Customer Intelligence and Relationships Management (CRM)

L81A310 Customer Relationship Management (CRM) Course
8th – 12th February, 2016

Dr. Sia Valentinova Tsolova
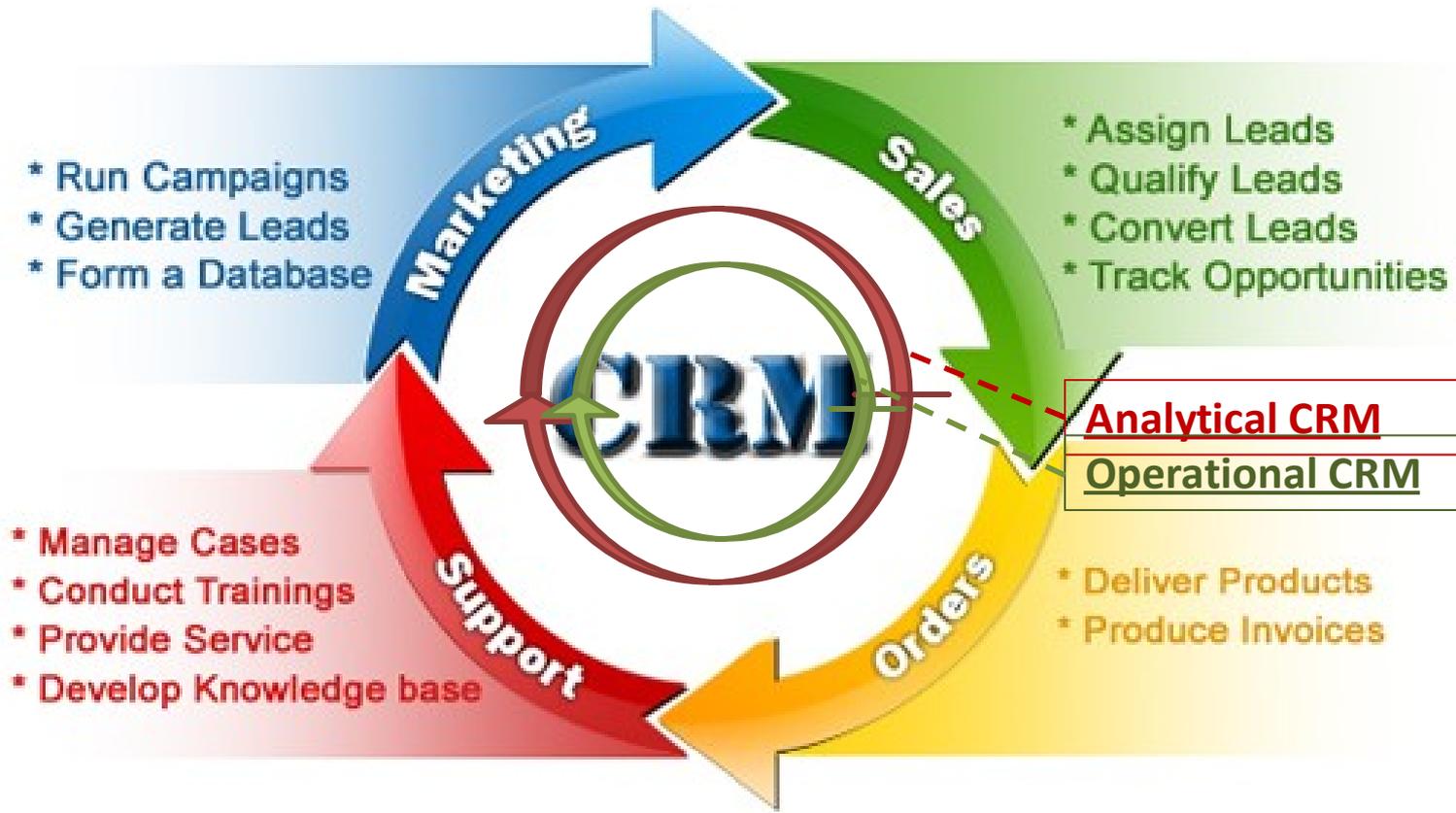"Technology Entrepreneurship
and Innovations in IT"
Sofia University "St. Kliment Ohridski"
s.valentinova@gmail.com

Operational CRM Process

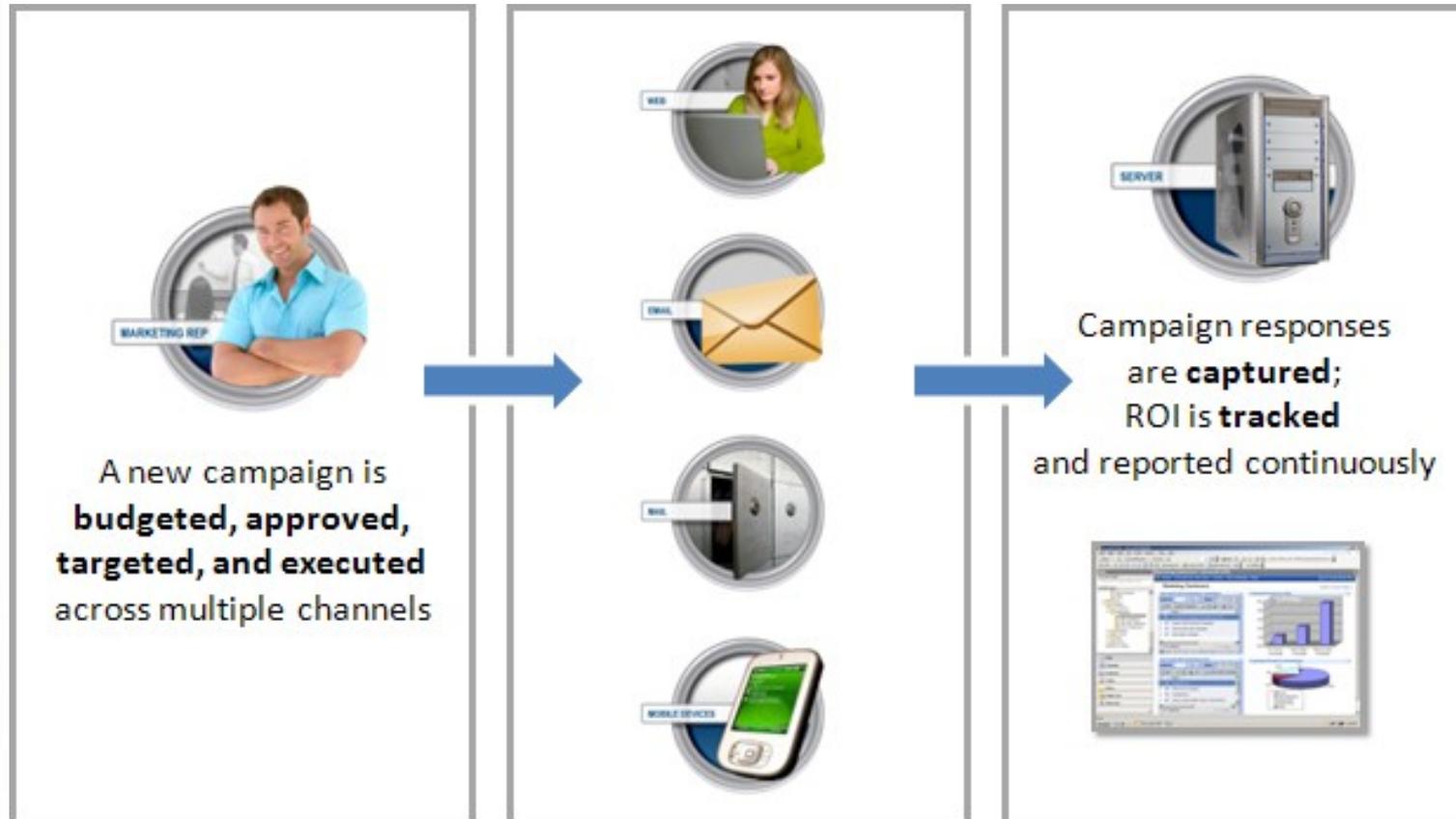# Analytical Customer Relationship Management

Analytical Customer Relationship Management

Analytical CRM is a subset of CRM in which **data** is collected by a company about their customer interactions, and **analyzed** with the goal of increasing **customer satisfaction** and their **customer retention rate**.

Analytical CRM is a behind-the-scenes process; the customer is not aware that his or her actions and interactions with the company are being captured and analyzed.

Example of Analytical CRM Processes

A new campaign is **budgeted, approved, targeted, and executed** across multiple channels

Campaign responses are **captured**; ROI is **tracked** and reported continuously

http://www.synergy-software.com/microsoft-dynamics-crm.htm
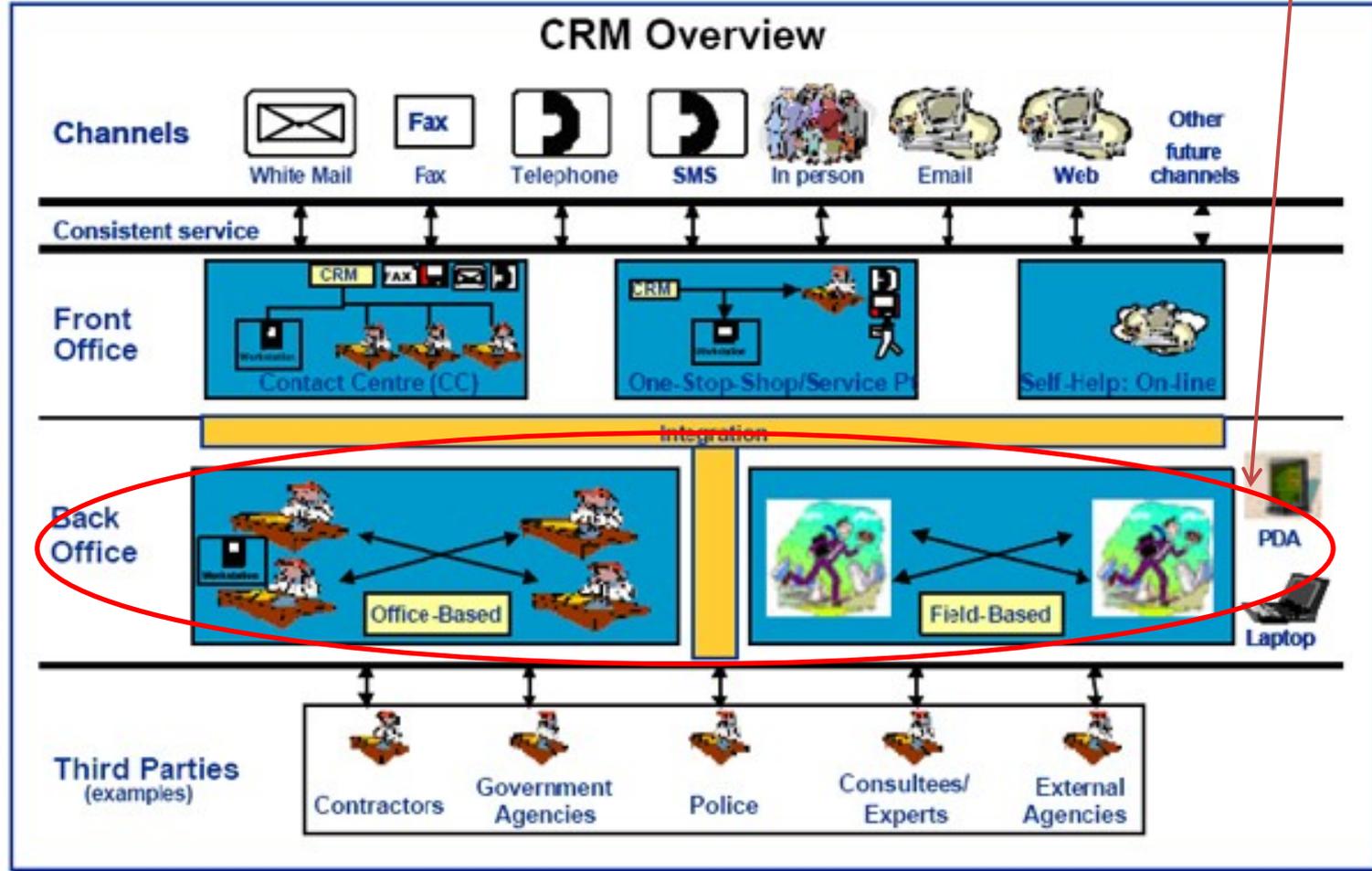
CRM Structure

Analytical CRM

Analytical CRM Applications

REPORTING "Asking What Happened"	ANALYZING "Asking Why It Happened"	PREDICTING "Asking What Will Happen"
What is the total revenue by customer?	Why did sales not meet forecasts?	What customers are at risk of leaving?
How many units did we manufacture?	Why was production so low?	What products will the customer buy?
Where did we sell the most products?	Why did we not sell as many units as last year?	Who are the best candidates for a mailing?
What were total sales by product?	Who are our customers?	What is the best way to reach the customer?
How many customers did we serve?	Why was customer revenue so high?	What is the lifetime profitability of a customer?
What are our inventory levels?	Why are inventory levels so low?	What transactions might be fradulent?

