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**Annex 1 The Function and Composition of Joint
Coordinating Committee**

1 Functions

The joint coordinating committee will be held at least twice a year and whenever necessity arises.

Its functions are as follows:

- (1) To settle on Annual Technical Cooperation Program (ATCP), Annual Plan of Operations (APO) and Annual Tentative Schedule of Implementation (ATSI) of the Project in line with Technical Cooperation Program (TCP) and Plan of Operations (PO) and Tentative Schedule of Implementation (TSI) formulated under the framework of the Record of Discussions;
- (2) To coordinate necessary actions to be taken by both sides;
- (3) To review the overall progress of the ATCP as well as the achievement of the APO; and,
- (4) To exchange views on major issues arising from or in connection with the TCP and PO.

2 Composition

- (1) Chairperson:
Director General, DIP
- (2) Co-chairperson:
Chief Advisor
- (3) Deputy Chairperson:
Deputy Director General, DIP
- (4) Committee Members:
(Thai side)
 - a Representative(s), Department of Technical Economic Cooperation (DTEC)
 - b Representative(s), DIP
 - c Representative(s), BSID
 - d Representative(s), Related Industrial Associations
 - e Other personnel concerned with the Project decided by the Thai side, if necessary(Japanese side)
 - a Coordinator
 - b Other Japanese Experts designated by the Chief Advisor
 - c Representative(s), JICA Thailand Office
 - d Representative(s), JETRO Bangkok Center
 - e Representative(s), JODC Bangkok Office
 - f Other personnel concerned to be designated and/or dispatched by JICA, if necessary

Note:

Official(s) of the Embassy of Japan in the Kingdom of Thailand may attend the Joint Coordinating Committee as observer(s).

Annex 2 Five Basic Evaluation Components

1 Five Basic Evaluation Components

The five (5) basic evaluation components defined by JICA as mentioned below are in line with those used for the evaluation works by DAC and other international assistance organization.

Introduction of these components has enabled a consistent, well-balanced evaluation, which minimizes evaluator bias. Further, it allows us to share the results, knowledge and lessons with other aid organizations, since we are using common components and can discuss with them from the same viewpoints.

(1) Efficiency

Evaluate the method, procedure, term and cost of the project with a view to productivity.

(2) Effectiveness

Evaluate the results in comparison with the goals (or revised ones) defined at the initial or intermediate stage, and evaluate the attributes (factors and conditions) of the results.

(3) Impact

Evaluate the positive and negative effects of the project, extent of the effect and beneficiaries.

(4) Relevance

Preliminary evaluate whether the needs in the country have been correctly identified, and whether the design is consistent with the national and/or master plan.

(5) Sustainability

Evaluate the autonomy and sustainability of the project after the termination of cooperation, from the perspectives of operation, management, economy, finance and technology.

2 Relation between Five Basic Components and PDM

The following five (5) components are used for the evaluation and a selection of a project.

(1) Efficiency

(2) Effectiveness

(3) Impact

(4) Relevance

(5) Sustainability

These components are directly connected to the elements of PDM as shown in the Figure in the following page.

The component "Efficiency" is a measure to qualitatively and quantitatively compare all resource (input) to the results (output)

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of the project in order to evaluate the economic efficiency of conversion from input to output.

The parameter "Effectiveness" is a measure to evaluate whether the purpose has been achieved or not, or to evaluate how likely it is to be achieved. In other words, it is to evaluate how much the outputs contributed to the achievement of the purpose, or to evaluate whether or not the characteristics of the outputs were as expected.

The parameter "Impact" is a foreseeable or unforeseeable, and a favorable or adverse effect of the project upon society. To evaluate impact, both the goal and project purpose should be referred to in the beginning of the evaluation. Evaluation with this component could require comprehensive surveys in many cases.

The parameter "Relevance" is to comprehensively evaluate whether or not the project meets the overall goals, politics of both the donor and recipient, local needs and given priority levels, in order to decide whether the project should be continued, reformulated or terminated.

The component "Sustainability" is to comprehensively evaluate how long the favorable effect as a result of the project can continue after the project has been terminated. Evaluation with this component is required to decide how much the local resources should continue to be used for the project, and to evaluate how much the country receiving the assistance has been considering the project important. According to OECD (1989), "Sustainability" is a component to be used for the final test of the success of a development project.

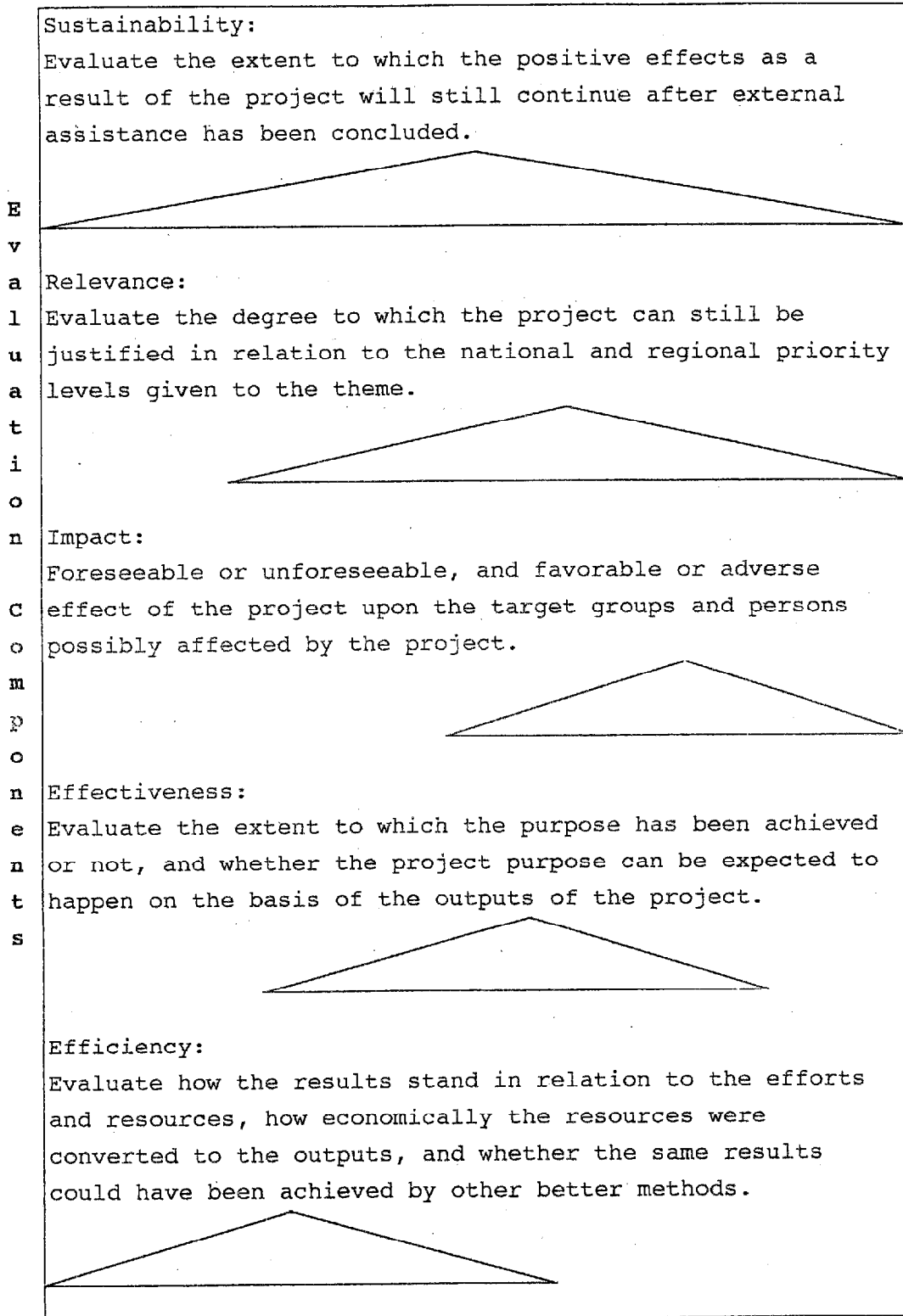
All five components are essential for any of the projects or programs. The five components give necessary information to the decision maker so that he/she can decide how to approach the next step. Since each of the five components build on the elements of the intervention strategy, they also lay foundation for standardization in monitoring and information handling within and among organizations and agencies.

In practice, each of the five parameters should also contain project-specific information.

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Five Components vs Goal Hierarchy



Evaluation

Inputs	Outputs	Project Purpose	Overall Goal
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Goal Hierarchy

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Annex 3 Monitoring and Evaluation Plan (Draft)

Name of the Project	SIC-Tool and Mold Technology Development Project		
Duration of Cooperation	1 November 1999 - 31 October 2004		
Study Team			
Period of the Study			
Division in Charge	First Technical Cooperation Division, Mining & Industrial Development Cooperation Department	Staff in Charge	

I Activities and Contents of the Project

The activities and contents of the Project are shown in the following Charts for Project Planning and Management:

1 Project Design Matrix (PDM)

Project Design matrix for the Project was formulated by the Implementation Study team in consultation with the Thai side.

2 Plan of Operations (PO)

Plan of Operations for the Project was formulated by the Implementation Study Team in consultation with the Thai side.

3 Annual Plan of Operations (APO)

Annual Plan of operations for the Project was formulated by the Implementation Study Team in consultation with the Thai side.

4 Technical Cooperation Program (TCP)

Technical Cooperation Program for the Project was formulated by the Implementation Study Team in consultation with the Thai side.

5 Annual Technical Cooperation Program(ATCP)

Annual Technical Cooperation Program for the Project was formulated by the Implementation study Team in consultation with the Thai side.

II Monitoring and Evaluation System

1 Monitoring

The following monitoring is scheduled to be held during the cooperation period:

(1) Periodical Monitoring

The periodical monitoring is to be implemented, the contents of which are to be discussed on the occasion of regular meetings in the Project, such as Weekly Technical Meeting to be implemented by Long-term technical experts and the Thai technical C/P including the Technical Coordinator and Weekly, Monthly and Quarterly Project Management Meeting to be implemented by Chief Advisor, Project Coordinator, Long-term experts as well as Project Manager, Thai Project Coordinator and Technical Coordinator.

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(2) Monitoring

Monitoring will be done every six (6) months by the Project. The results will be presented to the Joint Coordinating Committee (JCC) and distributed to the organizations concerned and/or personnel involved in the Project.

2 Evaluation

Evaluation of the Project will be conducted jointly by the two Governments through JICA and the Thai authorities concerned in the middle and during last six(6) months of the cooperation term in order to examine the level of achievement as stipulated in the R/D.

JICA will dispatch the final evaluation team and also the mid-term evaluation team. In any manner, any evaluation should be jointly implemented by both sides and the outcome should be submitted and reported at the JCC in the form of Joint Evaluation Report and are to be signed by both sides, if possible.

