

A SUGGESTION TO CREATE AN IMPROVED
GROWTH ENVIRONMENT
FOR
CANADIAN INVENTORS
AND ENTREPRENEURS

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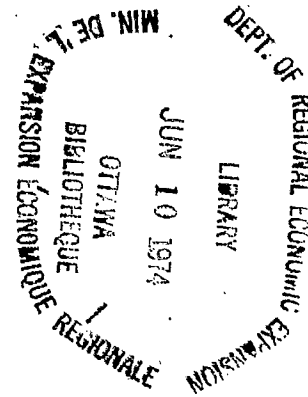
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PREPARED FOR:

THE DEPARTMENT OF REGIONAL
ECONOMIC EXPANSION
OTTAWA, CANADA

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INTRODUCTION

This report is presented with the intention of:

- suggesting ways and means by which an improved growth environment can be created for Canadian Inventors and Entrepreneurs.

This work was authorized by the Department of Regional Economic Expansion, Ottawa. The work itself was carried out under the direction and guidance of Mr. G. Hollingsworth from DREE.

Because of the very nature of this task, many of the suggestions are based on reasoning, extending from:

- . identified short-comings to
- . the belief that the best answer is the one that will create a better environment and greater opportunities for inventors and entrepreneurs.

Opportunities mean, in this context, that there shall be:

- . opportunities for inventors and/or entrepreneurs to realize their dreams and hopes to the extent that they

can become proprietors and chief benefactors of their own ideas and efforts.

- . opportunities for people, other than entrepreneurs and inventors, to reap the benefits from new inventions and new businesses that may be started as a result of inventions or ideas; and finally,
- . opportunities for employment resulting from inventive and/or entrepreneurial activities.

The ultimate objective shall be to create an environment in which a greater number, and a greater variety of people will become proprietors and masters of their own destiny.

The report is thus written around the assumption that the western philosophies, the christian work ethics and the so-called "free enterprise system" are basically good things. It is assumed that this view is the same as saying that an improved growth environment for Canadian inventors and entrepreneurs is one that suits the best interests, hopes and aspirations of individuals. Thus, individual needs take precedence over institutional or bureaucratic needs. Yet, it is realized that both needs must be satisfied.

The suggestions proposed from the very beginning are based on preconceived conclusions that an improved environment is one that will be very sensitive and quick to respond to the needs of individual Canadians, both now and in the future.

Tagging individuals as inventors or as entrepreneurs, and then awarding certain privileges to persons thus classified is not the central issue.

All Canadians, every individual, may one way or another be considered an inventor and/or an entrepreneur at any given time regardless of education and skills.

The central issue is that the suggestion for an improved environment is one that will open up and provide the means by which all individual Canadians will have an equal chance to contribute and harvest the rewards of their efforts, all according to individual capabilities.

This is the basic thought behind this report.

SECTION 1CONCLUSIONS

- . Exploiting the entrepreneurial process is more than a development opportunity - it is a NEED

Existing development programmes are constrained by traditional value concepts that do not recognize individual capabilities. The absence of an integrated development system based on a recognition of the true entrepreneurial process destroys development opportunity. The effective implementation of a system to encourage and support the inventive and entrepreneurial processes will determine the future growth and development of this region.

- . The present situation requires immediate attention if this area is to share in and benefit from the available opportunities and resources

Opportunities for employment, profit, personal growth and regional development are being lost because of a failure to

accept "a risk" in favour of a "play-it-safe" approach.

It is well within our capabilities to capitalize on available opportunities if we are prepared to accept this as the case, and believe it.

SECTION 2

RECOMMENDATIONS

It is recommended that a master system be created to improve the environment for growth of inventors and entrepreneurs. This system must be administered by a Development Authority with access to funds. These funds shall be of two categories:

- . Seed Capital - to assess the validity of an idea
- . Implementation Capital - to finance the implementation of approved projects

The Authority will function to accept proposals, appoint members to advisory boards, review recommendations, and make final decisions.

An Advisory Board will be appointed for each proposal accepted for review, and will consist of experts with direct or related experience to the particular idea under study.

The Authority shall draw on the services of professionals in private practice - economists, accountants, lawyers, engineers, marketers - and thereby encourage the growth of this sector of the service industry.

The master system must be so constituted that it gives the highest recognition to ideas, inventions and entrepreneurial abilities. It is the individual's ideas, combined with attitude, ability and character, that are important, not the amount of money he has, nor the size of the organization to which he may belong.

SECTION 3THE GENERAL SITUATION

Inventiveness and entrepreneurial activities are presently at a low ebb in Canada.

Some say it is the lack of money; arguing that not enough money is spent on research and development. Some say too much money is spent on research and development already, and very little comes about as a result.

The researchers, the scientists and the engineers are often blamed; so are the industries, particularly those which are branch firms or subsidiaries of foreign companies.

It is beyond the scope of this report to ponder on the many wrongs that are being done. The point is, whatever is being done to generate Canadian inventiveness and create truly Canadian entrepreneurial activities does not work according to expectations and costs. Better performance in this field is needed everywhere in Canada.

To correct the situation it will be necessary to throw away many traditional views, myths and procedures that worked well in the past, but are now outdated.

Canada is now coming of age in the sense that the country as a whole, and each of the ten provinces individually, as well as every Canadian, desires to do as much and as many things as each has the capability, talent and strength to do. The traditional subservient attitudes; the ones of colonials, branch plant workers, operators or managers are being replaced with new attitudes.

The new Canadians think of the depression as something that happened in the "olden days."

The attitude of the new Canadian is one of wanting to be, and intending to be, a master in his own house, regardless.

The issue of the day is; if individual Canadians cannot be masters of their own house, then, as some have already declared, they will be demanding the right to separate from Canada as a nation.

The reality of today is that Canada itself, as a nation, may, in a few years be something different from what it is known to be today. It is hoped that arrangements can be made in time to create an economic environment inductive to the production of more inventions and more Canadian entrepreneurs.

This must be done in such a way that individual Canadians can become more the owners of the production, transportation and product distribution systems of this country.

It may thus be argued that serious attempts and successes to create an improved environment for Canadian inventors and entrepreneurs is part of the answer to maintaining and safeguarding Canada as a nation.

One cannot expect all inventors or all entrepreneurs to succeed. One success in 10 trials is a good batting average for any new ventures. Thus, an arrangement of this kind can only succeed if it is designed from the start on the basis of a recognition that there will be a very select few who will succeed.

This may mean an adjustment of priorities so that the necessary funds can be made available.