© Dr. Sia Valentinova
"Customer Relationship Management" Course,
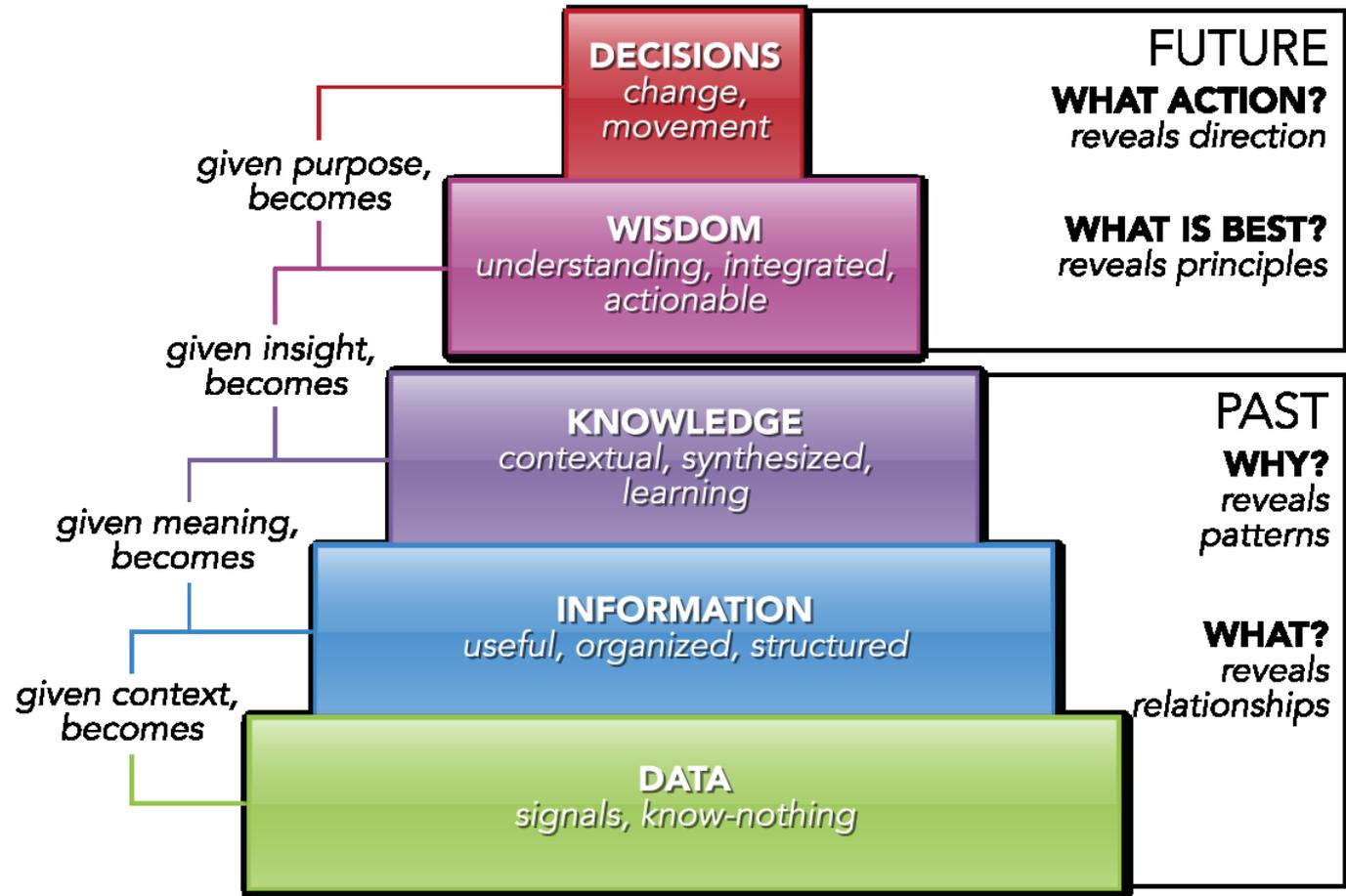MAMK University of Applied Sciences, Finland

Analytical CRM

Definition:

Analytical CRM is the part of Customer Relationship Management that aims at **storing**, **analyzing** and **applying** the **knowledge** about customers and about ways to approach customers, *typically using databases, statistical tools, data mining, machine learning, Business Intelligence and reporting methodologies.*

Difference between Data, Information, Knowledge, Wisdom + Prediction

DECISIONS
change, movement

given purpose, becomes

WISDOM
understanding, integrated, actionable

given insight, becomes

KNOWLEDGE
contextual, synthesized, learning

given meaning, becomes

INFORMATION
useful, organized, structured

given context, becomes

DATA
signals, know-nothing

FUTURE
WHAT ACTION?
reveals direction

WHAT IS BEST?
reveals principles

PAST
WHY?
reveals patterns

WHAT?
reveals relationships

Difference between Data, Information, Knowledge, Wisdom + Prediction

Example: Avg. Number of checked resources in Internet before making a decision for purchase:

- 8-10 for non-technology products
- 9-14 for technology products
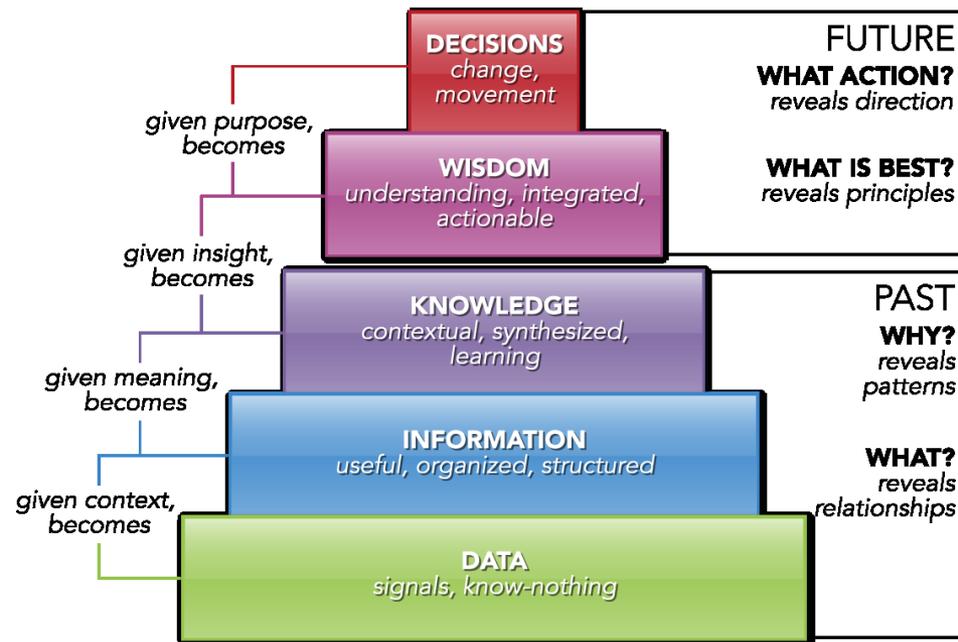
Analytical Customer Relationship Management

The **basic kinds of data** used in the **analysis process** in **Analytical CRM** are:

- **Marketing data**: customer response rates to marketing campaigns, customer satisfaction data and retention data, etc.
- **Sales data**: purchase and return history, brand/product preferences, etc.
- **Financial data**: payment and credit history, including payment type, credit scores, etc.

Data examples for Analytical CRM

Analytical CRM uses the Customer data that is accumulated from the work of the Operational CRM.

1) **Basic personal data** such as: *customer name, company name, geographical data (nationality, city, etc.), demographical data (age, gender, etc.), company data (name of the company, business unit, business department, address, email, phone, fax, etc.), etc.*

Data examples for Analytical CRM

2) More **sophisticated client knowledge** such as:

- *Client value (annual revenue, profitability)*
- *Transactions (product description, revenue, profit, payment method, payment behavior)*
- *Internet communication (IP-address, entry page, click stream, visit length)*
- *Telephone communication (call center report data, sales calls)*
- *Other communications (mailings, response)*
- *Customer satisfaction (with product, service, company)*

Data sources for Analytical CRM

This client information can be captured from the **processes** (sales, services, finance, marketing) and **channels** (Multi Channel Marketing) of the organization. Certain data can also be acquired from **external sources**, such as **market research data**.

Application of the Available Data in Analytical CRM

REPORTING "Asking What Happened"	ANALYZING "Asking Why It Happened"	PREDICTING "Asking What Will Happen"
What is the total revenue by customer?	Why did sales not meet forecasts?	What customers are at risk of leaving?
How many units did we manufacture?	Why was production so low?	What products will the customer buy?
Where did we sell the most products?	Why did we not sell as many units as last year?	Who are the best candidates for a mailing?
What were total sales by product?	Who are our customers?	What is the best way to reach the customer?
How many customers did we serve?	Why was customer revenue so high?	What is the lifetime profitability of a customer?
What are our inventory levels?	Why are inventory levels so low?	What transactions might be fradulent?

Analytical CRM

After the client data is collected and stored, the actual analysis can take place. The analysis process is made of four steps.
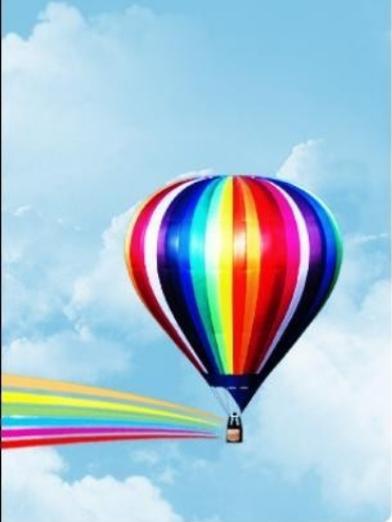
Steps in making CRM Analysis

The four basic steps in CRM Analysis are:

1) **Problem formulation**. What do we want to know. Is answering the question relevant and possible (technically, financially and organizationally).

2) **Preparation of data**

3) **Definitive analysis** (statistical methods, data mining, machine learning, etc.)

