certified factories

2. Technical assistance for small-and-medium-sized enterprises (see the "quality system consultant registration scheme" and "quality control officer certification scheme")
3. Financial assistance corresponding to part of the cost for implementation of the quality control system

3) Implementation of the certification system
4) Adequate support
5) Financial assistance to small enterprises in engaging the services of qualified quality consultant

Program 4: Establishment of registration scheme of quality system consultant

When enterprises intend to establish the quality system based on the ISO 9000 series, they mostly use outside consultants, since they rarely have their own staff with adequate expertise and experience. This program aims to eliminate the availing the services provided by incapable consultants by means of registering only those who have adequate experience and expertise. This will facilitate the search for qualified services of the quality system based on the ISO 9000 series.

This scheme is considered to serve as an effective motivation in nurturing capable consultants by giving them opportunity for the involved activities.

The objectives of this scheme are as follows:

1) To maintain the registration of quality system consultants (both firms and individuals) who meet the required registration criteria
2) To raise the level of consulting services provided by quality system consultants in Indonesia
3) To publish the list of quality system consultants

The program includes the following activities:

1) Establishment of registration criteria
2) Commencement of registration

Program 5: Establishment of certification scheme for quality control officer in factory

The current SNI certification scheme assumes quality system certification as one of its requirements. The companies which are certified, have to maintain the quality system not

only in its application. Thus, they have to have more than one quality control officers, who have the expertise, and are expected to be the core staff for quality control promotion.

On the other hand, there are many companies which are aware of the importance of quality control, but do not implement it because of the lack of quality control staff with the necessary expertise and experience.

This program provides the system that aims to assist in nurturing quality control staff by defining the duties and qualification of quality control officer, taking into account their important role in quality control implementation.

Following activities are included:

1) Defining duties of the quality officers
2) Establishment of qualifications of quality officers of firms
3) Implementation/promotion of the scheme

(II) FOR ENHANCEMENT OF SYSTEM FOR PROMOTION OF INDUSTRIAL STANDARDIZATION AND QUALITY CONTROL

Thrust 3: Improvement of System for Standards Development and Dissemination to Meet the Demand of Industry

Under the present system for development of standards, each standard is deliberated upon during DSN's general meeting, after having been approved by related ministries. In essence, the system is designed to establish standards utilizing a the very elaborate process. This is not consistent with the current state of national standards development in Indonesia where standards meeting the needs of the industries must be developed and disseminated quickly. To meet such demand, the following program intends to create an adequate structure for development and dissemination of standards allowing accelerated participation of user industries and their timely development in accordance with actual needs.

Program 6: Preparation for rationalization of standards development process

To ensure that the development of standards proceeds by reflecting industry needs, basic policy directions including the concept of the standardization project, its legal authority, organizational refinement, and other fundamentals should be clearly defined. This is a prerequisite action for further improvement of the system while checking whether it is founded on the following common groundwork:

1) Standardization contributes to rationalization of industrial operation, improvement of

operating efficiency, and simplification of trade, rather than being used as regulatory measures.

2) The national standardization project can be successfully implemented only on the basis of established standardization efforts at the corporate level, and the development of industry standards founded on such efforts.

The program entails the following actions in undertaking the above arrangements.

1) Reappraisal of the basic concept of standardization
   a) To define standards as opposed to regulatory measures such as laws and regulations; and
   b) To distinguish standards from regulations, and limit the scope of the standardization project to standards.
2) Simplification and streamlining of standards development and operation of organizations and procedures
   a) Simplification of the current standard making process that is assumed to include existing mandatory standards, into the process covering voluntary standards only
   b) Legislation for transfer of the standardization promotion function
   c) Urgent establishment of operational rules and manuals for the standardization project implementation system
   d) Acceleration of standards development with strategic focus
3) Early implementation of the existing plan to increase representatives of industries in the (standards development) technical committee

Program 7: Establishment of an organization for enhancing standardization and quality control promotion

A system that plays a central role in the promotion of standardization and quality control will be established. The system will materialize a structure that will develop standards reflecting the industry needs in a timely manner, as assumed under Program 6. On the quality control front, the system will lead in the preparation and fostering of a nationwide promotional organization in the future.

At present, SNI is not well appreciated among industries, and its use is limited to a relatively small number of companies. Existence of standards have to be fully recognized and adopted by industries and the general public. The dissemination of standards to the industries are primarily driven by public recognition of certification system and quality control. The certification system can serve as effective means to urge manufacturers to comply with standards. By the same token, quality control is a power vehicle for the

promotion of SNI. This is because manufacturers often develop in-house standards as the basis of promoting quality control practice, and even if in-house standards are set at a higher level than national standards, the former uses the latter for its groundwork. In addition to the promotion of certification system and quality control, there are a variety of activities expected to be effective in promoting public acceptance of standards. The system will be responsible for various promotional activities of standards and quality control through the following measures:

1) Establishment of the standardization promotion system
2) Strengthening of promotional activity
3) Reinforcement of continuous efforts
4) Establishment of a commendation system
5) Dissemination of standards
6) Enhancement of promotional activities for quality control concept and methodology
   a) Planning and implementation of the comprehensive program for quality control promotion and guidance at the national level, and coordination among related organizations;
   b) Accumulation of practical experience in quality control through overall planning of quality control training programs and the sponsoring of seminars, and the promotion of practical application and the sponsoring of workshops;
   c) Publication related to quality control, translation and sales of foreign publications; and
   d) Registration of quality control experts, and operation of the quality control personnel certification system.

