

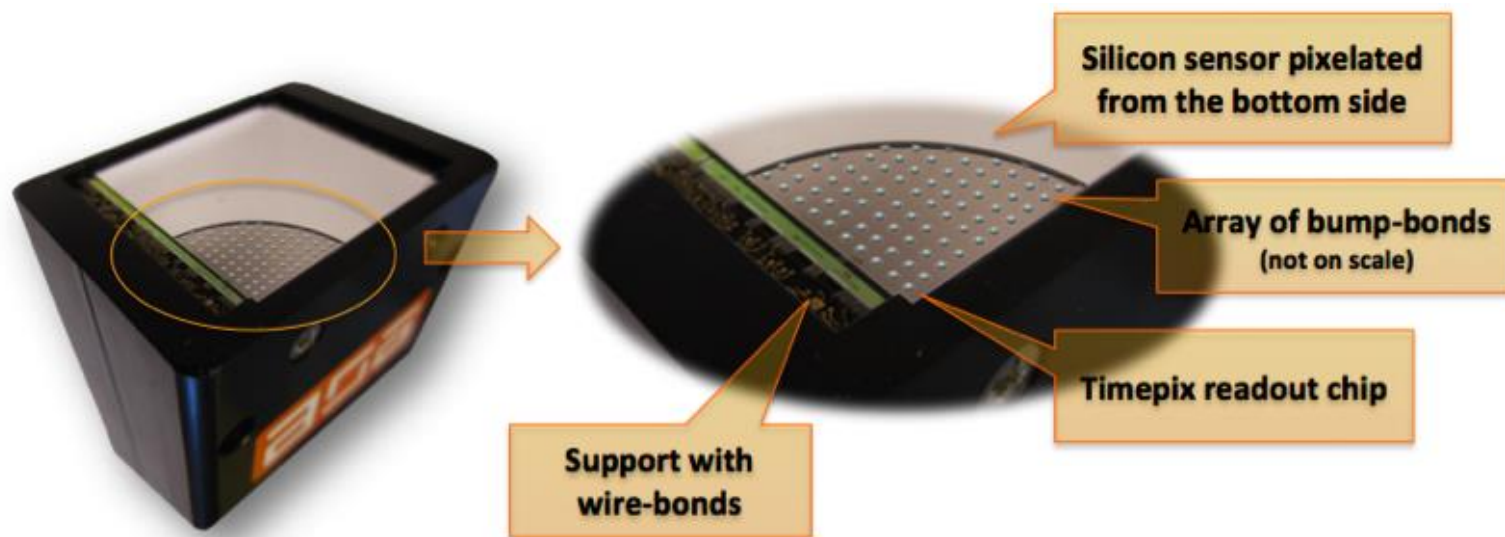


AMSTERDAM  
SCIENTIFIC  
INSTRUMENTS

## Creating new markets with high-volume applications of Medipix technology

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ATTRACT Meeting  
12 January 2018

# Medipix hybrid-pixel technology



Medipix hybrid pixel detector enables:

- High **speed imaging** (x1000)
- Unprecedented **sensitivity** (x1000)
- Multispectral: **color** X-ray imaging



# Creating new applications and markets

## Medipix technology has unique properties

- OOM superior functionality and performance
- Low-cost potential

## Enabling

- New products or applications, and
- Low cost / high volume application
- > **Creating new markets**



Concept 1

Concept 2

# Concept 1

## Product/market vision

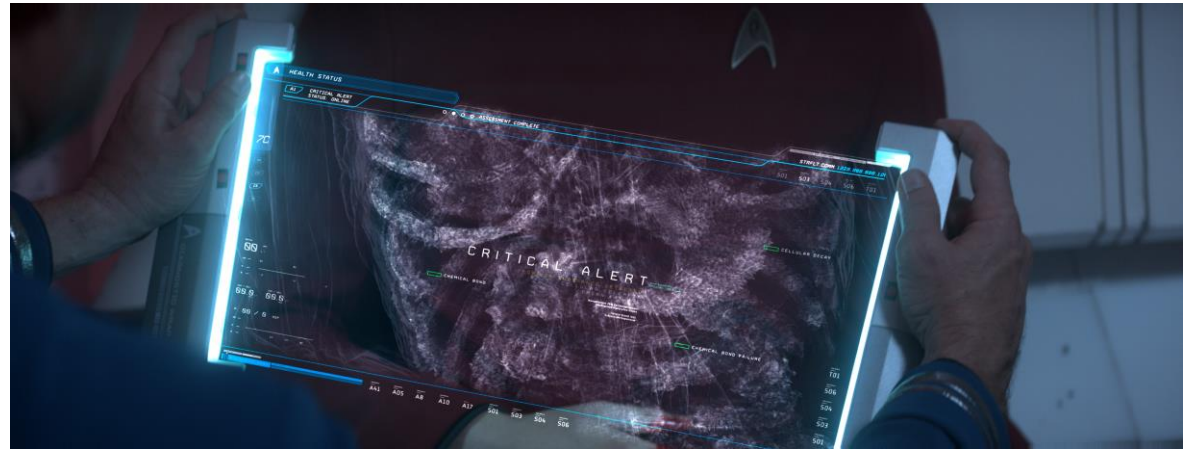
- Hand-held color X-ray scanner for primary and critical healthcare and technical inspection

## Enablers:

- Medipix > chip technology > low cost
- Ultra-high sensitivity of Medipix
- Multispectral capabilities of Medipix
- Availability of large area Medipix detector (ASI)
- Availability of low-cost high definition motion-capture sensors
- Availability of low-cost high-performance GPUs



*Tricorder*



*Diagnostic Wrap*

# Approach

1. Feasibility study (desk research)
  - Find research partner(s)/build consortium
  - Regulatory context
  - Energy, intensity, dose level
  - Radiation impact
  - Multispectral X-ray source
  - (No 3D motion capturing)
2. PoC study
  - Demonstrator development
  - Testing
3. Establish startup

# Concept 2

## Product/market vision

- <EUR 50k desktop mass-spectrometer based on Timepix for “low-end” lab equipment market (volume > 10k per year)

## Enablers:

- Ion-detection capability of Timepix
- PoC established in various demonstrator projects
- Success case of desktop SEM of Phenom-World (recently acquired Thermo-Fisher)

## Approach

- Find research partner(s)/build consortium
- Build demonstrator
- Establish startup

