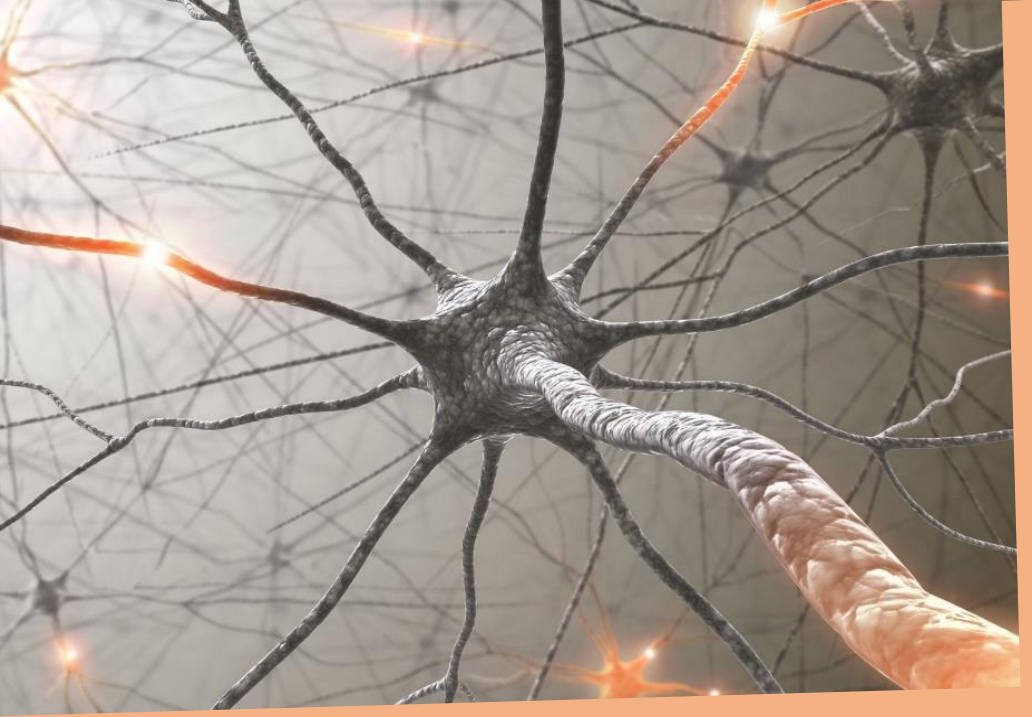

TECHNOBANK
Powered by ASIT

TIS
MEETING OF MINDS

AI-Driven Transformation

TIS.AI Redefines Banking Interactions for the new Digital Age

Josip Kustić
Business Development Manager at TIS Grupa

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The Hottest 3 Letters in Generative AI Right Now Are Not LLM

RAG stands for Retrieval Augmented Generation

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TIS

Here is why?

1. An AI model is only as good as what it’s taught
2. An off-the-shelf LLM is not always up to date, nor will it have trustworthy access to your data or understand your customer relationships

Do you agree?

TIS

Solution?

Use RAG

RAG is an AI technique that allows companies to embed their most current and relevant proprietary data directly into their LLM prompt

We mean retrieving **all available data**, including unstructured data and other types of information that could lead to a **better AI output**

And we're not just talking about structured data like a pdf document or a relational database

TIS

TIS NEXT GEN BOTs

An AI LLM solution that will utilize information from any documentation

(e.g. policies & procedures, prospects, catalogues etc…)

and answer specific questions related to it

ChatGPT

LLaMA

MISTRAL AI_

MPT-7B
A New Standard for Open-Source, Commercially Usable LLMs
Foundation Series

Dolly

TIS

TIS NEXT GEN BOTs

TIS AI LLM solution helps you retrieve and use your data from various internal sources for better generative AI results

Bottom line:

You can trust the responses to be relevant and more accurate

Because the source material comes from your own trusted data, it helps reduce or even eliminate hallucinations and other incorrect outputs

