ANALYSIS OF SOLUTIONS BASED ON WEARABLE DEVICES TO SUPPORT THE DIAGNOSIS AND MANAGEMENT OF THE CONDITION OF PATIENTS WITH CARDIOVASCULAR DISEASES
CARDIOVASCULAR DISEASES

In Portugal more than 30% of the deaths are caused by cardiovascular diseases, being the most deadly cause. From those, 60% are caused by strokes, while only 3% are caused by myocardial infarct.
The cost of the three subgroups of the most common drugs for cardiovascular diseases alone, in Portugal, represented a total of more than 563 Million Euros in 2014.
# Technological Solutions for Cardiology Diagnosis

<table>
<thead>
<tr>
<th>Sphygmomanometer</th>
<th>Electrocardiograph</th>
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<tbody>
<tr>
<td>Digital Blood Pressure Meter</td>
<td>Holter</td>
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<td>Glucose Meter</td>
<td>Echocardiograph</td>
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<td>Cholesterol Meter</td>
<td>RMN</td>
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<td>Triglyceride Meter</td>
<td>Coronary Tomography</td>
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<td>X-Ray</td>
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WEARABLES AND HEALTH POTENTIALITIES

Issues addressed by wearables

**Personal**
- Blood pressure
- Body energy
- Temperature
- Facial features
- Heart rate
- Musculature
- Force
- Sight
- Pigmentation
- Touch
- Voice
- Weight

**Environmental**
- Facial recognition
- Gravity / Inertia
- Light
- Movement
- RFID
- Aroma
- Sound
- Temperature
- Climate

**Location**
- Business
- Distance
- Geo location
- Proximity
- Time

**Other**
- Bluetooth
- Mobile network
- GPS
- Wi-Fi

Wearables can improve

1. Patient monitoring
2. Improved access to medical information
3. Higher clinical trial participation
4. More accurate diagnosis
4. Savings with healthcare
With the increase of the number of applications of wearables to healthcare, the market is quickly growing.
Most people (85%) believe that wearable technology can positively impact their health.

Most people agree that wearables will improve health control, personalized care and healthier lifestyle.
WEARABLES AND HEALTH – USERS

However, some issues have to be accounted for so people do not limit the use of wearables.
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