

CalculOrtHer™

Radiographic Evaluation



Presented by:

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Problem Statement”



Orthopedic diagnosis and treatment planning heavily rely on accurate measurements from X-ray images.

These measurements are still mostly performed manually, making them time-consuming and operator-dependent.

There is a clear unmet need for a standardized, fast, and objective digital solution that supports orthopedic decision-making.

Solution

CalculOrther™

is an AI-assisted Software as a Medical Device (SaMD) designed to support orthopedic clinicians with objective and standardized X-ray measurements.



Interpretation of standard radiographs in Orthopedics



Rapid and highly accurate



Four different solutions: PelSiAn, FAI, Pes Planus, and Shoulder

PelSiAn

Pelvic X-ray Appropriateness



ACTA ORTHOPAEDICA et TRAUMATOLOGICA TURCICA

www.sott.org.tr

Research Article

A quantitative analysis of symmetry on standard anteroposterior pelvic X-ray

Abdurrahman Yilmaz¹, Turab Selcuk², Taha Aksoy¹, Bülent Atilla¹

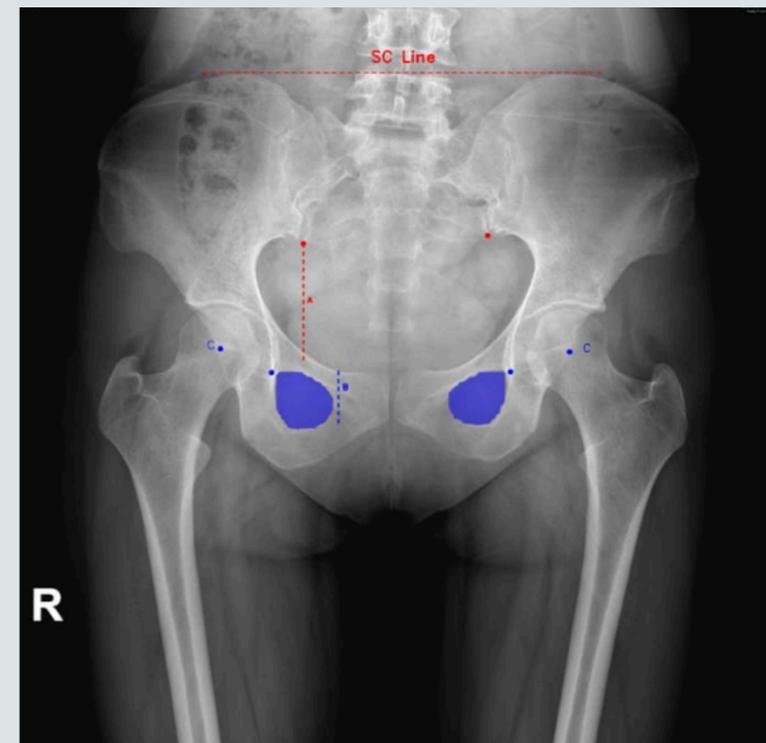


ATN Softtech

Appropriate pelvic X-rays are essential for accurate measurements; improper positioning or asymmetric projections can result in significant diagnostic and treatment planning errors.



PelSiAn enables objective evaluation of the appropriateness of the standard pelvic X-ray by quantifying the pelvic rotation and pelvic tilt.