The problem is a question of attitude. Attitude of governments, regions and individuals.

One must assume that the Canadian taxpayer is prepared to accept the idea that it would be a good thing to open up opportunities for inventors and entrepreneurs, despite the fact that it could open up competition and result in an outdateding of certain existing industries. This assumption leads to the hope and the possibility that creative talent will help solve the problems of inflation.

Inflation is caused in part by a slowdown in creative activity, lack of competition, complacency and a protective attitude toward the status quo. It is easier to count the employment situation as it is, and to protect it against something that in a short time, and in many cases, may worsen the situation at any given time, even though the long range picture may mean more jobs.

As an example one can visualize what would happen today and ask how many people would be out of a job today if Henry Ford had been stopped as an inventor and an entrepreneur when he was making the first car. He would, in all probability, have had to stop on the reasoning that a car would not be a good thing if it

succeeded because it would ruin the horse and buggy business in American, and besides, it is bad for the environment.

Yet, one can find today many Canadians and established Canadian companies arguing this way, rationalizing on the basis that competition is bad for the employment situation. Even governmental institutions and crown corporations tend to promulgate these thoughts.

It is easy to forget that the maintenance of social disparity, and the restriction of growth is an old and well tested sure way to create cheap labour. It can happen to regions, and it could be maintained as a means of stopping inflation, but only if things did not happen outside such regions.

History shows time and again that restraints and social disparity act to prevent the growth of private entrepreneurs, and other practices of this kind will lead to chaos and disruptions. Thus, to play it safe, to bet on sure things, and a preoccupation with maintaining the status quo is the surest way to lose all.

Canada, as a nation, and individual Canadians of all walks of life, need to give this problem the fullest attention. Canada is on the threshold of a new era. If playing it safe becomes a measure of virtue, and if taking risks is something fools will do, then the situation is indeed serious. The maintenance of Canada as a nation is at stake. Risk taking is a basic need. There is a need for an ease-up on restraints, vis á vis the possibility of maybe losing millions of dollars on questionable inventors and entrepreneurs on the one hand. On the other hand one can expect some entrepreneurs will succeed, and it is the success of the few that can save everything. The success of the few has always been at the base of all human achievements and culture.

Thus, it is not a question of whether we, as Canadians, can afford to gamble, but rather, if we can afford not to gamble. Can we afford not to believe in the generally good intention of most young Canadians? We cannot afford to let a few racketeers and con artists dictate the rules and regulations to the extent that valuable ideas of good Canadians will be suppressed.

An over-emphasis on the simplistic reasoning that the taxpayers money must always be spent with prudence, and above all, cannot be wasted, is, in itself the surest way to waste money, talent and resources.

The relationship between economics, resources, talent, profits, risks and growth is difficult to measure and compare at any given time. The history of the human evolution can provide a perceptive picture which may possibly be converted into quantitative figures. A conscious perceptiveness of it all, based on experiences, can be transformed by individuals and/or groups of individuals to become something that is generally recognized as "Cunning."

We talk of "Cunning" as if it is a property, a character of the individual or of a group of individuals, countries, corporations and systems. Organized Cunning can get out of hand and result in power concentration in the hands of a few, as such organizations generally lead toward the preservation of the status quo and the so called "good life" at any given time and period of an era.

This in itself is an act to destroy the good life itself because human cunning will not allow a "good life" to be stable in stagnation. A reasonable degree of good life stability can be achieved in times of change and transformation.

Changes will evolve more rapidly in periods where competition is fair and opportunities are open. Competition is generally recognized as a good thing; the universal medicine for the good life, providing the rules are equal for all.

The rules and the laws of this world are not equal for all and therefore "organized cunning" is needed. This need extends to tribes and groups of people who are willing to abide by one set of rules. This calls for boundaries within which such groups will be free to compete, organize their cunning and find work. The cunning boundaries of Canada are tied only in part to the geographic boundaries. Organized cunning may be found within and beyond the boundaries of any given country.

At the boundary interface of each cunning system, from the smallest to the largest; the one of a single individual or the one of tribes and groups, there are always conflicts.

Cunning systems are designed to either absorb or destroy one another, i.e., to compete. It is this property that ensures a reasonable stability for a "good life" for individuals. But then, for the very same reason a country or a nation will destroy

itself if it fails to create an overall cunning system for all its citizens, or if it creates within itself systems that exclude the participation of other systems in that same nation. The exclusion of a system within a nation means that the system and the individuals in it will, by nature, seek to be absorbed in systems as strong, or stronger, than the systems they are being excluded from.

Canada is presently facing this problem, and the survival of the country as a nation is questioned. Some feel that it is too late; the country is divided into so many cunning systems within, and extending so far abroad that it is too late.

It is assumed that it is not too late and that Canada will survive. Most Canadians, particularly the younger generation, feel that it should, and there are any signs indicating that it will. These signs may be identified as follows:

1. It is felt by most Canadians that the nation should have its own "Cunning system" catering with preference to the needs of all Canadian citizens. This is not nationalism as it is normally referred to in narrow form.

2. The attractiveness of other systems, as they may be observed in other nations, are rapidly losing their glory for Canadians; the Viet Nam wars, hunger, conflicts and the general mess of things happening elsewhere makes Canadians feel that Canada is a good place.
3. Individual Canadians generally think they could do a better job of creating a new Canada, being given the chance before it is too late.

This is the general situation as it may be viewed from the point of view of a Regional Development Agency.

SECTION 4ECONOMIC DEVELOPMENT FORCES

The economic development forces may be explained by the following formula:

$$F + V + P = S$$

That is; fixed expenses, F, plus variable expenses, V, plus profit, P, is equal to the sales, S.

This is the first economic rule which applied to all operations and all activities where money changed hands and where money is used as means for distributing goods, services and labour.

Looking at the ramifications of this rule, one may observe as follows:

In the Stone Age the formula reads only $V = S$. In other words; a person's income or reward is exactly equal to his direct expenses.

There is nothing left for fixed expenses, his house and comfort, and for profit or leisure, and the problems of rainy days. It is a hand-to-mouth existence, and normally it is a hard way to live. There will be a need for a better life and easier conditions. Inventiveness and enterprise was the means by which this could be achieved. Thus, the development of inventiveness is the path one must take in order to

improve economic conditions.

There are enormous forces associated with the way in which any group decides to deal with inventors and entrepreneurs.

The basic economic development forces are there at any given time. These forces will build up or will be released, all according to what one is capable of doing in terms of investing and in terms of entrepreneur activities.

