

# diafyt MedTech

makes smart devices and AI software for people with diabetes

Dipl.-Ing. Thomas Wuttke, diafyt MedTech  
Dr. Markus Walter, diafyt MedTech, Dr. Rene Richter, TU-Dresden

# Founding Team



## **Markus Oehme, Development**

PhD in Mathematics, Member of MENSA, Graduate from Universität Jena, Germany

## **Thomas Wuttke, CEO, Diabetic**

Engineering degree and 4 years law school, founder of diafyt MedTech and pg40 Consulting Group in Germany and USA

## **Rene Richter, Hardware Design**

PhD in Electronics, Inventor of 30+ patents for insulin drug delivery devices in collaboration with Sanofi

**Matthias Badack, Advisor Business Development**

**Knut Mai, Medical Advisor: PhD and Professor at Charité**

**Total team size in 2021: 13**

# Diabetes management is challenging

Intensified insulin therapy for type 1 diabetics is ingenious. If used correctly, it is completely free of side effects and in the end without long-term consequences. In short, a life like a healthy person would be possible.

Why only "**would be**" possible?

The condition for success is perfect insulin dosing. If this goes wrong, extreme blood glucose oscillations lead to short term very **unpleasant discomfort, extreme long term damage and death.**

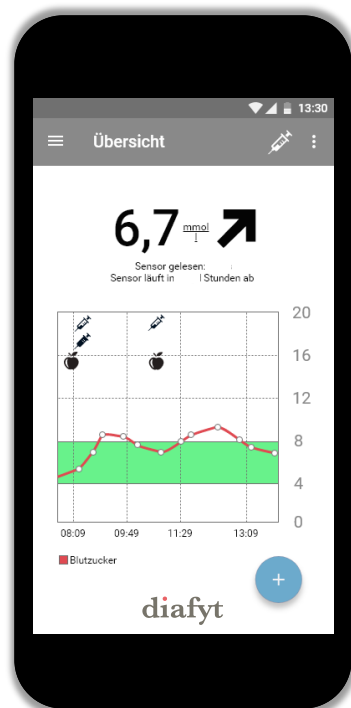
This is what we are tackling to solve with diafyt. Instead of just measuring the glucose value, a powerful AI calculates the optimal insulin demand. This is fully automatic and individually optimized.

But that's not all. High-tech devices like smart insulin-pens, novel sensors and intelligent software not only **improve the quality of life but also extend the lives of people with diabetes.**

# diafyt Intelligent Insulin Management (AIM)

# diafyt App

- The frequency of severe hypoglycemic events before and after initiation of the Smart Insulinpen system among the population of continuous glucose monitoring (CGM) users on multiple daily insulin therapy was analyzed to estimate the potential hypoglycemia-related medical cost savings.



- Calculates personalized insulin doses
- continuously learns patient metabolism (uses AI)
- Syncs with CGMs and Insulin Pen
- Reminds you to dose
- Automatically logs doses
- Creates sharable reports with up to 90 days

# Methods

- Sensor-detected severe hypoglycemic events (defined as  $\geq 10$  minutes of consecutive SG readings of  $<54$  mg/dL) where determined and result in clinical events, hospitalization, emergency room visits and ambulance transportation.

## Severe Hypoglycemic Event Intervention Rates

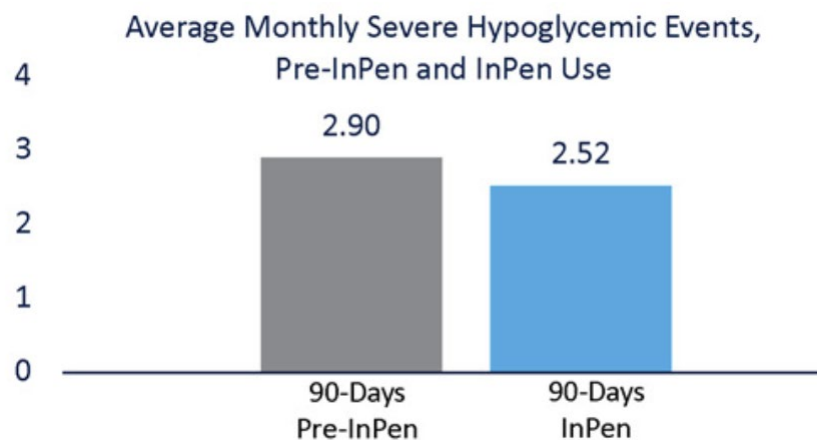
- **7%** require hospitalization
- **15%** require Emergency Department visit
- **29%** require an ambulance response

## Cost of Severe Hypoglycemic Events

- **\$15,960** hospitalization cost
- **\$1,976** ER visit cost visit
- **\$810** ambulance cost

# Results

## Potential cost savings of using diafyt Smartpen



**13%** decrease in sensor-detected severe hypoglycemic events in the 90 days after initiating Smartpen use

The anticipated cost reduction per user per month with Smartpen = \$237

The expected annual savings per user would be = \$2176

# Conclusion

- Use of the Smartpen system (Smartpen + App) is associated with reduced sensor detected severe hypoglycemic events
- This in turn may result in significant cost savings assuming sensor detected events result in clinical-defined severe hypoglycemic events

Proportion	Savings per User per Month	Annual Savings per User
100%	\$237	\$2,176
90%	\$213	\$1,958
75%	\$178	\$1,632
50%	\$119	\$1,088
25%	\$59	\$544
10%	\$24	\$218

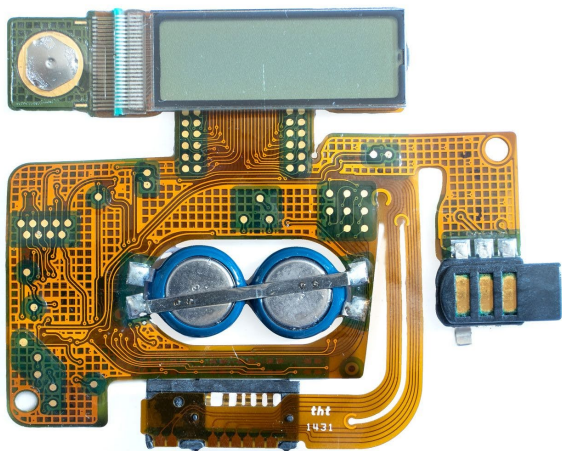


*diafyt Smartpen and App*



# unlike other Insulinpens in the market ..

- The diafyt smartpen recognizes the user's handling,
- warns the patient and corrects errors with the help of
- high-tech electronics and artificial intelligence.



*diafyt Smartpen electronics*

- BLE 5.2 (new wireless technology)
- digital sensors (very accurate)
- ultra low power design (over 1 year battery life)
- Apple FindMy technology build in (never lose your pen)
- AI in AWS, open source API

# Traction

- diafyt App is medical certified and received the CE mark for the distribution the EU
- diafyt App is released to market in the EU
- acquired 100 patients in its first year
- diafyt Smartpen has TRL9, is medical pre-certified, patented

# Contact

Thomas Wuttke  
**diafyt MedTech**

Mobile: +49 151 52571623  
Email: [thomas@diafyt.com](mailto:thomas@diafyt.com)