TIS LLM Chatbot general approach

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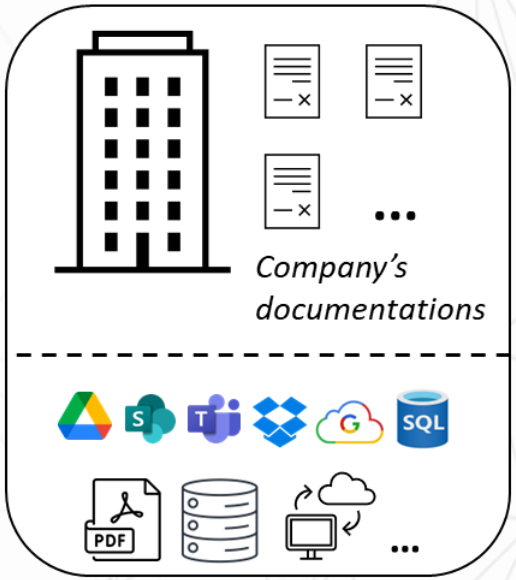
Employees

What is the max amount of loan I can get approved if I have an annual income of 100k euros?

QUESTION

1.



Company's documentations

2. *Source*

1.	*Summarization*
Employee's question:	2.
3.	*An Answer + Reference:*

VIRTUAL ASSISTANT CHATBOT
Powered by TIS.AI &
Open or Closed sourced LLM models

3.

