



New Forms for Business Intelligence

A concrete approach to the use of data
to improve and quicken business
decisions

Objective of the Course



- To give a picture about the usage of data and analytics in the modern Business through real examples.
- Data environment set-up
- Multivariate statistical techniques
- Practical sessions using specific software applications focusing on:
 - Demand Segmentation
 - Scoring Models

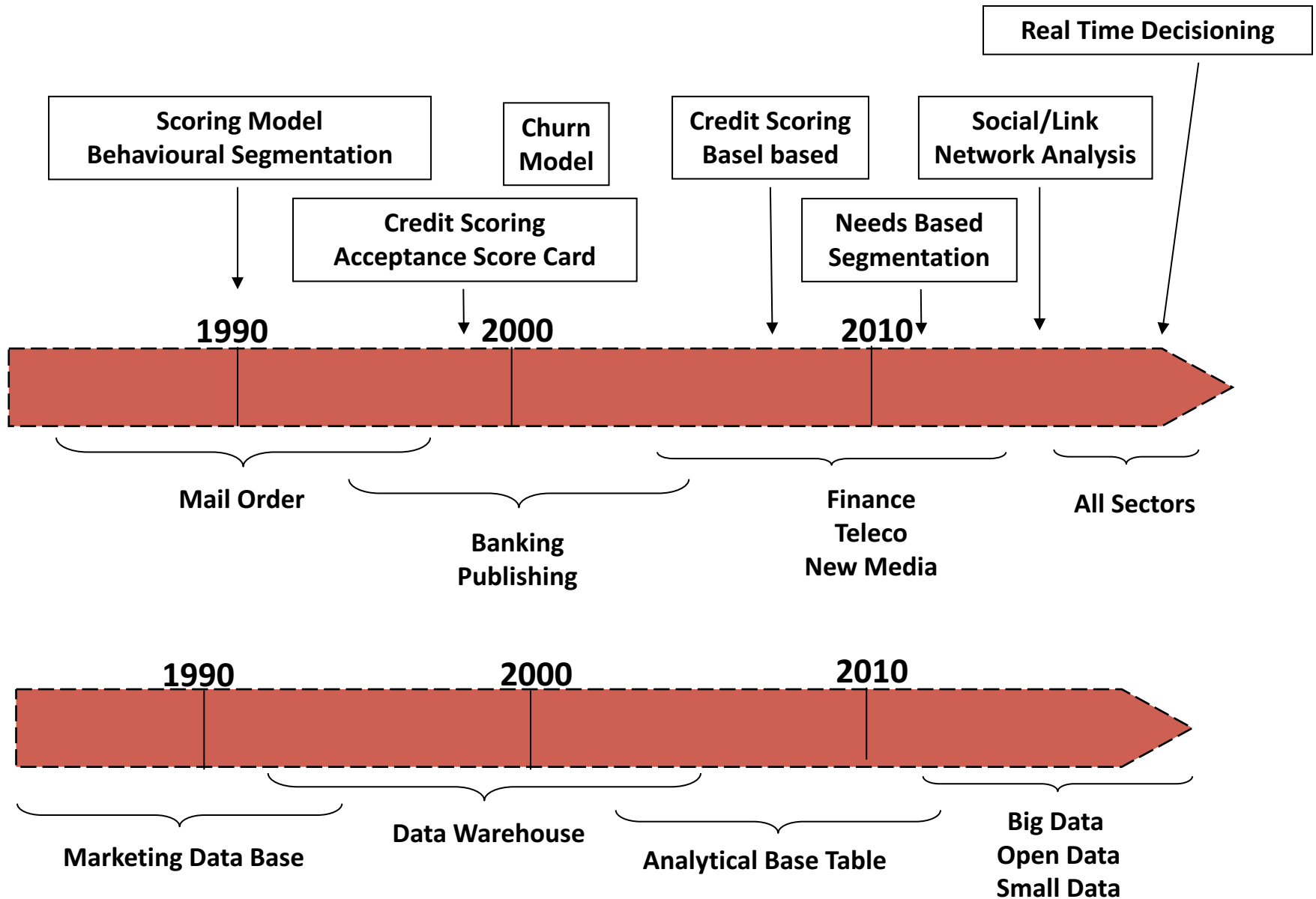
Agenda of the Course



- Module 1: Introduction to the Course
 - CRM Analytics evolution
 - Some practices on CRM Analytics
- Module 2: Data environment set-up
- Module 3: Demand Segmentation
- Module 4: Scoring Models


