

A Deeptech Startup in Biotech and Healthcare



## **“A Metabolic 3D Healthcare System for Diabetes”**

- ***Artificial Pancreas(Closed-Loop);***
  - *Continuous Glucose Monitoring(CGM),*
  - *Automatic Insulin Pump, and*
  - *NoType.AI Insulin Auto-delivery System*
- ***Connected Healthcare Mobile Application***

# Problems of Diabetics

- **Pain & Uncomfort;** finger pricks and insulin injections
- **Self-care;** Children need assistance
- **Accessibility**
- **Affordability**
- **Nutrition and Diet**
- **Physical Body health**

# Statistics

**537**  
million

adults are living  
with diabetes

**6.7**  
million

deaths in 2021  
due to diabetes

**966**  
billion (USD)

health expenditure  
caused by  
diabetes

# Solution – A Metabolic 3D Healthcare (Monitoring & Management)

A more effective and affordable solution **Diabetes Type 1 and 2.**

A Sweet Spot in **Turkic States, MENA and North America.**

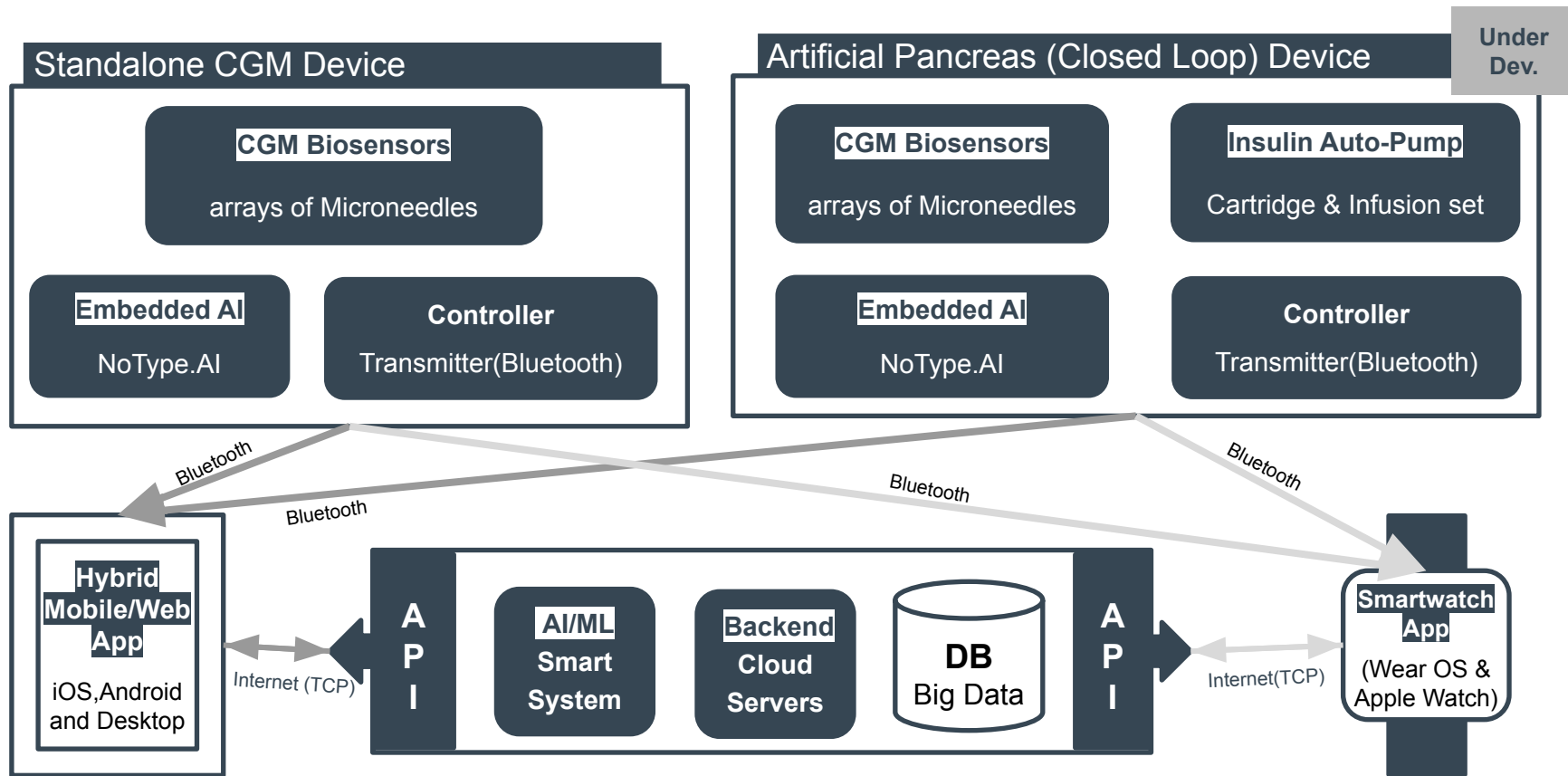
## Smart Continuous 3D Monitoring:

