTA

INTEROFFICE CORRESPONDENCE

cc: C. B. Sampair

SUBJECT: Retail Tape and Gift Wrap  
Planning Committee

March 2, 1962

TO:	J. E. CORBIN	TAPE LABORATORY	24-2W
	L. W. LEHR	MEDICAL PRODUCTS	24-2
	R. W. MUELLER	R.T. & G.W. DIVISION	42-2W
	A. H. REDPATH	R.T. & G.W. DIVISION	42-2W
	R. J. MAY	R.T. & G.W. DIVISION	42-2W

✓ FROM: A. W. BOESE -PLANNING COMMITTEE SECRETARY - R.T. & G.W.

A Planning Committee Meeting will be held on Monday, March 5, at 8:30 in the Tape Conference Room, 42-2W. Please plan to attend as a presentation of the Art Material Program will be included in this meeting.

*AWB*  
AWB:js

cc: Messrs. H. F. Groth  
J. R. Lane  
R. R. Martin  
R. J. May  
E. B. Moffet

P.S. to copy list: The art material program, as mentioned above, will be included in the Planning Committee Meeting. Please plan to attend this meeting at the re-scheduled time as noted above.



# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA

INTEROFFICE CORRESPONDENCE

cc: C. B. Sampair

21-2

SUBJECT: Retail Tape and Gift Wrap  
Planning Committee  
Agenda

August 28, 1961

TO:	J. E. CORBIN	-	TAPE LABORATORY	-	21-2
	L. W. LEHR	-	MEDICAL PRODUCTS	-	21-2
	R. W. MUELLER	-	R.T. & G.W. DIVISION	-	42-2W
	A. H. REDPATH	-	R.T. & G.W. DIVISION	-	42-2W
	R. L. SHEPPARD	-	R.T. & G.W. DIVISION	-	42-2W

FROM: A. W. BOESE - SECRETARY R.T. & G.W. DIVISION PLANNING COMMITTEE 2E

Would you please add the following items to the agenda of the Retail Tape and Gift Wrap Planning Committee Meeting on Wednesday, September 6.

Thank you.

AWB:js

II. Art Materials

III. Dental Program

IV. Medical Adhesives

# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA

INTEROFFICE CORRESPONDENCE

cc: P. H. Carey  
W. J. Caruson  
C. B. Sampair

27-1  
42-2E  
21-2

SUBJECT: Retail Tape and Gift Wrap  
Planning Committee  
Meeting

August 24, 1961

TO:	J. E. CORBIN	- TAPE LABORATORY	- 24-2
	L. W. LEHR	- MEDICAL PRODUCTS	- 24-2
	R. W. MUELLER	- R.T. & G.W. DIVISION	- 42-2W
	A. H. REDPATH	- R.T. & G.W. DIVISION	- 42-2W
	R. L. SHEPPARD	- R.T. & G.W. DIVISION	- 42-2W

FROM: A. W. BOESE - SECRETARY - R.T. & G.W. DIVISION PLANNING COMMITTEE

A meeting of the Retail Tape and Gift Wrap Planning Committee will be held in the Tape Conference Room, 42-2W, on Wednesday, September 6, at 10:00 a.m.

A composition driving mat for a golf course and an artificial putting surface will be presented by Messrs. Carey and Caruson.

AWB:js

II. Art Program Review (as requested by  
Mr. Mueller)

# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA

INTEROFFICE CORRESPONDENCE

cc: Dr. G. E. Nopenen  
Mr. C. B. Sampair

41-1  
21-2

SUBJECT: Retail Tape and Gift Wrap  
Planning Committee  
Meeting

June 12, 1961

TO:	J. E. CORBIN	- TAPE LABORATORY	- 21-2
	L. W. LEHR	- MEDICAL PRODUCTS	- 21-2
	R. W. MUELLER	- R.T. & G.W. DIVISION	- 42-2W
	A. H. REDPATH	- R.T. & G.W. DIVISION	- 42-2W
	R. L. SHEPPARD	- R.T. & G.W. DIVISION	- 42-2W

FROM: A. W. BOESE - SECRETARY - R.T. & G.W. DIVISION PLANNING COMMITTEE

A meeting of the Retail Tape and Gift Wrap Planning Committee will be held in the 3rd Floor Conference Room on Wednesday, June 14, at 8:30 a.m., to review a new product and acquisition that Profab is now considering, which is based on twisted paper yarns from which a variety of end products can be made.

