

Data warehouse and decision-making

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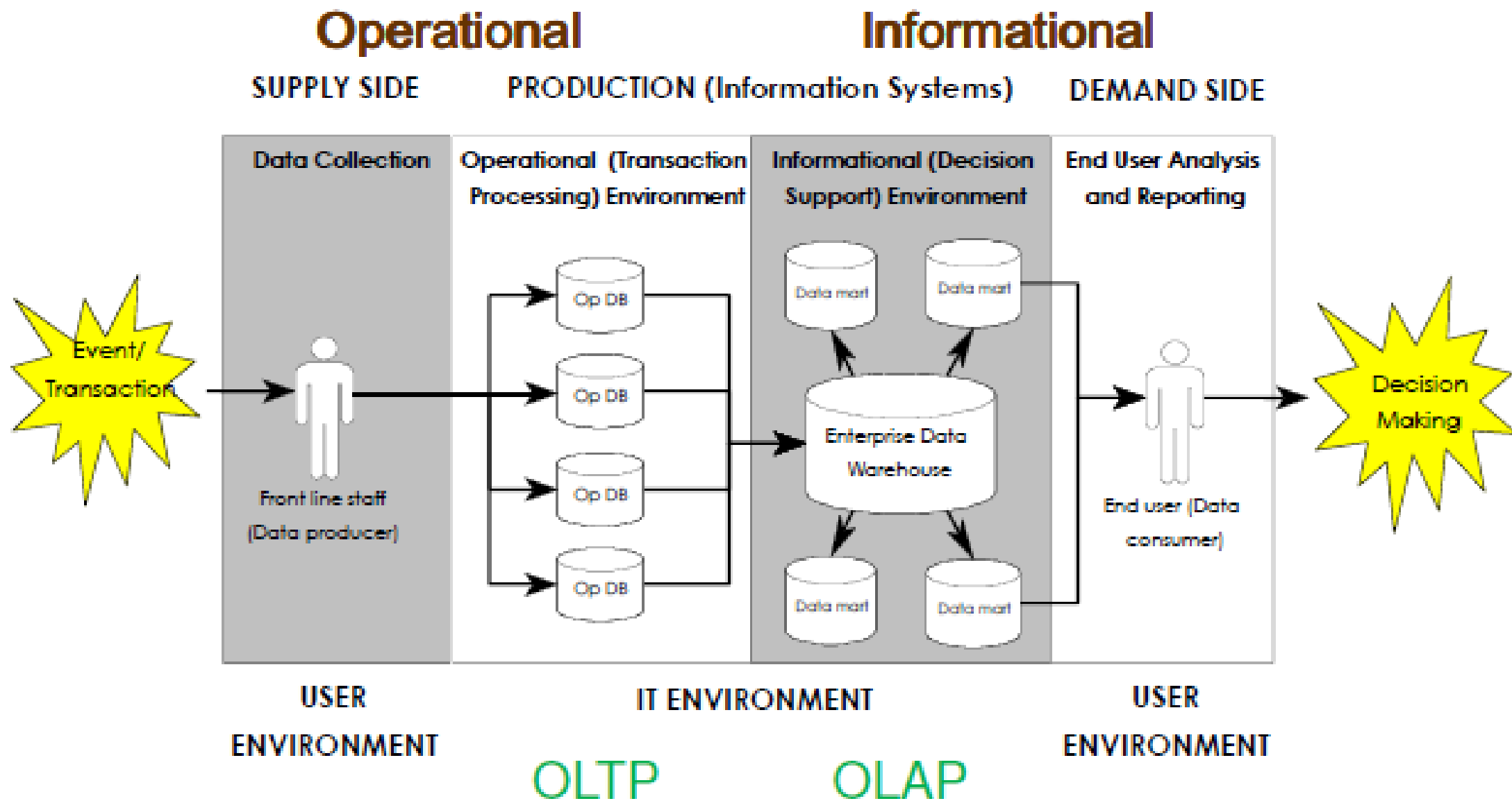
Support Decision Making

- Management Information System(MIS)
- Decision Support System (DSS)
- Executive Information System (EIS)
- Datamining(DM)
- Business Intelligence (BI) (Data driven DSS)
- Business Analytics(BA)