Program 8: Diversification of standard drafting process for increased involvement of industry

The Ministry of Industry which controls approximately 70% of SNI standards, plans to develop 500 draft SNI standards annually, though R&D institutions and regional institutes under BPPI. The program proposes to rationalize the draft standards development system which involves substantial amount of work, including maintenance work covering the review and revision of SNI.

Program 6 is designed to set forth the legal foundation for the rationalization and streamlining of the standards development process. This program focuses on the establishment of an actual system and structure that will rationalize and streamline standards development. Following activities are required:

1) Adoption of international and foreign standards for draft SNI

2) Outsourcing of standards development
3) Entrusting of review of existing standards
4) Encouragement of industry standards

Program 9: Increase in public confidence on product certification system

The certification system is a very effective instrument for the promotion of standardization and quality control. In Indonesia however, it is rarely adhered to except in the case of industrial electrical equipment industry that is required to obtain certification for products procured by PLN. This is because: 1) the present certification system is not well known among consumers and users and thus, is not widely used by industries; and 2) because of insufficient operating rules including mandatory certification, the system is not fully relied on. This program offers some suggestions to develop the certification system into one that meet industrial needs and widely used among the related industries. The following actions are considered to be undertaken for this purpose:

1) Increase in usefulness
   a) Reappraisal of priority for mandatory certification according to industrial needs
   b) Proposal of new areas for mandatory standards in response to increasing participation of industry organizations
   c) Designation of priority items for voluntary certification and implementation of advertising activity
2) Securing of reliability
   a) Separation of safety and quality marks
   b) Unification and redefinition of procedural rules of ministries and agencies
   c) Development of the testing and inspection system for certification
   d) Development of the calibration system
   e) Maintenance of certification levels by full enforcement of the certification system
   f) Training of assessors and inspectors

Following activities are required:

1) Reviewing of certification items
2) Separate operation of safety mark and quality mark
3) Establishment of unified procedural rules among ministries and agencies
   a) Unification of operating rules for the SNI mark system among ministries and agencies
   b) Disclosure and publicizing of procedural rules

c) Defining the positioning of private certification organizations in the KAN system

4) Full enforcement of procedural rules

Thrust 4: Establishment of an Internationally-Recognized Accreditation and Certification System

Program 10: Promotion of international mutual recognition of certification system

With the assessment and registration of the quality system under ISO 9000 series becoming a global phenomenon, attention is also raised demanding the mutual approval of the system under a bilateral or multilateral arrangement. This move if successfully pursed, will further unleash market globalization.

Nevertheless, mutual certification on a bilateral basis involves various special factors in addition to a standard form of mutual approval at an international level and thus, it would be very difficult to achieve, unless there is an internationally-recognized national system.

The program is designed to achieve the goal of bilateral mutual certification. The required steps are as follows:

1) Reappraisal and full enforcement of the existing accreditation and certification system based on the ISO/IEC system.

2) Promotion of joint assessment and mutual surveillance with foreign certification body.

Implementation Suggestions

(1) Implementation plan and steps

Chart 9 shows the suggested implementation plan taking into account the factors of precedence, necessity of implementing in an earlier stage. The plan assumes that all the programs will be implemented.

(2) Overall Coordination/Monitoring System

An organizational structure recommended for preparation and implementation of individual programs is indicated in each program. The programs are closely related with each other, so that their coordinated implementation as well as implementation of individual programs is critical in producing the successful result. To this end, an organization should be established to monitor the overall progress, make adjustment, support and recommendations as required or execute program improvement.

