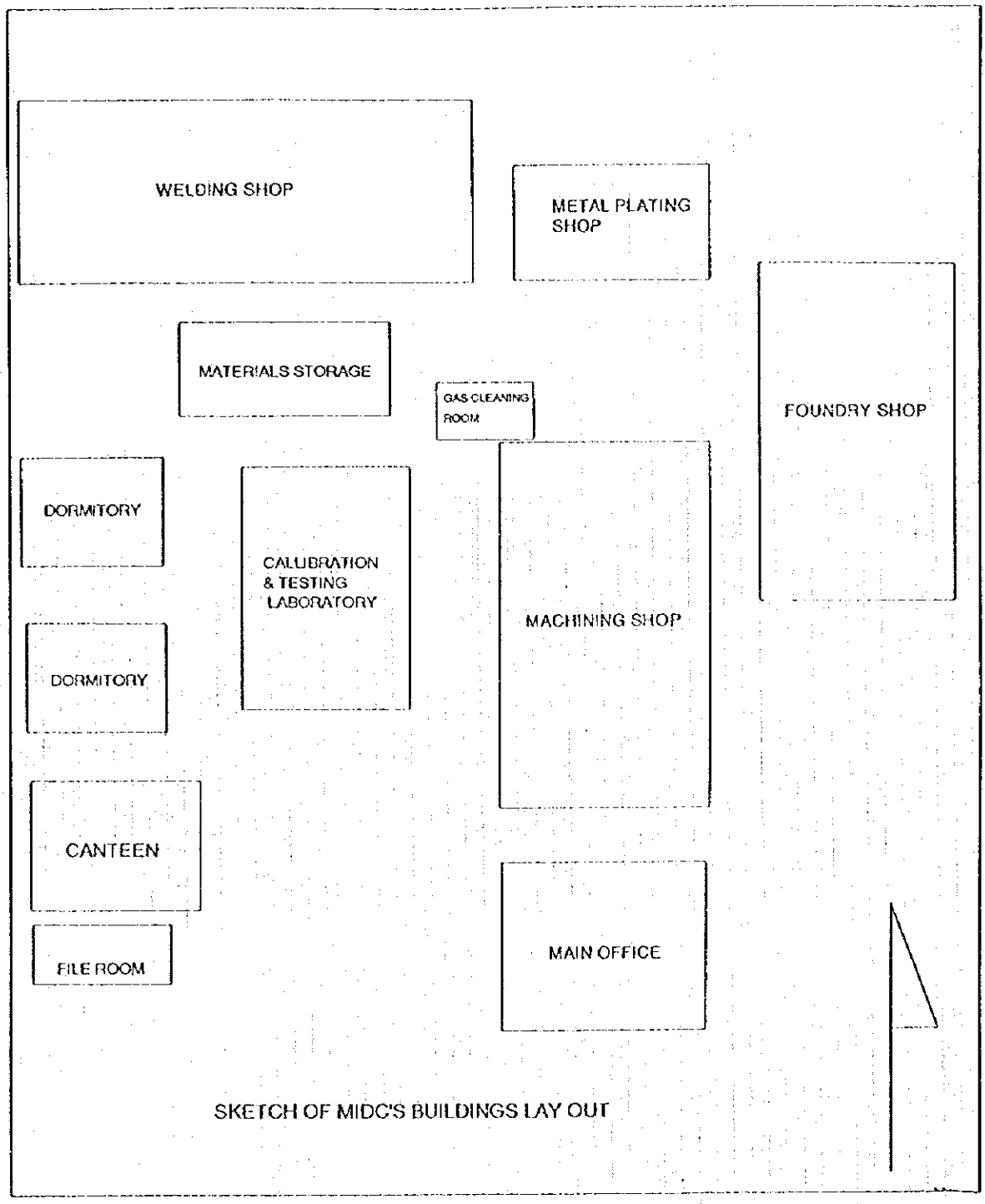
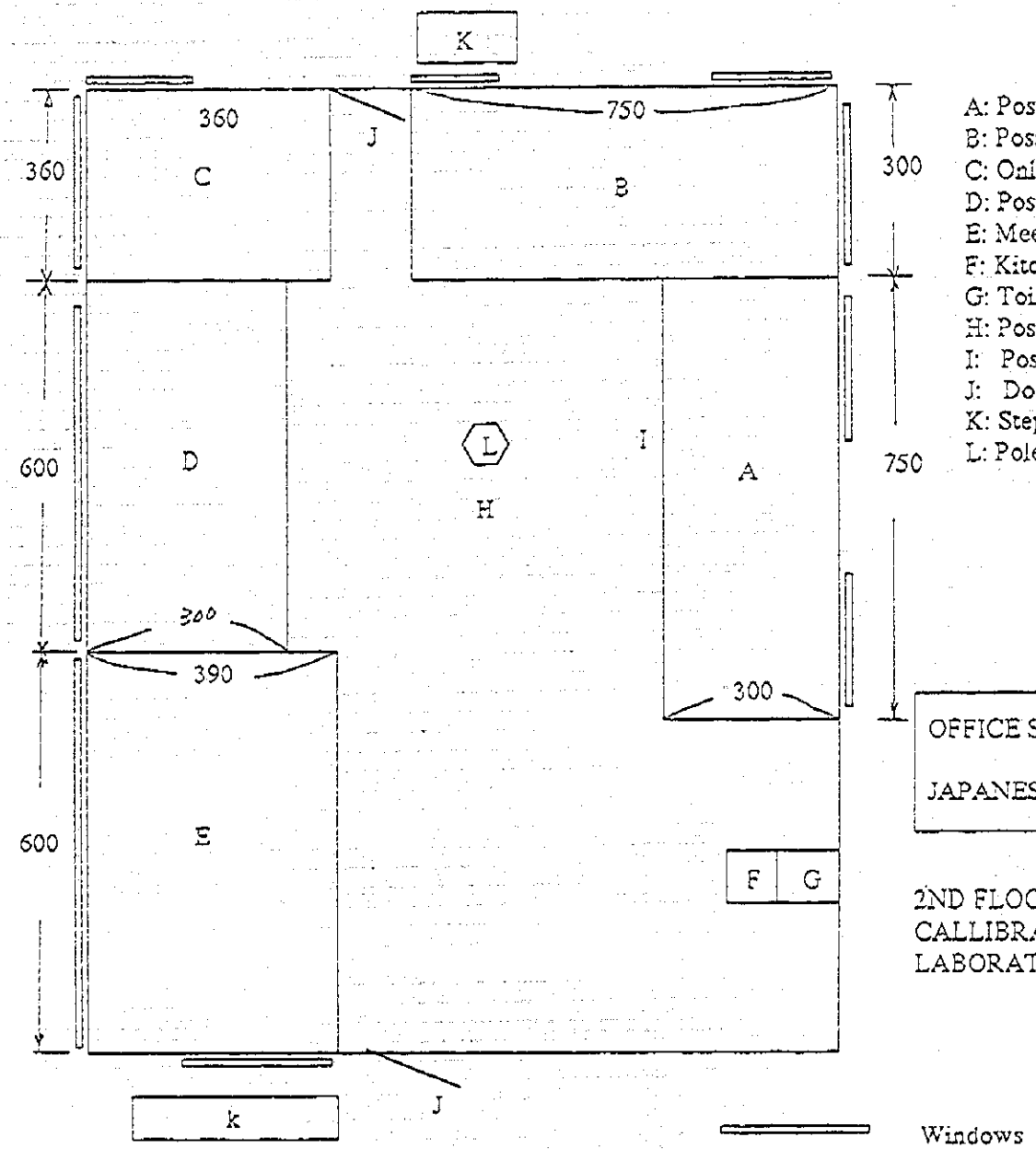
Annex 10 Skectch of MIDC's buildings lay out and the layout of the office for the Japanese experts



SKETCH OF MIDC'S BUILDINGS LAY OUT



A: Possible for 2 persons
B: Possible for 2 persons
C: Only for 1 person
D: Possible for 2 persons
E: Meeting room with board and table
F: Kitchin
G: Toilet
H: Possible area for secretary desks
I: Possible area for sofa set
J: Door
K: Steps
L: Pole

N

OFFICE SPACE FOR JAPANESE EXPERTS

2ND FLOOR IN CALLIBRATION & TESTING LABORATORY BUILDING

Annex 11

FUNCTIONS AND MEMBERS OF JOINT COORDINATING COMMITTEE

1. Functions

The joint coordinating committee will meet at least once a year and whenever necessity arises for the purpose of :

1) approving the annual work plan of the Project in line with the Technical Cooperation Program (TCP) and Tentative Schedule of Implementation (TSI) in the framework of the Record of Discussions,
2) coordinating necessary actions to be taken by both sides,
3) reviewing the overall progress of the Project program as well as its achievement,
4) exchanging views on major issues arising from or in connection with the Project. 2. Members of the Committee

1) Chairperson

Head of Agency of Industry and Trade for Research and Development

2) Co-Chairperson

Chief Advisor (JICA)

3) Vice Chairperson

Director General for Metal, Machinery and Chemical Industry

4) Committee Members

(Indonesian Side)

