

Thermal and temperature measurement solutions

# Group Management Manual



GMM Rev. 1

This manual is:

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Date :

QA visa :

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**THERMOCOAX**  
*from vision to reality*

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## Issuance table

		VISAS		
Issuance	Date	Author	Quality	General Management
01	26/05/2014	PGU	P. GUILLOIN 	D. MALLET 
<b>Purpose of this issuance:</b> Cancels and replaces AD000D000 REV. 5 Integration of ISOPAD's activities. New THERMOCOAXvalues				

## 1. Introduction

This Management Manual describes the company organization to meet the requirements of all interested parties and to manage permanent improvement of activities. This manual covers all company activities.

This Management Manual is modular to cover all standard requirements in the following fields of activity.

Référentiels	Domaines d'application	Périmètre
<b>ISO 9001 : 2000</b> Quality Management System - Requirements	Design, development, production, trade and sale of sensors, heating elements, transmission cables and accessories. Qualification, measure and calibration of temperature sensors	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ SGG</li> <li>▪ SRN</li> <li>▪ THX Inc</li> <li>▪ THX ISOPAD GmbH</li> </ul>
<b>EN 9100</b>	Design, development and production of sensors, heating elements, transmission cable and accessories.	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ SGG</li> <li>▪ SRN</li> </ul>
<b>PART 21 /G</b>	C1 and C2 categories Heating elements, sensors, transmission cable and accessories.	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ SGG</li> </ul>
<b>ISO 14001 : 2004</b> Environmental Management System	Design, development and production of sensors, heating elements, transmission cable and accessories.	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ THX ISOPAD GmbH</li> </ul>
<b>OHSAS 18001</b> Safety Management System	Design, development and production of sensors, heating elements, transmission cable and accessories.	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ SGG</li> <li>▪ SRN</li> </ul>
<ul style="list-style-type: none"> <li>• 10 CFR 50</li> <li>• Code 50- C/SG-Q de l'AEIA de 1996</li> <li>• RCC- M &amp; E</li> <li>• KTA 1401</li> <li>• ASME Section III – Subsect. NCA + NQA1</li> <li>• YVL</li> <li>• AQAP 2110</li> </ul>	Design, development, production, trade and sale of sensors, heating elements, transmission cables and accessories. Qualification, measure and calibration of temperature sensors	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ SGG</li> <li>▪ SRN</li> </ul>
<b>ISO/IEC 80079-34</b> <b>ATEX</b>	Design, development and production of temperature sensors Application of quality systems for ATEX equipment manufacture	<ul style="list-style-type: none"> <li>▪ PQV</li> <li>▪ SRN</li> <li>▪ SGG</li> <li>▪ THX ISOPAD GmbH</li> </ul>
<b>ISO 17025</b> <b>COFRAC</b>	Qualification, measure and calibration of temperature sensors Laboratory accreditation Nr 2-1384 – scope available on <a href="http://www.cofrac.com">www.cofrac.com</a>	<ul style="list-style-type: none"> <li>▪ PQV</li> </ul>

<b>PQV</b>	Planquivon site	Planquivon F 61430 ATHIS DE L'ORNE
<b>SGG</b>	Saint Georges des Groseillers site	Rue du Pré Neuf F 61100 SAINT-GEORGES DES GROSEILLERS
<b>SRN</b>	Site de Suresnes site	40 Bd Henri Sellier F 92156 SURESNES
<b>THX Inc</b>	USA	THX Inc - 6825 Shiloh road East – suite B7 Alpharetta – GA30005-USA
<b>THX ISOPAD GmbH</b>	Germany	THERMOCOAX GmbH Englerstrasse 11 – D 69126 HEIDELBERG

## 2. Mission, vision and strategy

### 2.1 Mission

Be the Creator of innovative solutions for thermal applications and temperature measurement.

### 2.2 Vision

To become the international leader of creators of high tech solutions based on the mineral insulated cable with constant wattage and self regulation and heating systems.

### 2.3 Strategy

Since the beginning of the 90's and with the implementation of THERMOCOAX ISOPAD in 2012, THERMOCOAX has put the customer at the heart of its activities. THERMOCOAX General Management identified expectations and requirements from customers and interested parties to define its strategy in 5 lines.

- **Expert** in thermal and temperature measurement solutions
- **International** references
- **Niche** position in 6 main market lines
- **Prestigious customers** in high- technology industry
- **Customized** solutions adapted to any customers demands



The following slogan is attached to the strategy:

*"from vision to reality"*

## 3. Presentation of the company

### 3.1 Our profession

- ↳ Cable manufacturer with 2 drawingspecialities: drawing and swaging of mineral insulated cables
- ↳ Design and manufacturing of cables, heating elements, temperature, vibrations, tip clearance, neutron, overheat sensors and heating applications,
- ↳ Measurement and calibration of temperature sensors.
- ↳ Prototypes qualification

3.2 Our sites and acces map

**Sales Dept International : 40 Boulevard Henri Sellier - 92150 Suresnes- Tel. : 01 41 38 80 50**

**THERMOCOAX**  
from vision to reality

**THERMOCOAX**  
40 Bd Henri Sellier  
92156 SURESNESCEDEX  
Tel.: +33 1 41 38 80 50  
Fax : +33 1 41 38 80 58

**Head Office and Production Unit in France**  
Planquignon – 61430 ATHIS DE L'ORNE  
Tel.: 02 33 62 81 00

**THERMOCOAX**  
D962  
Planquignon  
61430 ATHIS DE L'ORNE  
Tel.: +33 (0)2 33 62 81 00  
Fax: +33 (0)2 33 62 81 09  
Navigation system:  
Town: Saint Pierre du Regard (61)  
Street: Planquignon  
Nr : none

**2<sup>nd</sup> Production Unit in France**  
Rue du Pré Neuf - 61100 SAINT-GEORGES-DES GROSEILLERS  
Tel. : 02 33 62 81 00

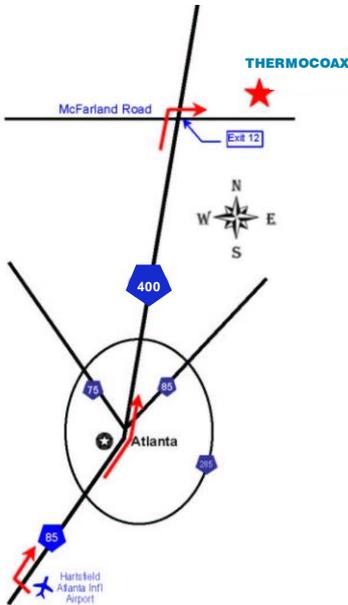
De Planquignon: entrer dans Saint Georges - Flers  
Continuer sur la Rue Henri Vénard (D962) [1.09km]  
Prendre à droite la Rue Charles Mousset [100m]  
Prendre à droite la Rue de Saint-Georges (D300) [96m]  
Continuer sur la Rue de Flers (D300) [47m]  
Prendre à gauche la Rue du Pré Neuf [200m]

