GEO-OPTIMIZATION PROJECT FOR INDUSTRIAL MAINTENANCE TECHNICIANS AND PREVENTION OF ASSOCIATED RISKS - Feedback from CHSCT experts

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A call-out at the request of the company CHSCT for a CHSCT expertise for a major project aimed at providing clarification regarding the contents of the project, its conduct and its impacts on working conditions.

Company specializing in industrial maintenance organized by Agency - an operations manager and a team of technicians.

- Use of an embedded PDA type computerized tool (Personal Digital Assistant) for mobile industrial maintenance technicians (thermal equipment, air conditioning, air coolers) for the last 2 years
- Usage limited currently to retrieving support tickets, drafting reports and, the completion of the works reports
- Presentation of the geo-optimization project to the CHSCT of the implementation of new functionalities as facilitator of the completion of the work and of secure operations.

The purpose of the communication is to discuss the conditions for introducing a new technology, the need to compare it with the actual work (this call-out to the company serving as illustration) in order to envisage procedures for implementing a renewed project in respect of both their construction and the involvement of the IRPs and the employees in the procedure.
Understand the challenges and aims, in order to define and characterize the project

- Systematic activation by the technician of the system for a person working alone with estimate of the envisaged call-out time – if the call-out time is exceeded and the technician has not finished his work - triggering of a specific staggered procedure.

- Analysis of the preventive tours of inspection a posteriori by the operations manager in order to optimize resources.
- Call-out carried by the closest technician for corrective maintenance from their geographic location.

- Reduction of the number of km travelled and time reinvested in improving the maintenance service.
- Technician specialized in corrective or preventive maintenance for sectors requiring frequent call-outs (work in pairs/alternate assignments).

Security/geo-protection

quality/geo-optimization 1 and 2

Profitability/geo-optimization 3 and geolocation of vehicles
The definition of the project must be capable of being "compared" with the actual work and its organization

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<tr>
<th>Human relations</th>
<th>Organization of the work</th>
<th>The content of the work</th>
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<tbody>
<tr>
<td>• Personal use of the break-down vehicle - a use that is tolerated by the management and is convenient for both</td>
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<td>• A system of mutual assistance and co-operation &quot;not prescribed&quot; but organized by the teams (skills, person working alone, call-outs requiring working in pairs)</td>
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<td>• Individual latitude in priority management</td>
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<td>• Corrective maintenance prioritized over preventive</td>
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<td>• Predetermined call-out sectors (1 + several alternates) based on the skills required (equipment, nature of the call-out, qualification, knowledge of the terrain)</td>
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<td>• Specific features of the call-out for corrective and preventive maintenance (3)</td>
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<td>• Unpredictability of the length of the call-out</td>
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<td>• Need for reactivity</td>
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<td>• Part of the activity is known but not visible (not programmed) (ignition work, vehicle maintenance, etc...)</td>
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Definition and characterization of the project

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Feedback from CHSCT experts
In order to anticipate the impact on working conditions

**Anticipated identification of the project's impact on working conditions and its quality**

- Loss of autonomy in respect of individual management of the call-out
- Restriction of the technical scope of the call-out by enhanced specialization
- Increases workload for technicians due to the failure to take account of non-visible activities
- Increase in the analysis and scheduling workload for tours of inspection for the operations manager
- Risk of incorrect use of the geolocation and time data collected
- Risk of weakening of the current mutual assistance system
- The digital assistant (PDA) is not operational for all call-outs (e.g. technical facilities under swimming pools).
And to treat them proactively

- Eliminate or adapt certain objectives of the project
  - Reposition the tool to help with decision making rather than replace the operations manager in planning.
  - Do not separate preventive/ corrective team that leads to a difficulty in skills management, in respect of the scope of responsibilities, the knowledge of the history of the work carried out on the equipment.

- Secure the management and implementation of the project
  - The need for "expert" regional resources dedicated to the scheduling and analysis project (corrective/preventive dimensioning - support for operations manager)
  - The appropriation by the CHSCT, management and employees of the content of the Declaration filed with the CNIL (the objectives, data storage deadlines, CNIL recommendations taken into account)
  - Accept that part of the technician's activity continues to not be visible whilst dealing with his workload via increased team co-ordination.

- Assess and reinforce the other means to prevent the risks associated with working alone
  - Define upstream maintenance work (when negotiating the contract, then by the operations manager) to allow the identification of the situations requiring working in pairs
  - Manage the currently informal mutual assistance arrangement
  - Increase the activation of the "on-call framework" which is not used frequently enough
  - Implement another system on sites not covered by the network
By way of conclusion - prepare the integration of a new tool to tend towards an organization that reconciles the requirements of the work and the organization with the skills mobilized

Upstream from the project examine the organization model (the computerized system must not shape the organization)

- What is it important to preserve in the current organization? (in terms of performance, organization, management, collaborative work) - how to retain it?

At the project phase examine the functionalities of the computerized system

- The functionalities retained?
- What will change from the organizational point of view?
- What are the gains and losses expected with regard to human relations, work content and the way it is organized?
- How to Secure or increase gains?
- How can losses be reduced or offset?
- Work with the CHSCT on the "gains" and "losses" expected.
- On losses - how to identify appropriate preventive and offsetting measures?
no conflict of interest

Thank you for your attention