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THE IMPLEMENTATION OF PROCEDURES

TO ENSURE THE PRODUCT QUALITY

IN THE WOOD CONSTRUCTION INDUSTRY ENTERPRISE

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for the Forest and Forest Based Products Industries,
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STEICO flex

składowy materiał do izolacji ścian



- wytrzymała izolacja ścian i narożników ŁĄCZNIK DREWNIANY
- do izolacji przegród zewnętrznych elementów konstrukcyjnych ścian oraz stropów
- łatwa i szybka instalacja

STEICO canaflex

składowy materiał do izolacji ścian i przegród wewnętrznych



- do izolacji przegród wewnętrznych elementów konstrukcyjnych ścian oraz stropów

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pełna izolacja zewnętrznych powierzchni



- wytrzymała na uszkodzenia izolacja zewnętrzna ścian i stropów
- instalacja jako płytowa lub panelowa

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do izolacji zewnętrznych i wewnętrznych



- izolacja zewnętrzna i wewnętrzna do dachów płaskich, stropów i podłóg
- wysoka wytrzymałość na ściskanie

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pełna izolacja zewnętrznych powierzchni i stropów



- pełnowartościowa izolacja płytowa i panelowa
- odporność na uszkodzenia mechaniczne i wilgoć
- doskonała izolacyjność cieplna i akustyczna

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pełna izolacja zewnętrznych powierzchni i stropów



- doskonała izolacyjność cieplna i akustyczna
- odporność na uszkodzenia mechaniczne i wilgoć
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STEICO underfloor

składowy materiał do izolacji podłóg i przegród wewnętrznych



- doskonała izolacyjność cieplna i akustyczna

STEICO floor

pełna izolacja zewnętrznych powierzchni i stropów



- izolacja zewnętrzna i wewnętrzna do dachów płaskich, stropów i podłóg
- doskonała izolacyjność cieplna i akustyczna

STEICO ultralam

składowy materiał do izolacji ścian



- doskonała izolacyjność cieplna i akustyczna

STEICO construction

składowy materiał do izolacji zewnętrznych powierzchni i przegród wewnętrznych



- doskonała izolacyjność cieplna i akustyczna
- odporność na uszkodzenia mechaniczne i wilgoć

STEICO protect

pełna izolacja zewnętrznych powierzchni



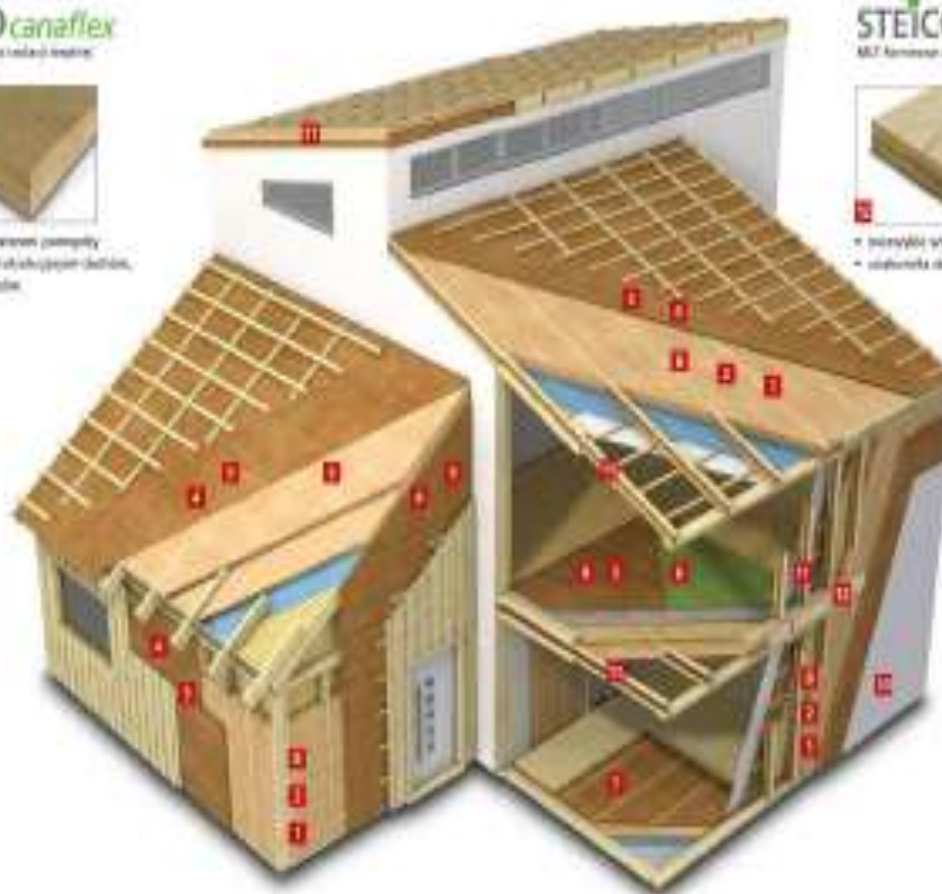
- doskonała izolacyjność cieplna i akustyczna
- odporność na uszkodzenia mechaniczne i wilgoć