**Sales and Production in the USA**

THERMOCOAX, Inc. - 6825 Shiloh Road East, Ste. B7  
 Alpharetta, GA 30005 - USA  
 Tel.: 678-947-5510

Directions to THERMOCOAX from GA400:

- Use Exit# 12 (McFarland Road)
  - Head SE onto McFarland
  - Turn Left at 2nd Traffic Light (into Shiloh Farms) onto Shiloh Road
  - Turn Right at 1st Intersection (just past GM Training Center on your right)
  - Turn Right into "Meadows Commerce"
  - driveway (you'll see bldg 6835 to right of the driveway)
  - Go to end of drive and turn Left (Building 6825 is behind Bldg 6815)
- THERMOCOAX office is all the way at the end of Building in Suite B7



**Sales and Production in Germany**

THERMOCOAX Isopad GmbH / THERMOCOAX GmbH  
 Tel.: 06221 3043 0  
 Englerstrasse 11 - D- 69126 Heidelberg



**Industrial zone – Industriegebiet Rohrbach -Süd**



### 3.3 Our markets

- NUCLEAR
- AERONAUTICS - DEFENCE - SPACE
- POWER GENERATION
- SEMI CONDUCTORS – ELECTRONICS - SOLAR
- PETROCHIMICAL – MEDICAL - ANALYTICAL
- INDUSTRIES

### 3.4 Our products

#### Temperature sensors

- Thermoelectric cable
- Standard, stick-on, high temperature, differential and specific sheath thermocouples
- Thermal fluxmeters
- Resistance probes
- Pyrometric harness

#### Other sensors

- VIBRACOAX® Weigh-In-Motion sensors
- NEGACOAX® Overheating and fire sensors
- TURBOCOAX® Tip clearance and shaft displacement sensors
- NEUTROCOAX® Neutron detectors

#### Heating devices and elements

- Standard cables and heating elements
- Customized heating devices :
  - Ovens
  - Infra red sources
  - Heating plates
  - Heaters
  - Tracking, demisting and anti-icing devices
  - Heating Tapes
  - Glass Cloth and Silicon Panels/Jackets
  - Heated Hoses
  - Drum- and Gas Bottle Heaters

#### Signal Transmission Cables

- Single core, multi-core cables
- Single or multi sheath cables (metallic and/or organic)
- Mineral and organic insulated cables
- Insulators : magnesia, alumina or silica

### 3.5 Our values

In line with our commitment in Sustainable Development, we defined following key values of the company.

- LEADERSHIP
- TRANSPARENCY
- CUSTOMER ORIENTATION
- LONG TERM VISION AND IMPLEMENTATION
- INNOVATION
- EXCELLENCE
- PERMANENT IMPROVEMENT

## 4. General Management commitment

I, undersigned, Henry-Dominique MALLET, Chief Executive Officer of THERMOCOAX, commit myself to:

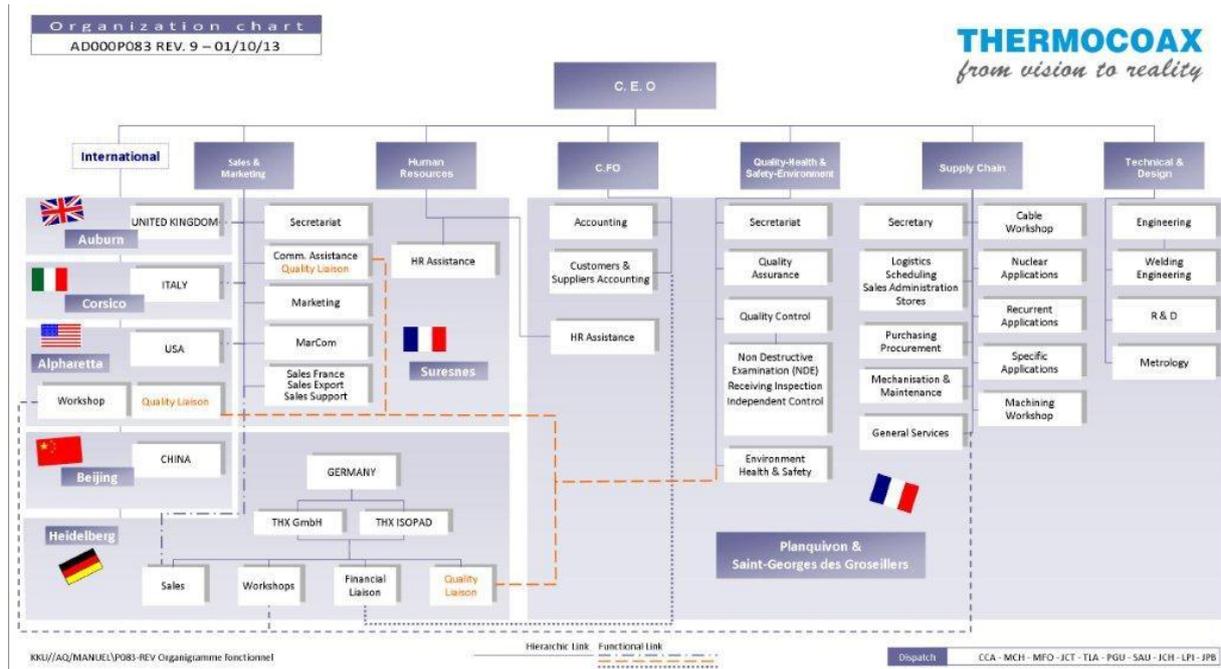
- respect legal, regulatory and customers requirements and communicate their importance to the organization,
- implement the rules described in the current Manual to all THERMOCOAX activities and products designed, developed and manufactured by the company,
- develop our niche strategy to fit our QHSE policy and targets,
- conduct QHSE Management reviews,
- ensure that the resources are available to achieve the targets and maintain the Management System and improve its efficiency,
- define the responsibilities and authorities and make sure that the staff having responsibility within the frame of this Manual is continuously informed about deviation consequences to the imposed rules,
- in harmony with the company's strategy, policy and targets, to uphold and develop the QHSE, Human Resources, F&A systems and make sure to satisfy all interested parties permanently,
- maintain the independence of QHSE function and delegate to its manager, the means to execute his mandate and guarantee thereby correct application of the dispositions defined in this Manual,
- prevent from failure, accident or pollution risk,
- continue to apply the Nuclear Safety related culture,
- ensure that the temperature calibration laboratory is in conformity with the ISO/CEI/17025 standards and that it implements best professional practices in order to perform high quality tests and calibrations for our internal and external customers,
- carry on with the process of identification and risk control for the company and product realization,
- continuously improve the company's performance.