ANSWER by Chatbot

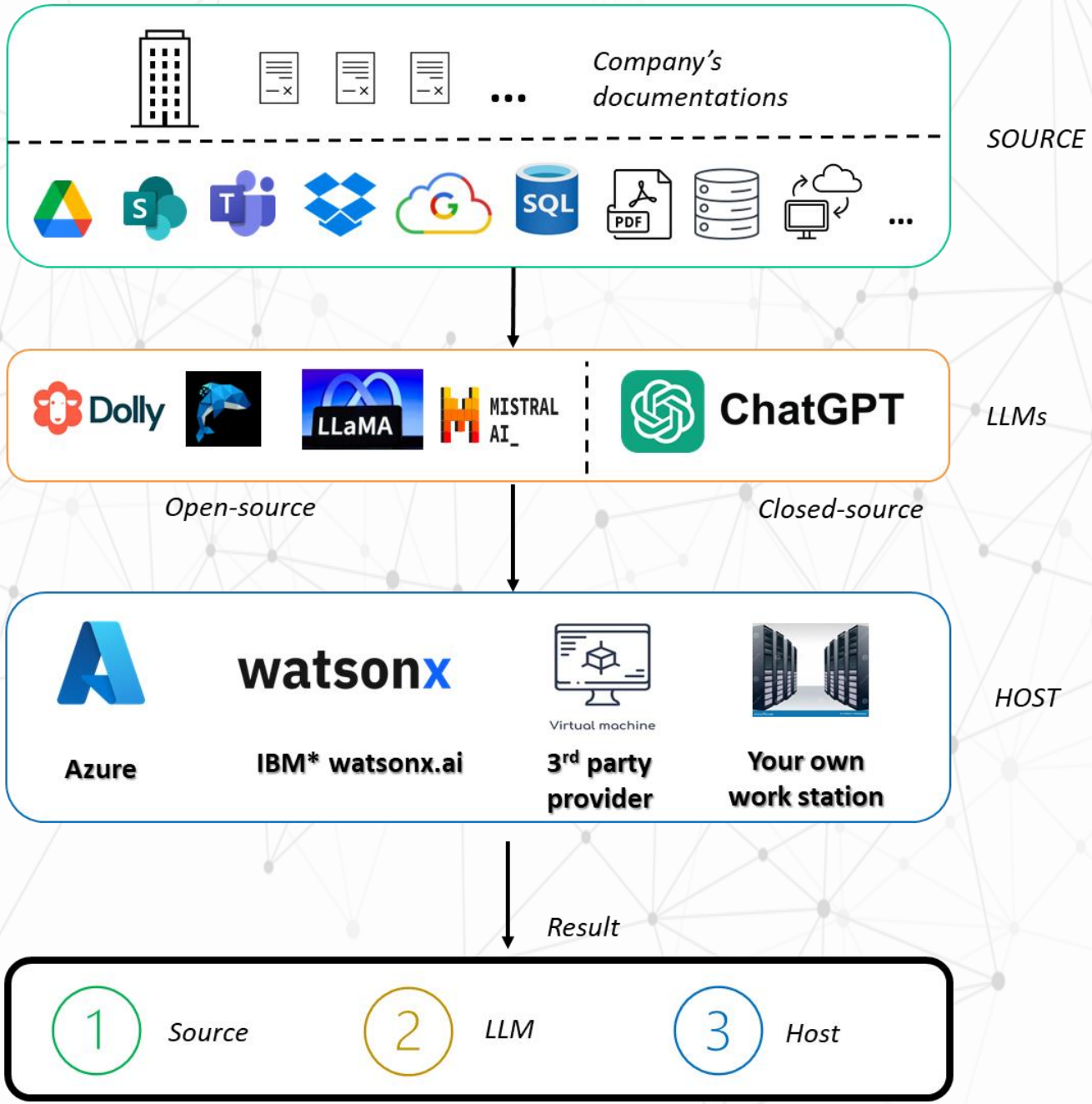
Employees

BUSINESS USE CASES

Customer complaints
HR documents policy search
Credit Loan Review/Approval
Catalog prospect search
Inquiry Q/A
Document content analysis
Content generation
Insight Extraction
....

www.tis.hr

TIS LLM solution possible architecture



Examples:

Option 1:

Cloud | Dolly Open-source | Cloud host

Option 2:

OneDrive | LLaMA Open-source | watsonx IBM Watsonx.ai

Option 3:

Sharepoint | ChatGPT Closed-source | Virtual machine Optional host

Option 4:

Local DB | LLaMA Open-source | Locally hosted

*Limited number of LLMs available

USE CASE: TIS HR Bot option 1

TIS EMPLOYEES

TIS GRUPA

Microsoft Sharepoint HR ChatBot

Select LLM

LOCAL LLAMA2

Selected LLM: LOCAL LLAMA2

Clear Conversation

According to Article 21 of the Pravilnik o r
up to six months from the beginning of th

According to article 37 of the given PDF fil
overtime work of an individual employee
hours per year.

An AI developer in TIS designs, develops, i
applications and software in the field of ar
responsible for developing the architectur
transformation, collaborating with other d
analysts to achieve business goals and ana
implementing optimized models, improvi
working closely with teams for developme
integrating models into software. Additiona
tasks as assigned by the Director of the compa

