

# AI4SMB

## AI & Software With Smart Essence For SMBs (Small & Medium-sizes Businesses)

# AI4SMB

**AI4SMB** is a high-tech software development lab delivering **AI** applications and results to **Small & Medium-sizes Businesses (SMB)** and innovative enterprises worldwide.

# AI4SMB

**AI4SMB**, also named in German as KI4KMU, is a small EU-based hi-tech software development shop (~ 20 pers.) outstanding mainly in e-health and applied AI.

**AI4SMB** is a software engineering shop with excellent expertise in enterprise software development and solid background in AI research. We are long-term technology partner for startups, SMBs and innovative enterprises in the US and across the EU.

# AI4SMB

This difference results from the following main areas of expertise:

- Digital healthcare + pharma, esp. interoperability standards (IHE), clinical data formats (CDA, HL7, FHIR, DICOM, Snomed CT), MDR regulations, telemedicine, precise medicine, patient empowerment, ...
- Applied Artificial Intelligence (AR/VR, avatars and new interactive media, NLP, machine, and deep learning, ...)
- Applied Computer Science (hi-availability, hi-performance distributed systems, sw architecture and engineering, scalability, refactoring, mobile apps, ...)
- Start-up expertise (from technical feasibility and advisory, through sw development, delivery, and operation, up to equity partnerships).

# AI4SMB

We are rather "problem solvers" than just programmers (said by words of one of our long-term American customer). This algorithmic skill is because many of our team members have the scientific background (including several PhD degrees) in the areas of computer science and AI.

We don't own a sw product - it's just our following services:

- on demand sw development itself,
- sw development advisory and consulting,
- up to the interim management roles
- start-up partnering

**Our native and preferred way of working is an agile, innovative yet pragmatic development - i.e., based on getting the regular feedback and planning further development goals with the customer iteratively.**

# Our Services

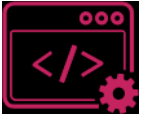
- Design and development of enterprise, cloud, web and mobile applications
- Consulting in software architecture, algorithms, applied AI and e-health
- Technical interim management and product management
- Joint venture partner for new innovations





# Our Competences

## SOFTWARE DEVELOPMENT



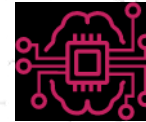
- Full-stack Software Development
- Backend Development
- Web Applications
- Mobile Apps
- System Integration
- Quick Prototyping
- UI/UX



## DIGITAL HEALTH

- Healthcare Interoperability
- EMR/EHR
- Patient Empowerment
- Digital Health Transformation
- Smart Medical Devices

## APPLIED AI



- Optimization and Process Automation
- Innovative User Interfaces
- AR & VR
- Recommendation Systems
- Machine Learning