The Analysis for Appropriateness

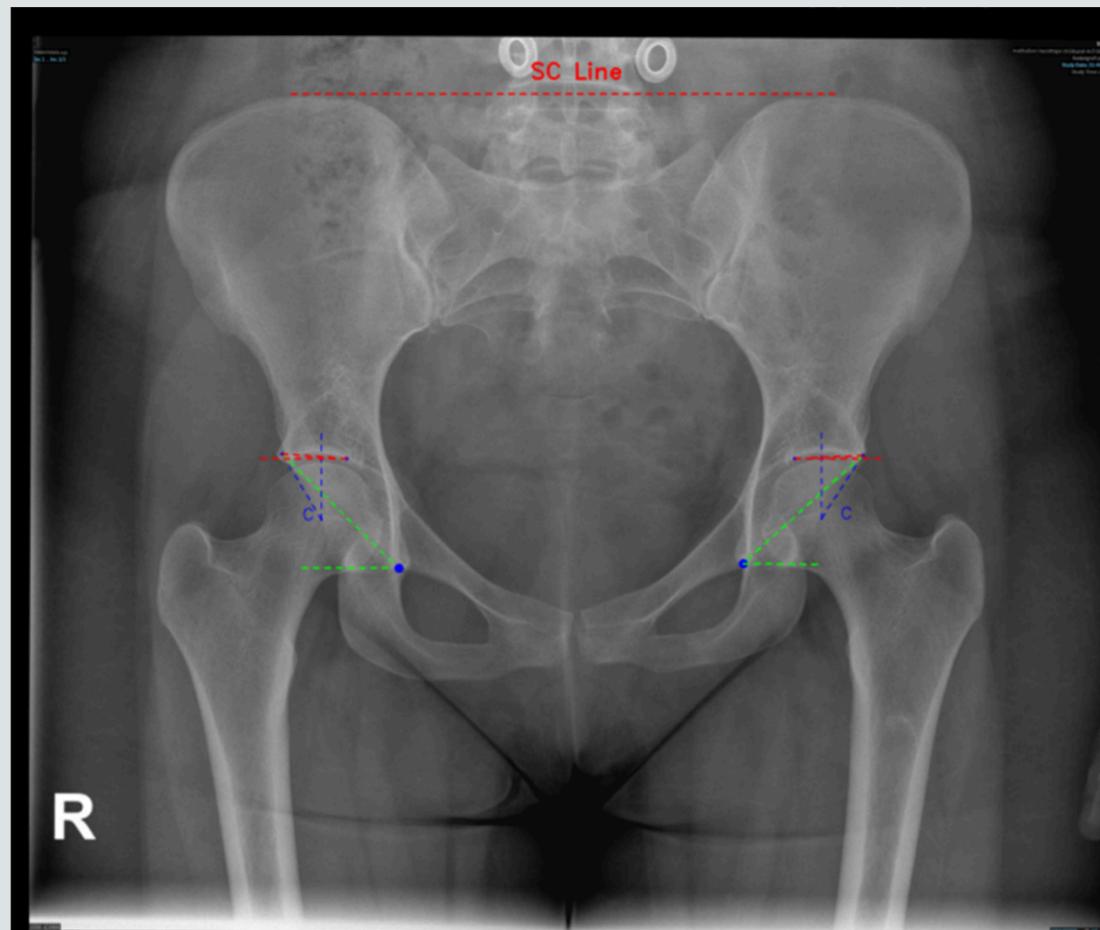
- 1) The Symmetry Value: **0.94**
- 2) Pelvic Tilt Degree : **0°**

Femoroacetabular Impingement

FAI is a major cause of hip pain and early osteoarthritis, yet it is frequently underdiagnosed due to subtle radiographic findings and subjective interpretation.



CalculOrther automatically performs precise radiographic measurements, including LCEA, Tönnis angle, Sharp's angle, FHE and FHC



Measurements / Right Hip

- 1) LCEA: **30.91°**
- 2) Tönnis Angle: **4.06°**
- 3) Sharp Angle: **44.43°**
- 4) FHE: **%13**
- 5) FHC: **%87**

Measurements / Left Hip

- 1) LCEA: **33.21°**
- 2) Tönnis Angle: **2.57°**
- 3) Sharp Angle: **42.03°**
- 4) FHE: **%15**
- 5) FHC: **%85**

Pes Planus

Article

A Novel Model Based on CNN–ViT Fusion and Ensemble Learning for the Automatic Detection of Pes Planus

Kamil Doğan¹, Turab Selçuk^{2,*} and Abdurrahman Yılmaz³

Accurate assessment of Pes Planus is essential, as altered foot biomechanics can lead to abnormal load distribution, contributing to pain, gait dysfunction, and progressive musculoskeletal disorders in the lower limb.



The Pes Planus module in CalculOrther facilitates timely diagnosis, enhancing treatment management and patient quality of life.



