

# Potential and Challenges of a Nationwide Big Data Framework for Healthcare in the Netherlands

POTENTIAL

## The Potential of Big Data in Healthcare

### **Better Diagnosis:**

- machine learning based on big data allows for computer supported diagnosis

### **Personalised Healthcare:**

- big data and artificial intelligence can pave the way towards personal healthcare healthcare based on the individual's specific health characteristics

### **Cost Reduction:**

- big data can help to reduce healthcare costs and thus make good healthcare more affordable



## Challenges in Implementing a Big Data Framework

### **Standardisation:**

data is only useful when its collection is standardised

### **Processing of Big Data:**

data-processing comes with many technical challenges

### **Privacy Issues:**

privacy of the data-subjects must be guaranteed

### **Consent:**

an ethical framework requires consent of the data-subjects

### **Legal Issues:**

the legal conditions must be met

### **Cyber Security:**

sensitive healthcare data must be secured



CHALLENGES

## Proposal for a Nationwide Big Data Framework

### **Establishing a Governmental Institution:**

- the governmental institution coordinates data-collection and data-processing  
- it ensures the standardization, privacy and security of the data

### **Developing a Dynamic Consent Platform:**

- data-subjects have the power of decision over how their data is used

### **Pilot Project**

focusing on a diabetes application

### **Nationwide Big Data Framework**



SOLUTION