Documents

SharePoint

Name

Ad.1. Sistematizacija i opisi poslova 23.01.2023.pdf

Developer Levels_po tehnologijama.xlsx

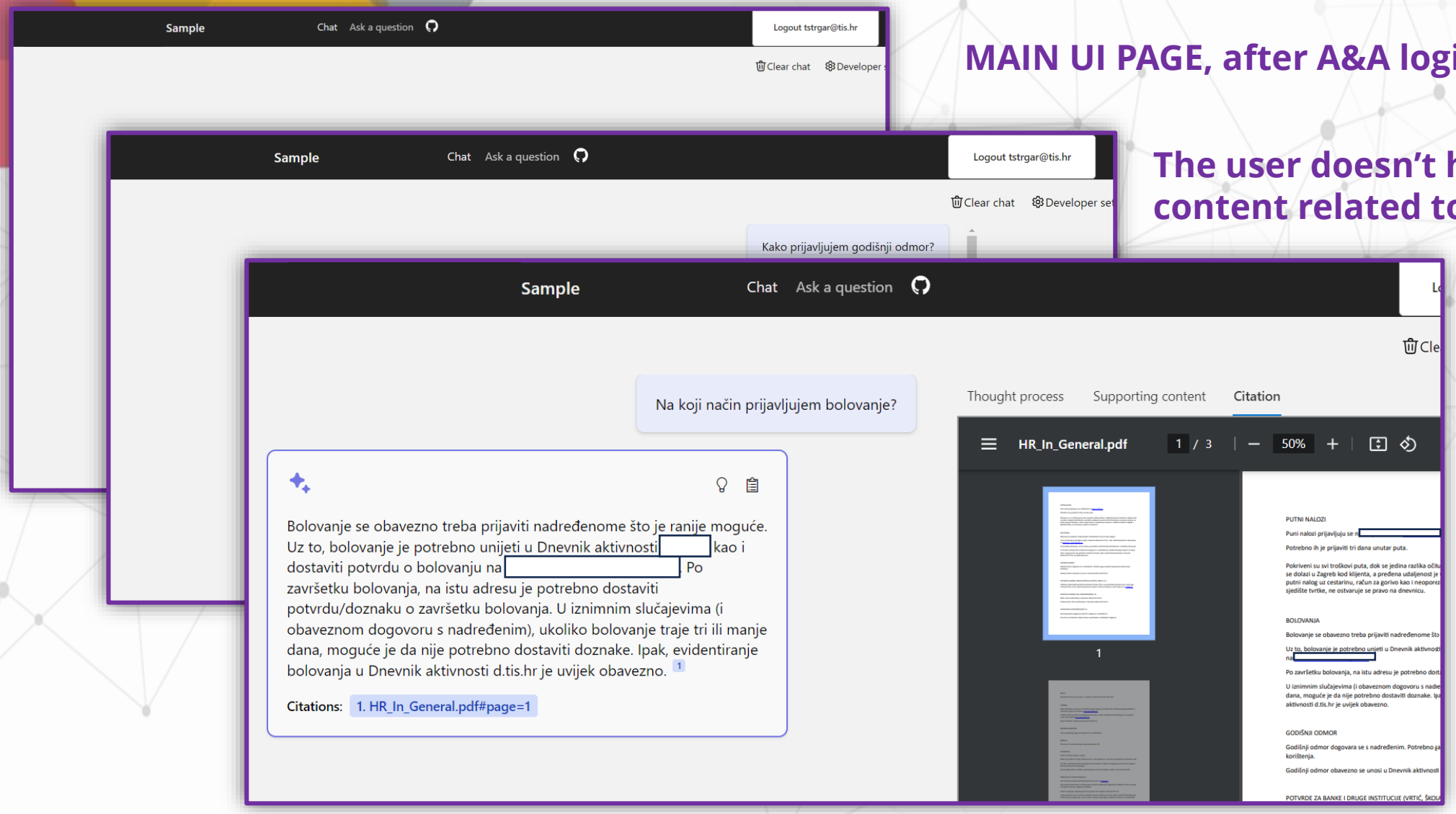
MULTISPORT_Uvjeti i suglasnost_12.01.2023.pdf

Pravilnik o radu_siječanj 2023.pdf

TIS Grupa - GOR Priručnik_v.1.2..pdf

TIS Grupa_Levels_v.1.2.pdf

USE CASE: TIS HR Bot option 2



MAIN UI PAGE, after A&A logina

The user doesn't have access to the content related to their question

Q&A + the preview to the content relayted to question

TIS

How does TIS.AI speak? since 2019 ...

OUR PROJECTS SPEAK FOR US!

HEALTHCARE

SENDD

AGRICULTURE

VINEYARD ANGEL

WORK

TIS NEXT GEN BOTs

TIS

POLIKLINIKA SABOL

SENDD

System for Early Neurological Deviation Detection

An artificial intelligence system to automatically assess the quality of general movements in infant

BASED ON **COMPUTER VISION** FOR RECOGNIZING CHILDREN'S POSES &
OUR TRAINED NEURAL NETWORKS MODELS FOR CONCLUDING THE QUALITY OF MOVEMENTS