1. **Glucose** level & health vitals
2. **Nutrition**; food & carbs
3. **Physical** health & fitness

## Smart (3D) Management:

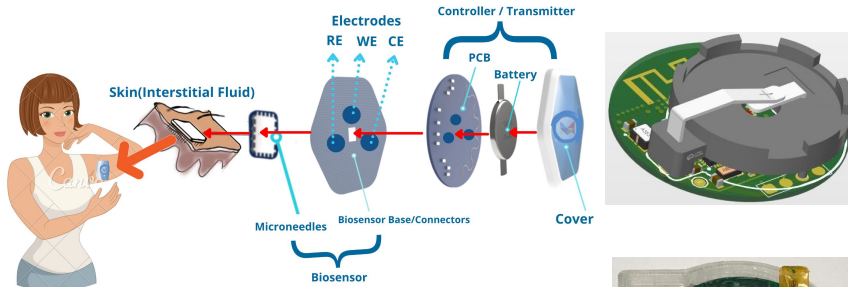
1. **Insulin** auto-delivery system
2. Personalized **Diet** program
3. Personalized **Workout** program

# Medixbot Products – Full-stack Components (Prototype/MVP)



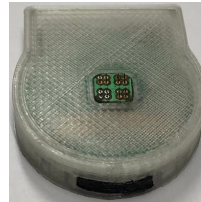
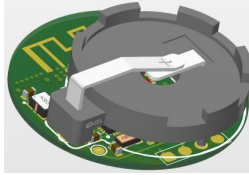
# Products – Medical Devices