7th JUNE  
16  
10:00

This presentation will be made by Dr. George Nopenen.

AWB:js



cc: Dr. G. E. Nopenen  
Mr. C. B. Sampair

June 15, 1961

TO:	J. E. CORBIN	- TAPE LABORATORY	- 2h-2
	L. W. LEHR	- MEDICAL PRODUCTS	- 2h-2
	R. W. MUELLER	- R.T. & G.W. DIVISION	- 42-2W
	A. H. REDPATH	- R.T. & G.W. DIVISION	- 42-2W
	R. L. SHEPPARD	- R.T. & G.W. DIVISION	- 42-2W
FROM:	A. W. BOESE	- R.T. & G.W. DIVISION	- 42-2E

Would you please add the following two items to the agenda of the Retail Tape and Gift Wrap Division's Planning Committee meeting on Friday, June 16, at 10:00 a.m.

Brand Name for Medical Products      L. W. Lehr

Contract for Dr. Golden      L. W. Lehr

AWB:js

*Ant paper*

cc: Dr. G. E. Nopenen  
Mr. C. B. Sampair

41-1  
21-2

Retail Tape and Gift Wrap  
Planning Committee  
Meeting

June 13, 1961

TO:	J. E. CORBIN	- TAPE LABORATORY	- 24-2
	L. W. LEHR	- MEDICAL PRODUCTS	- 24-2
	R. W. MUELLER	- R.T. & G.W. DIVISION	- 42-2W
	A. H. REDPATH	- R.T. & G.W. DIVISION	- 42-2W
	R. L. SHEPPARD	- R.T. & G.W. DIVISION	- 42-2W
FROM:	A. W. BOESE	- R.T. & G.W. DIVISION	- 42-2E

The Retail Tape and Gift Wrap Planning Committee meeting originally scheduled for Wednesday, June 14, will now be held on Friday, June 16, at 10:00 a.m., in the third floor Conference Room, 42-3W.

*all*  
AWB:js

# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA  
INTEROFFICE CORRESPONDENCE  
SUBJECT:

May 10, 1961

A. W. BOESE

Two items should be included on the agenda of the joint Planning Committees meeting, May 26. Both of these have been suggested by L. M. Berlin.

1. Industrial sales coverage as it relates to fire fighting systems, fluorocarbon polymers encapsulation, products for air pollution control, and fire starters.
2. The Home Canning System.

*A. L. Donaldson*  
A. L. Donaldson

/eb



# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA  
INTEROFFICE CORRESPONDENCE  
SUBJECT:

May 9, 1961

R. W. ADAM  
L. M. BERLIN  
A. W. BOESE  
J. E. CORBIN  
E. L. DECKER  
G. W. ENGBAHL  
L. W. LEHR  
R. W. MUELLER  
A. H. REDPATH  
R. L. SHEPPARD

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Scheduling difficulties have made it impossible for the Industrial Tape Planning Committee meeting to be held well in advance of the joint Planning Committees meeting, which will be held on May 26.

The only item on the agenda for this joint meeting is the presentation by R. C. Richardson and the associated discussion. If there are other suggestions which should be placed on this joint agenda, please contact A. W. Boese.

Written by:  
A. L. Donaldson

/eb

cc - C. B. Sampair

CC: J. E. CORBIN  
R. L. Sheppard

ZH-Z  
42-2W

April 24, 1961

TO: R. W. MUELLER 42-2W  
A. H. REDPATH 42-2W  
FROM: A. W. BOESE 42-2E

I note that Mr. Donaldson is calling a Joint Tape Division Meeting for Friday, May 26. He had some tentative suggestions that a Retail Tape and Gift Wrap Planning Committee meeting precede this one.