III Tentative Schedule for Monitoring and Evaluation

Date	Monitoring or/ Evaluation and other related activities	Implementator	Reporting
July 1999	Signing of the R/D	Implementation Study Team The Thai side	R/D, M/D
April 2000	Monitoring (1)	Japanese experts The Thai C/P to be confirmed by Management Consultation Team and JCC members	M/D at JCC, Monitoring Report
October 2000	Monitoring (2)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
April 2001	Monitoring (3)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
October 2001	Monitoring (4)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
April 2002	The Midterm Evaluation	Japanese experts The Thai C/P to be confirmed by Advisory Team and JCC members	M/D at JCC, Monitoring Report

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October 2002	Monitoring (5)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
April 2003	Monitoring (6)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
October 2003	Monitoring (7)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
April 2004	The Final Evaluation	Japanese experts The Thai C/P to be confirmed by Evaluation Team and JCC members	Final Evaluation Report, M/D at JCC, Monitoring Report
October 2004	Final Monitoring (8)	Japanese experts The Thai C/P to be confirmed by JCC members	M/D at JCC, Monitoring Report
31 October 2004	Completion of the Cooperation		

IV Criteria and Item for Monitoring and Evaluation

1 Criteria and Item for Monitoring

- (1) PDM (Project Design Matrix)
- (2) PO (Plan of Operations) and APO (Annual Plan of Operations)
- (3) TCP (Technical Cooperation Program) and ATCP (Annual Technical Cooperation Program)
- (4) Evaluation Sheet of Technology Transfer by Target Product
- (5) Monitoring Sheet of Technical Cooperation
- (6) Others if necessary

If technology transfer does not progress as planned, the Project will study the interior/exterior factors to hamper, take necessary countermeasures and will revise the plan.

The above mentioned charts will be confirmed on the occasion of the first monitoring scheduled in April 2000.

2 Criteria and Item for Evaluation

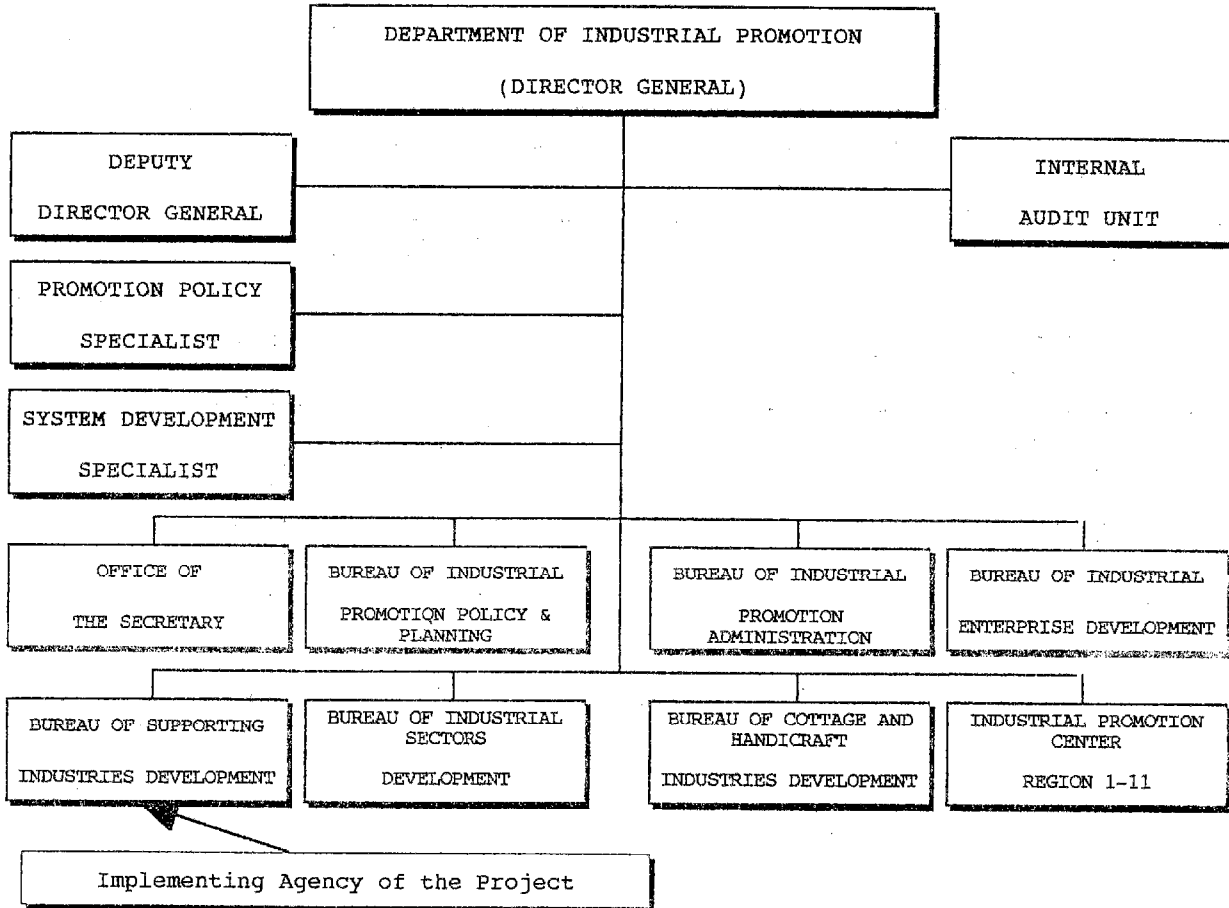
Criteria and Item for Evaluation will be prepared by the Project based on the Evaluation Grid and also be confirmed on the occasion of the first monitoring scheduled in April 2000.

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Annex 4-1 Organization Chart of DIP

Total 1,413

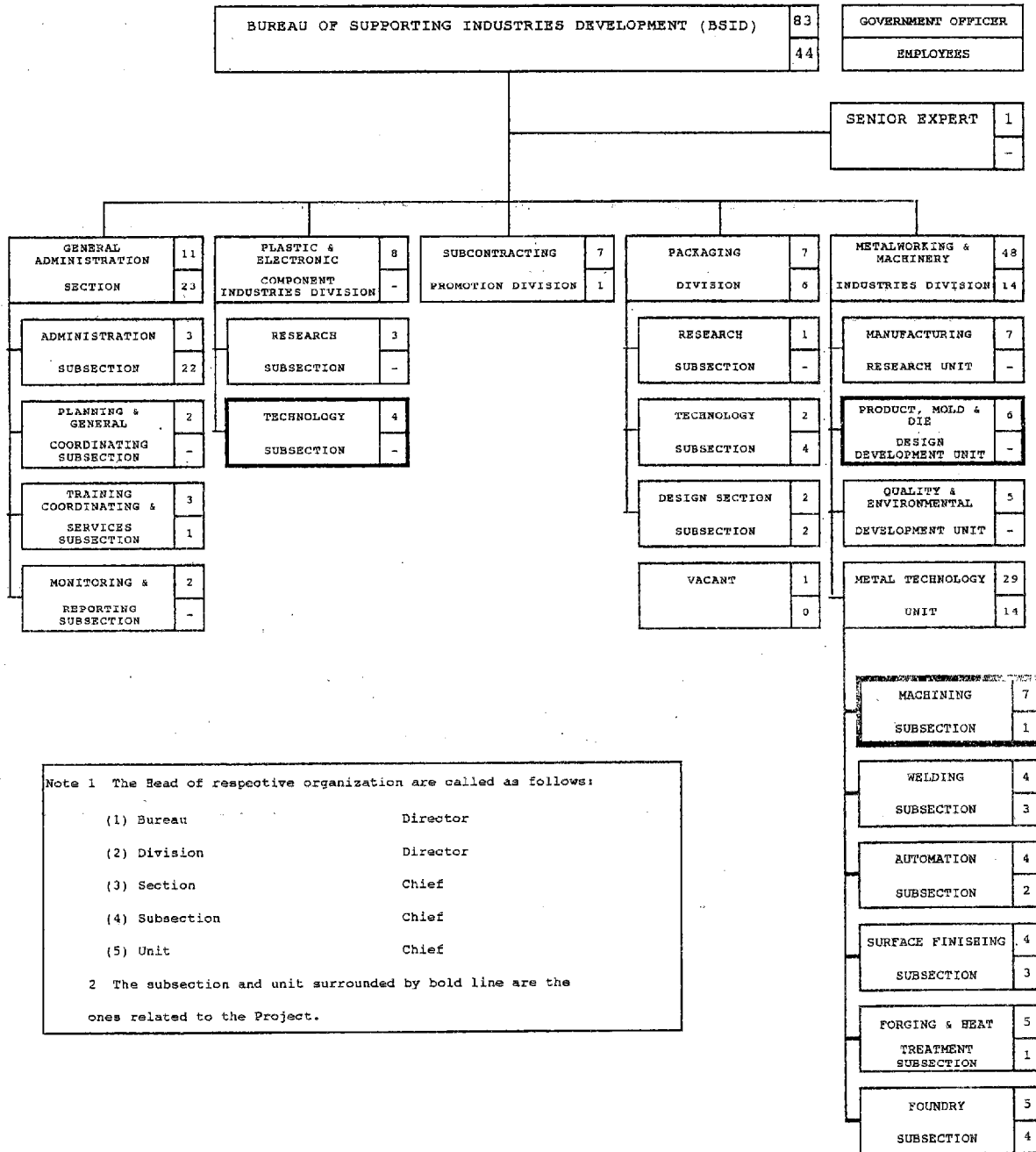


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Annex 4-2 Organization Chart of BSID

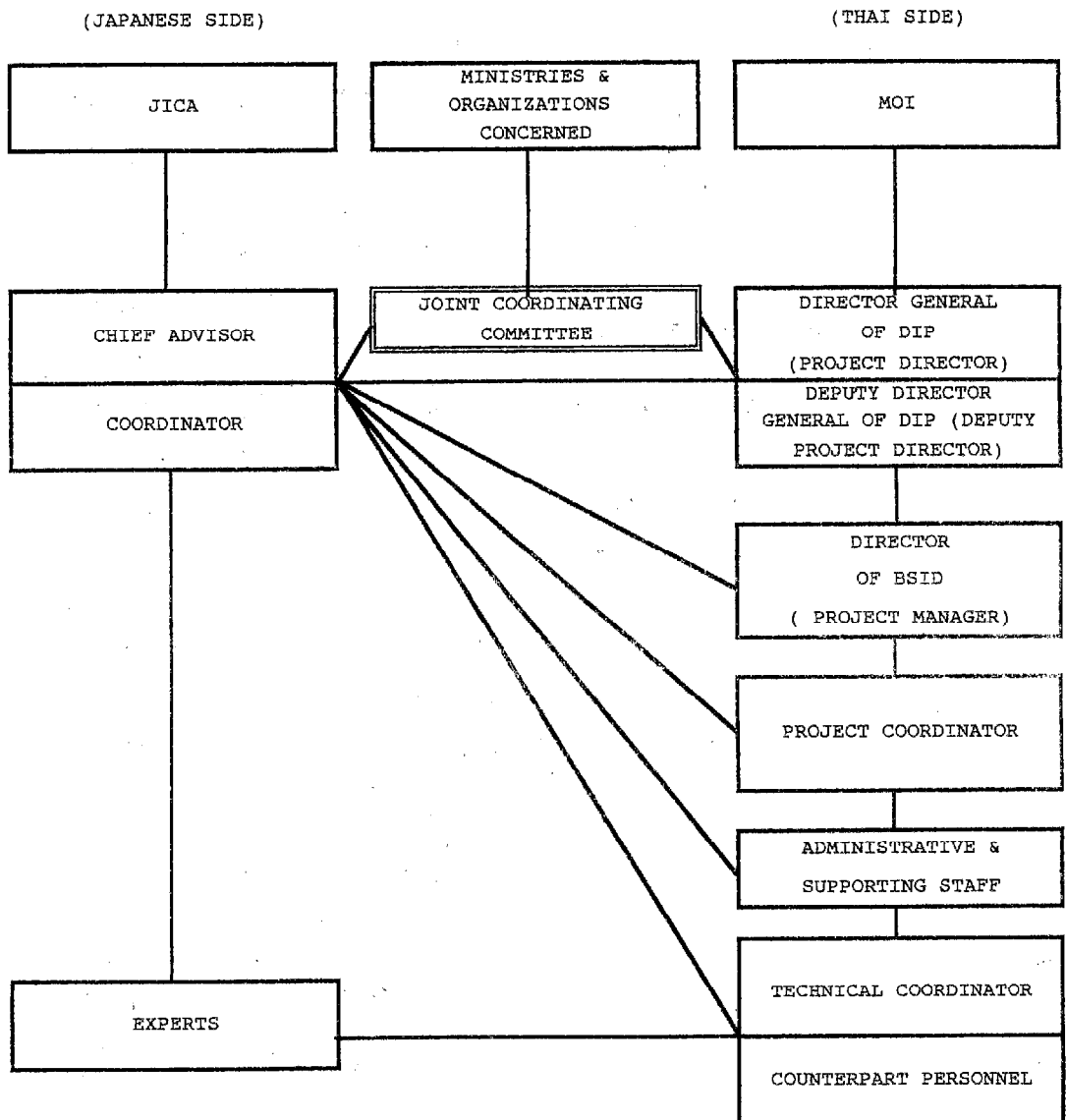
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Annex 5 The Provisional Organization Chart for the Administration of the Project