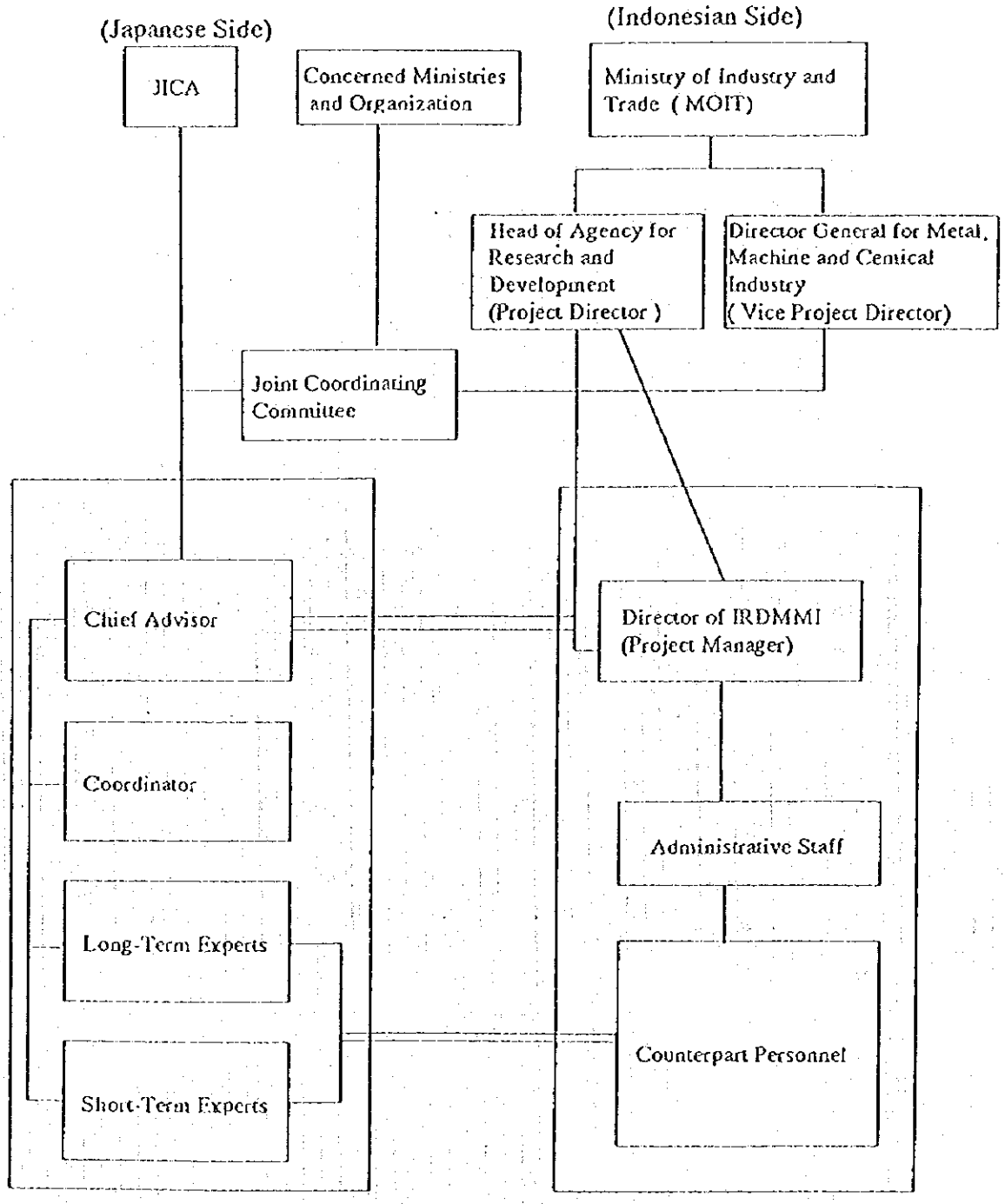
a. Director of Institute for Research and Development of Metal and Machinery (IRDMMI)
b. Representative(s) of Bureau of Planning, MOIT
c. Representative(s) of National Development Planning Agency (BAPPENAS)
d. Chairman of APLINDO
e. Other personnel concerned with the Project decided by the Indonesian Side

(Japanese Side)

a. Coordinator
b. Japanese Experts
c. Representative(s) of the JICA Office in the Republic of the Indonesia
d. Other personnel concerned to be decided and dispatched by JICA, if necessary
f. Official(s) of the Embassy of Japan may attend the Committee

(61)

Provisional Organization Chart for the Administration of the Project



Annex 12

FIVE BASIC EVALUATION COMPONENTS

1 Five Basic Evaluation Components

The five basic 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 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) 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 much the outputs contributed to the achievement of the purpose, or to evaluate whether or not the characteristics of the outputs were as expected.

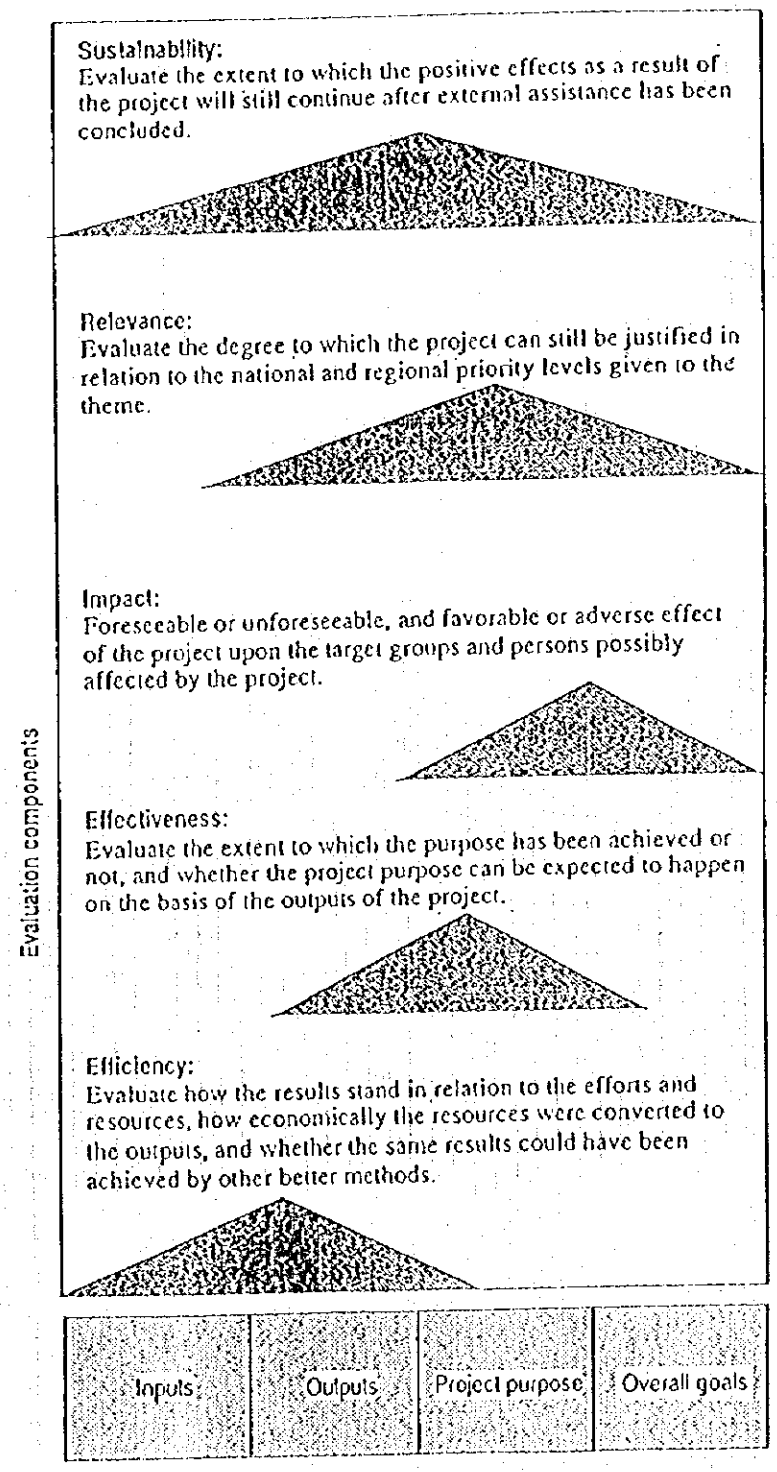
The parameter "Impact" is a foreseeable or unforeseeable, and a favorable or adverse effect of the project upon society. The evaluate impact, both the goal and project purpose should be referred to in the beginning of the evaluation. Evaluation with this components could lead to more than the confirmation as whether or not the goals have been obtained. Evaluation with this component requires 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 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 intervention strategy, they also lay the foundation for standardization in monitoring and information handling within and among organizations and agencies.

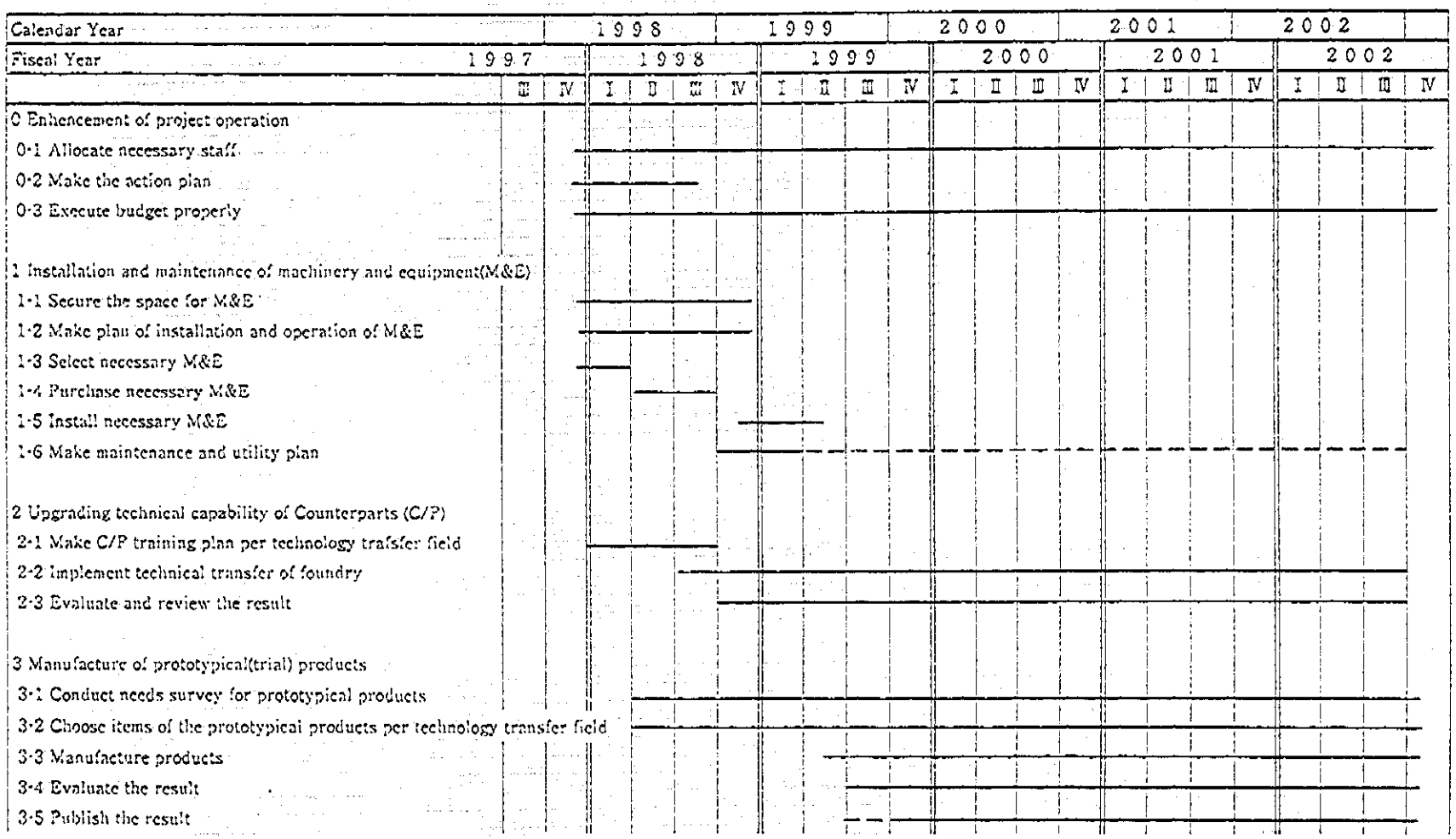
In practice, each of the five parameters should also contain project-specific information.