I would like to suggest a date of May 4 or 5 for this meeting. Do you agree to either one of these dates.

Mr. Redpath's letter of April 4 outlines for the agenda:

I. List of Established Markets and Products

R. L. Sheppard

II. Processes and Equipment presently Available  
for the Development of New Products

J. E. Corbin & A. W. Boese

AWB:js



# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA

INTEROFFICE CORRESPONDENCE

SUBJECT: Joint Tape Divisions  
Planning Committee Meeting

*for reply*

April 20, 1961

MESSRS: R. W. ADAM  
L. M. BERLIN  
A. W. BOESE  
J. E. CORBIN  
E. L. DECKER

G. W. ENGBAHL  
L. W. LEHR  
R. W. MUELLER  
A. H. REDPATH  
R. L. SHEPPARD

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We have scheduled a joint Tape Divisions Planning Committee meeting for Friday, May 26, at 9:00 A. M. in the Tape Conference Room, 42-2W.

You will recall that during the March 13 joint meeting, the suggestion was made that each Division consider the possible advantages of the "Richardson Concept" of Market Research. Mr. Rodney C. Richardson was to be invited to a joint meeting of the Committees.

Mr. Richardson will appear at this May 26 meeting as the first item on the agenda. He will make a brief presentation, after which a discussion and questions from the Committee members will expose us to a more thorough understanding of Market Research as performed in the Graphic Products Group.

It is suggested that additional items for the agenda not be submitted to your Secretary until after the individual Planning Committees of each Division have had an opportunity to meet early in May.

*A*  
Written by:  
A. L. Donaldson, Secretary  
Industrial Tape Planning Committee

/eb

cc - Mr. R. C. Richardson  
Mr. C. B. Sampair

*Conf. room  
is avail. 5/2*

Planning

April 4, 1961

TO: R. L. SHEPPARD, 42-2W  
J. E. CORBIN, 24-2  
A. W. BOESE, 42-2E

FROM: A. H. REDPATH, 42-2W

You will recall from the first meeting that Bob Mueller called on March 13 of our newly formed Planning Committee that future meetings will be held as separate divisions.

At the next meeting, which is scheduled for sometime in May, Bob Mueller would like from us a list of the basic sales and product fields that we have already established in our Division.

I would like Dick Sheppard to prepare a list of the established markets and products, and then I would like his suggestions for directing the development of new products by the markets and sales specialization that we have available in our Division.

I would like Al Boese and Jim Corbin to prepare for our next meeting the processes and equipment presently available for the development of new products in all of our tape and ribbon plants, including pilot plants.

It is hoped that out of the specialized markets and sales forces that we have at our fingertips and with the process and equipment that we have available, this gives us a tremendous start into depth research for new products for our Division.

I shall appreciate your thoughts on these matters so that we will be prepared for our next Planning Committee meeting early in May.

al  
AHR/hm



# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA  
INTEROFFICE CORRESPONDENCE  
SUBJECT:

March 8, 1961

MR. R. W. ADAM ✓  
MR. L. M. BERLIN ✓ *not present*  
MR. J. W. BOESE ✓  
MR. J. E. CORBIN ✓  
MR. E. L. DECKER ✓  
MR. G. W. ENGDAHL ✓  
MR. L. W. LEHR ✓  
MR. R. W. MUELLER ✓  
MR. A. H. REDPATH ✓  
MR. R. L. SHEPPARD ✓

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Mr. R. W. Mueller has already written a letter regarding the formation of a Planning Committee in your respective Divisions. Previously scheduled meetings were cancelled because of time conflicts.