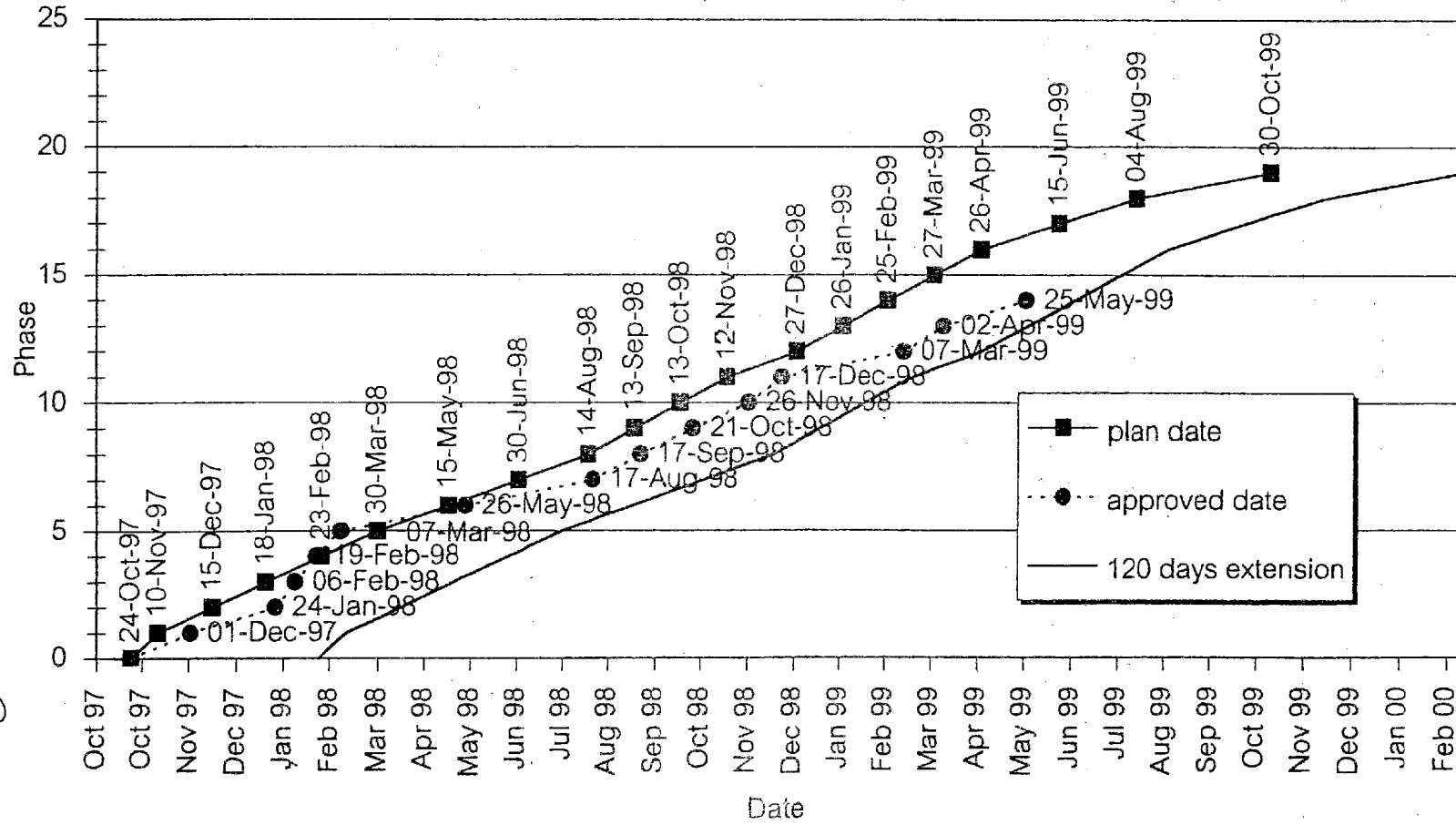


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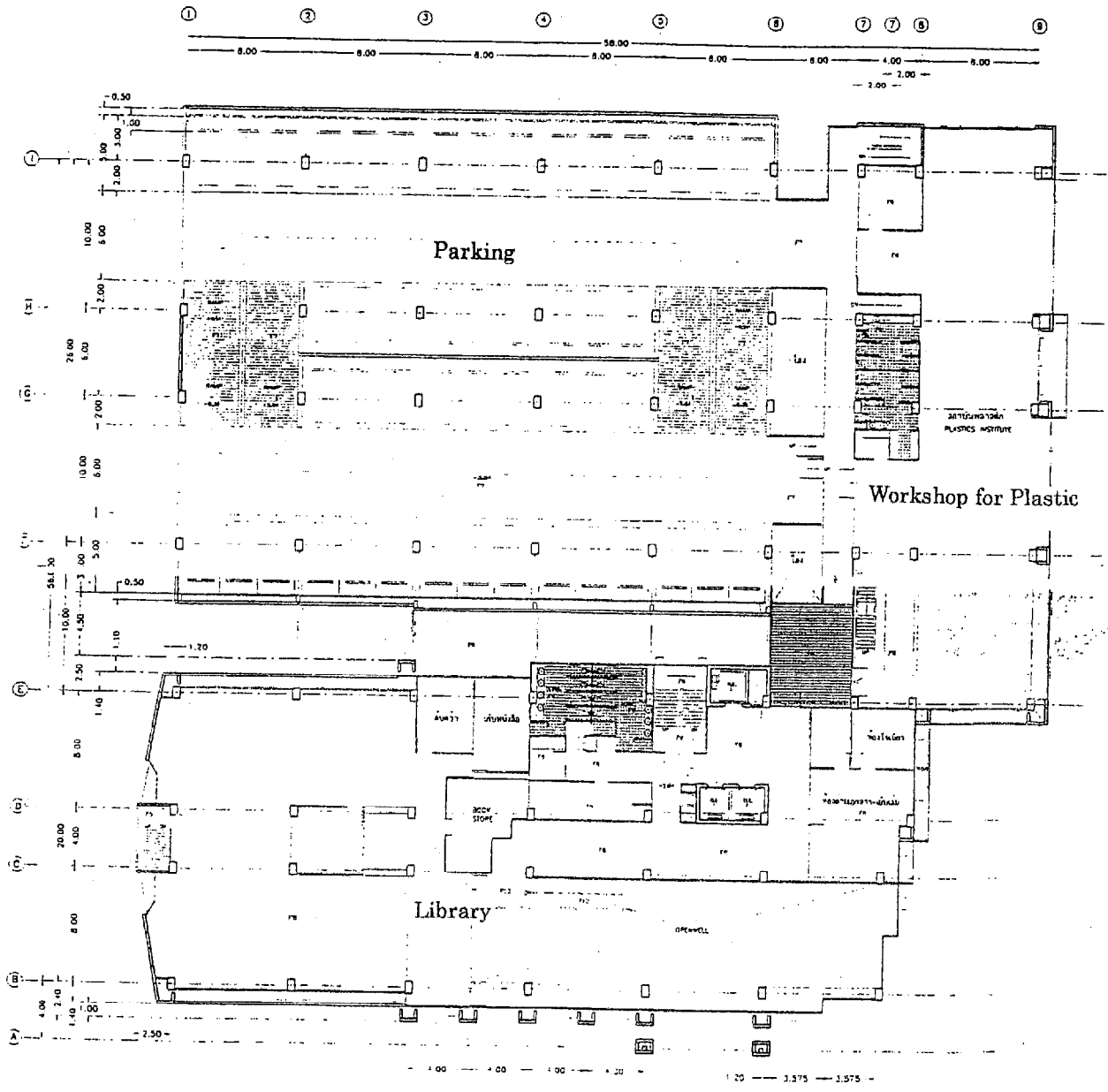
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Annex 6 The Construction Schedule of SIC

