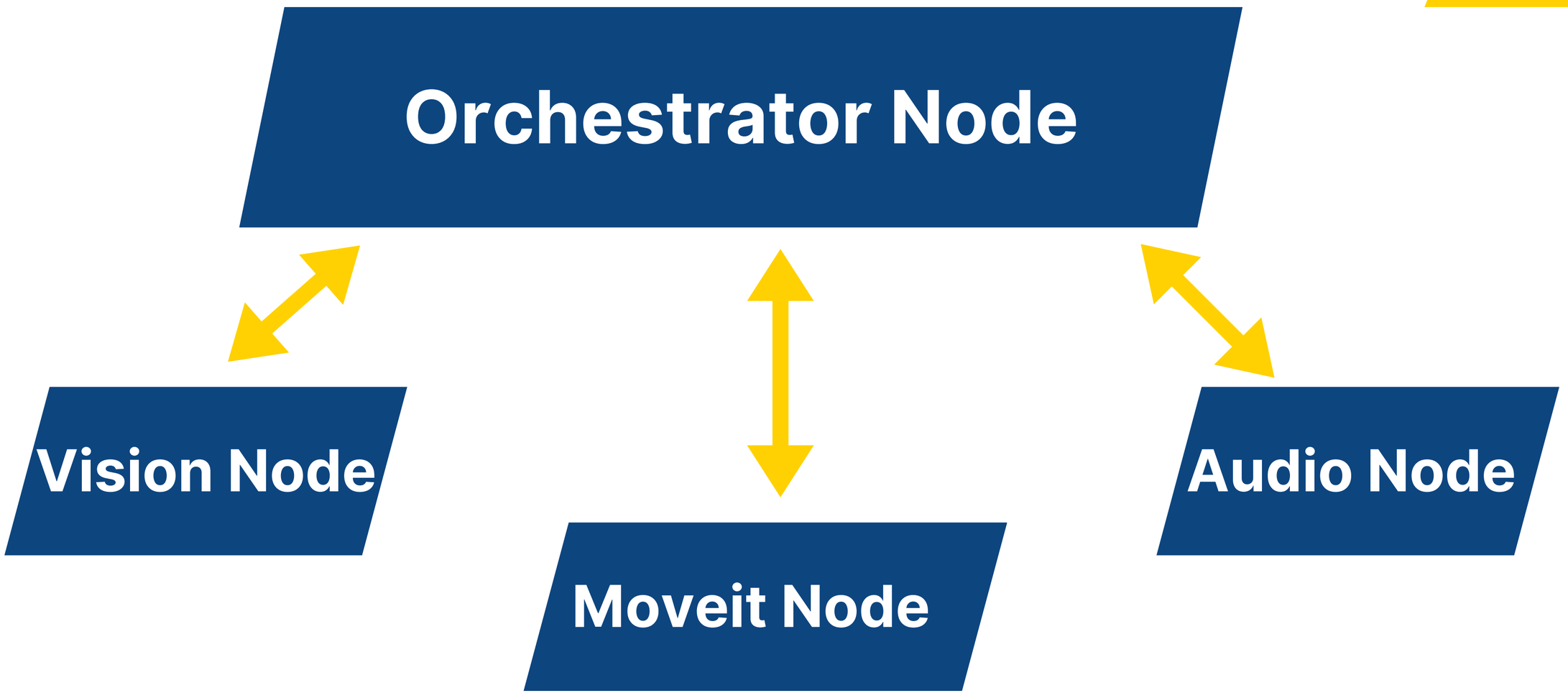
# Infotaiment Testing Robot



# Infotaiment Testing Robot

## Orchestrator Node

## Vision Node

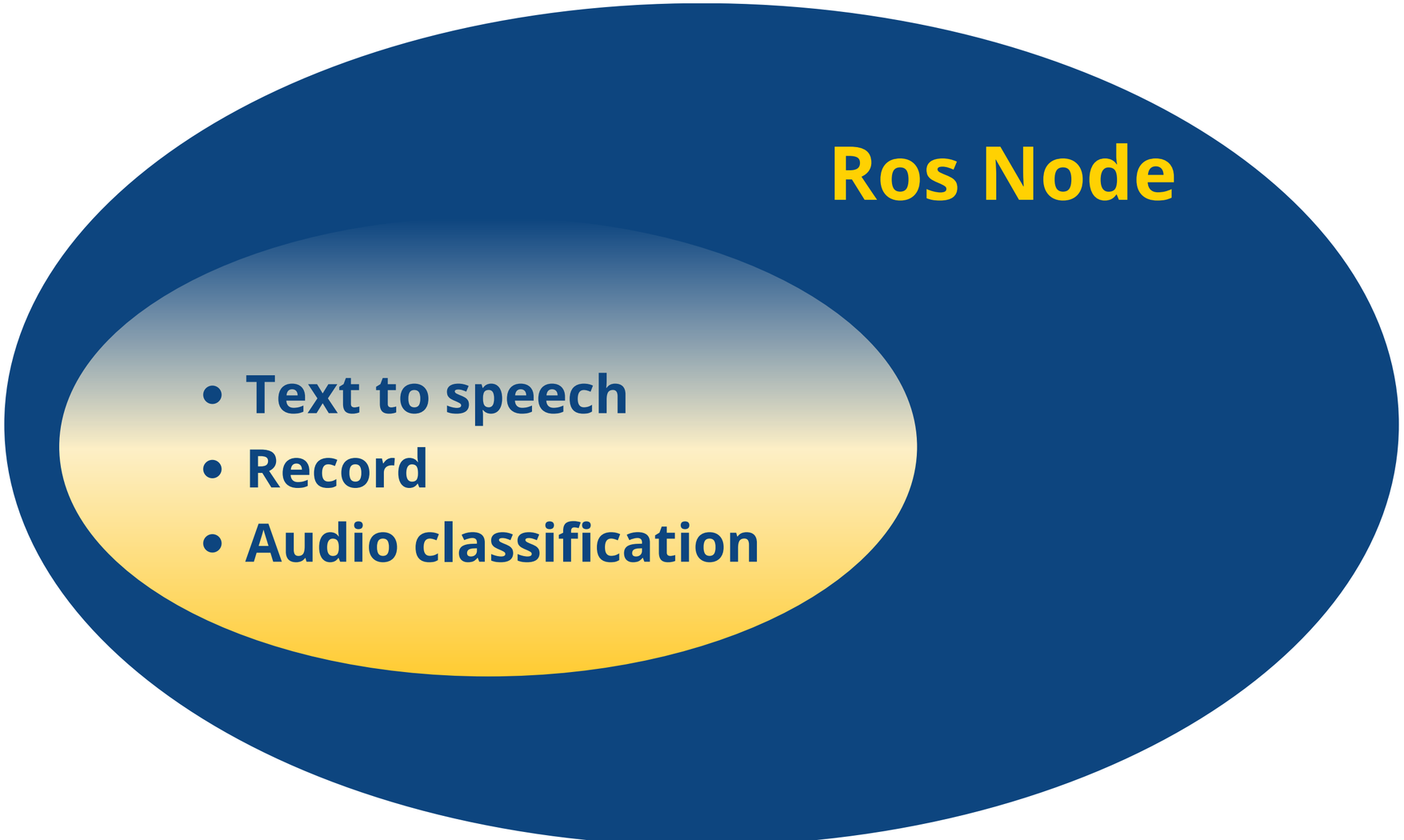