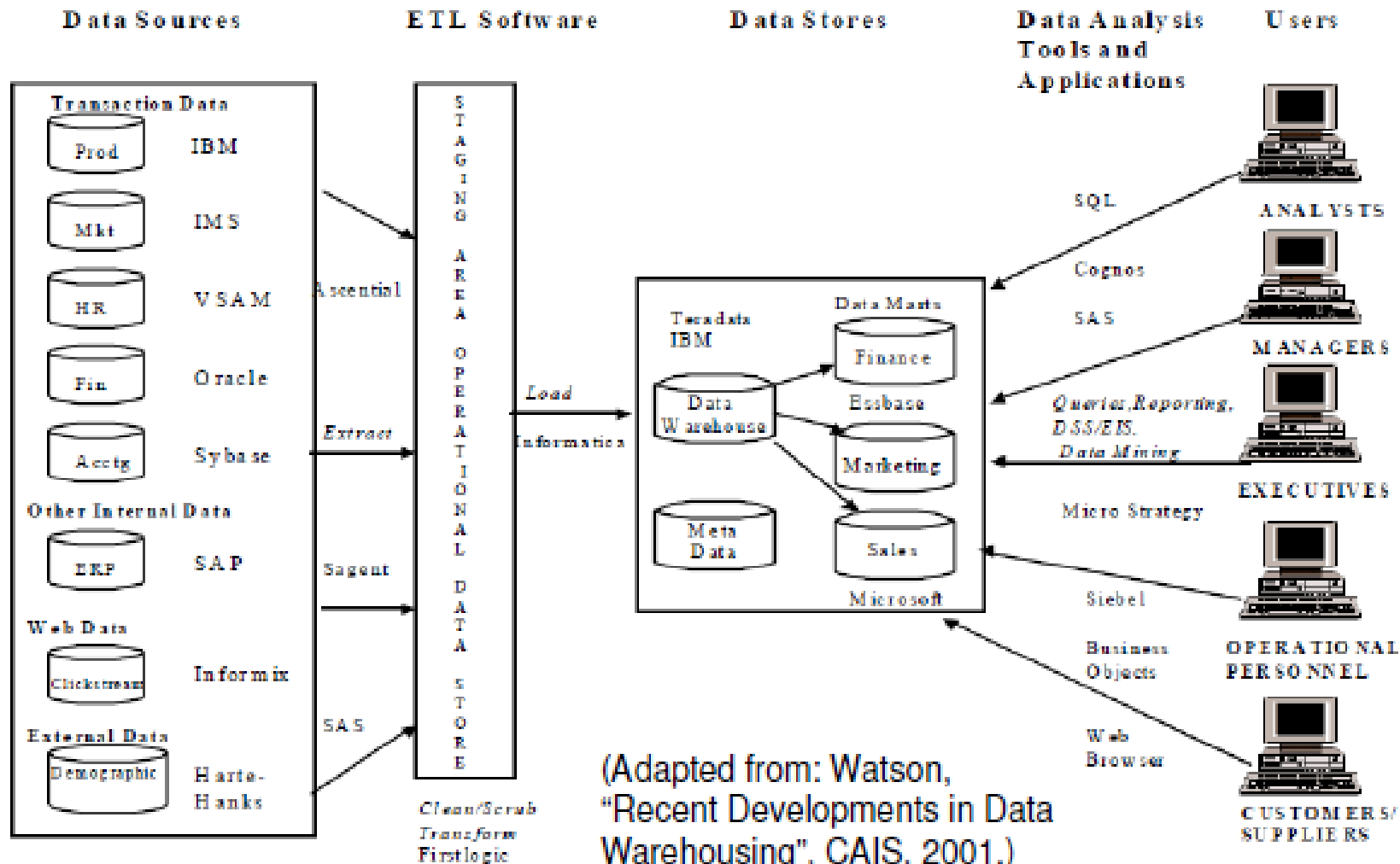
What is Data warehouse?

- Data warehouse is a collection of data designed to support decision-making applications
- Data warehousing is the process of data accesss, transforamtion, and loading of data to the datawarehouse, and the accesss of the data by end users and applications.

