

**LIGHTWEIGHT TECHNOLOGY ROADSHOW
ALUMINIUM – MAGNESIUM – HYBRID
2013, OCTOBER 14th – 17th**



by AluMag[®] Automotive

AluMag's 4-Step Process

1. Land Option
2. Local Suppliers
3. Ideal Location
4. Implementation Plan



1. Land Option

- ✓ Geographical Characteristics
- ✓ Transportation Infrastructure
- ✓ Government Relations
- ✓ Operational Costs
- ✓ Operational Structure



Land Option



2. Suppliers Selection (Local T2's)

- ✓ Supplier ID
- ✓ Supplier Tests / QA
- ✓ Supplier Validation
- ✓ Supplier Development

Number of Companies by Location

Number of Companies	Location
12	Mexico City / Edo. de México
9	Nuevo León
2	Michoacán
2	Veracruz
4	Morelos
1	Baja California
1	Michoacán
1	Quintana Roo

Contact Information

Mexico City & Metropolitan Area

G.A.F. INGENIERIA Y MANTENIMIENTO
 Address: Av. Chapultepec No. 185, Cde. San Gregorio, C.P. 19900, México, D.F.
 Phone / Fax: +52 55 55421414
 E-mail: gaffmanmante@prodigy.net.mx
 Internet: www.gaffmanmante.com.mx
 Description: Manufacture, rebuild metal parts in steel, stainless steel and aluminum

MANUFACTURAS INDUSTRIALES
 Address: Finc. No. 21, Cde. Los Palmar, C.P. 13340, México, D.F.
 Phone: +52 55 54243446, 0116-7759
 E-mail: manufacturas_industriales@hotmail.com
 Description: Maintenance and/or manufacturing of mechanical parts for industrial machinery.

MAGUNSEA
 Address: Colina de la Coahuila No. 15, Fracc. Bosqueles, C.P. 03340, Nequedícan, Edo. de México
 Phone: +52 55 5360-1655
 E-mail: magunseaweb@hotmail.com
 Description: Manufacture, sale and recovery of parts to the industry in general.