STEICO therm intern

pełna izolacja wewnętrznych powierzchni



- doskonała izolacyjność cieplna i akustyczna
- odporność na uszkodzenia mechaniczne i wilgoć



PEŁNY ASORTYMENT PRODUKTÓW STEICO

STEICO Isorel

pełna izolacja zewnętrznych i wewnętrznych powierzchni



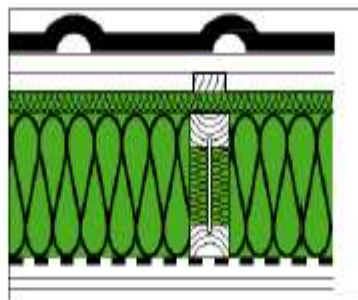
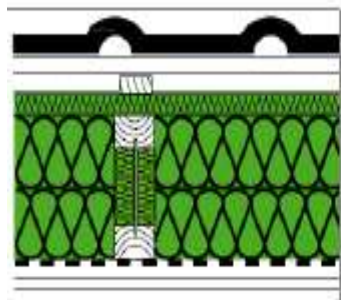
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- odporność na uszkodzenia mechaniczne i wilgoć

STEICO zell

składowy materiał do izolacji zewnętrznych powierzchni i przegród wewnętrznych



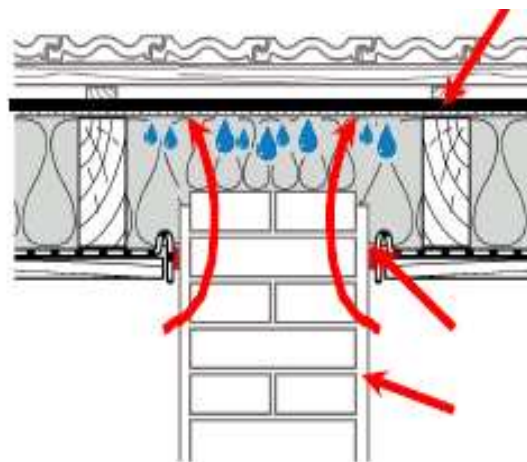
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Warstwa zewnętrzna