4) **Visualization** of the results

Problem formulation → Data preparation → Definitive Analysis → Visualisation

Five Basic Types of CRM Analysis and Metrics
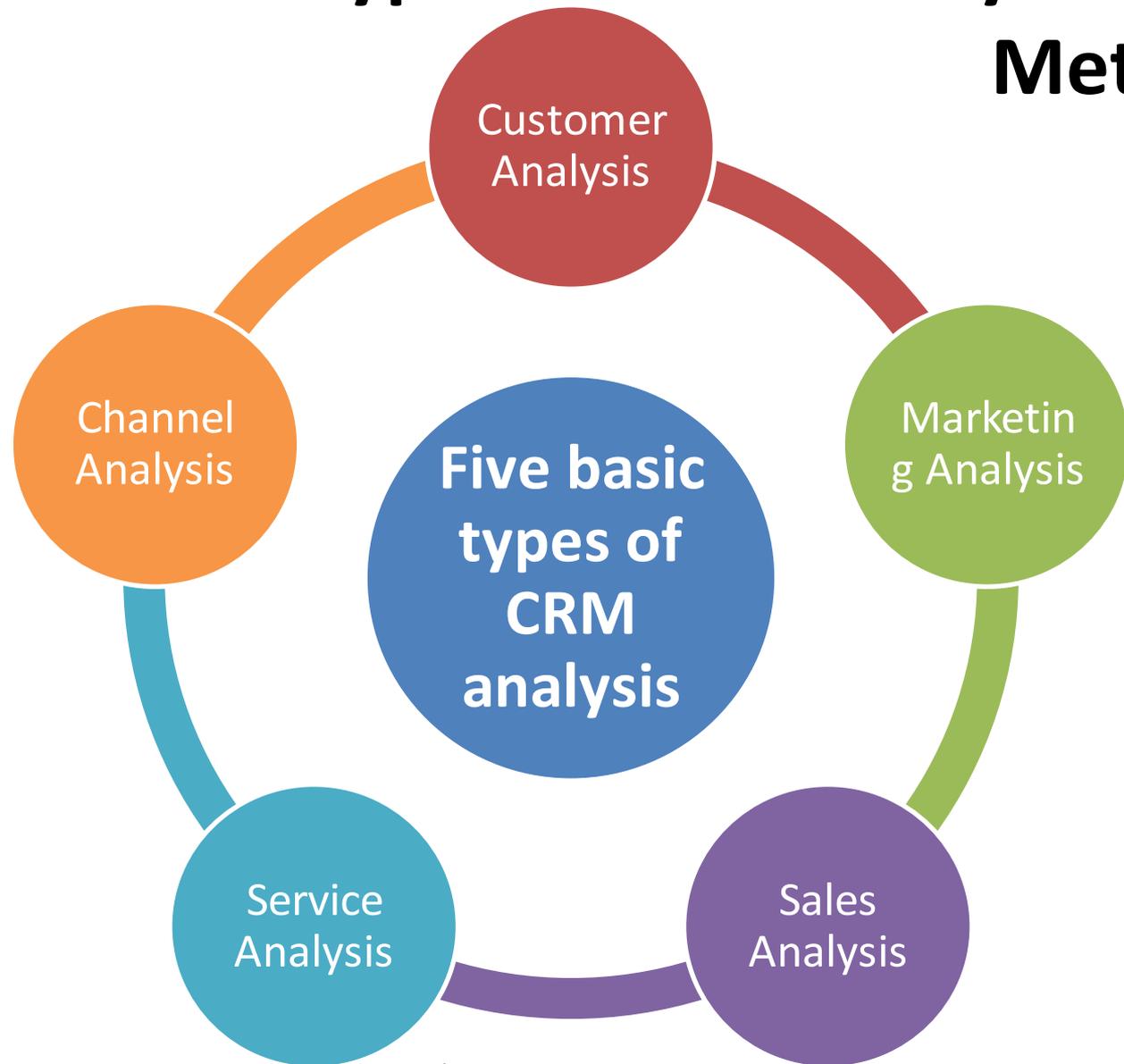
Customer Analysis

Channel Analysis

Five basic types of CRM analysis

Marketing Analysis

Service Analysis

Sales Analysis

Five basic types of CRM analysis

1) Customer Analysis

This is the base analytics used to analyze customer knowledge base. It provides a better **view of customer behavior** and by **modeling, assessing customer values** and assessing customer's portfolio or profiles and creates an exact **understanding** of all the **customers**.

http://www.managementstudyguide.com/analytical-crm.htm

1) Customer Analysis Metrics (examples)

- Total number of customers per region for a specific period
- Number of customers in a specific age range per regions
- Total revenue per customer
- Top age groups with most valuable customers
- Number of customers of a specific gender per age groups
- Identifying most valuable customers
- Etc.

Examples of Analytical CRM visualisation
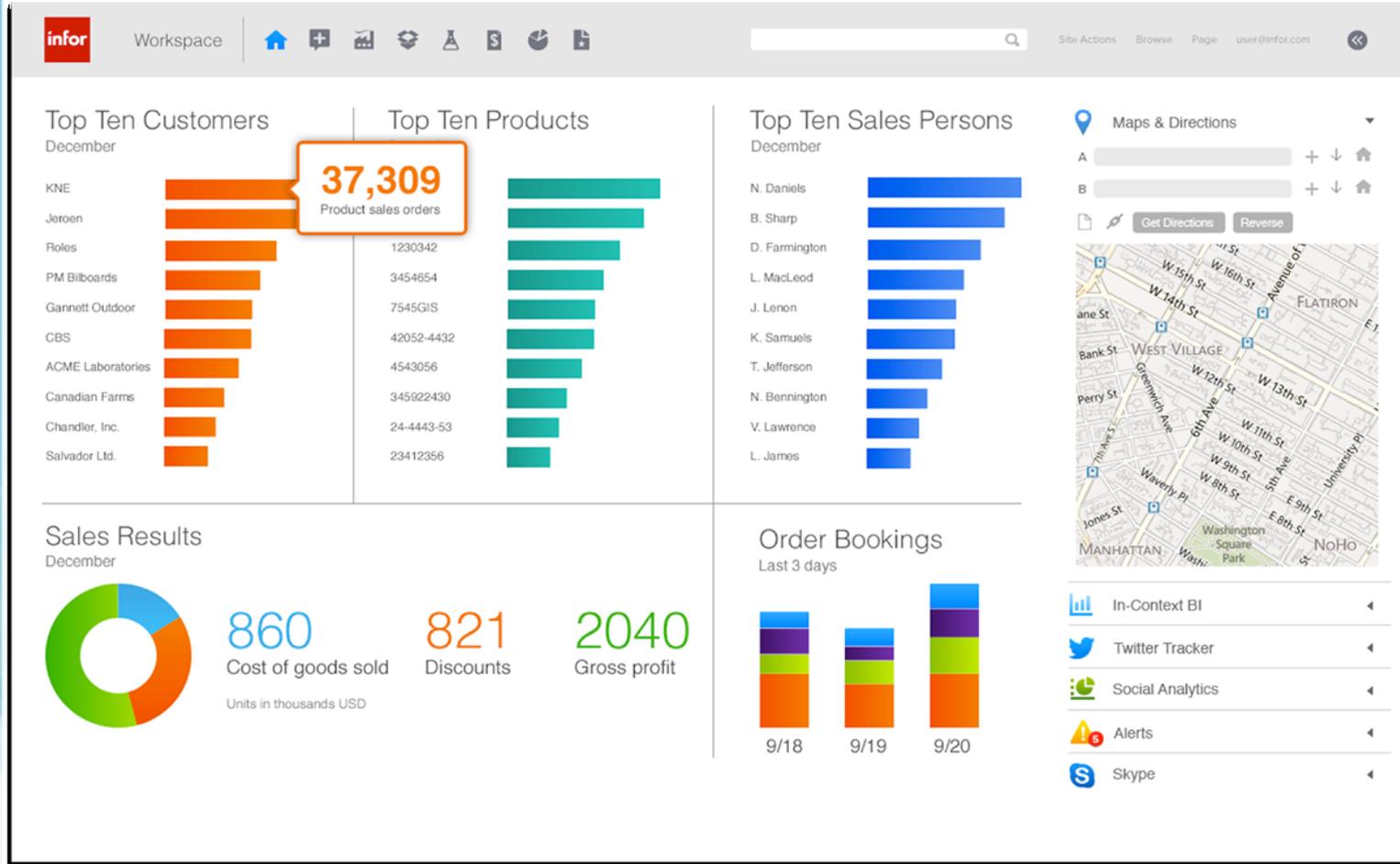
Five basic types of CRM analysis

2) Marketing Analytics

This helps discovering **new market opportunities** and seeks their **potential** values. It also helps in **managing marketing strategies** and **scale** and **plan marketing performance** at **district**, **regional** and **national levels**. Marketing analytics also focus on **campaign management** and **planning**, **product analysis** and **branding**.

http://www.managementstudyguide.com/analytical-crm.htm

2) **Marketing Analytics Metrics (examples)**

- Number of website visitors (Google Analytics)
- Number of visitors per pages
- Number of subscribers to a blog (sign-up)
- Number of responders to an advert
- Number of confirmed attendees to a webinar (sign-up stats)
- Footfall through a retail shop (count of people who entered the shop)
- Visitors churn rate
- Number of Trade show registrations (sign-up stats)
- Etc.

Examples of Analytical CRM visualisation

© Dr. Sia Valentinova
"Customer Relationship Management" Course,
MAMK University of Applied Sciences, Finland
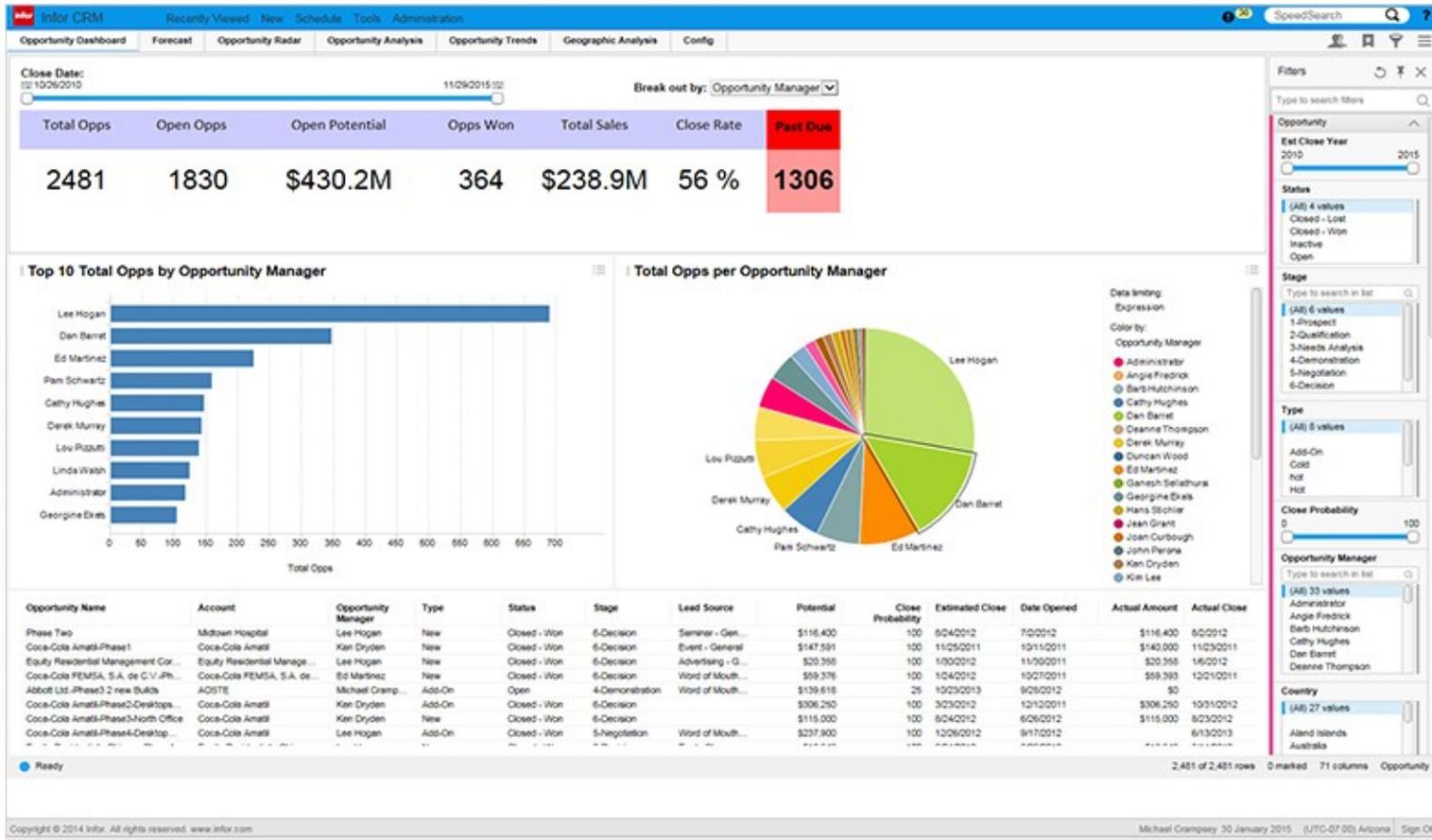
Five basic types of CRM analysis

