

White paper

Customer Data Platform and data governance

The keys to modernising business



minsoit

An Indra company

Knowledge of how to govern heterogeneous data sources and implementation of a Customer Data Platform (CDP) to consolidate information are two key aspects aimed at placing customers at the centre of business processes.

Today, awareness of the preferences and wishes of buyers of products is fundamental for business, just as important in terms of strategy as the ability to offer customised communications and solutions, activities which require the ability to analyse data in ever increasing quantities originating from traditional points of sale, e-commerce systems, social networks, databases, IoT sensors and other sources. Data which today is still segregated in vertical applications under the control of individual business divisions and which does not contribute in the way that it could to a coherent vision of customers, useful for business strategies.

Hence the need has arisen to integrate data and govern such data through the use of tools facilitating its collection and the quality of the information originating from external or internal business systems, tools ensuring the effectiveness and timeliness of commercial and marketing actions, as well as business decisions.

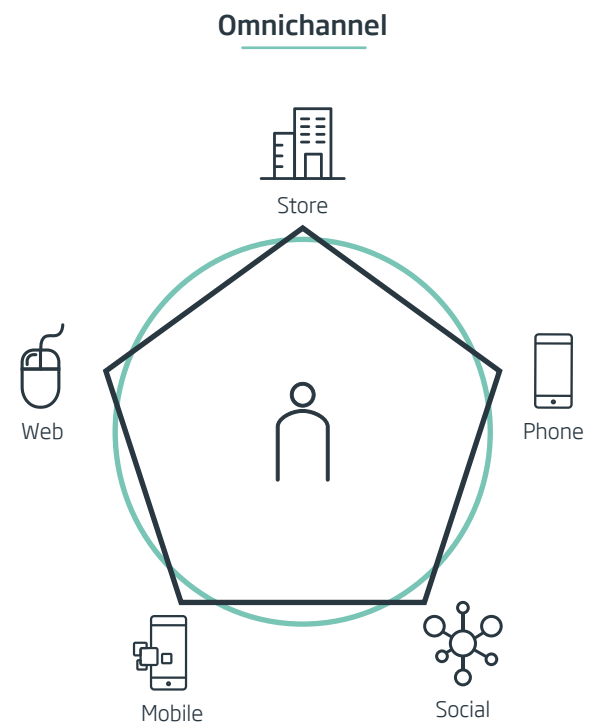


The changing scenario in relationships with customers

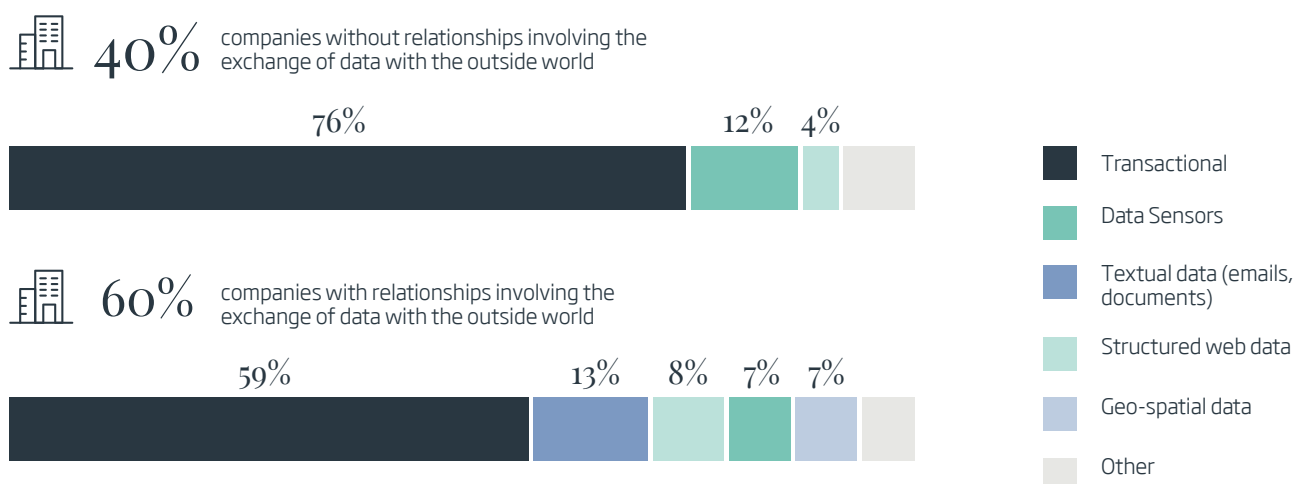
According to the observatory **Big Data Analytics & BI at Politecnico di Milano**, the primary and most important trend in the evolution of relationships between businesses and customers today concerns the customisation of communications. What consumers want is continuity in communications between the various contact channels (physical business, website navigation, smartphone app) and with regard to the manner, the moment and the place chosen by him or her. This is only possible through the use of IT tools operating in real time, integrating geolocation and analytical data in order, for instance, to find out if a customer is inclined to purchase a product or to change his or her mind in favour of a competing product (churn).

