



# AI-powered solution for image analysis and decision support in coronary artery disease

- ▶ Detection
- ▶ Prediction
- ▶ Treatment

Autosymed SRL

Kamil Sterna - CEO

[autosymed.com](https://autosymed.com) | [cadflow.eu](https://cadflow.eu)



# AUTOSYMED - introduction



Founded

01.2021



R&D 12.2021



EEA Norway

Grant



220 kEUR

06.2022



EEA Norway

Grant

224 kEUR

01.2023



InnovX

Bootcamp

4th place -

11.2023

## IT & AI Experts



## Medical Experts



## Medical Partnerships



## Tech & Advisory

Microsoft for Startups

Founders Hub

NETOPIA  
PAYMENTS



## IP & Patenting



# Cardiovascular Diseases Globally per annum

2024

580 M cases  
35 M terminal cases  
13 M Coronarographies



15%

2035

1600 M disease cases  
80 M terminal cases  
36 M Coronarographies



35%

2050

2400 M disease cases  
110 M terminal cases  
55M Coronarographies



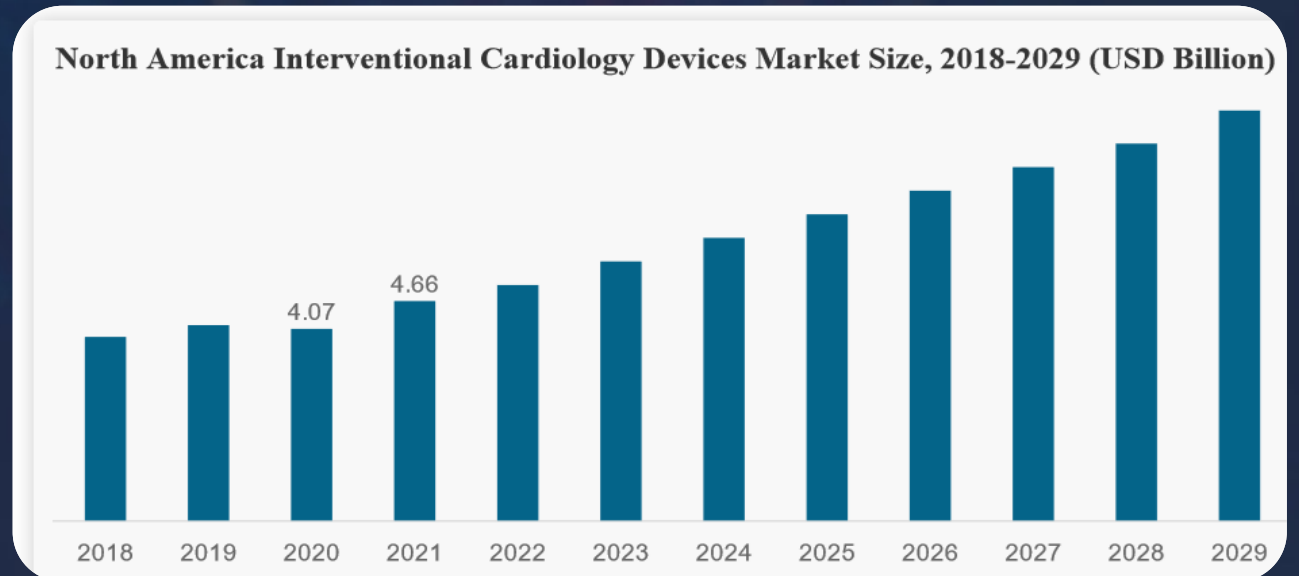
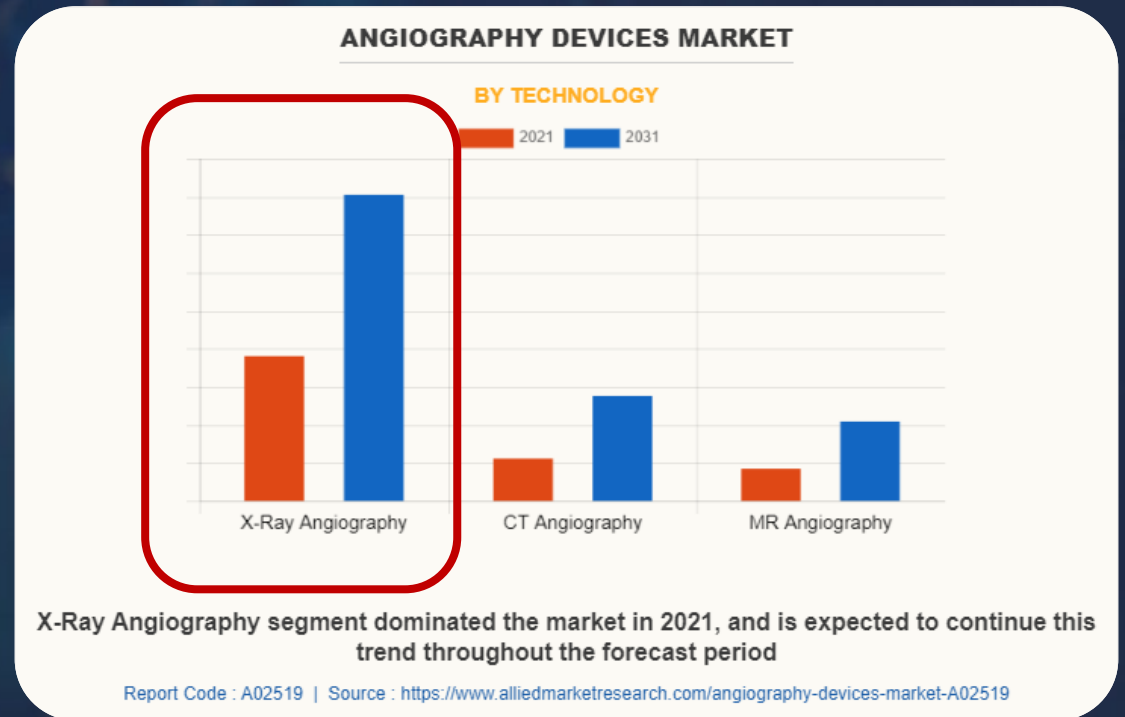
50%