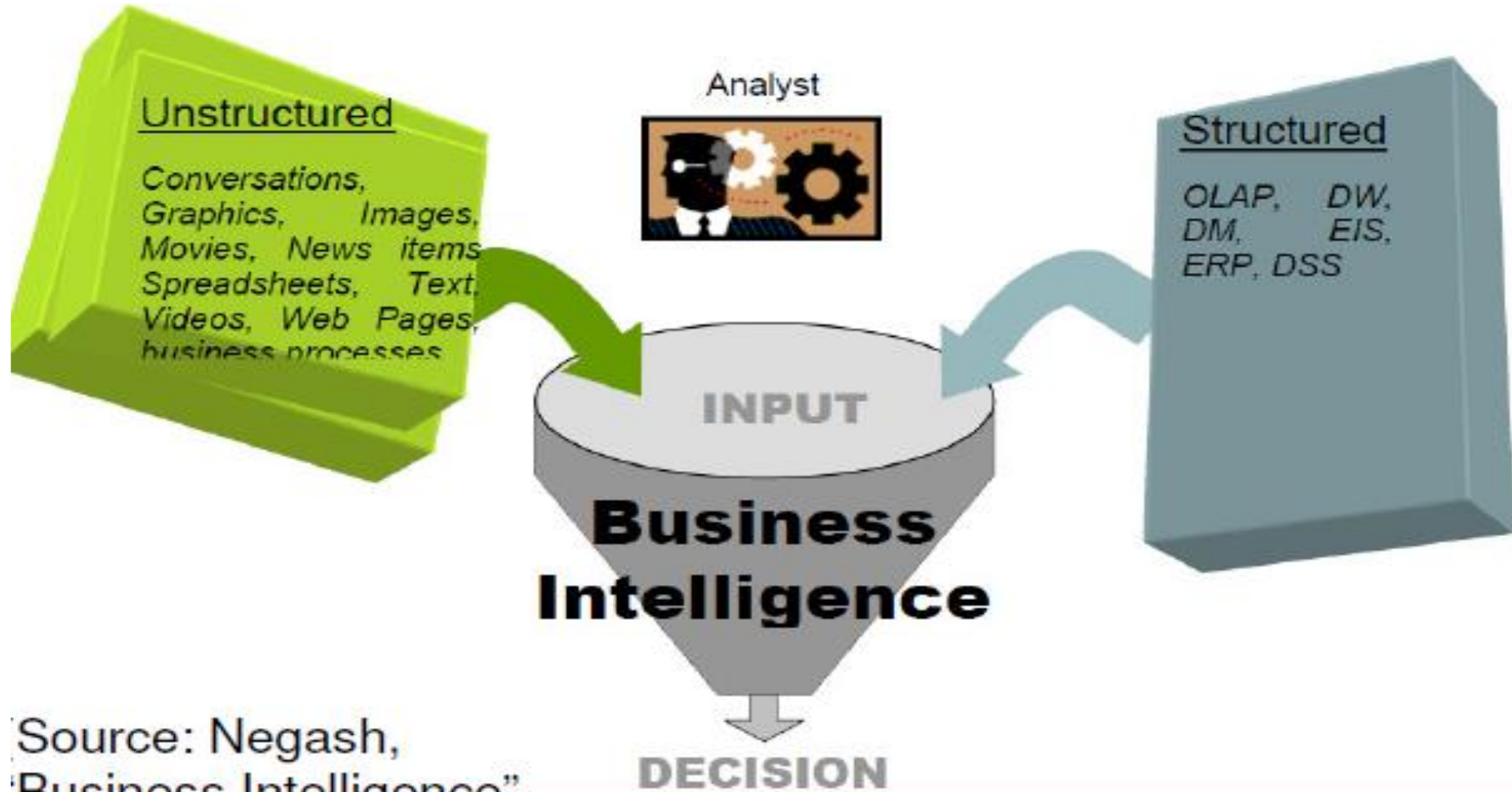
OLTP vs OLAP



Data warehouse architecture



BI Architecture



Source: Negash,
"Business Intelligence".

Examples of Semi-Structured Data

Table 1. Some Examples of Semi-Structured Data

<ul style="list-style-type: none">▪ Business processes▪ Chats▪ E-mails▪ Graphics▪ Image files	<ul style="list-style-type: none">▪ Letters▪ Marketing material▪ Memos▪ Movies▪ News items	<ul style="list-style-type: none">▪ Phone conversations▪ Presentations▪ Reports▪ Research▪ Spreadsheet files	<ul style="list-style-type: none">▪ User group files▪ Video files▪ Web pages▪ White papers▪ Word processing text
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EJ .Strategic BI: Market segmentation

- Different buying patterns – segment on the basis of age, education, income, personality variables, ethnic background etc.
- Analyze data to identify segments – market research, historical data – Progressive Insurance segments by risk .
- Customize marketing programs – improve response in each segment – premiums set based on risk segment