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MANTENIMIENTO Y GESTIÓN DE PROYECTOS EN ENTORNOS INDUSTRIALES



CIRIACO PÉREZ-BUSTAMANTE PINA

SENIOR PRE-SALES CONSULTANT IFS IBÉRICA

AGENDA

- ¿Quiénes somos?
- RCM como estrategia de control de coste y optimización del mantenimiento
- Inteligencia operacional aplicada a mantenimiento
- Tendencias IFS

¿QUIENES SOMOS IFS?

IFS FACTS & FIGURES

FOUNDED IN SWEDEN



1983

EMPLOYEES



+2,700

CUSTOMERS



+2,400

USERS



+1,000,000

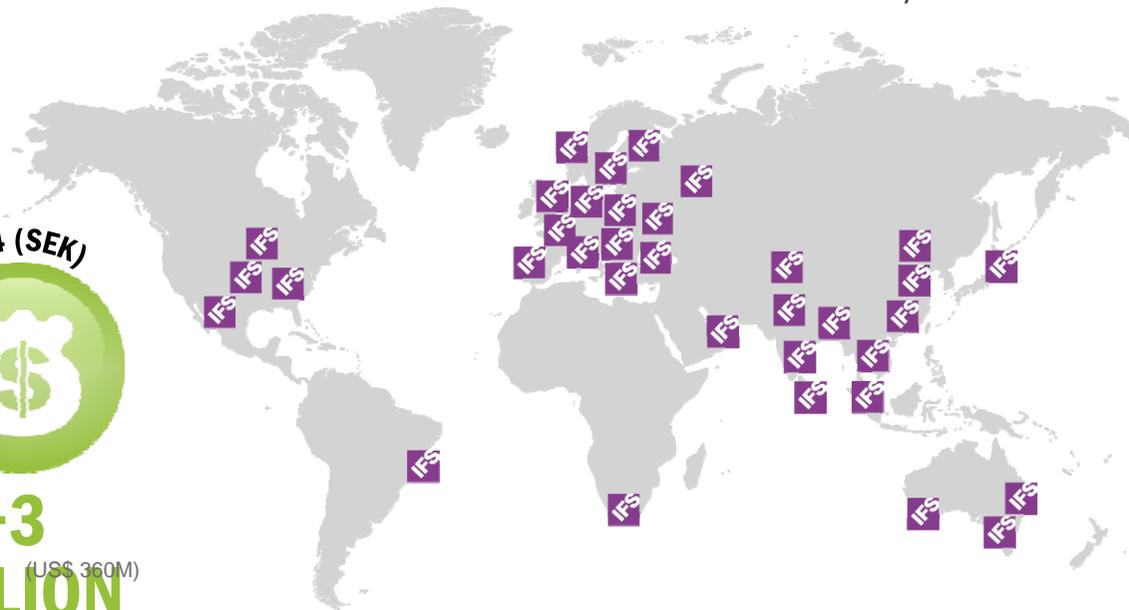
REVENUE 2014 (SEK)



+3

BILLION

(US\$ 360M)



LINKÖPING (HQ)



LONDON



CHICAGO

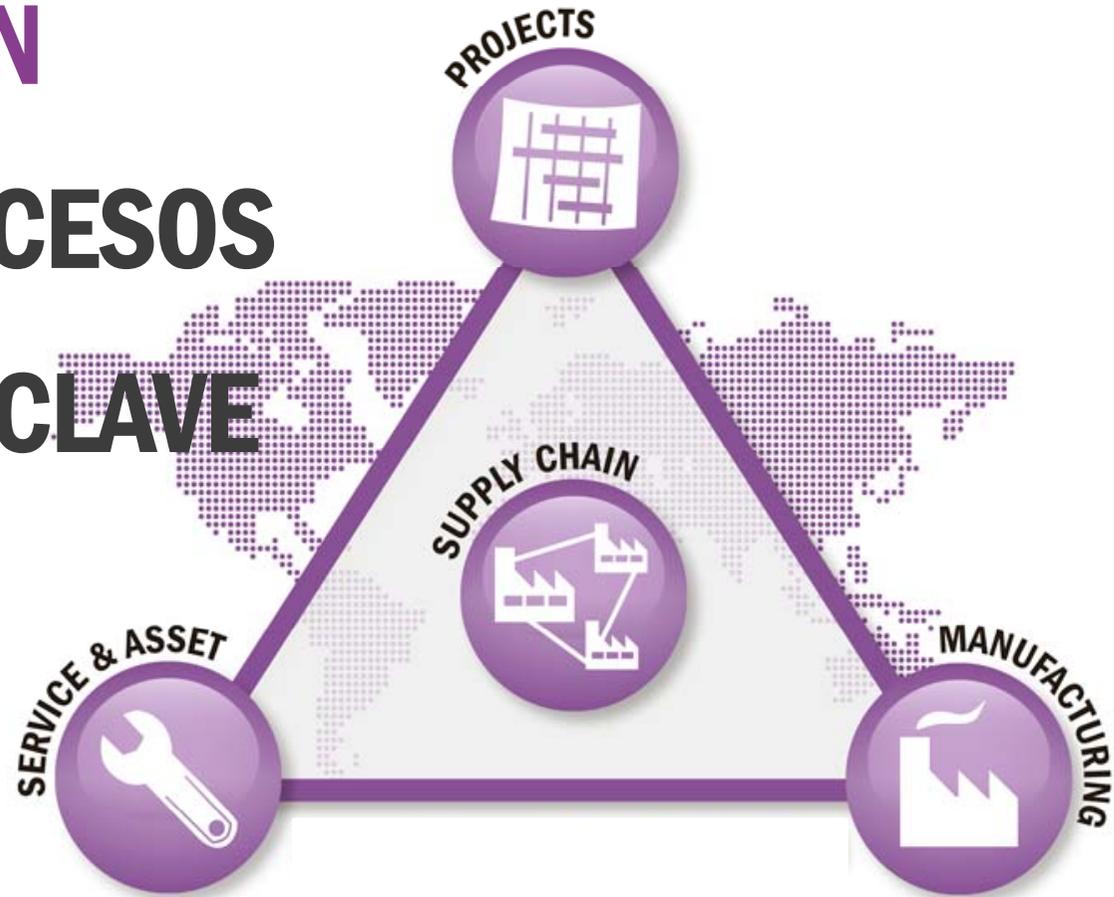


COLOMBO

Nuestro primer
cliente...

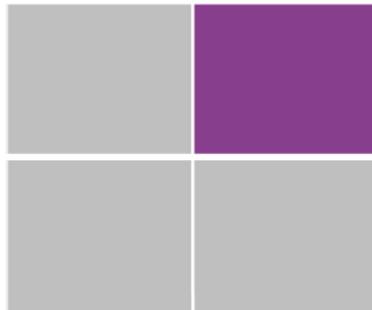


INVERSIÓN EN CUATRO PROCESOS DE NEGOCIO CLAVE



LA OPINIÓN DE LOS ANALISTAS

IFS es considerada **Líder** en el Cuadrante Mágico de **Gartner** como **ERP en el área de Fabricación**, por tercer año consecutivo



IFS es considerada **Líder** en el Cuadrante Mágico de **Gartner** en la Gestión de **Contratos de Servicio**



IFS es considerado como el único **Challenger** por Gartner en el área de **Gestión Integral de Activos**



The full Gartner documents are available for complimentary access at: <http://www.ifsworld.com/en/news-and-events/industry-analyst-research/>.

*"Magic Quadrant for Single-Instance ERP for Product-Centric Midmarket Companies, Gartner Research, December 2015

**Magic Quadrant for Field Service Management, Gartner Research, December 2014

***Magic Quadrant for Energy & Utilities Enterprise Asset Management, Gartner Research, September 2015

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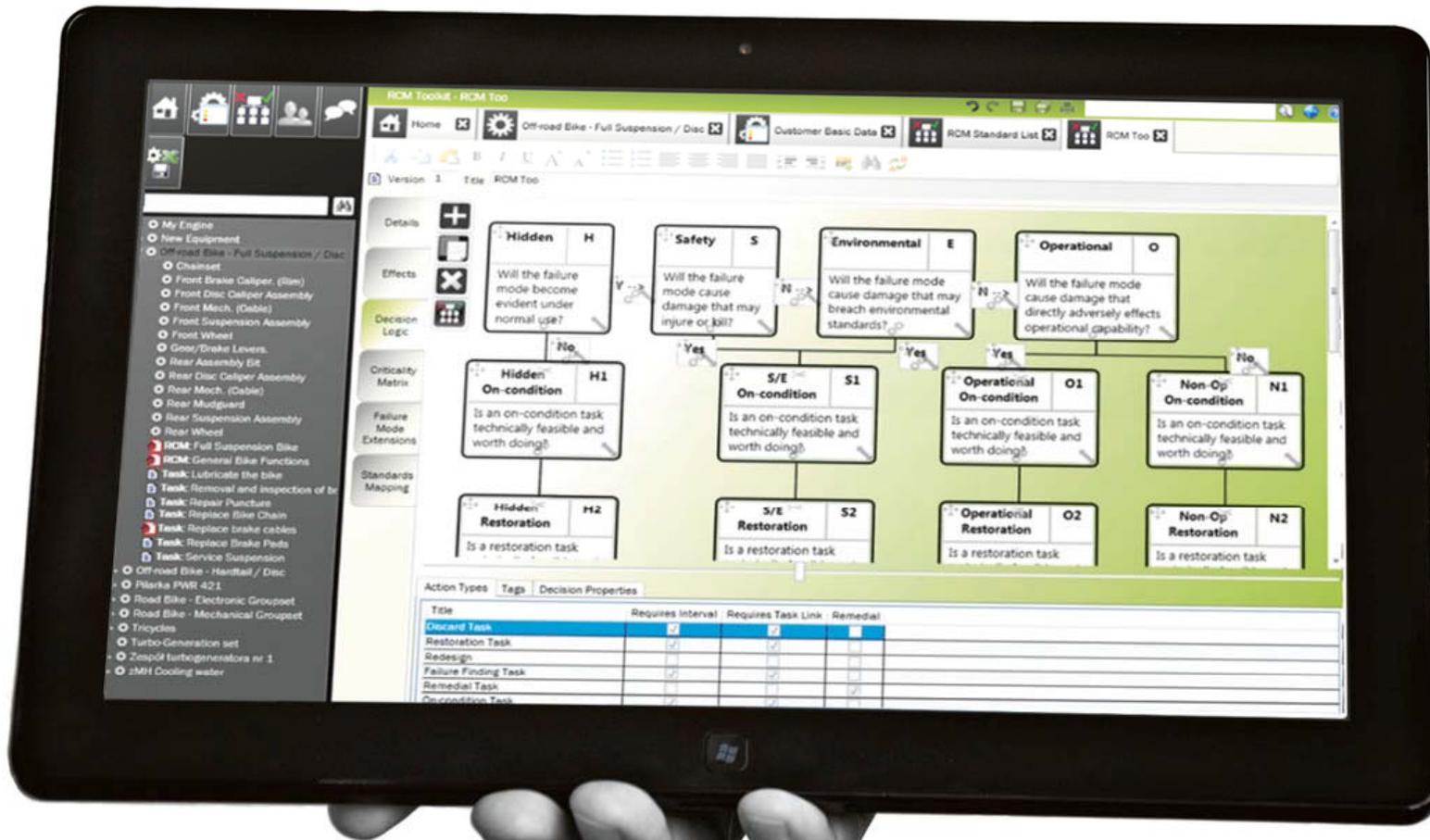
ALGUNAS REFERENCIAS EN EL SECTOR



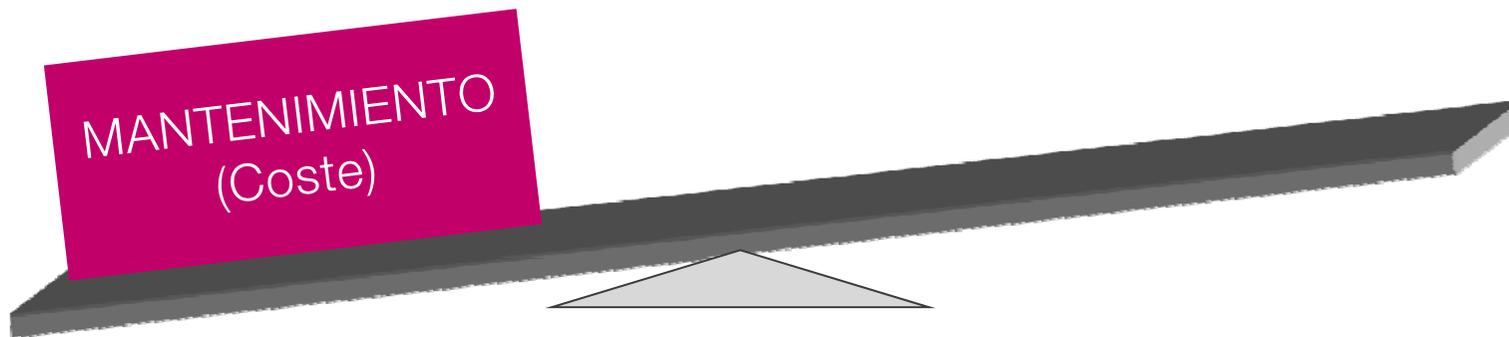
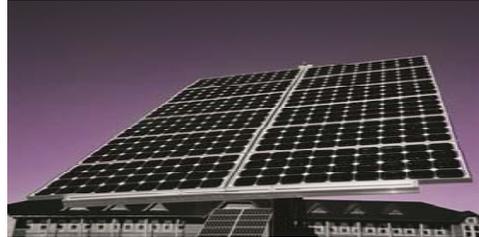
RCM COMO ESTRATEGIA DE MANTENIMIENTO