# Market Potential

- Average CAGR of 6.3% until 2031
- Average global growth in 2030 is 22 Billion USD
- 130 million patients are expected to have CVD by 2035 in US alone
- Europe dominated the angiography devices market in 2022

- <https://www.alliedmarketresearch.com/Angiography-devices-market>
- <https://www.transparencymarketresearch.com/angiography-devices-market.html>
- <https://www.fortunebusinessinsights.com/interventional-cardiology-devices-market-107414>
- <https://www.grandviewresearch.com/industry-analysis/angiography-device-market>
- <https://www.alliedmarketresearch.com/Angiography-devices-market>
- <https://www.marketdataforecast.com/market-reports/angiography-devices-market>



# CadFlow® Solution

Minimizes diagnosis  
Generates SyntaxScore - CAD predictor  
Provides treatment proposal



2D X-ray  
Coronarography

Automatic  
Semantic  
Segmentation



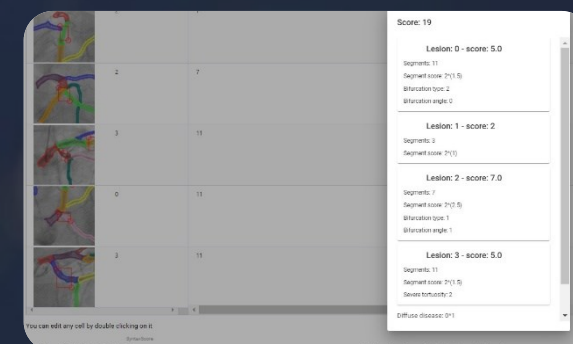
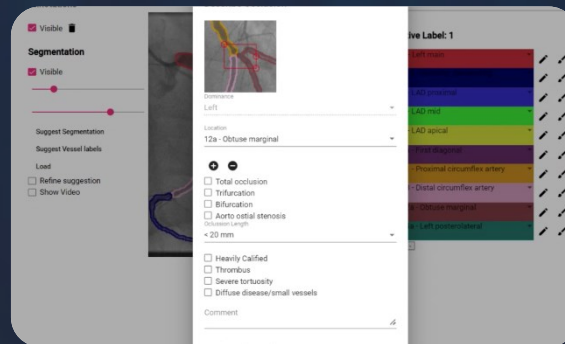
Automatic  
Lesion Identification  
and Characterization