And so it has been since the beginning of time.

It has always been that any desire to seek an improvement in the economic conditions experienced by man at any given time, may be fulfilled by approaching the problem two ways.

The two ways are:

- . To invent new tools, make them and apply them so there will be some spare time left to invent more.
- . To steal or/and rob tools and goods and services generated by others.

The initial steps in both cases can in their simplest form be represented by the expression:

$$V + P = S$$

i.e., the direct expenses plus profit must equal income.

Further along either way, and the situation becomes

$$F + V + P = S$$

The formula applies to all human activities, past and present, those of individuals as well as to groups, corporations, and to countries, from the largest to the smallest.

It is important to recognize that this sequence,

first $V = S,$

then $V + P = S$

and finally $F + V + P = S$

is one that applies to all human progress, regardless of any ideology one may be tempted to think of as the "best way".

Profit which is often talked about in scorn, is ironically enough the only thing that has made and is making it possible for humans to develop into a specie somewhat different from animals.

Profit and the ability to create some, or to hang on to some, either in terms of extra time and money, is what has made humans human.

Yet, it is not an all human gift to generate, to suffer maybe, to be without, to work harder or to get paid more, so that there will be some profit to do new and better things.

Some humans do not care, for them

$$F + V = S$$

is enough.

Most humans, however, want more (i.e. $F + V + P = S$), but then a great portion of these, if not most, prefer to consider a good portion of P as the means for leisure, fun and rest.

There are as many variations to the desire and the use of the available profits as there are people on this earth.

Yet, it is normally recognized that there are certain people who are almost a special class in themselves. They are the observers, the inventors, the people that continually think of ways and means to do things different, make new tools or new products. They are visionaries who throughout the ages have proven their worth time and again.

Looking at the basic formula again, one may analyse it as follows:

$$F + V + P = S$$

or $F/S + V/S + P/S = 1.$

The growth sequence will be

$$V/S = 1,$$

$$V/S + P/S = 1,$$

and then $F/S + V/S + P/S = 1.$

The economy of the Western world has changed from

$$V/S = 1$$

in the Stone Age, to approximately

$$F/S = 0.20$$

$$V/S = 0.70$$

$$P/S = 0.10$$

today.

Some extraordinarily smart ideas in the field of photography and electronics have reached ratios in the range of

$$F/S = 0.30$$

$$V/S = 0.50$$

$$P/S = 0.20$$

before taxes.

After taxes this changes to

$$F/S = 0.30$$

$$V/S = 0.60$$

$$P/S = 0.10.$$

This simply means that machines are doing more of the work.

As machines take over, there ought to be more free time for humans, more profit. In other words; machines ought to free humans, to be more inventive and allow them to do many more and varied things.

This is not all together happening; as machines take over, humans are laid off, and unemployment increases.

It is easy to say that it is the inventions that create such problems.

Some people feel that man for this reason should put some restraints

on his inventive capabilities. One may hear such feelings expressed many times. What is not commonly understood is the fact that it is the opposite, the lack of invention, that creates unemployment and hardships. Man should be able to invent himself out of any difficulty. Yet, it is human nature to oppose change and prevent inventors and visionaries from doing what they want to do. The reason is simple. A successful invention can and will change the relative values of F, V, P and S, as they apply to any or all individuals at any given time. This means that there will be a lot of changes if the invention is successful.

Inventions such as the internal combustion engine, the car, the aeroplane, the telephone, the radio and television, for example, these inventions have in less than seventy years changed the conditions on earth. Not everybody is exactly happy about it. Many are unhappy being subject to such rapid changes, and many dream of simpler lives, less complicated lives, and wish things were back to what they once were.

One may sympathize with such wishes, but one must not fail to recognize such wishes and dreams for what they are.

Nothing short of a total world catastrophe, a world war, or millions of people being killed or destroyed can revert this world back to what it was.

Inventions have and will change this world into something different. It has always been so. An invention will last only as long as it is for the better. Generally speaking, one can say inventions are always for the better.

It is through inventions one will find greater hope for the future.

SECTION 5ECONOMIC DEVELOPMENT RESTRAINTS

Economic developments are such activities and businesses which can be related to making more products and more jobs.

However, economic development means much more. It means everything that humans can do to improve the life and living conditions in a given area.

The rapid changes now taking place are creating a change in values. In the future, what we now take for granted as being "of value", may be all together different.

It was easier a few years ago to think of money, for example, as an absolute thing, representing gold, goods, properties and services.

This old thinking relates money mainly to product, product to labour and labour to time. Money is time, is the old saying.

We are now saying it the other way around; time is money, peoples' time, and what people do with their time must be recognized as

money. We are saying what people do with their time is the all important aspect of an economic development programme.

It will take some time yet before the significance of all this is fully understood. So, for years to come, we in the Western World at least, will be faced with a dual value system - one relating money to man hours and the other relating money to goods and services.

This dual value system creates problems and induces many different conditions on economic developments.

It is easy to make the mistake and think of it in two separate systems, totally different, each having a separate basis for capital, one on goods and one on labour. This is not so. Capital created on the basis of labour (man's time) will have meaning only if it, in a real sense, will give value to the capital as we know it, and as it relates to goods. The other system, the money time value system, is a value added system in a sense.

It is important however to recognize this twist, because the act of giving finance assistance to regions is, in a way, a formal recognition of the value of the people of that region.

Some think of this as a watering down of capital. Existing owners of capital would presumably like to have the first chance to again become owners of this new form of capital. Thus, if it is to remain a policy that existing owners of capital will be the future owners as well, it can then be said with certainty that such policies will fail. Policies of this sort work only in a totalitarian system, be it of corporate form or government form.

If it is desired simply to create an environment that will create a growing number of entrepreneurs, all competing with one another, then the situation is totally different. This latter approach would be in line with the old ideas of the so-called Western Approach.- the American Approach. It is a development plan for individuals and with preference given thereto.

In days past this was not so much of an issue as it is today. The reason is simple. There was one absolute monetary value that could be related to one unit; that of gold. In that system it was found that competition was the best way; inventions, inventors and entrepreneurs came forth in this world of free enterprise. They freed the world from bondages that had lasted hundreds of years.

It is much the same today, but now the entrepreneurs of the past feel their influence threatened by the entrepreneurs of the future, and many of them are looking for protection, and in the process they tend to institute economic development restraints that stop growth and make it difficult for new inventors and entrepreneurs.