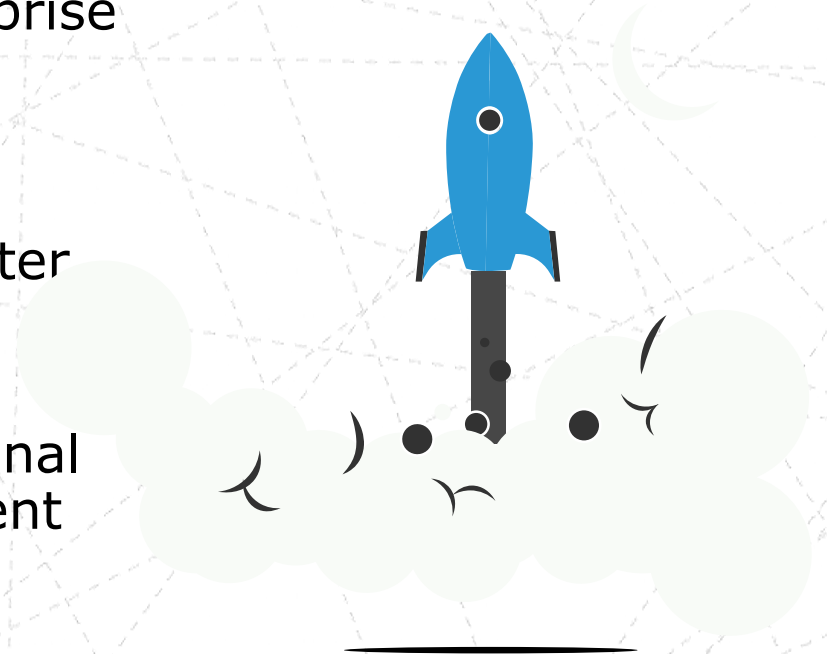
## DEVELOPMENT CONSULTING



- Technical Interim Management
- Software Assessment
- Development Process Optimization
- Algorithm and Architecture Evaluation

# What Makes Us Different

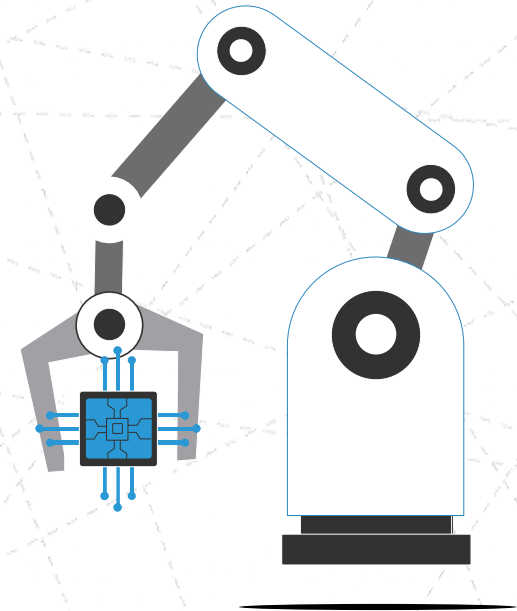
- Excellence in mission critical enterprise solutions
- Solid research background and expertise in applied AI and Computer Science
- Long-term experience in international projects and innovation development





# Industries & Markets

- Healthcare, transportation, education, manufacturing, retail, ... and others
- USA, Germany, Switzerland, UK and Czech Republic