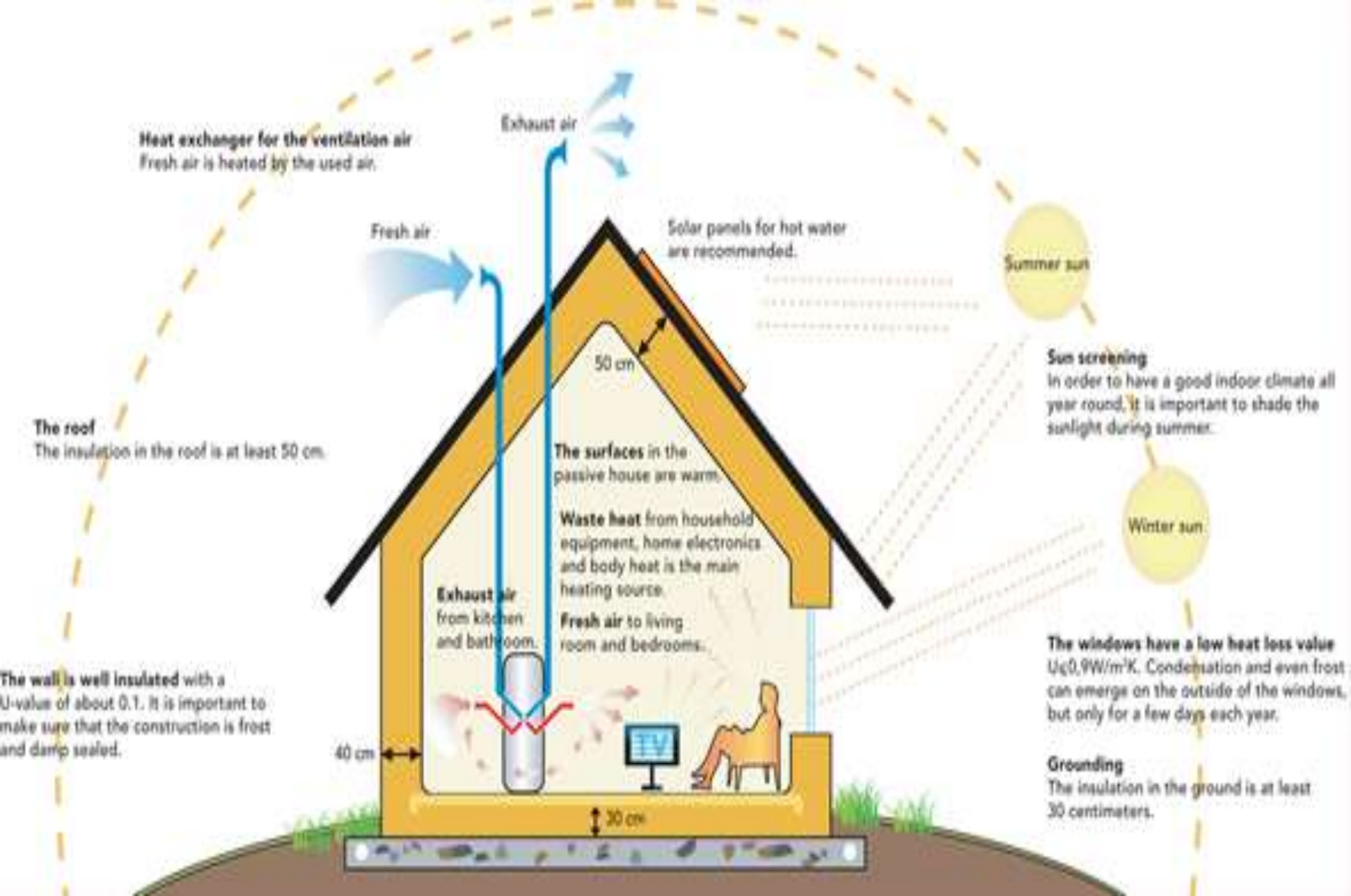
Izolacja cieplna

Warstwa wewnętrzna



Przyczyna: strumień dyfuzyjny boczny (muru)





Construction investment is a series of organized activities, because it is a a set of complex operations.

Each of these steps should be based on an analysis of current and expected situation and each of these steps requires making current decisions.

A set of organized actions according to the *Henry Le Chatelier' theory* consists of five phases:

- a clear and precise statement of purpose (or purposes) of action,
- identification of existing conditions,
- planning action ways and the required funds,
- preparation of resources and ensuring the conditions for achieving objectives,
- performance of measures and monitoring of performance measures and targets.