These restraints can be removed. ~~The way it can be done is~~ described as follows:

When we examine the basic formula:

$$F + V + P = S$$

and look at the individual ratios, we find generally speaking that the industries in this world perform in the following ranges:

$$\frac{\text{fixed expenses}}{\text{sales}} = F/S = 0.15 \text{ to } 0.30$$

$$\frac{\text{variable expenses}}{\text{sales}} = V/S = 0.75 \text{ to } 0.60$$

and $\frac{\text{net profit}}{\text{sales}} = P/S = 0 \text{ to } 0.10$

In all cases the combination must add up to 1.

If we look at the time value of what one may consider the minimum requirement for a successful inventor and entrepreneur, then we in North America think that such men should earn in the range of \$15,000 to \$30,000 per year.

Most businesses work in the range of $F/S = 0.15$.

This ratio gives an indication of the tools used, the facilities and the technical sophistication of the times.

As technical sophistications increase, one may expect small increases in this ratio.

However, we assume for the time being $F/S = 0.15$.

The fixed expenses, F , is equal to the capital, cost of equipment, etc., times interest

$$\text{or } (C.i)$$

plus

the depreciation in percentage of capital

$$\text{or } (C.d)$$

plus the overhead, administration, etc., which again may be taken as a percentage of capital ($C.a$).

Combining it all, and one may write

$$F = (C(i+d+a)).$$

Inserting this into the formula

$$F/S = \frac{C(i+d+a)}{S} = 0.15$$

using interest at seven per cent = i

depreciation at fifteen per cent = d

and administration at thirteen per cent = a

as a first approximation, and inserting,

the formula then reads

$$\frac{C(0.20)}{S} = 0.15$$

or

$$C = 0.75S.$$

This means that one must expect to invest \$1.33 in order to generate \$1 in sales per year.

Some feel they can do better and some do, but generally this is the approximate ratio of today. This is what it takes to stay modern and up to date technologically.

Looking only at the administration costs for small industries, (i.e. starting out industries, the ones that evolve from an invention or from simply a good idea), the straight salary cost for the top man is about twenty per cent of the total administration expenses. Assuming this to be the case, one may then calculate as follows:

The total administration cost is thirteen per cent of the invested capital - $0.13C$.

The top man cost is thus twenty per cent of $0.13C = 0.026C$.

A top man can make from \$16,000 to \$25,000 working for an existing industry or the government. This is the normal rate at a safe job. The same man may risk the safety of his position if he could see a chance to earn at least \$30,000 a year, if not the first or second year, then at least in three to four years time after having taken the risk.

Assuming this to be the case, then it follows:

$$0.026C = \$30,000$$

$$C = \frac{30,000}{0.026} = \$1,150,000$$

In other words; a top man wanting to go into business for himself today, will require at least \$1,150,000 in capital for his project.

Note that this is the capital requirement for any project, using existing, proven and well-known technologies.

To start up something new, an unknown process (a new invention that will require a new plant and new facilities), the cost will probably be higher. A 1.5 million would perhaps be needed. Right off the bat one would know then that any such industry will have to have about 1.1 to 1.2 million worth of sales to break even.

All this, of course, refers to a situation where it is visualized that a new plant is being built to serve a particular purpose, which one may have in mind.

It is not always necessary to build a completely new plant for particular purposes. North America may be viewed as one gigantic work shop.

Some can make arrangements so that component production could be manufactured throughout the whole of Canada or within certain regions. This may make economic sense, but it is a very difficult thing to do.

There are many problems to be solved in order to make such an arrangement possible. Of the many major difficulties there are problems of distances, transportation costs and the general desire of any plant operator to have the means of production, the plants and the facilities within his control.

In a close knit region, where there are many industries, in towns and cities, one often may find it easier to utilize existing industries, and use these as a base for new ones. Out in the country it is much more difficult.

An inventor or an entrepreneur may, however, succeed and find a place and a way where his industry can be built, on top of existing industries. Everything may just be right for such a development, however, entrepreneurs often find the laws, as they now are, lacking. They give little protection to potential inventors or entrepreneurs, having limited funds.

Patent protection is hard to get. This is a high cost protection, which quite often serves the purpose of suppressing the growth of new ideas.

Patents, and the protection of ideas and inventions, are aspects requiring serious attention when one is thinking about regional economic developments.

Better arrangements than what are available at present must be made. Serious consideration should also be given to providing a tax incen-

tive for inventors and entrepreneurs, and to the idea that such incentives not necessarily be tied to the creation of physical facilities and to plants, but to actual productivity increases resulting from the utilization of an idea. This is a very important field, well worth special attention.

As it now is, due to the many complexities and the many restraints, most inventors and entrepreneurs would feel safer and more secured owning as much of the production facilities as he possibly can muster together.

As mentioned, the minimum requirement is \$1,150,000 for a man hoping to make \$30,000 a year after the plant is built.

Assuming this to be the general case, the situation to be faced may be outlined as follows:

Cost of plant, machine and other facilities	\$1,150,000
Min. equity requirement 30%	\$350,000
Working capital, loans, etc. say;	<u>"150,000</u>
Total owners involvement	\$500,000

Any owner foolish enough to spend \$500,000 on a \$1,150,000 new risk venture to earn \$30,000 a year in salary would in himself be a poor risk.

A \$500,000 investment in the market would earn him easily \$50,000 a year doing nothing and at much less risk.

Most businesses starting out will lose the first few years, so the \$500,000 invested in a new venture would earn nothing.

The only ones that would be interested, are persons without capital who are making \$16,000 to \$20,000 per year, and who hope to make \$30,000 at some future date, and maybe more later.

To such a man the proposal would look good, because if he succeeds in running the plant, then 15 years later he may end up owning it. However, such a man cannot under the present system hope to do much, regardless of how good an idea he may have, because he would lack equity.

Knowing this from the start, inventors and entrepreneurs will come to realize that it would be a waste of time going through the motions looking for support. Then it is better to sell ideas, and let other reap the long range benefits thereof.

This is a severe restriction on economic growth and on the idea of creating an improved environment for inventors and entrepreneurs.

A major improvement can be achieved if arrangements could possibly be made so that a well qualified person had a way to do it. Such a person may not necessarily have much money, but maybe something; a house, a car and a camp, for example, to offer as security. If such a person after having been tested, was found to meet all requirements, except those for capital, then there ought to be a

way whereby a development agency, for example, could assist in making it all possible.

Looking at the figures again, in order to make a \$1,150,000 plant, the owner would need \$500,000 in equity.