RCM TOOLKIT-HISTORIA

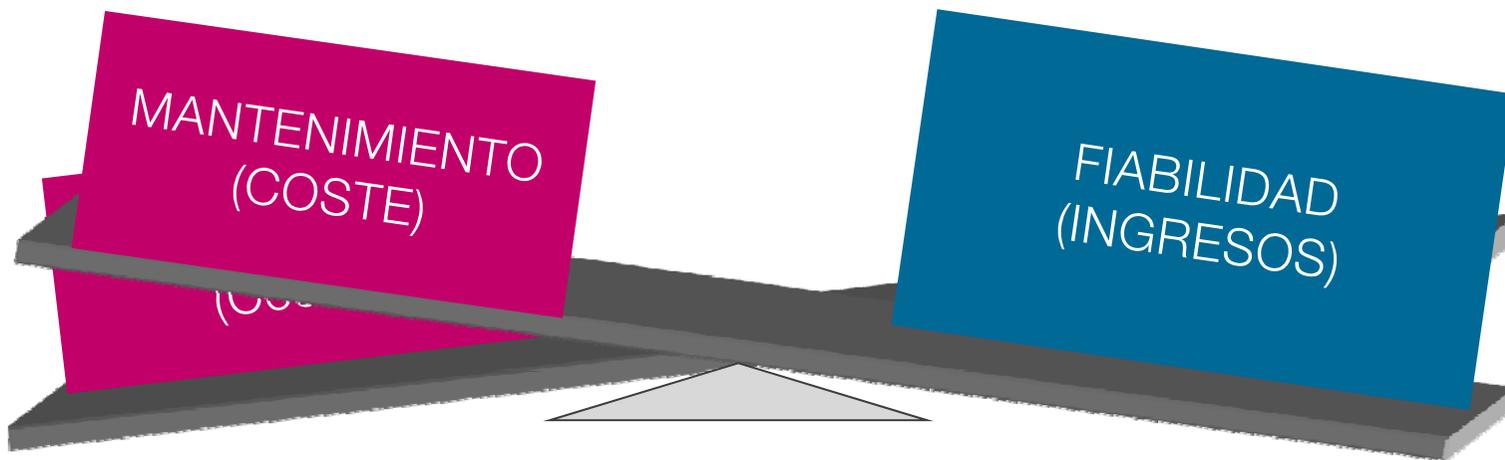
- Desarrollado por ISC al final de los 90
- Usado por UK MoD para crear planes de mantenimiento para UK Navy
- Añadido en el UMMS (un RCM basado Maintenance Management System) en 2001
- En 2003 UMMS era usado por la mayoría de la RN Surface Fleet
- En 2006 UMMS era usado por la RN Submariner Fleet (que incluye mantenimiento de submarinos nucleares)
- IFS Defence compra ISC en 2007 y la herramienta RCM
- RCM Toolkit actualizado para el UK MoD en 2008
- Presupuesto del UK MoD reducido en 20% por el uso de RCM



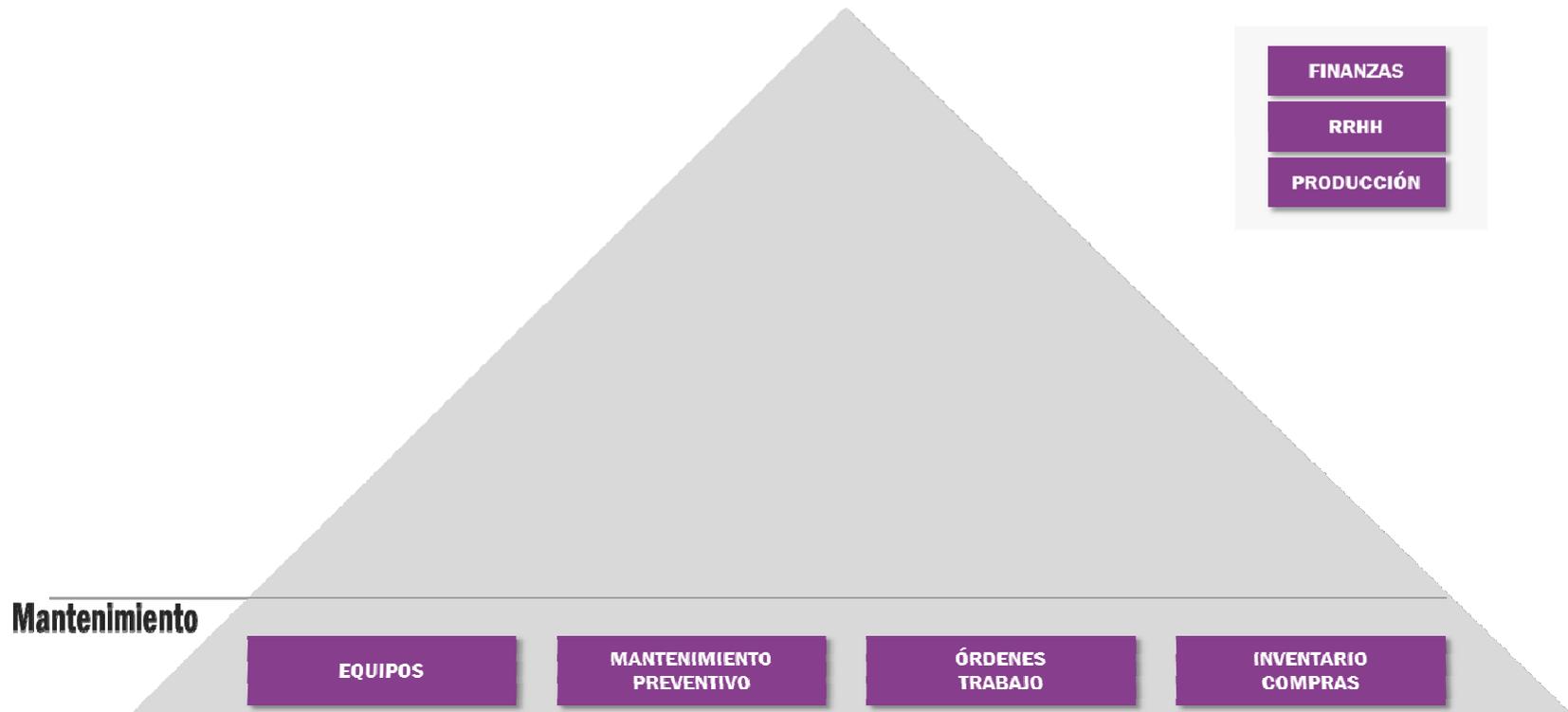
INVERSIÓN – COSTE – INGRESOS



INVERSIÓN – COSTE – INGRESOS



FIABILIDAD COMO OBJETIVO



Equipment Object Navigator - DHB-WD-FC Zone FC 619 (925)

Object ID: Description: Site: Object Level: Operational Status:

Type Designation: Part No: Serial No: Object Type: Category:

Graph Legend

- Functional Object
- Serial Object
- Planned for Operation
- Out of Operation
- Scrapped

- Structure in Tree:
- Function
- DHB-WD-FC, Zone FC
 - CRA-WD-026, Wyse Boat Lift (1/96)
 - CRA-WD-027, Crane (1/102) Davit Lift, Tidal Basin
 - DHB-WD-FC-203, Area 203 Granville Dock
 - BAR-WD-029, Swing Barrier, Entry to Marina Boatyard
 - BAR-WD-030, Swing Barrier, Exit to Marina Boatyard
 - BDG086, Marina Office
 - CAB012, East Union Quay Toilets
 - FLA-WD-32, Flag Pole, Crosswall Quay
 - FLA-WD-33, Flag Pole, Crosswall Quay
 - FLA-WD-34, Flag Pole, Crosswall Quay
 - FLA-WD-35, Flag Pole, Crosswall Quay
 - FLA-WD-36, Flag Pole, Crosswall Quay
 - DHB-WD-FC-205, Area 205 Granville Dock
 - BDG089, Marina Workshop Mechanical
 - FTA-WD-039, Waste Oil Tank, Marina Yard
 - DHB-WD-FC-217, Area 217 Granville Dock
 - FTA-WD-015, Marina Fuel Station Fuel Tank
 - FTA-WD-016, Refuelling Pontoon Fuel Tank
 - DHB-WD-FC-GRA, Granville Dock
 - BPL-WD-022, Brides Boat Lift Docking Bay, Granville Dock

All Active WO	Active Routes	Historical WO	Historical Routes	Service Lines	All Service Lines	
Address for Objects	Connected Objects	Measurements	Design Object	PM Action	Maintenance Plan	Active WO
Summary	Objects	All Objects	Serial Object	Functional Object		

Selected Object

Object ID: Description: Site:

- Object Info**
- [Objects \(7\)](#)
 - [All Objects \(30\)](#)
 - [Serial Object](#)
 - [Functional Object](#)
 - [Address for the Objects \(1\)](#)
 - [Connected Objects \(0\)](#)
 - [Measurements \(0\)](#)
 - [Design Object](#)

- Work Order Info**
- [Active Work Orders \(0\)](#)
 - [All Active Work Orders \(0\)](#)
 - [Active Routes \(0\)](#)
 - [Historical Work Orders \(0\)](#)
 - [Historical Routes \(0\)](#)

- Service Line Info**
- [Service Lines \(0\)](#)
 - [All Service Lines \(0\)](#)

- Lobby Overv...
- SUPPORT L...
- SERVICE MA...
- ASSET MAN...
- BI
- New Case A...
- Scheduling...
- Equipment...
- Service Cont...

- Search
- Print
- Refresh
- Home
- Help
- Logout
- MB

Equipment Object Navigator - DHB-WD-FC Zone FC 619 (925)

Object ID: Description: Site: Object Level: Operational Status:

Type Designation: Part No: Serial No: Object Type: Category:

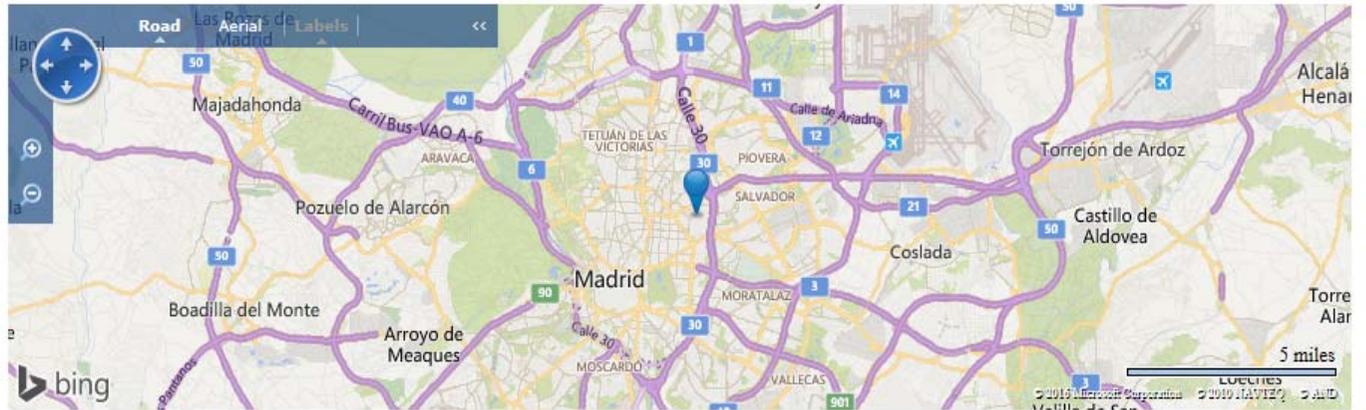
Graph Legend

- Functional Object
- ◆ Serial Object
- Planned for Operation
- Out of Operation
- Scrapped

- Structure in Tree:
- Function
- DHB-WD-FC, Zone FC
 - CRA-WD-026, Wyse Boat Lift (1/96)
 - CRA-WD-027, Crane (1/102) Davit Lift, Tidal Basin
 - DHB-WD-FC-203, Area 203 Granville Dock
 - BAR-WD-029, Swing Barrier, Entry to Marina Boatyard
 - BAR-WD-030, Swing Barrier, Exit to Marina Boatyard
 - BDC086, Marina Office