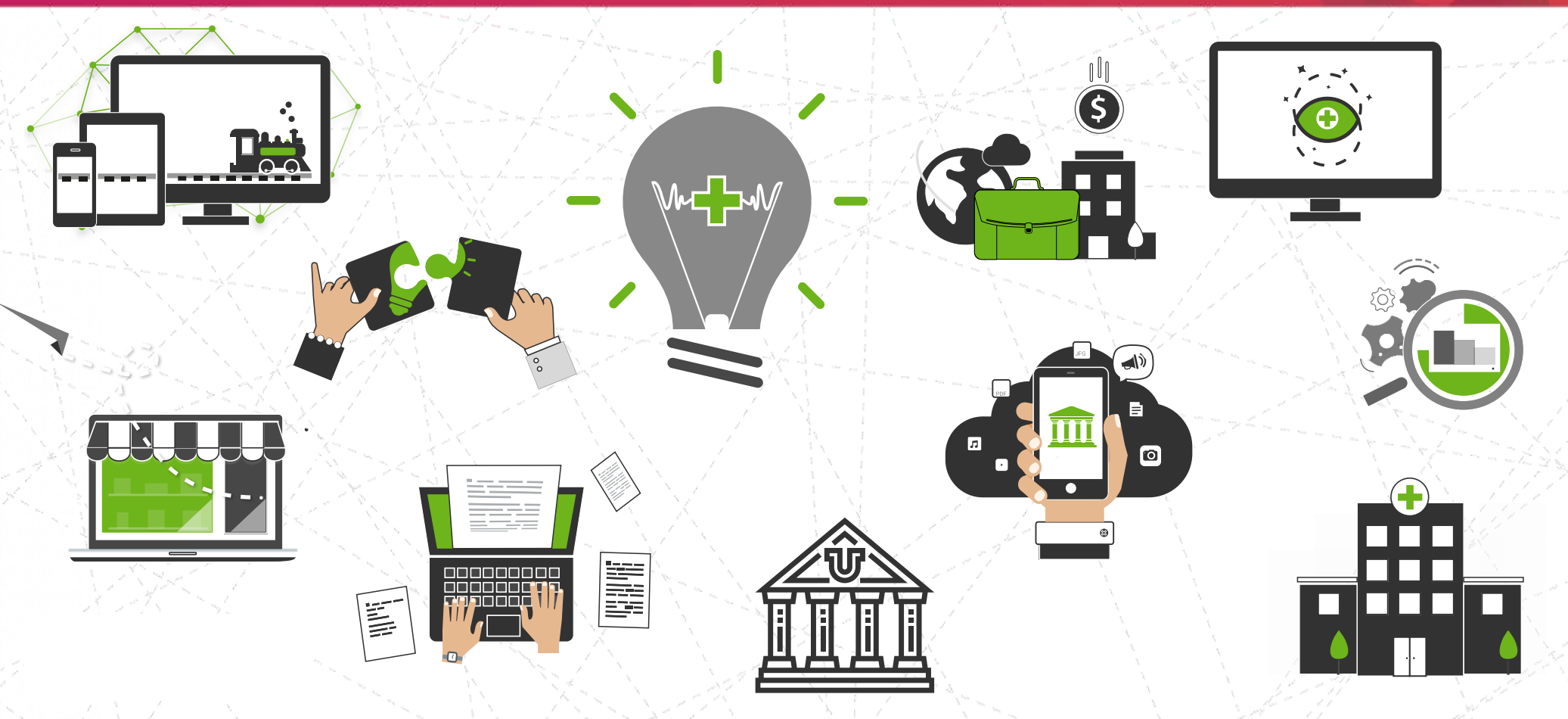


# Our Values

- Problem solver mindset
- Innovative yet pragmatic approach
- Close cooperation with major AI research institutes
- Agile, efficient and reliable delivery
- Long-term high-tech IT partner and advisor



# Our Reference Projects



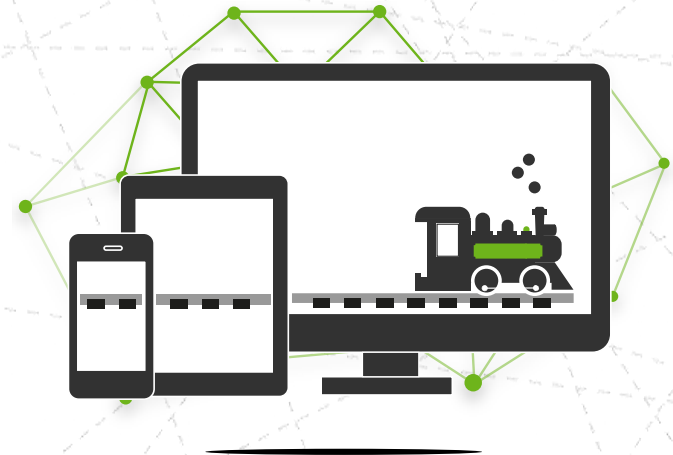
# Leading Health Information Exchange Platform

- Award Winning Health Information Exchange connecting hundreds of hospitals world-wide.
- It enables robust, high-performance and secure exchange of millions of patient records.
- 15 years of development partnership.