He may be able to raise or generate \$30,000, so he will need at least \$470,000 more from somewhere.

Existing financial institutions will lend the other \$650,000, taking a first mortgage on the facilities. They would lend the rest as well, but only if there was a government guarantee supporting the load, or other such arrangement. A mutual fund may also be considered as the means for equity capital.

Most inventors and entrepreneurs would prefer such a scheme to the one of being given a grant.

Most entrepreneurs would prefer being properly financed from the start than to be underfinanced the first three years.

As it is now the grants are subject to success, and success is being jeopardized by the fact that the money spent initially will not be fully available when the payments are due, but later. For those who have a lot of money and do not need the grant, the grant works fine. It is a gift, but only a fool will consider the grant a reduction in risk; it simply makes a project possible.

SECTION 6A MASTER PLAN FOR AN
IMPROVED INCENTIVE SYSTEM

In order to create an improved growth environment for Canadian inventors and entrepreneurs, it is suggested that a master system be established.

Such a master system will require its own master plan. - The master plan will thus describe what the system shall do, what functions it will have and how it will operate.

From the beginning it will be assumed that existing facilities in both the private and the public sectors shall be utilized as much as possible.

Philosophically, it is visualized that a master plan of this sort will promote a growth in the service sectors, the legal, the accounting, the engineering and the contracting businesses so that they in turn will be in a position to take part, and will contribute towards the following objectives.

Objectives:

To create an economically viable system which will encourage and promote the identification and exploitation of development opportunities in the manufacturing and processing sector by:

- . stressing maximum participation from the private sector in such a way as to optimize the development process without creating an undue dependency on the public sector;
- . encouraging the practice of free enterprise within the private sector, and
- . minimizing the degree of administration in order to accelerate the pace of entrepreneurial development.

The master system, once established, shall be for the following purposes:

To stimulate a continuing process in Atlantic Canada which will identify and exploit development opportunities in the manufacturing and processing sector by encouraging the identification of ideas/concepts with business potential, the development of new products/processes, the establishment of the necessary facilities and equipment

for the purpose of production, the provision of skilled personnel to meet manpower requirements, and the active promotion of products in domestic and foreign market places.

This master system shall also be capable of providing financial assistance toward efforts or matters such as identifying business potential, market potential, research potential, employment potential, building prototypes of products, building grants, machines and marketing. The master system shall have in its power an authority to provide venture funds. That is, funds that can be spent with or without the need for strict and absolute assurance that no money will be wasted. The funds thus set aside shall be available to deserving inventors and/or entrepreneurs.

On the question of deciding what may or may not be a deserving individual, this being an inventor or an entrepreneur, or a combination of both, the master system must be so constituted that a wide range of decisions can be used. This means that the master system must be staffed by high grade personnel in key positions who will be able to use their own judgement on what is or is not a good idea.

The master system, in order to be effective, must, from the very start of its conception, be something quite different from what is now normally considered prudent practice - namely:

The master system must be so constituted that it gives the highest recognition to ideas, inventions and to entrepreneur abilities. In other words, it is the ideas that count, combined with an individual's ability to perform work; not the money a person has, nor the size of the organization to which such a person may belong. The attitude of an individual, his abilities and his character will, in all probability, be the basis on which decisions will be made by the master system.

There can be no compromises in this rule. There can be no administrative procedures superimposed on this rule so that they in fact become a restraint in themselves. It often happens that systems with good intentions will become so complex that only the well off can find the system useful. It is therefore of utmost importance to make the system and

procedures for using it so simple and direct that the poorest inventor or entrepreneur will be served. In other words, there must be ways within the system itself to provide funds toward a follow-through process for any idea that looks promising.

The above is a general outline of how such a master system may be constituted in broad terms. It is the criteria for the design of a master plan. In other words, the master plan, the design, must evolve from these basic thoughts, while at the same time, in the evolutionary process, relate to facilities and organizations already established and existing. Thus, in an analogical fashion one may think of the system to be designed as an identity which will have a catalytic effect on the growth of existing and new private enterprises.

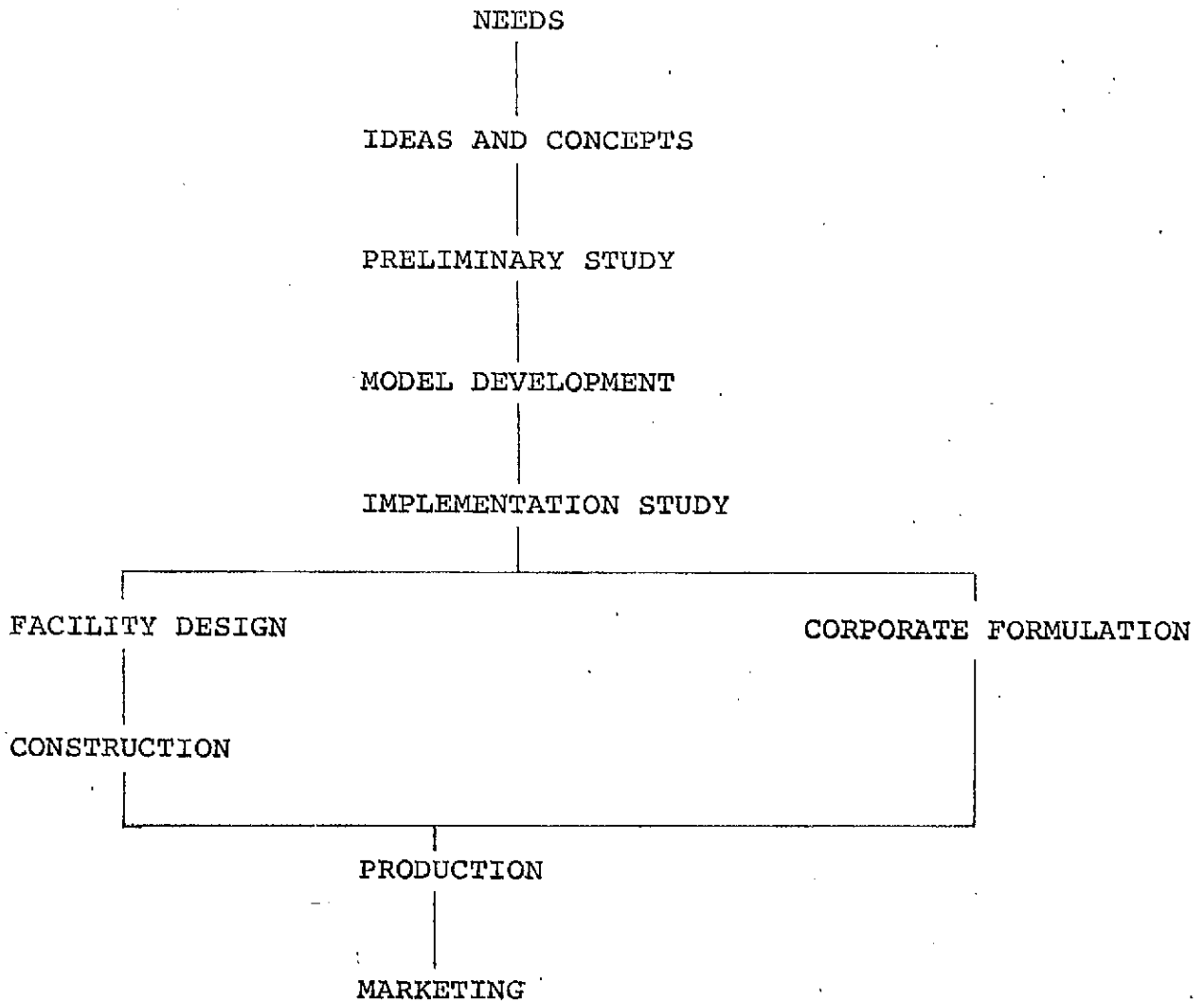
It is a tall order, and one may tend to think the scope of this task so great that the catalytic effect of such a system will be marginal. A cynic will automatically think so and be wrong.