Five Components vs. Goal Hierarchy

Annex 13

Draft Technical Cooperation Program(TCP)



Annex 13

Draft Technical Cooperation Program(TCP)

Calendar Year			1998				1999				2000				2001				2002			
Fiscal Year	1997		1998				1999				2000				2001				2002			
	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ
4 Technical dissemination through seminars and research teams																						
4-1 Make plan of implementation and themes																						
4-2 Make teaching material per themes																						
4-3 Carry out seminars and hold meetings of research teams																						
4-4 Evaluate the result																						
4-5 Publish the result																						
5 Technical consulatation and guidance tours for factories																						
5-1 Conduct needs survey																						
5-2 Select target factories, products and technical field for implementation																						
5-3 Make plan of technical consulatation and guidance tours for factories																						
5-4 Carry out technical consultation and guidance tours for factories																						
5-5 Evaluate the result																						
5-6 Publish the result																						
6 Provision of technical information and material																						
6-1 Provide space to keep technical information and material																						
6-2 Make classificatory criteria																						
6-3 Make utility plan																						
6-4 Collection of information and material																						

Supplementary Attachment to TCP (Provisional)

Calendar year	1997		1998				1999				2000				2001				2002			
Fiscal Year	1997		1998				1999				2000				2001				2002			
	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ
Term of Technical Cooperation																						
On the Job Training (OJT)																						
1. Casting Plan																						
1-1 Plan and design of pattern, riser and gating system																						
1-2 Pattern layout drawing																						
1-3 Solidification analysis																						
2. Pattern Making																						
(The implementation of this item would be studied by the Japanese side after preparation of machinery and equipment by MIDC and/or subject to the recruit of the expert by the Japanese side.)																						
2-1 Auto CAD																						
2-2 Copy milling																						
2-3 Rapid prototype																						
3. Melting																						
3-1 Charge materials and calculation																						
3-2 Melting operation																						
3-3 Matallurgical control																						
3-4 Pouring																						
3-5 Maintenance of high frequency induction furnace																						
4. Molding																						
4-1 Sand preparation																						

Supplementary Attachment to TCP (Provisional)

Calendar year	1997		1998				1999				2000				2001				2002			
Fiscal Year	1997		1998				1999				2000				2001				2002			
	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ	Ⅱ	Ⅲ	Ⅳ
4-2 Sand testing																						
4-3 Core making																						
4-4 Molding																						
5. Inspection																						
5-1 Standard/statistic method																						
5-2 Test procedure																						
5-3 Visual and dimensional test																						
5-4 Material test																						
5-4-1 Chemical analysis																						
5-4-2 Tensile test																						
5-4-3 Bending and transverse test																						
5-4-4 Hardness test																						
5-5 Metallographic inspection																						
5-5-1 Micro structure inspection																						
5-5-2 Fracture test (to identify internal defects to check soundness)																						
5-6 Non-destructive Test (subject to the preparation of equipment and machinery by MIDC)																						
6. Quality Improvement																						
6-1 OJT Training																						
6-2 Quality management system on international level																						

Annex 14
Tentative Schedule of Impementation (TSI)

Calendar Year	1997				1998				1999				2000				2001				2002				
Fiscal Year	1996		1997				1998				1999				2000				2001				2002		
	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Term of Technical Cooperation																									
Japanese Side																									
1. Dispatch of Study Team																									
1) Preliminary Study Team																									
2) Supplementary Study Team																									
3) Implementation Study Team																									
4) Consultation Team																									
5) Technical Guidance Team																									
6) Evaluation Team																									
2. Dispatch of Experts																									
1) Long-term Experts																									
Chief Advisor																									
Coordinator																									
Casting Plan / Molding																									
Melting																									
Quality Improvement																									
2) Short-term Experts										(Short term experts on specific fields will be dispatched if necessary)															
3. Training of C/P Personnel in Japan										(A certain number of C/P will be accepted in Japan annually)															
4.Provision of Machinery and Equipment																									
Indonesian Side																									
1. Allocation of C/P and necessary staff																									
2. Local costs																									
2-1Overall budget allocation																									
2-2 Budget allocation after termination																									
3. Facility and equipment at MIDC workshop																									
3-1 Exsiting sand preparation equipment																									
3-2 Workshop																									
3-3 Office space for Japanese Experts																									

1. The Japanese /Indonesian fiscal year starts in April and ends in March.
2. This Schedule is subject to change in accordance with progress of the Project.
3. CAD field technology : After IRDMMI prepares the hardware and software, a Short-term Expert will be sent.

Annex 15

ANNUAL WORK PLAN of Japanese FY 1997 and 1998 (Provisional)

Calendar Year	1997		1998												1999					
Fiscal Year	1997					1998												1999		
Month	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Signing of R/D			○																	
1. Budgetary allocation																				
2. Allocation of necessary staff																				
3. Assignment of Counterpart personnel																				
4. Technology Transfer																				
5. Building, Space and Facility																				
Renovation work																				
Installation of machinery and equipment																				
Japanese Side																				
1. Experts																				
1) Long-term Experts																				
(1) Chief Advisor																				
(2) Coordinator																				
(3) Expert of Casting Plan and Molding																				
(4) Expert of Melting																				
(5) Expert of Quality control																				
Submission of A1 Form			○																	
2) Short-term Experts																				

Annex 15

ANNUAL WORK PLAN of Japanese FY 1997 and 1998 (Provisional)

Calendar Year	1997		1998												1999					
Fiscal Year	1997					1998												1999		
Month	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
(1) Expert(s) of Foundry Technology																				
in terms of Sand Preparation, Molding and Melting																				
(2) For supervision of installation of machinery and equipment																				
· Installation specialist																				
· Molding and sand preparation machinery																				
· High frequency induction furnace																				
Submission of A1 Form			○																	
2. Training of Counterpart Personnel in Japan																				
1) Project operation and management																				
Submission of A2A3 From			○																	
2) Casting Plan / Molding																				
Submission of A2A3 Form				○																
3. Provision of Machinery and Equipment																				
1) Allocation plan and procurement (procedure included)																				
Submission of A4 Form			○																	
4. Dispatch of survey team																				
1) Consultation team																	○			

Annex 16

LIST OF ATTENDANCE

<The Indonesian side>

1. Ministry of Industry and Trade
   - Dr. Rosediana Suharto
     Head, Agency for Industrial and Trade Research and Development
   - Mr. H.T. Lantu
     Secretary, Agency for Industrial and Trade Research and Development
   - Mr. Sudarmadji
     Head, Center for Research and Assessment of Technology
     Agency for Industrial and Trade Research and Development
   - Mr. Effendi Sudarsono
     Director General, Directorate General for Metal, Machinery and Chemical Industries

2. BAPPENAS
   - Dr. Ir. Dipo Alam
     Head, Bureau of Industry and Trade

3. ADB (Asian Development Bank)
   - Mr. David Grant- Taylor
     Management Consultant, Industrial Technology and Human Resource Development Project
     Agency for Industrial and Trade Research and Development,

4. APLINDO (Asosiasi Industri Pengecoran Logam Indonesia)
   - Mr. Benny A. Kusbini
     Chairman of Small Scale of Industries
     Indonesian Foundry Industry Association

5. Institute for Research and Development of Metal and Machinery Industries (IRDMMI/MIDC)
   - Mr. Endang Dahlan
     Director
   - Mr. Rosidy
     Head of Research Div.
   - Mr. Abdurahim
     Head of Process Development Div.

- Dr. Abdul Wahid MSc.
  Head of Foundry Section
- Ms. Lilis Yuliasetiawati
  Head of Heat Treatment and Metal Plating Section
- Mr. George Z. Haddy BE.
  Staff of Research Div.
- Mr. Tatang Taryaman
  Head of Molding Sub. Section

<The Japanese side>

1. The Team
   - Mr. HANAI Masaaki
     Leader
   - Mr. TAMURA Keiji
     Member
   - Mr. MOMOI Kiyoshi
     Member
   - Mr. KATSUMATA Susumu
     Member
   - Mr. DOI Masaaki
     Member

2. JICA Expert
   - Mr. MIZOUCHI Nobuyuki
     Advisor on Industrial Development

3. Embassy of Japan
   - Mr. HACHIYAMA Koji
     Second Secretary

4. JICA Indonesian Office
   - Mr. SUWA Ryo
     Resident Representative
   - Mr. SASAKI Hiroyo
     Deputy Resident Representative
   - Ms. TAKEUCHI Tomoko
     Assistant Resident Representative

② インドネシア鋳造工場・企業評価

インドネシア鋳造工場・企業評価
(自動車用鋳造製造を基準として)

評　価	企業数	企　業　名	
A. 日本トップ企業と同列	1	PT. AT Indonesia	J
B. 若干補完必要	2	▲ PT. Texmaco Perkasa Engineering	S
		▲ PT. PINDAD	B
C.基本技術はあるが自動車向きにはもう一段階の改善要	6	PT. Baninusa Indonesia	B
		▲ PT. Bina Usaha Mandiri Mizusawa	J
		▲ PT. BakrieTosanjaya	J
		▲ PT. KSB International	J
		○ PT. Bara Multi Metalika	B
		○ CV. Bakti Foundry & Machining Shop	J
D.指導により将来が期待される	6	▲ PT. GETTEKA Founindo	J
		▲ PT. Tatung Budi	J
		▲ PT. BARATA Indonesia	J
		PT. Baja Kurnia	C
		PT. Aneka Adhilogam Karya	C
		PT. Suyuti Sidomaju	C
E. 全面的改善必要	2	▲ PT. Nimaru Jaya	S
		PT. Sinar Super Baja (SSB)	C
F. 自動車に展開難しい	3	PT. CV.Kopo Metal	B
		PT. Mitra Rekatama Mandari	C
		PT. Aneka Technics	C

(注)

1 : C,D,Eを対象とする。
2 : ○印は、指導効果が特に大きく期待できる。
3 : ▲印は、APLINDOの会員
4 : J,B,C,S は場所
　J: Jakarta
　B: Bandung
　C: Ceper
　S: Semarang

鋳造工場・工程別評価基準

ランク	品　質	溶　解	造　型		砂処理	中　子	試　験	管　理	機械加工
			生　型	自硬性など					
a	合格 (不良5%以下)	電気炉 大型ｷｭﾎﾟﾗ	自動造型 高圧,DISA, ｲﾝﾊﾟﾙｽ等	ﾌﾗﾝ　ﾗｲﾝ化 （再生有り）	システム (混練自動、 ｸｰﾗｰ付)	シェル、 Cold 、（自動）	一式揃	ISO取得、 級	量産 自動機械(NC)
b	一応合格	電気炉	中圧造型ﾗｲﾝ	フラン 混練のみ	混練機のみ	シェル	一式あり	ISO準備	精度良し
c	ｽﾍﾟｱﾊﾟｰﾂ向き	小型ｷｭﾎﾟﾗ	Jolt, 枠抜, 枠込	セメント	肌、裏	ｼｪﾙ手込め	一部あり	一部	加工あり
d	不可	トンキー炉	手込め、土間	乾燥型	山砂	ナシ	設備なし	ナシ	加工なし