Summary		Objects		All Objects		Serial Object		Functional Object	
All Active WO	Active Routes	Historical WO	Historical Routes	Service Lines	All Service Lines				
Address for Objects		Connected Objects	Measurements	Design Object	PM Action	Maintenance Plan	Active WO		
Object ID: <input type="text" value="DHB-WD-FC"/>		Description: <input type="text" value="Zone FC"/>		Site: <input type="text" value="591"/>					
Address ID	Default Address	Address 1	Address 2	Zip Code	City				
1	Yes	Avenida de America, 41		28002	Madrid				

- Lobby Overv...
- SUPPORT L...
- SERVICE MA...
- ASSET MAN...
- BT
- New Case A...
- Media
- Documents
- (1) Map Positions
- Incidents
- Equipment...
- Service Cont...
- Load File



-
-
-
-
-
-
-
-
-
-
-
-

Separate PM Action - 200154 BAY-HVAC-AHU1 PM 33 (54)

PM No: Revision: Action: Action Description: Status:

- General
- Prepare
- Customer Information
- Budget
- Planning
- Jobs
- Operations
- Materials
- Tools and Facilities
- Maintenance Plan
- Condition
- Permits
- Journal
- Linear Asset

Hide Not Generatable

Planned Date	Planned Week	Generation Date	Generation Type	WO No	Planned Value	Generation Value	Parameter ID	Parameter Description	UoM	Actual Finish	Accumulated Value	Last Recorded
30/06/2015 8:00:00	1527	30/06/2015	Calendar	600122								
30/09/2015 8:00:00	1540	22/04/2016	Calendar	600145								
31/12/2015 8:00:00	1553	22/04/2016	Calendar	600146								
31/03/2016 8:00:00	1613	22/04/2016	Calendar	600147								
30/06/2016 8:00:00	1626	22/04/2016	Calendar	600148								
30/09/2016 8:00:00	1639	22/04/2016	Calendar	600149								
02/01/2017 8:00:00	1701	22/04/2016	Calendar	600150								
31/03/2017 8:00:00	1713	22/04/2016	Calendar	600151								
30/06/2017 8:00:00	1726	22/04/2016	Calendar	600152								
02/10/2017 8:00:00	1740	22/04/2016	Calendar	600153								
01/01/2018 8:00:00	1801		Calendar									
02/04/2018 8:00:00	1814		Calendar									
02/07/2018 8:00:00	1827		Calendar									
01/10/2018 8:00:00	1840		Calendar									
31/12/2018 8:00:00	1901		Calendar									

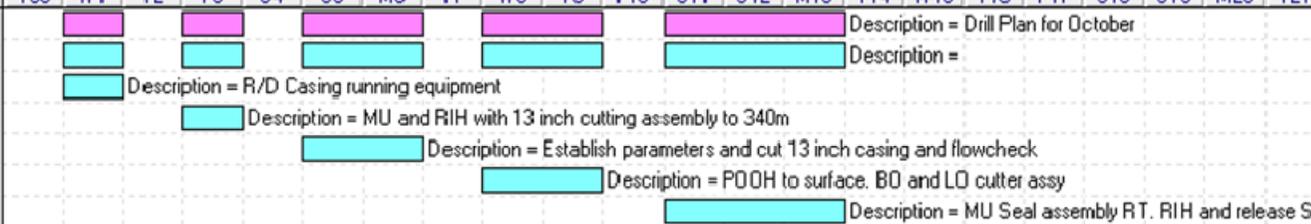
-
-
-
-
-
-
-
-
-



2014-09-30 00:43



2014 OCT
 T30 W1 T2 F3 S4 S5 M6 T7 W8 T9 F10 S11 S12 M13 T14 W15 T16 F17 S18 S19 M20 T21



510

Object ID = 44, Directive = Test maersk
 Description = op 10, Maint Org = 3150

- ork Orders
- Reconditioning of the pump
- Exchange of bearings
- Some of this, some of that
- Test maersk
- Issue
- Replace parts
- Structures
- 1179 - Test maersk
- 1180 - issue
- 1090 - Replace parts
- Order Structures

Prepare Work Order - 200013 Repair computer 16 (91)

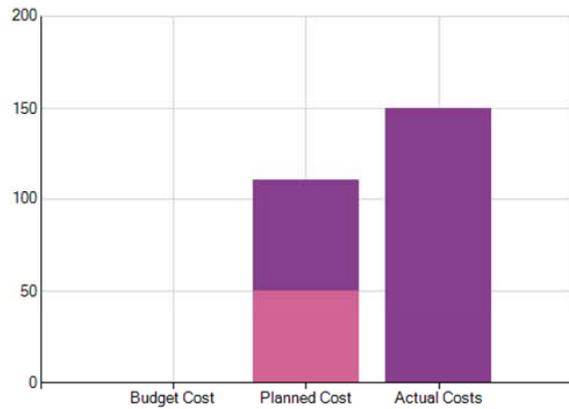
WO No:
 WO Site:
 Directive:
 Reported By:
 Status:

[General](#)
[Prepare](#)
[Budget](#)
[Free Notes](#)
[Planning](#)
[Jobs](#)
[Operations](#)
[Materials](#)
[Requisitions](#)
[Tools and Facilities](#)
[Returns](#)
[Permits](#)
[CO Information](#)
[Journal](#)
[Linear Asset](#)
[Scheduling](#)
[Sub Contract](#)

Select Budget Type:
 Graph Display: Budget Planned Actual

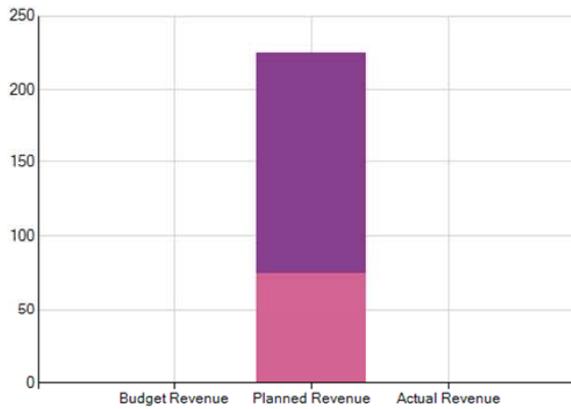
Work Order Cost Type	Budget Cost	Budget Revenue	Budget Margin	Planned Cost	Planned Revenue	Planned Margin	Actual Co...	Actual Revenue	Actual Margin
External	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00
FixedPrice			0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material	0,00		0,00	50,00	75,00	25,00	0,00	0,00	0,00
Personnel	0,00		0,00	60,00	150,00	90,00	150,00	0,00	-150,00
Tools/Facilities			0,00	0,00	0,00	0,00	0,00	0,00	0,00
Expenses	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00
Summary	0,00	0,00	0,00	110,00	225,00	115,00	150,00	0,00	-150,00

Cost Summary



■ External
 ■ Material
 ■ Personnel
 ■ Tools/Facilities
 ■ Expenses
 ■ FixedPrice

Revenue Summary



■ External
 ■ Material
 ■ Personnel
 ■ Tools/Facilities
 ■ Expenses
 ■ FixedPrice

Actual Cost



Margin





Mobile Work Order

Recently Viewed



- 600392**
Started
8/2/2013 8:00 AM
- 600403**
On Route
8/12/2013 8:00 AM
- 600393**
Accepted
8/13/2013 8:00 AM
- 600402**
Started
8/16/2013 8:00 AM
- 600389**
Started
7/30/2013 8:00 AM