SIC-Building Construction Progress



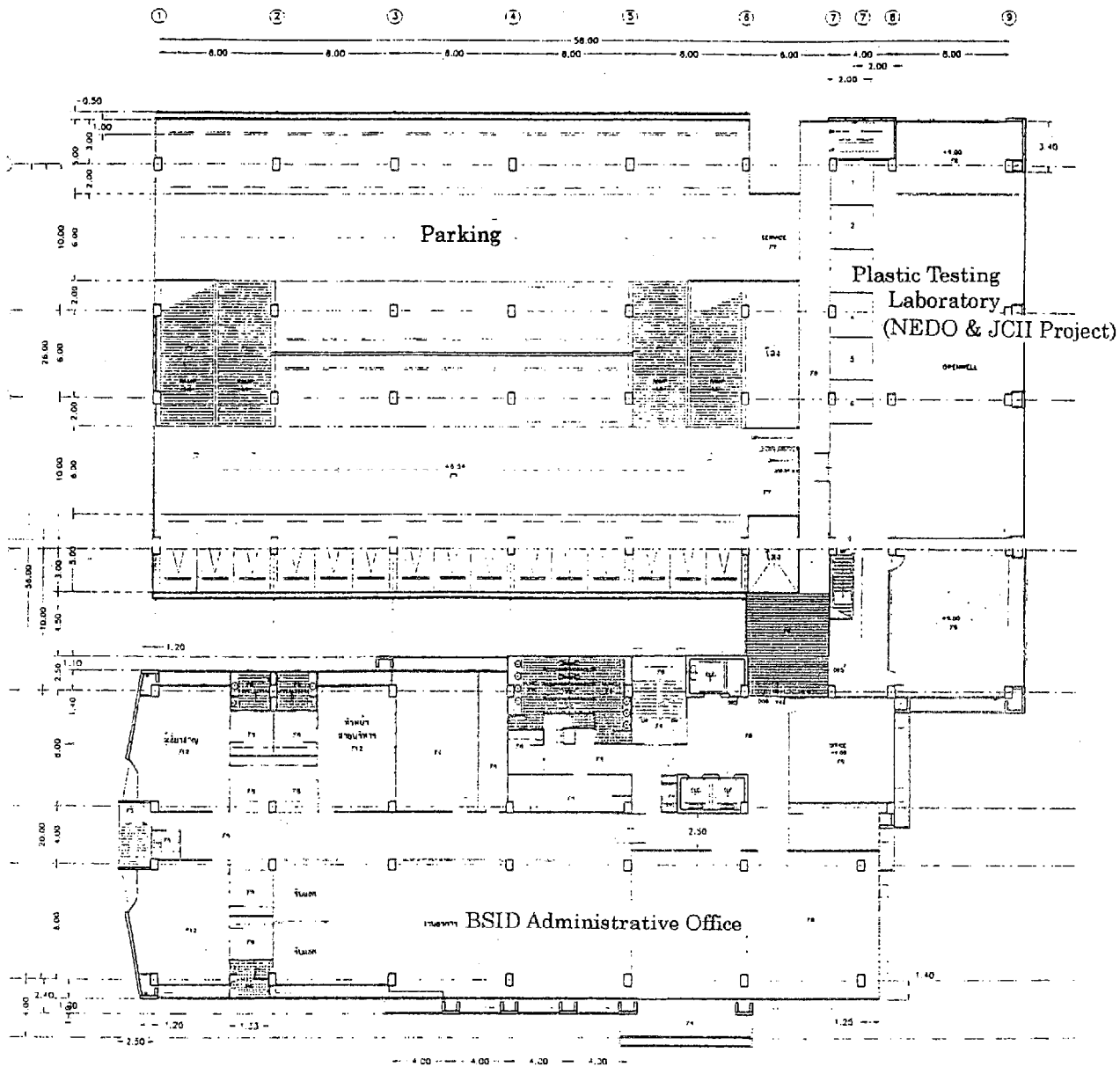
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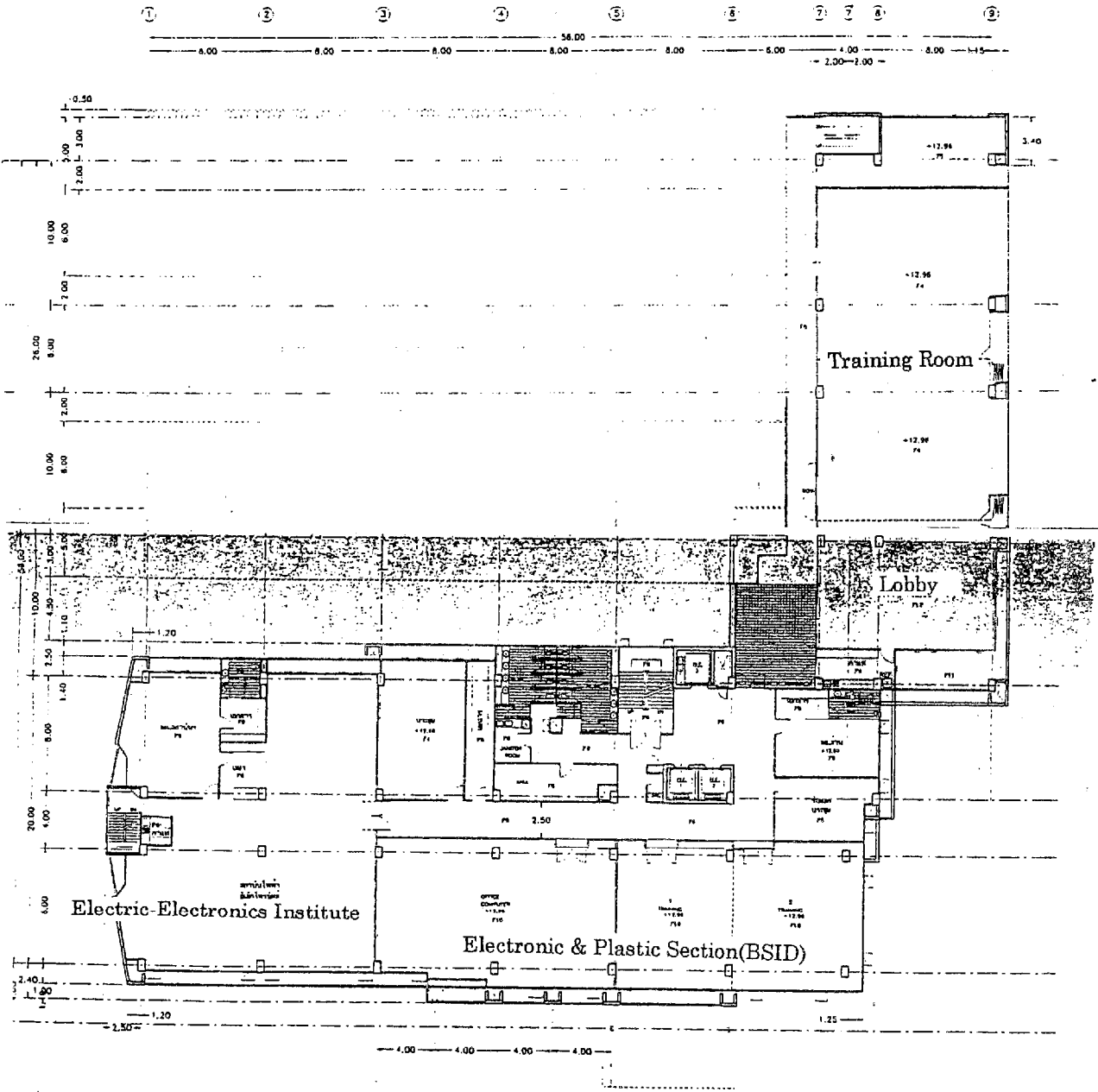
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3rd floor
 แปลนพื้นที่ 3
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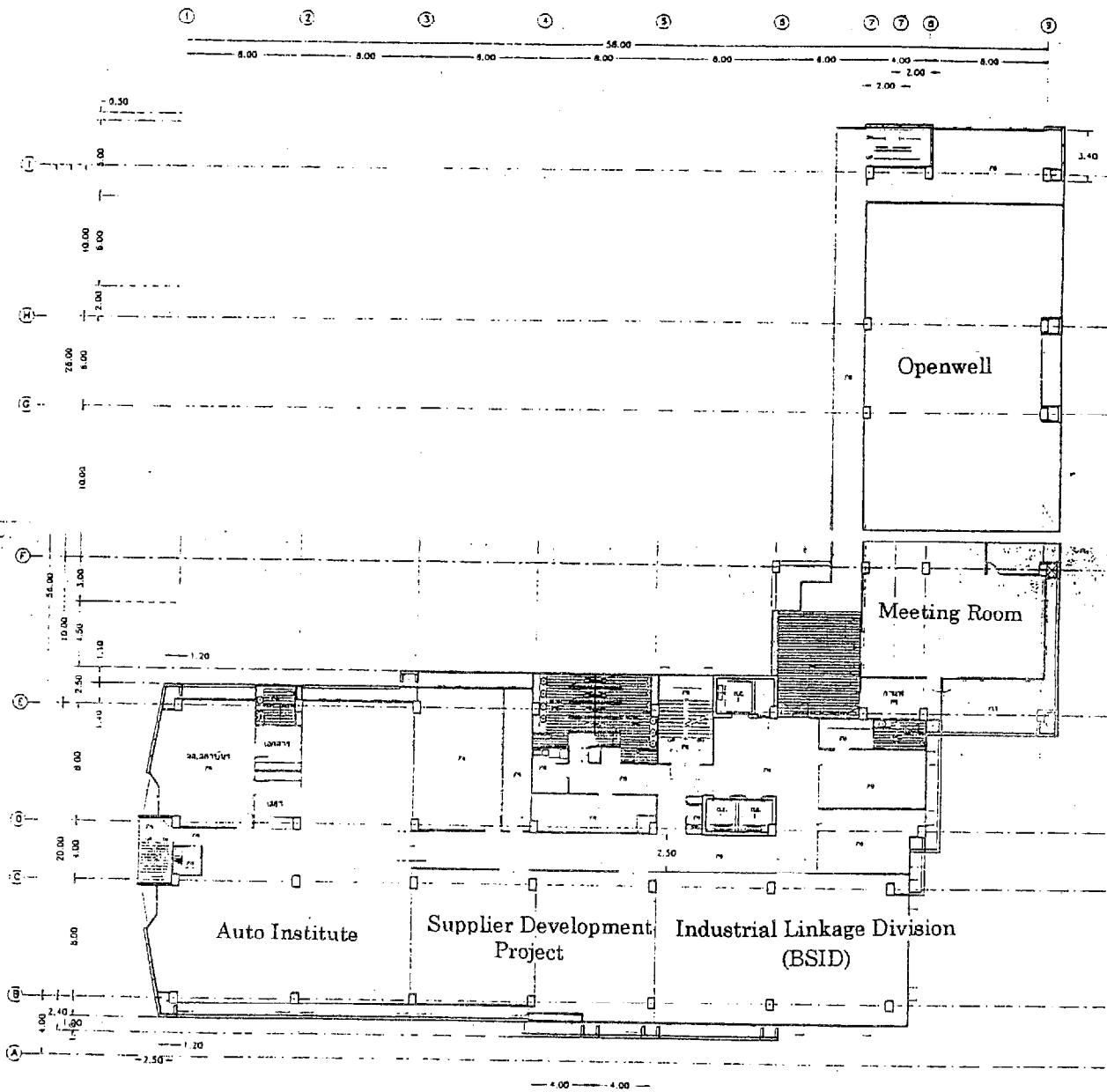
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5th floor