インドネシア鋳造企業調査・1997年9月

場所/No	企業名	現製品	生産能力 T/年	鋳造人員	品質	溶解	造型	砂	中子	試験	管理	機械加工	総合評価	ポイント
Bandung 1	PT. Banuisa Indonesia (日ピとの合弁)	ピストンリング カムシャフト (チル)	2,000	40	b	a	c	b	b	a	a	a	C	管理一流、設備古、技術、管理、MIDC指導。
2	PT. Bara Multi Metalika	Automotive、フライホイール、ブレーキドラム、マニホールド、ブレーキサスペンション	600 /(2直) 1,000	75 2直	c	b	c	b	b	b	c	d	C	設備改善、技術指導により伸びる。不良多し。
3	PT. PINDAD (国営)	Auto parts, Shoulder Mining	1,920	180	b	a	a フランa	b	b	a	b	b	B	技術力あり。設備良。フランMIDC指導できる。
4	PT. Berdekari Metal Engineering	Al 鋳物、ダイカスト、グラビティー、他にプレス品											外	技術レベル初歩の段階。
5	PT. Hanco	耐摩耗、鋳鉄、鋳銅		63									外	新工場準備中。
6	PT. Kopo Metal	小物、機械部 (小企業、加工組立)	180	15	d	c	d	d	c	d	d	c	F	典型的小企業 (20年前は優秀企業) (S30年代町工場)。
Semarang 7	PT. Nimaru Jaya	継ぎ手 (80%) ポンプ部品	2,040	379	c	c	c	c	c	c	c	c	E	規模は大きいが内容は零細の集まり。継ぎ手は品質面から最近販売減少。
8	PT. Texmaco Perkasa (インド系)	繊維機械部品	6,000		b	a	b	a	a	a	b	a	B	技術、設備良。自動車用量産体制にすればトップ企業になる。
Ceper 9	PT. Baja Kurnia	石油掘削機部品、中〜大物、小物若干	1,100	120	c	c	d	c	d	d	d	d	D	中物主体であり小物は問題にならない。経営者が前向きなのが取り柄。

インドネシア鋳造企業調査・1997年9月

場所/No	企業名	現製品	生産能力 T/年	鋳造人員	品質	溶解	造型	砂	中子	試験	管理	機械加工	総合評価	ポイント
10	PT. Aneka Karaya	配水管、異形管	1,800	110	生d 大b	b	生d セc	c	d	c	c	d	D	小物　未だなし。 大物はよし。
11	PT. Suyuri Sidomaju	ガス火口、他	800	70	c	c	c	c	c	c	c	c	D	ガス火口の特殊技能は評価できる。 自動車部品は未、改善の可能性あり。
12	C.V. SSB	ハンドル、プーリー、ブラケット	360	40	c	b	c	c	c	c	c	d	E	S30頃先進工場。 各種の鋳型はあるが、技術未。
13	PT. Mitra Rekatama Mandri	プーリー、マンホール、ポンプローラー	700	64	d	c	d	d	d	d	d	d	F	今は製品に恵まれているが、 技術力なし。
14	Aneka Technics	機械部品、ポンプ部品	260	22	d	c	d	d	d	d	d	c	F	社長は意欲的であるが、根本的改善要。
15	Itokoh	ステンレス部品											外	
Jakarta 16	PT. Bakrie Tosanjaya	ブレーキドラム、ブレーキディスク、マニホールド、ギアー	38,000	150	b	a	a	c	a	a	b	a	C	生産量は多いが品質未。中子の多いもの、薄肉への展開未。（新工場稼働。砂管理に問題あり。） 技術指導の難しい所。
17	PT. GETEKA （日系）	ポンプ関係40% 自動車鋳物殻	1,200	100	b	a	b フラン	b	b	b	b	d	D	フラン鋳型で展開できる自動車用モノ。 要設備補強。
18	C. V Bakti Foundry	ポンプ、二輪車部品 金型、ポンプ関係	2,000	90	b	b	a	b	b	b	c	b	C	経営の方向良し。工場内整備、レイアウト変更で大化けできる工場。 技術者不足が問題。

インドネシア鋳造企業調査・1997年9月

場所/No	企業名	現製品	生産能力 T/年	鋳造人員	品質	溶解	造型	砂	中子	試験	管理	機械加工	総合評価	ポイント
19	PT. Tatung Budi	モーター部品主体。ウエイト100ケ/月、プレス型	6,000	149	c	c	c	c	c	c	c	c	D	モーターケース主体。自動車用小物へは今後の展開が難しい。
20	PT. Bina Usaha Mandri Mizusawa（日興電気）	ポンプ部品 ブラケット、etc. 今後自動車	現3,000 3直 8,000	1直/23 210	b	a	a	a	a	a	b	d	C	新工場。標準タイプ。今後の展開を期待。技術者不足では機械加工分野に対策が必要。
21	PT. AT Indonesia アイシン高丘	ドラム、デスクーナックル、キャリパーへ	10,000	100	a	a	a	a	a	a	a	a	A	1997 July より自動車用鋳物工場見本。
22	PT. KSB Indonesia（独合弁）	ドラム、デスク、マニホールド 80%、内製ポンプ	3直 6,000	140	c	b	a	b	b	b	c	d	C	品質向上にもう一歩努力を要す。
23	PT. Barata Indonesia（国営）	異形管、プレス金型			b 大型	a	c	c	c	c	c	c	D	大型設備。ただし、20年前の設備と技術。小物自動車展開は無理。プレス金型は有望。
Ceper	AMC	アルミホイール	33,000	80									外	新工場、需要の目のつけどころが良い。

○ MIDCスタッフによる企業調査報告書.

日本語は 田村 百年コメント

JICA FOUNDRY PLANT VISIT

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
1	BARA MULTI METALIKA	Tatang George	1. No Sand Reclamation System 2. Less Sand Control Facilities 1997/2 訪問時より改善が進んでいる	- Need Improvement Sand Preparation Facilities - Need Improvement Sand Control Facilities MIDCが受注されが良い.	- Plant Engineering for Sand Reclamation System - Training for Woker Engineering
2	BANINUSA This company has properly Equipment and Technology. So This company not included in JICA scheme The production capacity not included on SMI scale	Tatang George	日本ピストンリングとの合弁. 技術者1名駐在.		
3	PINDAD This company has properly Equipment and Technology. So This company not included in JICA scheme The production capacity not included on SMI scale	Tatang George	国産車用鋳物の受注を計画中 MIDCとの協調が望まいる		

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
4	HANCO	Tatang George	1. No green sand moulding system, the existing is CO2 moulding system 2. No sand control 3. Less foundry engineer 4. Needs more metal control (spectro) 5. Not proper heat treatment fee 6. Pattern making equipment not complete	- Green sand moulding system should be set up. - Minimum sand control equipment for daily check - Spectrometer for metal control 手配済	- Training foundry engineer 造型技師入手 自動車部へ進出可能が 望んでいる
5	KOPO METAL	Tatang George	1. No sand preparatin facilities 2. No sand control facilities 3. No control process facilities 4. Need Re-Layouting 5. Need foundry engineer	- Need Restructuring mainly set-up sand plant and moulding line - Need complete sand control facilities	- Plant Engineering - Re-Layouting - QC - Training Worker and engineer - Technical assistensi
6	NIMARU KALDERA INDONESIA	Rosidy Wahid	1. Skilled level ~~need to be improved~~ 最上級 2. QC is not performed properly 3. Process & product QC equipment are not provided 4. Knowhow of the engineer need to be improved 5. Processing equipments need to be modernized 6. Foundry shop needs to be re-lay outed 7 Malleablizing equipment & process need to be improved	- Intensive training in pattern, moulding and casting include casting design are needed - Also training in : quality inspection, defect analysis, CE and nodularization, mechanical test need to be introduced - Equipment for process & prod control need to be listed - Training for field decission makers need to be ferformed. - Proper market has to be determined then modern equipment is adjusted with the target. - Relayouting depends on the modern equipment - Temp. distribution inside annealing furnace need to be carried out to determine the time needed for malleablizing, applied research must be performed	- MIDC could assist to provide needed training - Factory training - Selecting and listing of the needed equipments - Suprior and decission maker training - To ddetermine potential market - Listing of the needed equipment - Relayouting - Measuring the temp distibution and applied R&D to determine malleablizing time period

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
7	TEXMACO PERKASA ENGINEERING	Rosidy Wahid	1. Proper pattern making shop ~~does not~~ established ~~yet~~.	- ~~Set up a modern pattern making shop~~	- Training for pattern making
8	BAJA KURNIA [illegible]	Rosidy George	1. No sand plant (reclamation system) 2. Lack of sand control 3. No moulding machine 4. Very limited pattern making equipments (not properly) 5. Need re-layouting to be semi mechanized foundry 6. Less safety 7. Mostly unskilled worker (less knowledge)	- Need restructuring mainly set up sand plant and moulding line, to be a continuous production system. - Sand and metal control could be carried out at Ceper Lab. - Pattern shop room at Ceper lab should be equipped immediately - Re-layouting will improve safety. - Worker should be trained properly.	- Plant engineering - Re-layouting - Equipments selection - QC and quality improvement through Ceper lab - Training of worker & engineer - Technical assistance
9	ANEKA ADHILOGAM KARYA [illegible]	Rosidy George	1. No green sand moulding 2. Not enough space for sand plant and moulding line 3. Lack of sand control 4. No proper pattern making shop. 5. Need foundry engineer.	- Should be directed for medium and large size casting. - Should set up furan system and moulding line - Sand and metal control could be supported by Ceper Lab. - Pattern shop room at Ceper lab. should be equipped immediately	- Plant engineering - Re-layouting - Equipments selection - QC and quality improvement through Ceper lab - Training of worker & engineer - Technical assistance

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
10	SUYUTI ガス火口の事業 設備は古いが技術あり	Rosidy George	1. No sand plant (reclamation system) 2. Lack of sand control 3. No moulding machine 4. Very limited pattern making equipments (not properly) 5. Need re-layouting to be semi mechanized foundry 6. Less safety 7. Mostly unskilled worker (less knowledge). 8. Financially may not able to invest expensive foundry equipments without a soft loan	- It needs restructuring mainly to set up a sand plant and moulding line. to be a continuous production system. - Sand and metal control could be supported by the service of Ceper Lab. - Pattern shop room at Ceper lab should be equipped immediately - Proper re-layouting will improve safety - Worker should be trained properly	- Plant engineering - Re-layouting - Equipments selection - QC and quality improvement through Ceper lab - Training of worker & engineer - Technical assistance
11	SINAR SUPER BAJA 高級鋳鉄を入れFCD生産 ボルクレーを使う等長欲あり	Rosidy George	1.Sand plant is not proper 2. Lack of sand control 3. High reject due to moulding machine is not precision 4. Limited pattern making equipments (not properly) 5. Need re-layouting to be semi mechanized foundry 6. Less safety 7. Mostly unskilled worker (less knowledge).	- It needs restructuring mainly to improve sand plant and equipped with better moulding machine (jolt squeeze stripper) to be more precission. - Sand and metal control could be supported by the service of Ceper Lab. - Pattern shop room at Ceper lab. should be equipped immediately - Proper re-layouting will improve safety - Worker should be trained properly	- Plant engineering & re-layouting - Equipments selection - Training of worker & engineer - Technical assistance - QC and quality improvement through Ceper lab