Therefore, the evolution of relationships entails the use of new methods for prediction and automation. Intelligent technologies can be used to analyse images, video and other non-structural data to perform sentiment analysis and to automate the application of discounts, issue purchase recommendations or provide assistance via chatbot. An important aspect that should not be overlooked is the need to process data securely, in accordance with privacy provisions, with particular reference to the GDPR. The ability to integrate data is fundamental so as to enable effective use of new tools for analysis and automation in relationships with customers.

According to the 2018 findings from the observatory Big Data Analytics & BI at Politecnico di Milano, practices among major Italian companies are characterised by a lack of homogeneousness. **60% have relationships involving the exchange of data with the outside world** and



are capable of integrating different data sources and data formats. Some types of emerging data include geospatial data, textual data and data taken from the internet. In contrast, four out of ten companies only use internal data.



Data obtained from the statistical analysis of a sample of 119 major companies

For these companies, **76% of the data used is still made up of transactional data, a clear symptom of the delay in the capacity to make use of new data sources, such as public databases or data providers and in creating new businesses by using a company's own data.**

As far as analysis methods are concerned, the new technologies AI and ML are gradually gaining ground. They enable information to be extracted even from non-structured data such as texts, images and videos. The objective of analysis is tending towards ever more predictive and prescriptive methods, with algorithms capable of suggesting the best decisions and adopting recommendations based on persons and on the moment. The increasing importance attributed by companies to real time processing is hardly surprising. According to the data collected by the

Observatory, **44% of large Italian companies have implemented plans to speed up analyses** (in near real time, with update frequencies of between 15 and 30 minutes). The speed of analysis is accompanied by the need to have tools facilitating the selection of data and the development of predictive models, including support for integration and governance.

Governance encompasses the fundamental processes for ensuring data quality, for tracking data in business processes, mapping their stages, versions and changes. Apart from the duties of the teams with governance responsibilities and powers, collaboration within the line of business (LOB) is fundamental in order to obtain quality data, together with a shared understanding of the objectives and of the rules between all the persons involved, starting with privacy.



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The Customer Data Platform (CDP) as a way of improving customer knowledge

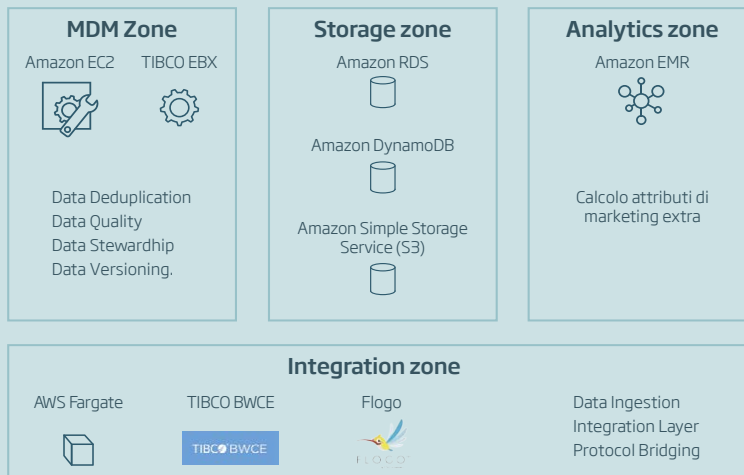
Customer knowledge requires a **collection point for heterogeneous information** collecting tastes, behaviour patterns and relationships with a company. This is the aim of the customer data platform (CDP), which can be imagined as a **sort of privileged crossroads where information originating from all contact sources arrives and is consolidated**. Information derived from points of sale, e-commerce, CRM, messages on social media, contact centres, external databases and so on. Data which, once errors and duplicate data have been removed, provides information on who the customer is, while also preserving its story in order to help understand its value and avoid statistical confusion and spurious relationships in subsequent analyses.