Go To



Work Orders 20



eForms 4

By State



Find By

Object

Parent Object

xmreality

FIABILIDAD COMO OBJETIVO



EAM

GESTIÓN
DOCUMENTAL

PROYECTOS

SCADA

INGENIERÍA

Mantenimiento

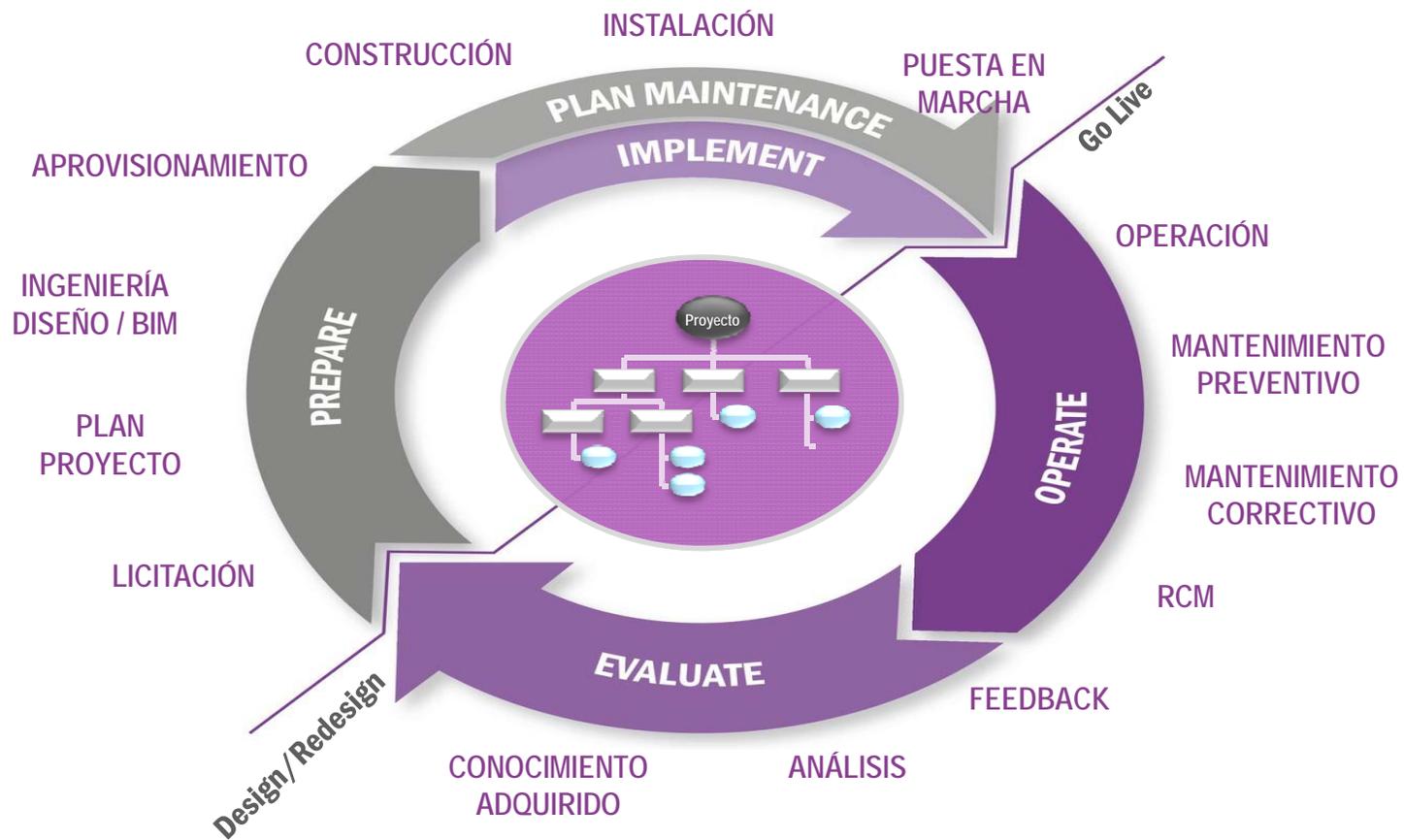
EQUIPOS

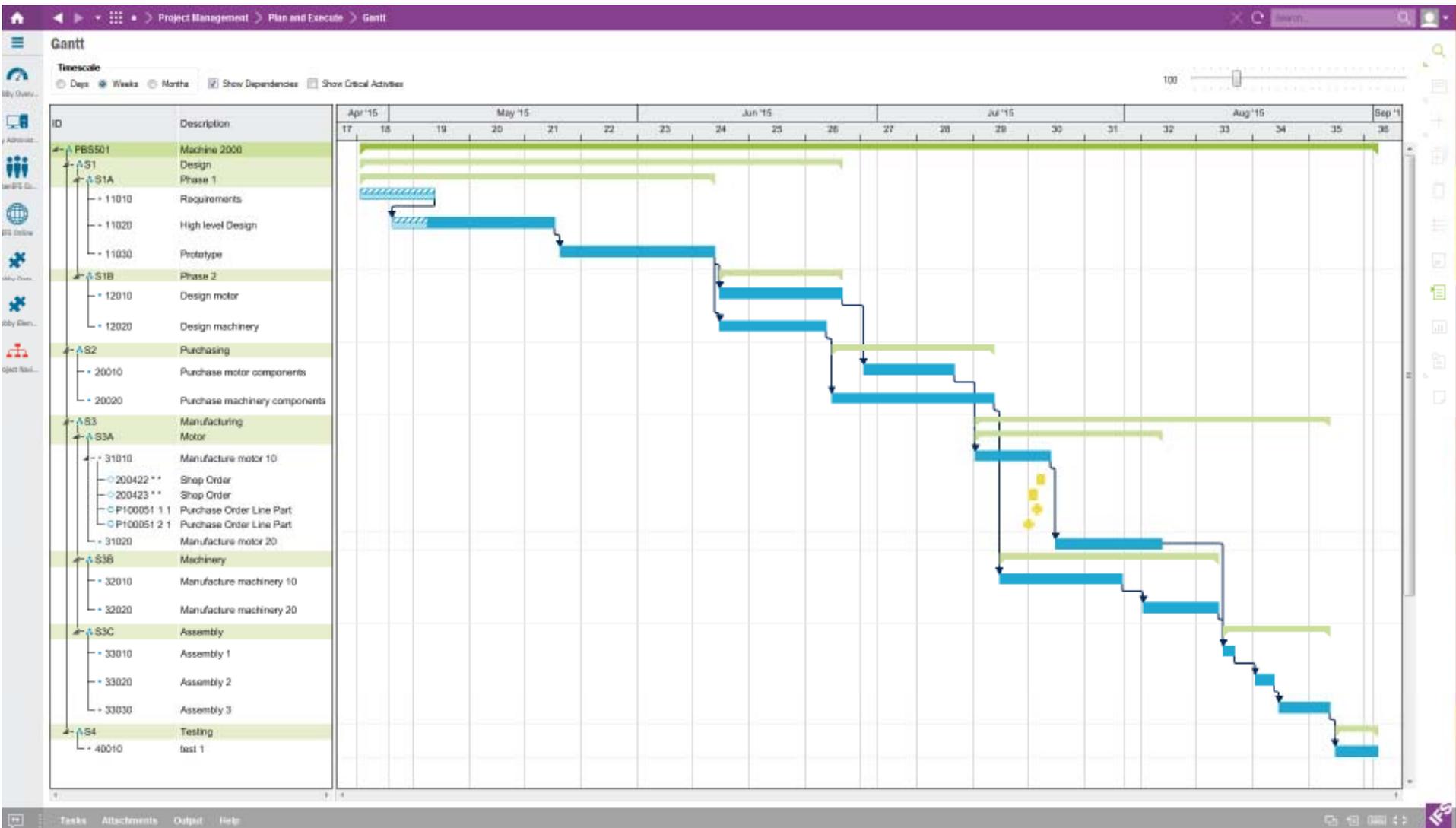
MANTENIMIENTO
PREVENTIVO

ÓRDENES
TRABAJO

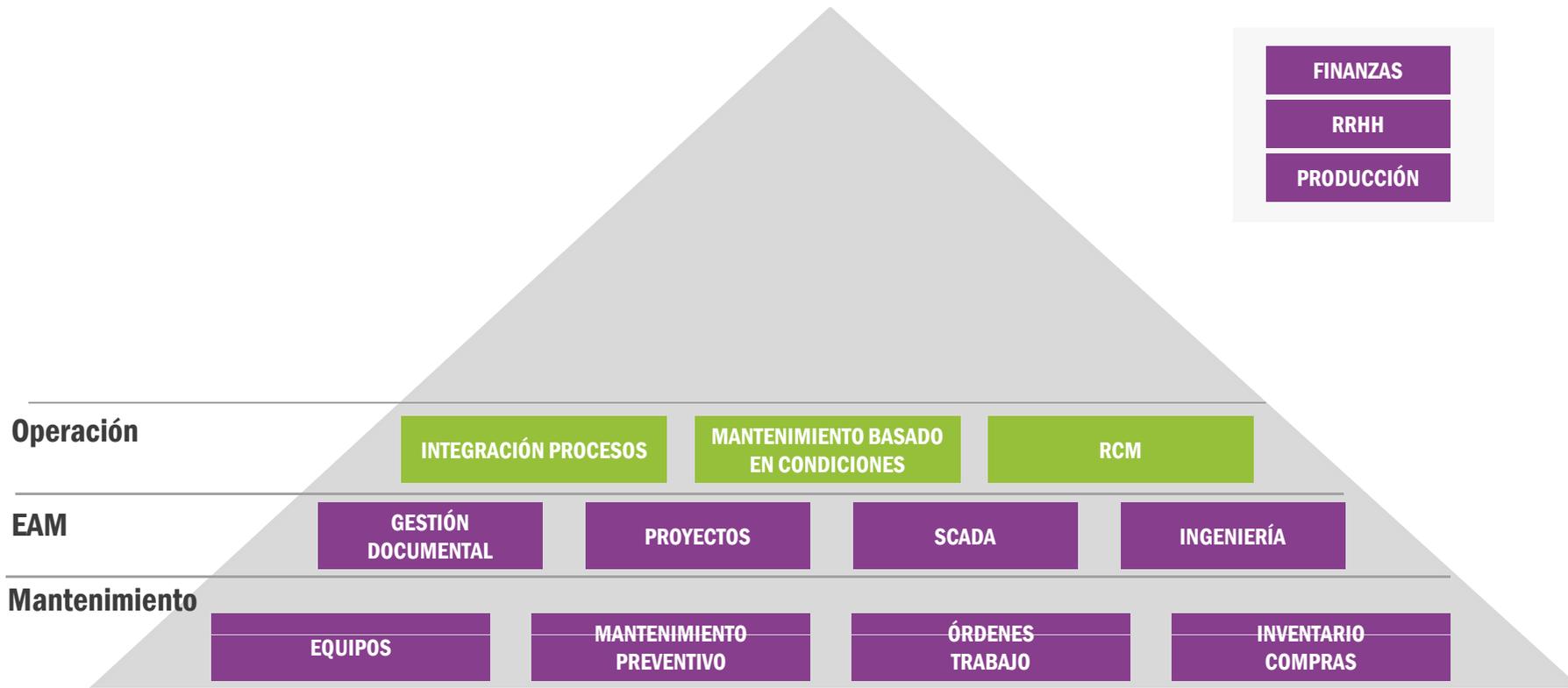
INVENTARIO
COMPRAS







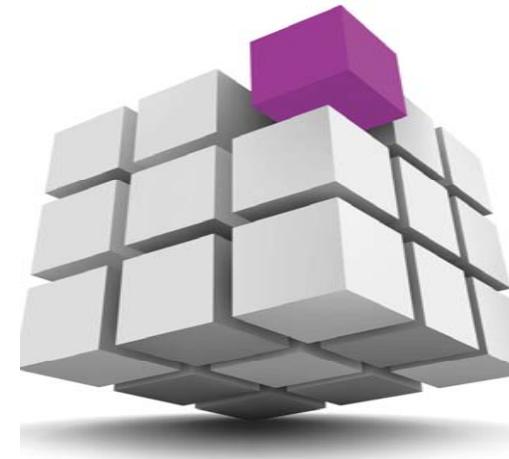
FIABILIDAD COMO OBJETIVO



ANÁLISIS DE CAUSA RAIZ

INCIDENCIA O AVERÍA

- Un corte de luz es una incidencia
- Una gotera es una incidencia
- Una parada de máquina es una avería.
- Structured Failure Management => estructurar mantenimiento correctivo => datos a analizar y definición de acciones



ESTRATEGIAS GESTIÓN FALLOS



Preventivo

- Basado en Condiciones
Mantenimiento monitorizando la condición.
- Basado en Calendario
Mantenimiento realizado en intervalos fijos.
- Basado en Eventos
Mantenimiento realizado aprovechando paradas en la instalación.

ESTRATEGIAS GESTIÓN FALLOS



Reactivo

Prevención de múltiples fallos

- **Búsqueda Fallos**
Cálculo de la frecuencia de inspección –
Cálculo fallo potencial y fallo funcional
(intervalo P-F).
Cálculo tiempo medio entre fallos.
- **Mantenimiento no Programado**
Mantenimiento periférico o secundario tras un incidente.
- **Rediseño**
Cambiar equipos o procesos para eliminar o mitigar un fallo.

MANTENIMIENTO PREDICTIVO

- Aumentar Disponibilidad Planta
- Disminuir Trabajo Mantenimiento
- Aumentar Vida Equipo
- Aumentar Seguridad Planta
- Eco Friendly
Menos incidentes con menos impacto negativo medioambiental
y un uso más eficiente de los equipos de planta.



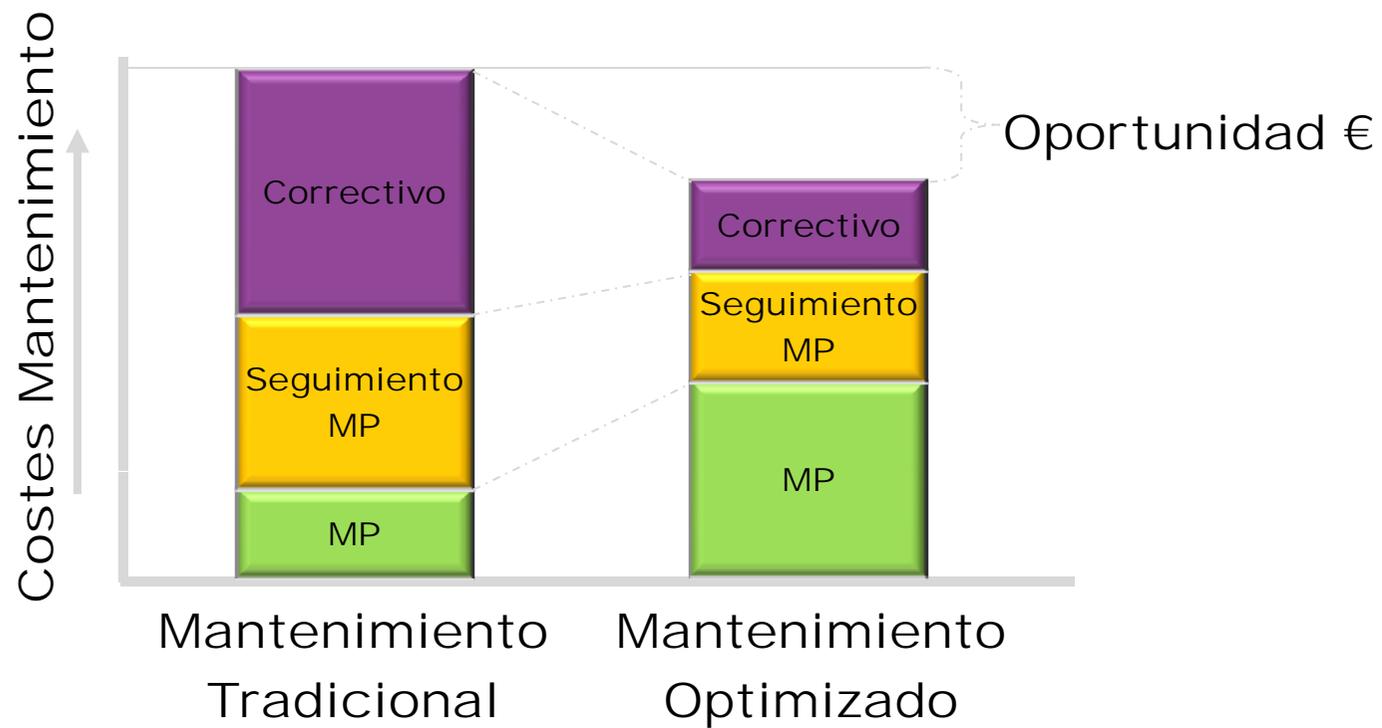
¿POR QUÉ USAR RCM?

1. Proporciona un estándar para definir un plan de mantenimiento.
2. Crea una estrategia de mantenimiento rentable para abordar las causas principales de fallos de infraestructuras.
3. Garantiza la reducción de fallos de Seguridad, Medio Ambiente y Operacionales
4. Ayuda a reducir el exceso de Mantenimiento – reconocer que la mayoría de fallos no está vinculada a la edad de los activos
5. Crea un plan de mantenimiento que centra en los principales activos que si fallan generan el mayor interrupción.