One need only think of a few names like Newton, Einstein, Ford and Bell in order to get a better feel for the tremendous power that extends from a few good ideas. Thus, it is visualized that the catalytic effect of such a master system will be extensive. In the past, a few basic inventions have changed the world. One should have reason to believe that they will continue to do so in the future.

Looking ahead therefore, there is a need to create a flexible master plan for an improved incentive system - directed toward aiding inventors, idea men and/or entrepreneurs.

This incentive system is a master system made to suit the master plan. The system itself must be drawn to suit the basic entrepreneurial process. It is thought that the entrepreneurial process is universal.

The entrepreneurial process may, in its simplest form, be described as follows:



This process may be commented upon and defined as follows:

The Entrepreneurial Process - Definitions

Needs

The needs relate to all human needs. Their numbers, types and varieties are infinite.

Needs are identifiable in terms of results relating to such things as:

- . goods and services
 - . quality of life
- and
- . work opportunities

Thus, the term "need" covers almost everything that a man can do or think of.

Ideas and Concepts

An idea, or a concept, is a real thing in the sense that it has properties which can be measured in terms such as excellent, good, not so good and bad. An excellent or a good idea is one that can relate to needs in an identifiable fashion. An idea which is not so good, or a bad idea, is one that cannot be related to needs.

Knowledge, imagination and judgement must be applied in order to assess ideas.

The rating of an idea is as good as the person relating it. Thus, ideas can easily be lost, particularly if they are to be assessed by mediocre individuals.

An idea, even though it is a real thing, is also an abstract thing. Ideas can come as a flash and be built. Most ideas are built one upon another. Ideas have value, but the value of an idea or a concept is difficult both to assess and to realize. Man's greatest achievements came when he could put his ideas on paper, making it possible for many to see. Greater achievements will come as time goes on now that radio, television, films and other media are in full use. The whole world is searching for new ideas, new concepts, in the hope that it will make life easier and better.

Truly excellent ideas are not easy to find, and maybe equally important, excellent ideas are generally hard to turn into realities. The most excellent ideas are those simple enough to be transformed into reality in a very short time period. One or two years is a long time these days.

Ideas and concepts have age limits. There are old ideas and new ideas. In industry where an idea has been introduced and accepted, one can look for a 17 year patent protection. Many ideas in industry are quickly outdated unless otherwise modified to suit changing times.

Lengthy ideas, conversion procedures, difficult suggestion committees and cumbersome examinations tend to destroy ideas and make them useless. This happens, not necessarily because the idea was poor, but because it took too long to examine it.

Timing of an idea is an all important aspect of its usefulness. Not to know the right time and the right place for the introduction of an idea or a concept can either break it or make it. To know the timing is making it.

Preliminary Studies

The first stage in assessing or measuring an idea or a concept is called preliminary studies. It is a process.

Preliminary studies of this kind must be short. The best way is to break the studies down into time sub-stages, where, in each stage, one may go from the general to the specific.

The information, the data and the experiences may thus be accumulated in a compounding fashion, while at the same time, leaving the option open for a quick cut off or a quick increase in speed and in the expansion of any project.

Each sub-stage is structured on the basic effort sequence of any process - namely:

1. identification of objective
2. data accumulation
3. data transformation
4. drawing conclusions
5. making recommendation for the next move

This sub-stage process may take ten minutes, an hour, a day, a week, a month or a year, depending on how the study is being conducted or managed.

A sub-stage process should not last more than a few days. More time and more sub-stage processes can be superimposed, making the data and new ideas cumulative.

Thus, the preliminary studies themselves can be conducted on the same effort sequence used in each sub-stage. Each sub-stage will, in that case, become one of the many efforts made during the course of a study.

All this sounds like a lot of work. In practice, it is standard procedure and the quickest way towards finding answers.

The basic purpose of a preliminary study is basically to find out or determine if any given idea or concept is any good. So, the basic purpose of the process is to look at ideas, accept them or reject them, and pass them on one way or the other.

This is the first point in the entrepreneurial process, where the importance of money and its effect on an idea or a concept must be evaluated. This is where one, on the basis of very limited information, must guess at the priorities. This is also where one must decide what one can afford to do, as apart from what one would like to do.

The most difficult decisions of all will be those made at the very first stage of the preliminary studies. One must recognize that there are but a few people capable of making such decisions.

It must be remembered that this preliminary study process is one of differentiating between people. Inventors and entrepreneurs must be graded and sorted. It must be accepted as a fact that this grading process will tend to favour the more intelligent.

The financial capabilities of an individual should not be a condition for screening.

Model Development

Once an idea has passed through the preliminary study stage, and is recognized as a good thing, the next stage is to make a model.

A model can be many things. It can be a mock up of a product, a plant, a bridge, a production model or manufacturing model. It is something that is now referred to as a hardware model, or a software model. Software models are such things as simulation models, concept models, projections, strategies and schemes.

Models are something that can be used as a tool to examine how, and the best thing to do at some time in the future.