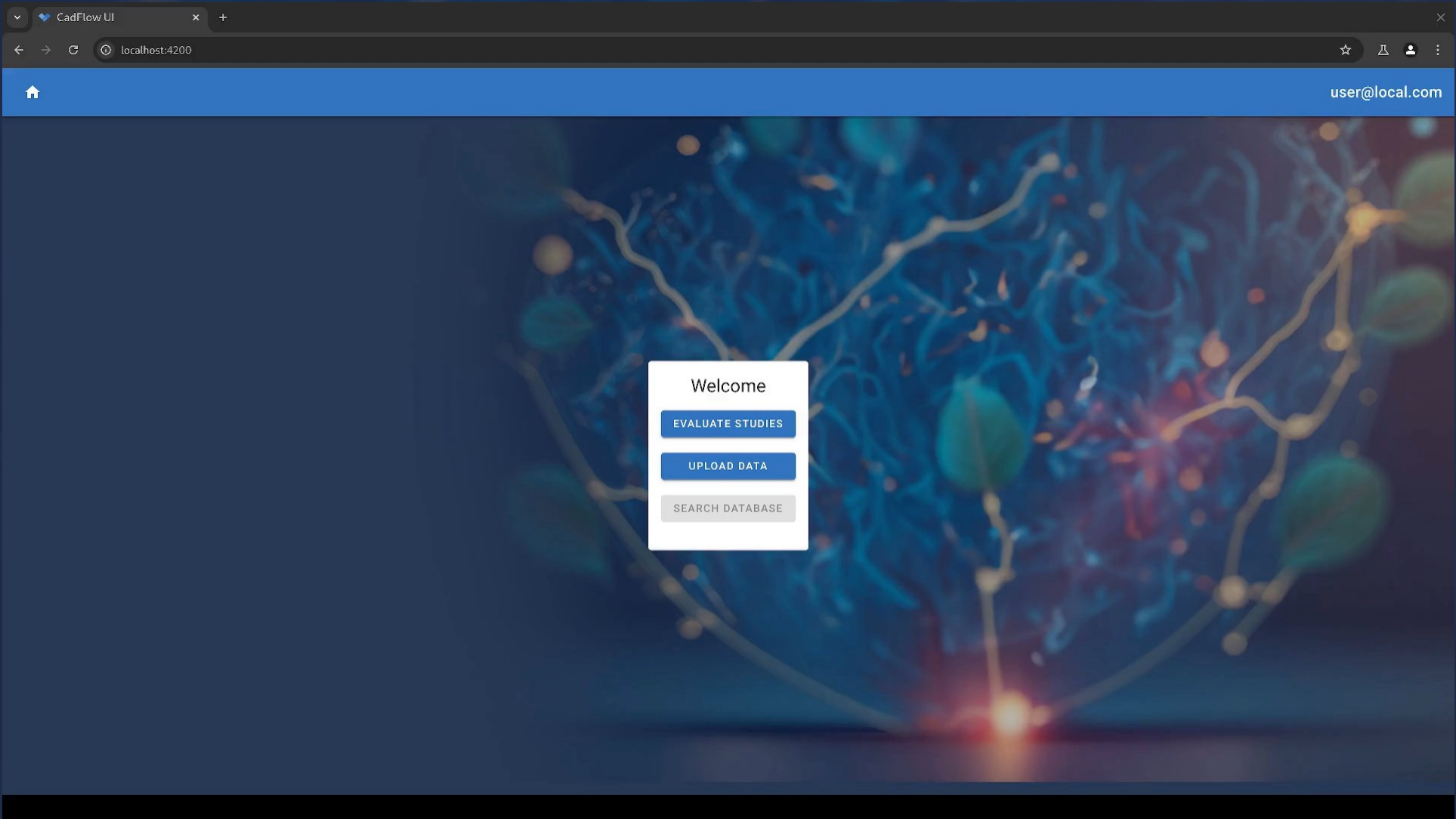


Automatic  
3D Reconstruction



Automatic  
Syntax Score  
Calculation





# Benefits for Customers - Coronarography



## Shortened Procedure Time

### BENEFITS

- Procedure automatization for Cardiologist
- Saving radiologists time by up to 80%
- More patients and procedures with the same resources
- 24h availability



## Syntax Score

Recommended by European Society of Cardiology but not practiced



### BENEFITS

- Treatment suggestion support for Cardiologist
- Insurance / Health Fund - Refund
- Decision evidence
- Patient Risk calculation



## Cost Saving



### BENEFITS

- Cost of procedure reduced by up to 60%

### EARLY ADOPTERS



- Test at a reduced initial investment
- Pay for usage
- Shape the product according to their feedback



# Competitors

## 3mensio

Coronary

Prepare your coronary procedures with the Coronary workflow

### Coronary Analysis

- Segmentation of the coronary artery tree
- Stenosis measurement
- Simulated Angio View of the coronary artery tree
- Calcium scoring
- Questionable accuracy - no validation results