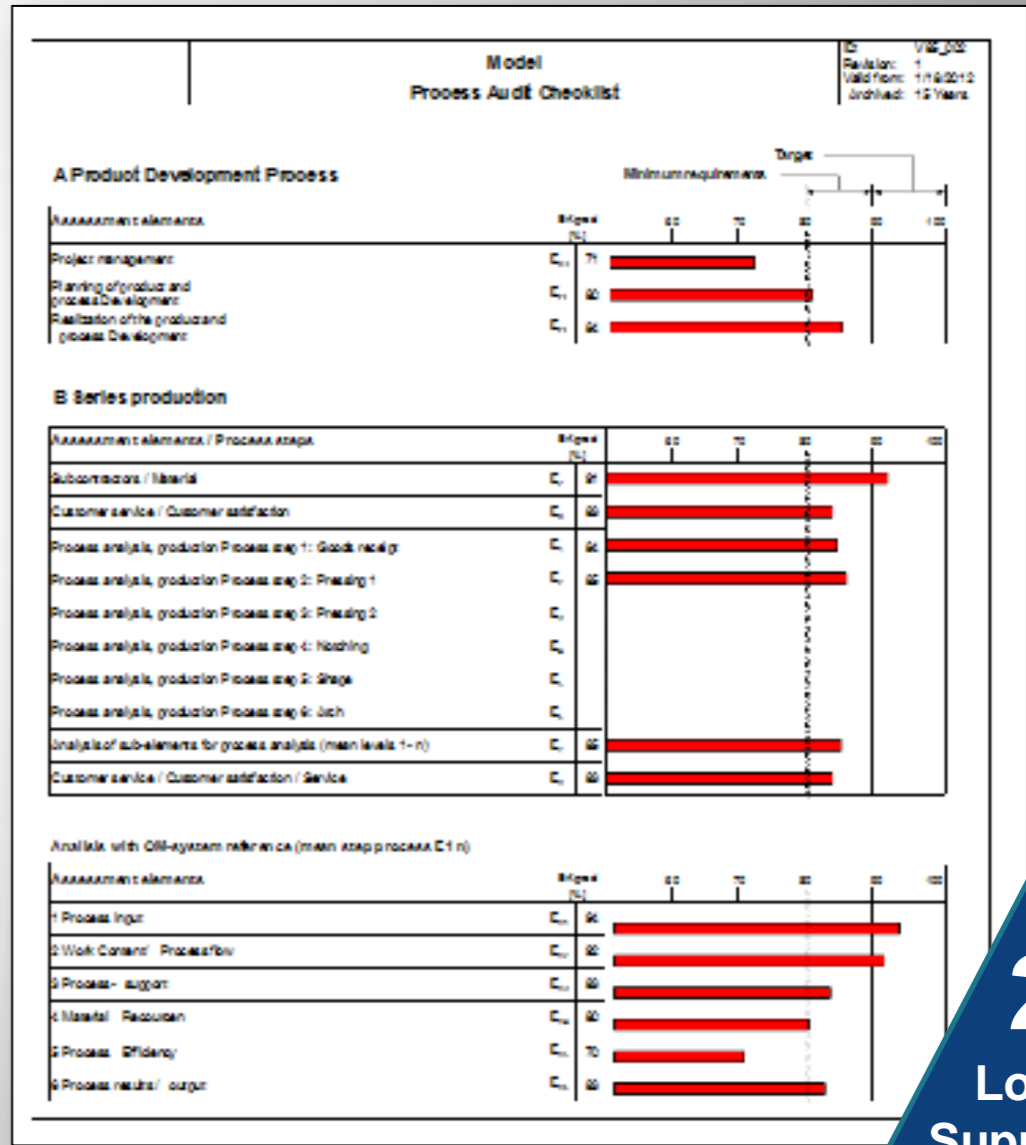


COMPANY SECTION										PRODUCT GROUP										PART ID & CONTACT DETAIL									
Company	Product	Material	Color	Finish	Profile	Section	Length	Weight	Volume	Price	Material	Product	Material	Color	Finish	Profile	Section	Length	Weight	Volume	Price	Part ID	Contact	Phone	Fax	Email	Website		
...	



Quality Control & Audit

Development	Generic Approach																																							
P2 Project Management: 3.1 3.2 3.3 3.4 3.5 3.6 3.7 10 8 10 6 4 4 8 E = 71%	81 82 83 84 70 70 87 87																																							
P3 Planning of product and process details: 3.1 3.2 3.3 3.4 3.5 8 10 8 10 4 E = 89%	80 90 100 75 E = 89%																																							
P4 Implementation of product and process detail: 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 8 8 10 10 8 8 8 8 8 E = 84%	90 88 80 80 E = 84%																																							
B Series production P5 Supplier Management: 3.1 3.2 3.3 3.4 3.5 3.6 3.7 10 10 8 10 10 10 8 E = 91%	E = 91%																																							
P6 Process analysis, grade: <table border="1"> <thead> <tr> <th>1 Process Input</th> <th>2 Work Content / Process flow</th> <th>3 Process support</th> <th>4 Material Resources</th> <th>5 Process Efficiency</th> <th>6 Process costs / output</th> <th>7 Transportation and parts</th> <th>Generic Approach</th> </tr> </thead> <tbody> <tr> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8 10 10 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8 10 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 10 8 6 8 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8 10 6 8 n.b. 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8</td> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8</td> <td>3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 10 10 10 8 8 n.b. 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td> <td>81 82 83 84 73 80 82 87</td> </tr> <tr> <td colspan="7"> Analysis of sub-elements for process analysis (max level) 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 10 10 10 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 </td> <td> 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 E = 94% </td> </tr> <tr> <td colspan="7"> Degree of fulfilment Classification: E = [X] 79% C </td> <td> 81 82 83 84 77 88 87 75 Classification 83% </td> </tr> <tr> <td colspan="7"> P7 Customer service / Customer satisfaction: 3.1 3.2 3.3 3.4 3.5 3.6 6 8 10 10 8 8 E = 83% </td> <td> 80 100 88 80 E = 83% </td> </tr> </tbody> </table>	1 Process Input	2 Work Content / Process flow	3 Process support	4 Material Resources	5 Process Efficiency	6 Process costs / output	7 Transportation and parts	Generic Approach	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8 10 10 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8 10 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 10 8 6 8 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8 10 6 8 n.b. 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 8	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 10 10 10 8 8 n.b. 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	81 82 83 84 73 80 82 87	Analysis of sub-elements for process analysis (max level) 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 10 10 10 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8							81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 E = 94%	Degree of fulfilment Classification: E = [X] 79% C							81 82 83 84 77 88 87 75 Classification 83%	P7 Customer service / Customer satisfaction: 3.1 3.2 3.3 3.4 3.5 3.6 6 8 10 10 8 8 E = 83%							80 100 88 80 E = 83%
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2
Local Suppliers

