

## INTRODUCTION

In today's world, where inter-relationships among organizations are common and reality changes fast, it is necessary for dynamic enterprises to have a flexible organization planning strategy that can rapidly react to exterior and interior events and re-adapt according to the new circumstances.

We propose a model to deal with such a reality. We claim that the combination of Group Information Management (GIM) systems and Spatio-Temporal Datawarehouses can model the history and actual state of an enterprise, as well as its future planning, allowing the decision makers to make informed decisions when some unpredicted event occurs.

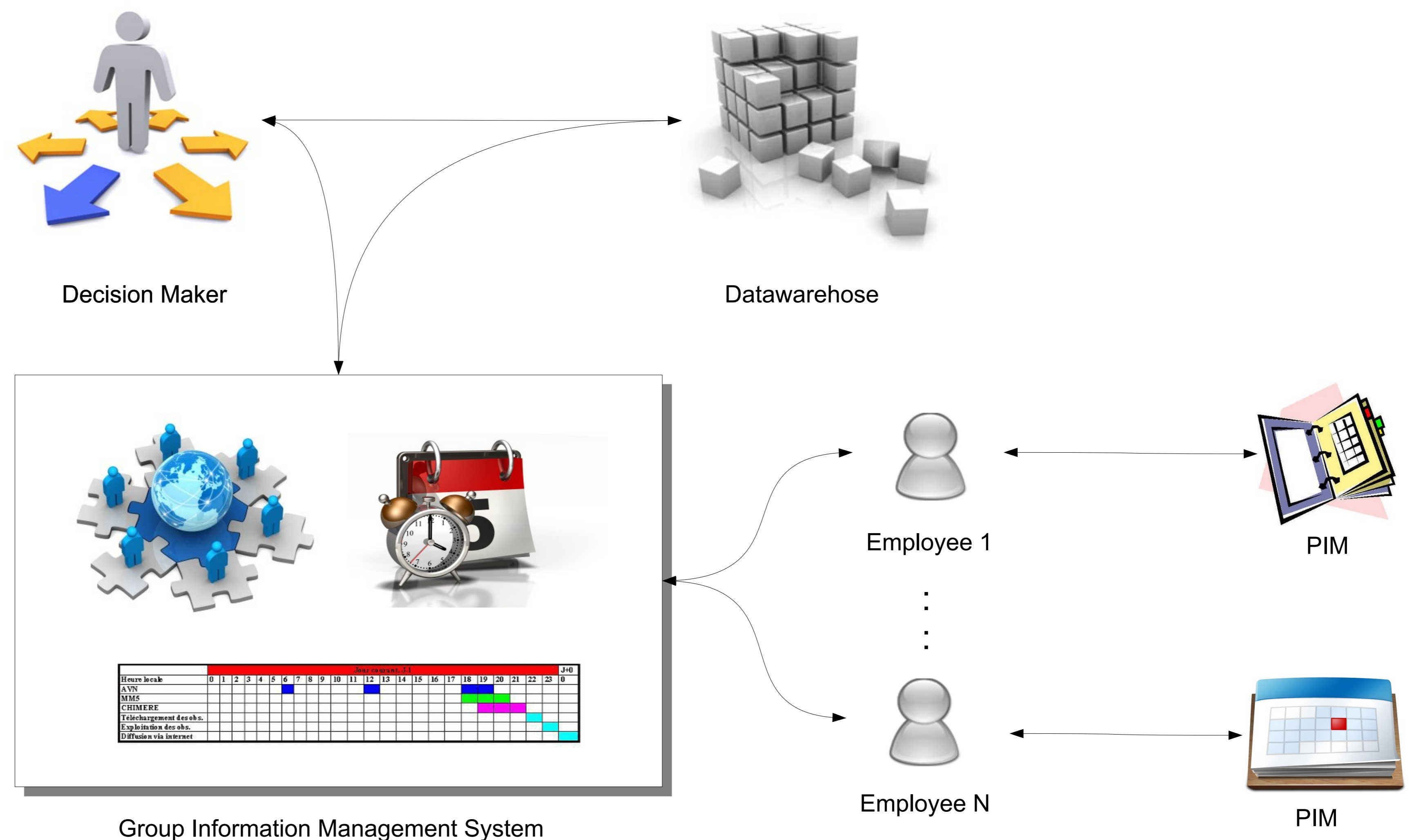
## STRATEGY

The system will show the next characteristics:

**EVENT-DRIVEN:** It has to react automatically to exterior and interior events. Those events can trigger other events. The system will have a decision engine to deal with the complex triggering of events and will offer some possible planning re-organizing strategies to the Decision maker.

**DW COMPLEX ANALYSIS:** To offer some alternatives as a reaction to an event, the system should make complex request to the DW, where some hypothesis have to be included as part of the request.

**SEMI-AUTOMATIC:** The system has to begin searching one or more solutions when an event alter the organization planning and should report it to the decision maker.



## COMPONENTS OF THE SYSTEM

**Datawarehouse (DW):** It contains important information of the organization that helps the decision maker in the decision process. It has to have temporal features to deal with temporal aspects of the GIM and should also include spatial capacities to better model the enterprise reality.

**Group Information Management (GIM) System:** It gives the support to coordinate individual actions in a group activity frame. The GIM facilities include the ability to acquire, organize, maintain, retrieve and use artifacts such as documents, gantt charts, and agendas. It has to react to exterior or interior events that can alter the predefined plans (deadlines, milestones, production goals).

**Personal Information Manager (PIM):** A PIM is like a GIM but for a single person. It does not offer sharing capacities per se, although it can be synchronized with a GIM.

**The complete system:** The DW will supply historical and real information of the organization, while the GIM will offer real and future information. The combination of both can help the decision maker to make informed decisions. The GIM has to have the capacity to react to exterior or interior events that can alter the organization planning and act in a semi-automatic way, offering some possible re-arrangement of activities to the decision maker.

## EXAMPLES

**Event:** An employee got ill.

**Effect:** Risk for a deadline accomplishment.

**Analysis:** Reorder priorities, hire a new person?

**Event:** An important provider went bankrupt.

**Effect:** The production goals for product x are affected.

**Analysis:** Find another provider, focus on other products?

## BIBLIOGRAPHY

**What Is Spatio-Temporal Data Warehousing?** Alejandro Vaisman and Esteban Zimanyi. In Proceedings of the 11th International Conference on Data Warehousing and Knowledge Discovery (DaWaK '09)

**Tempus Fugit: a system for making semantic connections.** Daniel A. Ford, Joann Ruvolo, Stefan Edlund, Jussi Myllymaki, James Kaufman, Jared Jackson, and Martin Gerlach. In Proceedings of the tenth international conference on Information and knowledge management (CIKM '01)

**Group Information Management.** Lutters, Wayne G., Ackerman Mark S., and Zhou Xiaomu. In Personal Information Management, Seattle, (2006)

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