- Module 1: Introduction to the Course

- CRM Analytics evolution
- Some practices on CRM Analytics



- Module 1: Introduction to the Course
 - CRM Analytics evolution
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- Head of CRM
- Increase Cross-Selling Index
- Next Best Product/Offer through Market Basket Analysis





Customer 1 Profile

- Young
- Male
- PFA Low
- Owner of Current Account

Basket propostio

- + Saving Account...
- + Credit Card
- + Home-banking





Customer 2 Profile

- Adult
- Female
- PFA Medium
- Auto Loan
- ...

Basket propostio

- + Term Deposit
- + Debit Card
- + Credit Card





Customer 3 Profile

- Adult
- Male
- PFA high
- Owner of Mortgage

Basket propostio

- + Saving Account
- + Home Banking
- + Credit Card




Customer 4 Profile

- Young
- Female
- PFA high
- Payroll
- ...

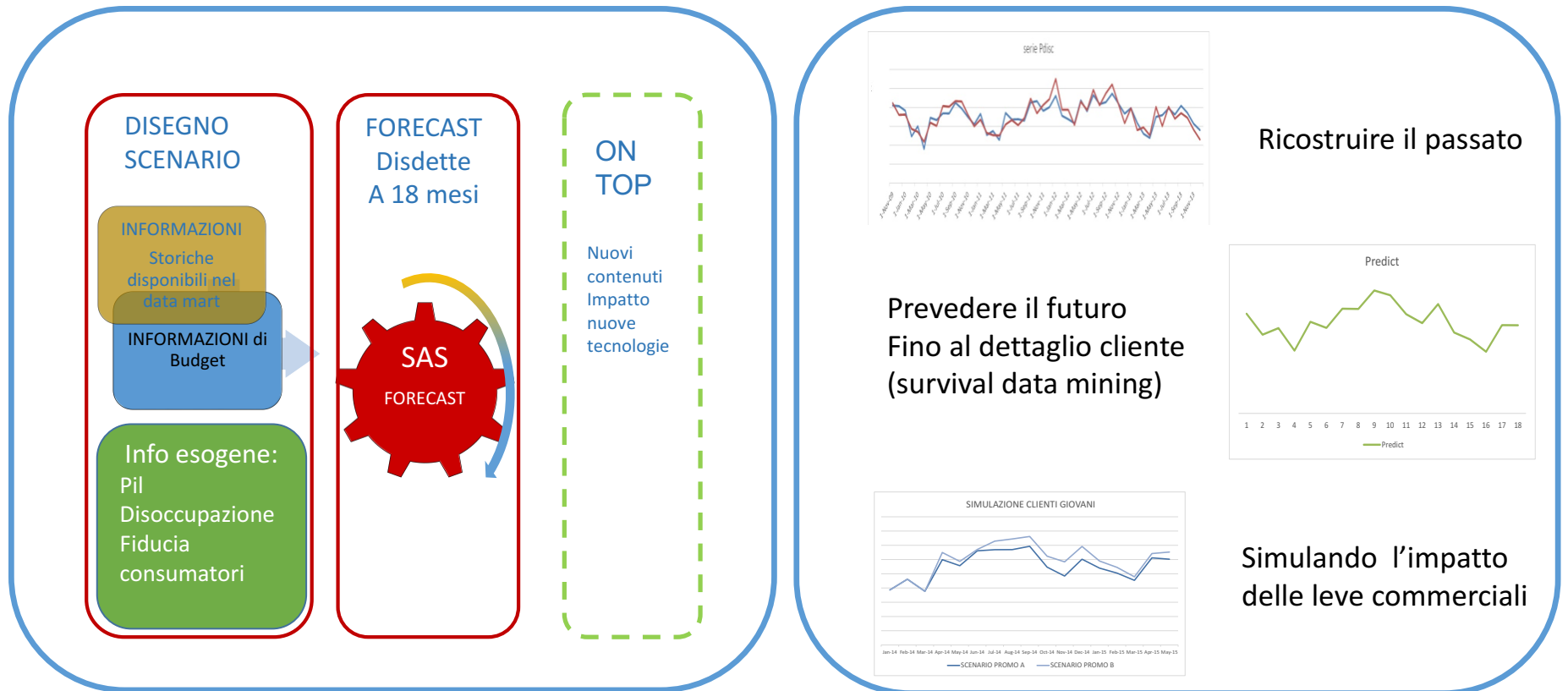
Basket propostio

- + Cash Loan
- + Debit Card
- + Mortgage



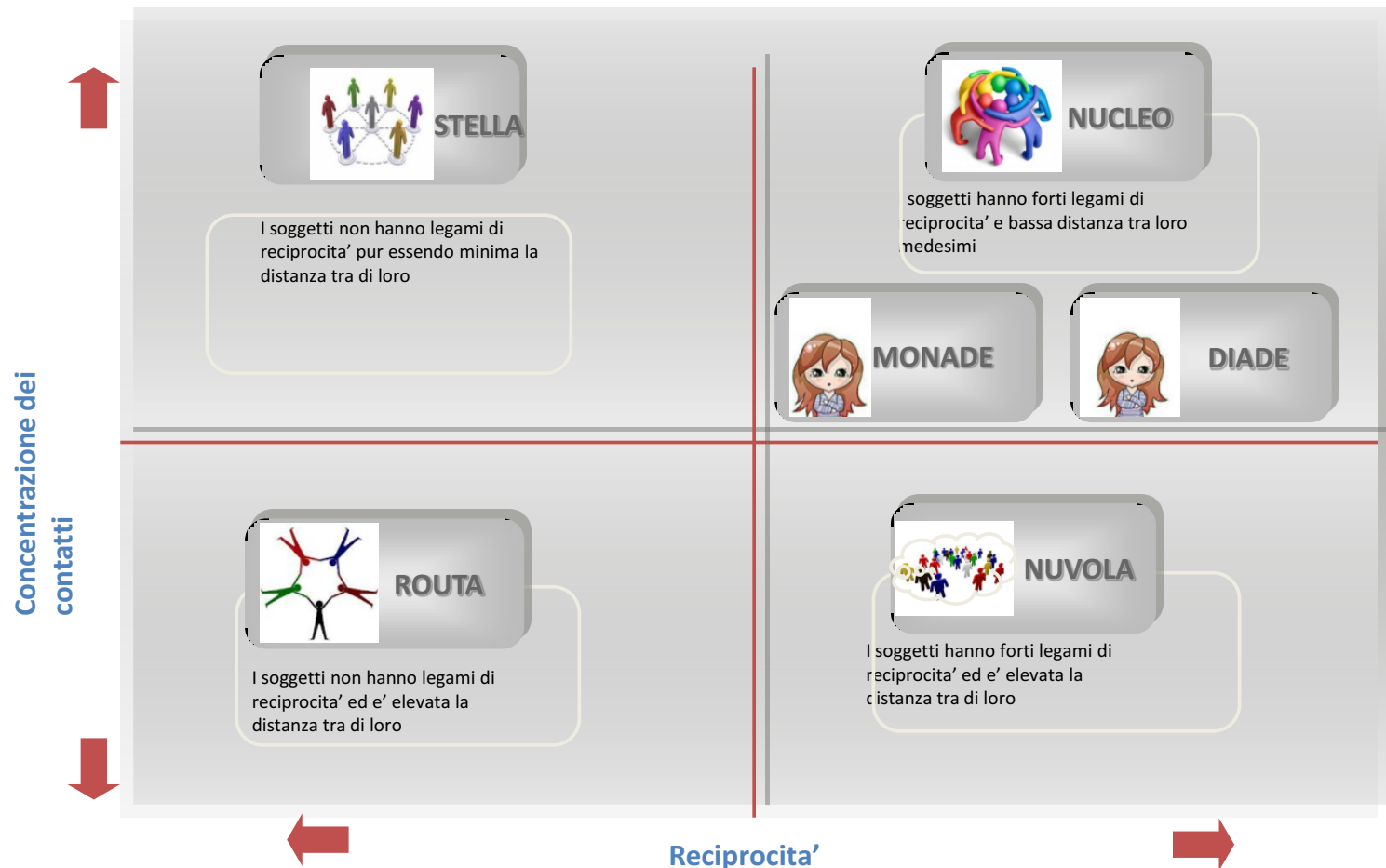
- 1.000k Active Customers
- 8 Socio-Demo and Economic KPIs of Segmentation
- 20 Products
- 16.200k of theoretical combinations reduced to 32k effective NBP baskets
 - Basket products order is based on real baskets owned by customers having similar profiles
 - Basket products are ordered according to the *likelihood* to be subscribed
 - Through products ranking it's possible to find out the NBP for each customer
- 15% of Customers with 1 product in the basket, 16% with 2, 17% with 3, 40% with more than 3
- NBP Basket used on managing in-bound contacts
- Channels: Call Center, Branch
- Start: October 2013 – Delivery on production February 2014
- Analytical team: 2 people

