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REPERTOIRE DES MISES A JOUR / CHANGE RECORD				
Révision / Revision	Nature de la mise à jour / Description of change			
А	Première diffusion / First issue			
В	Application ECR_00002976 : mise en cohérence indice de révision entre version française et version anglaise.			
С	Modification selon ECR_00004153 : évolution pour passage à l'EN9100 : 2018.			
D	Modification selon ECR_00004781 : évolution suite à point faible relevé en Audit EN9100:2018			
Е	Modification selon ECR_00006115 : ajout de documents en référence, §7.11 précisions sur les procédés spéciaux, §7.16 précisions sur les réponses attendues du fournisseur aux non conformités SODERN émises, suppression de la matrice de conformité en fin de document suite aux points faibles audit EN9100 de 2018 & 2020			



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1. SUBJECT

This document defines Sodern's quality requirements that apply to its suppliers or sub-contractors by default, except where specific technical clauses or requirements are mentioned in the other contractual documents.

2. SCOPE

This document applies to all suppliers and sub-contractors who provide services or product used as component or in the manufacture process of Sodern's products, except for consumable or catalogue materials.

This document is available on Sodern's web site.

It is considered fully accepted by the supplier, unless if this one return the compliance matrix in annex. Every "partially compliant", "not compliant", "not applicable" status shall be justified.

3. APPLICABLE DOCUMENTS

The documents referenced below apply to the version in effect when the order is made.

[DA01]	Sodern purchasing conditions	DAF/CT/PC/EF-337
[DA02]	Non-conformance report to supplier	ACH_00013303
[DA03]	Sodern purchasing ethic guide	IPS_00009674
[DA04]	Règles fournisseurs pour gestion info DR	PS00005759

4. REFERENCE DOCUMENTS

The documents referenced below must be in the version in effect when the order is made.

[DR 01]	NFL 00-015	Quality management and assurance – Statement of conformity
[DR 02]	ECSS-Q-ST-10-09	Space product assurance – Non conformance control system
[DR 03]	NF EN 9102	Aerospace series - Quality systems - First article inspection
[DR 04]	PS00011115	Processus "Gérer la relation fournisseur"
[DR 05]	IPS_00000686	Procédure audits qualités
[DR 06]	EN 10204	Types of inspection documents
[DR 07]	IPS00000227	Gestion des déviations et dérogations
[DR 08]	PS00013777	Procédure gestion des procédés spéciaux
[DR 09]	PS00009714	Procédure d'utilisation du formulaire rapport de non-conformité fournisseur



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5. ABBREVIATIONS, SYMBOLS AND ACRONYMS

CDR Critical Design Review

DR Diffusion Restreinte (Restricted Publication)

ECSS European Co-operation for Space Standardization

FAI First Article Inspection

NCR Supplier Non-Conformity Report

NDT Non Destructive Test

PDR Preliminary Design Review

RFD Request For Deviation
RFW Request For Waiver

RQ Sodern Quality Department Representative

SPC Statistical Process Check

6. DEFINITIONS

SPECIAL PROCESS: process used in a manufacturing operation likely to modify the physical, chemical or metallurgical properties of an article in a way that cannot be detected in the normal manufacturing cycle. The Non Destructive Test operations (NDT) are associated with a similar process.

PRODUCT: All the articles designed, developed and manufactured, and associated documents for which the production is under supplier responsibility, in compliance with orders requirements

REQUIREMENTS: All the specifications that define the product or the service to be performed by the supplier These requirements are indicated at least in this document (PS__00014847), the purchasing conditions document of Sodern (cf. [DA01]), the purchasing order and all the document called by the order.

REACh: Registration, evaluation and authorization of chemicals

Regulation from European parliament and European Union council, date from December 18th 2006, which modernizes European laws in terms of chemical products, and gives a unique integrated system for recording, assessment and authorization of chemical products in European Union.

RoHS: Restriction of the use of certain Hazardous Substances in electrical and electronic equipment European Directive 2002/95/CE that aims to limit the use of six hazardous products

WORK: all of the supplies or services to be provided by the Supplier according to the provisions in the order,



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7. GENERAL QUALITY REQUIREMENTS FOR SODERN SUPPLIERS

7.1. Access to installations by Sodern and its customers

{REQ 0010}

The supplier guarantees open access for Sodern representatives and customers to the premises where the work is carried out, whether on supplier premises or on the supplier sub-contractors' premises.

This access right also applies to all documents relating to the work (except for documents that are protected by a non-disclosure agreement mentioned in the contractual documents).

The participants undertake to respect the interior regulations and the safety rules of the supplier and/or their own suppliers.