A joint meeting of the Industrial Tape Planning Committee and the Retail Tape and Gift Wrap Planning Committee will be held in the Tape Conference Room at 9:00 A. M. Monday, March 13. It is not contemplated that future meetings of these committees will be jointly held.

A copy of the Industrial Agenda is attached.

*A*  
A. L. DONALDSON

Attach....

cc: Mr. C. B. Sampair

# MINNESOTA MINING AND MANUFACTURING COMPANY

SAINT PAUL 6, MINNESOTA

INTEROFFICE CORRESPONDENCE

SUBJECT: 9:00 A. M.  
Tape Conference Room  
March 13, 1961

## AGENDA - INDUSTRIAL TAPE PLANNING COMMITTEE

1. The Planning Committee: Its Function  
And Operation — Mr. R. W. Mueller
2. Centralized Responsibility for New  
Product Activity — Mr. A. L. Donaldson

6-23-61  
Geo. H. H. H.  
"KNIT PAPER - ITS USES AS A UTILITARIAN TEXTILE"

Paper has been presented in a myriad of forms to the consuming public. Many of the products which are converted from paper are folded, laminated, corrugated, stitched, glued, crimped and woven. All of these methods of conversion are now to be joined by a new presentation, and that is the knitting of paper. There is a vast untouched field of merchandising for materials made from assemblies of knit paper strands. The uses for these paper meshes will prove to be an adjunct or addition to present markets rather than a replacement for any of them.

The development of knit paper called for a new approach in the manufacturing of paper yarn, as paper spinning or twisting by the older and previously accepted methods was costly both from a standpoint of labor and the waste of raw material. The means of yarn production in the manufacturing of knit mesh paper material provides a basic improvement, in that labor is minimized by the intergration of slitting and twisting into a single operation. Yarn is improved in quality by the virtual elimination of splices or knots, and most of all there is 100% utilization of the raw material from the roll by the method of a continuous cycle in production. The method improvements have made possible the production of yarn at a price fractionally more than the cost of the paper; thus the first step in creating a new material for utilitarian use is made possible by reducing the cost of the yarn from which it is composed.

The second step in the formation of paper mesh is the assembly of the paper yarn by circular knitting, and thus creating materials of distinctiveness not hitherto associated with paper. Paper yarn is self-sustaining in character and when it is knit into paper mesh assemblies, materials are formed which are unique in appearance, structural composition and adaptability for general use.

When strength is needed in a paper product, it has generally been accomplished by either pulp formation, increasing the basic weight, lamination or corrugation or a combination of these. Additional strength can now be achieved by knitting with yarns made from papers. In turn, knit paper fabrics can be incorporated in various structures, either all paper or combinations of paper and other materials. We must remember that there is an old adage in which we describe something of strength as "being well knit." Knitting comprises a series of loops and the combination of these loops from paper yarn produces materials which in some assemblies will exceed a Mullen Test of 300. All of the mesh paper assemblies have controlled stretch and can be produced to specific needs for end use material.

The first development of knit paper was a bag used in the meat packing industry for the smoking of hams. This bag was provided with a wide mesh material, through which smoke could penetrate to the ham for improvement in taste, color and general quality by contrast to cotton bags, which are knit so close together as to serve as filter to the benefit of the smoke. The ham bags are knit in a seamless tubular form and are cut to length and closed by special machiner. They are approximately 3 in. in width and yet the assembly will stretch to 21 in. while they are being slipped over the ham. When pulled tight to the conformity of the ham, they serve to hold it during the entire smoking and cooling process. The mesh bag is of extremely loose construction and yet is strong enough to hold a 25 to 30 lb. ham during the entire operation.



There has been a great deal of interest generated for knit paper in the general field of packaging. Burlap, jute, cotton and now the films and plastics all have important segments in this industrial area along with paper. Burlap and jute are, of course, products of a foreign market, and are extremely cheap at times, but fluctuate widely during a state of international emergency or political unrest. They both have "used markets" and in this respect knit paper materials could compare or compete because they are like burlap when made from unbleached kraft and can be sewed, patched and re-formed. The texture of knit paper materials are better than burlap because the stitches provide for evenly spaced fabrics or meshes in which the strength is the same in the entire composition and has the advantage of stretch characteristics if desired.