Shoulder

Article

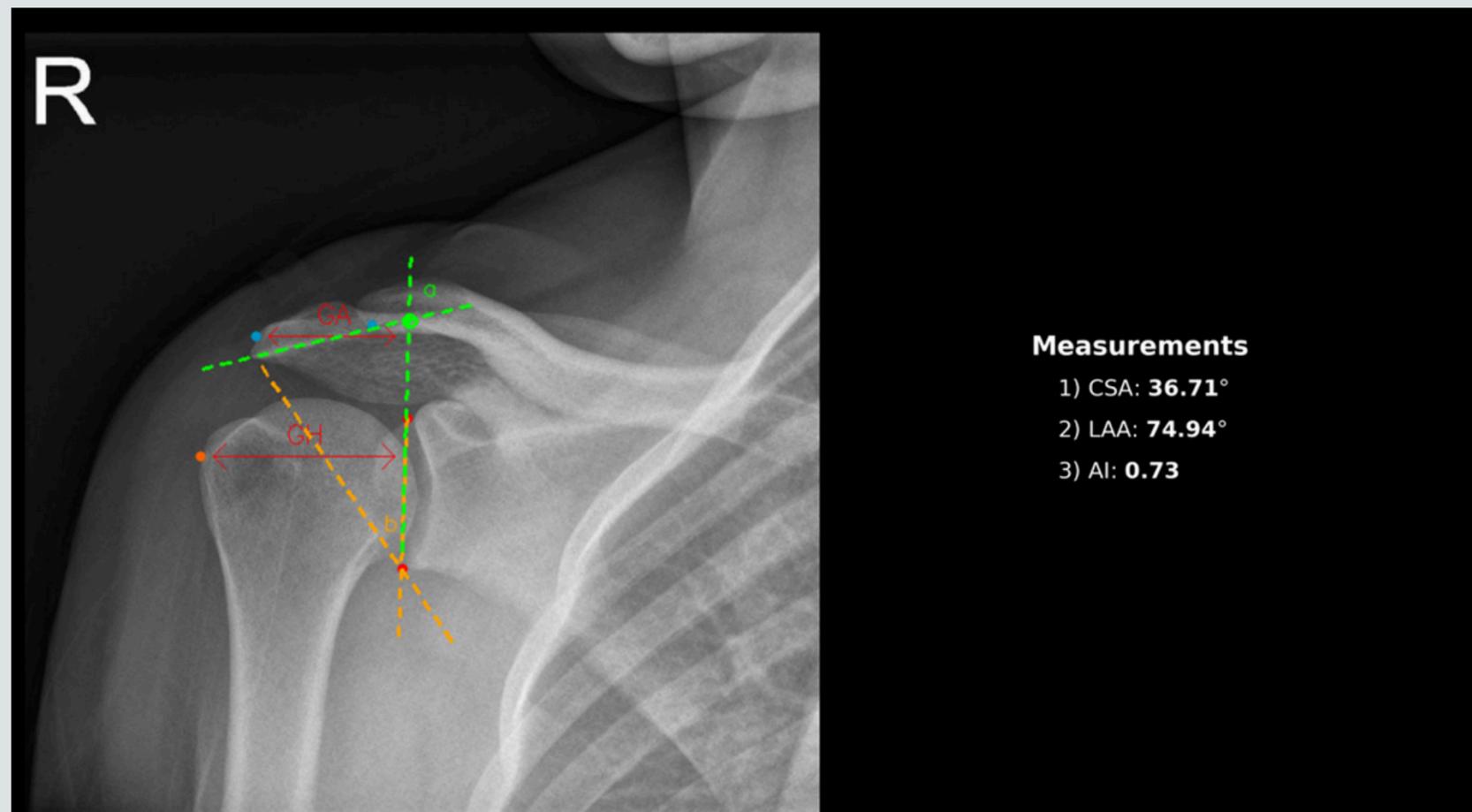
The Development of a Yolov8-Based Model for the Measurement of Critical Shoulder Angle (CSA), Lateral Acromion Angle (LAA), and Acromion Index (AI) from Shoulder X-ray Images

Turab Selçuk

Accurate radiographic measurements are essential for the diagnosis and treatment planning of shoulder impingement, a common cause of shoulder pain.