In order to understand what the future scenarios and machine learning (ML). The CDP enables factors not normally considered in analyses of customers be taken into account, such as correlations with inventory data, production, movements by the customer at the point of sale and readings from IoT sensors. The creation of a

CDP also has an impact on marketing and sales; the results in these fields provide an idea of the return on investment of projects.

The creation of a CDP does not only are using analytical systems, what matters more than the quantity of data is its quality and the importance that can be attributed to the data. The CDP enables the consolidation of all important data and its analysis using the most advanced technologies, ranging from deterministic algorithms to predictive models based on systems of artificial intelligence (AI) require technology, it is a project of an organisational and cultural nature requiring the collaboration of different players. For a project to be successful, what needs to be done is for persons with knowledge about organisation, marketing and IT platforms to sit around a table. Skills in change management are also required so as to succeed in engaging persons in the company and preparing them for the changes that the CDP entails. It goes without saying that the drive and commitment of top management is also essential for any plans to introduce a CDP.

Cloud



On Premise



The implementation of a customer data platform (CDP) with Minsait

Minsait, part of the Indra Group and a leader in the fields of IT and digital transformation, is one of the Italian enterprises most committed to the implementation of CDPs and is able to draw on experience spanning decades in Master Data Management projects in companies from sectors including the government sector, energy, telecommunications, industry and the media. Projects implemented thanks to an organisation numbering around 1,200 specialists in Italy and 40,000 all over the world, with different levels of experience and skills, including TIBCO Integration and data governance.

In Minsait's experience, the implementation of a GDP requires both platform and architectural competences so as to arrive at solutions endowed with intrinsic characteristics of resilience, scalability and security (competences supplied by the System Integrator while overseeing the company it selects for the implementation of the GDP).

In current modern IT contexts, this means dealing with hybrid architectures, applications and data scattered throughout the company data centre, on legacy systems, private or public clouds or held by suppliers and external customers.

Minsait has planned in-cloud CDP initiatives using EC2 virtual machines from AWS on which it has installed the component Tibco EBX to act as a master data management (MDM) system, in addition to the integration layer responsible for dealing with data interconnection problems. The power of the cloud (apart from AWS, the Google and Microsoft clouds can also be used) makes it possible to segment customers in real time or near real time to enable timely marketing actions. The ability to operate in real time does not mean that the GDP is incapable of taking advantage of the multiple 'slow' data sources existing in the company and which could otherwise not be accessed by the new applications.

According to Minsait, it only takes 4-6 months to reap the initial benefits of the creation of a CDP, whereas for the implementation of a complete CDP it may be necessary to wait up to one year. The advantages obtained depend in every case on the company's ability to approach customers in an innovative manner, overcoming the resistance to traditional marketing campaigns.

A critical aspect concerning the implementation of CDPs concerns the creation of algorithms for analysis and for data quality. Tools such as Tibco EBX enable the result to be attained for subsequent approximations using Agile methodology. In the same way, the agile methodology enables the CDP to be adapted for new data sources and to meet the requirements of an ever changing world.

International use cases for the Customer Data Platform



Minsait was involved in the creation of a CDP at a leading multinational insurance company within the context of a project to audit management of customer and network data. The Master Data Management (MDM) involved the redefinition of the data model, functionality, architecture and the system rules for ingestion, cleansing, validation, standardisation, unification and propagation. The implementation of the CDP enabled the company to obtain benefits in its sales conversion rate, in customer loyalty (through the identification of loss profiles), in the optimisation of communications (ability to conduct less invasive campaigns) and improvements in the alignment of business processes.



Minsait collaborated in improvements in the efficiency of a system designed to detect fraud at a Spanish government agency through the creation of a People MDM solution, coupled with big data technology. Capable of carrying out analyses in real time on numerous data sources, the system has brought benefits in terms of scalability, integration and the accessibility of information, even with regard to future requirements.

