



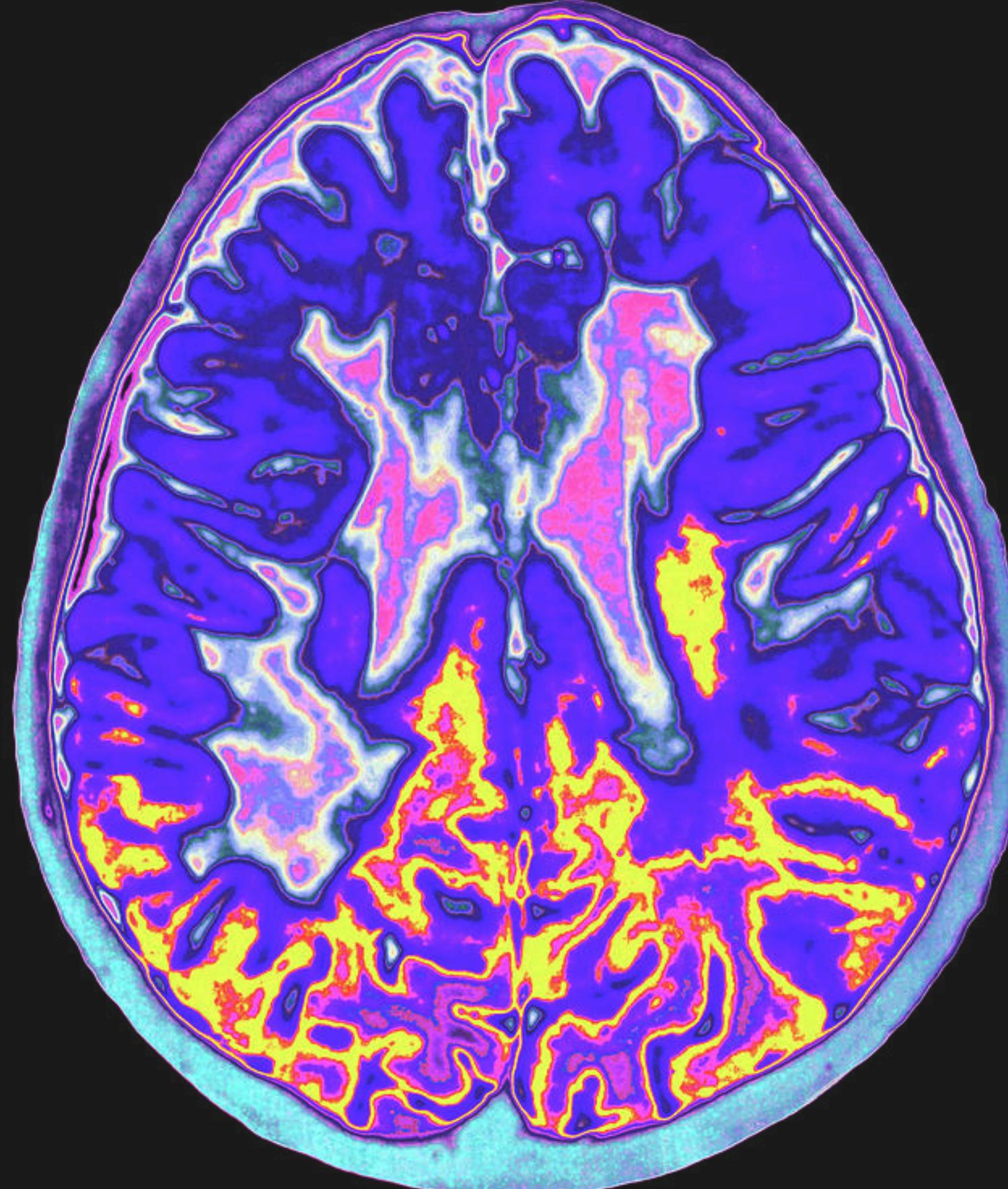
MR acle

WHAT IS MRACLE?

- MRacle is an AI-powered early diagnosis system designed to assist radiologists in the efficient and fast detection of brain tumors from MRI scans.
- MRacle's Goal:
 - Enable radiologists to examine emergency brain tumor cases earlier.
 - Helping early diagnosis, which is crucial for patient outcomes.
 - Provide quick tumor area examination through segmentation for more efficient analysis.