Implementation Study

Next comes an implementation study. This is a process where one must determine exactly what one shall do. An implementation study involves, for example, work that must be done to determine the relative significance of such things as:

- . location
- . human resources
- . market potential
- . resource potential
- . transportation alternatives
- . business potential
- . capacities and yields for plants or processes
- . the cost of plants and machines
- . the return on investment
- . cash flow projections
- . the labour situation vis a vis labour requirements
- . the pollution problems, and finally,
- . the competition

They must all be related by figures and numbers. The figures and numbers must, in turn, be related to a preliminary design which shows how all the problems can be solved, all in accordance to a model.

The total package is commonly referred to as "criteria for design and development."

Thus, the implementation study process is one that brings everything together. It is the point in the process where the idea, the invention or the concept becomes something which can be seen on paper. The paper will show the physical as well as the financial relationship of the ideas, while at the same time, taking into account as many external forces and ramifications as practical.

The implementation study brings the programme to the point where one must decide whether or not one shall take the final step, build a plant, start a production or invest large sums of capital.

The implementation study will go to financial institutions with a request for support and funding. It is the standard process already being used on a wide scale.

Facility Design Construction, Corporate Formulation, Production and Marketing

Once the funding is approved the project may then go ahead.

This means there will be two basic processes:

- . on the one side there will be facilities design and construction;

- . and on the other side the owner must enter into processes to create his administration, the corporate structure, the management and staff needed for the operation.

Once the plant is completed and the manpower organized, then the project goes into operation. Products are marketed.

The end product is something that will satisfy the need, the very same need that gave rise to the original idea, invention or concept.

And that describes the entrepreneurial process.

Strategy

The entrepreneurial process, previously described, repeats itself time and again for any idea, invention or concept that one may consider worth while examining.

It is the strategy to superimpose on this process a system, i.e., an apparatus that will meet the requirement of the master plan.

The apparatus and the component parts must suit the nature of individuals as well as the entrepreneurial process, yet it must be simple.

Looking at the entrepreneurial process, it is quickly realized that it would be difficult to make one system or one organization that would simply search and identify needs, and bring these to an organization that could develop these ideas and concepts.

The needs, the ideas and the concepts, those existing and those to be created; are all located "out there" among all the people of this world. It would be impractical to think that a system can be created, which within a reasonable period of time will be able to coordinate the many and varied needs and ideas in any given area.

The United Nations and most countries are trying to identify needs, hoping in the process that there will spring forth new ideas that will solve some of the many and varied problems. It is an extremely expensive approach, but necessary, particularly where local talents

and skills are such that the inhabitants would not know or understand how to deal with their own problems.

It is better and less expensive in the more advanced and developed areas to let the inhabitants themselves identify needs and think up new ideas and concepts.

Thus, one will find in these more developed areas, not one, but many different, mostly private institutions, which make it their business to search for needs and new ideas in the event that there will come forth, not one, but many new opportunities.

In areas where such activities are already in existence, it would be a mistake to superimpose governmental or semi-governmental institutions.

It is, thus, proposed that it becomes the strategy, not to create a governmental or a semi-governmental institution, which will investigate or search for needs and develop ideas.

It is proposed instead that the private sector be encouraged to identify needs and come forth with new ideas and inventions. It is proposed that the encouragement comes forth by means of funding, and by means of concessions and award being given by both Federal and Provincial Governments.

In more specific terms; the encouragement needed is a system which would be capable of testing both ideas and individuals, and at the same time be in a position to provide a conducive environment by

processes of law and making funds available to the extent that an idea or an invention may be fully realized.

This is basically the overall strategy of this proposal.

How it may be done is described as follows:

The person or persons to be served can be anybody.

There may be individuals who can be classified as "idea-men", inventors, inventor-entrepreneurs, or simply entrepreneurs. They will all be different, all having different capabilities and skills.

It is the idea and the invention that counts. The money which a person may have, the schooling and the education, need not have any influence on a person's eligibility to enter into an idea development program.

Depending on the importance that is placed on regional development, and the correct measure sought in this regard, there may be domestic requirements, thus limiting the range of a person's eligibility.

Such limitations can have the added effect of forcing the involvement of a local citizen to participate in the development of ideas coming from abroad or outside the region.

It is visualized that a person may approach the system as follows:

The Initial Contact

Initial contact may be established at any stage of the entrepreneurial development process.

A person will take his idea to an individual or a firm that is commissioned to examine his ideas.

It is visualized that there be many firms and individuals commissioned to serve as first contact points throughout the Atlantic Provinces.

To be commissioned to serve in this manner, may be deemed an honour, or a recognition of a professional status, or a recognition of intelligence and common sense.

It should, therefore, not be necessary to create expensive contact facilities at different locations in the Atlantic Provinces. Existing facilities may be used. This arrangement will save people from having to travel long distances, merely to test out what may or may not be a good idea.

When a person first meets an initial contact man, he may want to know

- . how the system works
- . what it will do for him
- . and what shall he do next.

He may or may not present his idea to the person he contacts locally.

In order to prevent people from wasting somebody else's time, it may be necessary to impose a small fee.

A few dollars will not stop anyone, who thinks he has a good idea. It may stop those that have no real intention of really doing anything.

The real purpose of the initial contact man is to advise "idea-men", inventors and entrepreneurs about what they can do, what means and ways there are and can be made available. Secondly, it is to listen and report what an idea may be and to write a brief letter.

This effort will require a certain amount of involvement on the behalf of the contact man. Work of this nature must be remunerated one way or the other.

It is proposed that arrangements be made so that only half the cost of such initial work be covered by public funds. The other half may come from the private sector.

There are some in the private sector already contributing towards efforts of this kind. Their contribution is now a 100%, and for this reason there are only some who can afford it. The effect of this work is small because there are only a few ideas, regardless of how good they are, which can be materilized. In most cases, the man with ideas has no money and is for that reason wasting his and other people's time.

The persons and firms in the private sector already contributing large amounts of money towards the initial step of assessing ideas

and entrepreneurial concepts can be identified as follows:

They are the many lawyers, accountants, engineers, contractors, salesmen and manufacturing companies already in business. All these men will, on a moment's notice, spend a day or two talking to persons who have good ideas.

The contractor, the salesmen and the manufacturing executives are primarily concerned with their own interests, while the lawyers, the accountants and the engineers must give priority to the interest of their client, and earn their living from the successes of their clients.

The Consulting Engineers of Nova Scotia, for example, may be utilized as initial contact men. Their contribution to the development of ideas may be increased many times if they were tied into the proposed system.