Heavy cotton materials such as duck, which is manufactured by weaving, is necessarily priced at a figure which is much higher than a comparative knit paper assembly, because of the cost of raw cotton to raw paper initially and to the slow production rate of woven cotton to the speed of knit paper. The films and plastics in the field of packaging have achieved a unique place; and in this regard it would seem that knit paper mesh would provide support where needed through lamination, and that the stretch factor of knit paper would be of great value in lamination to plastics of the same characteristics.

There are many other industrial uses to which knit mesh products will find a place, and in the field of home use it should have great decorative value for curtains, draperies, bedspreads, slip covers, tablecloths and wallpaper.

When the seers predict the future, they invariably speak or write of the day when we will be wearing paper clothing, and most of the time they conclude, of a disposable nature. Surely there are extensive areas in which disposable clothing will find great use; but if we are to really carve a niche in the apparel field, it will need to be won on the basis of re-use in order to compete with other materials and fabrics.

The manufacturing of nearly any item today finds increasing emphasis on the ratio of labor to raw material, and this is particularly true in the clothing field. The cost of the fabric in a dress or suit is low in relation to the manufacturing cost of labor. We are unlikely in the United States to become a regimented people who are willing to accept stamped out uniforms or clothing as our everyday attire. We are a nation of individuals who select our friends, religion, political party and our clothing to suit our own personality and opinion. Paper clothing for the future, except for industrial uses, must be designed for attractiveness, uniqueness and with a variety of selection. Knit mesh paper material, while in an early stage of development for the clothing field, has already proven that it can be competitive on the basis of re-use for long periods of time and that it can be assembled in fabrics of countless design and texture for a wide scope of consumer approval. Knit paper dresses have been made that have been dry-cleaned as many as fourteen times by generally accepted dry-cleaning techniques. This was by no means the limit to which they could be put through the process. Men's sport jackets and men's suits have also been manufactured on existing sewing equipment and have the appearance and drape that is needed to compete with garments made from existing accepted fabrics.

4-12

Knit paper mesh materials have been manufactured from 8 lb. basis weight tissue paper and have been fashioned into tee shirts. These garments have been washed under scientifically controlled procedure, and reports have proven that after ten washings that they still retained the basic construction of material as originally made. There was some loss in color and a shrinkage factor which can be compensated by changing the assembly of the Paper yarns during the knitting process. The chief results from these tests are to prove that inexpensive items of a similar nature to tee shirts can be produced commercially at more than competitive prices because of the initial low cost of the basis material. The knitting of these materials is accomplished by machiner which operates approximately twenty to thirty times faster than similar equipment for the weaving of paper or for any other type yarns.

There are many improvements needed before marketing of knit paper garments, particularly in the hand of the material, and these improvements will come through research and development. The population of the world is living in an inflationary period, and clothing from paper should have a tremendous impact into both domestic and foreign markets, because essentially it can be sold cheaper because of the difference in the cost of the basic material from which it is made.

The flexibility of the knitting operation, when combined with the use of paper yarn, makes possible the development of some interesting new items of production which can use basis weight papers up to and including 70# weights. The heavier basis weight paper can be converted into a yarn and combined with 20 or 25# weight kraft to form materials that can be important as cushioning materials, as laminates, for use in box manufacturing, and as covering for concrete and in the field of formed plastics.

This method of product formation also makes it possible to utilize mill ends, soft rolls, and paper of low value. It provides a much more attractive means of merchandising than the utilization of the above described material as waste or back to the beaters for re-use.

The production of paper is accomplished by the use of our own forests and wood pulp in plants throughout the greater part of the United States. The decentralization of the industry is of great value in national defense in the light of any attack by a foreign power in the years to come. The adaptability of our domestically produced paper to the manufacture of knit materials for general use would have the advantage of a minimum of labor utilization, which could produce a wide variety of products for our defense needs.