## Continuous Glucose Monitoring(CGM)-Prototype



### Working Prototype:

- 4x16 arrays of microneedles
- PCB Circuit
- Embedded Algorithm
- Embedded AI

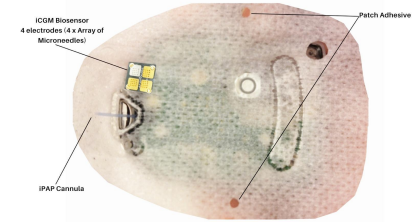


## Artificial Pancreas (Closed-Loop) - In dev.



### Prototype under development:

- Built-in CGM
- Insulin Auto-Pump
- Embedded AI
- Embedded Algorithm



# Our Team

## Founding and Management Team



**Jonathan Makomo,**  
CTO, Medixbot  
MSc Mechatronics



**Ali Lazim, CEO and Founder**  
Cofounder of SAASPASS(exit)  
MSc in AI, BSc in CS



**Nur Lazim,**  
Team Leader, Medixbot  
BSc Dietetics



**Prof. Dr. Mustafa Can**  
Biomed and chemical Eng., Univ.,  
Sakarya Biomed Advisor



**Prof. Dr. Gülnur ARABACI**  
Chemistry/Biotech Eng. SK  
Univ., Chemistry/Biotech Advisor



**Prof. Dr. Mustafa Zahid YILDIZ**  
Mechatronic Eng., SK Univ.,  
Mechatronic/Biomed Advisor



**Sami Hamdan Al-Saedi,**  
MD Medical Devices Advisor,  
BSc. Medicine



**James Nyamhondoro,**  
MD Healthcare Advisor,  
Chronic Diseases expert



**John A. Mauldin, Business Dev.**  
Manager, BSc. in Business,  
Biz Dev Manager, SAASPASS

**3** Offices

**4** Labs

**37** Team member

**4** Executives

**4** Prof. Researchers

**2** Medical Experts

**4** Mechatronic, Mechanical, & Embedded Systems

**3** Biochemical and Material Engineering

**4** Biomedical Engineering

**6** AI/ML and Data Science

**8** Software Engineering, and DevOps

**3** Concept/Product Design and 3D Design

## Medixbot Timeline

**2019:** Ali LAZIM exits SAASPASS and Started Medixbot

**2021:** CGM Device prototype, NoType.AI and Apps MVPs

**2023:** CGM Device testing & CE Mark, NoType.AI Training and testing, and Apps MVPs Integrations

**2025:** Manufacturing and sale of:

- Standalone CGM
- Artificial Pancreas
- Standalone
- NoType.AI Smart Insulin delivery
- Mobile and watch apps

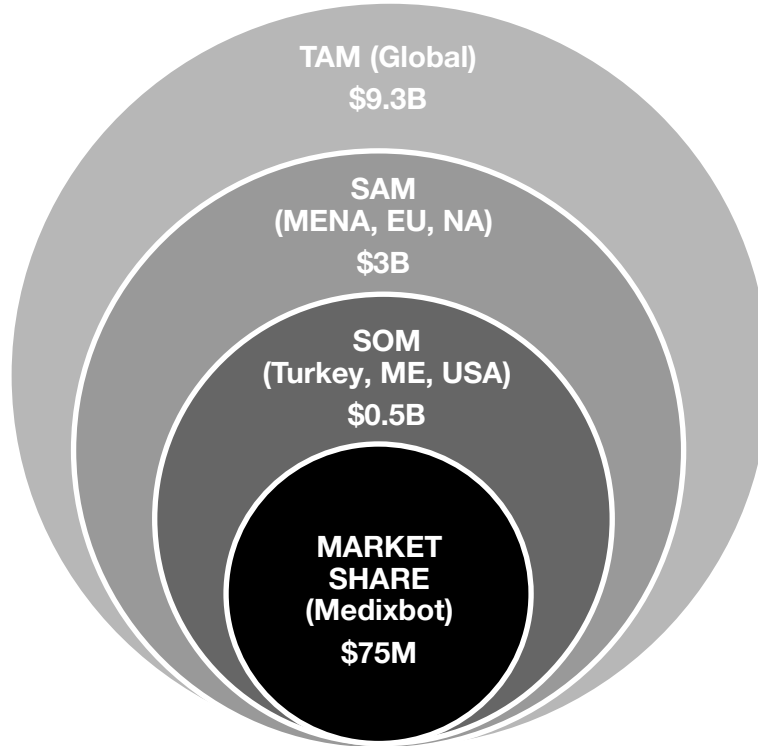
**2022:** Started R&D for Artificial Pancreas

**2020:** Medixbot Ideation and R&D are completed

**2024:**

- Manufacturing of CGM
- CE/FDA for the CGM & Artificial Pancreas
- Launching NoType.AI and the Apps

# Market Size



## Market In Numbers:

- [Abbott Laboratories](#) & [Dexcom](#) are the leaders in the CGM market, which hit \$5.1 billion in revenue in 2021. Projected \$13.2 billion by 2028. ([Ref](#))
- The Global Insulin Pump Market is valued at USD 4.20 billion in 2021. Projected USD 10.18 billion by 2028 at a CAGR of 15.90%. ([Ref](#))



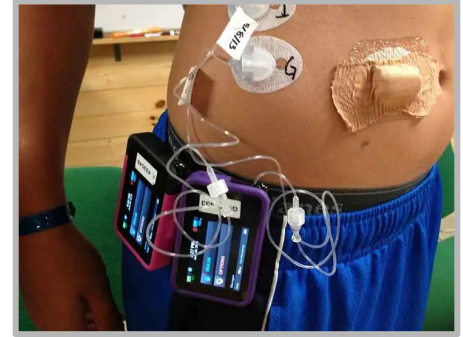
# Competitive Landscape - CGM & Insulin Pump