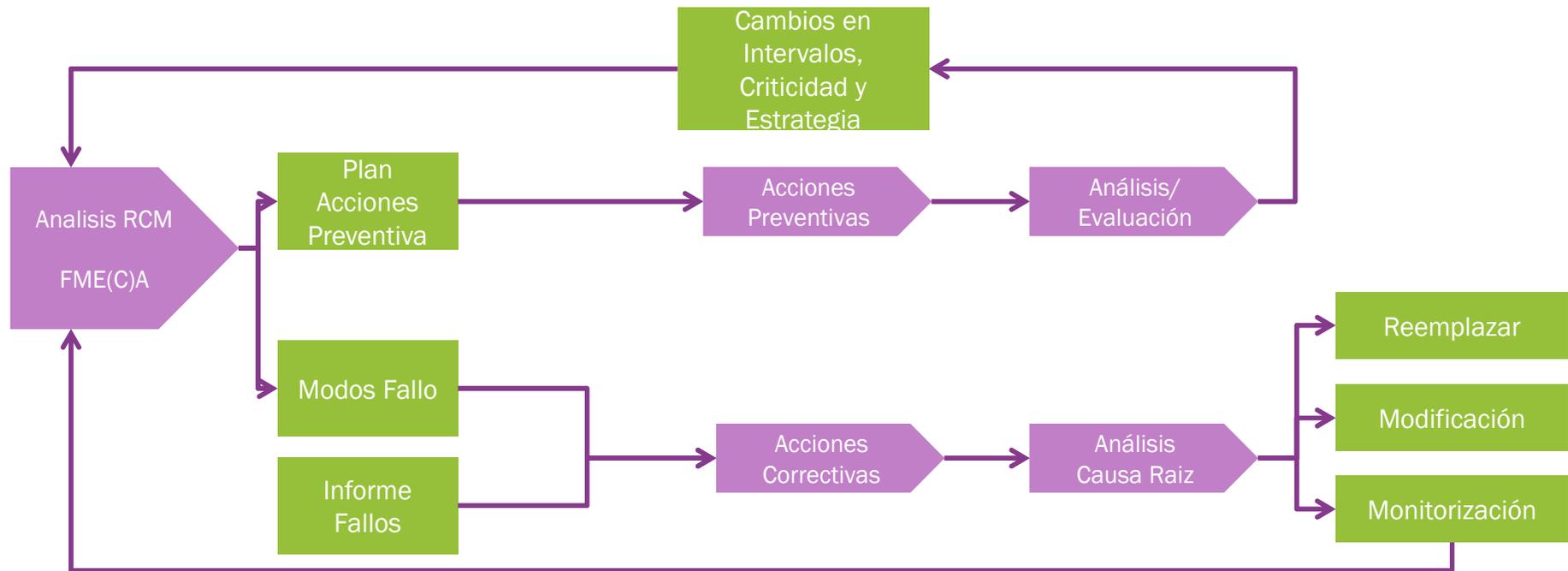
ELIMINAR TODOS LOS FALLOS



REDUCCIÓN EFECTIVA DE COSTES



MENOS MANTENIMIENTO PERO CORRECTO

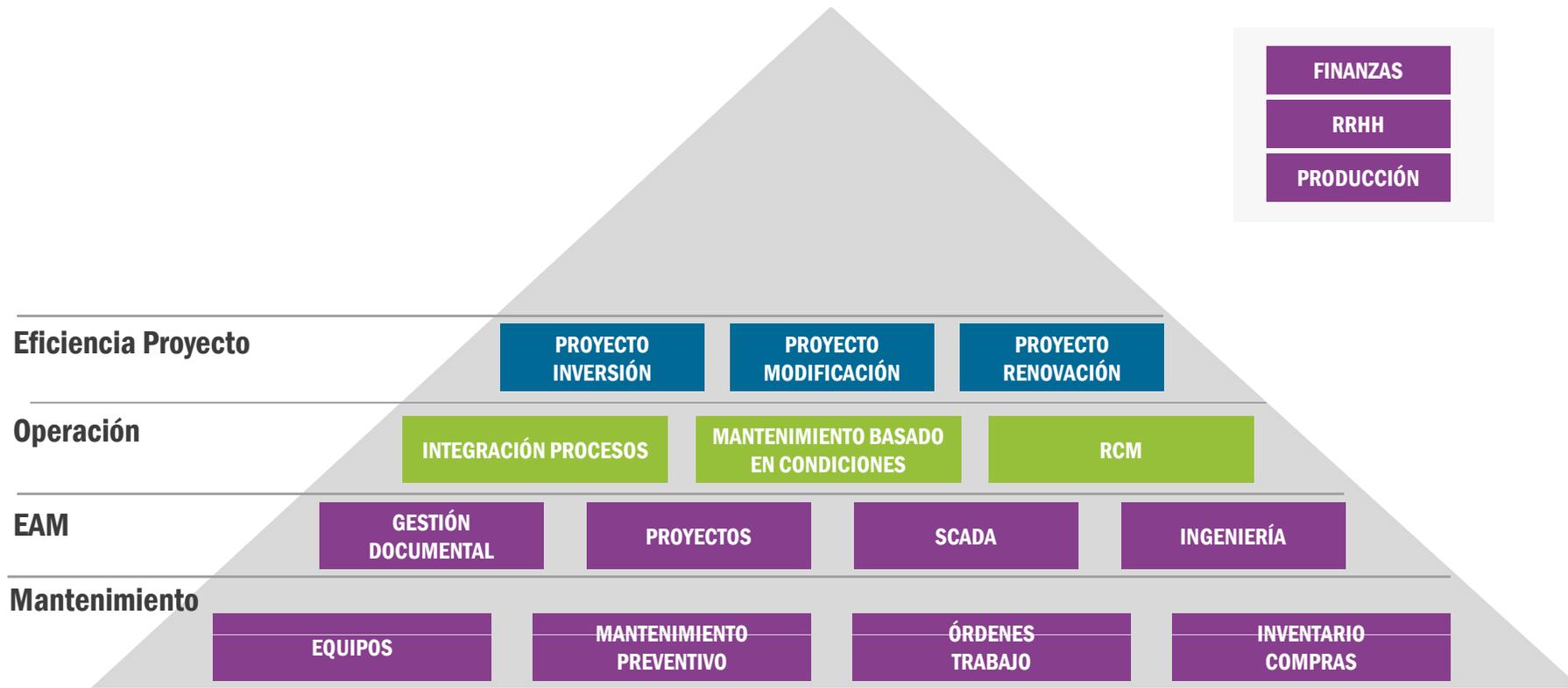


BENEFICIOS EXCELENCIA INFRAESTRUCTURA



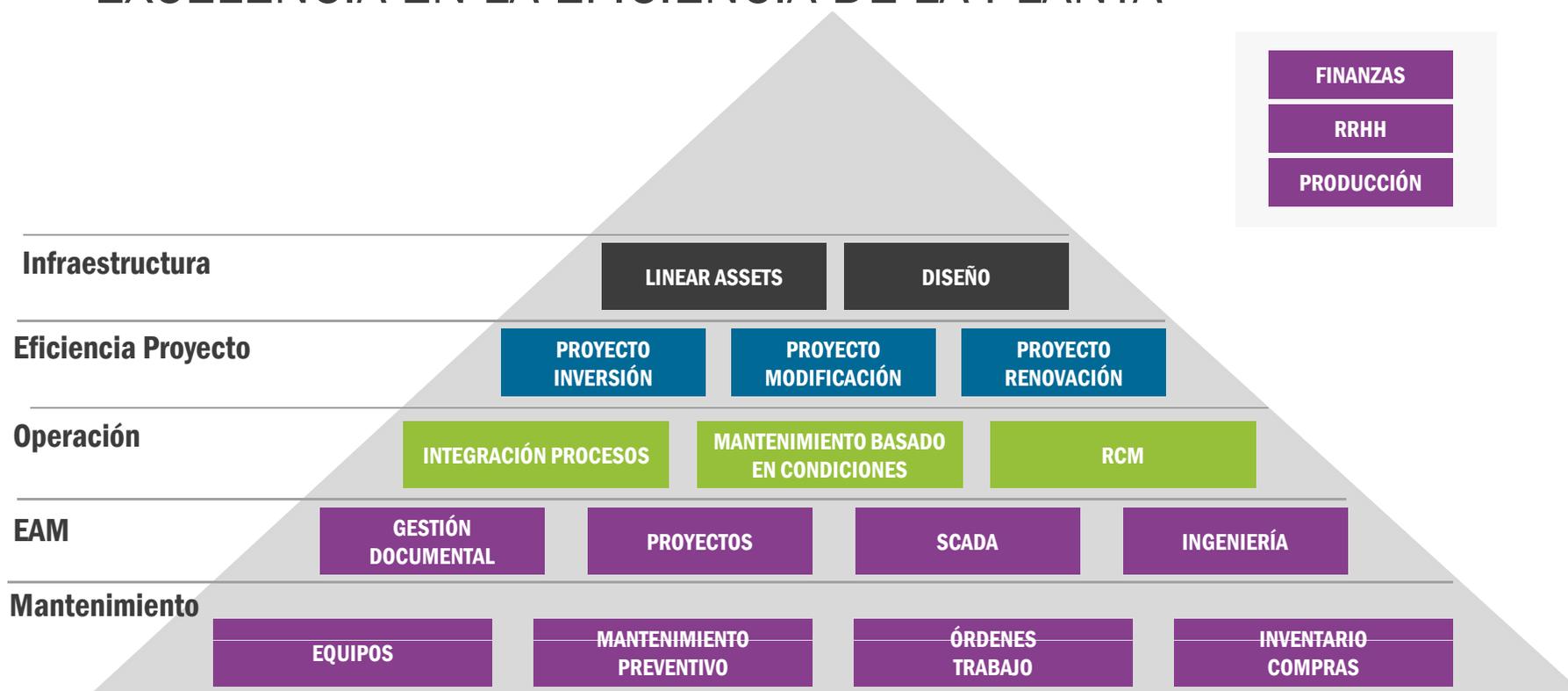
FIABILIDAD COMO OBJETIVO

INTENSIVA ACTIVOS = INTENSIVA EN PROYECTOS



FIABILIDAD COMO OBJETIVO

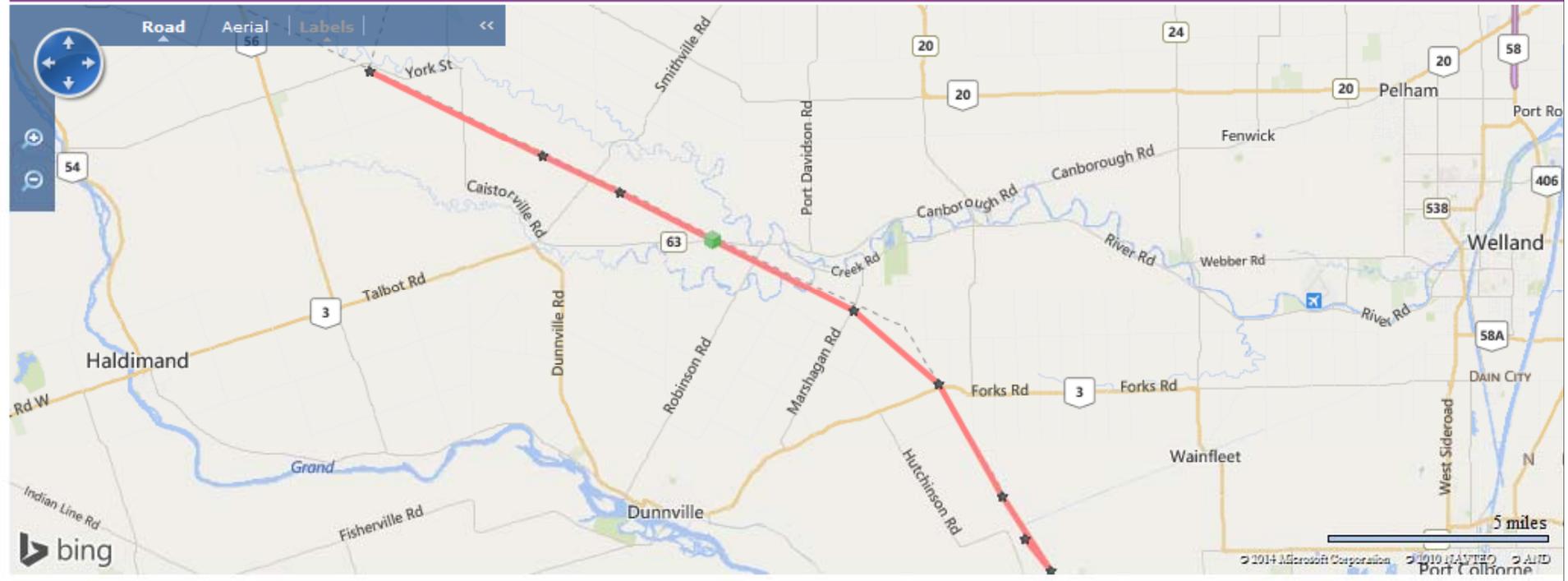
EXCELENCIA EN LA EFICIENCIA DE LA PLANTA