Paper manufacturers are particularly cognizant today of profits. Their industry comprises one of tremendous capital investment and the need for up-grading paper products is paramount. Knit paper materials presents new techniques in manufacturing and conversion which lead to merchandising of products in fields in which these profits can be a reality.

3-1361

THE MARKETING SERVICES OPERATION

by

Rodney C. Richardson, Manager  
Marketing Services Department, Graphic Products Group  
Minnesota Mining and Manufacturing Company

The Marketing Services Department is dedicated to a single principle -- to obtain and objectively evaluate marketing information by the most reliable and best founded scientific techniques for Administrative and Sales Managements. This marketing information -- developed by the Economist, the Statistician and the Market Researcher -- must be qualified and conditioned by the practical knowledge of field sales and sales management organizations to reach the point of maximum utilization.

While there is a complete interlocking of all the operations contributing to sound industrial information development, the task really begins in the market place, where the goods are going to be sold. Therefore Marketing Research assumes a position of prime importance and it must be extended to include four major facets of study. First, it is necessary to determine the total consumption potential of the market. This includes a competitive product analysis so that the final picture is descriptive of the entire marketing universe. The next step is to determine the share of the market that is available, either for continuance of sales levels or the additional volume that can be "captured". A thorough distribution analysis is necessary so that there is full knowledge of how goods have moved in the past and what the future outlook is for these channels. Then, too, pricing structures must be carefully studied because they will have a direct effect on the methods of merchandising a product so as to maintain a practical profit level. All of these first four steps serve to give the researcher the basic characteristics of the volume of sales and



movement of goods from the producer to the consumer.

In practice, it can be said that there is the application of a science that precedes or, at least, is simultaneously in operation with Marketing Research -- and that is Economic Analysis. The current and future condition of the Economy will provide a general guide as to whether or not a particular product will experience normal marketing conditions. After the general profile of the economy has been resolved, the researcher must delve further and isolate that segment of the economy that is directly related to the sales of the specific product. The fact that this segment may be in ascendancy, decline, or generally expected to follow the general economic trend, has an important bearing on what the sales picture will be in the future.

As a complimentary result of Marketing Research studies, an exacting Administrative Analysis must be made to determine where and how a product will be sold. The market must be broken down into geographic potential so that sales territories can be delineated and, as a further step, a recommendation must be made (in the case of a new product) as to whether or not the product can be handled by existing sales forces. Market conditions, type of customer contacts or practical physical limitations of the sales force may indicate that a new organization must be created to meet the demands of the trade. Correspondingly the technical complexity of a product may clearly indicate the need for a staff Product Manager, who will act as a coordinator between the sales force, the laboratory, and production so as to assure that the needs of the customer and the abilities of the producer are maintained at a balance consistent with good business. Customers who fall into a unique category may require out of the ordinary merchandising and promotional effort, which may indicate the need for

a Market Manager. His responsibility is to actively support the field sales organization so that there are sales aids and programs bearing directly upon the specialized market.

The current reporting function of Sales Analysis is of key importance to dynamic industrial marketing. This information function must be fully detailed but only to that degree to which the information is actually usable. Individual product line sales trends establish the comparative basis for relation to earlier Marketing Research studies. Correspondingly, breakdowns by types of market allow a critical analysis of original consumption estimates. The performance of individual salesmen against territory potentials furnishes the researcher with checkpoints which can isolate geographic factors that exert significant influence on the market. The pattern of purchases or consumption by individual customers reveals the innermost part of the results of sales effort and provides a finite measure of values that must be injected into studies of futures.