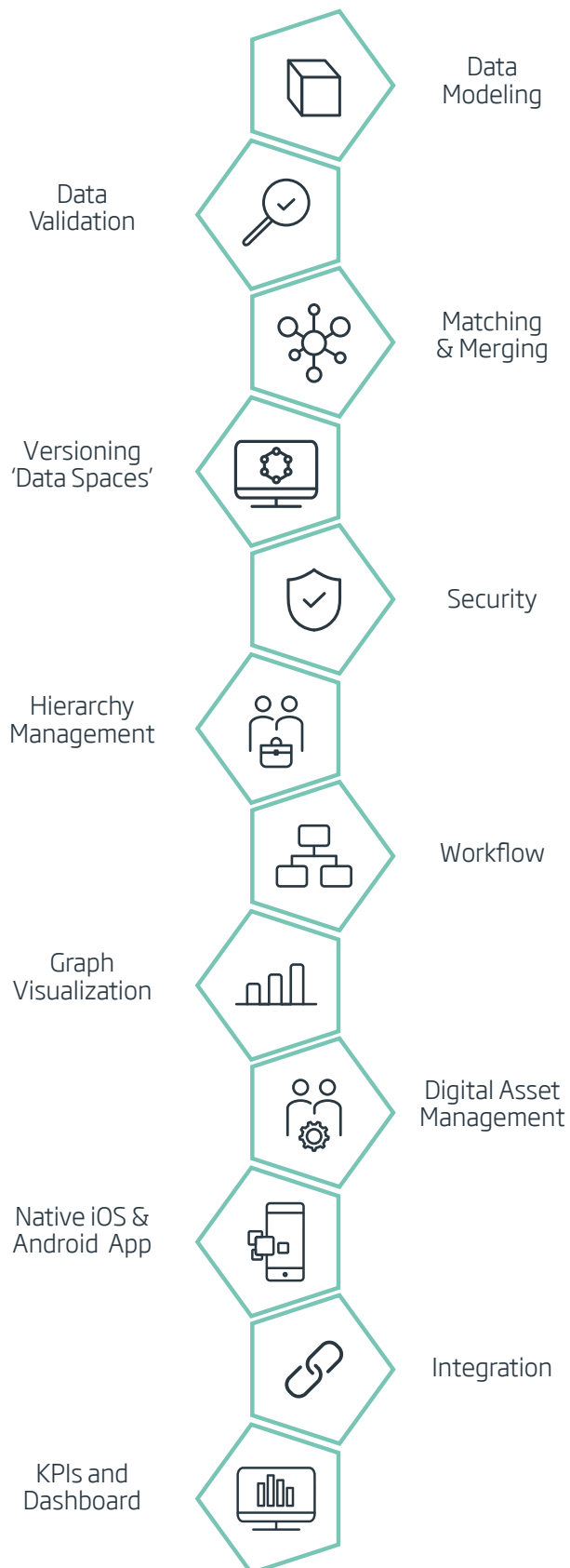


Also in Spain, Minsait created a multi-domain **MDM for a large company which needed to improve its capacity to manage and control in data domains relating to stores, products, suppliers and batches. The implementation of an MDM repository led to improvements in the accessibility, quality and reliability of the data used in core business processes.**



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TIBCO technology in support of digital transformation



A household name in the software field, **TIBCO** boasts a vast array of solutions designed to help businesses integrate and govern their data, enabling the IT teams to create the data infrastructure best suited to a company's specific characteristics, transforming it into a sort of nervous system capable of reacting to events and business interactions. The TIBCO strategy is to provide support through solutions that are open with regard to platforms, applications and services and which are as simple as possible through tools enabling the creation of data and analytical models without writing code. The platform's neutrality manifests itself in its ability to incorporate data from virtually any system source, both inside and outside the data centre, an aspect reinforced by its open design and by the open-source nature of the solutions, facilitating the task of changing or extending functions. In the last few years TIBCO has also offered its own software modules as a cloud service. TIBCO Cloud offers users easy access to a unified group of functions without any need to manage hardware or install software. These functions simplify the way in which a CDP acquires data and connects to business applications, thus reducing the time to market.

The TIBCO infrastructure is made up of modules that can be used individually or together by virtue of their intrinsic capacity for integration. In this way, it is possible to construct a digital infrastructure in support of business innovation by fully utilising the assets already existing, both in terms of data platforms and in terms of the skills of persons, overcoming the divisions associated with the silo mentality. An infrastructure which apart from loading data, also carries out cleansing, profiling and segmentation operations on data, as requested by the CDP.

TIBCO EBX is the tool that brings together all of the most useful functions required for the speedy launch of a CDP: from data modelling to matching and merging functions, validation of data and support for workflow.

The tool does not require code to be written and provides support in data approval and verification phases and to process flows that may be automatically triggered, for example, by data cleansing problems requiring the intervention of the teams dedicated to a specific domain. EBX supports different data management methods: ranging from master data (customer lists and product data) to reference data (the place where

the corresponding information and metadata are located). The integrated management of metadata by the same tool constitutes one of the solution's major advantages together with its capacity for event management.