Chart 9: Suggested Implementation Plan

Order of precedence	Year :	1st	2nd	3rd	4th	5th
5	**Program 1: Introduction of certification program for automotive replacement safety parts**					
	1) Study & selection of automotive replacement parts					
	2) Development of standards for the parts					
	3) Development of testing/inspection system for the scheme					
	4) Start of operation of the certification scheme					
3	**Program 2: Introduction of safety mark certification program for home electrical appliances**					
	1) Selection of home appliances for the certification					
	2) R&D and development of standards for the appliances					
	3) Legislative preparation for the regulation (*)					
	4) Development of testing/inspection system for the scheme					
	5) Start of operation of the certification scheme					
3	**Program 3: Development & dissemination of quality system certification scheme specifically designed for SMEs**					
	1) Design of QC system suitable for SMEs					
	2) Organizational setup for promotion of the system					
	3) Start of operation of the certification scheme					
3	**Program 4: Establishment of registration scheme of quality system consultant**					
	1) Setting required qualification for registration					
	2) Preparation for operation of the scheme					
	3) Start of operation of the scheme					
3	**Program 5: Establishment of certification scheme for quality control officer in factory**					
	1) Setting qualification for the QC officer					
	2) Establishing detail procedure for operation of the scheme					
	3) Preparation of training course for the candidates					
	4) Preparation for the certification examination					
	5) Start of the scheme operation					
1	**Program 6: Preparation for rationalization of standards development process**					
	1) Reaching consensus on scope of standardization project					
	2) Legislative preparation for simplification of standards development					
	3) Change in organizational setup w/delegation of authority					
	4) Establishment of operational procedure					
	5) Completion of the preparation for rationalization					
2	**Program 7: Establishment of an organization for enhancing standardization and quality control**					
	1) Formulation of a prospectus and an operation plan					
	2) Establishment of the organization					
3	**Program 8: Diversification of standards drafting process for increased involvement of industry**					
	1) Consensus on increased adoption of int'l & foreign standards					
	2) Promotion of QC					
	3) Encouragement of association standards and involvement of industry					
3	**Program 9: Increase in public confidence on product certification system**					
	1) Change in the scope of system to limit to voluntary certification					
	2) Review of the items based on the above					
	3) Revision of testing labo accreditation scheme					
	4) Training program for quality system certification assessors					
4	**Program 10: Promotion of international mutual recognition of certification system**					
	1) Review of the existing system based on ISO/IEC system					
	2) Complete operation of the system according to the above guideline					
	3) Joint assessment and mutual surveillance w/foreign certification body					

From the viewpoint of the need for overall monitoring and coordination, DSN should be a primary candidate. However, in consideration to the fact that 1) DSN does not have sufficient resources to function as a secretariat, 2) many programs cover industry sectors and the leadership by MOI's bureaus is expected, and 3) PUSTAN under MOI is best equipped for the purpose in terms of manpower and organization, compared to other ministries, MOI should take a lead. In particular, MOI should organize a special committee to handle national standardization and quality control promotion, in addition to matters related to industry sectors, responsible for coordination and monitoring in the program implementation process.

(3) Foreign Technical Support

These programs are assumed to be implemented by the existing organizations with existing facilities and manpower, as they might be reorganized, expanded or improved. The effect and efficiency of executing these programs can be maximized by obtaining the collaboration of industry sectors and the academic community. In Indonesia, however, industry sectors have insufficient experience in standardization and quality control promotion, and do not have sufficient key personnel that can manage the proposed programs and their implementation. Alternatively, reference to overseas experience in undertaking the similar programs, and obtaining support of experienced foreign experts will be effective, particularly in the following areas:

1) **Program 1:** Introduction of certification program for automotive replacement safety parts

   Reference to foreign experience in the selection of products to be certified, and establishment of standards (e.g. "Quality Automotive Parts Certification Scheme" by JAPA (Japan Automotive Parts Dealers Association), and Transportation Ministerial Decrees of Japan regarding safety standards for vehicles, etc.)

2) **Program 2:** Introduction of safety mark certification program for home electrical appliances

   a) Reference to foreign experience in the selection of products to be certified, and establishment of safety standards (e.g. "Electrical Appliance and Material Control Law" of Japan, and IECEE–CB Scheme, etc.)

   b) Technological transfer regarding design and operation training of testing/inspection laboratory for the certification

3) **Program 3:** Development and dissemination of quality system certification scheme specifically designed for small–and–medium–sized enterprises

   Reference to foreign experience in development of the system (e.g. QIP (Quality Improvement Practice) in Malaysia, dissemination of TQM among SMEs in Japan,

etc.)

4) **Program 7:** Establishment of a system for enhancement of dissemination of standardization and QC promotion

Reference to foreign experience regarding the activities and financial performance of similar organizations/systems (e.g. Japanese Standards Association, etc.)

5) **Program 9:** Increase in public confidence on product certification system, and **Program 10:** Promotion of international mutual recognition of certification system

Technological transfer regarding review of the existing system and its improvement to ensure complete implementation