Throughout all these evolutions runs the demand for sound Statistical Studies, which are by no means mechanical but are ever changing and fluid. These techniques require specific attention and must be treated in relative importance with other major functions such as Marketing Research, Economic Analysis, Administrative Analysis and Sales Analysis. A critical component of the statistical function is Methods Analysis, whereby decision is made as to the mechanical means for putting figures into usable form, after a determination has been made as to the exact requirements of the reporting system. Assuming the availability of various methods of accumulating statistics, the Methods Analysis function is responsible for deciding if they will be prepared internally (by hand), on simple tabulating equipment, or programmed for a computer. These decisions are directly related to the volume of basic data, the cost and, most particularly,



the time element.

With the recognition of the basic tools of the researcher and the general areas of control provided by these tools, the next step is Sales Forecasting. While it is true that there seems to be an implication of a massive functional requirement to get to forecasting, the operations are in direct proportion to the scope of the industrial activity. In a business of limited size all of the Marketing Services operations may be handled by one qualified researcher. In the case of a large industrial complex, there may be a sizable staff, with specialists in certain areas, such as Economics or Statistics. Regardless, it is important to recognize the need for the utilization of all the applicable Social Science techniques to provide the strongest possible basis for accurate sales forecasting.

To speak directly on the subject of Sales Forecasting, the demands of industry are such that estimates must be broken down by product -- by market -- and by territory. The forecast should precede the beginning of the company year by a minimum of ninety days, so that management can do the necessary planning which may involve construction of new facilities, hiring additional salesmen, schedule production or other functional acts that may be inherent in the sales estimates. Expected sales for the forthcoming year should be broken down by months, so that management can be immediately warned in case of an unanticipated change in marketing conditions. The forecast should be carried forward for a least five years in order that long range planning will be encouraged and consumer needs anticipated well enough in advance, so that the industry will not lose its share of the market through inability to supply or over-extend itself financially with excess facilities. The development of management personnel also dictates



long-range planning, so that the administrators and supervisors are ready to assume greater responsibility when growth indicates the need for further delegation of authority.