The combination of the development and integration capabilities of leading partners such as Minsait and products such as TIBCO EBX makes it possible to reap all the benefits of a Customer Data Platform and, more generally, of multi-domain master data management.



EBX use cases in digital transformation

The analysts at Gartner acknowledge that TIBCO EBX has a specific superiority over competitors in the support of use cases, placing the platform at the top of its ranking in the following categories:

- B2B applications for customer data management (EBX stands out in its support for hierarchical management), the use of inbound (management of suppliers);
- outbound (management of product information);
- in master data management (in support of multi-domain MDM).

TIBCO EBX can point to implementations in businesses in every sector, all characterised by the need to improve data governance in support of new business processes.



Services

EBX is used by **Amadeus** (a European company for the reservation of trips with over one trillion transactions each year) for the governance of data and for making available data of a better quality to analytical platforms used to improve business efficiency. Efficiency which, together with the introduction of new products, lies at the base of the use of EBX in the initiative '21 century data program' launched by the rental company Hertz to transform the backend legacy in SaaS software/cloud and modernisation of business. **TechnipFMC** (company providing engineering, procurement and offshore instalment services), together with EBX, has created a multi-domain MDM hub (integrating data from Salesforce, Oracle EBS and Hyperion EPM), benefitting both business operations and analytical applications.



Food

EBX can also point to important use cases in the food sector. It is used by the Canadian company **Panera** (2250 cafés and points of sale for fresh bread in the United States) in core business processes controlling flows of money, supporting the cleansing of data and validations. Also in Canada, **Restaurant Brands International** (a company born from the merger between Burger King and Tim Hortons) has used EBX to create a multi-domain EDM which it uses to track raw materials in their journey from suppliers to restaurants and which supports analysis and the personalisation of products at points of sale in franchising. The use of EBX as an MDM is also useful for managing the lifecycle of products at companies operating in Europe engaged in the distribution of fresh products: the English company Bidfood and the Finish company Vaasan.



Finance

In the banking sector, **JPMorganChase** uses EBX to coordinate management of data between hierarchical levels at corporate and regional level and as regards lines of business. Important data governance projects have been implemented with EBX at the investment companies **Carlyle Group** and **BNP Paribas Real Estate**. The latter employs the EBX platform in its own multi-domain MDM supporting the management of buildings, suppliers and customers.



E-government and health

Finally, EBX has found application in the government and health sectors. **AMUE**, a French agency offering services (including IT) to 173 entities including universities, schools and public institutions, uses EBX to manage heterogeneous data assets. In Belgium it is used by the Financial Services and Markets Authority (FSMA) to ensure the exchange of information, guaranteeing the quality of data and the reaction times to changes in legal requirements. Agence eSanté (the Luxembourg national agency for the interchange of healthcare information) has used EBX to provide its own platform of services for e-health with non-ambiguous information, in so doing providing support to the tasks of data sharing and the coordination of the various players involved in patient care. EBX is also used by the well-known humanitarian association Médecins Sans Frontières to provide efficient data support to its own global supply chain.



Media

In the media industry, **Paramount Pictures** and **Viacom** both use EBX to manage metadata relating to films and productions in the form of episodes (original titles, genre, storyline, actors, direction, language and available digital formats), which are supplied to those engaged in distribution and the administration and management of rights, eliminating the obstacles stemming from multiple data models and hierarchies. **Ubisoft**, a company specialising in games and products for the entertainment sector, has used EBX for the management of the lifecycle of products, from the initial idea to implementation, extending to contract management.

**Sergio Scornavacca**

Minsait in Italia
Director Industry &
Consumer Markets
sscornavacca@minsait.com
Tel. (+39) 335 7771357

Ivano Chiodini

TIBCO
Senior Presales
Consultant Southwest
ichiodin@tibco.com
Tel. (+39) 335 318955

Eros Buffo

Minsait in Italia
Manager
Advanced Technologies
ebuffo@minsait.com
Tel. (+39) 335 7771357

Giandomenico Panebianco

TIBCO
Alliances & Partnership
South Europe
gpanebia@tibco.com
Tel. (+39) 335 1025840

Roberto Carrozzo

Minsait in Italia
Resp. Business Intelligence
and Business Analytics
rcarrozzo@minsait.com
Tel. (+39) 328 2237637

TIBCO Software

Via Laurentina 455
00142 Roma
Tel. (+39) 06 455908501

www.tibco.com/it

Minsait in Italia

Viale Monza 338
20128 Milano
Tel. (+39) 02 249 8951

www.minsait.com

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