There may be 3 types of visit:

- Audit at one or all suppliers sites where the work ordered by Sodern is carried out. These audits will be conducted to assess a new supplier, monitor a strategic, partner or preferential supplier (triennial audit - see [DR 04] and [DR 05]) or in the context of a specific issue related to the product realization.
- Visit for specific issues, such as non-conformity closure, problem-solving, the resources implemented to carry out the work, the quality management system, the special process qualification, and so on... (not exhaustive list).
- Material inspection (in the context of buy off for example).

In the first 2 cases, an agenda will be prepared and submitted to the supplier for acceptance. In case of audit, the notice period is 15 days.

7.2. DOCUMENTATION TO BE ATTACHED TO THE DELIVERY

{REQ 0020}

The products delivered to Sodern must be accompanied by the documents asked within the order. They will be at least:

- Delivery note indicating:

 - article reference (ASSY*, 4011*...) and its index,
 drawing reference (ENS*, DET*, ...) and its index,
 - Sodern's purchasing order number and line number,
 - quantity of parts delivered,
 - possible elements that should come with parts delivered (witnesses and so on)
- Declaration of conformity based on [DR 01] standard
- Where applicable:
 - copy of the deviation request accepted and signed by Sodern (see §7.6) [DR 01]
 - copy of the concession request accepted and signed by Sodern (see §7.15) [DR 01]
 - Sodern's documentation to fulfil by the supplier, as for example: traveller sheet (FS), test report (RINT), and so on...
- Depending on the domain:
 - o report given inspection or measurement results, as for example measurement report
 - material certificate, as required in [DR 06]
 - declaration of conformity for special process (coating and/or heat treatment), indicating:
 - standard name of the process
 - work instruction reference and index of the process

For all of these documents, the supplier shall check conformity of data (for example: heat treatment curves, mechanical or chemical material analysis, and so on...)



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7.3. ETHIC AND REGULATION

{REQ 0030}

The supplier takes the commitment to respect applicable and operative legal requirements and regulations.

{REQ 0040}

The supplier takes the commitment to respect applicable standards with regards to restriction or prohibition of the use of certain hazardous substances (except specific regulations).

Products to be delivered shall be compliant with directives:

- RoHS 2002/95/CE, regarding restriction of the use of certain Hazardous Substances in electrical and electronic equipment
- European Regulation REACh about registration, evaluation and authorization of chemicals

The compliancy shall be mentioned within material certificates and/or declaration of conformity.

{REQ 0050}

The supplier takes the commitment to aware all the people involved in the product realization or the service, to respect an ethical behaviour, at least as required in the Sodern's ethic guide [DA03] applicable for every purchasing order and available on Sodern's web site.

7.4. SODERN SUPPLIERS' QUALITY MANAGEMENT SYSTEM

{REQ 0060}

The supplier is able to demonstrate that their quality management system conforms to Sodern's requirements, in accordance to §6 definition.

{REQ 0070}

The supplier must keep Sodern informed of any changes to these certifications and any major changes to their quality management system.

{REQ 0080}

In the framework of strategic, partner, preferential supplier management, Sodern will perform periodic audit in accordance with its yearly audit plan.

{REQ 0090}

People involved in the product realization or the service, shall be aware of their contribution to product or service conformity, regarding explicit and implict requirements.

{REQ 0100}

People involved in the product realization or the service, shall be aware of their contribution:

- to the safety of product or service users in order to avoid any risk of casualty
- to the safety of the product in order to avoid any risk of product damage before, during and after its delivery.



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7.5. RISK MANAGEMENT

{REQ 0110}

The supplier must manage risks regarding its own company and regarding the product it has to manufacture or it subcontracts.

Then, the supplier shall identify, evaluate, document, and communicate major risk to Sodern.

7.6. REQUIREMENTS REVIEW

{REQ 0120}

Before service or product realization, the supplier must be able to demonstrate that it controls all the requirements of product that it has to produce and/or it subcontracts, within a contract review.

{REQ 0130}

In this framework, if necessary, the supplier can ask for modification of requirements of the product <u>before</u> its realization.

The supplier may submit to Sodern any deviation that it deems acceptable, between the requirements and the applicable configuration of part manufacturing, by using a request for deviation (RFD) [DR 01].

Product or service shall not be realized as long as the RFD [DR 01] is not accepted and signed by Sodern.

7.7. PRODUCT DESIGN AND DEVELOPMENT

{REQ 0140}

Before starting any activity, the supplier shall be able to prove it planned and it controls the design and development of products and services.

{REQ 0150}

The supplier shall define expected results (parameters, success criteria...), as well as reviews and milestones to perform (as PDR, CDR, and so on...)

