

Case for **Non-profit Organization**

Chatbot for Oil and Gas E-Procurement Platform

Industry: Energy, Oil & Gas

Location: EU

Employees: 50+



Client Background

A non-profit organization, this EU-based company connects large oil and gas companies with thousands of suppliers. With its help, oil and gas companies can get the most relevant, up-to-date information about the suppliers of various products and services through a modern e-procurement system. The portfolio of solutions of our client helps both parties of the procurement process save costs and time, significantly improving the flow and consistency of deals signing.

Business Challenge

The integral e-procurement system of our client helps to match the country's largest oil and gas companies with several thousands of qualifying suppliers. However, due to the complexity of the procurement processes, end-users would require external help and consulting on numerous stages: from logging into the e-procurement system to undergoing self-assessment, submitting qualification forms, utilizing search filters, registering products, taking part in the bid process, filling out the contract documentation, etc. In order to solve these Q&A

requests, representatives of both sides of the process could only receive help over the phone by reaching support representatives of our client. Besides being time-consuming, the over-the-phone support operated during the business hours only. This would cause numerous delays, resulting in delaying the contract fulfillment, which in its turn could result in EUR millions of losses on a monthly basis. A chatbot was a perfect solution to this challenge.

Solution

Infopulse developed an effective AI assistant based on state-of-the-art NLP platform. The chatbot provides 24/7/365 consulting to its end-users, giving instant and accurate answers to their questions and requests:

- The chatbot was deployed on premise per client's request to improve security. Thus, its core is isolated from the external network, allowing the chatbot to be operational offline. At the same time, the chatbot also supports deployment to the cloud.
- Cutting-edge NLP platform and advanced semantic analysis understanding simplifies the process of content preparation. Since each user may phrase each question in a different way, support representatives need to train their chatbots and come up with dozens of different questions to one answer (or several thousands of questions to just a hundred of answers, which requires a massive amount of effort and time). Otherwise, the chatbot will not be as intelligent as it should. Instead, our chatbot requires only one question per one answer, showing even better level of answering accuracy.

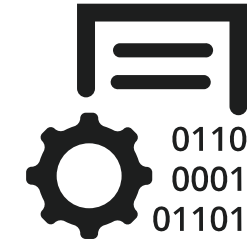
- Simplified process of Q&A content upload. The chatbot is immediately operational upon uploading a document with questions and answers in the relevant format (PDF, Word or Excel). As of now, the chatbot contains 300+ detailed Q&A articles describing all aspects of the procurement process.
- All questions given to a chatbot are visible to the support representative, who can take over the chatbot immediately or per end-user request.
- Better UX process of Q&A content update and chatbot training. Upon completing the dialog with the end-user, the support representative is prompted to immediately edit and upload own answers to the relevant article within the chatbot database. While this process is very effective, simple and quick, it allows the chatbot to receive continuous updates with always relevant up-to-date answers.



Technologies



**Open-source and
proprietary libraries**



**Universal sentence
encoder**



Business Value

The chatbot implemented by Infopulse is quick to provide relevant answers to most common questions. The AI assistant solves numerous challenges that may arise in the course of the procurement process, improving the overall user experience and the way the end-users interact with the e-procurement platform. As a result, the chatbot helps both suppliers as well as oil and gas companies to speed up the whole procurement process, making it more effective, transparent, accurate and consistent across all stages:

- 24/7 instant answers to user requests. No more waiting up to 10-15 minutes for live support over the phone.
- Automates handling of up to 75% of user requests.
- Perfect understanding of the end users' requests with a state-of-the-art NLP platform.

- Leverages productivity and saves significant amount of time for the end-users of the e-procurement system.
- Indirectly helps to accelerate the procurement process and increases number of successful deals.
- 10x times more effective in terms of content composition, saving time of company support experts. Instead of 2000-3000 questions per 300+ Q&A articles, our chatbot requires only one question per one answer in order to achieve the same levels of answering precision.
- Multilanguage support. As of June 2019, Infopulse is finalizing the transition of the chatbot to a new semantic platform, as it will then support 100+ languages in total.

24/7

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handling of user requests

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languages



About Infopulse

Infopulse, part of the leading Nordic digital services company Tietoevry, is an international vendor of services in the areas of Software R&D, Application Management, Cloud & IT Operations, and Cybersecurity to SMEs and Fortune 100 companies across the globe. Founded in 1991, the company has a team of over 2,300 professionals and is represented in 7 countries across Europe and the Americas.

Infopulse is trusted by many established brands, such as BICS, Bosch, British American Tobacco, Credit Agricole, Delta Wilmar, ING Bank, Microsoft, Offshore Norge, OLX Group, OTP Bank, SAP, UkrSibbank BNP Paribas Group, Vodafone, Zeppelin Group, and others.

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