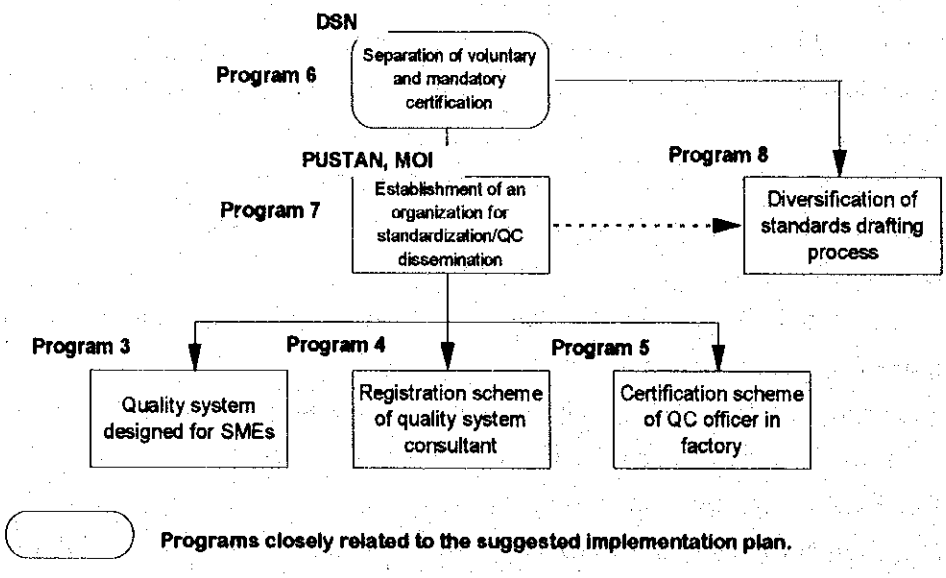
(4) Suggested plan for integrated implementation of the programs

Following recommends integrated implementation plans of the above programs in consideration of the it relationship, and the possible organizational setup for implementation. It consists of two plans. Both of these integrated implementation plan assume the precedent implementation of Program 6.

The main theme of the first integrated implementation plan is increased involvement of industry in standard development and enhancement of dissemination of standardization and quality control. The plan is to implement in an integrated manner Programs 3, 4, 5, 7, and 8 in addition to Program 6. The plan may be undertaken mostly by the existing organizations with existing facilities and manpower, but with reorganization and expansion/improvement if necessary.

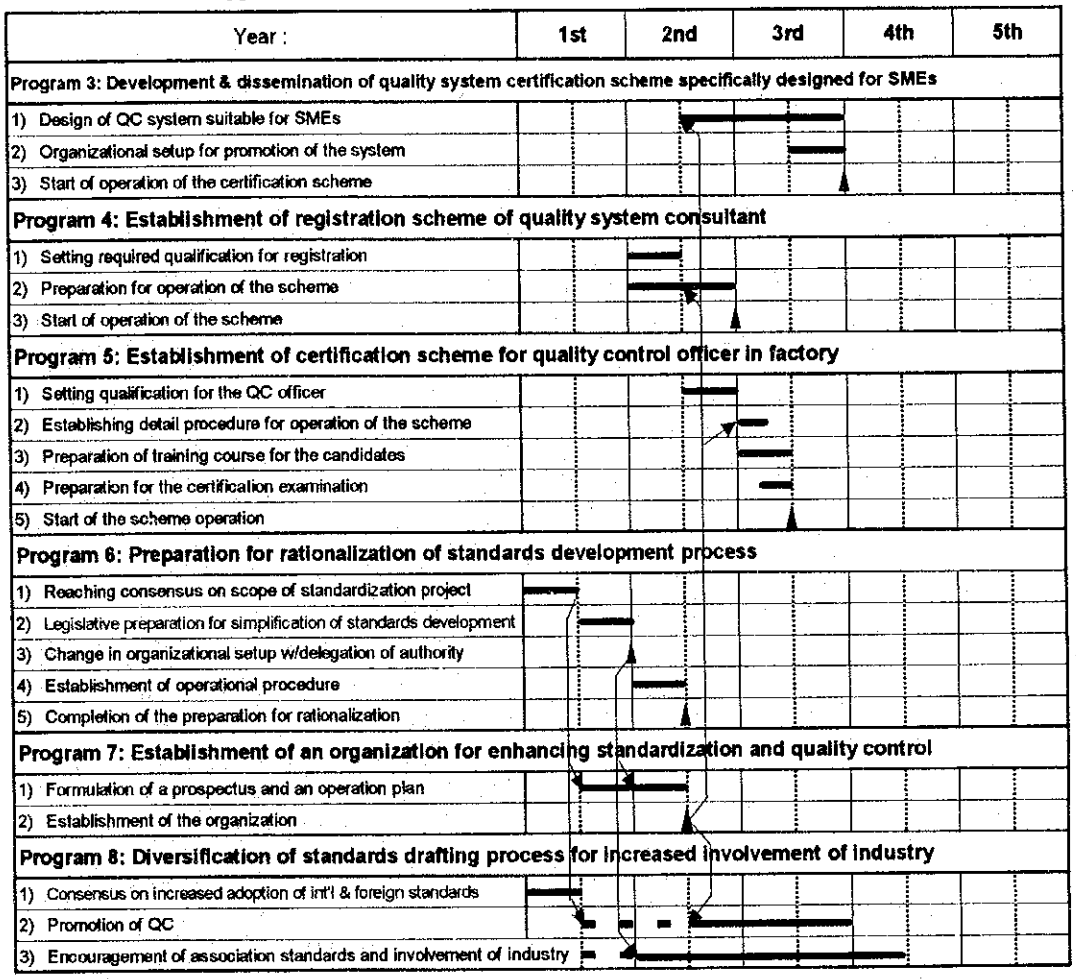
Following shows the programs included and the relationships among them in the plan.