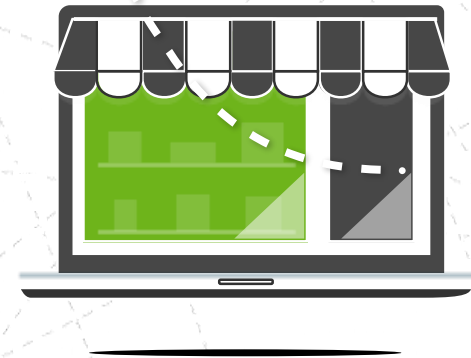
# Automated Railway Documentation Generation

- Problem: dozens of engineers created manually Track Charts drawings in a CAD software every day.
- Using modern AI-based lay outing algorithms, our system provides up-to-date track charts for the whole railway network.



# Personalized Shopping with Virtual Avatars

- We designed a demonstrator of future retail scenario with virtual avatars.
- Proof-of-concept demonstrated and awarded at several trade fairs and conferences.





# Consulting of High-tech Startups for Investors

- Technology assessment of potential investments: software architecture, development processes, alignment with business plan and team quality.
- Helping startups with their software development challenges, implementation of improvements and interim management.



# System for Managing Health Insurance Policies

- Enterprise application which significantly simplifies batch changes of health insurance policies.
- Using an efficient UI and smart database techniques, a small team of administrators can execute safe updates of hundred thousands of insurance policies within few hours.



# Agent-less Application Performance Monitoring

- AI-based performance monitoring of applications without need of installing local agents on target machines.
- The product was successfully deployed to first customers and later acquired by a major APM company.



# Intelligent First Aid Assistant

- Novel prototype of intelligent assistant which significantly increases the responsiveness of layman responders.
- Novel UI, up-to-date rescue guidelines and latest diagnostic devices in order to simplify the rescue process and guide the rescuer conveniently.



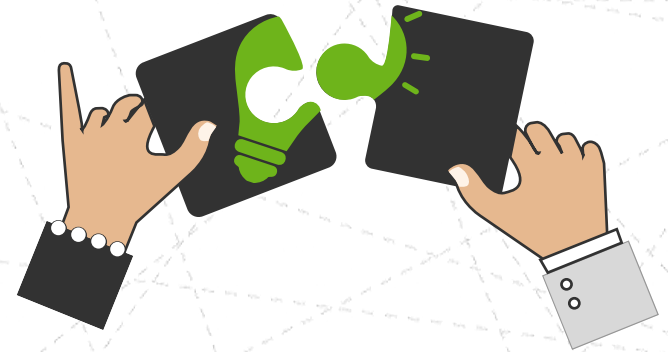
# Personal Museum Guide

- We engineered a smart system which uses personalized content and non-intrusive user interface for improving the museum visit experience.
- State-of-the-art AI algorithms provide precise behavior analysis, personalized content generation and exhibit optimization.



# Novel Entertainment for Shopping Malls

- We created an entertainment installation for small shoppers.
- The platform offers several interactive games which utilize latest innovations in human-computer interaction: virtual avatars, gesture and movement recognition, and instrumented environment.
- Deployed to shopping malls across Europe. Awarded by two prizes at Computer Art Forum 2017.





# Next-gen Swiss Hospital Information System

- We reinforced development team of the leading Swiss Hospital Information System vendor with clear target: get the new generation of the platform to the market.
- We implemented several modules, integrated the next-gen platform and provided interim management of the international development team.



# Course Management System

- Web and mobile platform for the management of the post-gradual education courses for Charles University.
- On-line course booking, capacity handling, scheduling, invoicing, results evaluation and certificate generation. Integrated with various internal systems of the university and several state registries.



# Our Involvement in Start-ups



IMPACT 51

Swiss VC Investment Group  
Partner & Mentors



7 startup  
advisory.

Startup Incubator  
London Mentors



AI Startup Incubator Prague  
Mentor, Expert, Advisor

# Our Research Partners



Deutsches  
Forschungszentrum  
für Künstliche  
Intelligenz GmbH

DFKI - German Research Centre for  
Artificial Intelligence  
Saarbrücken, Germany



Faculty of Math & Physics,  
Charles University  
Prague, Czech Rep.

# Dialog

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