1st TIS.AI R&D project in healthcare, started 2020

B2B commercial offering

Europska unija
Zajedno do fondova EU

Operativni program
KONKURENTNOST
I KOHEZIJA

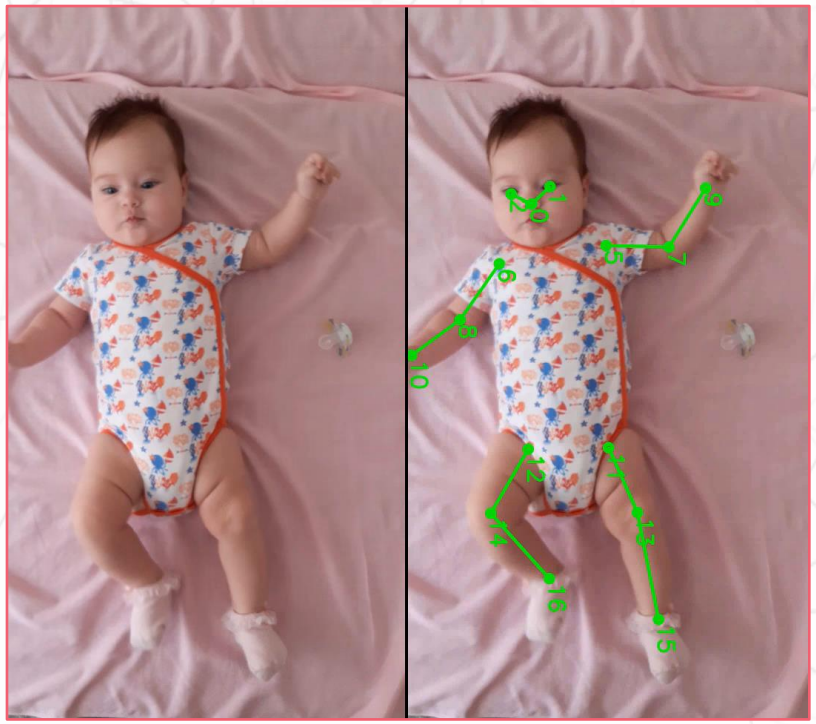
EUROPSKI STRUKTURNI
I INVESTICIJSKI FONDOVI

