

# Orchestrations of chatbots application to tourism actors' network

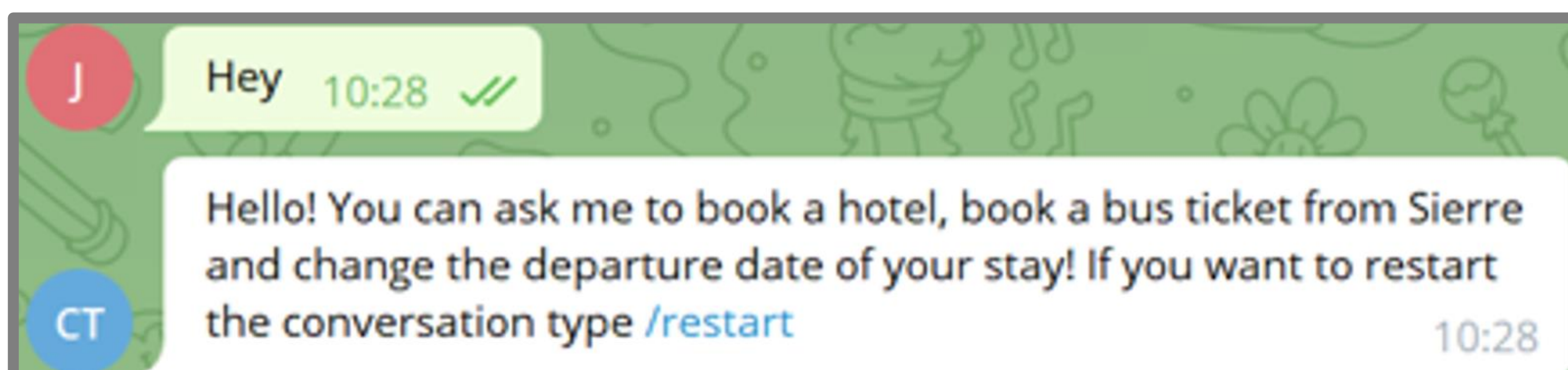
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## Summary

1. Analysing the market for chatbot orchestration
2. Creating a proof-of-concept implementation of a chatbot orchestration based on a scenario in the tourism sector