3) Sales Analytics

Sales analytics provides essential environment to **planning**, **simulation** and **prediction** of **sales volumes** and **profits** by constantly analyzing organizational **sales behavior**. It helps in **pipelining** all the selling opportunities in an **efficient way** by improving the **sales cycle**.

http://www.managementstudyguide.com/analytical-crm.htm

3) Sales Analytics Metrics (examples)

- Total number of leads (generated)
- Generated leads to qualified leads ratio (shows quality of generated leads - per channel for example)
- Quote to close ratio (ratio of the offers with a specific price that have ended with a sale, shows best prices tactics)
- Generated leads to close ratio (shows the overall effectiveness of the sales department)
- Lifetime Value of the Customer (LTV)
- Etc.

LTV Starbucks Example – Infographic:
https://blog.kissmetrics.com/how-to-calculate-lifetime-value/?wide=1

Example – Microsoft Dynamics CRM Dashboard view
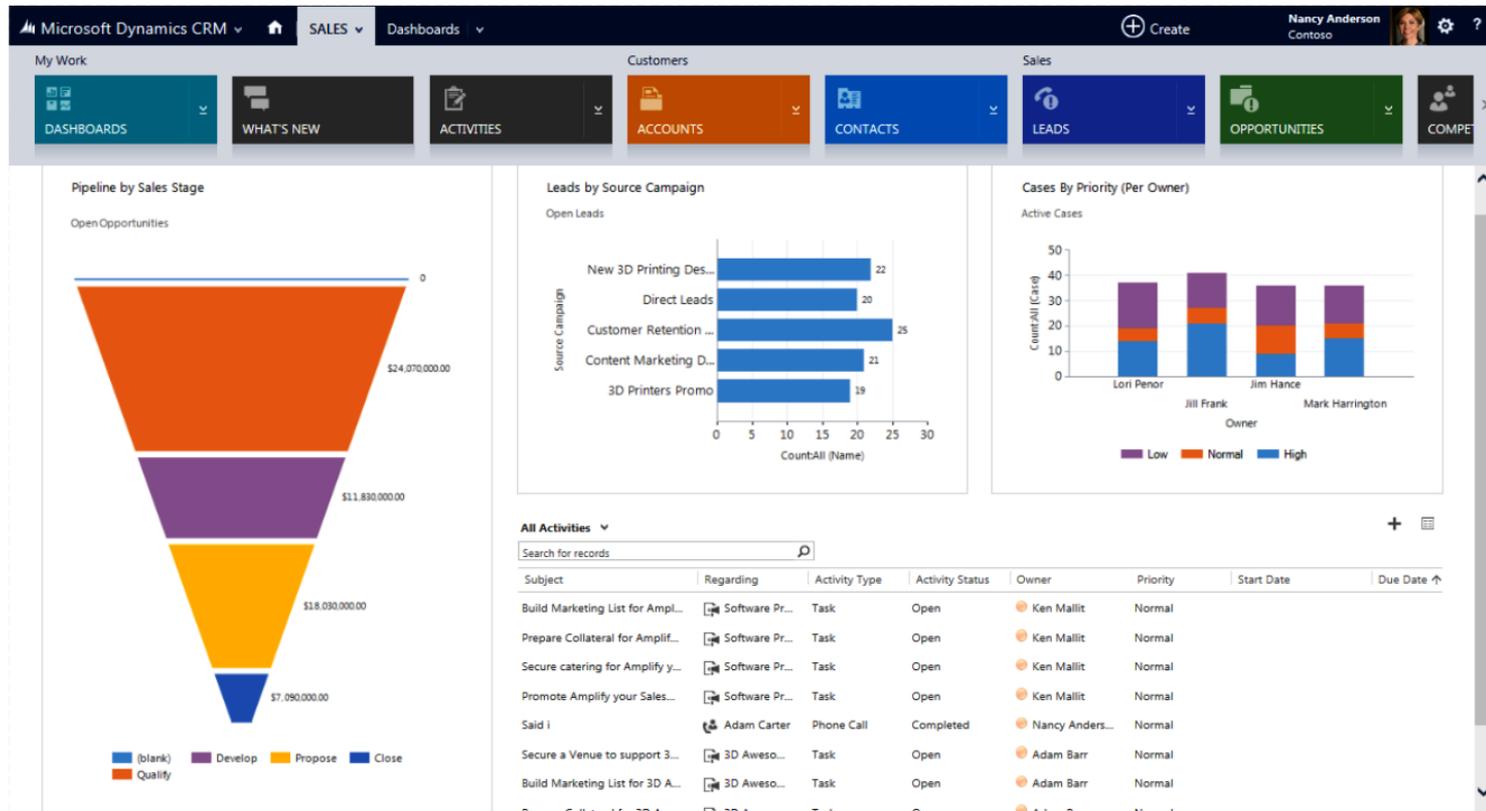
blank-qualify-develop-propose-close leads

Five basic types of CRM analysis

4) Service Analytics

Analytical CRM has major role in enhancing the services which answering all the questions regarding **customer satisfaction**, **quality** and **cost of products**, **complaint management** etc. It even helps in **improving** and **optimizing** the **services** by **sophistically analyzing** the **service revenue** and **cost**.

http://www.managementstudyguide.com/analytical-crm.htm

4) Service Analytics Metrics (examples)

- Number of customer contacted service department for a specific period of time
- Number of customers per case type
- Average level of customer satisfaction
- First Call Resolution (FCR) (percent of cases resolved in first call by service representatives)
- Direct Customer Feedback per product or per advert/commercial/etc.
- Etc.

Examples of Analytical CRM visualisation
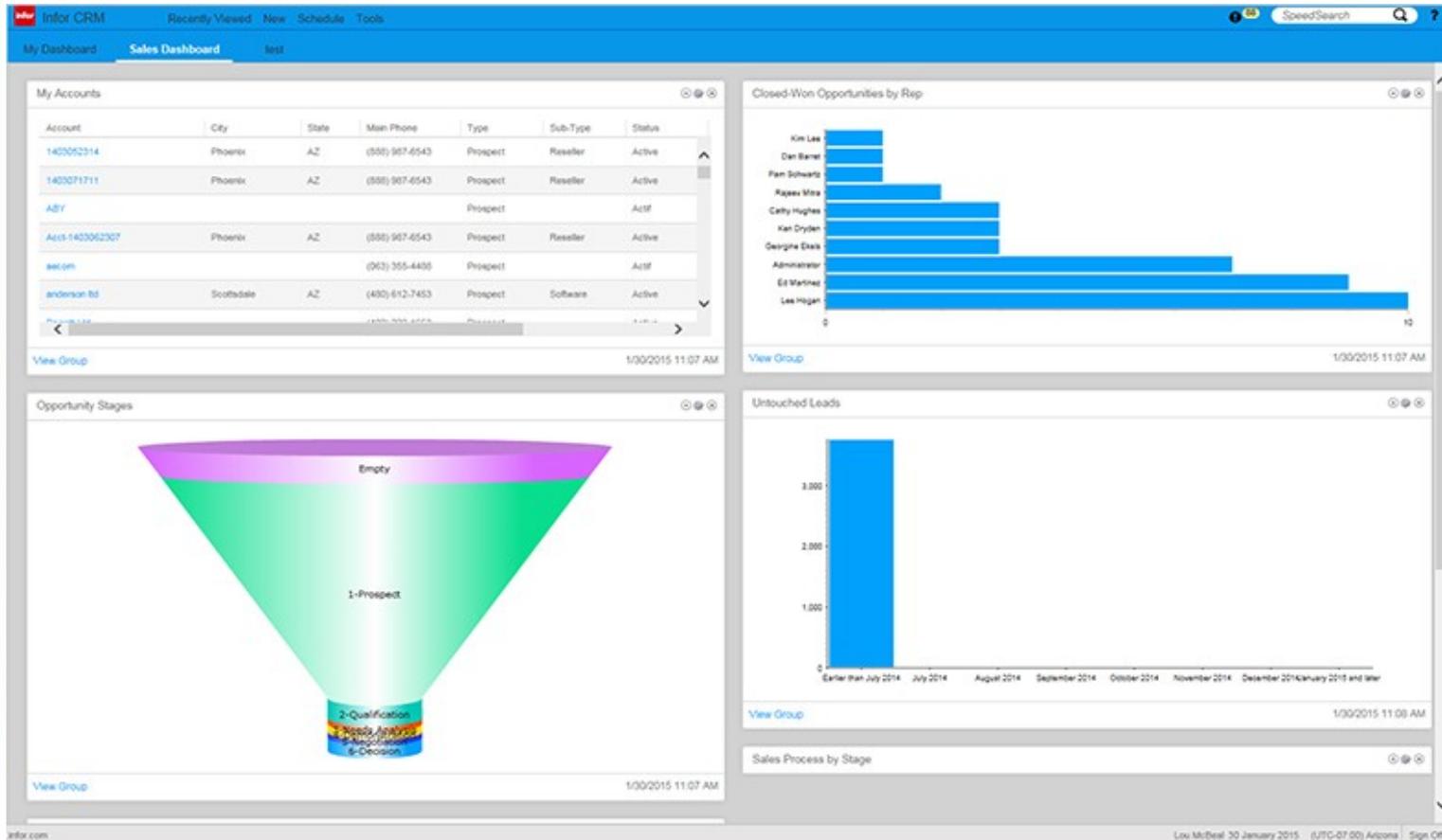
Five basic types of CRM analysis

5) Channel Analytics

This type of analysis helps to determine the **customer behaviour** on **channel preferences**, like **web channel**, **personal interaction**, **telephone channel,** etc. This information is efficiently **integrated** in **customers' knowledge base** so that they **can be contacted accordingly**.

http://www.managementstudyguide.com/analytical-crm.htm

5) Channel Analytics Metrics (Examples)

- Preferred channels from customers per specific age group/location
- Most visited channels by customers per product category
- Most profitable channels
- Channels with highest lead generation
- Most cost effective channels per lead generation
- Most efficient channel for closing sales
- Number of qualified leads per channel
- Etc.