www.sendd.eu

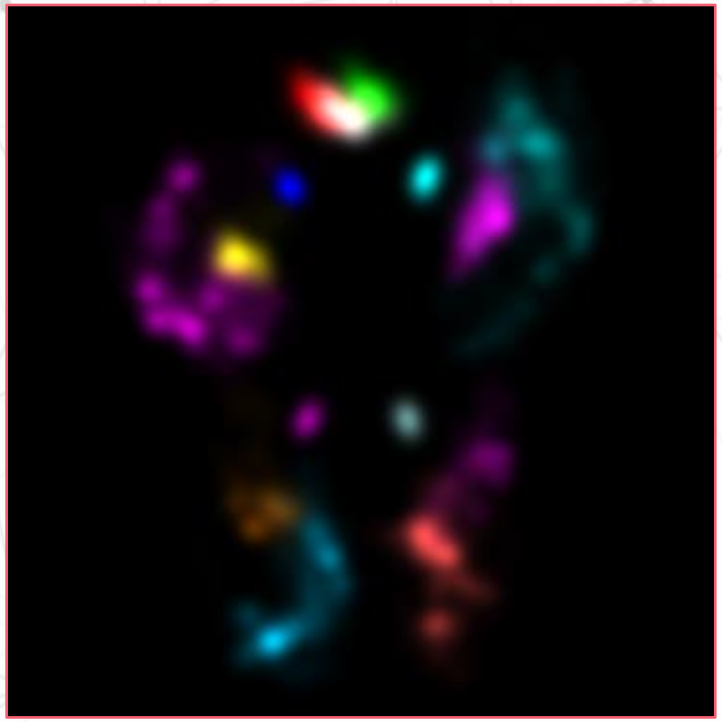
TIS POLIKLINIKA SABOL

SENDD.AI: VIDEO POSE ESTIMATION

INPUT: GM video
OUTPUT 1. annotation video and JSON file



OUTPUT 2. Composite map: displays movement of 15 key points throughout the video



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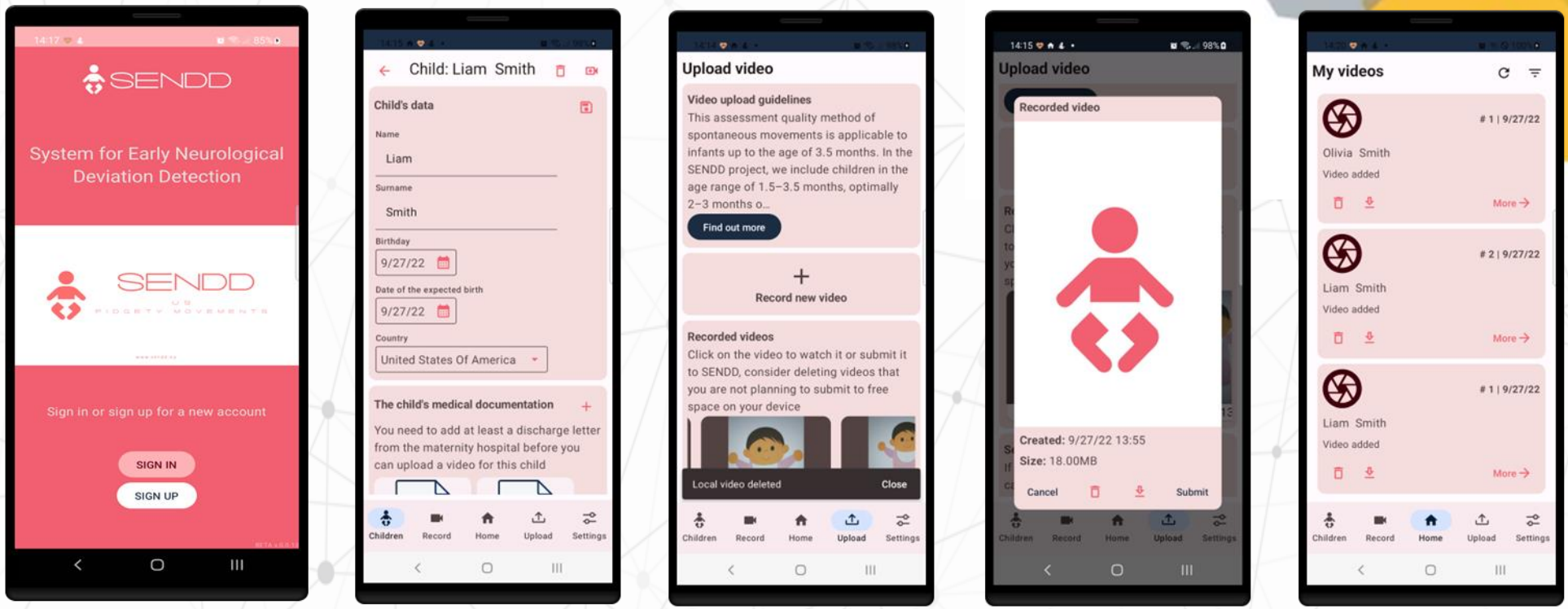
POLIKLINIKA SABOL