- Head of Customer Management
- Churn reduction
- Churn Forecasting trough Survival Data Mining



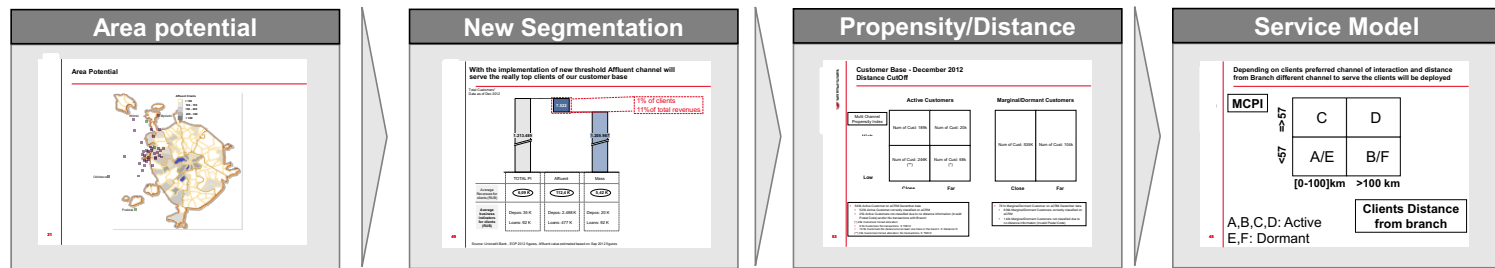
- 4.500k Active Customers - Individuals
- Tactical campaigns to manage potential churners – short term view
- Strategy plan to manage CB attrition – medium term view
- Changing churn prediction from ‘next month’ to ‘which month’
- Time line is the dimension used to integrate internal data with external data: seasonality, events, competitors’ actions
- Changing technical modelling approach from ‘traditional’ to ‘Survival Data Mining’
- Churn prediction at individual level for next 12 months, monthly based
- Churn prediction at aggregated level for next 18 months, by CB segments
- Start: January 2015 – Delivery on production: April 2015
- Analytical team: 2 people

- Head of Customer Base Consumers - Individuals
- Viral Marketing campaigns roll-out
- Phone Call Communities based on Link Network Analysis



- 22mln Active Customers - Individuals
- Incoming and Outcoming phone calls
- Period of measurement: three months
- Data Matrix: (1.550mln x 4)
- Roughly 4mln of communities split into 6 different types
- Identification of the different roles inside the community
 - Trendsetter
 - Bridge
- Communities used to 'family insight' – other project
- Start: November 2015 – Delivery on production April 2016
- Team: 1 Senior Statistician, 2 Senior IT Analysts

- Head of Retail
- New Private Individual Service Model
- Segmentation based on Distance and MCPI algorithm



Customer Clusters by Distribution Model	Channels	Branch	Account Officer	Service Officer
A & E < 12 months (no DSA)	Physical Branch Based	✓	Branch Manager	Mass Physical Branch RM
B,C,D & F < 12 months (no DSA)	Virtual Branch Based	✓	Branch Manager	Mass Remote RM
A,C & E < 12 months (managed by DSA)	DSA Branch Based	✓	Branch Manager	Mass Branch DSA
B,D & F < 12 months (managed by DSA)	Virtual Branch Based	✓	Branch Manager	Mass Remote DSA
(E & F) > 12 months	Central Management Based	✓	Branch Manager	Head Quarter
OVERALL				

- 1.400k Customers - Individuals
- More than 100 physical branches
- Remote virtual branch, DSA network, Central Branch
- Segmentation based on:
 - Physical distances
 - Multichannel propensity: products, transactions, channels
- 6 Segments
- Less than 100 physical branches
- Optimal allocation algorithm to create customers portfolio per branch
- Start: February 2014 – Delivery on production May 2014
- Team: 2 Statisticians, 1 IT Analyst