Henry-Dominique Mallet

Chief Executive Officer

## 5. THERMOCOAX Organization chart



## 6. Performance management

### 6.1 General Management Responsibilities

#### 6.1.1 General Target and Policy

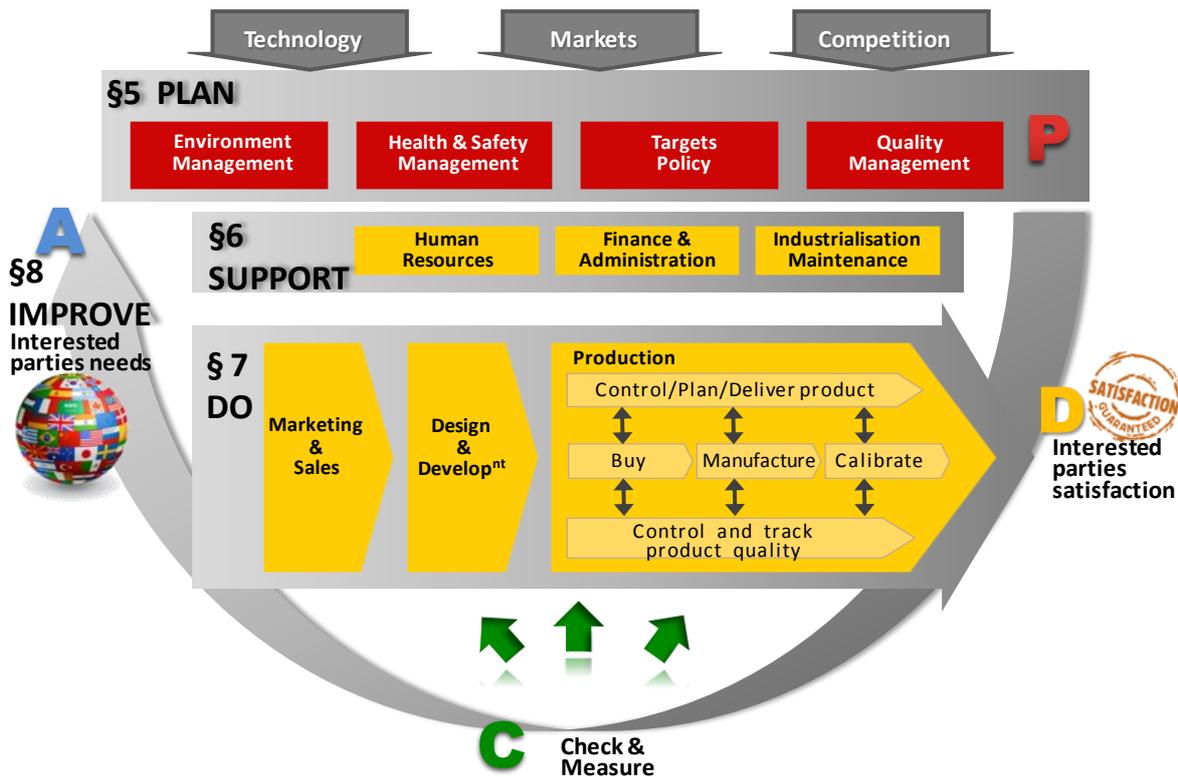
The QSE Policy is undersigned by the General Management team and posted in all THERMOCOAX SAS location sites. This policy is reviewed according to the evolutions of the company. The general targets appear on the QHSE policy. Each company objective is included in the annual Company Management program.

### 6.2 Process Identification

The integrated THERMOCOAX management systems are based upon a process approach which is organized in 3 main parts:

- **Management process**
- **Support process**
- **Realization process**

### 6.3 Processmapping



The company's activities are guided and coordinated by the management processes via the « Plan-DO-Check-Act »method.

Internal Audits, Control of non-conforming products, analysis of data, corrective and preventive actions are all part of the Management processes.

Assistance and internal services are summarized in the support processes.

The realisation processes are used for direct service delivery to external customers while in support and Management processes the internal customer will be in focus.

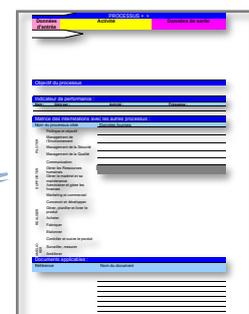
### 6.4 Processes description

THERMOCOAX processes are described in detailed charts including input and output data. Each process is yearly reviewed and deployed as input data in the Management Review.

The target of each process takes account of the performances indicators lists, their associated responsible people and the impacted activity.

The interrelation between each process is clearly defined and the applicable procedures are listed at the bottom of the form.

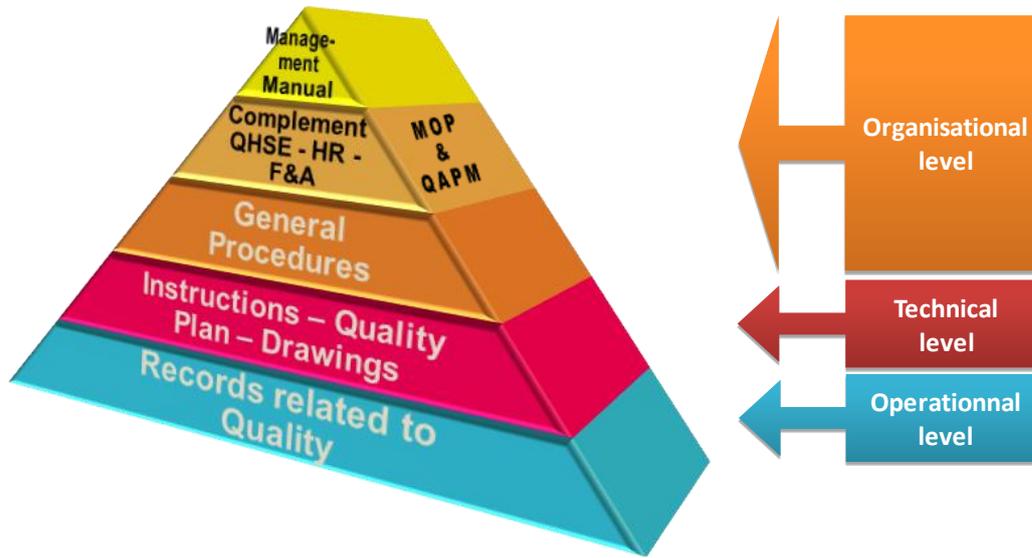
**PROCESSUS DESCRIPTION FORM**



THERMOCOAX -isopad-

All processus description sheets are attached to this Manual. The THERMOCOAX ISODPAD processes are described in the local main procedures which are listed in appendix.