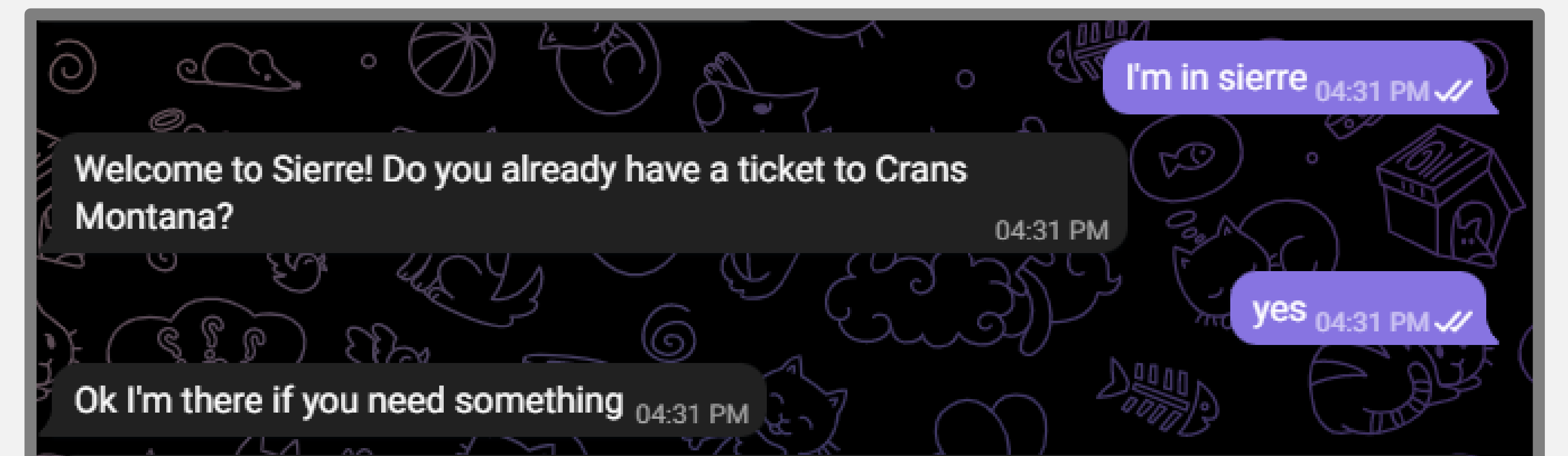
## Introduction

- The chatbot framework market is heavily fragmented and orchestration solutions are needed in different industries
- The goal was to present a technical solution for the N-1 N+1 touchpoints algorithm proposed by researchers from the HES-SO to proof the feasibility of an orchestrated unified customer experience in tourism using chatbots



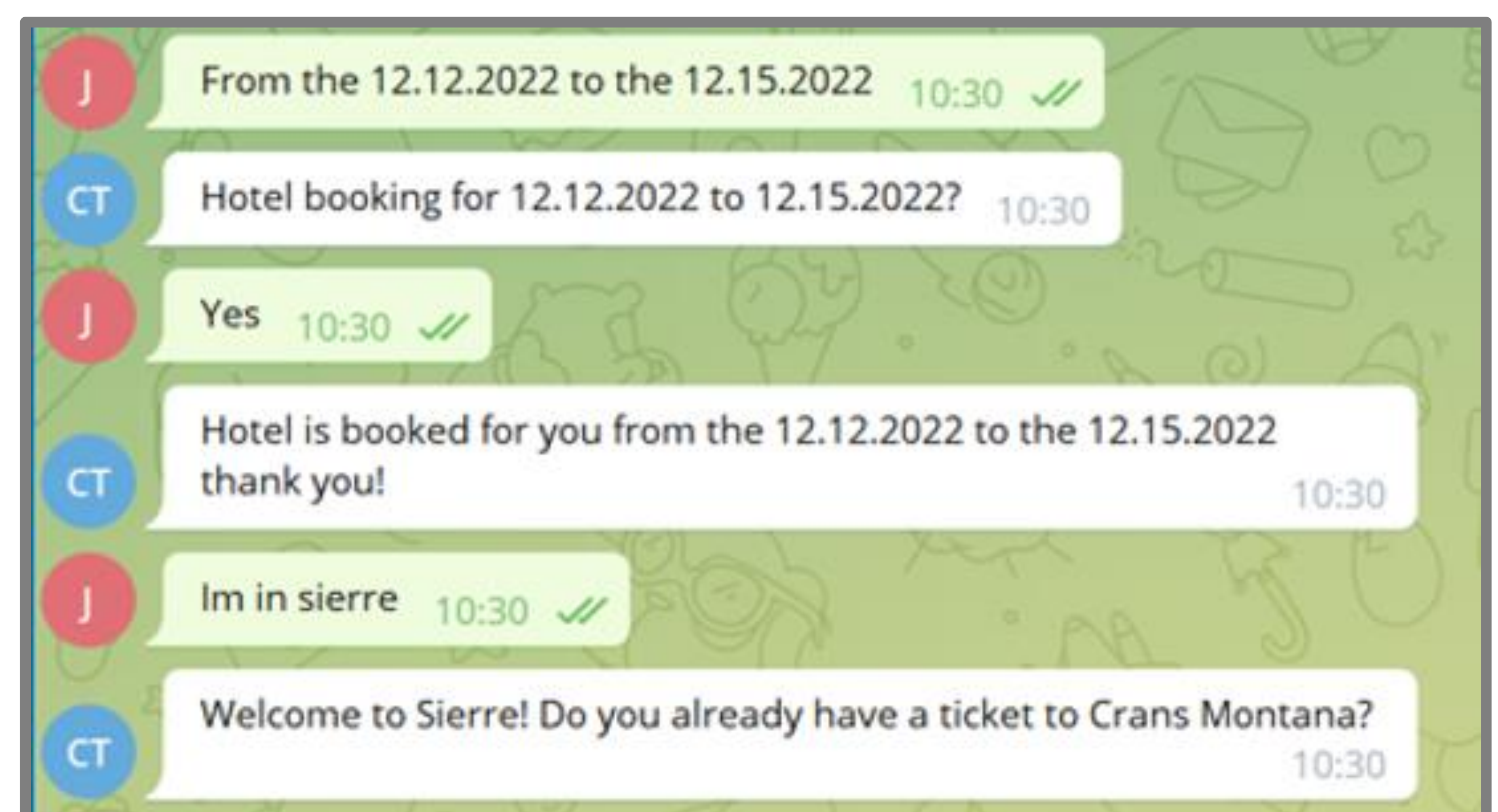
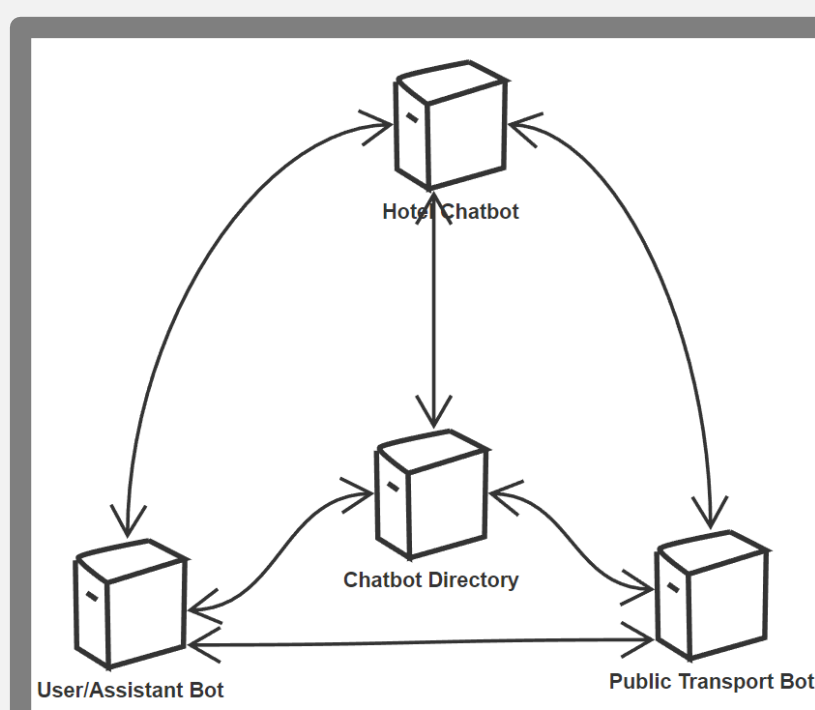
## Results

- Analysis of the current solutions for chatbot orchestration
- Technical and functional analysis of current chatbot frameworks used to ease the development of chatbots
- Implementation of a working proof-of-concept orchestration of chatbots in a tourism scenario
  - Linking multiple chatbots offering different services in the tourism sector in a unified manner
  - The chatbots are using natural language processing to be flexible in the understanding of user messages
- Findings concerning future chatbot orchestrations



## Methods

- First a technical and functional analysis of the current solutions was completed
- After that different architectures were thought up and analysed on their feasibility
- Then a final architecture was chosen and implemented
- The final architecture includes:
  - A directory server holding the locations of all bots
  - Two chatbots created in rasa one being the front-end of the orchestration
  - One chatbot created in flow.ai
  - All bots are able to communicate with each other and get their locations from the directory server



## Conclusions

- There are currently no viable software solutions for orchestrating chatbots in the given scenario on the market
- Chatbot orchestration is possible using current tools and technologies
- There are still issues in the market and its tools which need to be resolved