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
12	MITRA REKATAMA MANDIRI [illegible]	Rosidy George	1. No sand plant 2. Lack of sand control 3. No moulding machine 4. No pattern making equipments 5. Lack of metal control 6. Wrong design of cupola (~~semi-hot blast~~) 7. No control of cupola (air pressure, air capacity) 8. Less safety 9. Mostly unskilled worker (less knowledge).	- It needs restructuring mainly to set up sand plant and moulding line, to be a continuous production system. - Sand and metal control could be supported by Ceper Lab. - Pattern shop room at Ceper lab should be equipped immediately - Re-layouting will improve safety - Worker should be trained properly - Cupola should be raplaced by standard design	- Plant engineering - Re-layouting - Equipments selection - QC and quality improvement through Ceper lab - Technical assistance - Training of worker & engineer
13	TECHNO METALINDO (QOMARUDDIN)	Rosidy George	1. No sand plant 2. No moulding machine 3. Lack of sand control 4. No pattern making equipments 5. Lack of metal control 6. Wrong design of blower 7. Less safety 8. Mostly unskilled worker (less knowledge). 9. Bad working environment 10. Not enough space 11. No electricity	- It needs total restructuring and should be moved to another place that enough space area and electricity is available.	- Plant engineering - Equipments selection - QC and quality improvement through Ceper lab - Training of worker & engineer - Technical assistance
14	ITOKOH CEPERINDO This company has properly Equipment and Technology. So This company not included in JICA scheme The production capacity not included on SMI scale	Rosidy George			

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
15	BAKRI TOSANJAYA 設備を多いが活用する 機会ない	Lilis M. Furqon	- For small quantity series is not effisien so it needs sub contracting to SMI	- Joint cooperation in the training programme for sub contractor	- MIDC can involve in the training programme
16	GETEKA	Lilis M. Furqon	- Pattern	- Ordered to MIDC	- Pattern making
17	BHAKTI 会社中長も意欲的	Lilis Abdurahim	- Casting design for new/development products - Pattern making - Furnace for foundry enlargment	- Ass to BNI 46	- Training for casting design - Manufacture of casting
18	TATUNG BADI 台湾系 モーターケース等 日系自動車部品に 参入の為設備投資 する意向	Lilis Abdurahim	- Pattern making - Casting design for new product		- Manufacture pattern in MIDC - Training for casting design

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
19	BUM MIZUZAWA 新設備入れたが 仕事量不足. 官業,政府共通現象 存在かと思われる.	Abdurahim Furqon	Pattern for Blow squeeze new moulding machine	Import from Japan	Manufactur Metallic Pattern in MIDC
20	AISIN TAKAOKA INDONESIA	Abdurahim Furqon	- Pattern for disamatic moulding machine - Mettalic mould damaged by hot liquid metal	- Make new metallic mould	- Repair of metallic mould ..... with that resstant steel
21	KSB 加工時の不良多く 仕事量減少傾向	George Furqon	The capabilities of the woker specially for engineering level not enough properly	Need transfer foundry basic knowledge by regularry and continues (max. one month each)	Training Course Technical assistance

NO	COMPANY	C/P	PROBLEM	COUNTER MEASURES	POSSIBLE MIDC ASSISTANCE
22	BARATA This company has properly Equipment and Technology, So This company not included in JICA scheme The production capacity not included on SMI scale	George Furqon	Low Productability		

① 事前に砂関係を良く観る様言っておいた為コメントは、砂に関する事が多くなった。

② 旧式の工場を観ると、日本人を含み皆、溶解炉の古さを指摘するが、チェペルで生産されている鉄造品は、旧式の溶解炉で充分であり、コスト的にも適している

③ 中小企業が、社内にPattern shopをもつ必要はない。
Cepel 300社で1社30人～50人規模のPattern Makerがあれば充分（Cepel Laboでも可）

④ 現在のMIDC技術レベルでは、分析、砂試験を受託出来るが、改善案は、出せないと思われる。
新しい設備を導入しなくても現在の不良率を半減させる指導も可能

③ IRDMMI Development Plan

IRDMMI DEVELOPMENT PLAN

Ir. Endang Dahlan

Institute for Research and Development of
Metal and Machinery Industry

IRDMMI - Bandung

IRDMMI DEVELOPMENT PLAN

I. VISION and MISSION
- 1.1. Vision
- 1.2. Mission

II. STRATEGIC PLANNING 1997/1998
- 2.1. Routine and Project 1997/1998
- 2.2. Establishment of Business Plan
- 2.3. Organization Restructuring Plan
- 2.4. The Successes of IRDMMI

III. MASTER PLAN IRDMMI

I. Vision and Mission

1.1. Vision :

As a leading center of qualified engineering services for metal and machinery industries with the target for customer satisfaction, quality standard, on time delivery and industrial competitiveness

1.2. Mission :

Providing technical engineering services to metal and machinery industries, through research & development, product development, training, consultation, supervision, calibration and testing,

II. Strategic Planning 1997/1998

2.1. Routine and Project Activities 1997/1998
2.2. Establishment of Business Plan
2.3. Organization Restructuring Plan
2.4. The Successes of IRDMMI

2.1. Routine and Project 1997/1998

- Design, Development & Engineering
  ENGINEERING DESIGN, CAD/CAM, PRODUCTION PROCESS ANALYSIS
- Research and Development of Process Technology
  FOUNDRY TECHNOLOGY (FERRO & NON FERRO), PRECISION MACHINE, FORMING & WELDING, COATING & HEAT TREATMENT, POWDER METALLURGY
- Prototype making
- Production Management
  PRODUCTIVITY AND COMPETITIVE IMPROVEMENT
- Calibration and Testing
  IMPLEMENTATION OF NATIONAL STANDARD (SNI)
- Establishment R&D Facilities

2.2. Establishment of Business Plan

- Prepared by ADB consultant, completion September 1997
- Focus :
  - Improving Human Resources *(see 2.2.1)*
  - Improving Technology Capabilities (see *2.2.2)*
- Scope :
  - Market Opportunity up to Company Level
  - SWOT Analysis of IRDMMI
  - Project Feasibility Analysis
  - Strategic Planning and Implementation Program

2.2.1. Human Resources Development

- Stating Policy on *Recruitment Professional Staff* for Substitution of Retired Personnel According to the needs of division
- Improving human resources capabilities through local and overseas training
- Providing certified education (ADUM, SEPAMA, SEPAMEN, SEPATI), post graduate program (ITB, UGM, England, Japan, New Zealand)

2.2.2. Technology Capabilities Improvement

- ADB soft loan for human resources development
- JICA grant for automotive component product development
- NIRIN grant for industrial pump product development
- IMATRA soft loan for under water welding laboratory development
- BBV Trade (Spain) soft loan for automotive component testing laboratory
- IDB soft loan for ISEC (Industrial services and engineering center)
- Collaboration with Germany or Japan for the establishment of Center for CAD/CAM technology development plan

2.3. Organization Restructuring Plan

- Recommend as state of the art divisions :
  - Foundry & Forging
  - CAD/CAM and Machining
  - Welding
  - Calibration and Testing
  - R&D

2.4. The Successes of IRDMMI

- Establish and manage Testing Laboratory in Ceper
- Enterpreneurship training in many pondok pesantren
- Commitment with government owned companies (BUMN)
  - PIM ; *gear product improvement & cantilever valve*
  - PT. TIMAH ; *foundry consultantion & supervision*
  - PT. IPP KALTIM ; *CAD/CAM & Project Management*
  - PUSRI ; *CAD/CAM*
  - PINDAD ; *Bearing Arm Production*
  - PLN ; *Calibration and Testing, Training for welder*
  - PT. WIKA ; *Consultation, Supervision and Training*
  - PUSPETINDO ; *Pressure Vessel, Heat /excahnger*
  - PERTAMINA ; *Spherical Tank*

III. Master Plan

To synergize all IRDMMI activities to become a center of excelent, with :

1. Proposing into BlueBook of IRDMMI 1998/1999, as follows :
   - IRDMMI Master Plan

     Master Plan Preparation has been consulted intensively with UNIDO, GTZ
   - Development of CAD/CAM Technology

     CAD/CAM center development has been discussed with Germany and Japan

III. Master Plan *(cont'd I)*

- Establishment of Under Water Welding Laboratory

  Letter of Intent from Dutch, through IMATRA and ABN AMRO has been issued
- Establishment of Automotive Testing Laboratory

  Development plan of automotive component testing laboratory has been disccussed with Spain through BBV TRADE, S.A.

III. Master Plan *(cont'd 2)*

2. All the activities to be synergized in 1997
   - ITHRD project (ADB soft loan)
   - JICA grant improving automotive component manufacturing
   - NIRIN grant joint research of industrial pump
   - Developing Bandung Automotive Component Industrial Park, supported by ISEC
   - Developing Mini Foundry and Testing Laboratory in Ceper

III. Master Plan *(cont'd 2)*

3. For realization of all these programs, support would be needed from :
   - BPPIP
   - Bureau of Planning MOIT
   - Bappenas
   - MOF
   - All institutions concerned

CONTENT

1. Background and objectives

Characteristics of the Indonesian Automotive Industry

The Indonesian Automotive Industry presents an unusual picture of an inverted pyramid. At the top of the pyramid, are the several automobile assemblers, and at the bottom are just a few component manufacturers. In an effective autor..otive industry, the reverse would be the case; a few assemblers would be supplied with components by a wide base of component manufacturers, supported themselves by an extensive network of subcontractors. The result is that the local supply of automotive components does not match the demand and that a large amount of automotive components must be imported by Assemblers.

The available data indicate that imports of automotive components represented a value of 2.86 Billion US$ in 1995, whereas the domestic production amounted to 1.07 Billion US$. The exports of automotive components during the same year amounted to 0.16 Billion US$.

For motorcycles, the local production value of components is estimated at 0.64 Billion US$ in 1995, whereas the value of imports is estimated at 0.923 Billion US$.

These import values, that by themselves seem enormous, show their full significance when compared to the total Balance of Trade of the Country for non oil & gas products; such Balance of Trade amounted to - 2 Billion US$ in 94/95. This is to pinpoint, if necessary, the major impact that import substitution for automotive components could have on the Balance of Trade of the Country for non oil & gas products.

Most of these automotive components are already produced in Indonesia, however not in quantities and variety of design required to fulfill the requirements of local Assemblers. Some of these components are already competitive in international markets, contributing to a modest extent to compensate for the import bill.

Accordingly, the Local Content of cars is still low, averaging 37.5% for commercial cars of Category 1 which represents currently 70% of the market. The Local Content of motorcycles is also low, averaging 41%.