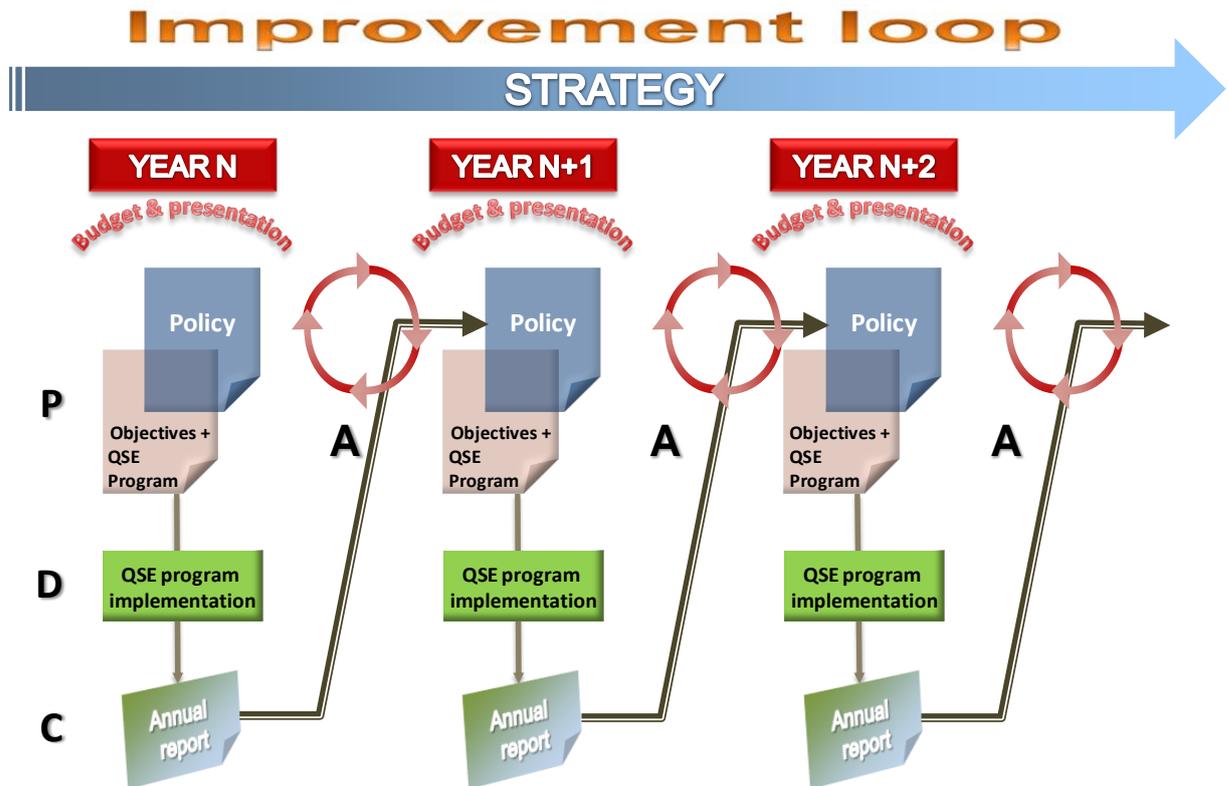
6.5 Documentation structure



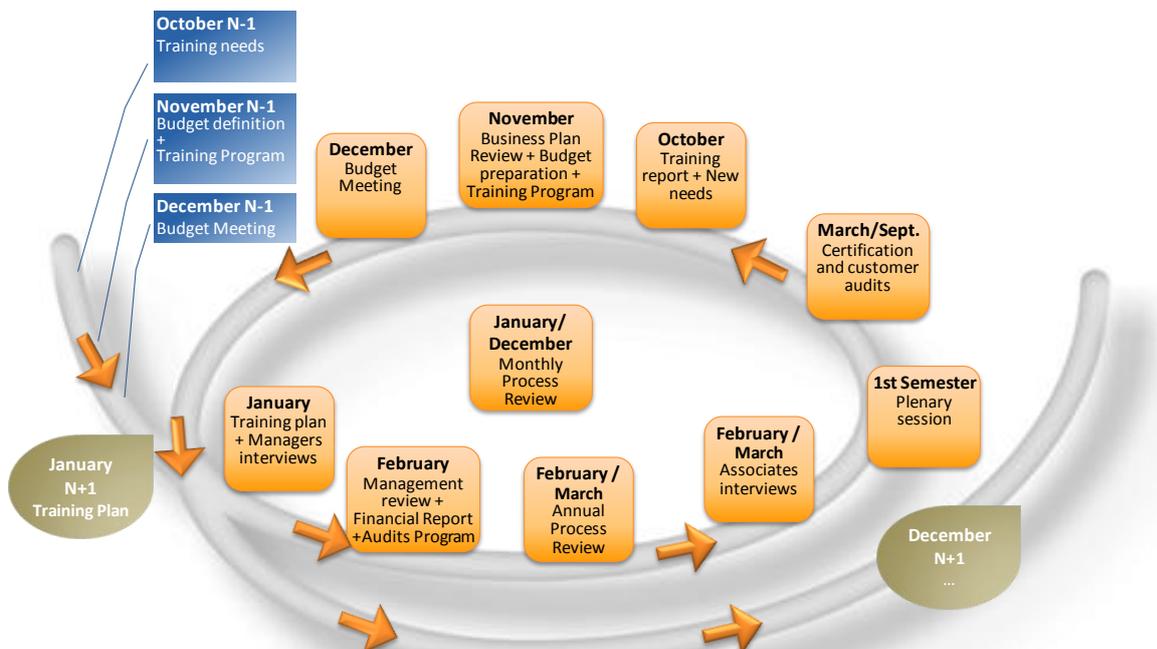
<b>THERMOCOAX</b>		
GMM 01	Group Management Manual	QM Elements 4.1 and 4.2 of ISO 9001 List of main processes and process description Interrelations with other processes
AD – JA –EV - SE	Complement	Specific System manuals and dedicated Quality Assurance Plan
AD000	General Procedures	Process- Descriptions and Procedures provide the description of the company’s processes and the respective results (documents )
...	Detail regulations	Instructions- Manufacturing Quality Plan – Drawings
...	Records related to Quality	Forms, Checklists, Statements & reports

<b>THERMOCOAX ISOPAD</b>		
GMM 01	Group Management Manual	QM Elements 4.1 and 4.2 of DIN ISO 9001 List of main processes and process description Interrelations with other processes
VA Nr..... PB	General Procedures	Process- Descriptions and Procedures provide the description of the company’s processes and the respective results (documents )
AA, 1235,....	Detailed regulations	Detailed regulations include Work – Instructions, Quality Plan, Drawings which relate to carrying out the activities
BA,.....	Records related to Quality	Forms, Checklists, Statements

6.6 General Principle of Management



6.7 Scheduling



## 6.8 Intercompanyrelationship

D = Decision I = Implementation

		F	US	G	Communication
<b>TO MANAGE</b>	Policy and target	D+I	I	I	Posted
	Enviromment management	D+I			Quartely reporting
	Health and Safety management	D+I			Quartely reporting
	Quality management	D+I	I	I	Performance. indicators – post – Mgt review
<b>TO SUPPORT</b>	Human Resources management	D+I	I	I	Job description
	Material monitoring and maintenance	D+I	D+I	D+I	Annual program
	Manage Administrative and Finances	D+I	I	I	Monthly.... + ...
<b>TO IMPLEMENT</b>	Sales and Marketing	D+I	I	I	Monthly MgtComments (MMC) + Sales Act.Plan (SAP)
	Design and Development	D	I	I	Monthly report / quarterly reviews
	To manage, schedule and ship product	D+I	D+I	D+I	Weekly indicators
	To purchase	D+I	I	I	Monthly review
	To manufacture	D+I	I	I	KPI - Management review
	To calibrate (Calibration laboratory)	D+I	I	D+I	Identification with label
	To control and follow the product	D+I	I	I	MQP DQP

Communication procedure: AD000D168

## 6.9 Activities per site

Country & site	Pilot	F PQV	F SGG	F SRN	G TXI THX	USA	UK	I	CH
Marketing & Sales	Mktg& Sales Director			X	X	X	X	X	X
Technical& Design	TechnicalDirector	X	X		X				
Production	Supply Chain Director	X	X		X	X			
HumanResources	HR Director	X	X	X	X	X			
Quality Assurance	QA Director	X	X	X	X	X			

PQV = Planquivon

SGG = St Georges des Groseillers

SRN = Suresnes

TXI = THERMOCOAX ISOPAD

THX = THERMOCOAX GmbH

## 6.10 Risk management

THERMOCOAX separately identifies and analyzes the risks concerning products, environment, health and safety of personnel or involving the company in its operation.