Chart 10: Suggested Plan for Integrated Implementation (1)



The implementing steps of the plan are as follows:

Chart 11: Suggested Plan for Integrated Implementation (1) -Implementation Steps-



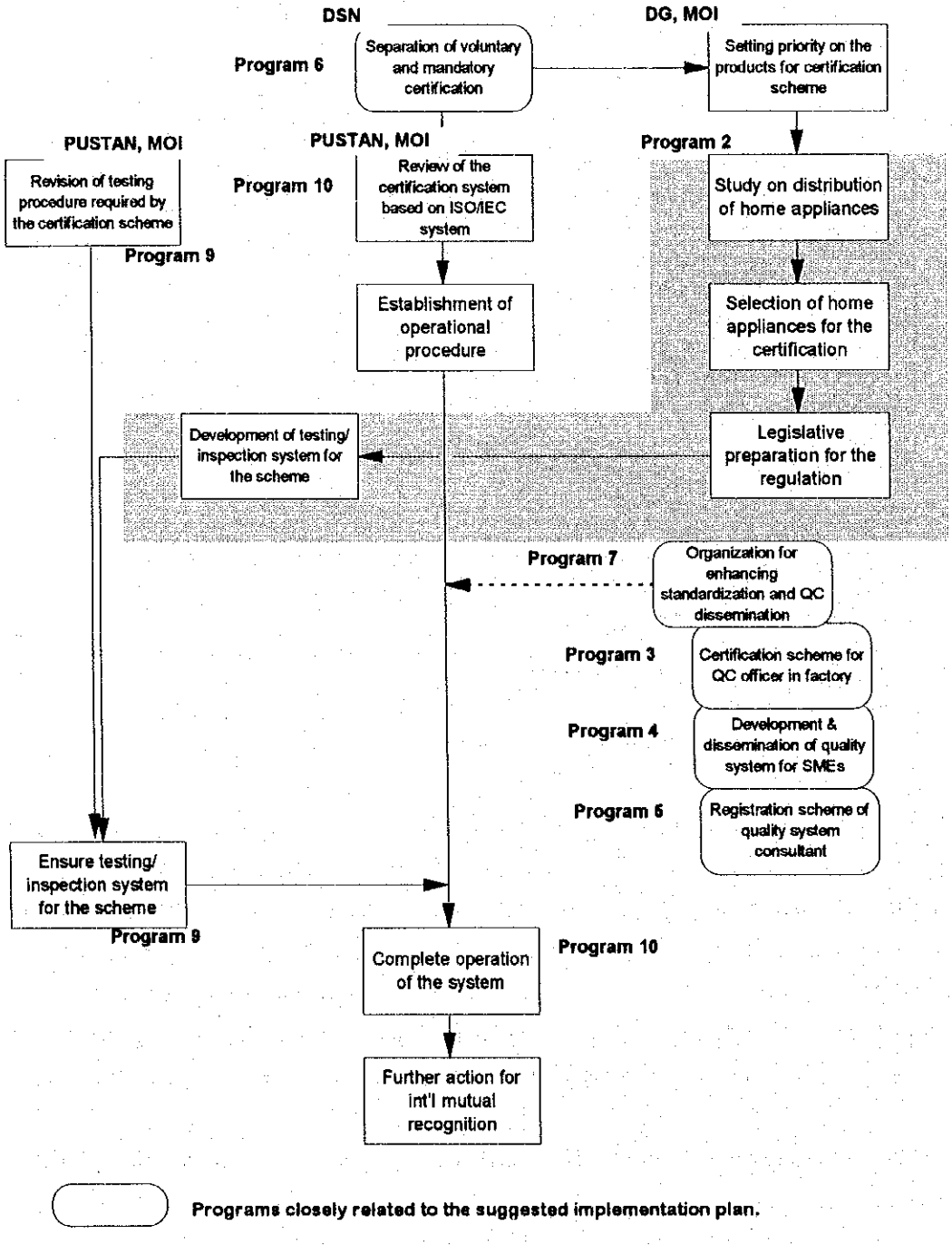
The second implementation plan is the program group, the main target of which is to ensure public confidence on standardization project and certification system through their complete implementation, and to realize international mutual recognition of the certification system. It focuses on Programs 2, 9 and 10 assuming Program 6 as a precedent program[1]. The plan is the one for which technological transfer from the experienced foreign countries is effective if available, though the existing organizations, facilities and manpower are the essential factors for their successful implementation.

The following shows the programs involved and the relationships among them. For

[1] Program 1 was excluded from these plan since it requires study on distribution of automotive parts, and analysis of automotive accident statistics in advance. Further, the program is expected to be implemented in a manner similar to Program 2.