This situation requires immediate attention and action. The domestic metal industry supplies less than fourty percent of the national demand. Not only is it detrimental to the nation in terms of Balance of Trade, but concurrently in terms of unaccomplished opportunities for Small and Medium Industries, employment and development of the technological level.
Additional concern arises from the forthcoming ASEAN free trade market. If Indonesia does not improve the competitiveness of its metal industry to match international level, it will be soon submerged by products from

neighbouring countries with the dramatic consequences that this might have on its economy.

Kawasan Industri Bandung

To improve the situation, GOI intends to create an Industrial Park close to Bandung, where a number of Supporting Industries in the automotive subsector would be gathered, aiming at manufacturing competitively automotive components selected according to their import substitutiton potential, and maximizing their local content. Special attention will be given to Essential Technology Industries that are regarded as a weak point of the country's industrial network.

Also, in determining the components to be produced in "Kawasan Industri Bandung", attention will be given to components, offering potential for exports, i.e. the ones that have already been manufactured with some degree of international competitiveness in Indonesia and that present possibilities for further improvement. In some cases, components are competitively produced in Indonesia, but exports are restricted by foreign principals.

The industrial park is intented to constitute a model of efficient Automotive Industry, with several layets of subcontractors, specialized in foundry, forging, metal forming, heat treatment, surface treatmen, tool & die design and manufacturing for optimal use of equipment and Human Resources

Beyond the immediate objective of the Kawasan Industri Bandung" project, it is the improvement of the whole automotive Supporting Industries at the national level which is aimed at, through amplification and duplication of the "Kawasan Industri Bandung" model. This, in turn, will generate the following benefits:

- Improve the Balance of Trade for non Oil & Gas products by reducing imports and increasing exports
- Create opportunities for Small & Medium Industries.
- Create employment (more than 40,000) for a wide range of qualifications.
- Develop the country's level of technology and concurrently the level of wages.
- Allow the Economy to grow in a competitive environment

Industrial Services and Technical Engineering Center (ISEC)

The ISEC, as an extension of MIDC, will be the supporting arm of the Ministry and Trade to support the development of the Automotive Supporting Industry. Its objective is to help firms to improve competitiveness and local content in the Automotive Industry.

The ISEC will provide assistance in the various fields of industrial activities, as well as coordinate Supporting Industries actions in areas where they could not be efficient as isolated entities, by lack of human or financial resources:

- Provide services in State-of-the-Art technology relating to priority components, possess equipment allowing experimentation and prototyping
- Help to reach compliance with international standards (ISO 9000) by possessing and operating adequate testing and calibration facilities.
- Promote interlinkage between upstream and downstream industries
- Establish integrated marketing strategies for supplying local Assemblers as well as export markets.
- Centralize marketing activities in Domestic and Export markets in cooperation with organizations such as the National Agency For Export Development (NAFED), the Export Support Board, etc.
- Promote Indonesia's comparative advantages to attract foreign and national investment.
- Issue guidelines for terms and conditions for transfer of technologies
- Issue guidelines for commonalization and standardization of components
- Organize Training and deliver consulting services in other key areas of industrial activities, such as:
  - Production Planning & Control
  - Maintenance Management
  - Inventory Management
  - Information technology
  - Etc.
- Develop necessary capability to design and engineer components and systems

2. Project Scope

MultiSentra will cooperate closely with IRDMMI to work out a structured and actionable Business Plan, including:

(i) Assessment of the demand for the ISEC services
(ii) An evaluation of its technical management and human resource capabilities to provide commercialized services to industry.
(iii) A medium term plan (3-5 years) for institutional development involving reorganization and institutional, HRD, and financial management practices.
(iv) A medium term investment plan covering equipment, training, and information and management systems.
(v) A financing plan.
(vi) Determination of the costs of various components and a cost-benefit analysis

A framework for the preparation of the Business Plan is given in Annex A.

3. **Deliverables**

Deliverables will be a Business Plan for the "*Industrial Services and Technical & Engineering Center (ISEC)*" as an extension of IRDMMI, established in close cooperation with IRDMMI.

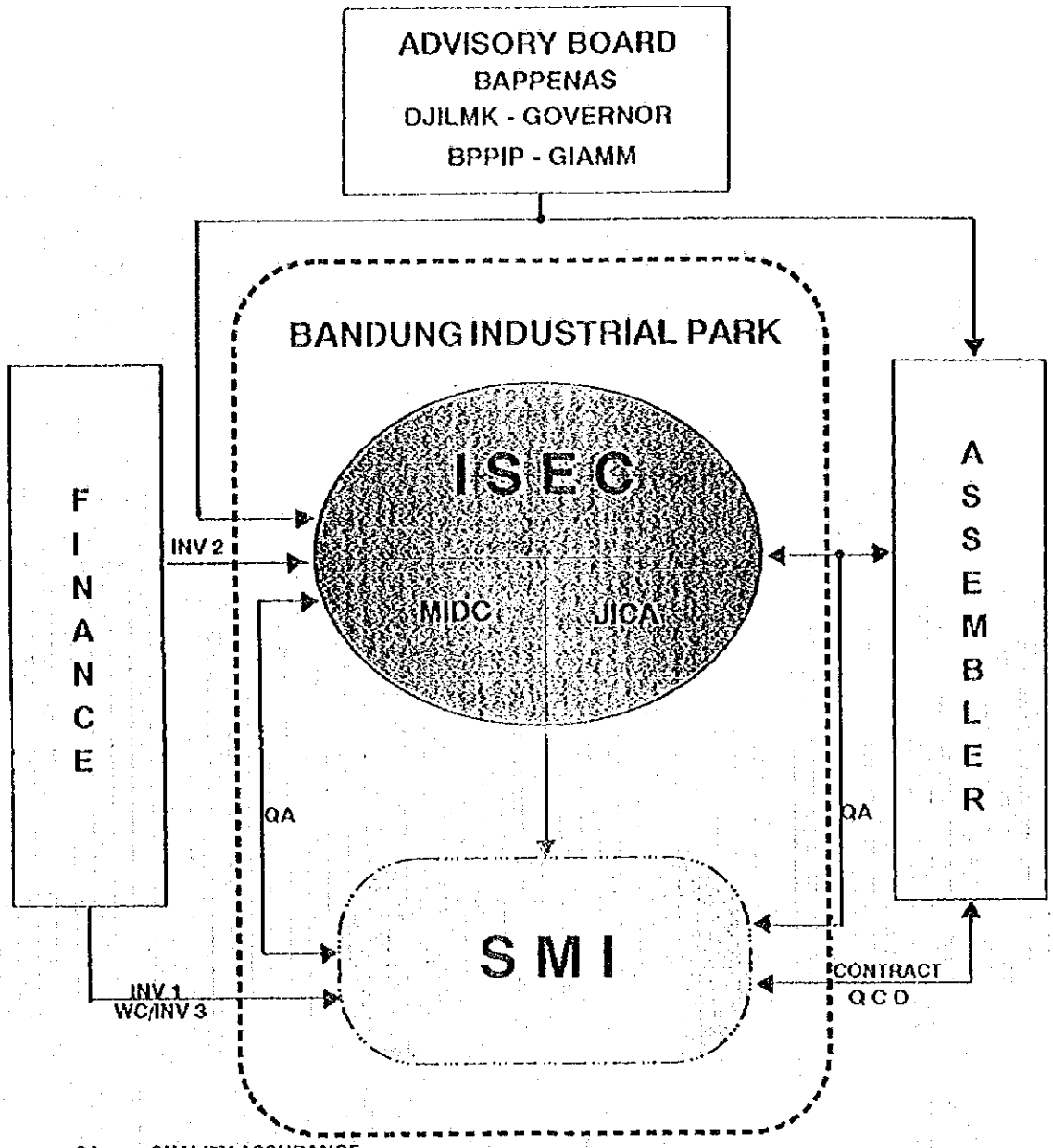
4. **Obligations of the Client**

In order to ensure maximum effectiveness of the cooperation between IRDMMI and MultiSentra, adequate counterpart personnel will be made available to MultiSentra to collect and process the information required to produce the deliverable. Also, all the relevant information already available and work already performed by IRDMMI on the subject will be made available to MultiSentra.

5. **Project Schedule**

The project should be completed within approximately three months after contract effectiveness.

6. **Commercial Proposal**
Upon request.



QA : QUALITY ASSURANCE
QCD : QUALITY, COST & DELIVERY
INV 1 : BANK, AND OTHER RESOURCES
INV 2 : APBN, ADB, IDB, KFW, OECF
INV 3 : IDB, KFW, OECF
WC : WORKING CAPITAL FROM NATIONAL BANK
ISEC : INDUSTRIAL SERVICE & ENGINEERING CENTRE

LABORATORIUM PENGECORAN LOGAM CEPER

BULAN PROMOSI

Dalam rangka memperingati HUT.RI ke-52 Laboratorium Pengecoran Logam Ceper menyelenggarakan bulan promosi pengujian logam *tanpa dipungut biaya (gratis)* bagi Industri Pengecoran Logam Batur Ceper

Pengujian Meliputi :

- ~ ***Pengujian Pasir Cetak***
- ~ ***Pengujian Komposisi Kimia***
- ~ ***Pengujian Kekerasan***
- ~ ***Pengujian Kekuatan Tarik***
- ~ ***Pengujian Struktur Mikro***
- ~ ***Konsultasi Managemen dan Teknologi Pengecoran Logam***

Silahkan Datang di Laboratorium Pengecoran Logam

Informasi Lebih Lanjut Hubungi :

Sunarto
Yuli Indriyawati
Laboraturium Pengecoran Logam Batur Ceper Klaten.
Phone (0272)52968

JANGAN LEWATKAN KESEMPATAN EMAS INI !

NB : Bulan Promosi Berlangsung Sampai Akhir Agustus 1997

DEPARTEMEN PERINDUSTRIAN DAN PERDAGANGAN RI
BADAN PENELITIAN DAN PENGEMBANGAN INDUSTRI DAN PERDAGANGAN
BALAI BESAR PENGEMBANGAN INDUSTRI LOGAM DAN MESIN
JL. SANGKURIANG No. 32 • TELP. (022) 2503171 - 2503172 • FAX. (022) 2503978 • PO BOX 1154 - BANDUNG 40135

SURAT KEPUTUSAN
KEPALA BALAI BESAR PENGEMBANGAN INDUSTRI LOGAM DAN MESIN
Nomor : /6/Kpts/BBLM/IV/1997

Tentang

ORGANISASI DAN TATA KERJA LABORATORIUM UJI LOGAM CEPER

MENIMBANG : a. Bahwa untuk kelancaran dan ketertiban serta terjalinnya koordinasi tugas dalam rangka pengelolaan Laboratorium Uji Logam Ceper dipandang perlu menetapkan Organisasi dan Tata Kerja Laboratorium Uji Logam Ceper.

b. Bahwa untuk itu perlu dikeluarkan surat keputusan.