For all general aspects, risk management is performed by processes based on an Excel file. The pilot processes are responsible for making it live. For unacceptable risk, a specific action is initiated and followed by the pilot.

During this analysis, special requirements may be determined. These are in addition to those already identified by customers. Critical elements and key characteristics (special processes, configuration management) can result.

Process «TO MANAGE THE COMPANY»		Process Owner: General Manager	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Orders / Sales / Margin / Result</li> <li>✓ Management Review</li> <li>✓ Marketing information / Sales</li> <li>✓ Technological and regulatory monitoring</li> <li>✓ Internal and external customer listening</li> <li>✓ Indicators analysis</li> <li>✓ Audits reports</li> <li>✓ NCR Process</li> <li>✓ Claims / Returns</li> <li>✓ Improvement proposals AC / AP bilan</li> <li>✓ Process Review</li> </ul>	<ul style="list-style-type: none"> <li>Strategy definition</li> <li>Communication</li> <li>Policy definition</li> <li>Definition of targets</li> <li>Management review</li> <li>Survey &amp; Measure</li> <li>Improve</li> </ul>	<ul style="list-style-type: none"> <li>✓ Strategy review, if needed</li> <li>✓ Policy review, if needed</li> <li>✓ Business Plan</li> <li>✓ Short and medium term targets</li> <li>✓ Minutes of Management Review</li> <li>✓ Q H&amp;S E Management Program</li> <li>✓ Corrective and/or preventive actions</li> <li>✓ Audits' program</li> </ul>	
<b>Process target</b>			
To manage the company, improve the integrated management system functioning			
<b>Performance indicator :</b>			
Name	Managed by	Activity	Frequency
KPI	AF Director	Growth initiatives – Excellence in operations – Innovation and Development – Quality – Productivity and Financial results - HR	Monthly
<b>Interrelations with others Processes :</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target		
	Environment Management	Targets, responsibilities and means	
	Safety Management	Targets, responsibilities and means	
	Quality Management	Targets, responsibilities and means	
TO SUPPORT	Management of Human Resources	Targets, responsibilities and means	
	Material monitoring and maintenance	Targets, responsibilities and means	
	Manage and administer finances	Targets, responsibilities and means	
TO IMPLEMENT	Sales & Marketing	Targets, responsibilities and means	
	Design and development	Targets, responsibilities and means	
	To manage, schedule and ship products	Targets, responsibilities and means	
	To purchase	Targets, responsibilities and means	
	To manufacture	Targets, responsibilities and means	
	To calibrate	Targets, responsibilities and means	
	To control and follow the product	Targets, responsibilities and means	
<b>Applicable documents :</b>			
Reference	Document name		
AD000D000	Q S&H E Policy		
AD000D001	Quality Manual		
AD000D162	Quality – Environment – Safety audits		
AD000D163	Corrective and Preventive actions		
AD000D200/year	Q S&H E Management program		
AD000P071	Organization chart (with names)		
AD010D001	Quality Assurance Manual Program		
EV000D001	Environment and Safety Manual		
JA000D001	Production Organization Manual		
PP000D072	Indicators management		

**ANNEX 1.**

Process «QUALITY MANAGEMENT»		Process Owner: Quality Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Result year N-1 (synthesis/ management review)</li> <li>✓ Strategy</li> <li>✓ Policy</li> <li>✓ Targets</li> <li>✓ Health &amp; Safety aspects</li> <li>✓ Regulatory statement</li> <li>✓ Customer need</li> <li>✓ Quality standards</li> </ul>		<ul style="list-style-type: none"> <li>✓ QSE Management program</li> <li>✓ QSE Policy</li> <li>✓ Audit Program</li> <li>✓ Management review</li> <li>✓ Investment Plan</li> </ul>	
<b>Process target</b>			
To improve company Quality performances			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Progress of Management program implmentation	Q S E Director	To manage quality	Quarterly
Complaints under THERMOCOAX responsibility	QSE Director	To manage quality	Monthyl
<b>Interrelations withotherprocesses :</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Strategy definition / QSE Policy and Management program	
	Environment Management	Integration of system	
	Safety Management	Integration of system	
	Quality Management		
TO SUPPORT	Management of Human Resources	According to the general competences matrix	
	Material monitoring and maintenance	Curative and preventive maintenance	
	Manage and administer finances	Investment Plan according to QSE Management program	
TO IMPLEMENT	Sales & Marketing	Process promotion –customer satisfaction survey	
	Design and development	Quality Development Plan	
	To manage, schedule and ship products	Manufacturing Quality Plan	
	To purchase	Supplier evaluation and agreement	
	To manufacture	Manufacturing Quality Plan - documentation	
	To calibrate	ISO 17025 application	
	To control and follow the product	Delegated to Quality Control	
<b>Applicable documents</b>			
Reference	Document name		
AD000D001	Quality Manual ISO9001 + EN9100		
AD010D001	Quality Assurance Program Manual		
JA000D001	Production Organization Manual according to PART21/G		
SE900D001	Quality Assurance Plan ATEX		

**ANNEX 2.**

Process «SAFETY MANAGEMENT		Process Owner: Quality Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Result year N-1 (synthesis/management review)</li> <li>✓ Strategy</li> <li>✓ Policy</li> <li>✓ Targets</li> <li>✓ Health &amp; Safety aspects</li> <li>✓ Regulatory statement</li> </ul>		<ul style="list-style-type: none"> <li>✓ QSE Management Program</li> <li>✓ QSE Policy</li> <li>✓ Audit Program</li> <li>✓ Investment plan</li> <li>✓ Technical and Environmental synthesis</li> </ul>	
<b>Processtargets</b>			
To improve Health & Safety performances			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Progress of Management program implementation	H & S Manager	To manage Health& Safety	quarterly
Audits	H & S Manager	To do standard monitoring	Three-yearly
<b>Interrelations withotherprocesses</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Strategy definition / QSE Policy and Management program	
	Environment Management	Technical synthesis and risk assessment document	
	Safety Management		
	Quality Management	Document control (Non Conformance, Corrective action, Preventive action)	
TO SUPPORT	Management of HumanResources	Allocation of suitable personnel for Processus and targets according to the ENV competence matrix	
	Material monitoring and maintenance	Investment Plan – Regulatory control / Maintenance Plan	
	Manage and administer finances	Investment Plan according to QSE Program	
TO IMPLEMENT	Sales & Marketing	Process promotion	
	Design and development	Impact assessment	
	To manage, schedule and ship products	Management Program	
	To purchase	Impact assessment - Audit	
	To manufacture	Indicators	
	To calibrate	Measuring devices / equipment	
	To control and follow the product	Management Program	
<b>Applicable documents</b>			
Reference	Document name		
EV000D001	Environment, Health & Safety Manual		