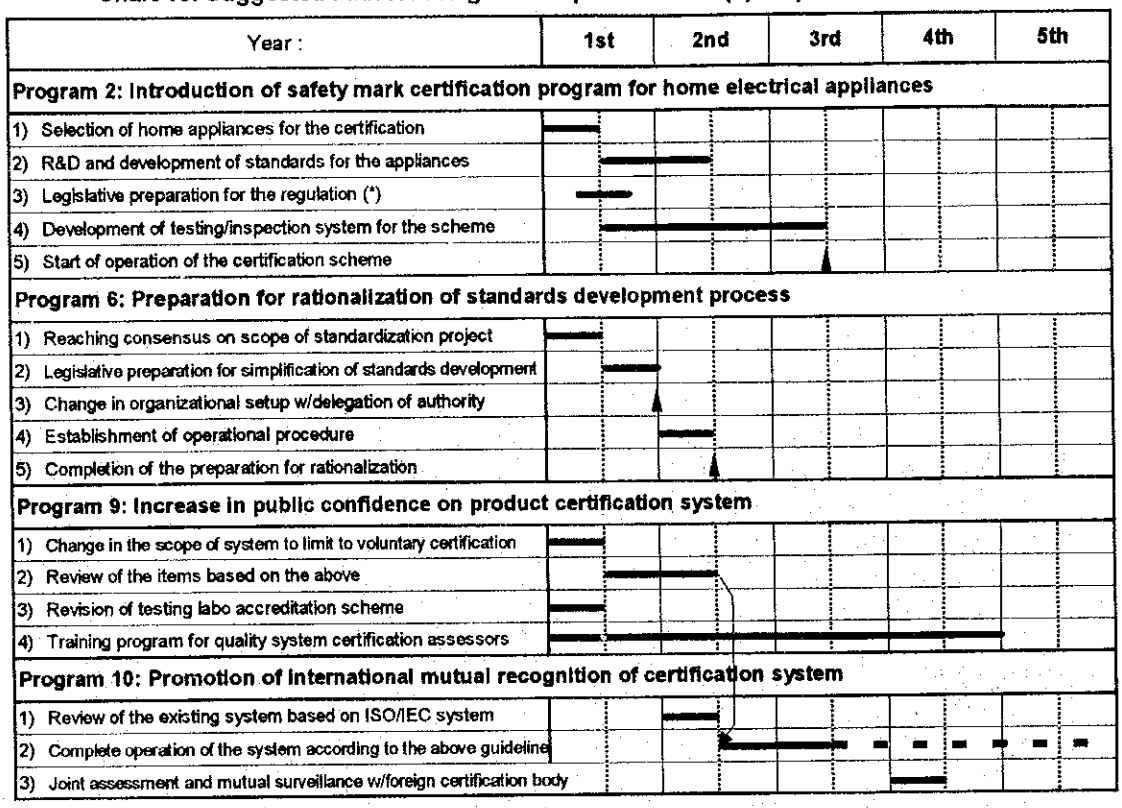
the effective promotion of standardization and quality control in the industrial sector through implementation of this program group, implementation of other programs designed to promote quality control, becomes indispensable.

Chart 12: Suggested Plan for Integrated Implementation (2)



The implementing steps of the second integrated implementation plan are as follows:

Chart 13: Suggested Plan for Integrated Implementation (2) -Implementation Steps-



(5) Implementation Plans by Related Organization

The following shows implementation plans by the major related organizations. The implementation plan of DSN is related to the standardization project at a national level and the implementation plan of PUSTAN, MOI covers standardization and quality control promotion in the industry sector. Also, implementation plans by Directorate Generals of MOI are assumed to be implemented in each of the subsectors of their responsibility with close cooperation of the relevant industry.