Among the seventy consulting engineering firms in Nova Scotia, a proposed arrangement of this sort has already been discussed. The Consulting Engineers' Association, A.C.E.N.S., is giving consideration to the idea of creating an identity, something that they are thinking of calling The Planning and Productivity Institute. This is an institute that will be owned by the Consulting Engineers of Nova Scotia.

It is visualized that each consulting engineer contributes some of his time and services to this Institute, equal in magnitude to contributions that may be obtained from governments and development agencies.

The ownership of the proposed Planning and Productivity Institute may be expanded to include any legal, accounting and engineering firm in the Atlantic Provinces.

Governmental participation to the extent of providing directions and guidance can be included as part of the structure.

It is visualized that an Institute of this sort works as follows:

An individual, a company, or an organization may approach the Institute directly, requesting that a need be examined, a problem be looked into, an invention be assessed, or that a business proposition be evaluated.

Such contacts, requests and examinations will cost the individual nothing initially if he contacts the Institute. The examination itself shall last only a maximum of two days.

The Institute thus notified will then in turn contact a lawyer, an accountant or an engineer, a person or a firm considered most suitable for the job and strategically located; and request participation. The Institute will pay only half the fee, the other half will be paid by the person agreeing to do the job.

Thus, a built-in arrangement can be made so that persons, this being a lawyer, an accountant, or an engineer, will be paid only when an idea becomes successful, and he will be in an advantageous position to get a new client.

If he does not succeed, or if he is doing a poor job, he would then be merely wasting his and some of the Institute's money.

Not only the client, but also the Institute, will have a say.

A client not satisfied may ask the Institute to provide him with a different firm. A client who is rejected twice by independent firms, one may thus safely assume is a poor risk.

A client or a person will still have many options open to him. He can select and appoint his own counsel and pay for it, or he can approach a higher Authority. This is an Authority that monitors everything. For the sake of convenience one may call this the Development Authority.

The Second Stage

The second stage is such a period in time when an idea or a concept has been examined and accepted.

The Planning and Productivity Institute has given its approval, or a person, a firm, or a group of people has given the idea its approval.

The Planning and Productivity Institute need not, and best, shall not be the only group assessing ideas.

There are numerous other organizations already in existence, quite capable of deciding for themselves the relative merits of any of their own ideas.

However, no matter where it comes from, it is proposed that a submission be made, describing briefly the relative merits of an idea and with request for both approval and assistance.

Submissions of this sort must be addressed to a Development Authority where it may go through a second screening process. The purpose of this submission is to determine whether money can be made available for further studies, and to determine the questions; if further studies are awarded, does the project have potential, and if so, can it be funded with the money available.

It may not be possible to answer these questions on the basis of the information available. A short preliminary study may be awarded, to be followed by a second preliminary study and so on, should an idea continue to look promising.

In this interplay between the client, the Development Authority, the Planning and Productivity Institute, Research Organizations, Private Consulting Firms, or Manufacturing firms, there will be expenses and costs incurred.

It is proposed that the Development Authority finance these costs initially, and that these costs shall become liabilities on the ideas themselves or on the projects that are created from the ideas.

To avoid creating new companies for any new idea being developed, it is proposed that the Development Authority be given discretionary powers to offer tax incentives rather than funds when expenses are incurred for developments. Successful developments should increase the tax intake.

The Development Authority need not be a large organization. It may be a Government Department already in existence, or it may be a Board.

The difficulties of a Board is that a Board may have vested interests. Boards that say "no", or "we need another study" are always right because no one can really prove otherwise. One need only to look at the Universities to observe how difficult it is to find and to make up a Board that will be capable of understanding new technologies and new ideas. For this reason it is visualized that the Development Authority be composed of a key staff, that can "orchestrate" the appointments of not one, but many Boards.

Each idea may require its own Board, a group of people, who can understand what the idea is all about.

Members of such mini-Boards may be anyone; preferably the best "brains" in the field. One may have to go outside Canada to find the right

people. It is generally less expensive to hire such people for a short time.

Herein lies another added attraction, the one of providing a means whereby the best brains in the world will be given a chance, not only to contribute, but also to learn for themselves what opportunities there may be for them to establish in the Atlantic Provinces. It may be worth something.

Once the Development Authority decides that an idea is a good thing, it will then make money available for one or many preliminary studies. The actual work, the one of studying the possibilities, can be contracted to private firms, this being design centers, consulting firms, or to Universities.

It must be a part of the strategy to farm out work in a fashion so that preferences are given to private firms rather than to crown corporations, semi-official, governmental or otherwise subsidized organizations. The idea of the whole thing is to create an improved environment for the private sector.

The Third Stage

Once the preliminary study is complete, it will then go back to the Development Authority, to the Board and back to the Authority.

It is now decided whether or not to make a Model. Once this is decided, the same sort of arrangement is used again.

The work goes back to the private sector or to the entrepreneur himself, and the Model is made.

On the basis of what the model may be, how it turned out, the Development Authority will decide again.

The Fourth Stage

The Development Authority, having determined that the Model is all right, will now decide on having an Implementation Study prepared.

There are numerous firms already in existence, and well equipped to do this job. There may be competition amongst these on who will get the job.

The completed implementation study will go back to the Authority.

Up to this stage the Development Authority will have financed one way or the other most of the development expenses.

It must now be decided whether or not to go ahead with a project.

The implementation study must take into account the financial resources of the entrepreneur or the inventor, his character and his capabilities.

The Development Authority must at this stage have within its power, funds, mutual funds or guarantees if you like, which can be made part of the total financing of the project.

The money that is spent so far will be part of the project cost.

The risk is now reduced for the ordinary man. As it is presently, only men of means can take such risks.; the ones that can afford to build plants and new industries.

A mutual fund arrangement may be a way whereby not only the rich, but the capable, may find themselves in a position to become plant owners and proprietors of their own business.

Apart from this, the arrangement will be the same. Financial institutions may be approached for financing, as it is presently.

When this is done to the Authorities' satisfaction, a decision may then be made to go ahead.

The Fifth Stage

A decision to go ahead means that a plant, a product, or a process must be designed. Production machinery is needed, people to do the work, a corporate identity, and an administration.

Private industries, engineering firms, accounting firms, legal firms, contractors, banks and other industries are all there in existence to serve and complete the project.

The Development Authority need not concern itself with the project beyond the point where it is decided to enter into the fifth stage.

This is the proposed Master System as it is being visualized.