Usage Of Analytical CRM

- Optimize marketing effectiveness
- Customer acquisition, cross-selling, up-selling, retention, etc.
- Analysis of customer behaviour to aid product and service decision making (e.g. pricing, new product development)
- Management decisions, e.g. financial forecasting and customer profitability analysis
- Prediction of the probability of customer defection (churn)

Applications of the Available Data in Analytical CRM

REPORTING "Asking What Happened"	ANALYZING "Asking Why It Happened"	PREDICTING "Asking What Will Happen"
What is the total revenue by customer?	Why did sales not meet forecasts?	What customers are at risk of leaving?
How many units did we manufacture?	Why was production so low?	What products will the customer buy?
Where did we sell the most products?	Why did we not sell as many units as last year?	Who are the best candidates for a mailing?
What were total sales by product?	Who are our customers?	What is the best way to reach the customer?
How many customers did we serve?	Why was customer revenue so high?	What is the lifetime profitability of a customer?
What are our inventory levels?	Why are inventory levels so low?	What transactions might be fradulent?

Questions (team work)
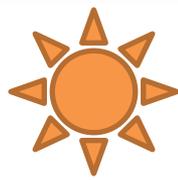
What type of questions would you like to answer using Analytical CRM (What would you like to know from the view point of the manager) in directions: Customers, Marketing, Sales, Service and Channels:

Team 1,3,5 – for your Chain of Pharmacy retailer stores in your country.

Team 2,4,6 – for a Chain of Retailer stores for Boats or Fishing Equipment in your country.

Analytics of Customer Service in:	What information would you like to answer using Analytical CRM ? REPORTS	What information would you like to answer using Analytical CRM ? - ANALYSES (Why & How)
Customers		
Marketing		
Sales		
Service and Support		
Channels		

Optional: + PREDICTIONS

Analytical CRM

In Analytical CRM **analyzing** and **applying** the **knowledge** about customers and about the ways to approach customers, is done *typically using databases, statistical tools, data mining, machine learning, Business Intelligence and reporting methodologies.*

Microsoft Dynamics CRM

Further insight into CRM Metrics and KPIs is part of our work with Microsoft Dynamics CRM Software in April.

Microsoft Dynamics CRM
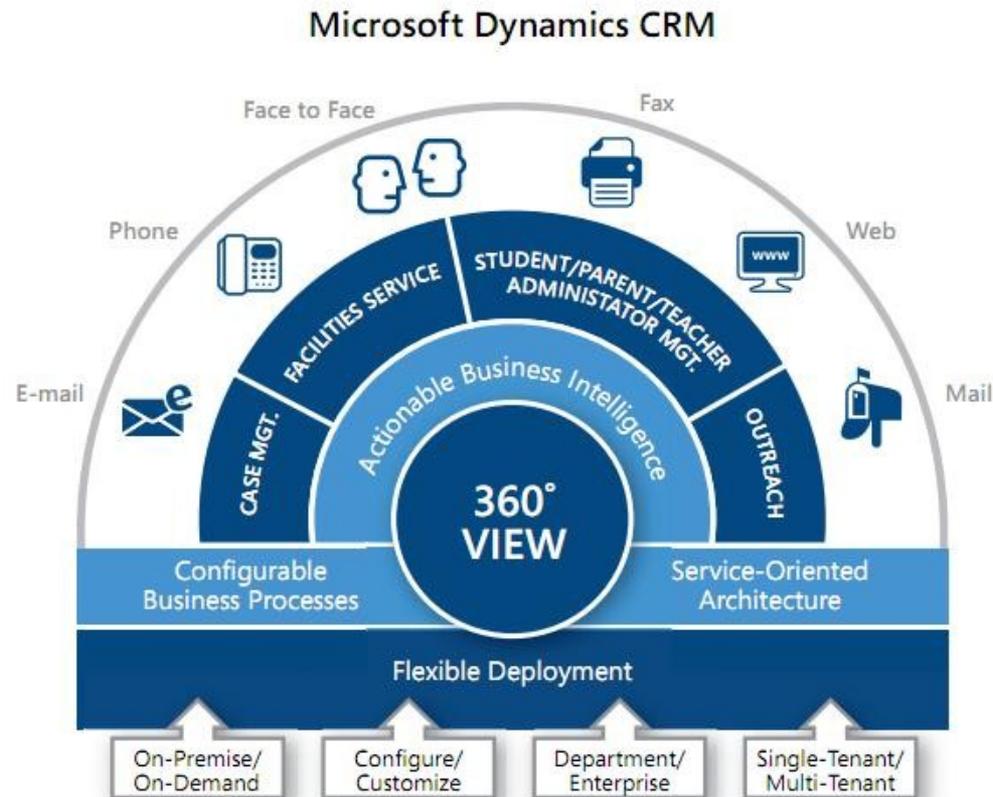
http://www.globalcomarca.com/wp-content/uploads/2015/04/What_CRM_Has_to_Offer_1.jpg

Analytical CRM Metrics (Examples of Calculations and Their Meaning)

1. Ratio of sales qualified leads to leads

Ratio of sales qualified leads to leads calculation:

(number of qualified leads over the
same period of time)

= --- * 100

(Number of leads over a period of time)

This will give you a sales qualified leads to leads ratio as a percentage.

For example, if you generated 250 qualified leads from 1000 leads, your leads to sales qualified leads would be 25%. That means you can expect 25% of your total leads to become qualified (or 25 out of every 100 leads).

Analytical CRM Metrics (Examples of Calculations and Their Meaning)

1. Ratio of sales qualified leads to leads

This metric helps determining:

- Which lead generation strategies are working?
- Whether your strategies are bringing on the right type of customers ?
- Which lead generation tactics are wasting your time?
- Whether your marketing is encouraging suitable prospects to contact you?

Analytical CRM Metrics (Examples of Calculations and Their Meaning)

1. Ratio of sales qualified leads to leads
In addition, if you know how many leads qualify (on average), you'll be able to predict how many leads you need to generate to have enough people into the next stage of your sales pipeline.

2. Quote to close ratio

Quote to closure ratio measures the *number of formal quotes given that have translated into an actual sale*. This metric enables you to get a feel for the impact that price has on your sales funnel.

(Number of successfully closed sales over the same period of time)

= ---*100

(Number of quotes over a period of time)

* a Quote is a formal offer to a Customer for your products and services at a specified price.

http://blog.pipelinersales.com/sales-pipeline-management/sales-pipeline-five-kpis-every-business-must-consider/

Analytical CRM Metrics (Examples of Calculations and Their Meaning)

3. Leads to close ratio

$$= \frac{\textit{(Number of successfully closed sales over the same period of time)}}{\textit{(Number of sales leads over a period of time)}} * 100$$

This metric helps you to get clear on where you need to spend your time and your money to generate the best possible conversion rate. If you drill down deeper into this metric, you should be able to get a feel for which geographical areas (if relevant) are most profitable, which marketing strategies work best and whether you need to focus on generating new leads or nurturing existing customers and prospects within your pipeline.

http://blog.pipelinersales.com/sales-pipeline-management/sales-pipeline-five-kpis-every-business-must-consider/

3. Leads to close ratio

This metric is an indicator of your overall sales efficiency, because it is a measure of the number of leads that convert into an actual sale.

This ratio will vary significantly depending on whether you take generated leads or qualified leads, qualified leads will always give a higher figure.

4. Lifetime Value of the Customer (LTV)

This metric shows the projected revenues a customer will generate during their lifetime. It is calculated in different ways, for the different types of businesses and by software applications. **Example – Starbucks using:**

- Customer Expenditures per visit
- Number of visits per week
- Avg. customer value per week (Expenditures x Visits), etc.

*LTV Infograph for Starbucks example:

https://blog.kissmetrics.com/how-to-calculate-lifetime-value/?wide=1

Metrics in Analytical CRM

There are hundreds of metrics, which can be used in Analytical CRM. A deeper dive in the metrics and in the metrics principles used in CRM is part of our work with Microsoft Dynamics CRM. An example of some additional metrics is given in an additional file in Moodle.

What analytical activities do we perform at each stage of the process? What goals and objects are included?

Analysis Segmentation

Analysis Customer Behaviour

Analysis Customer Response

Analysis Customer Search

Analysis Campaign Expenses

Analysis Clients Reached

Analysis - Customer Contacts

* Run Campaigns
* Generate Leads
* Form a Database

Marketing

CRM

Analytical CRM

What analytical activities do we perform at each stage of the process? What goals and objects are included?

Assignment Rules Analysis

Assigned Leads Analysis

Qualified Leads Analysis

Converted Leads Analysis

Opportunities Analysis

Quotes and Sales Analysis

Sold products Analysis

* Assign Leads
* Qualify Leads
* Convert Leads
* Track Opportunities

CRM

Analytical CRM

What analytical activities do we perform at each stage of the process? What goals and objects are included?

* Deliver Products
* Produce Invoices

Orders

- Delivery Issues Analysis
- Delivery Documents Analysis
- Financial Analysis
- Purchase Issues Analysis
- Payment Methods Analysis
- Additional Documents Analysis

Analytical CRM

What analytical activities do we perform at each stage of the process? What goals and objects are included?

Product Development Analysis

Product Service Analysis

Customer Service Analysis

Customer Trainings Analysis

Cases Analysis

Customer Satisfaction Analysis

CRM

* Manage Cases
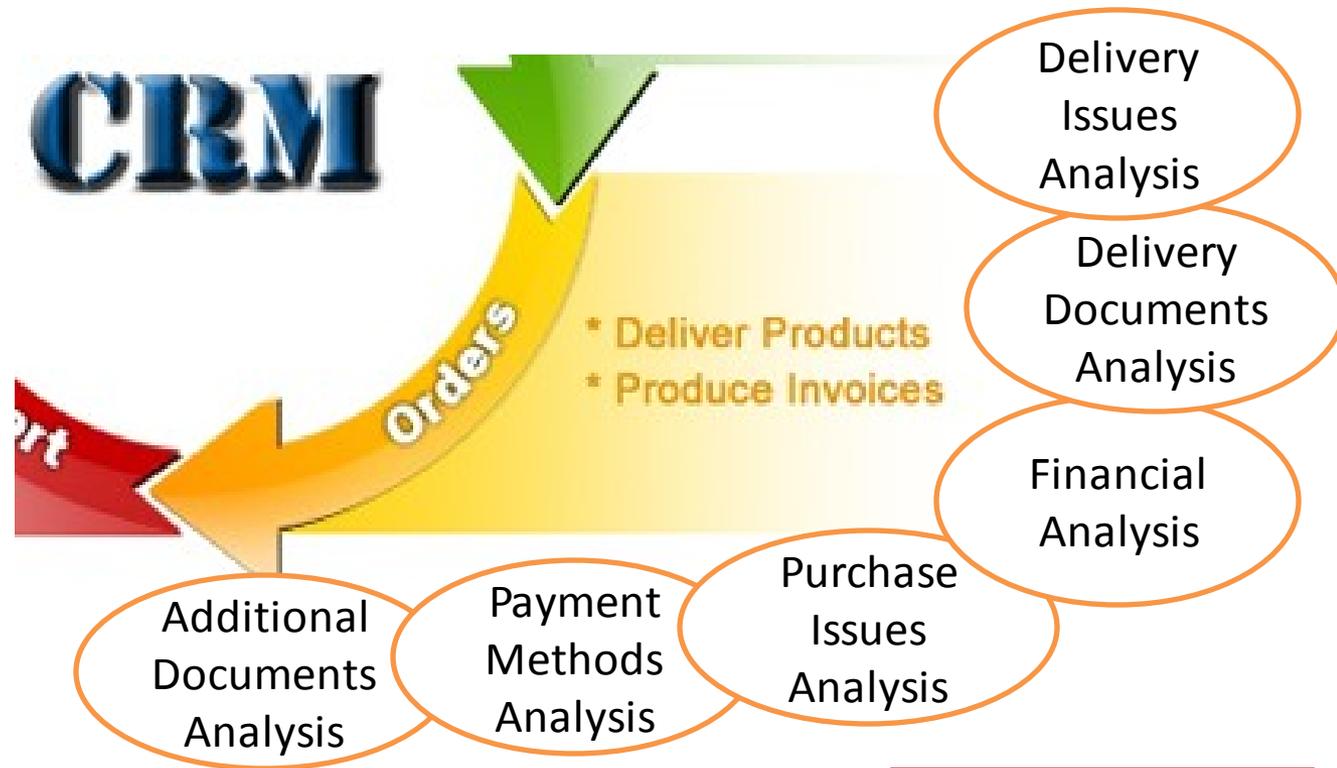* Conduct Trainings
* Provide Service
* Develop Knowledge base