**ANNEX3.**

Process «ENVIRONMENT MANAGEMENT		Process Owner: Quality Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Result year N-1 (synthesis/management review)</li> <li>✓ Strategy</li> <li>✓ Policy</li> <li>✓ Targets</li> <li>✓ Environmental aspects</li> <li>✓ Regulatory statement</li> </ul>		<ul style="list-style-type: none"> <li>✓ QSE Management Program</li> <li>✓ QSE Policy</li> <li>✓ Audit Program</li> <li>✓ Investment plan</li> <li>✓ Technical and Environmental synthesis</li> </ul>	
<b>Processtargets</b>			
To improve environmental performances			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Progress of Management program implementation	H & S + E Manager	To manage Quality & Safety	Quarterly
Audits	H & S + E Manager	To do standard monitoring	Three-yearly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Strategy definition / QSE Policy and Management program	
	Environment Management		
	Safety Management	Technical synthesis and risk assessment document	
	Quality Management	Document control (Non Conformance, Corrective action, Preventive action)	
TO SUPPORT	Management of Human Resources	Allocation of suitable personnel for processes and targets according to the ENV competence matrix	
	Material monitoring and maintenance	Investment Plan – Regulatory control / Maintenance Plan	
	Manage and administer finances	Investment Plan according to QSE Program	
TO IMPLEMENT	Sales & Marketing	Process promotion	
	Design and development	Impact assessment	
	To manage, schedule and ship products	Management Program	
	To purchase	Impact assessment - Audit	
	To manufacture	Indicators	
	To calibrate	Measuring devices / equipment	
	To control and follow the product	Management Program	
<b>Applicable documents</b>			
Reference	Document name		
EV000D001	Environment, Health & Safety Manual		

**ANNEX4.**

Process «HUMAN RESSOURCES MANAGEMENT»		Process Owner: H.R. Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Business plan</li> <li>✓ Management Program</li> <li>✓ Training needs</li> <li>✓ Personnel needs</li> <li>✓ Total of worked hours</li> <li>✓ Resume</li> <li>✓ Training assessment</li> <li>✓ Competences matrix</li> </ul>		<ul style="list-style-type: none"> <li>✓ Training Plan</li> <li>✓ Assessment personnel file</li> <li>✓ Personnel individual file</li> <li>✓ Organizationchart, personnel list</li> <li>✓ Pay slip</li> <li>✓ Competence matrix updated</li> </ul>	
<b>Process targets</b>			
Personnel needs to be identified and suitable human resources to be supplied			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Full time employment (total)	HR Director	Personnel management	Monthly
Headcount (total)	HR Director	Personnel management	Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Training Plan	
	Environment Management	Competence matrix ENV/H&S + training and assessment	
	Safety Management	Competence matrix ENV/H&S + training and assessment	
	Quality Management	General competence matrix ENV/H&S + training and assessment	
TO SUPPORT	Management of HumanResources		
	Material monitoring and maintenance	Training Plan, competences matrix, annual assessment	
	Manage and administer finances	Payroll charges, Training Plan, annual assessment	
TO IMPLEMENT	Sales & Marketing	Training Plan, annual assessment	
	Design and development	Training Plan, competences matrix, annual assessment	
	To manage, schedule and ship products	Training Plan, annual assessment	
	To purchase	Training Plan, competences matrix, annual assessment	
	To manufacture	Training Plan, competences matrix, annual assessment	
	To calibrate	Training Plan, competences matrix, annual assessment	
	To control and follow the product	Training Plan, competences matrix, annual assessment	
	<b>Applicable documents</b>		
Reference	Document name		
PE100D002	Operators hiring		
PE100D003	Personnel training		
PE100D004	Responsibilities and authorities		
PE100D005	Appreciation file		
PE100D006	Technicians and managers hiring		

**ANNEX5.**

Process «TO MANAGE AND ADMINISTER FINANCES»		ProcessOwner: C F O	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Regulatory requirements</li> <li>✓ Insurance, supplier, subcontractance contracts</li> <li>✓ Inventory</li> <li>✓ Stock status</li> <li>✓ Pay slip elements</li> <li>✓ Budget</li> <li>✓ Customers and suppliers invoices</li> </ul>		<ul style="list-style-type: none"> <li>✓ New contracts</li> <li>✓ Monthly report</li> <li>✓ Control of supplier and customer invoice</li> <li>✓ Income statement, balance sheet</li> <li>✓ Cash control</li> </ul>	
<b>Process targets</b>			
Company finances to be administered and controlled			
<b>Performance indicator :</b>			
Name	Managed by	Activity	Frequency
Financial performances	Administration & Finance Director	Finances	Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Operating and economic result	
	Environment Management	Suppliers and subcontractors invoices	
	Safety Management	Suppliers and subcontractors invoices	
	Quality Management	Economic results, non conformance cost, suppliers and subcontractors invoices	
TO SUPPORT	Management of HumanResources	Economic result, suppliers and subcontractors invoices	
	Material monitoring and maintenance	Economic result, suppliers and subcontractors invoices	
	Manage and administer finances		
TO IMPLEMENT	Sales & Marketing	Economic result, suppliers and subcontractors invoices	
	Design and development	Economic result, suppliers and subcontractors invoices	
	To manage, schedule and ship products	Economic result, suppliers and subcontractors invoices	
	To purchase	Economic result, suppliers and subcontractors invoices	
	To manufacture	Economic result, suppliers and subcontractors invoices	
	To calibrate	Economic result, suppliers and subcontractors invoices	
	To control and follow the product	Economic result, suppliers and subcontractors invoices	
<b>Applicable documents :</b>			
Reference	Document name		
AF000D101	Supplier accountancy control		
AF000D102	Customer accountancy control		
AF000D103	Exportation control		
AF000D104	Results distribution		
AF000D105	Index to be used for calculation sheet		
AF100D001	Computer		
AF100D002	Computer saving		

**ANNEX6.**

Process «CONTROL OF EQUIPMENT AND MAINTENANCE»		Process Owner: Production Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Supplier data</li> <li>✓ New needs</li> <li>✓ Maintenance Plan</li> <li>✓ Past experience</li> </ul>		<ul style="list-style-type: none"> <li>✓ Maintenance Plan updated</li> <li>✓ Back fitting plan for production tool</li> <li>✓ New equipment or improvement of equipment in place</li> <li>✓ Investment Plan</li> </ul>	
<b>Process targets</b>			
Production tool to be maintained and improved to meet needs			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Preventive maintenance	Maintenance manager	Maintenance of production tool	Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Identification of needs	
	Environment Management	Environmental equipment performance Maintenance of equipment for emergency situation	
	Safety Management	Safety equipment performance Maintenance of equipment for emergency situation	
	Quality Management	Equipment qualification Maintenance Plan	
TO SUPPORT	Management of HumanResources	Needs for personnel training concerning new technologies or equipments	
	Material monitoring and maintenance		
	Manage and administer finances	Investment Plan and needs for production tool	
TO IMPLEMENT	Sales & Marketing	/	
	Design and development	New needs	
	To manage, schedule and ship products	Equipment availability	
	To purchase	Purchase Request, technological monitoring	
	To manufacture	Production tool availability	
	To calibrate	/	
To control and follow the product	Identification of devices and tools for control		
<b>Applicable documents</b>			
Reference		Document name	
PP000D037		Maintenance instruction	