Mobile Apps
for PARENTs

www.sendd.eu

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AltiAgro

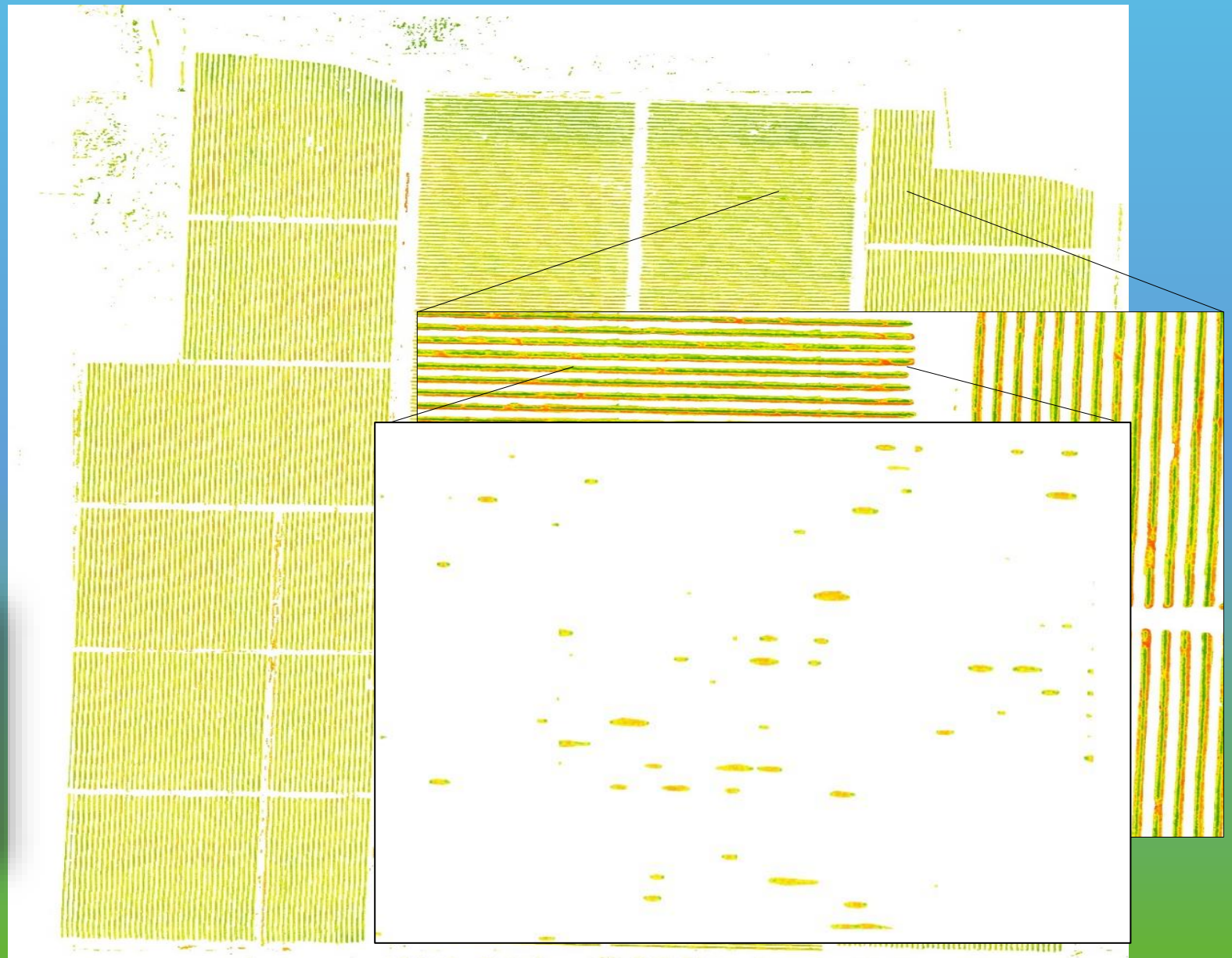
VINEYARD ANGEL

AI powered monitoring

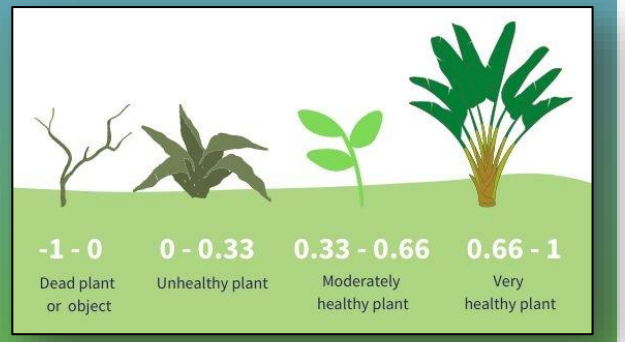
vineyardangel.com

DATA PROCESSING - RESULTS

NDVI INDEX VISUALIZATION IN 3 COLORS BASED ON CANOPY VIGOUR



	0 - 0.3
	0.3 - 0.7
	0.7 - 1.0



VINEYARD ANGEL AI powered monitoring

Izvješće o stanju vinograda - kvalitativno zoniranje

Templateović vina

19.08.2023.

3. IZVJEŠĆE

3.1 Kvadratna slika

Slika 3.2: opis slike

4. ZAKLJUČAK

Iz navedenih snimanja i analiza može se zaključiti kako je prisutna određena varijabilnost u bujnosti (vigoru) unutar analiziranih vinograda, a pripremljene karte zona mogu služiti za kvalitativno zoniranje i selektivnu berbu na razini pojedinog položaja, vinograda ili sorte, ali i za razmatranje ciljanog provođenja agrotehničkih mjera, prvenstveno u ujednačavanju karakteristika tla u vinogradu s ciljem smanjenja varijabilnosti i potencijalnog povećanja prinosa i kvalitete u idućim godinama.

U izvješću su navedene preporuke za selektivnu berbu temeljem spektralnih podataka i treba imati na umu da su podaci „grupirani" i da su moguća odstupanja na razini trs-red, odnosno da unutar zone manje bujnosti može biti i nekoliko trsova ili dijelova vinograda koji su više bujni, no u pravilu generalizirani podaci daju prilično točnu sliku stanja zona bujnosti, a time i zona kvalitete, koje su obrnuto proporcionalne (veća bujnost/„niža" kakvoća grožđa). Nadalje, kao što je i navedeno, termini „viša" i „niža" kakvoća odnose se na sadržaj šećera i kiselina te potencijalnu količinu prinosa (a sve vezano uz bujnostvigor). Ti termini ovise i o želji proizvođača za proizvodnju određenog tipa vina (mirno vino, pjenušavo vino, svježe vino, zrelije vino) te se u tom slučaju i termini kakvoće mogu promatrati obrnuto („niža" kakvoća može dati izvrsno grožđe za proizvodnju laganijih svježih vina ili pjenušavih vina). Dakle, termin kakvoće treba promatrati u kontekstu proizvodnje grožđa prema potrebama proizvođača za proizvodnju određenih kategorija vina.