### Limitations

- Semi-automatic segmentation
- Requires user input during the process
- Lack of integration with imaging platform
- Questionable accuracy - no validation results



### Coronary Analysis

- The analysis of coronary and peripheral vessels (QCA and QVA) in angiograms
- The analysis of left and right ventriculograms (QLV and QRV)
- Innovative QFR analysis, a measure of the functional significance of lesions, without the need for adenosine and/or a pressure wire

### Limitations

- Only major arteries are analysed
- Lack of integration with imaging platform
- Questionable accuracy - no validation results



### Coronary Analysis

- Femoral and radial access
- Agile understanding to enhance 3D understanding
- Expert guidance to save valuable proctor time

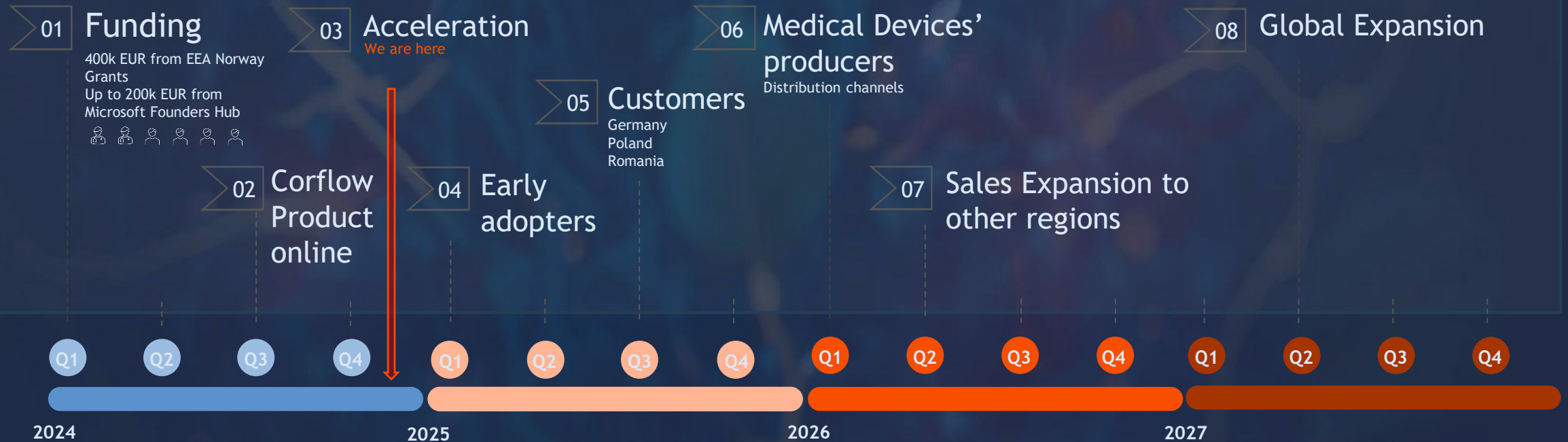
### Limitations

- Training tool for inexperienced doctors
- Only a few data available
- 13 interactive cases

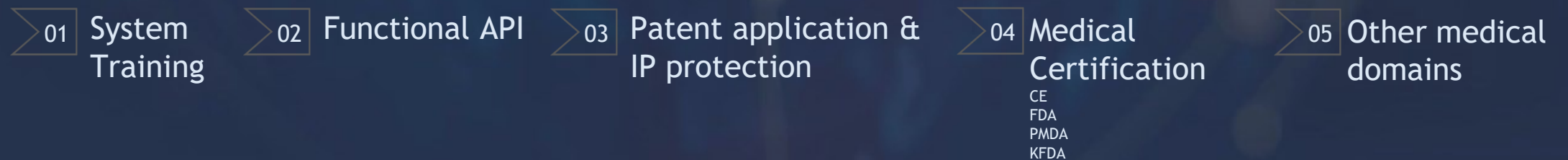


# Roadmap

## Sales and Marketing



## Development





**Thank You!**

- ▶ MedSun.pl
- ▶ Cadflow.eu
- ▶ Autosymed.com

office@autosymed.com



Innovation  
Norway



▶ [youtube.com/  
@AutosymedSRLAutosymed.com](https://youtube.com/@AutosymedSRLAutosymed.com)



▶ [linkedin.com/company/  
autosymed](https://linkedin.com/company/autosymed)