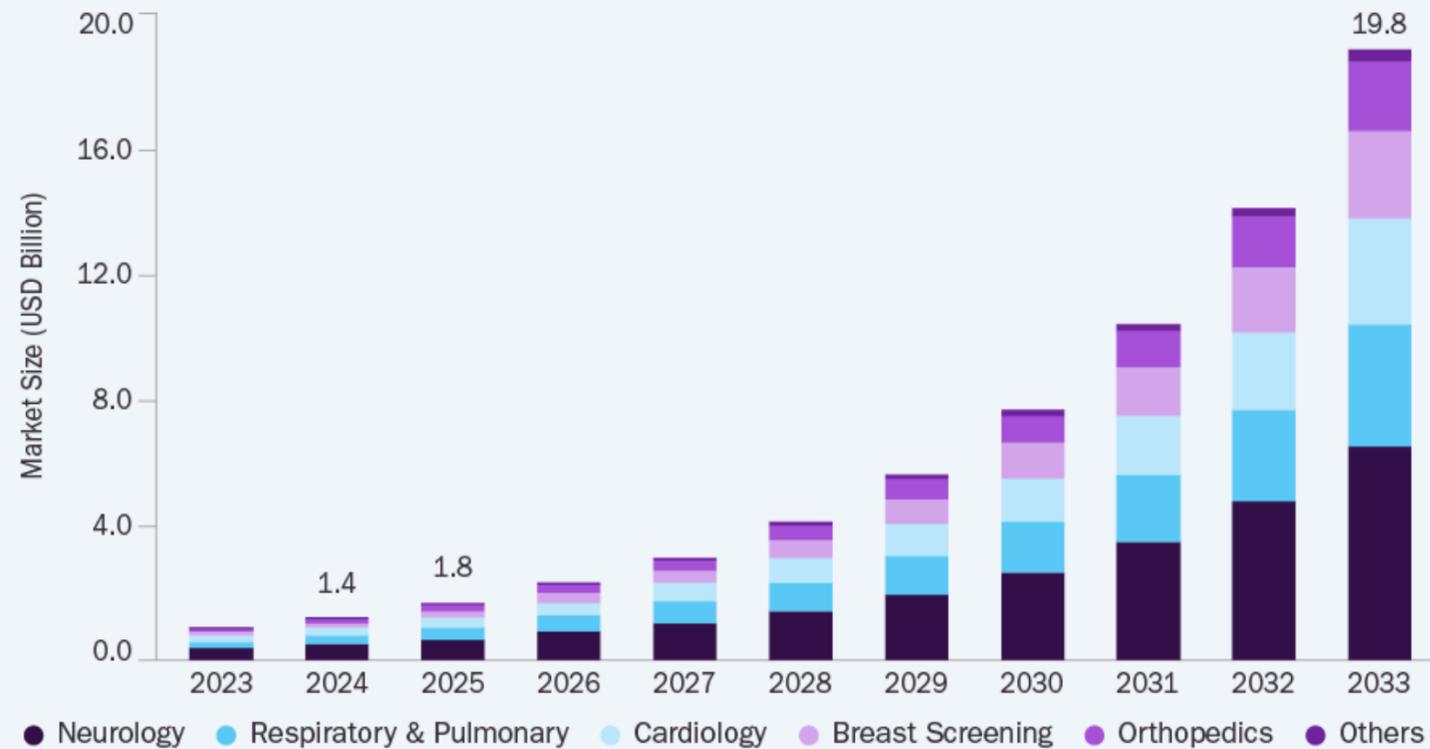
The Shoulder module automatically and precisely performs CSA, LAA, and AI measurements, enabling faster diagnosis and supporting improved treatment planning and patient care.



Market Opportunity

AI In Medical Imaging Market

Size, by Application, 2023 - 2033 (USD Billion)



Source: AI In Medical Imaging Market (2025 - 2033)

Grand View Research Market Analysis Report

The global medical image analysis market is projected to grow to ~\$5.48B by 2030, driven by increasing imaging volumes and digital transformation in healthcare.

Orthopedic X-ray analysis represents a high-value subsegment where demand for automation, objectivity, and standardization remains largely unmet.

CalculOrther addresses this gap by delivering AI-based, quantitative X-ray analysis tailored for routine orthopedic clinical workflows, unlocking strong commercialization potential across hospitals and clinics.