Conditions that characterized a quality management system as the integrated management system should:

- implement and supervise policies and clearly defined objectives,
- describe, select and control the process convenient for the organization what is a process approach,
- supervise the quality of the control measurements and research findings and the improvement process of the organization and the final products,
- manage all the company's resources adequately to the employees needs and production processes,
- take effective way to communicate with the recipients in order to identify their desires, wishes and requirements and what is important - satisfaction with the cooperation.

The introduction of the quality system in an organization requires, inter alia, fulfilment of following conditions whose realization influents on the high efficiency of procedures supportive for the high quality products achievement:

1. The management staff involvement that is interpreted as the need to engage senior management and its responsibility for the implementation and maintenance of the quality system.
2. The quality system that must be designed, implemented, and most importantly documented.
3. Supervision of data and documents - all documents must be checked and monitored in order to check its validity authenticity by designated employees. The changes in the documentation must be subjected to the same procedures review and approval as the original documents.
4. Purchases must be obtained from suppliers that meet quality criteria.
5. Identification of the product - the identification of specific product elements in some cases it must be possible, even during the production process. The documentation of the production processes allows reconstructing the production process; diagnose causes of nonconformities occurrence and location of the problem, correction and prevention in order to eliminate the "failure" in the future.
6. The process steering should ensure appropriate conditions of the production processes realization to be controlled effectively.
7. The inspection and research that concern products, deliveries or processes should be documented in the appropriate procedures.
8. The procedures for product that don't meet customers' requirements should concern elaborated and applied procedures explaining how to deal with products not meeting the quality requirements and explaining the eligibility selection of these products for the repair, alteration or ultimately scrapping. It is aimed at protection against the transfer of products not meeting quality requirements for further processing and prevents the possibility of delivery to the co-operating companies or the final customer.
9. Corrective and preventive actions - procedures of the possible nonconformities occurrence causes analysis, both in terms of a product and a process, and to take corrective action - should be established and followed.
10. Controlling the quality documentation - it is necessary to conduct provisions or procedures for filling, registration and storage of documents. The procedure for storage should allow quick and easy access to authorized people and prevent access to third parties.
11. Internal quality audits - should be carried out in the enterprise as planned and documented internal quality audits to verify and activities carried out within its framework in accordance with the applicable procedures. The essence of this issue relates to compliance with the quality policy of the organization and its effectiveness. The results of this work should include proposals for corrective actions and their verification, and, of course, to document their effectiveness. They must be made available to the persons responsible for the business area.
12. Training focused on the constant improvement of the workers skills and qualifications.