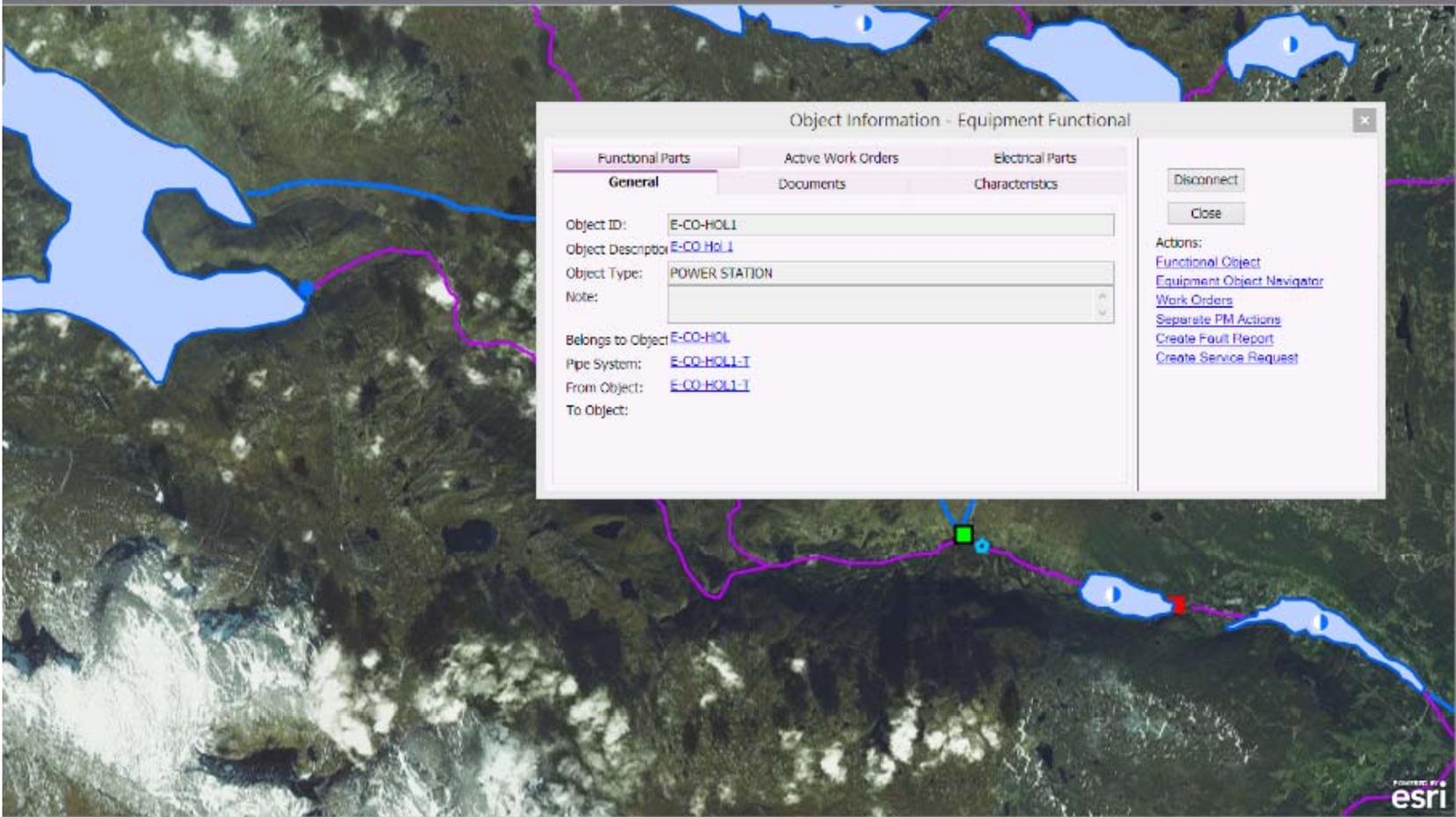
Linear Asset

Linear Asset ID:	<input type="text" value="M1EB"/>	Description:	<input type="text" value="M1EB"/>	Revision No:	<input type="text" value="1"/>
Design Status:	<input type="text" value="Completed"/>	Operational Status:	<input type="text" value="In Operation"/>	Revision Status:	<input type="text" value="Active"/>
Length:	<input type="text" value="15"/>	UoM Length:	<input type="text" value="km"/>	<input checked="" type="checkbox"/> Pre-posting	
Site:	<input type="text" value="70"/>	UoM Offset:	<input type="text" value="m"/>	<input checked="" type="checkbox"/> Latest Revision	

- General
- Segments
- Elements
- Connections
- Sections
- Visualizer**
- History







Object Information - Equipment Functional

Functional Parts | Active Work Orders | Electrical Parts

General | Documents | Characteristics

Object ID:

Object Description:

Object Type:

Note:

Belongs to Object: [E-CO-HOLL](#)

Pipe System: [E-CO-HOLL-I](#)

From Object: [E-CO-HOLL-I](#)

To Object:

Disconnect

Close

Actions:

- [Functional Object](#)
- [Equipment Object Navigator](#)
- [Work Orders](#)
- [Separate PM Actions](#)
- [Create Fault Report](#)
- [Create Service Request](#)

Map Control Panel

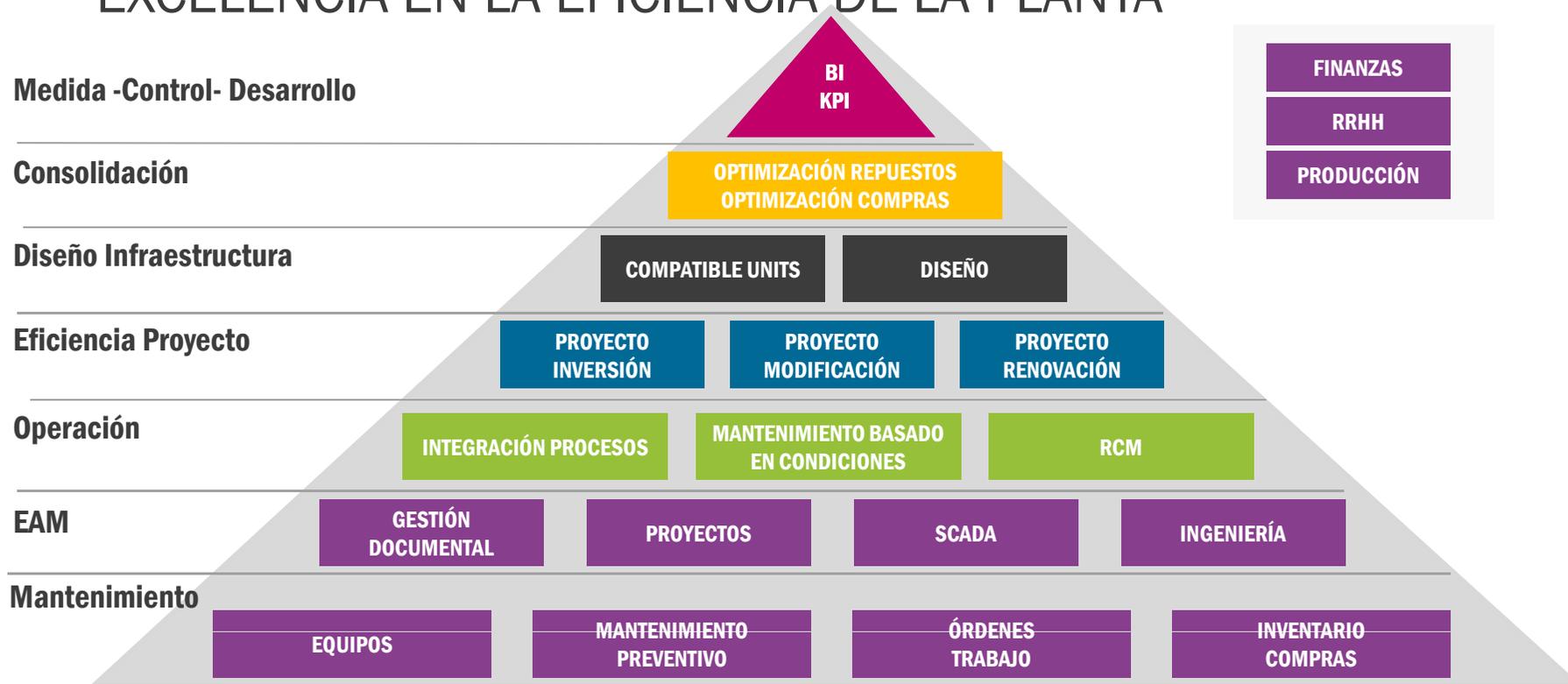
- Basemap Layers
 - World Imagery
- Editable Layers
 - River
 - Power Station
 - Fault Report
 - Water Reservoir
 - Dam
 - Measurement Station
- Reservoir
- Measurement Point
 - Case
 - Tunnel

Business Object Key :