Kako se na više lokacija nalaze vinogradi koji su zasađeni istim sortama, a spektralne podatke nije moguće „usporediti" međusobno, već ih je potrebno sagledati kao „trenutne" vrijednosti koje opisuju stanje vegetacije u određenom vinogradu tako su i izrađene kvalitativne zone (sukladno izmjerenim podacima),

Sve ove analize su potpora odlučivanju samog vinogradara, kako bi se, uz egzaktno izmjerene podatke, detektirale razlike u kvalitativnom potencijalu vinograda i omogućila selektivna berba prema cilju proizvodnje

VINEYARD ANGEL REPORT

vineyardangel.com

About TIS Group

TIS
MEETING OF MINDS

- **35 years , 3 companies,** Croatia, Slovenia, UK
- **120+** certified experts **:** IT development, integration, business analysis & project management, AI/ML
- Financial, telco, healthcare & public sectors, etc. - wordwide
- **A business build on partnerships**

ORACLE IBM Microsoft

Namirial Information Technology Red Hat AUTOMATION ANYWHERE Go be great. MIKROCOP

About TIS Group

We are proud to have worked with a number of long standing clients including:

- All Croatian banks
- All Slovenian banks
- 6/10 biggest banks in the UK
- Various banks across EU
- 3 large banks in Saudi Arabia
- Croatian central finance agency
- Slovenian central payment processing

About TIS Group

High standards of quality and innovation have broadened our level of services and markets

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Integration platforms
(B2B, Managed File Transfer, API)

Robotic Process Automation

Enterprise Content Management

Payment solutions
(SEPA, PSD2, Inst)

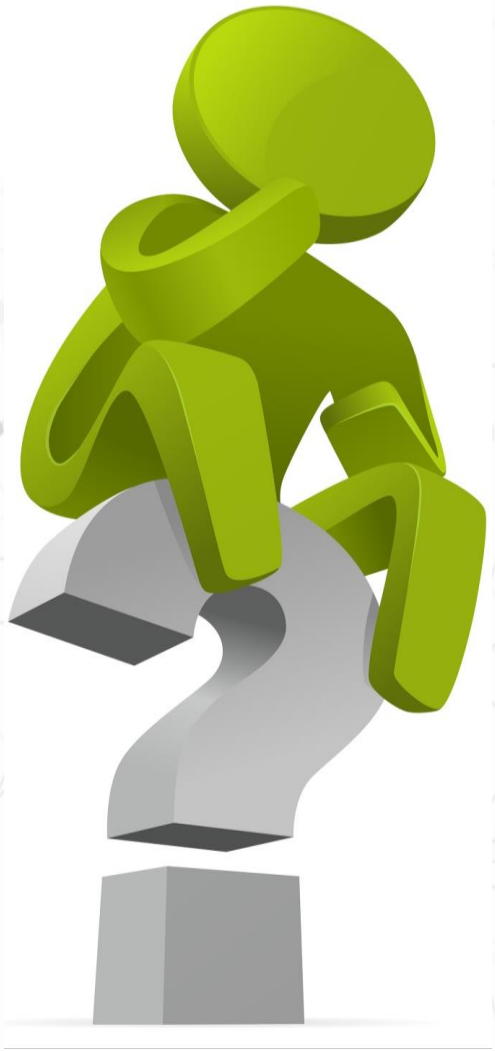
Custom Dev
(.NET, Java, PL/SQL, React, Angular, legacy, AI/ML)

Artificial Intelligence
(LLM, SENDD, VA, ML)

eIdentity Solutions
(LiveID, SelfID, eSignature)

Sustainability Solutions
(ESG – Envizi)

Legacy Core Banking modernization and migration



Thank you for your attention!

Josip Kustić

Business Development Manager

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