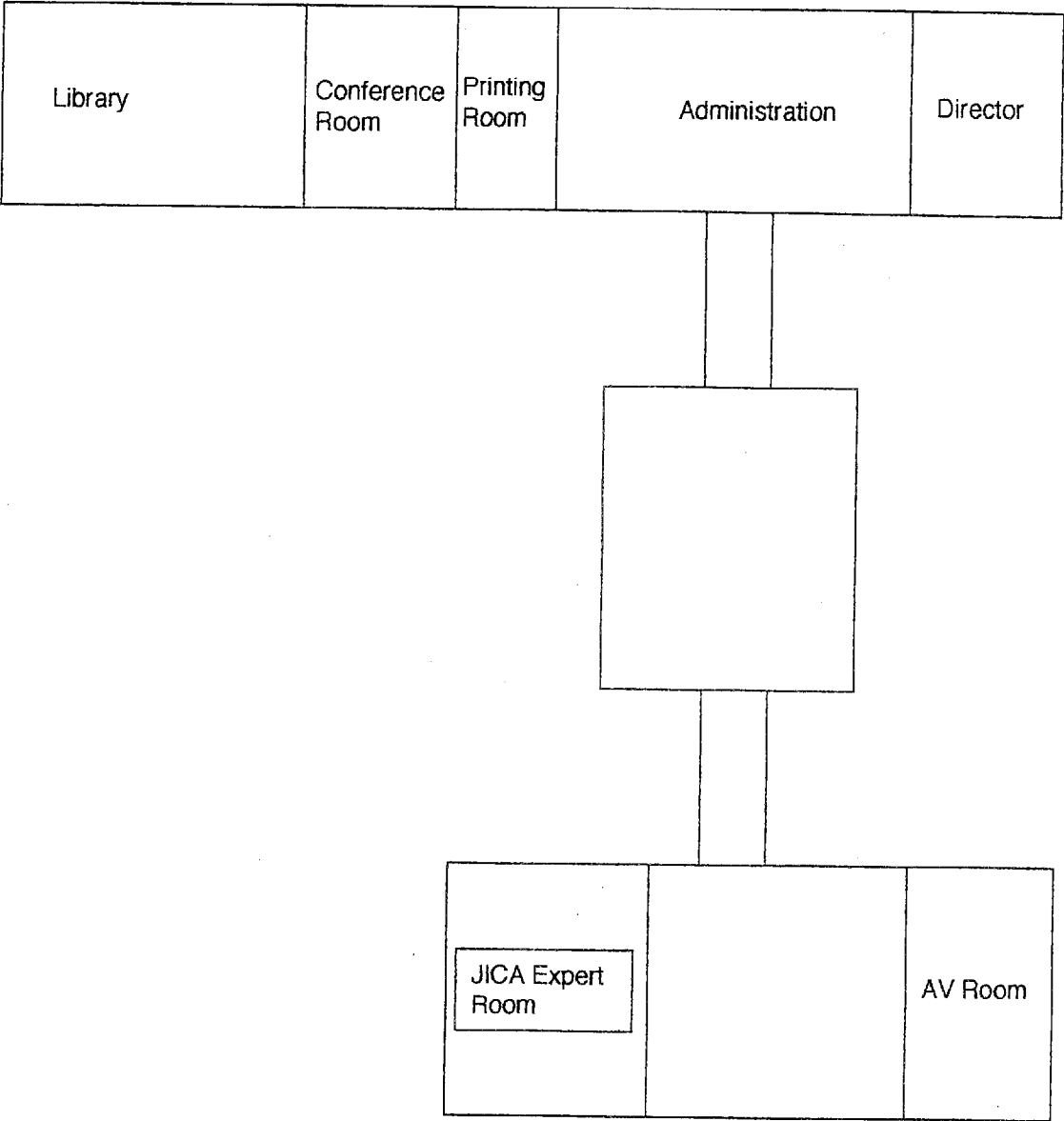
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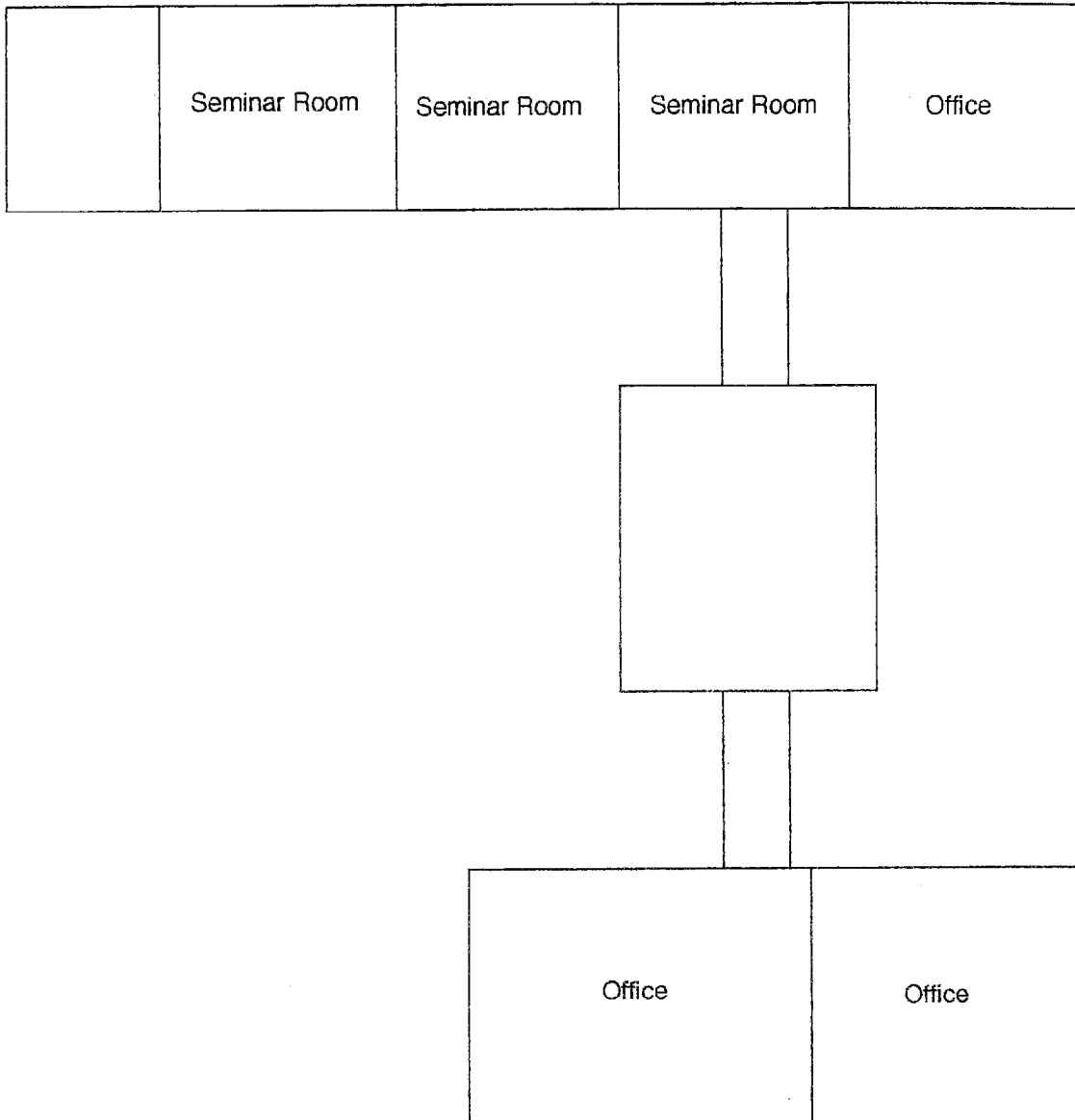
Annex 8 The Present Floor Layout of BSID
(Main Building)

Third Floor



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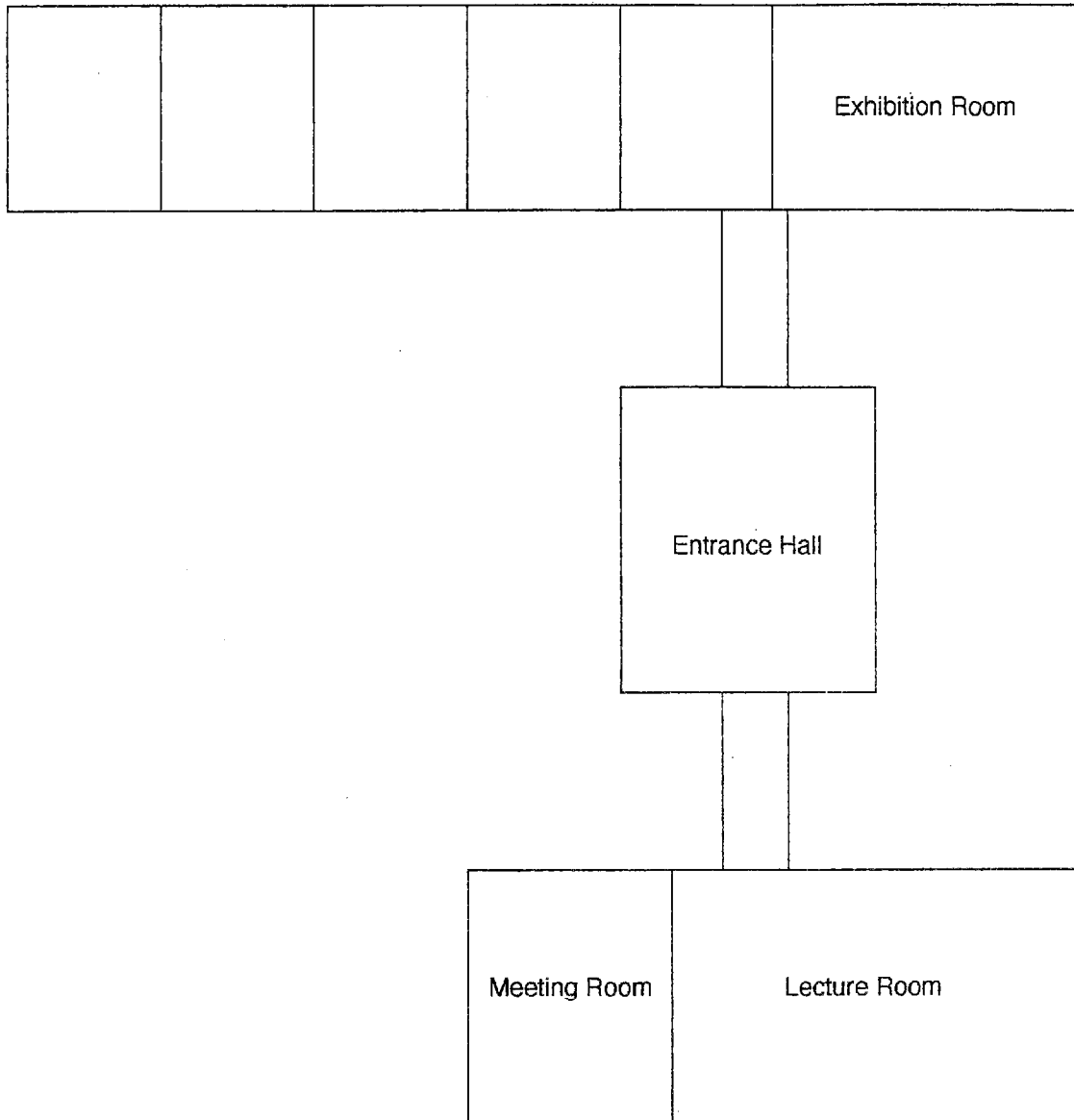
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Ground Floor