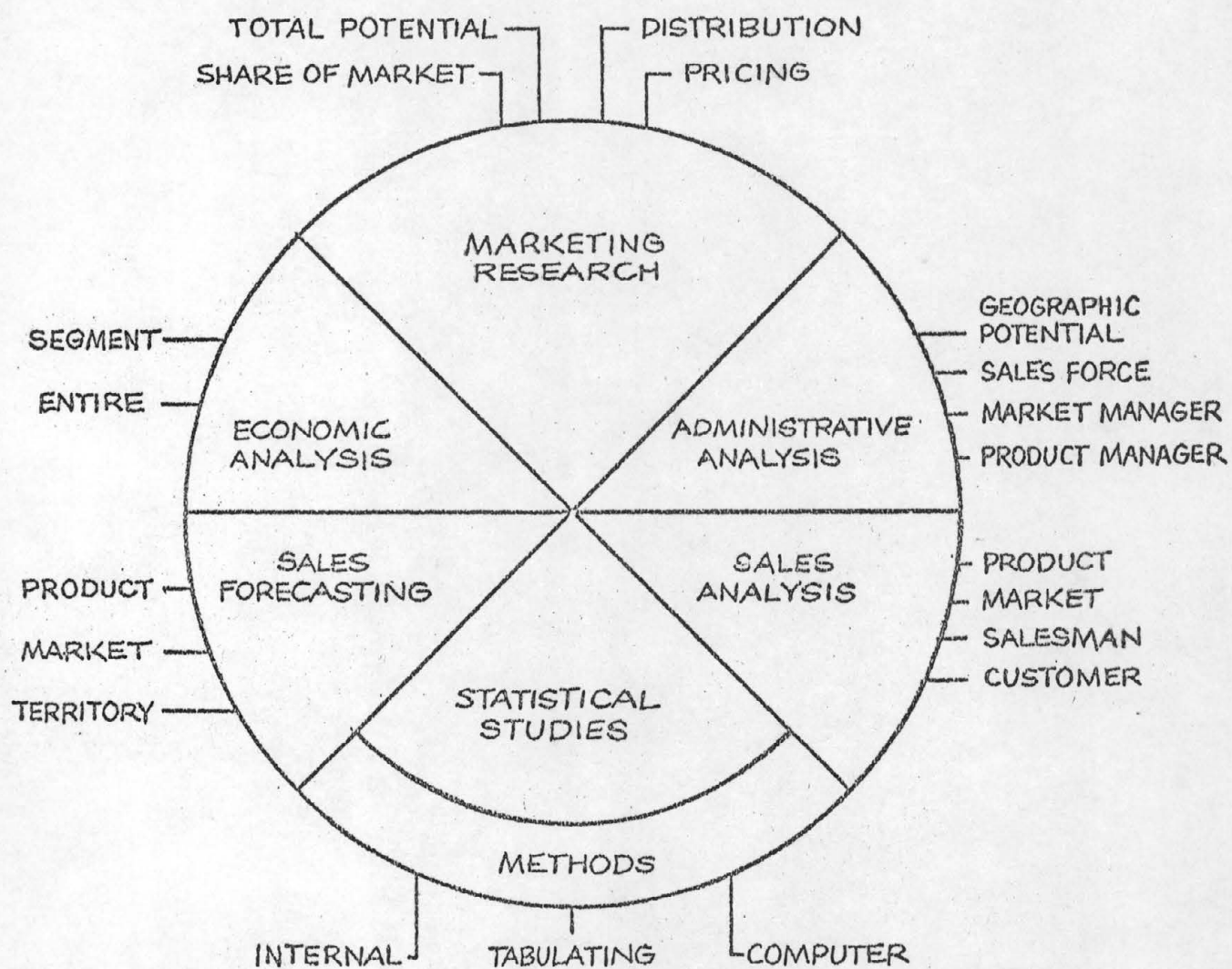
Obviously a major point of discussion is that of diagraming how the journeyman job of Sales Forecasting is undertaken. In this total presentation there has been no mention of the part that the field sales force, the sales managers and the administrators play in this picture. The man on the firing line is by far the most conscious of the reaction of his customers and potential customers. The Marketing Services Department is fully aware that he will be enthusiastic about his possibilities -- as are all salesmen -- but his estimates, concurred in by his sales manager, are a most important working tool. When he realizes that the estimates he submits will be used, along with other information, to determine his sales quota, he becomes flatly realistic.

After the field sales estimates have been accumulated, the researcher then compares them with his predictions of the future company sales volume. He has developed independent figures primarily through studies of the economy, analyses of the market and knowledge of the available and proposed sales manpower. Also, his comparisons and extensions of the past sales trends give him further basis for confirming, agreeing or being in opposition to the field sales estimates. His first court of resolution is the administrative sales management group, where differences will generally be resolved. Finally he commits himself to the top administrator as to what future sales are going to be, presenting his evidence and admitting any differences of opinion that may exist between the Marketing Services operation and top sales management. In the last analysis, it is the top administrator who is the final judge and the Sales Forecaster

may have to prove himself beyond his research -- in time -- before his judgment is accepted.

In summary, accurate industrial sales forecasting depends upon sound scientific research complimented by the estimates of preceptive salesmanagers, finally qualified and accepted by administrators who are close enough to their markets to have that sixth sense that enables them to pinpoint fact and dismiss fiction.

To finalize the identification of the working parts of a Marketing Services operation, as well as a detail of the procedures and results, the optimum form of an industrial marketing research project serves as a practical illustration. The first step involves technical product orientation of the analytical staff, followed by external and internal fact-finding studies. This information is condensed and analyzed for Management so as to present the broadest graphic picture of the market. In turn the resolved information is translated into specifics in terms of quantitative information for both Field Sales Operations and Staff Sales Operations, which are designed to provide a basis for Sales, Advertising and Merchandising Programs. Therefore the ultimate result of the operations of an efficient Marketing Services Department should be an important contribution to maximizing profits.





# INDUSTRIAL MARKETING RESEARCH