Chart 14: Suggested Implementation Plan for DSN

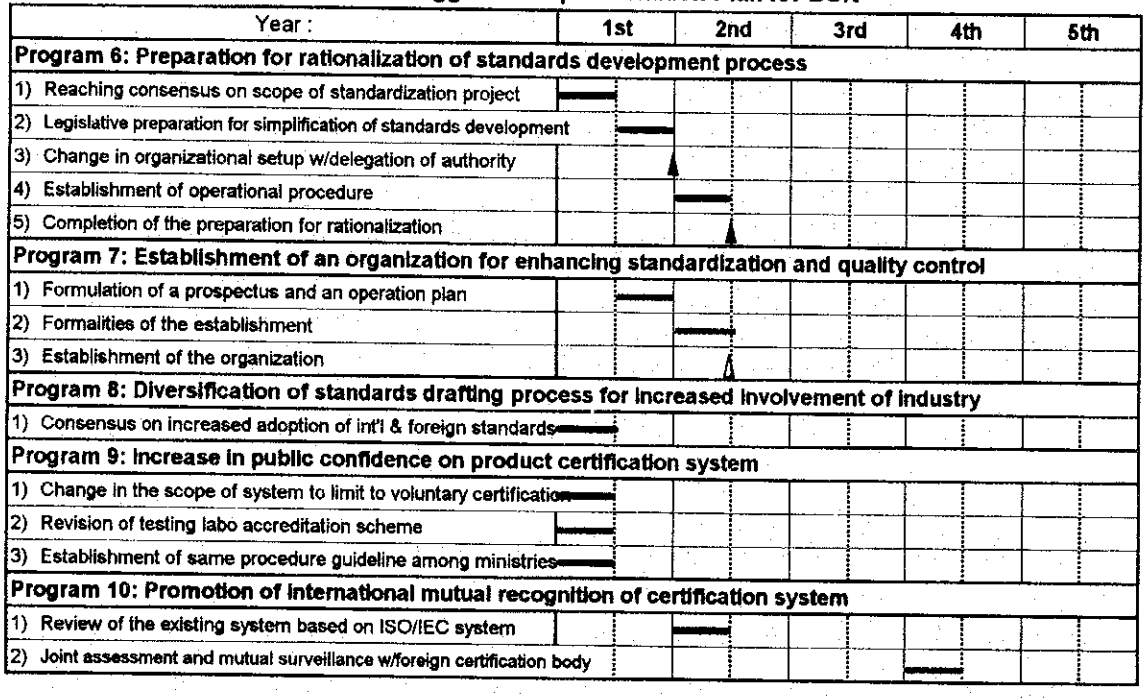


Chart 15: Suggested Implementation Plan for PUSTAN

Year :	1st	2nd	3rd	4th	5th
Program 1: Introduction of certification program for automotive replacement safety parts					
1) Development of standards for the parts					
2) Request for R&D for development of safety standards					
3) Revision of testing labo accreditation scheme					
Study & selection of automotive replacement parts					
Legislative preparation for the regulation (*)					
Start of operation of the certification scheme					
Program 2: Introduction of safety mark certification program for home electrical appliances					
1) Development of standards for the parts					
2) Request for R&D for development of safety standards					
3) Revision of testing labo accreditation scheme					
Selection of automotive replacement parts					
Legislative preparation for the regulation (*)					
Start of operation of the certification scheme					
Program 3: Development & dissemination of quality system certification scheme specifically designed for SMEs					
1) Design of QC system suitable for SMEs					
2) Organizational setup for promotion of the system					
3) Start of operation of the certification scheme					
Program 4: Establishment of registration scheme of quality system consultant					
1) Setting required qualification for registration					
2) Preparation for operation of the scheme					
3) Start of operation of the scheme					
Program 5: Establishment of certification scheme for quality control officer in factory					
1) Setting qualification for the QC officer					
2) Establishing detail procedure for operation of the scheme					
3) Preparation of training course for the candidates					
4) Preparation for the certification examination					
5) Start of the scheme operation					
Program 6: Preparation for rationalization of standards development process					
1) Reaching consensus on scope of standardization project					
2) Legislative preparation for simplification of standards development					
3) Change in organizational setup w/delegation of authority					
4) Establishment of operational procedure					
5) Completion of the preparation for rationalization					
Program 7: Establishment of an organization for enhancing standardization and quality control					
1) Formulation of a prospectus and an operation plan					
2) Formalities of the establishment					
3) Establishment of the organization					
Program 8: Diversification of standards drafting process for increased involvement of industry					
1) Consensus on increased adoption of int'l & foreign standards					
2) Promotion of QC					
3) Encouragement of association standards					
4) Increased involvement of industry in standards development					
Program 9: Increase in public confidence on product certification system					
1) Change in the scope of system to limit to voluntary certification					
2) Review of the items based on the above					
3) Revision of testing labo accreditation scheme					
4) Establishment of same procedure guideline among ministries					
5) Training program for quality system certification assessors					
Program 10: Promotion of international mutual recognition of certification system					
1) Review of the existing system based on ISO/IEC system					
2) Complete operation of the system according to the above guideline					
3) Joint assessment and mutual surveillance w/foreign certification body					

Note: Shaded items denote actions to be undertaken by other organizations.

Chart 16: Suggested Implementation Plan for the Proposed Dissemination Organization of Standardization and QC

Year :	1st	2nd	3rd	4th	5th
Program 3: Development & dissemination of quality system certification scheme specifically designed for SMEs					
1) Design of QC system suitable for SMEs					
2) Organizational setup for promotion of the system					
3) Start of operation of the certification scheme					
Program 4: Establishment of registration scheme of quality system consultant					
1) Setting required qualification for registration					
2) Preparation for operation of the s heme					
3) Start of operation of the scheme					
Program 5: Establishment of certification scheme for quality control officer in factory					
1) Setting qualification for the QC officer					
2) Establishing detail procedure for operation of the scheme					
3) Preparation of training course for the candidates					
4) Preparation for the certification examination					
5) Start of the scheme operation					
Program 7: Establishment of an organization for enhancing standardization and quality control					
Establishment of the organization					
Program 8: Diversification of standards drafting process for increased involvement of industry					
1) Promotion of QC					
2) Encouragement of association standards					