**ANNEX7.**

Process «SALES & MARKETING »		Process Owner: Sales Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ MAP and SAP</li> <li>✓ Customer visit reports</li> <li>✓ Customer Orders</li> <li>✓ Rate of Tenders(CRM)</li> <li>✓ Exhibitions</li> <li>✓ Sales budget per sector</li> </ul>		<ul style="list-style-type: none"> <li>✓ Sales document</li> <li>✓ Website</li> <li>✓ Tender</li> </ul>	
<b>Process targets</b>			
Customer portfolio to be developed and maintained with partnership			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Orders booked (total)	Sales Director	Sales	Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Market oriented	
	Environment Management	Environmental hazard of products, life cycle	
	Safety Management	Safety Data Sheet / ATEX	
	Quality Management	Claims, return of products	
TOSUPPORT	Management of HumanResources	Hiring	
	Material monitoring and maintenance	/	
	Manage and administer finances	Aged trial balance	
TO IMPLEMENT	Sales & Marketing		
	Design and development	New products information	
	To manage, schedule and ship products	Customer needs expressed or latent	
	To purchase	Emission of customer requirements	
	To manufacture	Customer needs expressed or latent	
	To calibrate	Customer needs expressed or latent	
	To control and follow the product	Customer needs expressed or latent	
<b>Applicable documents</b>			
Reference	Document name		
AD000D167	Identification of expressed or latent customers needs		
AD000D170	Promotion		
AD000D171	Control of sales tender		
AD000D178	Risk Management		

**ANNEX8.**

Process «TO INNOVATE AND DEVELOP»		Process Owner: Technical Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Monitoring</li> <li>✓ Marketing analysis</li> <li>✓ New needs</li> <li>✓ New material</li> <li>✓ New technologies</li> <li>✓ REX</li> <li>✓ Specifications</li> </ul>		<ul style="list-style-type: none"> <li>✓ FAI, manufacturing file</li> <li>✓ Needs analysis</li> <li>✓ Feasibility</li> <li>✓ Pre-development</li> <li>✓ Development</li> <li>✓ Qualification</li> <li>✓ Transfer to production</li> <li>✓ Drawing</li> <li>✓ Design and development documentation</li> </ul>	
<b>Process targets</b>			
A viable product to be manufactured			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Average time for technical proposals request (DP)	Technical Director	Design and development	Monthly / Annually
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Market / product oriented	
	Environment Management	Impact assessment	
	Safety Management	Impact assessment – CE marking	
	Quality Management	Quality documentation– recording	
TO SUPPORT	Management of Human Ressources	Design competences matrix (PP000R079)	
	Material monitoring and maintenance	New products industrialization	
	Manage and administer finances	Follow up of project cost	
TO IMPLEMENT	Sales & Marketing	New products	
	Design and development		
	To manage, schedule and ship products	Project scheduling	
	To purchase	Research of new products	
	To manufacture	Documentation preparation	
	To calibrate	/	
	To control and follow the product	New products qualification and production support	
<b>Applicable documents</b>			
Reference	Document name		
AD000D150	Manufacturing and development Quality Plan		
AD000D152	Vocabulary used in connection with design		
AD000D153	Design monitoring		
AD000D154	Analysis of needs phase		
AD000D155	Feasibility phase		
AD000D156	Predevelopment stage		
AD000D157	Development stage		
AD000D158	Modification of the product design		
AD000D159	Design and development project review		
AD000D161	Creating preparatory documents		
AD000D178	Risk Management		
PP000D045	Product qualification and manufacturing procedure		

Process «TO CONTROL, SCHEDULE AND DELIVER THE PRODUCT»		Process Owner: Production Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Customer needs</li> <li>✓ Manufacturing sheet</li> <li>✓ Time and production rate</li> <li>✓ Stock status</li> </ul>		<ul style="list-style-type: none"> <li>✓ Receipt of acknowledgement</li> <li>✓ Manufacturing Order</li> <li>✓ Launching</li> <li>✓ Reservation order</li> <li>✓ Purchase Request</li> <li>✓ Customer convocation</li> <li>✓ Indicators</li> </ul>	
<b>Process targets</b>			
Conform product to be delivered with the required time			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
CLIP / OTD	Logistics Manager	Logistics and Scheduling	Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Investment	
	Environment Management	/	
	Safety Management	Work pace	
	Quality Management	Plannification	
TO SUPPORT	Management of Human Resources	Personnel requirements	
	Material monitoring and maintenance	Equipment requirements	
	Manage and administer finances	Answer to aged trial balance, invoice, stock status	
TO IMPLEMENT	Sales & Marketing	Progress information, delivery, receipt of acknowledgement	
	Design and development	Plannification, stock status	
	To manage, schedule and ship products		
	To purchase	Purchase Request, procurement	
	To manufacture	Planning	
	To calibrate	Planning	
	To control and follow the product	Planning	
<b>Applicable documents</b>			
Reference	Document name		
AD000D134	Tender review		
AD000D138	Control of customers orders		
AD000D149	Contract review		
AD000D167	Identification of latent customers needs		
AD000D178	Risk management		

**ANNEX10.**

Process «TO PURCHASE»		Process Owner: Production Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Suppliers audits</li> <li>✓ Purchase Request</li> <li>✓ Suppliers information</li> <li>✓ Events</li> <li>✓ Purchase past experience</li> <li>✓ Stock status</li> <li>✓ Suppliers incident report</li> </ul>		<ul style="list-style-type: none"> <li>✓ Products / Services</li> <li>✓ Purchase Orders</li> <li>✓ Supplier agreement file</li> <li>✓ Supplier Quotation</li> <li>✓ Indicators</li> <li>✓ Suppliers/prices data base</li> <li>✓ Supplier's NCR</li> <li>✓ THX Batch Numbers</li> </ul>	
<b>Process targets</b>			
Conform products or services to be purchased with best cost and delivery time			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
Suppliers quotation	Purchase Manager	Procurement / Purchase	Monthly
Purchasing Price Gain	Purchase Manager		Monthly
Out of stock status	Logistics Manager		Weekly
<b>Interrelations with others Processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Markets trend	
	Environment Management	Supplies data, material safety data sheet, technological monitoring	
	Safety Management	Prevention plan, safety protocol, technological monitoring	
	Quality Management	Supplier agreement, supplier quotation	
TO SUPPORT	Management of Human Resources	Competences matrix and job description	
	Material monitoring and maintenance	Technological monitoring	
	Manage and administer finances	Stock status, purchase portfolio	
TO IMPLEMENT	Sales & Marketing	Supplies availability, procurement delivery time	
	Design and development	Research of new product and technology	
	To manage, schedule and ship products	Supplies availability, procurement delivery time	
	To purchase		
	To manufacture	Procurement of conform products	
	To calibrate	Calibration subcontractance	
	To control and follow the product	Test and control subcontractance	
<b>Applicable documents</b>			
Reference	Document name		
AD000D136	Purchasing procedure		
AD000D166	Trade activities		
AD000D178	Risk Management		
AD000P900	Preliminary assessment questionnaire		
AD000P901	Subcontractance audit		
PP000A009	Suppliers agreement		
PP000A039	Suppliers performance assessment		
PP000A042	Quality requirements for suppliers		