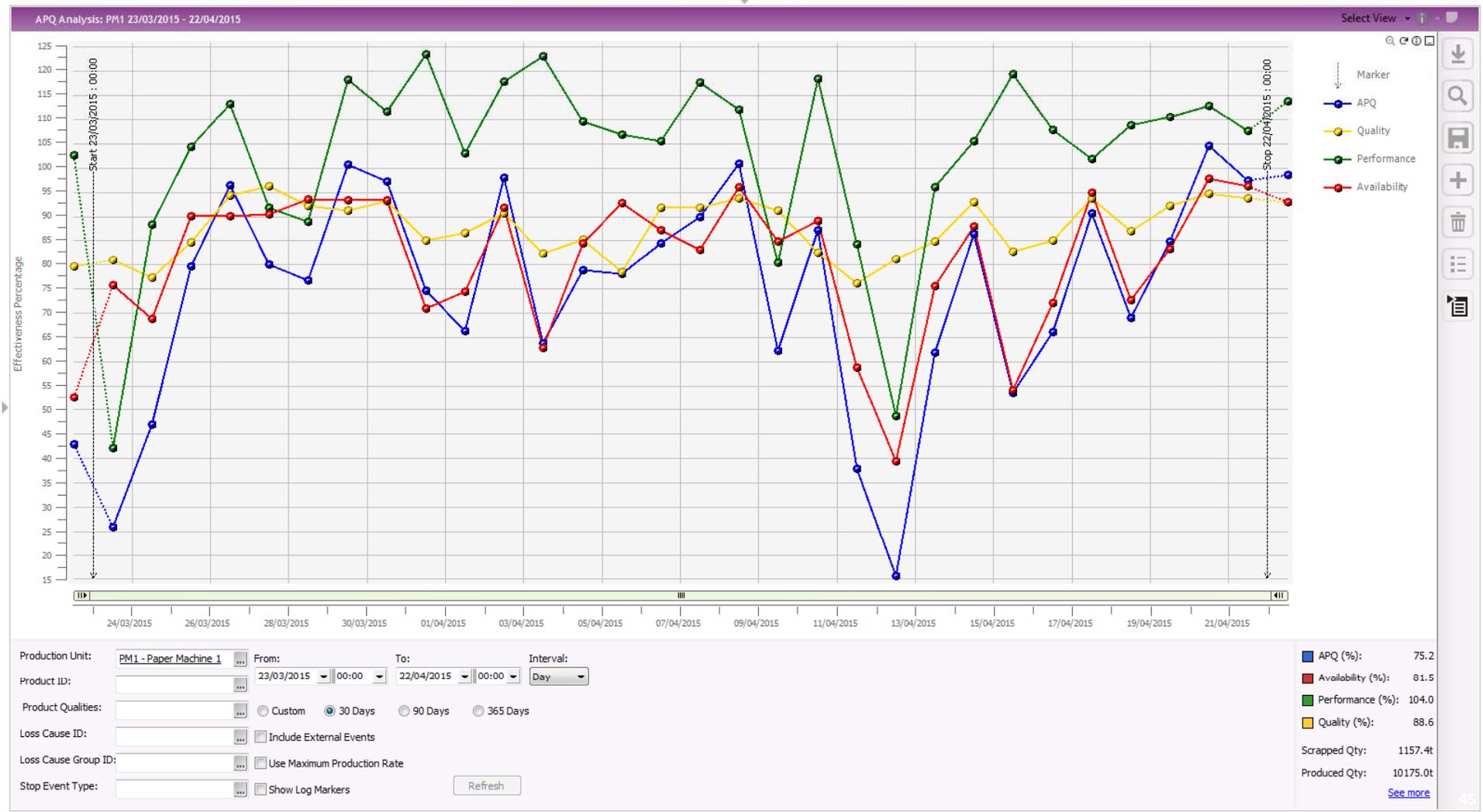
FIABILIDAD COMO OBJETIVO

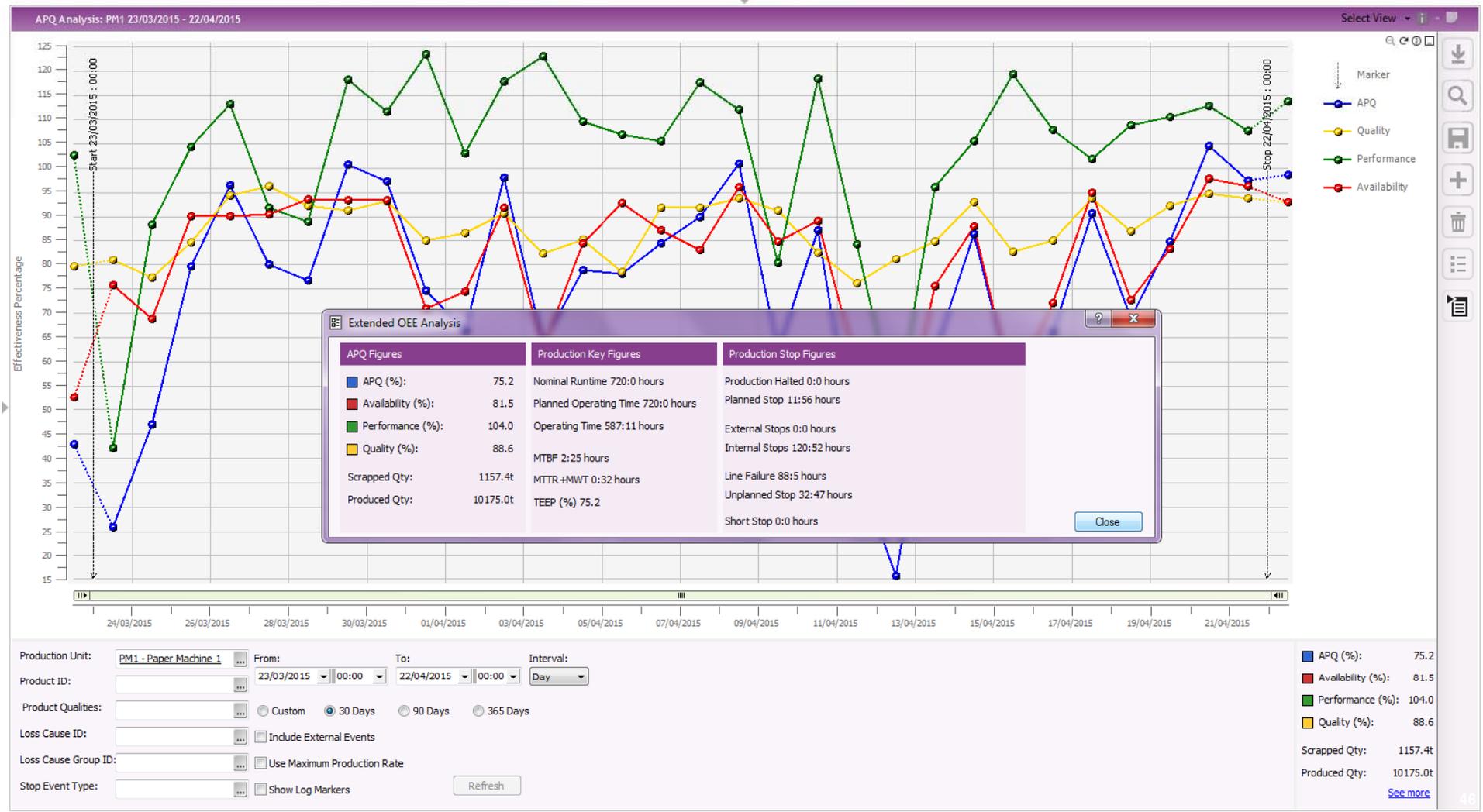
EXCELENCIA EN LA EFICIENCIA DE LA PLANTA





**“NO SE PUEDE MEDIR
NO SE PUEDE GESTIONAR”**





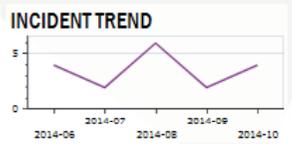
- HUD Over...
- ASSET M...
- Prepare...
- 70 - Abs...
- Service R...
- SERVICE...
- Explore E...
- Case

INCIDENTS PAST 24 HOURS

Time	Object ID	Severity	Incident Class	Incident
00:00	PM-31	Major	Fire / Heat	Motor on fire

LAST INCIDENT

0
days ago



TODAY'S MAINTENANCE PLAN

Object ID	WO Number	Directive	Work Type
PM-341-PA-001	203023	Top WO 2 - to re sch...	Other
PM-341-PA-001	203006	Top WO to re schedul...	Other
PM-341-PA-001	202987	WO ink operations to...	Other
PM-341-PA-001	202996	Pure WO to be resch...	Other
PM-341-PA-001	202986	Pure WO to be resch...	Other

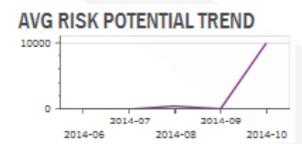
WORK ORDERS	OVERDUE SEPARATE PM'S	OVERDUE ROUTE PM'S
Corrective	369	22
Preventive Separate	48	28
Route	48	
Installation	2	
Modification	1	

PLANNED RISK ASSESSMENTS

Planned Date	Object ID	Risk Potential	Description
2014-07-07	PM-31	15	Quality check
2014-08-20	MOT64	1000	Work Lates
2014-08-28	Q10092	21	Work Lates
2014-08-31	Q10092	21	Work Lates
2014-09-04	MOT64, PM-315-L-0008	100	Material Assessment

AVERAGE RISK POTENTIAL

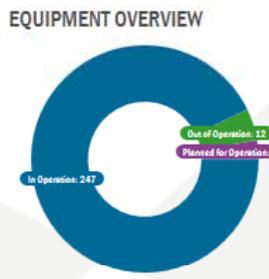
5000,00
for the current month



PLANNED SHUTDOWNS NEXT 7 DAYS

Event Id	Object ID	Planned From Date	Planned To Date
----------	-----------	-------------------	-----------------

STOP EVENTS	SPEED EVENTS	SCRAP EVENTS
0 last 24 hours	0 last 24 hours	0 last 24 hours



PROJECT EXCEPTIONS

ACTIVITY EXCEPTIONS	Count
Late Planned	7
Late Released	65
Cost Exceptions	4
Hour Exceptions	3
LATE ORDERS	
Late Work Orders	6
Late Purchase Orders	1

MY APPROVALS

CATEGORY	Count
PURCHASING	
Purchase Requisitions	1
Purchase Orders	2
Invoices	2
LINE MANAGEMENT	
Vacations	0
Time Reporting	1
Expenses	2
DOCUMENTS	
OTHERS	7

ACTIVITIES NEXT 30 DAYS

To Start (Critical)	0
To Finish (Critical)	0
To Start	0
To Finish	0

Green Circle - CPI >= 1
Purple Triangle - CPI < 1
Green Circle - SPI >= 1
Purple Triangle - SPI < 1

PROJECTS

Project ID	Name	CPI	SPI
D_PROJ_1	Project XXG	▼	▼
PR100	Internal Project 100 in project con	▼	▼
ANVA_P3	Anders V project 3	▼	▼
PM41	New Paper Machine 41	●	▼
ANVA_P1	Project1	▼	▼

- JAAPUKS...
- Rental Lo...
- Element...
- Lobby Ov...
- Data Sour...
- Rental W...
- Procurem...
- User Expert
- Inventory
- Sales
- MY Admin

FILTERED ON SUPPLIER:

The Supplier filter applies to all elements except for the Request for Quotation.



REQUISITIONS

12

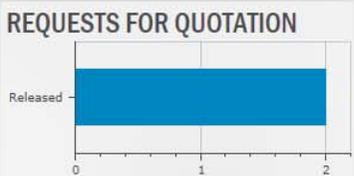
To Process



QUOTATIONS

2

To Process



ORDERS

6

To Send

PURCHASE ORDERS TO SEND

Supplier	Week	Total
ABC	1419	1
ABC	1421	1
ABC	1422	1
ACORN	1423	2
ABC	1507	1

OVERDUE QUOTATION LINES

0

OVERDUE ORDER LINES

2

REQUISITIONS

0

To Authorize

ORDERS

0

To Authorize



ARRIVALS

14

To Receive

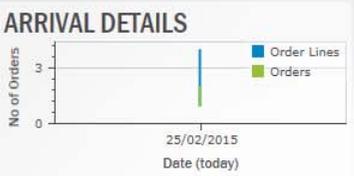


QUALITY VALUE DETAILS

Supplier	Scrapped Value	Returned Value
ABC	0	350
SFT	0	30

RELIABILITY DETAILS

Supplier	Early Orders	Late Orders
ACORN	0	1
SFT	1	0
ABC	0	2



PERFECT ORDER ANALYSIS

	Incomplete
ABC	2
ACORN	1
SFT	1

JAAP AGREEMENTS TO EXPIRE

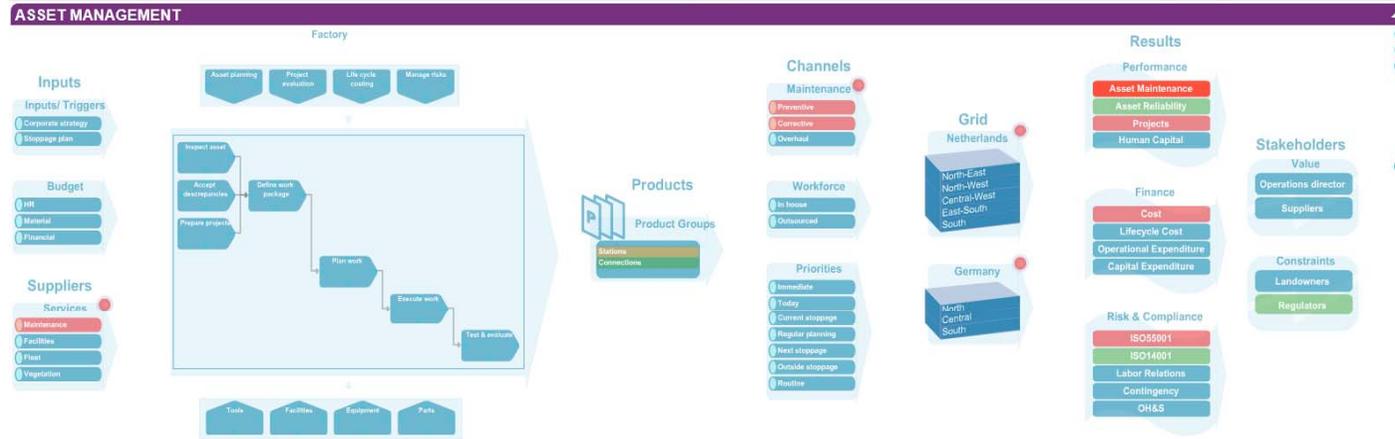
5

Chase these up!

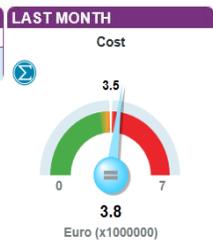


INTELIGENCIA OPERACIONAL APLICADA AL MANTENIMIENTO

ESTRATEGIA ASSET MANAGEMENT



Indicator	Unit	Actual	Trend	Planned
Cost	Euro (x1000000)	3.8	=	3.5



INFORMATION

Cost - Finance

Cube Indicator

- Context: Finance (Business Cube)
- Category: Financial (Category)
- Scale: 1,000,000
- Type: Performance
- Unit: Euro
- Roll Up Tree: True
- Roll Up: Sum
- Time Aggregation: Default
- Dec. Display: 1
- Min: 0
- Sequence: 11
- Fix Max Value: False
- Is Key: True
- Is Visible: True

Value Types

- Cost - Finance - Actual (Cube Indicator Value Type)
- Cost - Finance - Planned (Cube Indicator Value Type)



GEOLOCALIZACIÓN DE ACTIVOS

[Home](#) | [Key Results](#) | [Strategy](#) | [Asset GeoMap](#) | [Asset Overview](#)

Organization: TSO | Performance: July 2013, Actual versus Planned | Locking (1)

ASSET GEOMAP (LLS380.GLKRCHT2.220V)

Asset Type: No filter | Supplier: TI | Search:

Show markers | Use aggregation markers

Availability

82 %

Availability

Month	Actual (%)	Planned (%)
Jan 2013	85.2	85.2
Feb	85.2	85.2
Mar	85.2	85.2
Apr	85.2	85.2
May	85.2	85.2
Jun	85.2	85.2
Jul	85.2	85.2
Aug	85.2	85.2
Sep	85.2	85.2
Oct	85.2	85.2
Nov	85.2	85.2
Dec 2013	85.2	85.2

FAILURES TO ASSIGN

Failure nr	Failure	Status	Assigned To
265962	BU-AM 11-382 LLS380 rectifier nbr 2 failure	Open	Jim Johnson

