

The NAKRA project is funded within the framework of the community initiative INTERREG IIIA of the European Regional Development Fund (ERDF). INTERREG supports the increasing cooperation between the regions of the European Union. The project contributes to support an environment-friendly and sustainable organisation of the health care in the metropolitan area Vienna - Bratislava and to strengthen the cooperation of the local hospitals from both cities.

Project NAKRA

Sustainable Waste Management in Hospitals

Creation of Basics and Initiation of Their Implementation

What do we know about our waste?

After use, all purchased articles become waste. We exactly know what we buy for the operation of the hospital. But do we also know the waste resulting from that?

- Which amounts of waste do the articles used cause ?
- What is the composition of the waste?
- Where do the wastes originate?
- Are they collected correctly?

The knowledge of the origin and the composition of the wastes is not sufficient, which is an obstacle to a lasting waste prevention .

The objective of the article analysis is to sum up the hospital wastes in terms of amount and composition. This is a prerequisite for a successful waste and environmental management.

Figure: article analysis: for the most important articles, data on weight, composition, change of the weight during the use and the proper disposal according to the waste management plan are collected

How are waste data collected?

We gain the knowledge of our waste from the investigation of the purchased articles. The consumption of several thousands of articles is registered in the bookkeeping. But the data of the bookkeeping consist of euro and piece. Therefore, the data have to be enhanced by specific information about the articles. In an analysis of the most important articles their weight, their composition and their packaging are registered, and in each case correct disposal paths are assessed.

Subsequently, the specially developed Software "Der Connector" associates the data from the bookkeeping with the article data and calculates by button press the wastes and recycling flows.



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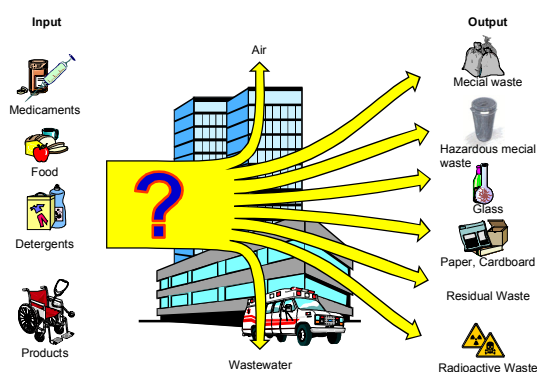
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Input-Output-Analysis

By linking the data from the bookkeeping with the results from the article analysis, we can calculate the waste quantities.

We receive the mass flows for the purchased articles and their corresponding waste flows under correct disposal of article and its packaging.



Thus through the inputs we know the theoretical output. We can now compare the theoretical output with the actual amount of wastes.

The extrapolation onto the entire hospital forms the basis for the assessment of the waste management quality.

Where is the benefit?

The comparison of the input-output analysis with the actual waste flows represents the basis for waste prevention and for targeted environmental projects. It also helps understand the interactions between purchased articles and the resulting waste flows. It allows for description the present state of the waste situation and for identifying where an action need is given, and where prevention potentials can be used.

You see, ...

- ... how the waste fractions are composed.
- ... which articles cause most of the wastes.
- ... if the wastes are disposed of according to the waste management plan.
- ... which hazardous substances are contained in the wastes (e.g. PVC).

Thanks to this knowledge you can set purchase-sided or waste-sided action priorities, initiate measures and control the effectiveness of the set measures.

Expected results!

- Development of a waste basis, as prerequisite for sustainable waste resp. environmental projects.
- Knowledge of the current waste situation and of the theoretical „ideal“ waste situation of the hospitals.
- Concrete waste management implementation concepts combined with accompanying public relations action.
- Display of reduction resp. optimisation potentials of the waste disposal amounts and disposal costs.
- Information, sensitisation and motivation of the employees with respect to the current waste management situation.
- Exchange of experience concerning the state of the art and the already successful implemented problem solutions. Possibilities for an efficient know-how transfer.

The goal of the project NAKRA is to create the base needed for the analysis and evaluation of the waste situation in the Slovak and Austrian hospitals that participate in the project. Based on this, specific implementation measures are initiated that will enable the optimisation of the waste management, the reduction of the waste amounts or of the resource consumption in the hospitals.

Another goal of the project is to initiate and enhance the contacts between Slovak and Austrian hospitals, to unite their energy towards the welfare of their patients and of the environment.

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