If the human brain were so simple that we could understand it, we would be too simple to understand it.

Emerson M. Pugh: “Quote from my father around”, 1938
Artificial Intelligence + Augmented Intelligence = AI
Diagnosis of ADHD

Diagnostic and Statistical Manual (DSM-5)

1. Predominantly inattentive
   - Fails to give close attention
   - Loses things
   - …

2. Predominantly hyperactive-impulsive
   - Has difficulty remaining seated
   - Talks excessively
   - …

3. Combined presentation

No medical, physical or genetic test
Biased observations
Diagnosis of ADHD


Personalized treatment planning for ADHD patients using ML
EEG & Neuro Algorithms
Brain and Trauma Foundation Graubünden

Neurobiological diagnostic method
- Neutral and objective diagnosis
- Personalized treatment plans
ADHD-Study
- 750 Subjects
- 5 measurements over 2 years

Report Generator
- Norm comparisons
- > 1000 EEG features
Objectivity in Diagnosis

Automated, reproduceable, traceable Process


ADHD classifier
Accuracy: 0.76
Sensitivity: 0.75
Specificity: 0.77
AI relevant for Therapeutic Practice

Lean Startup Methodology

- **Build**
  - ADHD classification: yes / no
  - Drivers: F1, F2, ...

- **Learn**
  - Identification of subtypes within model
  - ADHD classifier: yes / no
  - Subtype: B

- **Measure**
  - ADHD Dig! Not just why!

Personalized treatment planning for ADHD patients using ML
Should physicians guide digital investments?

Sure.
Thank you

Personalized treatment planning for ADHD patients using ML