Support

Analytical CRM

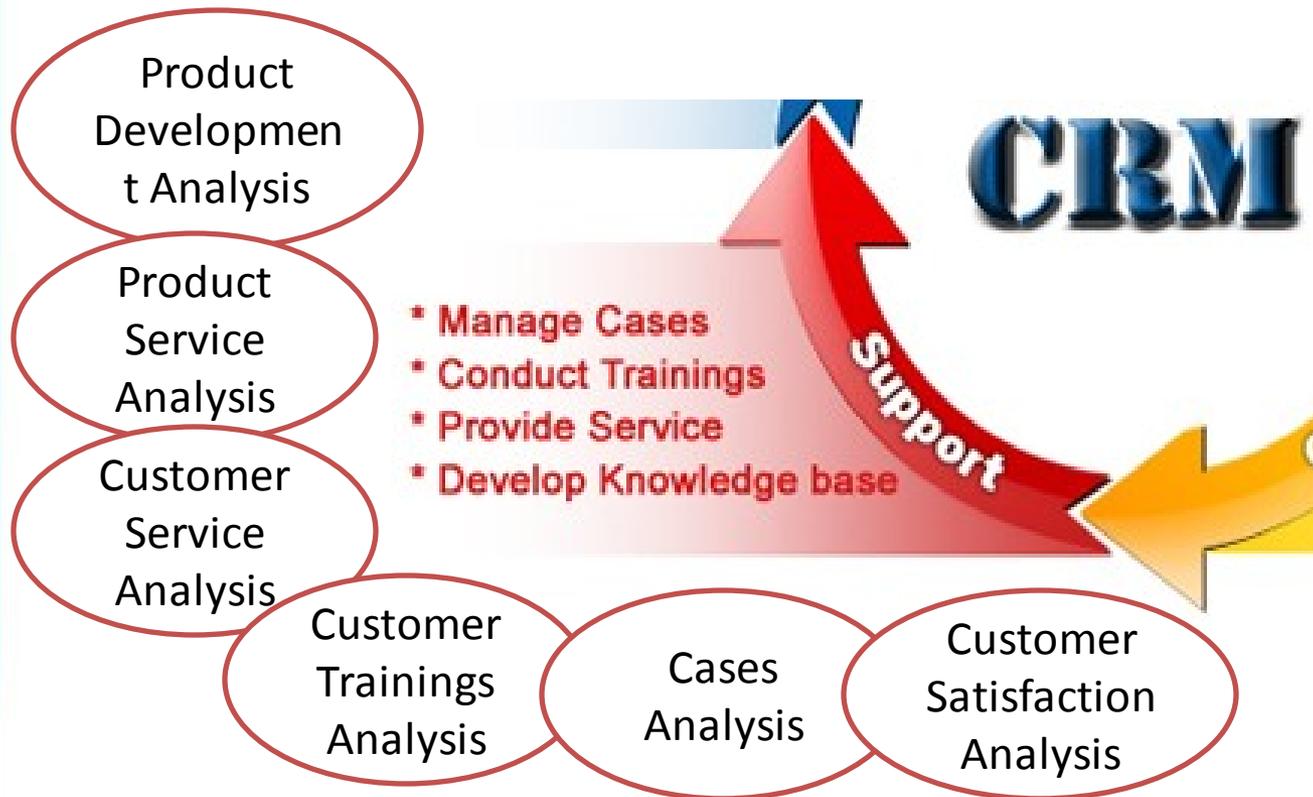# What analytical activities do we perform at each stage of the process? What goals and objects are included?

Marketing
* Run Campaigns
* Generate Leads
* Form a Database

Sales
* Assign Leads
* Qualify Leads
* Convert Leads
* Track Opportunities

Support
* Manage Cases
* Conduct Trainings
* Provide Service
* Develop Knowledge base

Orders
* Deliver Products
* Produce Invoices

Analytical CRM
Operational CRM

CRM

Analysis Segmentation
Analysis Customer Behaviour
Analysis Customer Response
Assignment Rules Analysis
Assigned Leads Analysis
Qualified Leads Analysis
Analysis Campaign Expenses
Converted Leads Analysis
Analysis Clients Reached
Analysis - Customer Contacts
Opportunities Analysis
Product Development Analysis
Delivery Analysis
Product Service Analysis
Customer Trainings Analysis
Cases Analysis
Customer Satisfaction Analysis
Financial Analysis
Delivery Documents Anaylsis

Analytical CRM

Analytical CRM Q&A

3. Which of the following is true about Analytical CRM?

a) The customers interactions and operations with the company are the primary goal of analytical CRM

b) The customer's interactions with the customer service representative of the company are not recorded and analyzed

c) The customer is not aware of data that is collected since data is collected in the background without the customer's knowledge

d) The customer is interviewed to gather data only about his opinions of the product

Analytical CRM Q&A

4. What kind of data is analyzed by analytical CRM?

a) Analytical CRM analyzes only customer support data as the customer interacts with the company ❌

b) Analytical CRM analyzes only profit and loss data of the company ❌

c) Analytical CRM analyzes only the amount of money spent by the company on direct marketing ❌

d) Analytical CRM analyzes customer sales data, financial data and marketing data ✅

Questions (team work)

Your company is offering Office Supplies and Materials in an online retail store. What type of questions would you like to answer using Analytical CRM (What would you like to know about) in directions: Customers, Marketing, Sales, Service and Channels?
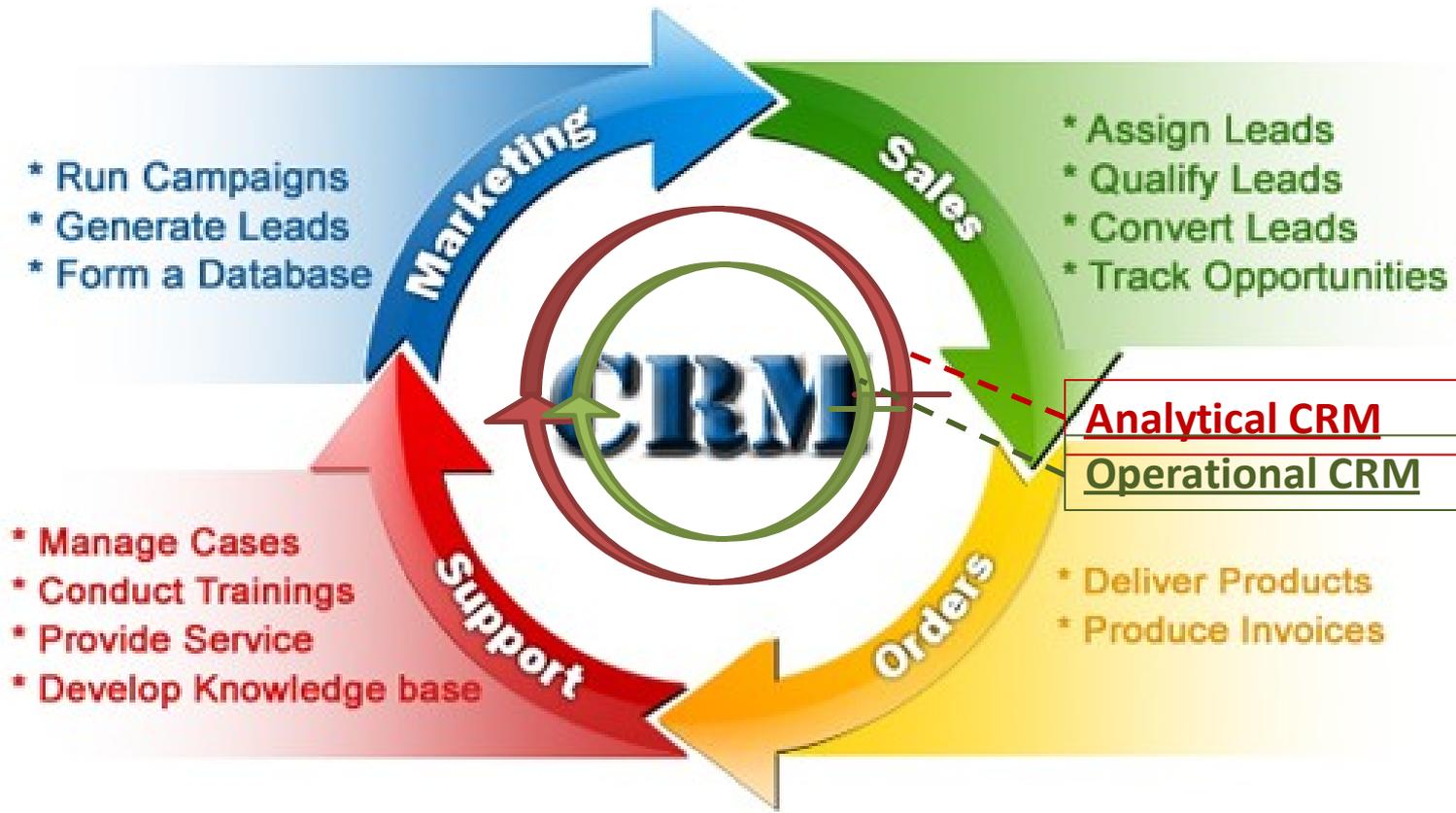
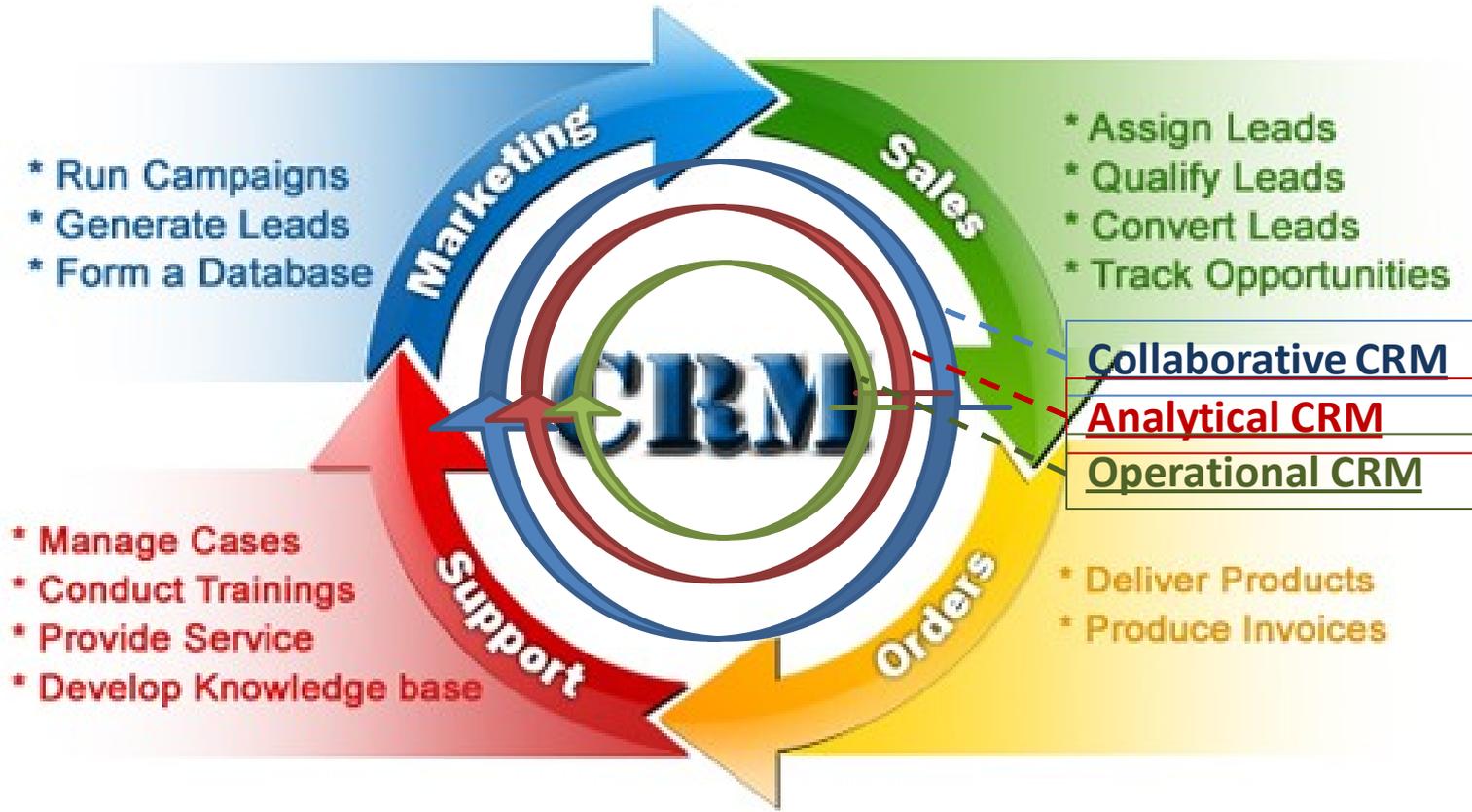Team 1,3,5 – for Consumer Customers
Team 2,4,6 – for Business Customers