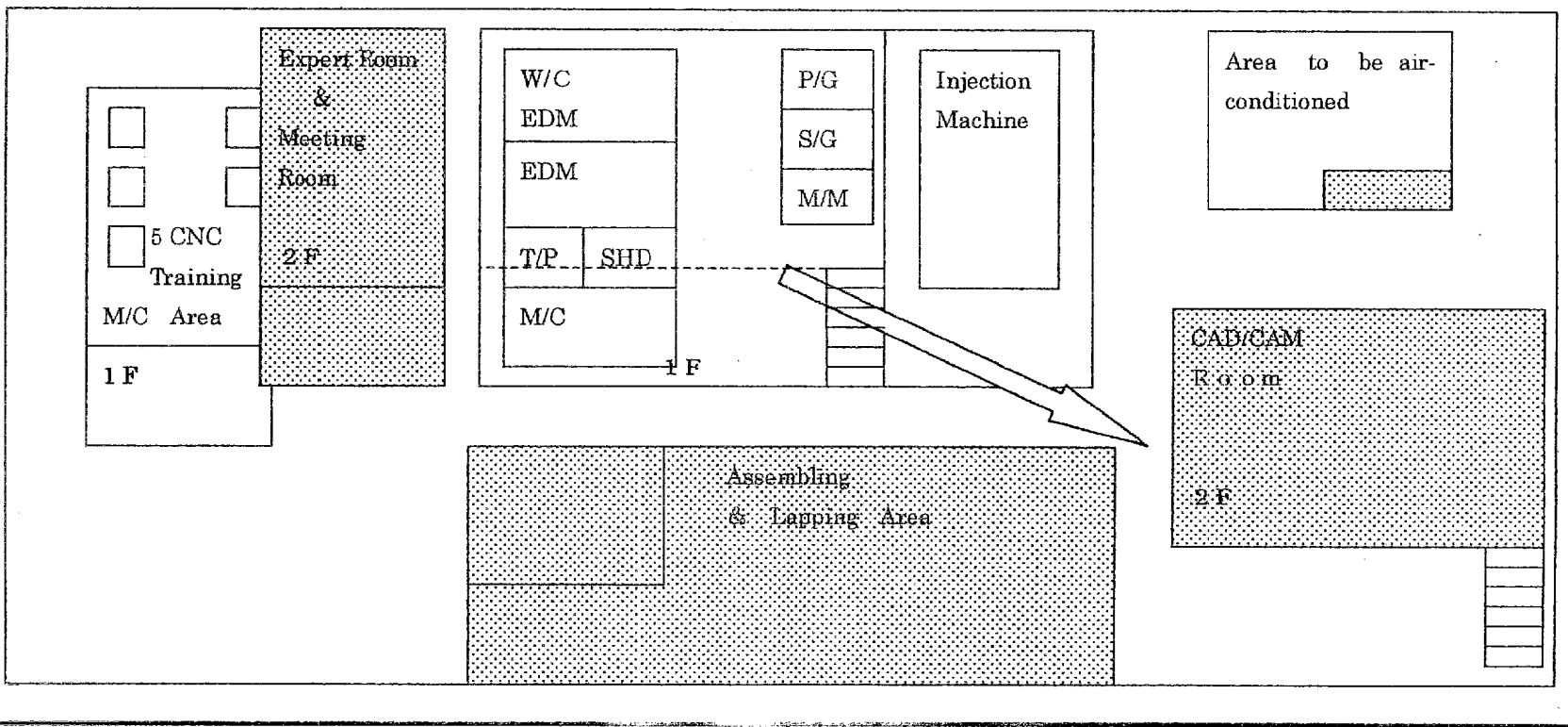


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Annex 9 Draft Layout of Machinery and Equipment in Workshop A

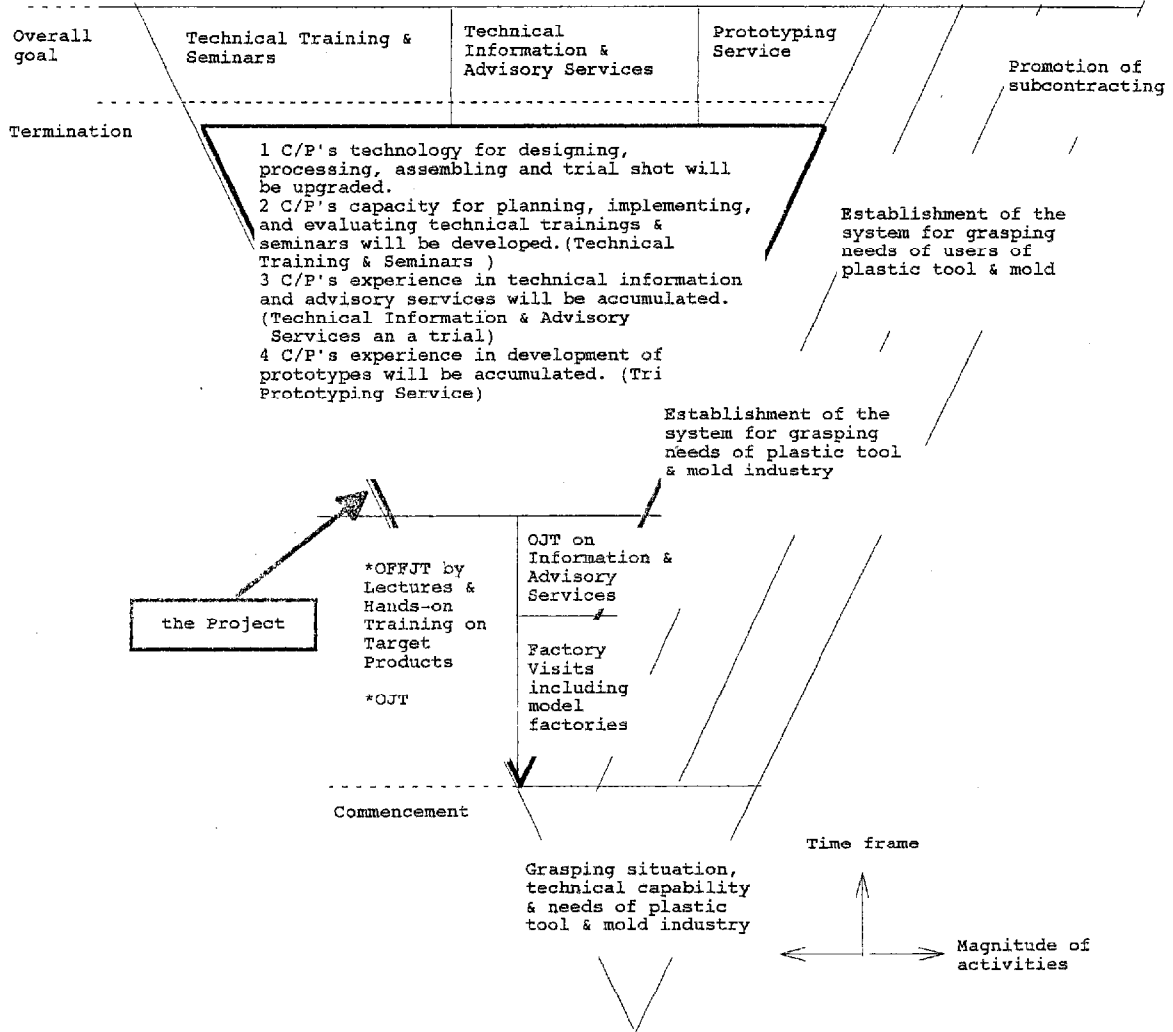
WORKSHOP - A

Note:
 W/C EDM : Wire-cut Electric Discharge Machine.
 EDM: Electric Discharge Machine.
 M/C:Machining Center
 S/G:Surface Grinder
 P/G:Profile Grinder
 SHD:Small Hole Drilling Machine
 T/P:Tool Presetter
 M/M:Milling Machine



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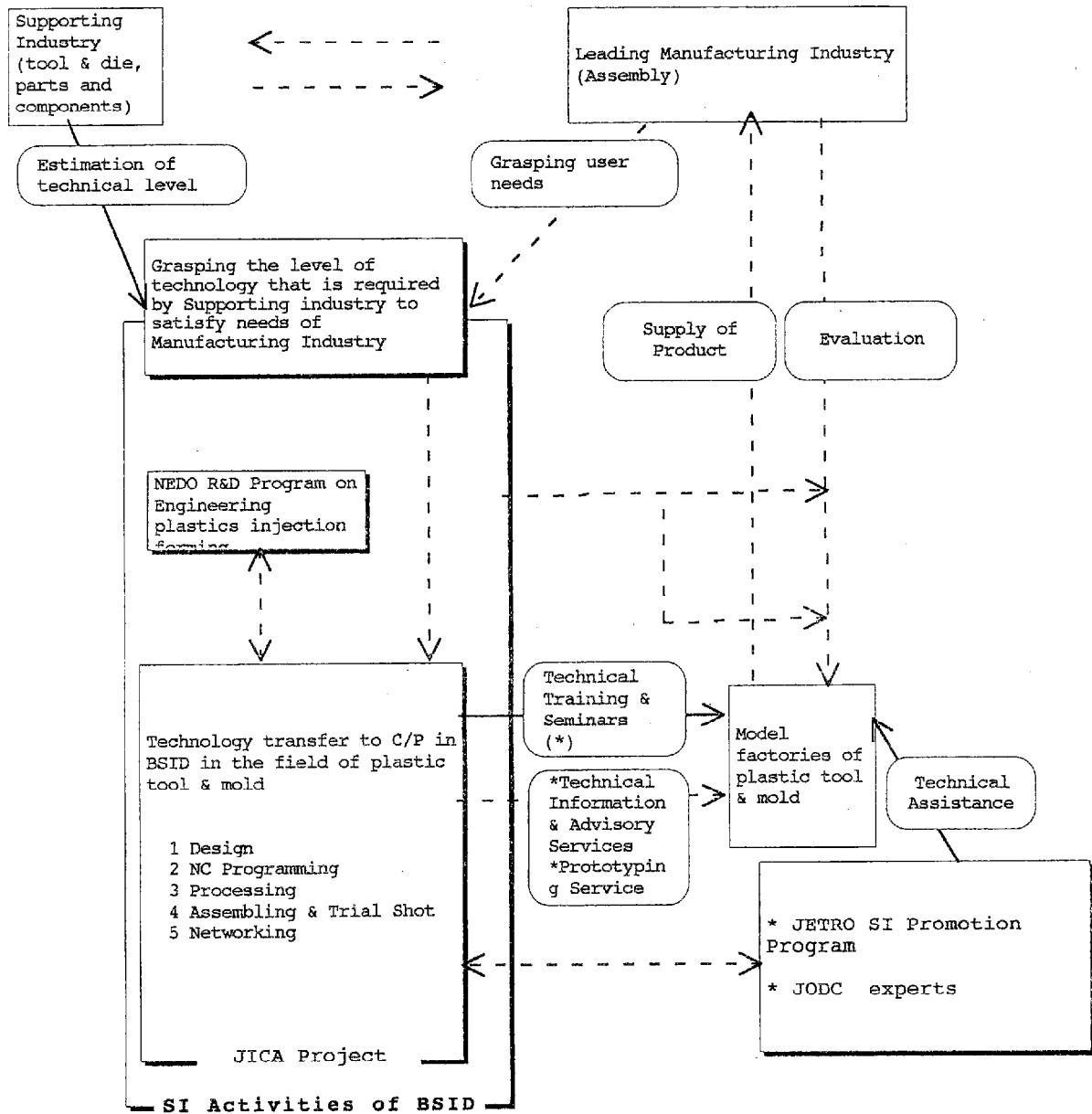
**Annex 10 Conceptual Image of BSID Activities
for Upgrading Technology of Tool & Mold
Industry in the Kingdom of Thailand**



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Annex 11 Cycle of SI Activities to be strengthened by BSID



Note 1 The legend for the arrow is as follows:

- - > currently not existing
- > currently existing to be strengthened

2 The services extended by the Project, which are with asterisk (*), will be provided not only to the model factories but also to any local industry, once applied in principle.