## Moveit Node

## Audio Node

# Problematic

- Dependencies Version Mismatch
- No Real time Detection
- Ros 1

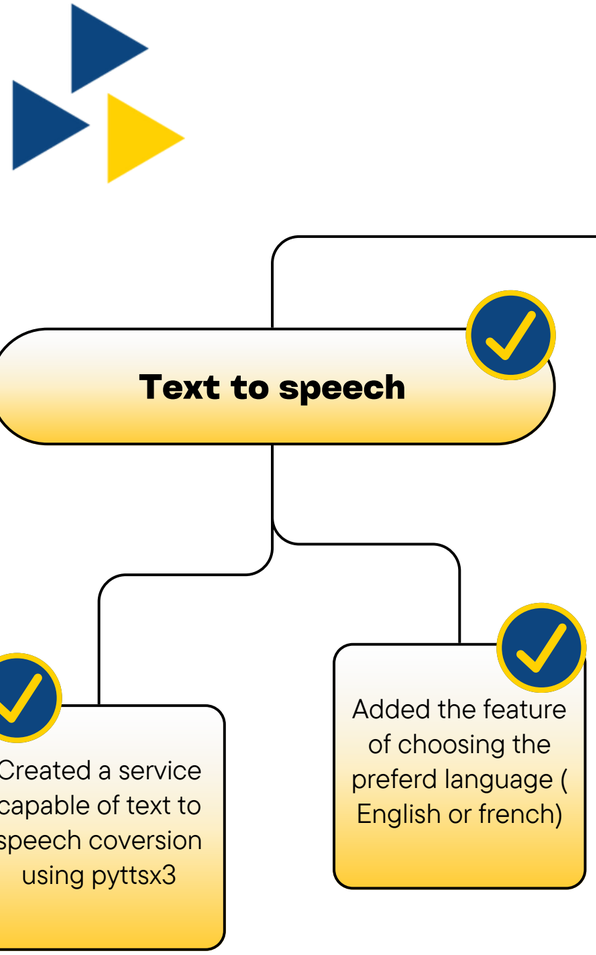
# Input



# Text to speech

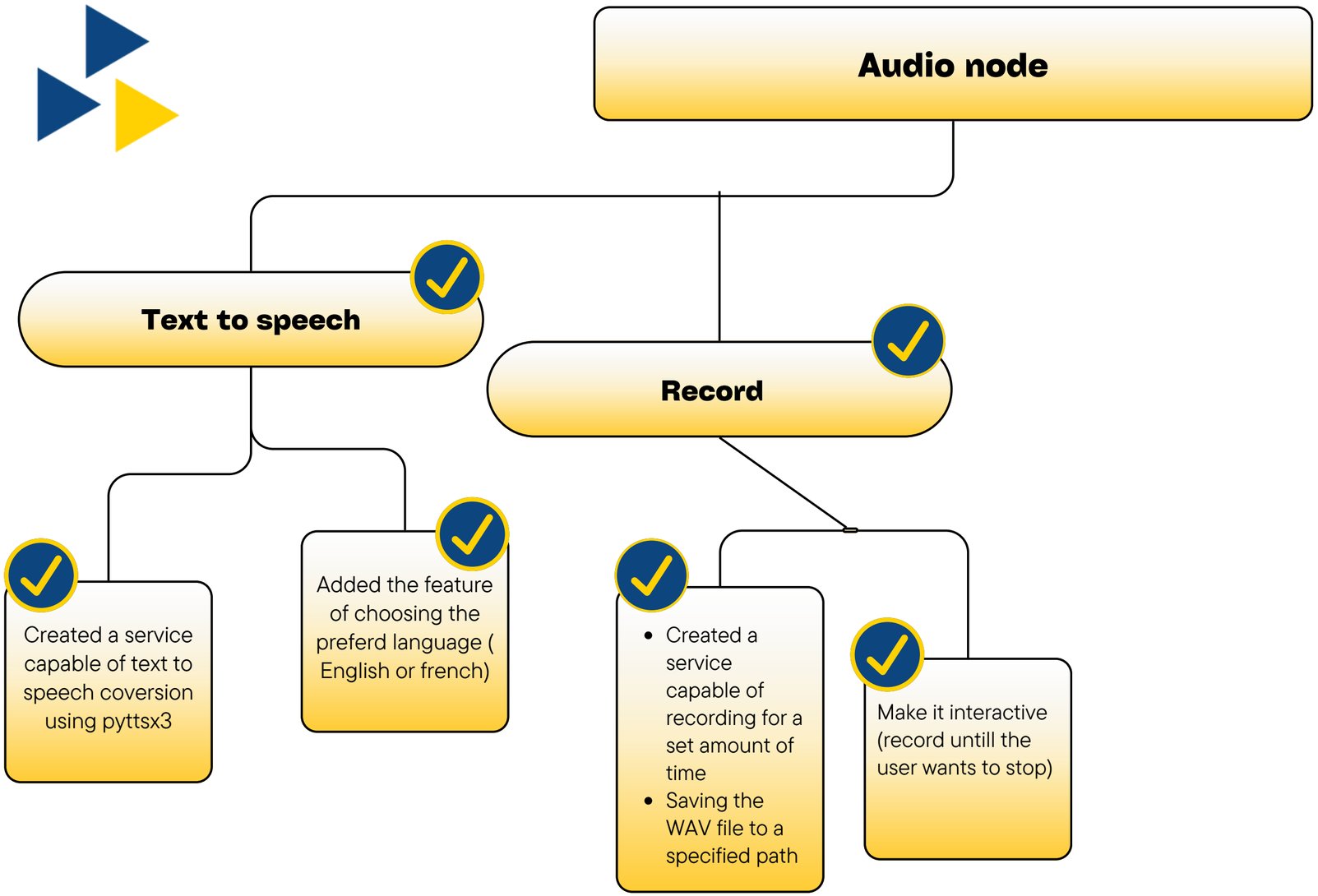
- French
- English

# Audio Node


Audio node
Text to speech
Created a service capable of text to speech coversion using pyttsx3
Added the feature of choosing the preferd language ( English or french)