FAILURES CLOSED

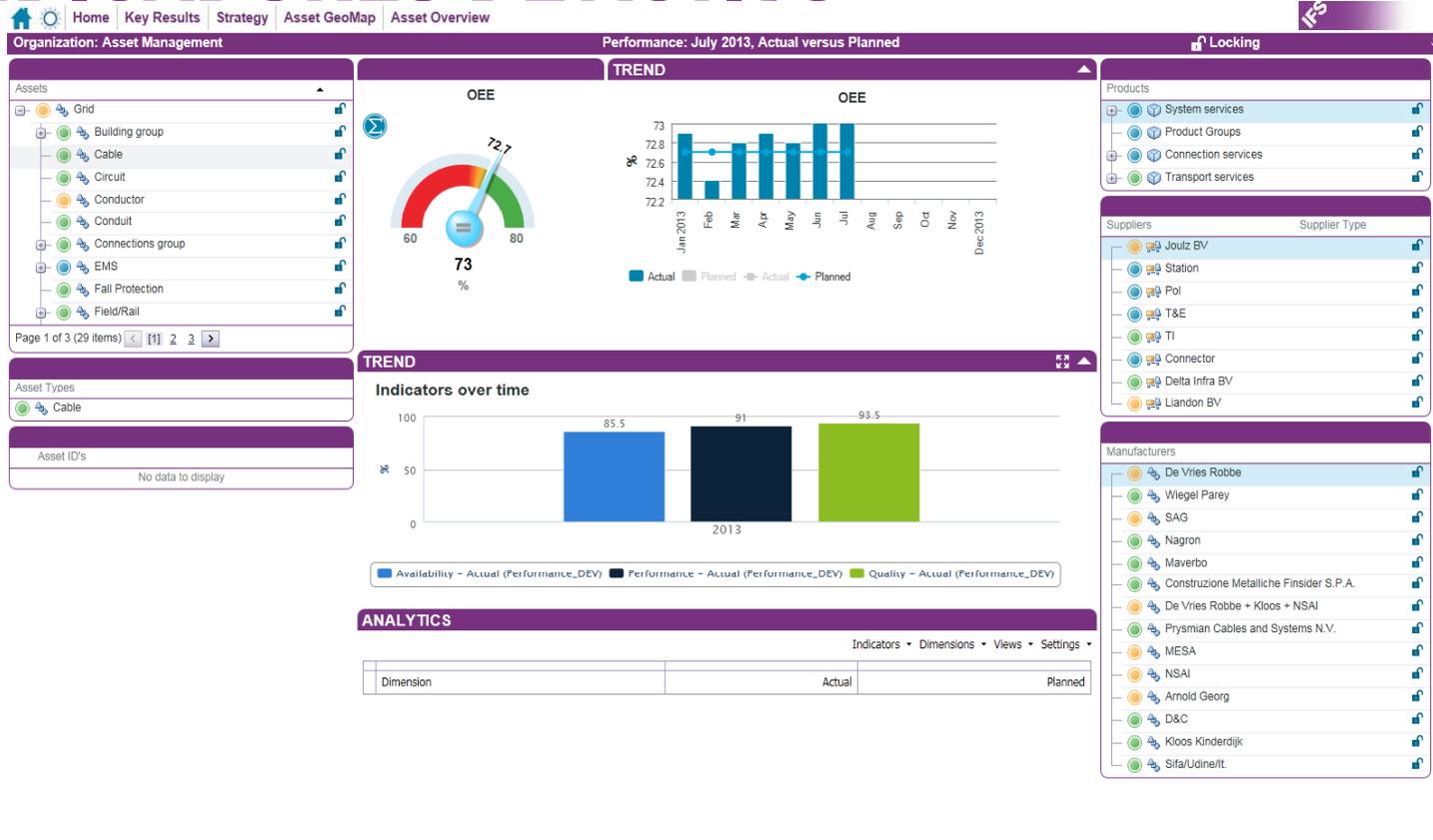
Failure nr	Failure	Action	Status
250001	BU-AM 11-382 LLS380 rectifier nbr 2 failure	Temporarily solved	Finished
240997	BU-AM 11-382 LLS380 rectifier nbr 2 failure	Temporarily solved	Finished

BU-AM 11-382 LLS380 rectifier nbr 2 failure

Failure

- Failure nr: 250001
- Assigned to: Marco Jurgen (Person)
- Registration Date: 3/5/2013
- Status: Finished (Failure Status)
- Type: No Control (Failure Type)
- Cause: Obsolescence (Failure Cause)
- Detection: Detected by EMS (Failure Detection)
- Action: Temporarily solved (Failure Action)
- Asset ID: LLS380.GLKRCHT2.220V (Asset ID)

INDICADORES DE ACTIVO



ANÁLISIS DE FALLOS

FAILURE TRACKING

Failure nr	Failure	Registration Date	Action	Asset ID
Interruption				
268886	BU-AM 11-656 Operation Failure nr 1 and power signal ZT150	7/16/2013	Temporarily solved	ZT150.DRKLINST
Obsolescence				
265172	BU-AM 11-273 DIM380 compressor, fire extinguisher	6/8/2013	Temporarily solved	52.345600
268627	VAS SS_150 could not be operated	5/11/2013	Temporarily solved	LD150.01.AVR.150KV
265417	BU-AM 11-273 AP150, transmission security failure	2/16/2013	Temporarily solved	AP150.05.SECBEK
264283	STO-11 AP_150 transmission security failure	1/18/2013	Temporarily solved	AP150.05.SECBEK
264238	STO-11 AP150 Compressor 2 Maximum Temp	1/17/2013	Temporarily solved	DIM150
Grounding Fault				
267896	BU-AM 11-478, battery 21 and 22 grounding failure	7/2/2013	Replacement	KIJ150.SECOBJ
Fatigue				
268917	BU-AM 11-656 RTW150 Coil 3 out of service	5/31/2013	Replacement	RTW150.18.SECOBJ
Obsolescence				
268565	Workshop Liftgate defect	5/6/2013	Repair	DIM380
264920	Grounding	2/3/2013	Repair	CST380.05.ATT.150KV
Damage				
263849	Obstruction lights BGM220.07 damaged	1/4/2013	Repair	BGM220.07
Fatigue				
264462	Relay Failure	1/24/2013	Make common	KIJ150.03.AKS.150KV
Obsolescence				

Page 1 of 2 (36 items) [1] 2

ASSIGNED ACTIONS

Subject	Assigned To	Priority	Due Date	Status	Completion [%]
Fire extinguisher	Marco Jurgen	Medium	2/27/2013	Proposed	0

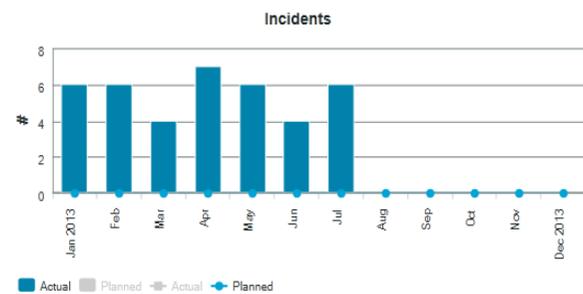
INFORMATION

BU-AM 11-273 DIM380 compressor, fire extinguisher Failure

BU-AM 11-273 DIM380 compressor and fire extinguisher report

Failure nr: 265172
 Registration Date: 6/8/2013
 Status: Finished (Failure Status)
 Type: Not in value list - No code (Failure Type)
 Cause: Obsolescence (Failure Cause)
 Detection: Equipment alert (Failure Detection)
 Action: Temporarily solved (Failure Action)
 Asset ID: 52.345600 (Asset ID)

FAILURES TREND



ASSET ID INFORMATION

Asset ID	Asset Type	Location	Product
52.345600	Fire Extinguishing System	Station Diemen 380 KV	

GESTIÓN DIARIA DE FALLOS

Home Daily Management

IFS

Person: Jim Johnson Performance: Last Period, Actual versus Planned Locking

ASSIGNED FAILURES								
Failure nr	Failure	Registration Date	Type	Cause	Detection	Action	Asset ID	Assigned To
265961	BU-AM 11-382 GDC DIV non-operational	7/3/2013	Not in value list - No code	Obsolescence	Detected by EMS		LLS380.ACCUBAT1.220V	
267740	BU-AM 11-478, Switchboard (air) pressure to low	7/2/2013	Non or incorrect pressure	Run-out / wear	Oral Notification from station		KIJ150.00.SECOBJ	
267424	BU-AM 11-382 ZT-LD, Shortcut connection	6/10/2013	Not in value list - No code	Short circuit	Via message / failure corresponding equipment		ZT-LD150	
265173	BU-AM 11-478 tripped mvl	7/15/2013	No suspension	Run-out / wear	Equipment alert		MVL-SMH380 W	Jim Johnson
265665	AP_150 Crane in hall defect	7/9/2013	Not in value list - No code	Run-out / wear	Oral Notification from station		AP150	Jim Johnson
266036	BU-AM 11-382 LD150 Failed to Operate.	7/9/2013	No Control	Obsolescence	During operating		LD150.11.PRIMOBJ	Jim Johnson
265962	BU-AM 11-382 LLS380 rectifier nbr 2 failure	7/3/2013	Not in value list - No code	Obsolescence	Detected by EMS		LLS380.GLKRCHT2.220V	Jim Johnson

ACTIONS						
Subject	Initiated By	Assigned To	Detail	Due Date	Completion [%]	Status
Accumulator battery	Jim Johnson	Marco Jurgen	BU-AM 11-382 GDC DIV disabled and signal of and on due to ageing. Renew relais temporarily.	7/16/2013	0	Proposed

ANALYSIS		
Name	Description	Arguments
No data to display		

INFORMATION

BU-AM 11-382 GDC DIV non-operational Failure	
BU-AM 11-382 GDC DIV non-operational	
Failure nr	265961
Registration Date	7/3/2013
Status	Open (Failure Status)
Type	Not in value list - No code (Failure Type)
Cause	Obsolescence (Failure Cause)
Detection	Detected by EMS (Failure Detection)
Asset ID	LLS380.ACCUBAT1.220V (Asset ID)



TENDENCIAS EN IFS APPLICATIONS



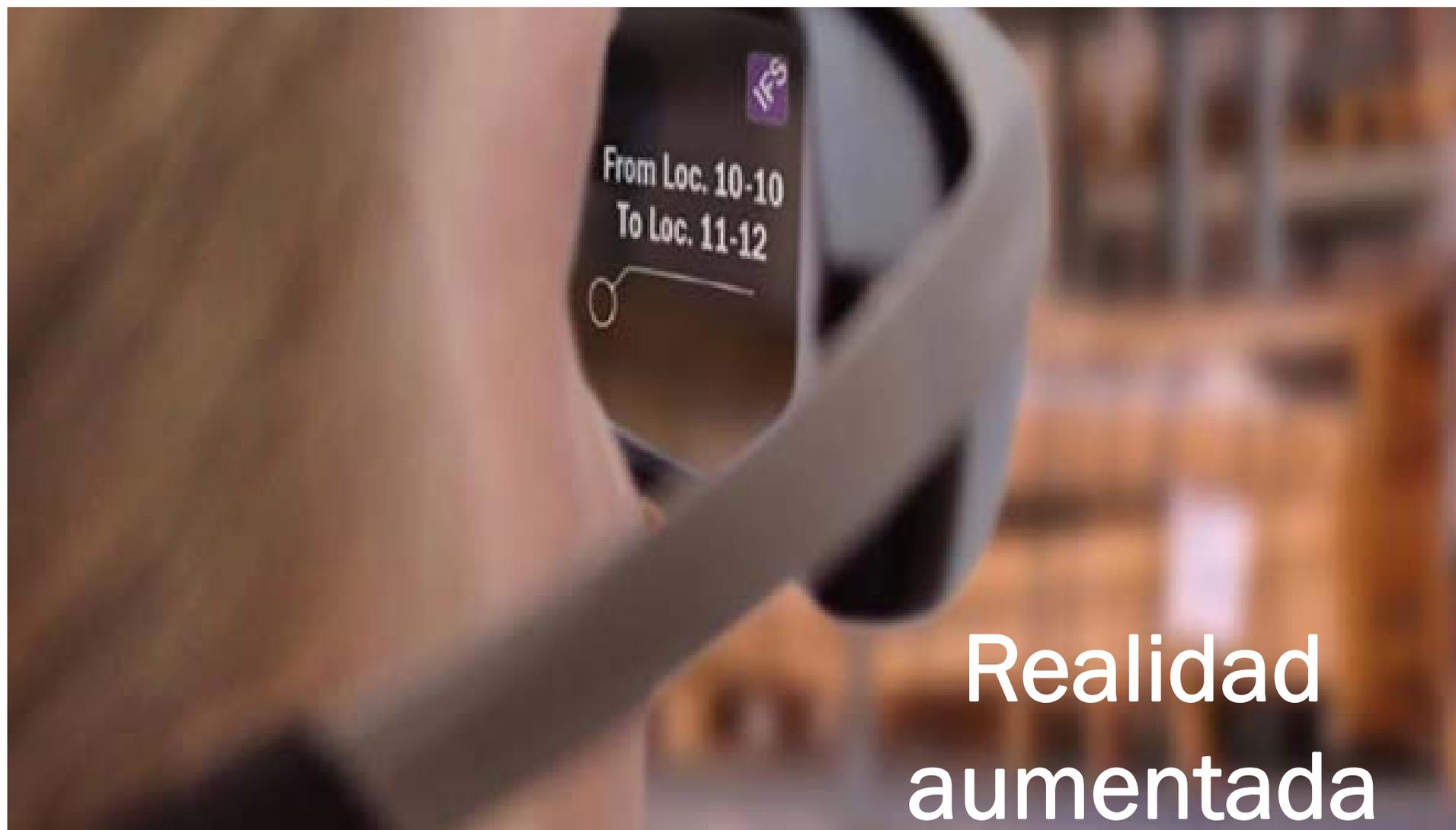
IFS LABS



Dispositivos
inteligentes

Reconocimiento por voz





Realidad
aumentada



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