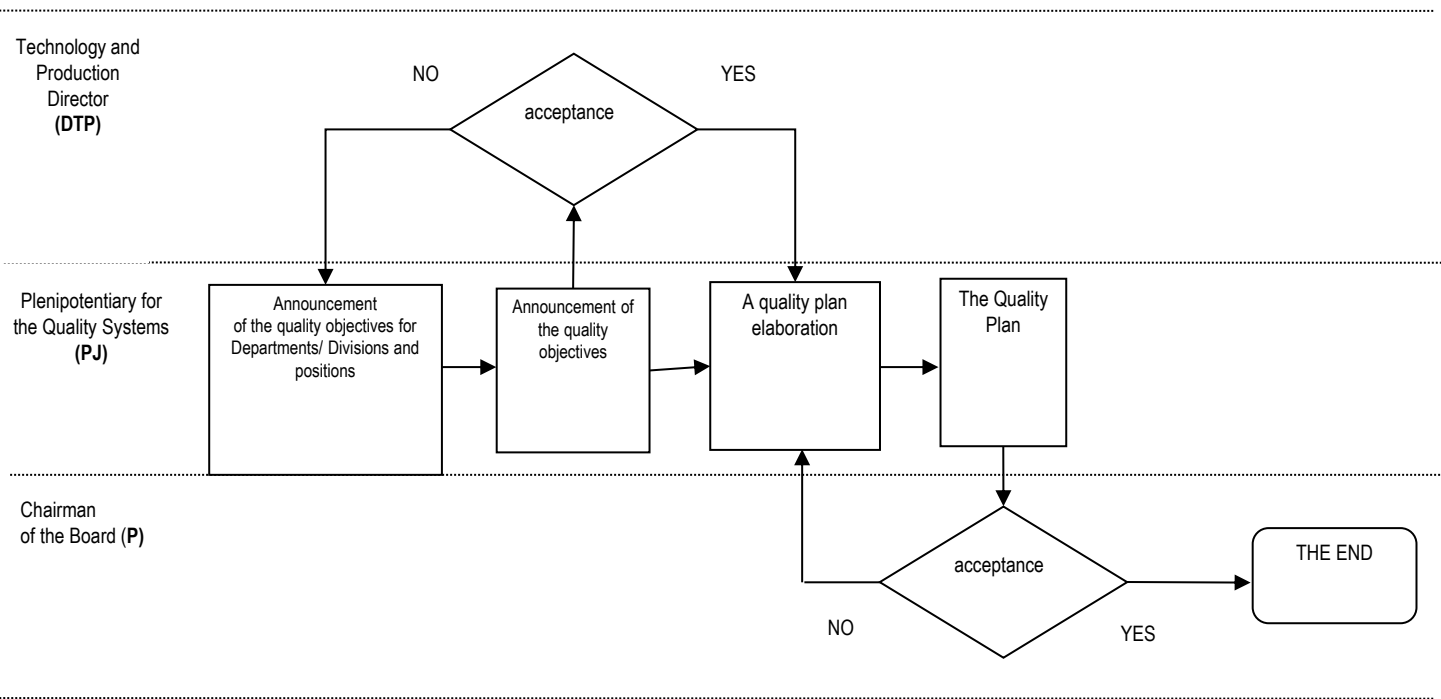


Figure 1. The procedure of the quality maintenance and constant quality growth in the chosen wooden construction industry enterprise.

The analyzed enterprise bases its production on the qualified suppliers, whose evaluation and selection is carried out in a permanent manner by creating the specified group of suppliers grouping them into categories A, B and C.

The specific category choice for selected suppliers is determined by the results of tests on the supplies and the point value granted to individual providers is affected by such factors as:

- the trading ability which is determined for individual suppliers based on the price stability, payment terms, delivery punctuality and suppliers' flexibility to quantitatively-assortment changes,
- the quality ability whose the level is determined based on such factors as the number of complaint deliveries (value, quantity), the percentage of the complaint delivery and the complaint reasons.

The supply sources as well as the supply, the senior management has set a policy with the following assumptions:

- purchase of materials and raw materials contained in approved articles by a certificate of conformity or declaration of conformity - the purchase by qualified suppliers,
- ensuring the safety of products shipped to the customer - measured by the quantity and quality of transport damage,
- ensuring a timber quality by: a proper drying, seasoning in accordance with the requirements, a proper storage, maintenance of normative stocks.

Depending on the kind of a material the supervision concerns:

- in the case of a timber: a thickness, a width, a length, a grade for compliance with PN-75/D-96000 or factory standards,
- in the case of a fibreboard – thickness and size of plates are tested, and there are taken samples from each batch and they are tested by the enterprise laboratory in terms of a water absorption and swelling,
- painting materials – are examined by the enterprise laboratory,
- building hardware - the quality and performance of compliance with the PN or the WTO.

Employees creativity development requires an appropriate "handling people", that involves:

- continuous listening to opinions, comments and proposals of workers (e.g. due to working in teams seeking and shaping the quality - the idea of the quality circles),
- eliminating the causes of failures, not "treating the symptoms". This approach, manifested in honest conversations about all the problems, discussing misunderstandings and conflicts, makes it appear the atmosphere in which we all interact with each other, creating a unique and well-positioned to create quality,
- treatment of subordinates in priority, which means that developing the skills of subordinates is more important than achieving financial goals for the qualifications, experience and ability to think creatively; treatment of the personnel as the source of many ideas for improving the woodworking construction products quality; invaluable concepts enable reductions of any nonconformities.