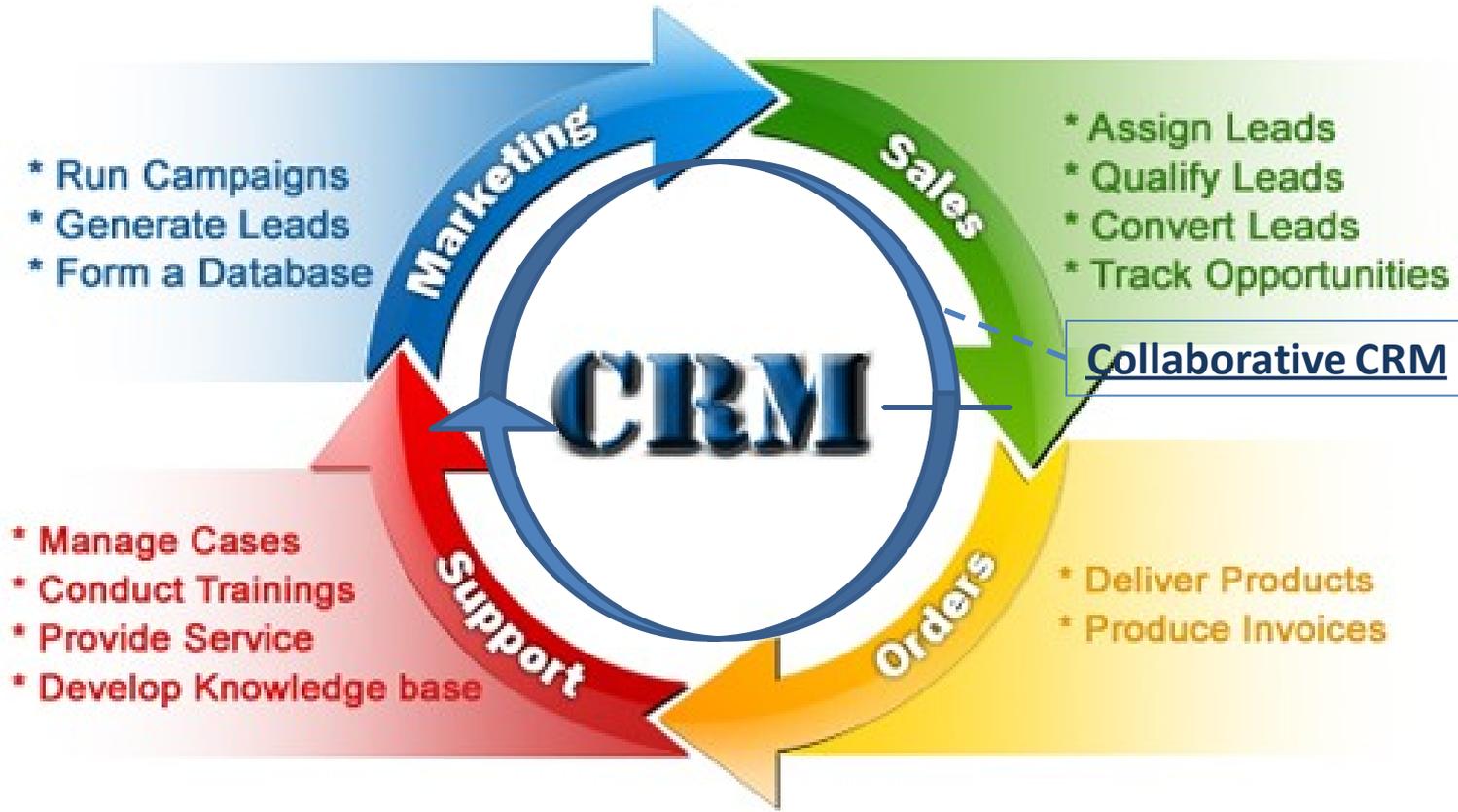| Analytics of Customer Service in:	What information would you like to answer using Analytical CRM ? REPORTS	What information would you like to answer using Analytical CRM ? - ANALYSES (Why & How)	What information would you like to answer using Analytical CRM ? - PREDICTION
Marketing			
Sales			
Orders and Delivery			
Support			

Customer Relationship Management – Types of CRM

Customer Relationship Management – Types of CRM

Customer Relationship Management – Types of CRM

* Run Campaigns
* Generate Leads
* Form a Database

Marketing

* Assign Leads
* Qualify Leads
* Convert Leads
* Track Opportunities

Sales

Collaborative CRM

CRM

* Manage Cases
* Conduct Trainings
* Provide Service
* Develop Knowledge base

Support

Orders

* Deliver Products
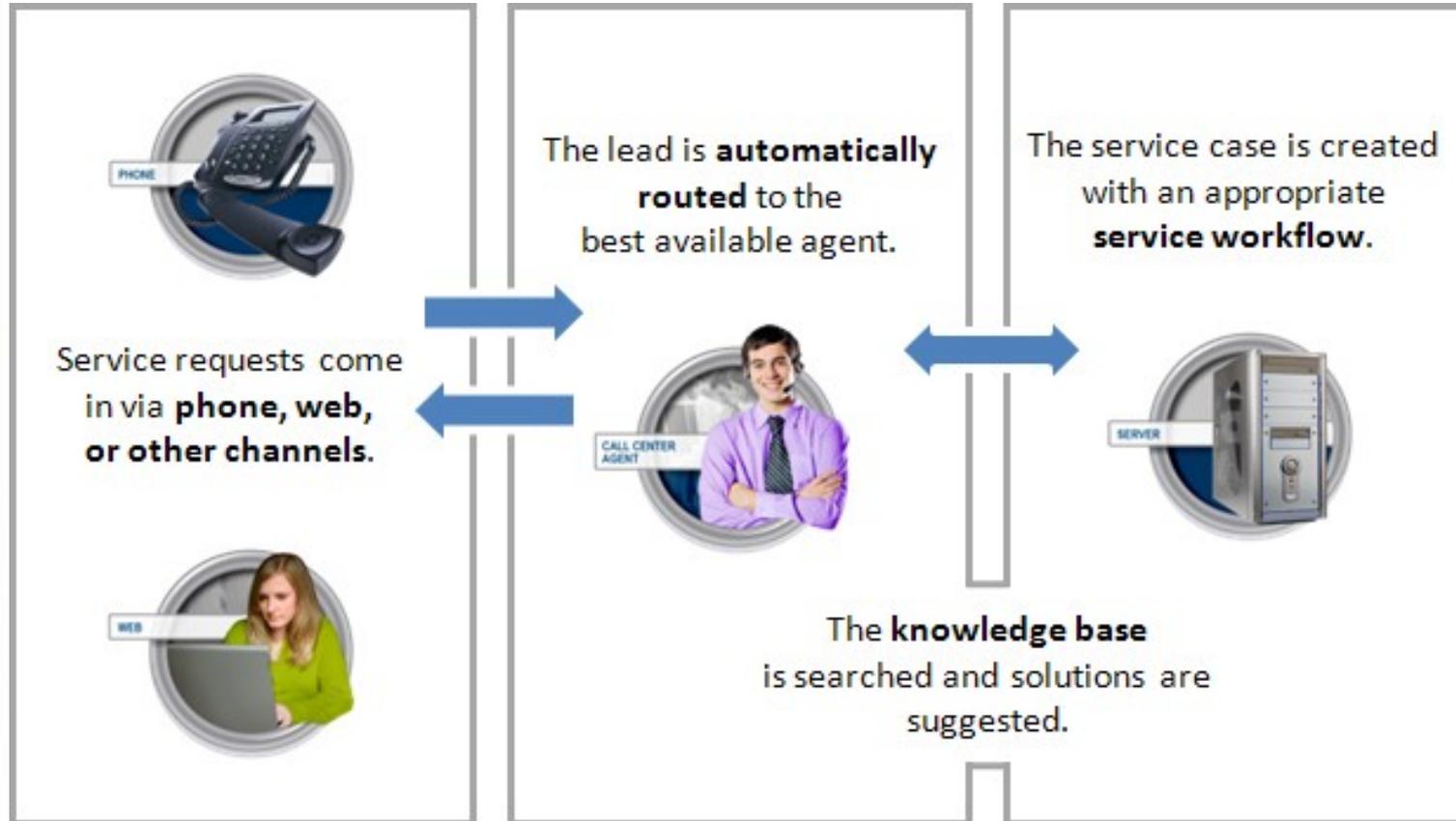* Produce Invoices

Collaborative CRM

Definition:

Collaborative CRM is subset of CRM in which the **various departments** of a company, such as sales, technical support, and marketing, **share** any **information** they **collect** from **interactions** with **customers with all departments** in the company and sometimes even with partners, suppliers, etc. aiming improvement of the process and customer service of the company.

Example of Collaborative CRM Processes

Service requests come in via **phone, web, or other channels.**

The lead is **automatically routed** to the best available agent.

