

DMPA – DM type I. Pocket Assistant



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JIŘÍ SLAVÍK

Who is the most experienced inventor?
Nature.

Bionics inspires in the nature to design
modern [technology](#).

Basic goals



- Expert system on mobile platform to actively support DM type I. therapy
- Monitoring system providing analysis for therapy optimization
- Innovations of CGM implementations
- Innovations of Insulin Management System implementations
- Development of autonomous sensors placed constantly in human tissue

Scope and phases



DMPA road map

- **LEVEL 1**
 - Therapy planner
 - Monitoring system
 - Alerting system
 - Reporting engine
- **LEVEL 2**
 - All DMPA level 1. features
 - CGM synchronization
 - Individual model calculation
 - Computed CGM (C-CGM)
 - Expert system provider
- **LEVEL 3**
 - All DMPA level 2. features
 - Implanted CGM device (long-term/constant)
 - Optional sensors
 - Management of optimized insulin distribution

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- **PHASE I.**
 - Bring to live
- **PHASE II.**
 - Collect industry and marketing data
 - Focus on innovations
 - Contest on mobile health apps market
- **PHASE III.**
 - Go inside human
- **PHASE IV.**
 - Derived products of autonomous sensors and actuators inside human body

May 16, 2012

By most estimates, the mobile health apps market is a gold mine. It will see revenue grow from \$230 million in 2010 to \$392 million in 2015, according to [Frost & Sullivan](#).

Nanobiotechnology and Biointeractions Research group in CEITEC:
CEITEC is a project aiming to set up a Central European centre of scientific excellence in Brno

Opportunities



- **Target customers**

- DM type I. patients (young and active people)

- Parents of DM type I. children

- Doctors/therapists [optional, patient management system]

- Diabetes clinics [optional, patient management system]

- **Target markets**

- EU countries

- US

- Worldwide

- **Derived products**

- Top leading Diabetes Technology & Therapeutics companies

Epidemiology / Market numbers



- Worldwide

11 – 22 M patients worldwide

Increasing 400k U14 each year

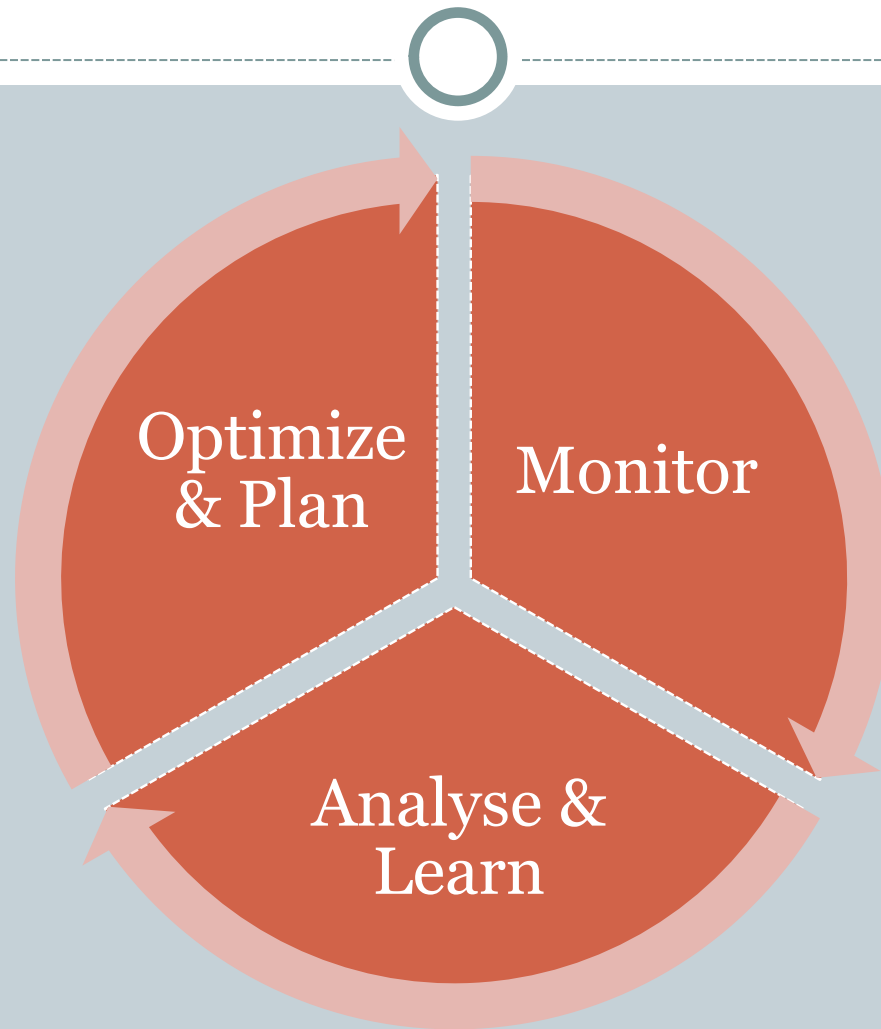
- EU + NA

+ 8-17 new patients per each 100.000 habitants per year

Examples:

- ✦ **CZE:** 800 - 1700 new patients per year
- ✦ **SVK:** 400 - 850 new patients per year
- ✦ **DEU:** 6500 - 14000 new patients per year
- ✦ **USA:** 24000 - 51000 new patients per year

DM type I. therapy with DMPA



Simple architecture