At the end of the development, a specific review shall be stood to launch the production phase.

{REQ 0160}

The supplier shall formalize all the activities needed for the design and development of the product. Documents and recording corresponding to these activities shall be kept and available. all the modifications during the design and development of the product shall be managed in compliance with the process og configuration management.

{REQ 0170}

The supplier shall implement activities:

- of verification, to ensure that results expected meet requirements, according to definition in §6
- of validation, to ensure that the product and the service meet requirements, according to definition in §6

{REQ 0180}

Beforehand, and as the design and development are being realized, the supplier shall ensure for each operation that the resources (equipment and human resources) are identified, authorised and available.



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7.8. CONTROL OF EXTERNALLY PROVIDED PRODUCTS

{REQ 0190}

The supplier is responsible for sending Sodern's requirements (according to definition in §6) to all of its sub-contractors involved in the realization of the product or the service.

It ensures that these requirements are applied by sub-contractors and proves the control of them.

{REQ 0200}

The supplier shall have a process to prevent counterfeit parts.

{REQ 0210}

The supplier shall ensure that its sub-contractors meet Sodern's requirements (according to definition in §6) and takes the commitment to inform Sodern about any non-compliance due to its sub-contractors.

{REQ 0220}

Sodern may decide to audit the supplier's sub-contractor by agreement with the supplier.

7.9. PRODUCTION AND SERVICE PROVISION

{REQ 0230}

Before starting any activity, the supplier shall be able to prove it planned and it controls product or service.

{REQ 0240}

The supplier must formalize all the tasks/operations needed for the product or work.

To ensure efficiency and reproducibility of the process, the supplier shall detail:

- work instructions,
- equipment used,
- parameters,
- test and verification steps regarding production process and product.

{REQ 0250}

Beforehand, and as the product or service is being realized, the supplier must ensure for each operation that the resources (equipment and human resources) are identified, authorised and available.

{REQ 0260}

If a statistical process check (SPC) is carried out, it must be detailed.

{REQ 0270}

Any major changes in the manufacturing process must be submitted to Sodern for approval. (For example: temporary or permanent transfer of the work, change in manufacturing process, etc.).



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7.10. ALERTS

{REQ 0280}

The supplier must alert Sodern if any problems are discovered on their premises or the premises of their subcontractors that have an impact on the products delivered or to be delivered.

{REQ 0290}

If there is a risk of obsolescence or if any obsolescence is observed (material, component, etc.), the supplier must inform Sodern and suggest alternative solutions, including risk management qualification/verification.

{REQ 0300}

The supplier informs Sodern of any structural or organisational modifications in its entity that have an impact on the product cost, delay and quality.

{REQ 0310}

The supplier must inform Sodern of any work transfer plans (i.e. transfer of the manufacturing site, change in sub-contractor, decision to sub-contract an activity, etc.).

{REQ 0320}

The supplier must alert Sodern if there are changes in suppliers while the work is being carried out.

{REQ 0330}

Sodern is entitled to audit the supplier or its sub-contractor, with their agreement, to check that this change will not have any impact on the product conformity.

7.11. SPECIAL PROCESSES

{REQ 0340}

Every six months, Sodern send to its suppliers the list of qualified special processes (Name of supplier / Title of process / Specification reference) [DR 08].

The supplier keeps an up to date list of special processes, that are implemented for product/service. This means that they pass on the Sodern requirements to these sub-contractors.

In the purchasing order, if a generic special process is specified, the supplier have to refer to the list of qualified special processes.

Otherwise, Sodern will specify the standardized title, the name of the supplier and the specification reference of the special process. In certain cases specified in the purchasing order, Sodern may allow the possibility of choosing its supplier. It is up to the supplier to check the prerequisites (cf REQ 0350).

N.B.: The qualification of the special process/supplier couple is pronounced by Sodern for a period of 3 years. The qualification of a special process can be suspended if a drift is detected in the realization of the process at the supplier premise or if non-conformities occurred. The list of special processes is then updated accordingly by Sodern and sent to suppliers. If the supplier proves that the failures have been resolved, the process can be qualified again (the list is revised and sent).

{REQ 0350}

The supplier checks that the human resources, equipment and the associated processes guarantee that this special process can be carried out repeatedly. The special process's parameters must be specified and qualified by the supplier (or Sodern as appropriate). This qualification is based on tests and checks to be carried out on samples or specimens.

Nota: The supplier must inform Sodern if they have any NadCap accreditations or qualifications from major customers.

{REQ 0360}

The supplier shall ensure traceability and storage of special processes recording.