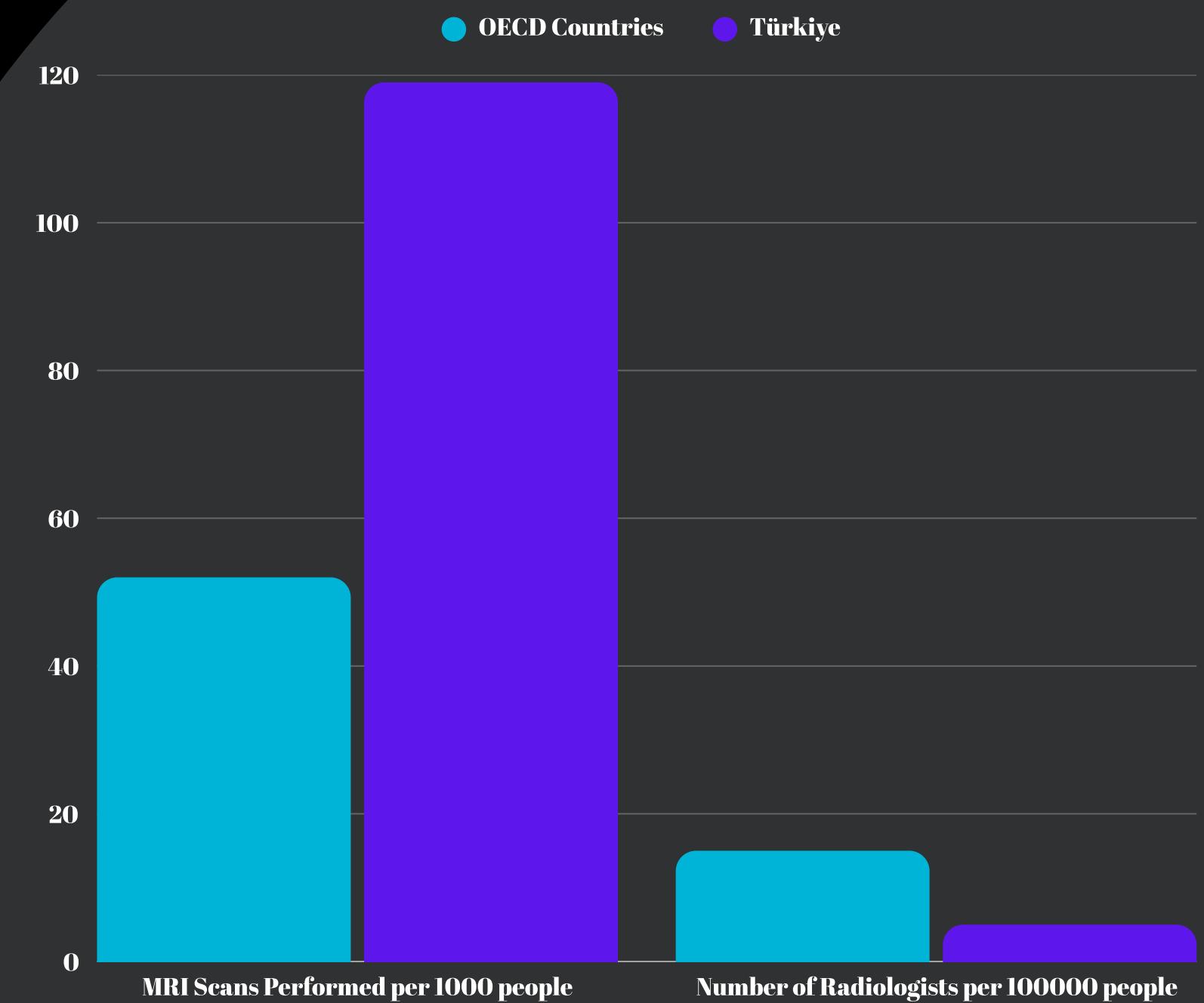
BACKGROUND INFORMATION

- Approximately 15.000 people are diagnosed with brain tumors in Türkiye each year.
- Only 20% of brain tumor patients survive beyond five years of their diagnosis, according to the charity of Brain Tumour Research.
- According to the European Cancer Database, 60% of early-diagnosed brain tumors can be completely removed, whereas this rate drops to only 25% in advanced stages.



CURRENT SITUATION IN TÜRKİYE

- In European countries, approximately 52 MRI scans are performed per 1000 people a year. This number is 119 MRI scans per 1000 people in Türkiye.
- However, while there are 15 radiologists per 100.000 people in European countries, there are 5 radiologists per 100.000 people in Türkiye.
- As a result, radiologists may have up to 300 examinations a day, spending 1-2 minutes to each.



WHAT IS OUR MIRACLE?

- Unique Position in Turkey:
 - MRacle is a unique solution for Türkiye, with no significant competitors in this field.
- Tumor Likelihood Scoring:
 - MRacle calculates a prioritization score to assess tumor likelihood to help radiologists prioritize high-severity cases.
- Real-time Radiologist Feedback:
 - Radiologists will be able to provide feedback on MRacle's segmentation and prioritization results, to improve model development.



PROJECT TIMELINE

SYSTEM ARCHITECTURE



FUTURE WORK

- Future Hospital Collaborations:
 - Our next step is to initiate agreements with hospitals to access anonymized imaging data and perform real-world clinical validation.
- Continuous System Updates:
 - MRacle will receive regular updates, including new features, bug fixes, and security patches to maintain compatibility with hospital IT systems.
- Localized AI Model Training:
 - We aim to build a Türkiye-specific brain MRI dataset, applying advanced techniques to ensure data privacy.

THANK YOU
FOR LISTENING