**ANNEX11.**

Process «TO MANUFACTURE»		Process Owner: Production Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Manufacturing Order</li> <li>✓ Launching</li> <li>✓ Schedule</li> <li>✓ Stock status</li> <li>✓ Competences matrix</li> <li>✓ Components</li> <li>✓ Raw materials</li> <li>✓ Machines &amp; equipment</li> </ul>		<ul style="list-style-type: none"> <li>✓ Finished products</li> <li>✓ Semi-finish products</li> <li>✓ Components and machined parts</li> </ul>	
<b>Process targets</b>			
A product to be delivered conform to expressed and latent customer requirements			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
CLIP / OTD	Production Director	To manufacture	Monthly
Late delivery			Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Productivity	
	Environment Management	Environmental performances follow up	
	Safety Management	Risk management	
	Quality Management	Recording, documentation updated	
TO SUPPORT	Management of HumanResources	Competences matrix, assessment	
	Material monitoring and maintenance	Maintenance equipment requirements	
	Manage and administer finances	Time and indirect materials for economic accountancy	
TO IMPLEMENT	Sales & Marketing	Feedback from past experience, lessons learned	
	Design and development	Feasibility- Feedback from experience, lessons learned	
	To manage, schedule and ship products	Progress status, schedule, product packaging	
	To purchase	Raw material requirements, products, services	
	To manufacture		
	To calibrate	Sensors procurement	
	To control and follow the product	Quality records	
<b>Applicable documents</b>			
Reference	Document name		
AD000D178	Risk Management		
PP000D056	Product manufacturing		

**ANNEX12.**

Process «TO CALIBRATE»		Process Owner: Metrology Manager	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Specifications</li> <li>✓ Standards</li> <li>✓ Manufacturer data</li> <li>✓ Products</li> <li>✓ Planning</li> <li>✓ Human resources and Equipment</li> </ul>		<ul style="list-style-type: none"> <li>✓ Verification contract</li> <li>✓ Calibrated sensors calibration certificate</li> <li>✓ Non conform products</li> <li>✓ NCR</li> </ul>	
<b>Process targets</b>			
Temperature sensors to be calibrated according to standards in due time			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
COFRAC notification	COFRAC laboratory manager	To calibrate	Annually
%age of Cable batch calibration in 3 days			Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	COFRAC commitment / Respect of THX CLIP	
	Environment Management	Waste control/ Power consumption	
	Safety Management	Air analysis	
	Quality Management	Recording	
TO SUPPORT	Management of HumanResources	Competences matrix – Human resources availability	
	Material monitoring and maintenance	Maintenance of calibration equipment	
	Manage and administer finances	Time spent and indirect material used	
TO IMPLEMENT	Sales & Marketing	Support / publication	
	Design and development	Support to R&D + Innovation Dept.	
	To manage, schedule and ship products	Availability	
	To purchase	Purchase request/ Purchasing specification	
	To manufacture	Support to Manufacturing Workshop – tests	
	To calibrate		
	To control and follow the product	Batch calibration + sensors + characterization	
<b>Applicable documents</b>			
Reference	Document name		
AD000D178	Risk Management		
PP000C029	Temperature calibration test equipment		
PP200D001	Applicable Document List for COFRAC accreditation		

**ANNEX13.**

PROCESS «TO CONTROL AND TRACK THE PRODUCT»		Process Owner : Quality Director	
Input data	Activity	Output data	
<ul style="list-style-type: none"> <li>✓ Procedures</li> <li>✓ Instructions</li> <li>✓ Drawings</li> <li>✓ Customers data</li> <li>✓ Regulation</li> <li>✓ Standards</li> </ul>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Product checking</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Investigation, support to production</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Metrology of measurement devices</div> <div style="border: 1px solid black; padding: 5px;">Independent and redondant checking / final receipt</div>	<ul style="list-style-type: none"> <li>✓ Quality records</li> <li>✓ Measuremetn equipment tracking sheets</li> <li>✓ Indicators</li> <li>✓ Test reports</li> <li>✓ NCR</li> <li>✓ Non Conform Product or service</li> </ul>	
<b>Process target</b>			
Product conformance and traceability to be ensured			
<b>Performance indicator</b>			
Name	Managed by	Activity	Frequency
OT D	Logistics Manager	Product control	Monthly
Park evolution	Metrology Manager	Metrology	Monthly
<b>Interrelations with other processes</b>			
Target process name		Available data given to other processes	
TO MANAGE	Policy and target	Yearly report	
	Environment Management	Performances report	
	Safety Management	Performances report	
	Quality Management	Quality records, indicators	
TO SUPPORT	Management of HumanResources	Competences matrix, yearly assessment	
	Material monitoring and maintenance	Maintenance requirements	
	Manage and administer finances	Non quality – rejects	
TO IMPLEMENT	Sales & Marketing	Support	
	Design and development	Investigation reports	
	To manage, schedule and ship products	Progress status	
	To purchase	Expression of needs	
	To manufacture	Tests and controls	
	To calibrate	Calibration support	
	To control and follow the product		
<b>Applicable documents</b>			
Reference	Document name		
AD000D146	Control of non conformances		
AD000D160	Customers complaints monitoring		
AD000D178	Risk Management		
PP000C018	Dimensional and physical test equipments		
PP000C024	Electrical test equipments		
PP000D017	Customers return of products		
PP000D022	Income control		

**ANNEX14.**

## Main processes description Thermocoax ISOPAD GmbH

<b>§5 Management Processes PLAN</b>		
PA 01	Management Prozess	Management Processes
PA 02	<b>§8 Messen, Analysieren und Verbessern</b>	<b>Measure, Analyse and Improvement</b>
PA 03	Gesundheit & Arbeitssicherheit	Health & Savety
PA 04	Umweltmanagement	Environment Management
<b>§7 Business processes DO</b>		
PA 05	Marketing und Vertrieb	Sales and marketing
PA 06	Engineering	Engineering
PA 07	Beschaffung	Purchasing
PA 08	Steuern / Planung / Lieferung der Produkte	Control/Planning /Deliever of product
PA 09	Produktion	Production
PA 10	Messen und Beobachten der Produkte	Control and track of product
<b>§6 Support processes SUPPORT</b>		
PA 11	Personal Management	Human Resource Management
PA 12	Dokumentation Management	Documentation Management
PA 13	Infrastruktur und Wartung	Infrastructure and maintenance