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7.12. FAI "1ST ARTICLE INSPECTION"

{REQ 0370}

Sodern may request in the supplier order to carry out the first article inspection. This review will be carried out according to standard EN 9102 (see [DR 03]).

The FAI will be carried out in the following cases:

- During a first series manufacture
- After a change of definition or process
- If the manufacturing location changes
- If the part ordered has not been manufactured for over 2 years

The first article inspection does not apply to prototypes, standard or catalogue materials or deliverable software.

7.13. IDENTIFICATION AND TRACEABILITY

{REQ 0380}

The supplier controls the product identification and keeps records of it.

The supplier must be able to:

- Find the manufacturing, assembly, testing and verification documents for a product (definition file, manufacturing file, control file, and so on...)
- Trace all the products or product batches manufactured from the same raw materials batch or component to their delivery.
- Trace all the raw materials batch or component from their supplying to products or product batches manufactured.

{REQ 0390}

A unique formal correspondence must be established between the supplier and Sodern article reference and/or identification number.

7.14. PRESERVATION

{REQ 0400}

In order to ensure the product preservation, the supplier guarantees the storage and handling of the products and articles while the product is being produced, the work is being carried out and during delivery.

{REQ 0410}

If Sodern provides material (raw material, tooling, test material, components, etc.), the supplier undertakes to check the integrity of the material at reception and informs Sodern of any anomalies.

The supplier takes the commitment to guarantee its preservation.

{REQ 0420}

If Sodern provides specific documentation to be filled in (monitoring files, measurement records, etc.), the supplier has to fill it in and send it back with the material.

The supplier shall make, fulfil and provide as much copies of traveller sheets as product batches or serialized products. Traveller sheets shall come with the product for every step of its manufacturing.



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7.15. DEVIATION WITH THE PURCHASING ORDER

{REQ 0430}

The supplier informs Sodern of any differences with the order as soon as they are aware of them. In particular, this relates to:

- The contractual dates, which are the ones confirmed within the acknowledgement,
- The conformity with the product design, realization and preservation process,
- The product conformity.

{REQ 0440}

In the case of a product non-conformity detected on the product <u>before</u> the delivery, the supplier will inform Sodern of it, and submit a request for waiver (RFW) <u>Erreur! Source du renvoi introuvable.</u>, stipulating:

- the name and the Sodern's reference number of the article,
- the purchasing order number and line number of the product,
- the root cause of the problem identified,
- the immediate actions (starting with identification and isolation the not-compliant part), curative and corrective actions taken to reduce the impact of this non-conformity and to satisfy the next delivery.

If the corrective action requires a longer search process, the supplier will indicate its strategy and the associated schedule.

No product under waiver shall be deliver to Sodern until the RFW is not returned, accepted and signed by Sodern. The RFW signed by Sodern is an authorization to deliver a not-compliant part.

{REQ 0450}

In case of non-conformity, the supplier is still in charge of the correction of the product, considering the compliance to requirements is guaranteed (according to definition in §6)

{REQ 0460}

No non-conformity due to a supplier mistake in its own supplying (for example : raw material) shall be the purpose of a RFW, and the product will be systematically rejected.

7.16. PRODUCT REJECTION / SODERN'S CLAIM

indicate in the NCR the associated strategy and schedule.

{REQ 0470}

Refer to the general purchasing conditions for Sodern's product acceptance after delivery.

Even if a buy off is carried out on the supplier's premises, the product acceptance will be given after the Sodern's incoming inspection.

{REQ 0480}

In the case of a product non-conformity detected on the product <u>after</u> the delivery, Sodern will send a non-conformance report (NCR - see [DA02] [DA02]). The supplier will answer by precising:

- immediate actions performed (necessary containment actions and corrections),
- root cause and corrective actions regarding the non-conformance,
- root cause and corrective actions regarding the non-detection of the anomaly by itself.

The supplier can respond to the NCR on its own form as long as it covers the 4 items mentioned above. The supplier responds at least to the containment and immediate actions of the report within 5 working days,

from the moment it received NCR or of the parts' return as appropriate.

If the root cause analysis and corrective action require a longer search process than 5 days, the supplier will



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{REQ 0490}

The supplier centralises deviations and actions requested by Sodern and processes them effectively.

A non-conformance report raised by Sodern cannot be closed until Sodern has formally accepted the closure.

{REQ 0500}

The supplier shall guaranty that no new product manufacturing could be engaged until Sodern has closed the NCR associated to the product.

7.17. ARCHIVING

{REQ 0510}

All records and documentations (as for example: work instruction, traveller sheets, operation sheet, work orders, process description sheet, and so on...) related to the Sodern work must be archived for at least 15 years.

The archive of restricted publication classified documents shall respect supplier requirements for management of DR documents.