3 The above-mentioned chart can not represent the relationship among cycle of SI activities to be strengthened by BSID, for example, the one with industrial association, academy, institute like TGI and so on, because of the space constraints.

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Annex 12 Sample of the Common Format for the Project
(2) List of institutes/academic organization to collaborate with BSID
to realize the countrywide diffusion of the outputs of the Project

Thai – German Institute (TGI)
Tool & DIE TECHNOLOGY DEPARTMENT
700/1 Moo 1, BANGPAKONG Industrial Park II, KM. 57 BANG – TRAD RD;
TAMBOL KLONG TAMRU, AMPHUR MUANG, CHONBURI 20000
Tel : (038) 215003 – 47 Ext. 1513
Fax : (038) 743 – 467

Research and Development Institute of
Industrial Production Technology (RDIPT)
KASETSART UNIVERSITY
50 PAHOLYOTHIN ROAD, LADYAO, BANGKEN, BANGKOK 10900
Tel : (662) 942 – 8081, 942 – 8082
Fax : (662) 940 – 5414

National science and Technology Development Agency (NASTDA)
73/1 RAMA VI ROAD, RAJDHEVEE, BANGKOK 10400, THAILAND
Tel : (662) 644 – 8150 – 99
Fax : (662) 644 – 8077



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(4) Monitoring Sheet of Technical Cooperation

Technology Transfer Item	Input			Current Level	Target level	Problems	Necessary Input			Result /Countermeasure
	Expert	C/P	Equipment				Expert	C/P	Equipment	

Note : Level of the technology is categorized as follows:

Level 0 : Yet to be implemented.

Level 1 : Implemented partially, on going, including the provision of information

Level 2 : Operable with expert's advice

Level 3 : Operable without expert's advice

Level 4 : Technology transferable with expert's advice

Level 5 : Technology transferable without expert's advice

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(5) Monitoring sheet of the technical capability of manufacture which BSID would provide its technical service

Visiting person in charge:

Company name:		Visitation date, time and accompanying personnel:	
Address: (tel; fax)		Interviewed personnel:	
Company info:	Main facilities	Notes:	
Established:			
Capital:			
Sales amount / production volume:			
No. of employees:			
Major products:			

Diagnostic category	Points to be confirmed	Method/ tools	Items to be evaluated	Evaluation points					Remarks
				5	4	3	2	1	
Marketing capability	Customer delivery; Export performance; Sales amount	- Business management data - Interview - Management diagnostic check	- Domestic market share is large						
			- Domestic supply and demand balance exists						
			- Export promotion is possible						
			- Has export experience; marketing strategies are planned						
			- Numerous marketing channels						
Product capability	Customer delivery; Export performance; Sales amount	- Catalogs, etc. - Product lists - Product inspection	- Compatible with international levels						
			- Can discern product strong points and weak points						
			- Price is competitive						
			- Design concept is clear						
			- Regular contact is kept with customers						
Production capability	Labor productivity	- Company data - Factory inspection	- On a par with industrialized countries						
	Process productivity	- Production control data - Process analysis - Factory inspection - Production equipment lists	- Does business with many sectors						
			- Material flow between plants, and work load balance are good						
			- Management method for part input is in place						
			- Appropriate level of process automation						
Manufacturing base cost	- Manufacturing base cost - Production management data	- Appropriate mid-process inspections							
		- Factory layout and work environment are good							
		- Sales pricing based on composition of cost							
		- Procurement methods for materials and parts are good							
		- Improvement suggestion system is in place							
Quality control	- Quality control data - Drawings, manuals	- Equipment depreciation is clearly known							
		- Poor quality rates are clearly known							
		- The quality control system is functioning							
		- QC circles are active							
		- Good linkage between production and marketing divisions							
Delivery period	- Delivery period data - Interview - Customer feedback	- Volume of product stocks on hand is appropriate							
		- Distribution system is in place							
		- Has research and development division							
		- Has licensing contracts							
		- Has development engineering staff							
Development capability	New products	- Interview - Design drawings, products - Inspection of testing and research facilities	- Good ownership of modern equipment						

Diagnostic category	Points to be confirmed	Method/ tools	Items to be evaluated	Evaluation points					Remarks
				5	4	3	2	1	
Technical capability	Design	<ul style="list-style-type: none"> - Interview of engineers - Inspection of product lineup - Factory inspection - Design drawings - Design equipment - CAD/CAM use 	<ul style="list-style-type: none"> - Knowledge about plastic materials - Knowledge about mold materials - Can design according to standards - Understands product and mold design - Understands names and functions of mold parts - Can design molds of complex shape - Capable of adaptive design of products and molds - CAD/CAM use is becoming mainstream - Has design engineering staff - Design and delivery periods are prompt - Is aware of currently lacking technology 						
	Processing	<ul style="list-style-type: none"> - Interview of engineers - Process drawings - Work line flow - Factory inspection - Status of fabricating equipment - CAD/CAM use - Processed parts and products 	<ul style="list-style-type: none"> - Well understands mold materials and tools - Well understands fabricating equipment - Can maintain fabrication equipment - Can process in accordance with drawings - Can process in accordance with programming - Is switching from general equipment to CNC - Processing time is prompt and according to schedule - Has machining engineering staff - Finishing and polishing technology is high level - CAD/CAM use is becoming mainstream - Has much CNC fabrication equipment which is produced in industrialized countries - Is aware of currently lacking technology 						
	Forming and assembly	<ul style="list-style-type: none"> - Interview of engineers - Factory inspection - Status of forming equipment - Status of tool use - Formed products, finished products 	<ul style="list-style-type: none"> - Knowledge of plastic materials - High level of procedure and process management - Can repair and maintain molds - Can maintain forming equipment - Good capability to set forming equipment conditions - Has measuring and testing equipment - Understands causes of poor mold performance - Can troubleshoot the forming process - Is aware of currently lacking technology 						
Personnel	Upper management; Middle management; Engineers; General labor	<ul style="list-style-type: none"> - Interview - Company organization and employee composition - Design drawings, products - Instruction materials, manuals 	<ul style="list-style-type: none"> - Employee turnover rates are clearly known - Good pay system is in effect - Education and experience are good - Good training system is in effect - Moral integrity and character are superlative 						
Information processing	Computerization Networking	<ul style="list-style-type: none"> - Interview - Factory inspection 	<ul style="list-style-type: none"> - Good computerization of business operational data - Utilizes the Internet - Has sectoral and international data on hand 						
Management system	Operating structure	<ul style="list-style-type: none"> - Interview - Manuals 	<ul style="list-style-type: none"> - Responsibility and authority within the organization are clearly defined - Has a business operating policy, and staff conferencing system 						
Overall evaluation									Total score:

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(6) Factory Visit Record

Date: / /

Company Name			
Address			
Tel No.		Fax No:	
President		Interviewee	
Date of Established		Capital	
No. of Staff		Related Companies	
Area of Site		Annual Turnover (Export Ratio)	
Main Products		Main Client	
Primary Materials			
Main Equipment			
Standard of Company			
Current Problems			
Plant Conditions			
Production and Quality Control System			
Request to the Project and Possibility of Cooperation with the Project:			
Overall Evaluation and Special Remarks			
Date of Survey			

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(7) Record of respective services extended by the Project

NO.

Date Received	Order Number	Name of Company or Organization	Service Division			Person's Name/Services Ordered
			Training Course/seminar	Advisory Service	Prototyping Service	
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				
		Company				Name :
		Association				Order:
		Institution				
		Individual				

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b Record of Technical Information & Advisory Services

Date : / /

Company Name :		Address :	
Person in Charge :		Tel No. :	Fax No.:
Date Received :		Order Number:	Completion Date:
Counterpart 's Name:		Total Hours for Completion :	
Remark s :			
Former condition			
Problem			
Countermeasure Provided by BSID			
Result			

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c Record of Prototyping Services

Date : / /

Company Name :		Address :		
Person in Charge:		Tel No. :		Fax No. :
Date Received:		Order Number :		Completion Date :
Counterpart's Name :		Total Hours for Completion		
Remarks:				
	Works	Problems	Countermeasures	Results
Service				
Design				
Processing				
Assembly and Trial shot				

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Name

(9) Machinery Maintenance Record with Photograph

EQUIPMENT RECORD					
Fiscal Year :		Date of Purchase :			
Management Number					
Description of Goods / Model / Manufacturer					
Specification					
Composition / Accessories					
Place Installed :			Amount :		
Regular Inspection / Routine Adjustment (1 time / 3 months)					
Date	Description / Comment	Signature	Date	Description / Comment	Signature
Condition of Trouble / Repair and Adjustment :					
Remarks :					

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9 Were your expectations for this program met ?

(1) fully met (2) mostly met (3) somewhat met (4) not met at all

10 How do you assess the applicability of the techniques and knowledge obtained through this program in your job ?

(1) very good (2) good (3) fair (4) poor (5) very poor

11 Teaching materials: (1) good (2) fair (3) poor

12 Teaching equipment: (1) good (2) fair (3) poor

13 Venue: (1) very suitable (2) adequate (3) not suitable

III. Pertaining to the lecturer:

1 Level of subject understanding: (1) good (2) fair (3) poor

2 Teaching method: (1) good (2) fair (3) poor

3 Response to attendee questions: (1) good (2) fair (3) poor

4 Punctuality: (1) good (2) fair (3) poor

5 Others:



b Questionnaire of prototyping Service

Date : / /

Name of Company or Organization :		Address :	
Your Name:		Tel No. :	Fax No. :
Prototype		Price :	Delivery Date :
Evaluation of Prototyping Service			
Cost performance	excellent	good	poor
	----- ----- ----- -----		
Delivery	excellent	good	poor
	----- ----- ----- -----		
Quality	excellent	good	poor
	----- ----- ----- -----		
Services Provided by BSID			

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Annex 13 Provisional Project Design Matrix (PDM) of SIC-Tool and Mold Technology Development in the Kingdom of Thailand