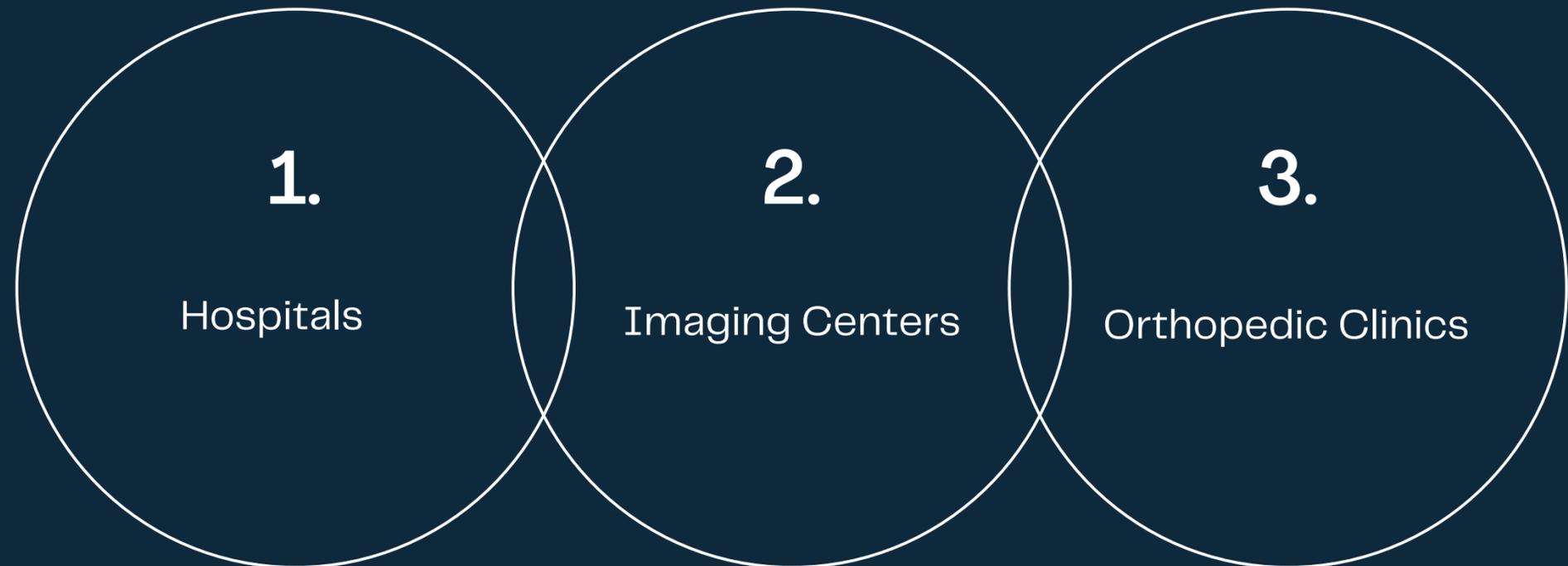
Business Model

We operate on an annual institutional licensing model with pricing starting at

————— \$ **7500** /year

(per institution, single site, unlimited users, core modules)

Our primary revenue streams include:



