The Research and Development Project VO.I.CE.
First, the winner of the SMAU 2022 Innovation
Award, focuses on enhancing the customer
experience through an integrated software
solution. This comprehensive solution comprises
voice analysis modules, social network monitoring,
and a virtual agent prototype. The primary
objective of the project is to gain real-time insights
into consumer behavior, enabling the
improvement of customer care service and sales
performance, ultimately leading to an enhanced
customer experience. Now, let's explore the
specific solutions that have been implemented:

OR1 - Speech Analysis & Voice Data Collection

The software platform's speech analysis module has proven effective in extracting valuable information
from voice interactions between customers and the customer care team. This enables a deeper
understanding of consumer needs and facilitates the personalization of the customer experience. We
developed a comprehensive and integrated software solution for speech analysis and voice data
collection. The system efficiently records, transcribes, and analyzes voice recordings using advanced
natural language processing algorithms.

OR2 - Social Media Brand Monitoring & Web Data Collection

The social media monitoring module involved creating algorithms and tools to monitor brands on social
media and collect data from the web. Analyzing data from various social media platforms and selected
web sources provides valuable insights into user opinions, market trends, and brand performance. This
enables companies to monitor brand image and promptly adapt marketing strategies.

OR3 - Development of an Innovative Dashboard Solution for Integrating Voice and Web Channel Data

We implemented customized dashboards to seamlessly integrate data from voice and web channels.
These dashboards offer a unified and intuitive view of data, making it easy for users to monitor and
analyze business-relevant information. They facilitate strategic decision-making and optimize customer
interactions.

OR4 - Conversational Virtual Agents and Chat Systems

We implemented conversational virtual agents and chat systems to enhance user interactions. These virtual agents utilize advanced artificial intelligence and natural language processing technologies, allowing users to interact naturally and receive immediate, personalized answers to their questions and requests. This results in highly personalized and efficient customer care service.

Final result of the VO.I.C.E. First Project

The integrated software solution consists of modules. In particular, Module 1 (Speech Analysis & Voice Data Collection) has the task of transcribing the vocal interactions of customers with the contact centre, into textual data, subsequently processed with text analytical techniques; Module 2 (Social Media Brand Monitoring & Web Data Collection) has the purpose of monitoring and analysing the opinions of consumers on a given brand and to retrieve all the information useful for improving the customer experience. The outputs of Modules 1 and 2, allow, through the use of Artificial Intelligence algorithms, the creation of an operational tool (Information Dashboard) capable of suggesting to the telephone operator the best proposal (Next Best Action) to be proposed to the customer on the basis of his needs and/or interests expressed or reconstructed. The operational tool is also capable of suggesting to the telephone operator the best solution to fulfil the customer's requests for support. Finally, Module 3, aims to use the information collected with the first two Modules to enable the Conversational Virtual Agents and Chat components in order to improve the Customer Care service and obtain greater efficiency of production processes, thanks to a better distribution of internal human resources engaged, directing them towards specialist support and consultancy roles.