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
<p>(Overall Goal) The Thai plastic tool and mold industries are internationally competitive to provide assembly industries in Thailand with high quality tools and molds.</p>	<p>1 Increase of products delivered to assembly industries 2 Improvement of quality of products 3 Improvement of Productivity and Efficiency</p>	<p>1-1 Industrial Statistic 1-2 Survey Report 2 Survey Report 3 Survey Report</p>	<p>a There is no drastic change in political and economic situation in the Kingdom of Thailand. b Supporting industries development policy continues to be stable. c Demand from assembly industries for plastic tool and mold industry continues to be stable.</p>
<p>(Project Purpose) Technical capability of BSID is upgraded to extend quality services for the Thai plastic tool and mold industries.</p>	<p>1 Level of satisfaction of present and former service beneficiaries 2 Level of satisfaction of industries 3 Number of newly improved services and target group</p>	<p>1, 2 Questionnaire to and interview with related industries 3 BSID Record</p>	<p>a Thai plastic tool and mold industries utilize the technology obtained from BSID. b Linkage between assembly industry and plastic tool and mold industry is established.</p>
<p>(Outputs of the Project) 0 The Project operation unit is enhanced. 1 The necessary machinery and equipment are provided, installed, operated and maintained properly. 2 Technical capability of the counterpart personnel (hereinafter referred to as "C/P") are upgraded. 3 Technical training and seminars are implemented systematically. 4 Technical information and advisory services as a trial are implemented systematically. 5 Trial Prototyping Service are implemented systematically.</p>	<p>0 Number and capacity of staff, Budget and settlement account, Number of committee and meeting, Number of publicity 1-1 Contents and condition of machinery and equipment 1-2 Route to get spare parts and situation to secure spare parts 2-1 Assessment by the Japanese experts 2-2 Number of achieved Target Product 2-3 Manuals, textbooks and training materials developed 3 Number of implemented technical training and seminars, their textbooks and their participants 4 Number of implemented trial technical information and advisory services including complied information and their clients 5 Number of implemented Trial prototyping and its clients</p>	<p>0 Organization Chart, Administration Record, Accounting Record, Personnel record 1-1 Property record, operation & maintenance record 1-2 Spare parts list, suppliers list 2-1, 2-2, 2-3 BSID record 3, 4, 5 BSID record</p>	<p>a Trained C/P remain at BSID.</p>

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(Activities) 0-1 Allocate necessary personnel as planned. 0-2 Formulate plans of activities. 0-3 Make budget plan and execute properly. 0-4 Establish and operate management system. 1-1 Make facility refurbishment plan and implement as planned. 1-2 Provide and install necessary machinery and equipment. 1-3 Operate and maintain the machinery and equipment properly. 2-1 Make Technical Cooperation Program. 2-2 Implement technology transfer to the C/P. 2-3 Monitor and evaluate the result of technology transfer to the C/P. 3-1 Make plan of technical training and seminars. 3-2 Implement technical training and seminars. 3-3 Monitor and evaluate technical training and seminars. 4-1 Make plan of trial technical Information and advisory services. 4-2 Collect and compile technical information and material. 4-3 Implement trial technical information and advisory services. 4-4 Monitor and evaluate trial technical Information and advisory services. 5-1 Make plan of trial prototyping service. 5-2 Implement trial prototyping service. 5-3 Monitor and evaluate trial prototyping service.	Inputs		a C/P remain at BSID.
	The Thai side	The Japanese side	
	1 Provision and Maintenance of Building and Facilities	1 Dispatch of Japanese Experts (1) Long-term Experts a Chief adviser b Coordinator c Plastic Tool and mold (2) Short-term Experts Appropriate number of short-term experts will be dispatched as necessity arises.	
	2 Allocation of C/P and Administrative personnel (1) Administrative C/P 4 (2) Technical C/P 14 (3) Administrative Staff Necessary number (4) Supporting Staff a Secretary 2 b Driver 1 c Other necessary staff upon request by the Japanese experts	2 Thai C/P Training in Japan A certain number (about 2 persons) of the C/P yearly	
	3 Provision of Machinery & Equipment and their Maintenance	3 Provision of Machinery and Equipment	(Preconditions) a Construction of SIC building is completed as scheduled.
	4 Local Cost Necessary budget for the implementation of the Project	4 Supporting Local Cost	

Annex 14 List of the C/P and Administrative Personnel

1 Counterpart Personnel

- (1) Project Director
Director General, DIP
- (2) Deputy Project Director
Deputy Director General, DIP
- (3) Project Manager
Director, BSID
- (4) Project Coordinator
Director, Plastic & Electronic Component Industries Division
Director, Metalworking & Machinery Industries Division
Chief, Research Section, Plastic & Electronic Component Industries Division
- (5) Technical Coordinator
Mr. Paiboon Tekapan Chief, machining Subsection
Mr. Prakob Janma Chief, Product, Mold & Die Design Development Unit
- (6) Technical Counterpart Personnel
 - a Design Group
Mr. Worapong Chinchoksakulchai Product, Mold & Die Design Development Unit
Mr. Chanon Suktayu Product, Mold & Die Design Development Unit
Mr. Chairat Keawdoug Product, Mold & Die Design Development Unit
 - b NC Programing Group
Mr. Paiboon Tekapan Chief, machining Subsection
Mr. Prakob Janma Chief, Product, Mold & Die Design Development Unit
Mr. Sompong Teeracanont Machining Subsection
Mr. Paisal Lhokaew Machining Subsection
 - b Processing Group
Mr. Satta Denpradith Machining Subsection
Mr. Bantao Wongprachanukul Machining Subsection
Mr. Damrong Kratumkhetr Machining Subsection
Mr. Sirisak Ritngam Machining Subsection
Mr. Paiboon Chaengsanoh Technology Subsection
Mr. Taweessit Buamee Technology Subsection
 - c Assembling and Trial Shot Group
Mr. Sahas Chumsoongnoen Machining Subsection
Mr. Preecha Jamtath Product, Mold & Die Design Development Unit
Mr. Pongsak Vongrasametong Chief, Technology Subsection
Mr. Virit Viseshsindh Research Subsection
 - d Networking
Mr. Kijja Chongkwanyuen Research Subsection

2 Administrative Personnel

- (1) Public Relation
Chief, General Administration Section
- (2) Administration
Chief, General Administration Section
- (3) Printing
Chief, General Administration Section
- (4) Training
Chief, Training & General Coordinating Subsection
Chief, Monitoring and Reporting Subsection

3 Supporting Staff

- (1) Secretary 2
- (2) Driver 1

Note:

- 1 Allocation of other staff such as skilled workers will be consulted with the Japanese experts upon request.
- 2 Reorganization of the technical C/P before the commencement of the Project may be required.

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Annex 15 Tentative Schedule of the C/P Allocation

	1998		1999		2000	2001	2002	2003	2004	2005
	Preliminary	First Supplementary	Second Supplementary	Implementation Study						
Mold Design		(1)	(-3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	5	6	3	3	3	3	3	3	3	3
NC Programming		(0)	(3)	(1)	(0)	(0)	(0)	(0)	(0)	(0)
	-	-	3	4	4	4	4	4	4	4
Mold Processing		(1)	(-3)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
	6	7	4	6	6	6	6	6	6	6
Mold Assembling & Trial Shot		(0)	(3)	(1)	(0)	(0)	(0)	(0)	(0)	(0)
	-	-	3	4	4	4	4	4	4	4
Networking		(0)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	-	-	1	1	1	1	1	1	1	1
Additional C/P		-	(4)	(-4)	(0)	(0)	(0)	(0)	(0)	(0)
	-	-	4	-	-	-	-	-	-	-
Total	(0)	(2)	(5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	11	13	18	18	18	18	18	18	18	18

Note

1 The chart above only covers the Technical C/P.

2 The numbers with brackets show the increment and decrement of the C/P, which are requested by the Team.

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Annex 16 List of the Charts for the Project Planning and Management

No.	Name of Charts	Contents
1	Project Design Matrix (PDM)	A worksheet to overview the Project based on an assumption - designed to analyze a multi-level chain of cause-to-effect such as input to output, output to project purpose and project purpose to overall goal
2	Technical Cooperation Program (TCP)	A chart which indicates the items transferred by the Japanese experts to the C/P, namely, technology transfer items. The period to be covered by the said chart is the whole period of the Project. The minimum unit of the period in the chart is a quarter (three months).
3	Annual Technical Cooperation Program (ATCP)	A chart which materializes the respective technology transfer items in TCP. The period to be covered by the said chart is, in principle, one (1) year at most. The minimum unit of the period in the chart is a month.
4	Plan of Operations (PO)	A chart which indicates the schedule of respective activities in the PDM. The period to be covered by the said chart is the whole period of the Project. The minimum unit of the period in the chart is a quarter (three months).
5	Annual Plan of Operations (APO)	A chart which materializes the respective activities in PO. The period to be covered by the said chart is, in principle, one (1) year at most. The minimum unit of the period in the chart is a month.
6	Tentative Schedule of Implementation (TSI)	A chart which indicates the schedule of respective inputs by both sides. The period to be covered by the said chart is the whole period of the Project. The minimum unit of the period in the chart is a quarter (three months).
7	Annual Tentative Schedule of Implementation (TSI)	A chart which materializes the respective inputs in TSI, if necessary. The period to be covered by the said chart is, in principle, one (1) year at most. The minimum unit of the period in the chart is a month.

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Annex 17 Technical Cooperation Program (TCP)

Calendar Year	1999	2000	2001	2002	2003	2004			
Technology Transfer Item	98	1999	2000	2001	2002	2003	2004		
/ Japanese Fiscal Year	IV	I	II	III	IV	I	II	III	IV
Signing of the R/D									
Term of Technical Cooperation	▼								
PO 2-2 implement Technology Transfer to the C/P									
I Injection mold design									
1.1 Fundamentals of mold design									
(1) Usage of the applications for mold layout									
(2) Common use of parts and standardization of common parts									
(3) Mold design based on prediction (to remove poor injection products beforehand)									
(4) How to design target product-1 (Pen Tray)									
(5) How to design target product-2 (Front Case for Alarm Clock)									
1.2 Mold design by CAD/CAM									
(1) Techniques of CAD,CAM and CAD/CAM									
(2) Guidance by each CAD/CAM software makers for mold making									
(3) Exchange of CAD/CAM network data									
(4) Computer programming									
(5) CAD/CAM operation and mold design (2-dimension/2.5D/3D)									
(6) Design of target product-1 by CAD (Pen Tray)									
(7) Design of target product-2 by CAD (Front Case for Alarm Clock)									
(8) Design of target product-3 by CAD (Front Panel for Personal Computer)									
(9) Design of target product-4 by CAD (Upper Case for Telephone)									
(10) Design of target product-5 by CAD (Camera Body)									
1.3 Design of prototyping molds (for needs of model companies etc.)									
1.4 Solve problem after trial shot (problems and solution of assembling of injection molding)									

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Annex 17 Technical Cooperation Program (TCP)

Calendar Year	1999	2000	2001	2002	2003	2004	
Technology Transfer Item	98	1999	2000	2001	2002	2003	2004
/ Japanese Fiscal Year	IV	I	II	III	IV	I	II
Signing of the R/D							
▼							
P0	2-2 Implement Technology Transfer to the C/P						
2	Injection mold processing						
2.1	Fundamentals of processing						
(1)	Cutting theory condition						
(2)	EDM Processing theory and condition (Edit of CAD/CAM/CNC data)						
(3)	Inspection and measurement						
2.2	Operation and function of processing machines						
(1)	Operation and function of conventional machines						
(2)	Operation and function of MC						
(3)	Operation and function of CNC machines (EDM, WEDM etc.)						
(4)	CAM operation and programming						
(5)	CAM/CNC operation and programming						
(6)	Mold production technology (Processing condition and Tooling)						
(7)	Processing of Provided mold parts (Provided mold)						
2.3	Processing of target products						
(1)	Processing process planning						
(2)	Processing of target product-1						
(3)	Processing of target product-2						
(4)	Processing of target product-3						
(5)	Processing of target product-4						
(6)	Processing of target product-5						
2.4	Processing of prototyping molds						
2.5	Regular check and maintenance of machines						
2.6	Solve problem of processing mold and mold repairing						

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