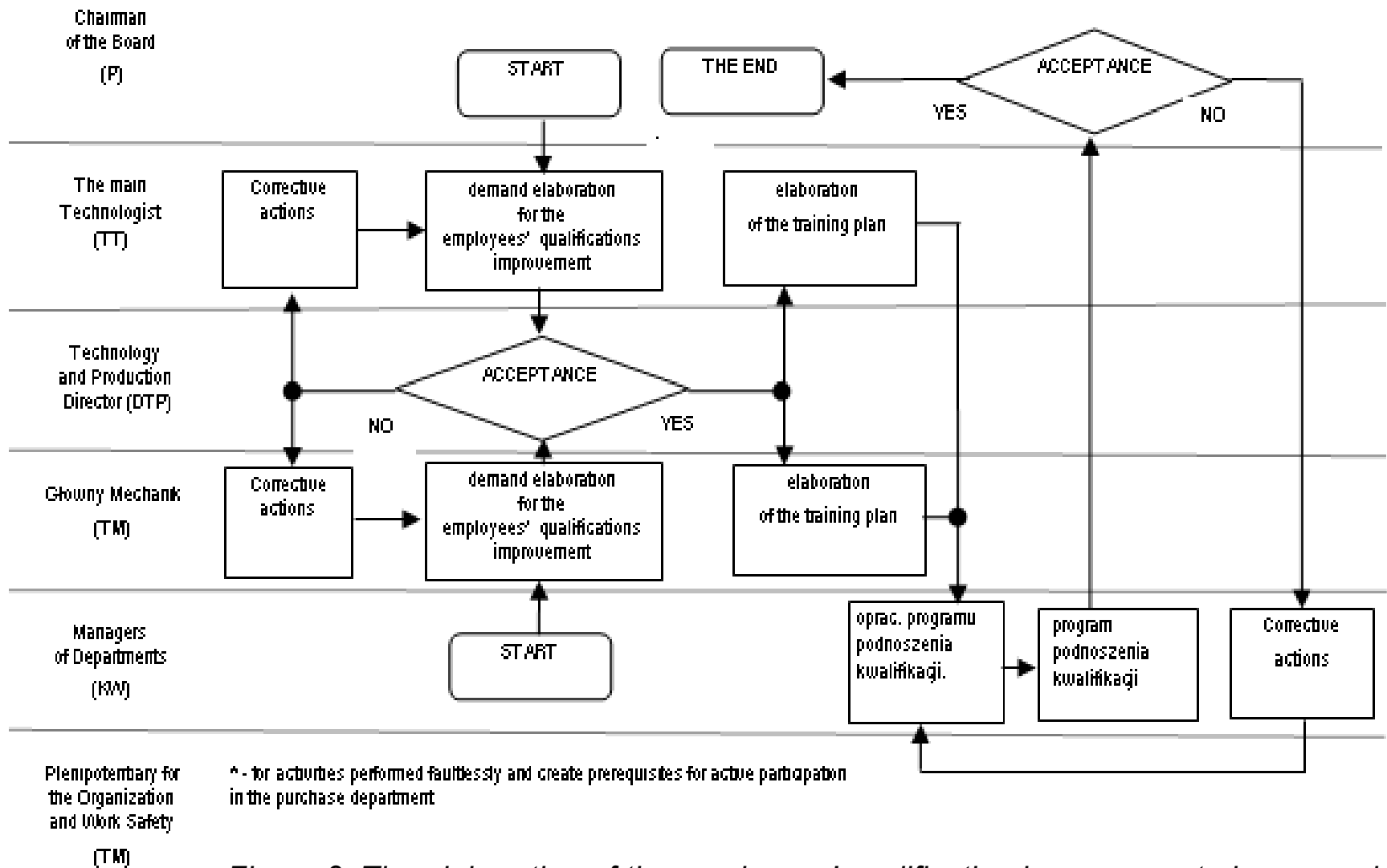
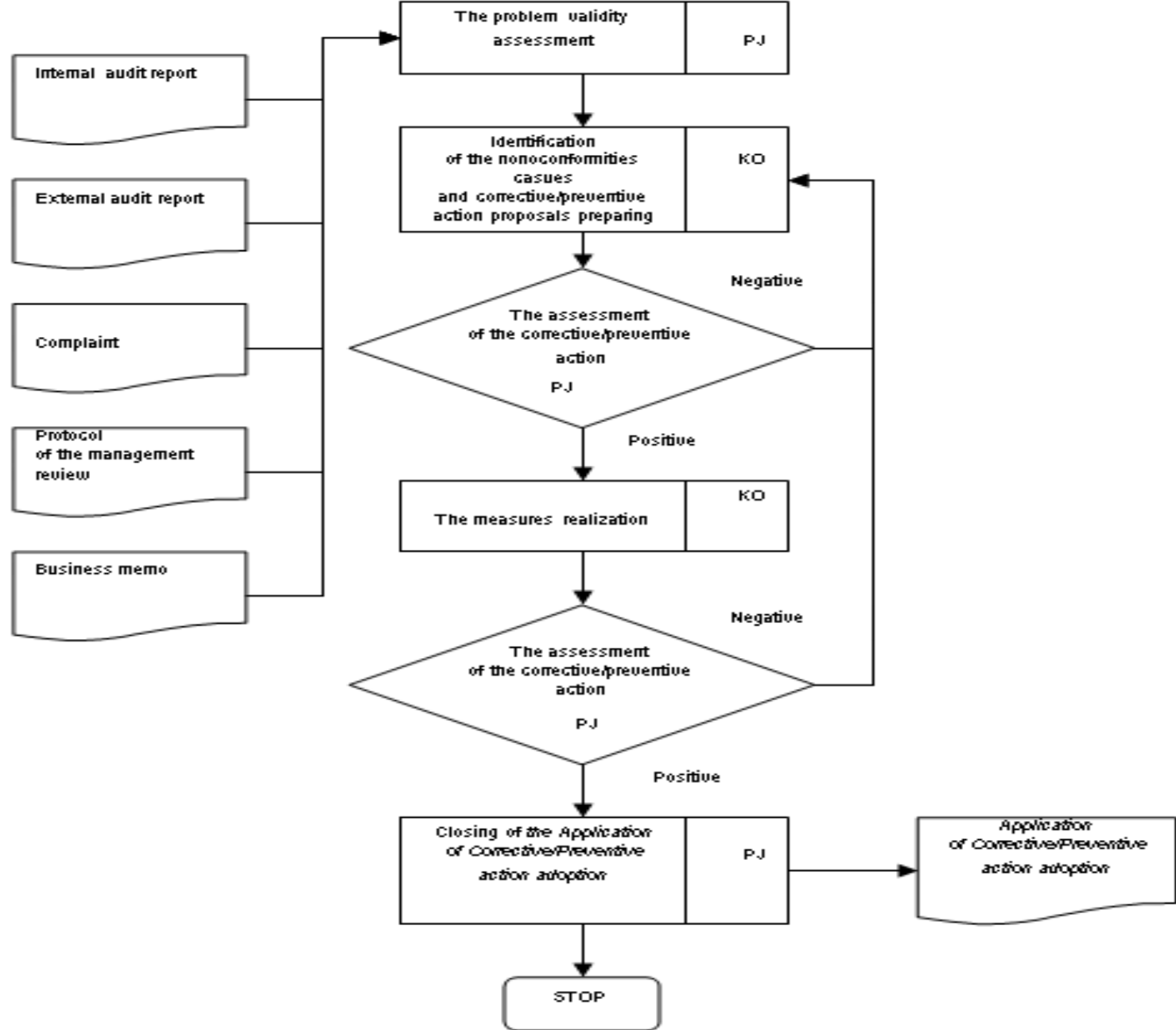



Figure 2. The elaboration of the employees' qualification improvement plan procedure in the selected wooden construction industry enterprise.



**Thank you for your
attention**



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