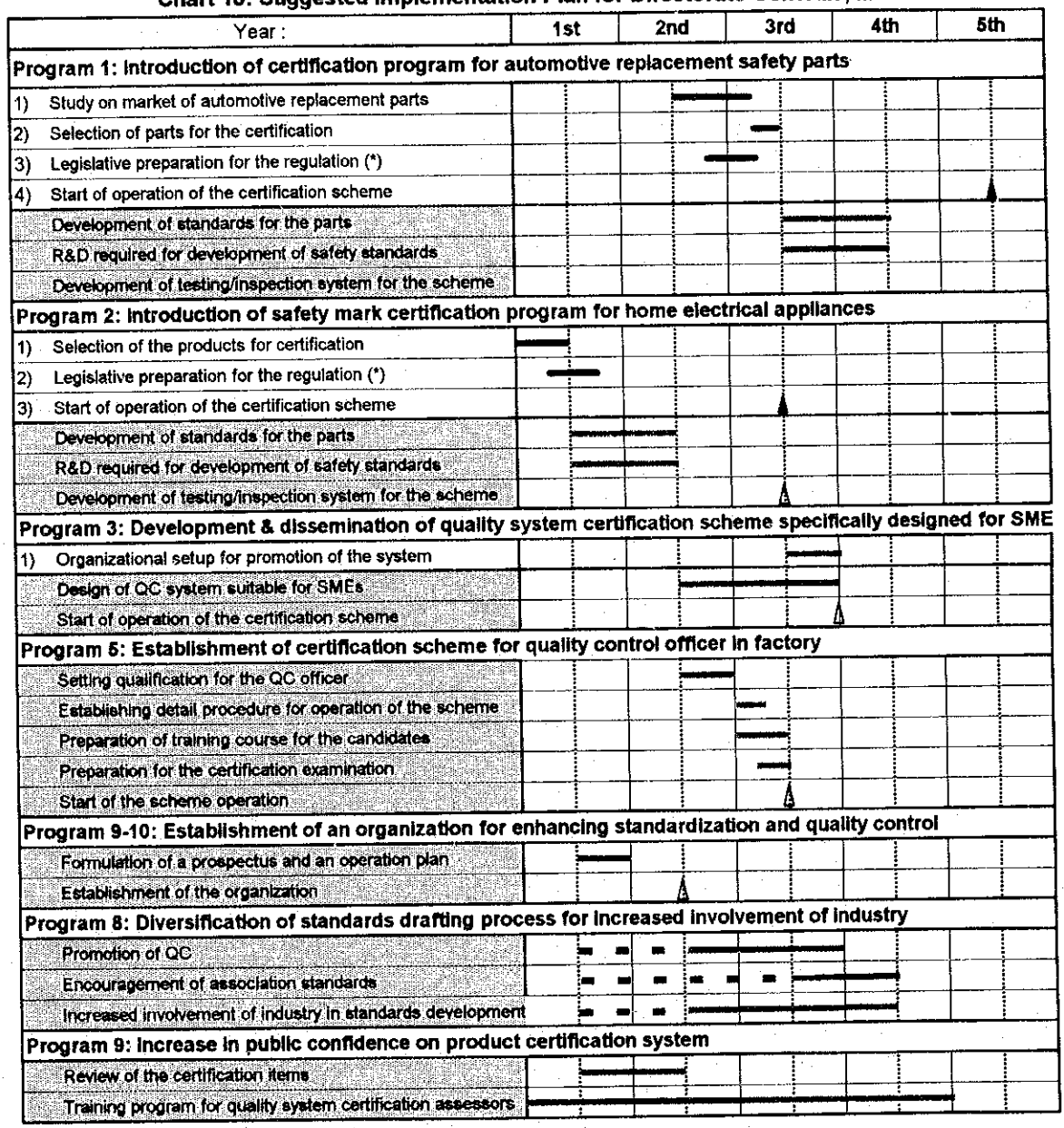
Note: Shaded items denote actions to be undertaken by other organizations.

Chart 17: Suggested Implementation Plan for BPPI & testing institutes

Year :	1st	2nd	3rd	4th	5th
Program 1: Introduction of certification program for automotive replacement safety parts					
1) R&D required for development of safety standards					
2) Development of testing/inspection system for the scheme					
Selection of parts for the certification					
Development of standards for the parts					
Start of operation of the certification scheme					
Program 2: Introduction of safety mark certification program for home electrical appliances					
1) R&D required for development of safety standards					
2) Development of testing/inspection system for the scheme					
Selection of products for the certification					
Development of standards for the products					
Start of operation of the certification scheme					

Note: Shaded items denote actions to be undertaken by other organizations.

Chart 18: Suggested Implementation Plan for Directorate Generals, MOI



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