3. Ideal Location

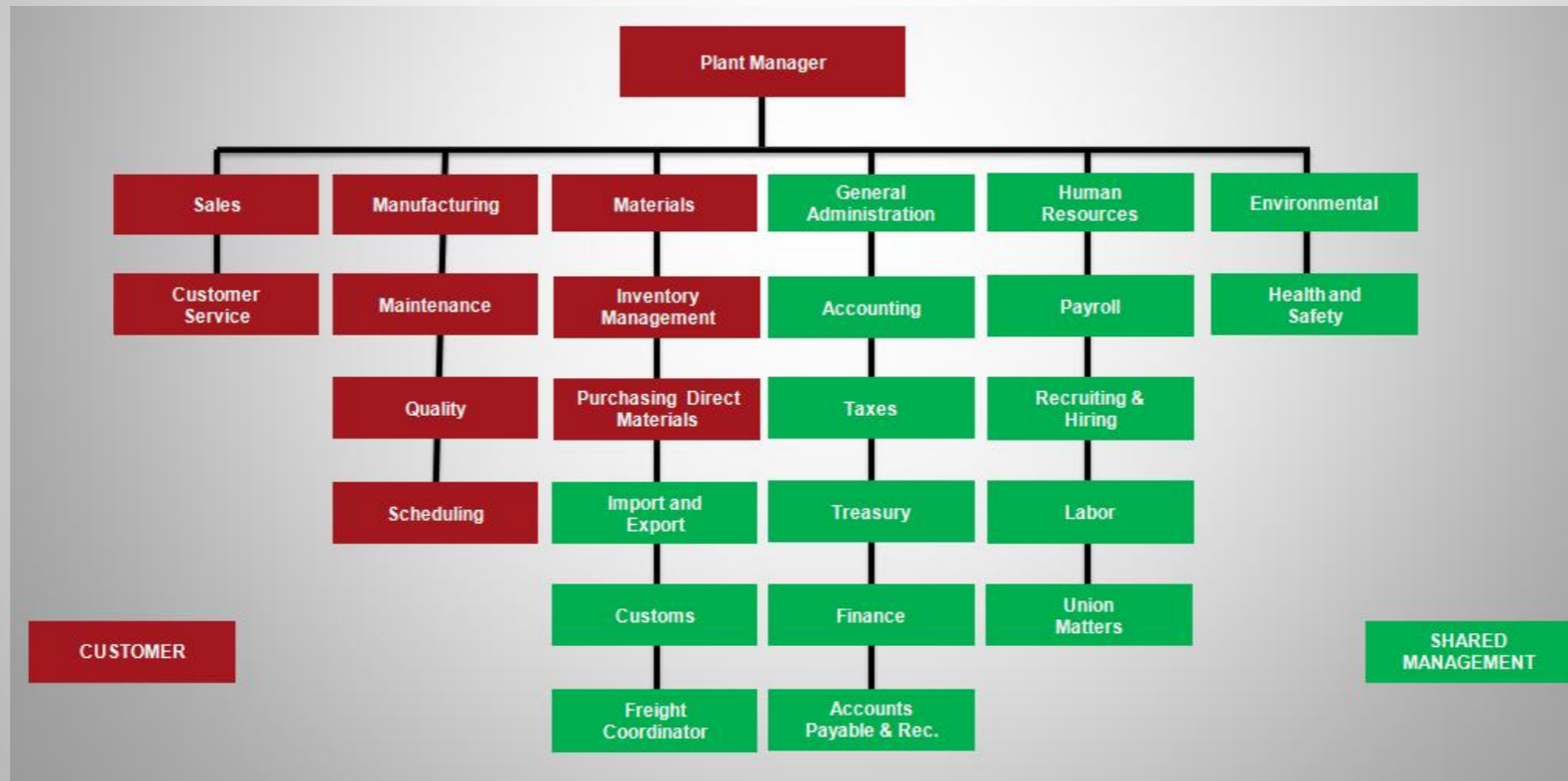
- ✓ Building Alternatives
 - *Stand Alone*
 - *Multi-Tenant*
- ✓ Operational / Administrative Model
 - *Single*
 - *Shared Operation*
- ✓ Logistic Costs vs. Customers & Suppliers