MENGINGAT :
1. Keputusan Presiden No. 16 tahun 1994 tentang pelaksanaan APBN.
2. Keputusan Presiden Republik Indonesia No. 15 tahun 1984 tentang Susunan Organisasi Departemen yang telah beberapa kali diubah, terakhir dengan keputusan Presiden Republik Indonesia No. 14 tahun 1994.
3. Surat Keputusan Menteri Perindustrian No. 123/M/SK/3/1988, tentang Organisasi dan Tata Kerja Balai Besar Pengembangan Industri Logam dan Mesin.
4. Surat Keputusan Menteri Perindustrian dan Perdagangan No. : 31/MPP/SK/2/1996, tentang Organisasi dan Tata Kerja Departemen Perindustrian dan Perdagangan.
5. Surat Keputusan Menteri Perindustrian dan Perdagangan No. 01/MPP/SK-K/1/1996 tentang Pembebasan, Pemindahan dan Pengangkatan Pejabat Eselon II pada unit-unit di lingkungan Departemen Perindustrian dan Perdagangan.
6. Surat Keputusan Direktorat Jenderal Industri Logam Mesin dan Kimia No. 003A/DJ-ILMK/SK/4/1997, tanggal 1 April 1997. tentang Penunjukan Balai Besar Pengembangan Industri Logam dan Mesin sebagai Penanggung Jawab Operasional Lab. Uji Logam Ceper.

M E M U T U S K A N :

MENETAPKAN :

PERTAMA. : Menetapkan Organisasi dan Tata Kerja Laboratorium Uji Logam Ceper seperti tersebut pada lampiran Surat Keputusan ini

KEDUA : Hal-hal yang belum diatur dalam surat keputusan ini akan diatur kemudian dalam Surat Keputusan tersendiri.

KETIGA : Surat Keputusan ini mulai berlaku sejak ditetapkan dengan ketentuan akan dirubah sebagaimana mestinya apabila dikemudian hari ternyata terdapat kekeliruan didalamnya.

Ditetapkan di : BANDUNG
Pada tanggal : 2 APRIL 1997

KEPALA BALAI BESAR
PENGEMBANGAN INDUSTRI LOGAM DAN MESIN

BANDUNG

Ir. ENDANG DAHLAN
NIP 090007415

Tembusan disampaikan kepada Yth. :
1. Kepala BPPIP Depperindag
2. Sekretaris Jenderal Depperindag
3. Direktur Jenderal ILMK
4. Inspektur Jenderal Depperindag
5. Gubernur KDH TK. I Prop. Jateng
6. Sesdalopbang
7. Karo Indag Bappenas
8. Kepala Biro Hukum Depperindag
9. Bupati KDH TK. II Kab. Klaten
10. Ka. Kanwil Depperindag Prop. Jateng
11. Ka. Kandep Depperindag Kab. Klaten
12. KPKN Bandung II di Bandung
13. Yang bersangkutan

Bahan MS Hal-hal akan/Surat Organ

LAMPIRAN SURAT KEPUTUSAN
KEPALA BALAI BESAR PENGEMBANGAN INDUSTRI LOGAM DAN MESIN
Nomor : 16/Kpts/BBLM/IV/1997, Tanggal 2 April 1997

T e n t a n g

ORGANISASI DAN TATA KERJA
LABORATORIUM UJI LOGAM CEPER

BAB I
MISI LABORATORIUM UJI LOGAM CEPER

Membantu Peningkatan Mutu Produk Industri Kecil dan Menengah Pengecoran Logam

BAB II
TUGAS POKOK DAN FUNGSI

Pasal 1

1. Laboratorium Uji Logam Ceper mempunyai tugas pokok melaksanakan pelayanan Jasa Pengujian dan Konsultasi Keteknikan & Managemen kepada. Industri Kecil dan Menengah Pengecoran Logam.

2. Untuk melaksanakan tugas pokok tersebut ,Laboratorium Uji Logam mempunyai fungsi, melaksanakan :
   a). Pelayanan Jasa Pengujian bahan maupun produk kepada Industri Kecil dan Mengengah Pengecoran logam.
   b). Pelayanan Jasa Konsultasi Keteknikan & Managemen kepada Industri Kecil dan Menengah Pengecoran Logam.
   c). Diseminasi hasil-hasil Penelitian dan Pengembangan teknologi dan managemen kepada Industri Kecil dan Menengah Pengecoran Logam
   d). Pelayanan Jasa Peningkatan Kemampuan Sumber Daya Manusia kepada Industri Kecil dan Menengah Pengecoran Logam.
   e). Kerjasama dengan pihak lain untuk meningkatkan daya guna dan hasil guna Laboratorium Uji Logam
   f). Administrasi Laboratorium Uji Logam sebagai Embrio Pengelolaan Laboratorium Uji Logam Ceper secara Swadana.

BAB III
STUKTUR ORGANISASI

Pasal 2

1. Laboratorium Uji Logam Ceper terdiri dari :

a). Unsur Pembina : Sesdalopbang
Biro Indag Bappenas
Pemda DT-I Jawa Tengah
Badan Penelitian dan Pengembangan Industri dan Perdagangan -Depperindag

b). Unsur Pengendali : Direktorat Jendral Industri Logam Mesin dan Kimia (ILMK) - Depperindag.

c). Unsur Pengelola : Balai Besar Pengembangan Industri Logam dan Mesin (BBLM)

d). Unsur Pelaksana Pengelola : Manager Laboratorium

e). Unsur Pembantu Pelaksana Pengelola : Asisten Manager Laboratorium
Staf Administrasi

f). Unsur Pelaksana : Teknisi Laboratorium Uji Pasir
Teknisi Laboratorium Uji Mekanik
Teknisi Laboratorium Uji Komposisi & Metalografi

g). Unsur Penunjang : Satuan Pengamanan(SATPAM)
Pengemudi
Pramubakti

2. Laboratorium Uji Logam Ceper dipimpin oleh seorang Manager Laboratorium

Pasal 3

1. Manager Laboratorium mempunyai tugas melaksanakan fungsi-fungsi managerial laboratorium yang meliputi :
   a). Melaksanakan perencanaan dan persiapan opersional Laboratorium Uji Logam.
   b). Melaksanakan penyusunan program, anggaran serta kegiatan operasional Laboratorium Uji Logam.

c) Mengkoordinasikan pelaksanaan seluruh program kegiatan operasional Laboratorium Uji Logam
d). Melaksanakan pengawasan dan pengendalian opersional Laboratorium Uji Logam.
e). Melaksanakan monitoring dan evaluasi terhadap pelaksanaan opersional Laboratorium Uji Logam .
f). Mengikuti perkembanga Teknologi & Managemen yang berkaitan dengan Laboratorium Uji Logam.
g). Bekerjasama dengan pihak lain untuk meningkatkan daya guna dan hasil guna Laboratorium Uji Logam.
h). Membuat laporan kegiatan Laboratorium Uji Logam secara periodik setiap triwulan termasuk laporan pengelolaan keuangan kepada Balai Besar Pengembangan Industri Logam dan Mesin
i). Melaksanakan tugas-tugas lain yang diperintahkan oleh Balai Besar Pengembangan Industri Logam dan Mesin

2. Manager Laboratorium mempunyai wewenang memerintah dan mengawasi pelaksanaan satuan kerja-satuan kerja yang ada dibawahnya

3. Manager Laboratorium dalam melaksanakan tugasnya bertanggung jawab kepada Kepala Balai Besar Pengembangan Industri Logam Dan Mesin

Pasal 4

Pembina mempunyai tugas:

1. Memberikan saran-saran dan pertimbangan-pertimbangan kepada Balai Besar Pengembangan Industri Logam dan Mesin untuk penyusunan dan pelaksanaan program operasional Laboratorium Uji Logam.

2 Memberikan pengarahan kepada Balai Besar Pengembangan Industri Logam dan Mesin dalam menyusun maupun melaksanakan program pengembangan Laboratorium Uji Logam

Pasal 5

Pengendali mempunyai tugas:

1. Mengendalikan program dan pelaksanaan operasional Laboratorium Uji Logam agar sesuai dengan yang diamanatkan dalam Kepres nomor 081/B/Tahun 1996.

2. Melaksanakan koordinasi dengan Badan Penelitian dan Pengembangan Industri Industri dan Perdagangan agar operasional Laboratorium Uji Logam berjalan efektip dan elisien.

Pasal 6

Staf Administrasi Laboratorium mempuinyai tugas:: melaksanakan kegiatan ketata usahaan meliputi;:

1. Melaksanakan Administrasi Perkantoran antara lain :surat menyurat, kearsipan, komunikasi telepon/Facsimile dan pengetikan.
2. Melaksanakan Adminitrasi Keuangan antara lain penyusunan anggaran/pembiayaan, verifikasi, pembukuan dan Inventarisasi.
3. Melaksanakan Adminitrasi Personalia antara lain :menerima/memeriksa data berkas kepegawaian, menerima/memeriksa dan menyusun buku peraturan /petunjuk kepegawaian, menyusun dan mengolah data kepegawaian
4. Melaksanakan Adminitrasi Umum antara lain : absensi pegawai, kendaraan dinas, kebersihan ruangan/taman, pengiriman surat, keamanan, kerumah tanggaan dan pergudangan.
5. Memelihara ,menjaga mesin dan peralatan kantor serta fasilitas lainnya yang berada dibawah tanggung jawabnya.
6. Membuat rencana kebutuhan Alat Tulis Kantor (ATK) yang diperlukan untuk kelancaran kegiatan administrasi.
7. Membuat Laporan Kegiatan administrasi secara periodik, bulanan, triwulanan, tahunan.
8. Melaksanakan tugas-tugas lain yang diperintahkan oleh atasan
9. Staf Administrasi Laboratorium bertanggung jawab kepada atasan langsung.

