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## DESIGN OF A PREVENTION APPROACH: FROM REPRESENTATIONS TO ACTION THE CASE OF NANOMATERIALS

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The widespread use of nanomaterials in all sectors represents important scientific and economic issues but is also accompanied by uncertainties about their effects on health and the environment. In this context both a source of innovation and uncertainties, some research or industrial laboratories experience difficulties in implementing measures to prevent risks associated with nanomaterials. Unable to wait for the construction and stabilization of toxicological knowledge, it seems important to implement prevention in companies taking into account the actual work activity.

This intervention is part of a research program "Building and managing risks associated with nanomaterials in industry and research laboratories", whose objective is to explore ways of managing this emerging risk. This multidisciplinary research device combines prevention specialists (chemistry, metrology) to researchers in the social sciences (sociology, ergonomics, management) through the partnership of two different laboratories: the National Institute of Research and Safety (INRS) and PACTE laboratory (University of Grenoble).

This paper describes the ergonomic intervention carried out in an industrial company whose activity is focused on the development of agricultural materials rich in starch for the production of such papers. This company, especially the Research, Development and Industrialization Department, wants to test a product in nanostructured form but is faced with refusal of employees handling this product. The implemented methodology combines interviews with real work observations in reference situations and has two objectives: understand the representations of nanomaterials risks and create a space for collective debate on the professional practices within the framework of the current and future working activity.

This area of regulation has led to many changes at once:

Technical: certain practices have evolved through the use of new equipment (volumetric flask, plastic pots, largest mixing pot mixing)

Organizational: the identification of a higher risk activity during the preparation of the slurry has led to the development of a space dedicated to handling the nanostructured product and to the separation of office spaces from handling spaces.

And social by the mobilization and employees participation to the structuring of a prevention approach.

Beyond the measurement of employee exposure, it is to focus on the daily work activity and representations of nanomaterials risks among different actors mobilized in order to help them to anticipate the future working situations and to socially build an approach of collective and effective prevention These first results show how preventive action and the work activity of employees may be resources for innovation in the enterprise.