General list of items within standart Industrial Buildings	Industrial Infrastructure		
	Class A	Class B	Class C
Visual Appeal	XXX	XX	X
Industrial Buildings	XXX	X	
Location Access (Major roadways)	XXX	X	
Public transportation	XXX	X	
Infrastructure Docks	XXX	X	
Overhead Door Access	XXX	X	X
Column Spacing	XXX	XX	X
Ceiling Heights	XXX	XX	X
Amenities (Battery Chargers, Wash Bays, etc.)	XXX	X	
Office Space Trailer Parking	XXX	XX	X
Water and Sewer Capacity Construction	XXX	X	
Common Area	XXX	X	
Improvements needed	X	XX	XXX
Backup Power	XXX	X	
HVAC Capacity	XXX	XX	X
Floor load capacity	XXX	XX	CASE BY CASE
Security and life safety infrastructure	XXX	X	CASE BY CASE
Lighting	XXX	XX	X
Other benefits	XXX		



“Shared Management” under “Sole Production”

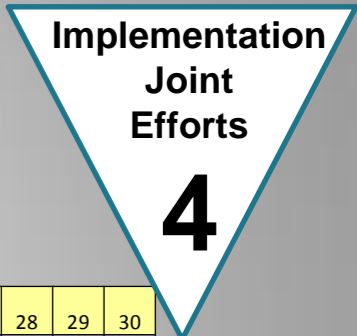


4. Implementation Plan

- ✓ Agreements / Contracts
 - *Customer*
 - *Third Parties*
- ✓ Tasks Assignments (*Schedule*)
- ✓ Ramp up Program
 - *HR*
 - *Training*
 - *Pre-Operative Actions (OTS2, SOPs PPAB, ISO)*



Timetable



#	Task	Responsible	Weeks																													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	Strategic Location Project Proposal	AluMag	Blue																													
2	Project review and approval	Kustomer		Red																												
3	Evaluation of ideal Operative Locations	AluMag			Blue	Blue	Blue																									
4	Report of ideal options (5)	AluMag					Blue																									
5	Decision for Kustomer in Mexico chosen site	KUSTOMER							Red	Red																						
6	Kustomer Mexico registration	Kustomer / AluMag								Red	Blue	Blue	Blue																			
7	Shelter outsourcing	Kustomer / AluMag									Blue	Red																				
8	Managemant	Kustomer / AluMag										Red	Blue																			
9	Personnel	Kustomer / AluMag												Blue	Blue	Blue	Red	Red	Blue	Blue	Blue											
11	Location acquisition / contracts and fees	Kustomer										Red	Red	Red																		
10	Start up logistics definitions	Kustomer / AluMag												Red	Red	Blue	Blue															
12	Assembly process definition and layouts	Kustomer / AluMag																	Blue	Blue	Red	Red										
13	Workflow validation and adjustments	Kustomer / AluMag																				Red	Red	Blue								
14	Plant equipment move and installation	Kustomer / AluMag													Red	Red	Red	Red	Red	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	
15	OTS2, SOP's PPABP, definitions	Kustomer / AluMag										Red	Red	Red																		
16	Pre-operative runs to stabilize assembly	AluMag																										Blue	Blue	Blue	Blue	Blue
17	Production support subprocesses	AluMag																														
18	ISO Certification	Kustomer / AluMag																														

= Task performed by AluMag

= Task performed by KIPP

Summary

- 1. Produce where you intend to sell.**
- 2. Partner up with your suppliers and develop them as per your standards and processes.**
- 3. Do not be close to your customers and far of your suppliers.**
- 4. Keep in mind that a successful “Location” needs some time!**



Danke!