Competitive Landscape

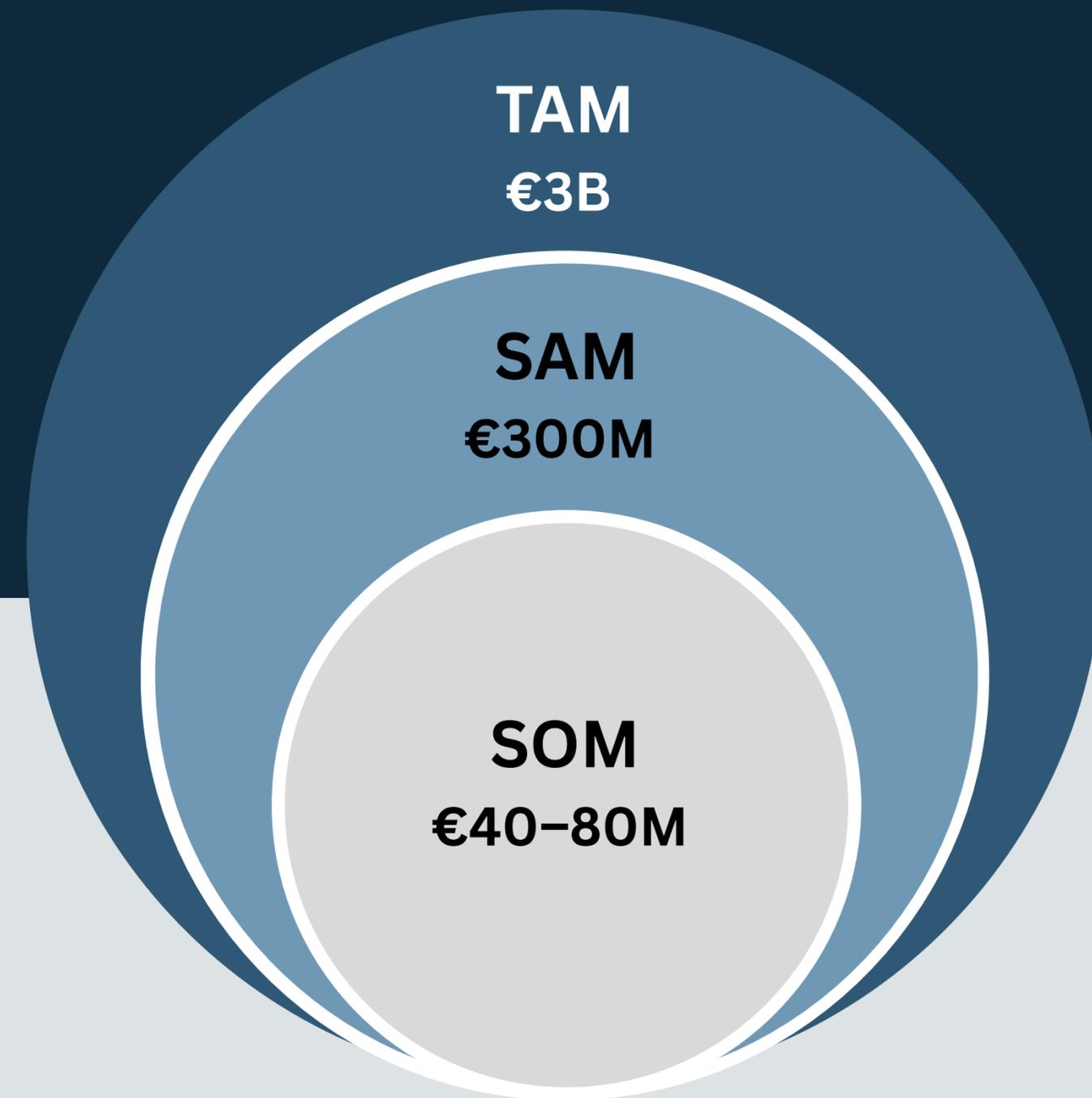
CalculOrther is the only solution offering automated pelvic X-ray appropriateness and pelvic tilt analysis (PelSiAn) before orthopedic measurements.

Our competitors include:

- **RAYLYTIC Software GmbH**
- **Sectra**
- **Image Biopsy Lab**

Go-to-Market Strategy

CalculOrther's go-to-market strategy is based on licensing to hospitals and clinics, supported by clinical pilot programs, strategic partnerships with imaging centers, and seamless integration with existing PACS/RIS workflows.



We plan to acquire customers through:

Early clinical traction

Reference sites

Scalable partner-driven expansion

Based on Grand View Research (Medical Image Analysis Software Market, AI in Medical Imaging Market) and MarketsandMarkets reports

Traction

Early adopter clinics:

- Hacettepe University Hospital Department of Orthopedics and Traumatology
Türkiye
- Niğde Ömer Halisdemir University Hospital Department of Orthopedics and Traumatology
Türkiye

20 annual licencing

in its first year of commercialization

\$150,000

in revenue

95%

customer satisfaction rate based on feedback.

Funding Ask

We are seeking €250,000 to commercialize our product. Funds will be allocated to

€110,000

Regulatory compliance

MDR Class IIa readiness

Risk management (ISO 14971)

Usability engineering (IEC 62366)

QMS alignment (ISO 13485)

€80,000

Clinical validation

€60,000

Market entry activities

Team Overview



Business Development Manager
Burçin Köse Gedik, PhD
Chemical Engineer



Medical Director
Dr. Abdurrahman Yılmaz
Research Assistant, Department of
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CEO
Necip Yılmaz



CSO
Assoc. Prof. Dr. Turab Selçuk
Faculty Member,
Department of Electrical
and Electronics Engineering
Kahramanmaraş Sütçü
İmam University



Quality System Manager
Oya Aydın
Industrial Engineer

Thank you
for considering
ATN Softtech.

We're excited about the opportunity to partner
with you in creating a sustainable future!