# Record

# Audio Node


Audio node
Text to speech
Record
Created a service capable of text to speech coversion using pyttsx3
Added the feature of choosing the preferd language ( English or french)
Created a service capable of recording for a set amount of time
Saving the WAV file to a specified path
Make it interactive (record untill the user wants to stop)

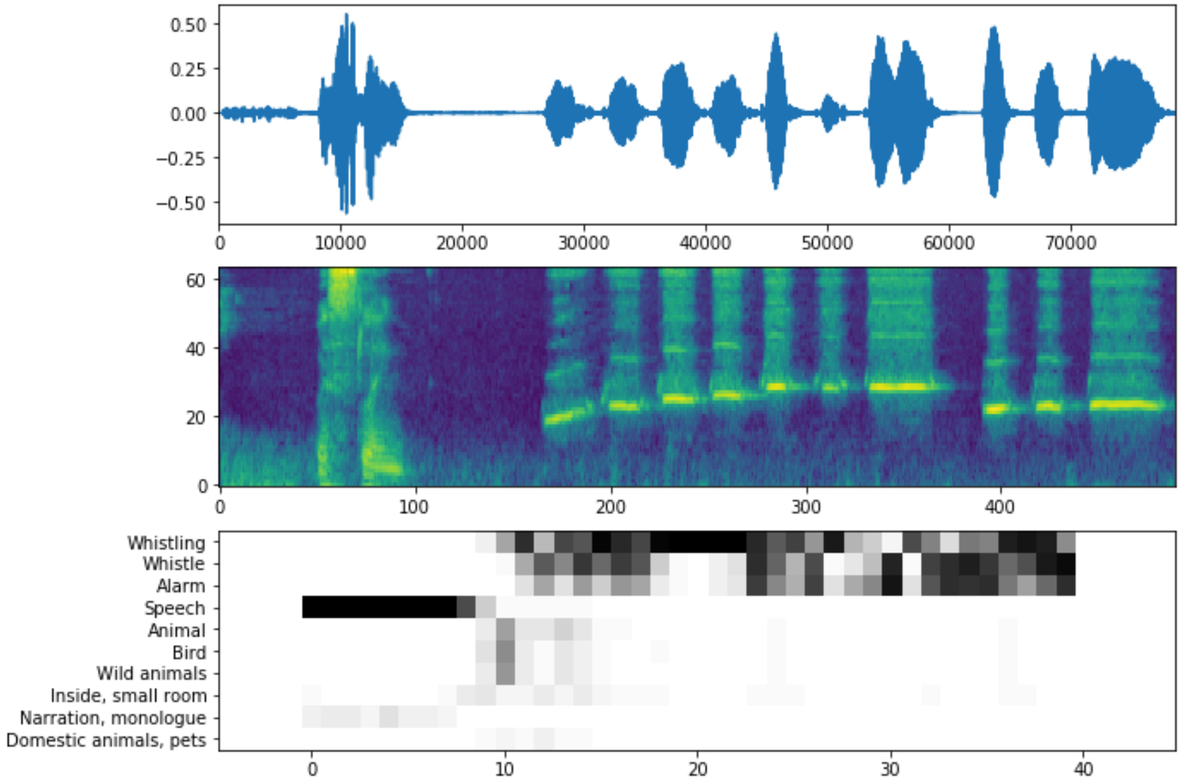
# Audio classification

## Data

# Audio classification

## Model

yamnet



# Detection

## Real time

## Saved audio file

# Audio Node

**Audio node**

**Text to speech**

- Created a service capable of text to speech coversion using pyttsx3
- Added the feature of choosing the preferd language ( English or french)

**Record**

- Created a service capable of recording for a set amount of time
- Saving the WAV file to a specified path
- Make it interactive (record untill the user wants to stop)

**Sound recognition**

- Collecting Data (google audioSet)
- Training the model (CNN)
- Creating ROS service that do detection on a recorded Audio file
- Creating a ROS service allowing Realtime detection (using pyaudio)

# Features to add

- Publish to a topic in case of beep
- provide log  file for real time detection