CGM/Insulin Pump Features	Abbott	Dexcom	Medtronic	Medixbot
<b>Full-stack Closed Loop Artificial Pancreas (CGM + Insulin Pump)</b>	No	No	No	<b>Yes</b>
<b>Microneedles(MN)</b>	One Long MN	One Long MN	One Long MN	<b>Array of MNs</b>
<b>Sensor life</b>	14 days	10 days	7 days	<b>14 days</b>
Decision support AI	No	No	Yes	Yes
Warm up period	12 hours	2 hours	2 hours	1 hours
Alarms/Alerts	Yes	Yes	Yes	Yes
Tubing-free and Detachable Patch Pump	No	No	No	Yes
Reusable Transmitter	No	Yes	Yes	Yes
Need Reader to carry	Yes	Yes	Yes	No
Reusable applicator	No	No	No	Automatic built-in mechanism
Continuous subcutaneous insulin infusion (CSII)	No	No	No	Yes
Waterproof IPX8 and high Thermal insulator	No	No	No	Yes
Sensor calibration	Factory	Factory	2x/day	Factory
MARD Accuracy	8%	9-10%	10%	<8%
Cost	\$1780/yr	\$3630/yr	\$3950/yr	\$780/yr
“Automatic Insulin Bump”	No	No	Yes	Yes
Automatic Insulin Delivery system	No	Yes	No	Yes
FDA's iCGM Compatibility	Yes	Yes	Yes	Yes

# Competitive Advantages and Current Status Demo

- **One smart wearable device**; CGM & Insulin Pump(competitors' DIY)
- **Full-stack** Autonomous and Personalized healthcare for diabetes
- **Microneedles** technology and lightweight miniaturized devices
- **Built-in**; Insulin auto-delivery, Diet, Workout, Telemedicine & Engagement
- **Cheaper & Greener** (only MNs need to be replaced)
- **Logistic & tax advantages** in Turkic States & Middle East with 2 LOIs
- A ready **grant of \$300K** for building a factory in Turkey
- **Low User Acquisitions**
- To be a **MONOPOLY** with a sustainable growth in Turkic States and MENA

Competitors' DIY



Medixbot Closed-Loop



▶ Demo on YouTube – Click to watch

[https://youtu.be/aClpZhE\\_RJE](https://youtu.be/aClpZhE_RJE)

# Business Model

- First, our mobile and smartwatch apps will be integrated with the 3rd parties' devices.
- Second, our own device will be released upon approval.

## B2C

- Direct online sales
- Premium users; subscribers
- Family memberships
- Subscriptions to food management and fitness separately

## B2B2C

- Insurance companies
- Global network of distributors
- Healthcare institutions

## B2G

- Government Healthcare National Insurance Programs
- Government Supply Companies

# Medixbot R&D: CareBot

## A Nanorobotics/Moving Telerobotics in Medicine

- **A Nanorobotics Capsule:** to be swallow and works in the Stomach(Gastroenterology)
- Enzyme Coated Micro Capsule
- With a storage for Drug delivery
- Components: Silicone case, microcontroller, AI control
- Functions: Measurement, monitoring, treatments, drug release
- Moving Telerobotics: Autonomous movement with propellers
- Vision: Shrinking for blood vessel use

**Application:** Utilizing it for Blood Glucose Level Estimation through Stomach and Intestinal Metabolism using Ghrelin as biomarker.

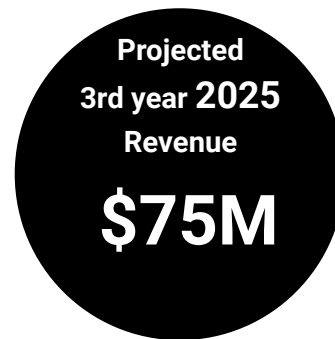


# Projections

\*\*\* Two LOIs from the Ministry of Health in Turkey and Iraq.



\*\*\* 20% tax subsidy



Expanding to North American markets:

- FDA Approval
- VIATEC

BOOTSTRAP  
**\$200K**

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F&F  
**\$250K**

GRANT  
**\$50K** KOSGEB

-----  
VIATEC  
Accelerator

**Seeking investment**

**\$2M**

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+\$300K Gov. Match  
(of \$300K from us)

- CE Mark
- Scaling Manufacturing
- Operation
- Marketing and Distribution

**THANK YOU!**

**Medixbot The World's 1st  
Wearable Artificial Pancreas**



**Ali Lazim**



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