The service case is created with an appropriate **service workflow.**

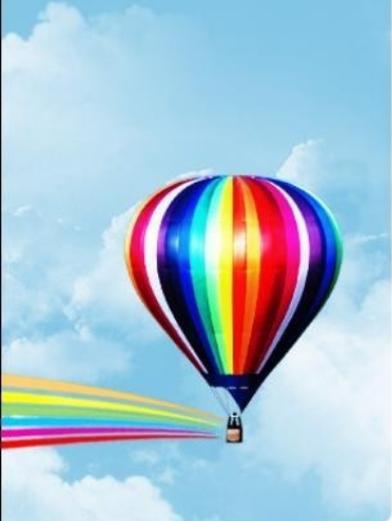The **knowledge base** is searched and solutions are suggested.

http://www.synergy-software.com/microsoft-dynamics-crm.htm
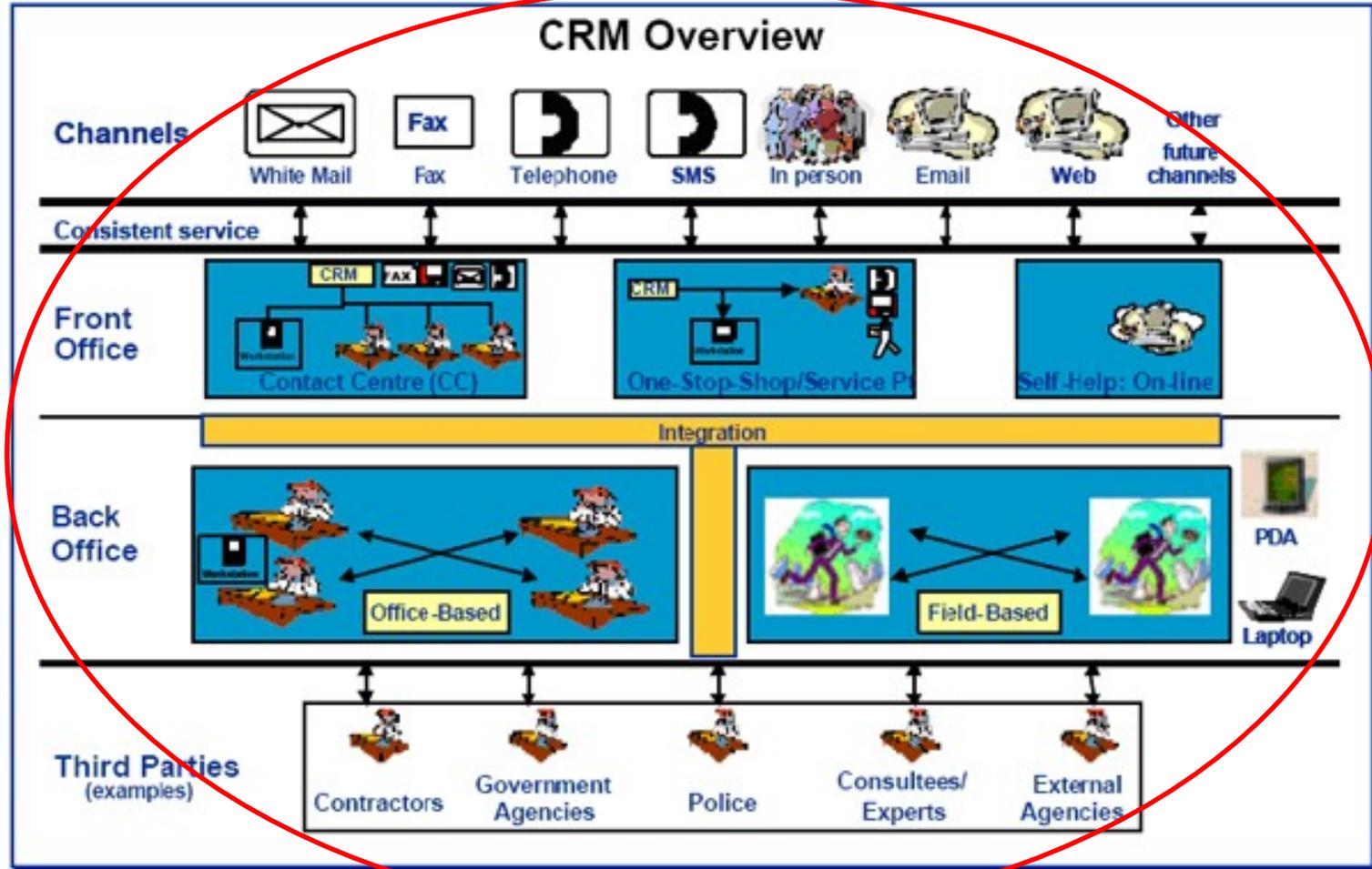
Collaborative CRM

Basic **departments** providing data **to all other department** in the company and sometimes partners, etc., are:

- **Marketing** Department
- **Sales** Department
- **Technical Support** Department
- **Customer Service** Department

CRM Structure

Collaborative CRM

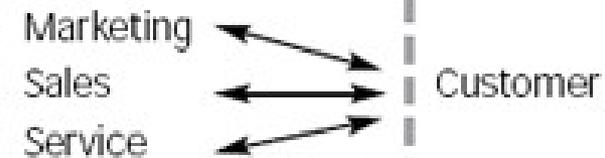CRM Overview

Traditional CRM Structure

Back-office

Supplies → Manufacturing → Logistics

Finance   HR

Front-office

Marketing
Sales   Customer
Service

Information flow

http://jisc.cetis.ac.uk/crm-tools/what-is-crm.html

Example of Collaborative CRM activities

<u>Example</u>: Customer feedback gathered from a customer support session could inform marketing staff about products and services that might be of interest to the customer, or the most frequent problems customer have.

The purpose of collaboration is to improve the quality of customer service, to improve the internal processes in the company, and, as a result, increase customer satisfaction and loyalty.
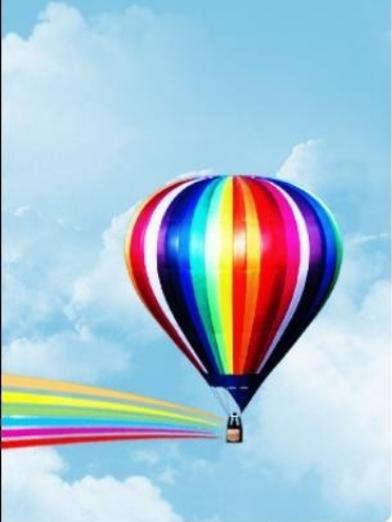
Collaborative CRM Brings Teams Together

Collaborative CRM Creates an Information Advantage

© Dr. Sia Valentinova
"Customer Relationship Management" Course,
MAMK University of Applied Sciences, Finland

What collaboration-oriented data do we exchange at each stage of the process? What data and objects are involved?

Improve Campaigns

Improve Information Provision

Improve Segments

Improve Channels Choice

Improve Product Perception

Improve Promotion Methods

* Run Campaigns
* Generate Leads
* Form a Database

Marketing

CRM

Collaborative CRM

What collaboration-oriented data do we exchange at each stage of the process? What data and objects are involved?

Improve Assignment Rules

Improve Price matching

Improve Validation

Improve Follow up

Improve Sales Information

Improve Sale, Upselling, Renewal Processes

* Assign Leads
* Qualify Leads
* Convert Leads
* Track Opportunities

CRM

Collaborative CRM

What collaboration-oriented data do we exchange at each stage of the process? What data and objects are involved?

Improve Delivery Support

Improve Delivery Documents

Improve Payment Methods

Improve Purchase Documents

Improve Delivery Collaboration
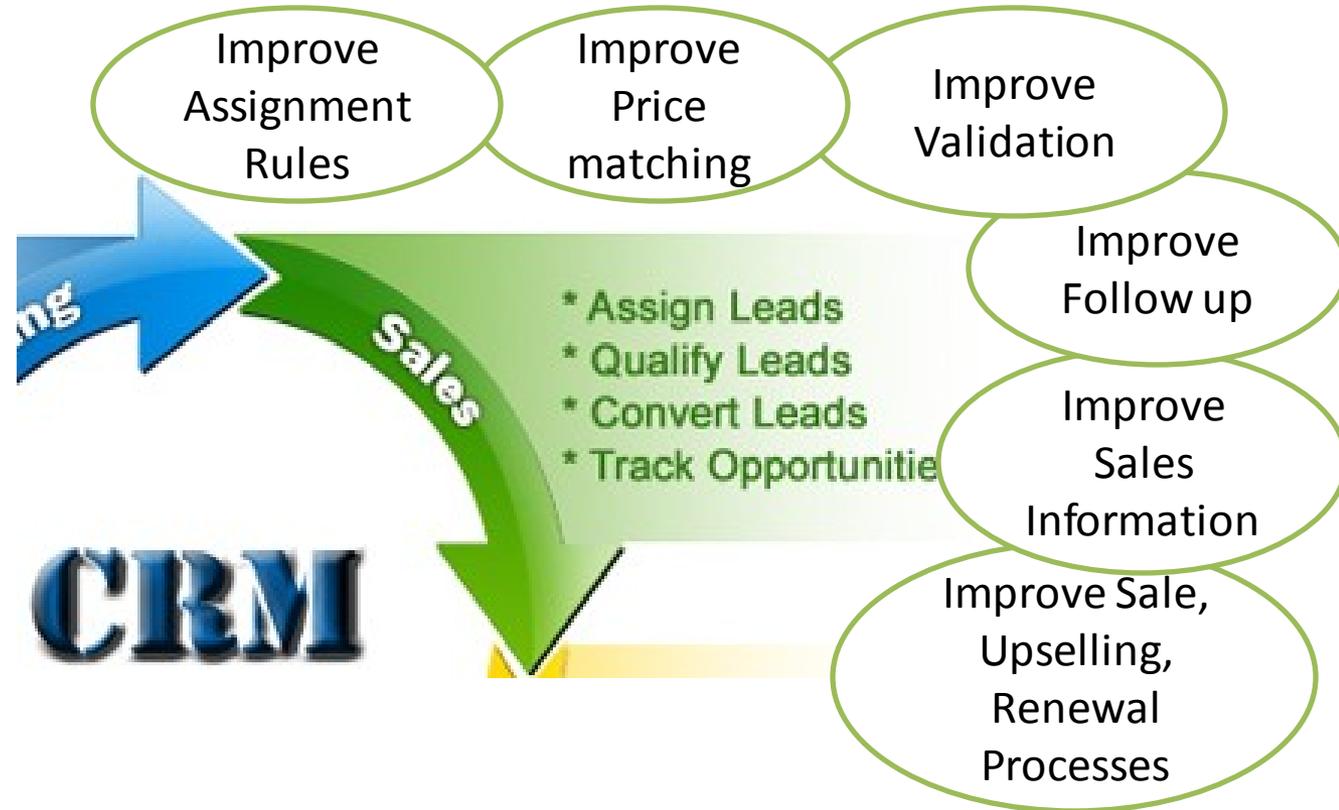
Collaborative CRM

What collaboration-oriented data do we exchange at each stage of the process? What data and objects are involved?

Improve Customer Service

Change Product Features

Improve Product Manual

Reject Products

Support New Products Creation

Improve Product or Service

* Manage Cases
* Conduct Trainings
* Provide Service
* Develop Knowledge base

Support

CRM

Collaborative CRM

What collaboration-oriented data do we exchange at each stage of the process? What data and objects are involved?

© Dr. Sia Valentinova
"Customer Relationship Management" Course,
MAMK University of Applied Sciences, Finland

Collaborative CRM Q&A

5. Which of the following is <u>not</u> an activity included in the Collaborative CRM?

a) Spreading information about product new desired by customers functionalities ❌

b) Exchanging information about products most frequent technical/other problems ❌

c) Exchanging information with department Human Resources about most-successful sales representatives ❌

d) Exchange of information for a production defective product with the customer ✅

CRM Q&A

6. What is the purpose of CRM?

a) To analyze the amount of time a customer spends on a company's website

b) To improve the services provided by the company to the customer

c) To increase the net profit of the company

d) To decrease the number of return items made by the customer

Questions (team work)

Your company is offering online Software in a retail store. What changes in the departments of your company could you do in order to improve your work, be more successful and reach a higher customer satisfaction and better customer service based on Collaborative CRM:

Team 1,3,5 – for Business customers

Team 2,4,6 – for Consumer customers

Improvement of internal processes and product or service	What changes could be made to improve the work and customer satisfaction of the specific department?
Marketing dept.	
Sales dept.	
Service and Support dept.	
New Products Research and Development dept.	
Production /Manufacturing dept.	
Human Resources department	
Financial and Accounting dept.	

Q&A Time

Thank you!
Благодаря! (in Bulgarian)