Pasal 7

Team Bimbingan Teknis & Management mempunyai tugas meliputi :

1. Mengolah ,menganalisa dan menyimpulkan hasil pengujian.
2. Memberikan Pelayanan Jasa Konsultasi Keteknikan & Managemen pada Industri Kecil dan Menengah Pengecoran Logam
3. Melaksanakan diseminasi hasil Penelitian dan Pengembangan kepada Industri Kecil dan Menengah Pengecoran ogam.
4. Melaksanakan peningkatan sumber daya manusia kepada personil Laboratorium Uji Logam maupun Industri Kecil dan Menengah pengecoran logam.
5. Membantu penyiapan/penyusunan dan pelaksanaan program untuk Laboratorium Uji Logam.
6. Membuat laporan harian/periodik terhadap kegiatan yang telah dilaksanakan
7. Tim Bimbingan Teknis & Managemen bertanggung jawab kepada Proyek Pelayanan Teknologi Industri Logam dan Mesin

Pasal 8

Teknisi Laboratorium uji Pasir Cetak mempunyai tugas:

1. Melaksanakan pekerjaan yang diperintahkan oleh atasan.
2. Menyiapkan benda uji ,peralatan pengujian dan standar uji untuk pasir cetak
3. Melaksanakan pengujian dan mencatat hasil pengujian pasir cetak
4. Menyajikan data hasil pengujian pasir cetak
5. Mengikuti perkembangan teknologi dalam bidang pengujian pasir cetak
6. Mengumpulkan referensi yang berkaitan dengan pengujian pasir cetak
7. Melaksanakan pemeliharaan ,pengamanan terhadap alat dan bahan pengujian yang ada dibawah tanggung jawabnya
8. Membuat laporan kegiatan pengujian secara periodik dan laporan khusus terhadap setiap pengujian pasir cetak yang sudah diselesaikan
9. Melaksanakan rencana kebutuhan bahan dan alat bantu yang diperlukan untuk operasional Laboratorium Uji Pasir cetak
10. Melaksanakan tugas-tugas lain yang diperintahkan oleh atasan
11. Teknisi laboratorium Uji Pasir Cetak bertanggung jawab kepada atasan langsung

Pasal 9

Teknisi Laboratorium Uji Komposisi & Metalografi

1. Melaksanakan pekerjaan yang diperintahkan oleh atasan
2. Mempersiapkan Benda Uji, Peralatan Uji dan Standar Uji Komposisi & Metalografi
3. Melaksanakan pengujian dan mencatat hasil pengujian Komposisi Kimia & Metalografi
4. Menyajikan data hasil pengujian Komposisi kimia dan Metalografi
5. Mengikuti perkembangan teknologi dalam bidang pengujian Komposisi Kimia & M Metalografi
6. Mengumpulkan referensi yang berkaitan dengan pengujian Komposisi Kimia & Metalografi
7. Membuat laporan kegiatan secara periodik dan laporan khusus terhadap pengujian yang telah terselesaikan
8. Memelihara dan menjaga keamanan alat dan bahan pengujian yang berada dibawah tanggung jawabnya
9. Merencanakan kebutuhan bahan,alat bantu yang diperlukan untuk operasional Laboratorium Uji Komposisi & Metalografi
10. Melaksanakan tugas-tugas lain yang diperintahkan oleh atasan
11. Teknisi Laboratorium Uji Komposisi Kimia & Metalografi bertanggung jawab pada atasan langsung.

Pasal 10

Staf Laboratorium Uji Mekanik mempunyai tugas :

1. Melaksanakan pekerjaan yang diperintahkan oleh atasan
2. Menyiapkan Benda Uji, Peralatan Uji dan Standar Uji Mekanik
3. Melaksanakan dan mencatat data hasil Pengujian Mekanik
4. Menyajikan data hasil Pengujian Mekanik
5. Mengikuti perkembangan teknologi dalam bidang pengujian mekanik
6. Mengumpulkan referensi yang berkaitan dengan Pengujian Mekanik
7. Memelihara dan mengamankan Alat dan Bahan Pengujian Mekanik yang berada dibawah tanggung jawabnya.
8. Membuat rencana kebutuhan bahan dan peralatan untuk operasional Laboratorium Uji Mekanik
9. Membuat laporan kegiatan secara periodik dan khusus mengenai Pengujian Mekanikyang telah diselesaikan l
10. Melaksanakan tugas-tugas lain yangdiperintahkan oleh atasan
11. Teknisi Laboratorium Uji Mekanik bertanggung jawab kepada atasan langung

Pasal 11

Satuan Pengamanan(SATPAM) mempunyai tugas:

1. Memahami peraturan tentang Satuan Pengamanan
2. Memeriksa keadaan lingkungan dan ruangan kantor sesuai ketentuan.
3. Mengamankan barang inventaris kantor yang tertinggal diluar
4. Menyalakan dan mematikan lampu penerangan kalau diperlukan
5. Mencatat kejadian yang menimbulkan kehilangan ,kerusakan barang inventaris untuk secepatkan kepada atasan
6. Melakukan teguran kepada tamu yang mencurigakan
7. Membuat laporan kegiatan pengamanan secara periodik
8. Melaksanakan tugas-tugas lain yang diperintahkan oleh atasan
9. Petugas Satuan Pengamanan bertanggung jawab kepada atasan langsung

Pasal 12

Pengemudi mempunyai tugas :

1. Menerima perintah dari atasan secara lisan maupun tertulis untuk melaksanakan mengemudi
2. Mememriksa kelengkapan dan perlengkapan kendaraan dengan cara menyalakan lampu, memeriksa oli mesin, air radiator, air accu, minyak rem dan air wifer
3. Menghidupkan dan memanaskan mesin setiap pagi serta mencoba rem kendaraan

4. Mengemudikan kendaraan dengan mematuhi ketentuan lalu lintas yang berlaku
5. Memeriksa kembali dan membersihkan kendaraan setelah dipakai dinas (sebelum kendaraan disimpan)
6. Melaporkan kerusakan kendaraan atau keperluan lainya yang berkaitan dengan kendaraan
7. Melaksanakan tugas-tugas lainnya yang diperintah oleh atasan
8. Pengemudi bertanggung jawab kepada atasan langsung

Pasal 13

Pamubakti Laboratorium mempunyai tugas:

1. Mengambil kunci dari Petugas Satuan Pengamanan (SATPAM),membuka ruangan kantor dan menyalakan skalar utama listrik panel penerangan
2. Membersihkan,menyapu,mengepeldan merapihkan ruangan kantor
3. Memasak air minum agar pada saat diperlukan sudah siap dihidangkan
4. Melayani kebutuhan air minum untuk seluruh pegawai sesuai dengan kebutuhan yang diminta
5. Menjaga bahan,peralatan kebersihan seperti : karbol/pewangi ruangan, sapu, kain pel, alat pel, ember, gayung dan lain sebagainya
6. Melaksanakan tugas-tugas lain yang diperintahkan oleh atasan
7. Pramubakti Laboratorium bertanggung jawab kepada atasan langsung.

BAB IV
TATA KERJA

Pasal 14

Dalam melaksanakan tugasnya Manager Laboratorium Uji Logam menerapkan prinsip koordinasi, integrasi dan singkronisasi baik dalam lingkungan unit kerja maupun antar unit kerja sesuai dengan tugas pokok dan fungsi masing-masing.

Pasal 15

Setiap penanggung jawab satuan kerja satuan kerja wajib mengawasi bawahannya masing-masing dan bila terjadi penyimpangan agar mengambil langkah-langkah yang diperlukan sesuai dengan ketentuan yang berlaku.

Pasal 16

Setiap penanggung jawab satuan kerja dalam lingkungan Laboratorium Uji Logam bertanggung jawab memimpin dan mengkoordinasikan kegiatan satuan kerja masing-masing dan memberikan bimbingan serta petunjuk-petunjuk bagi tugas bawahannya.

Pasal 17

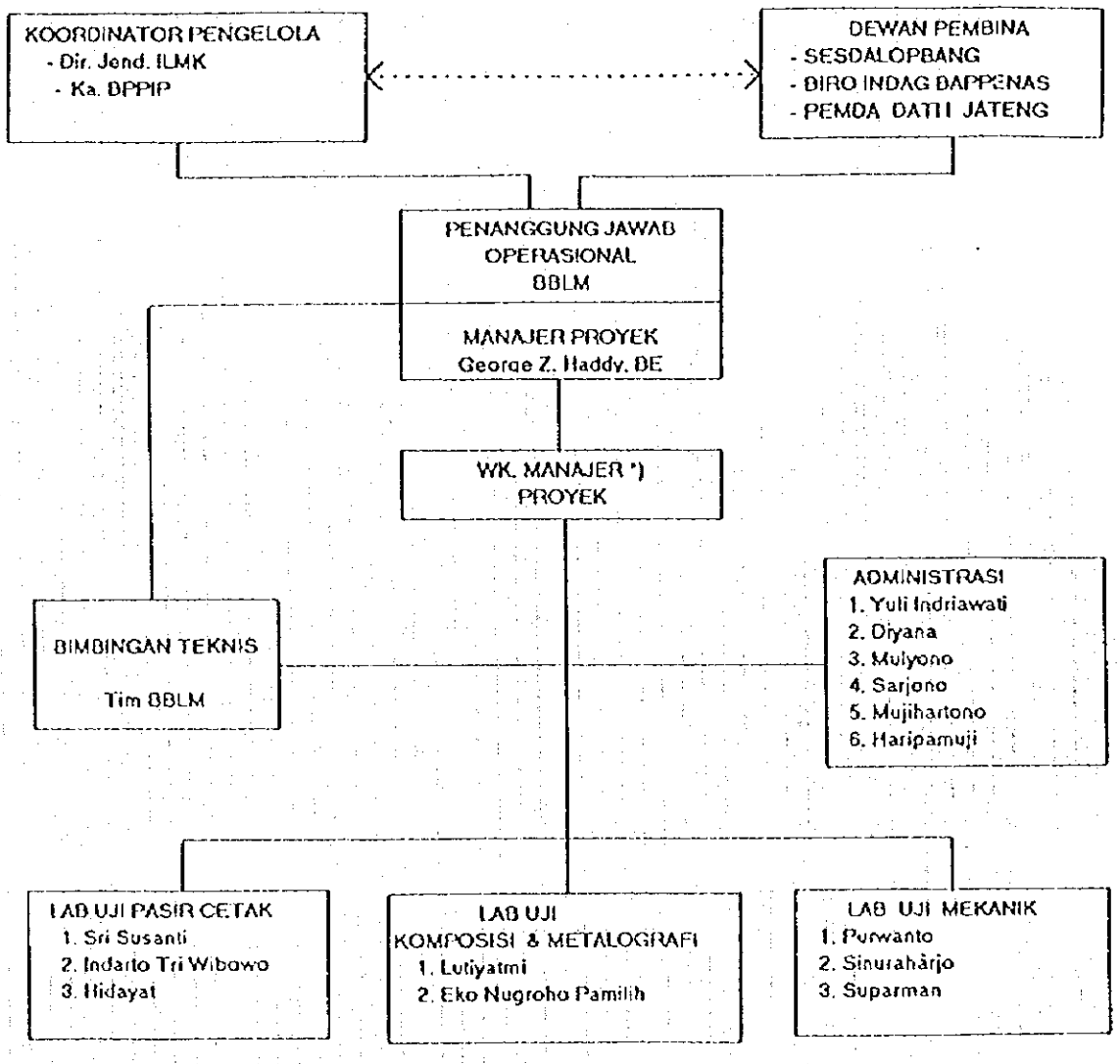
Setiap penanggung jawab satuan kerja wajibmengikuti dan mematuhi petunjuk dan bertanggung jawab kepada atasan langsungserta menyampaikan laporan periodik tepat pada waktunya.

KEPALA BALAI BESAR
PENGEMBANGAN INDUSTRI LOGAM DAN MESIN

BANDUNG

Ir. ENDANG DAHLAN
NIP 090007415

ORGANISASI
LABORATORIUM UJI LOGAM CEPER



*) Akan direkrut tenaga profesional non PNS

JICA