CosmicPi

Going beyond :

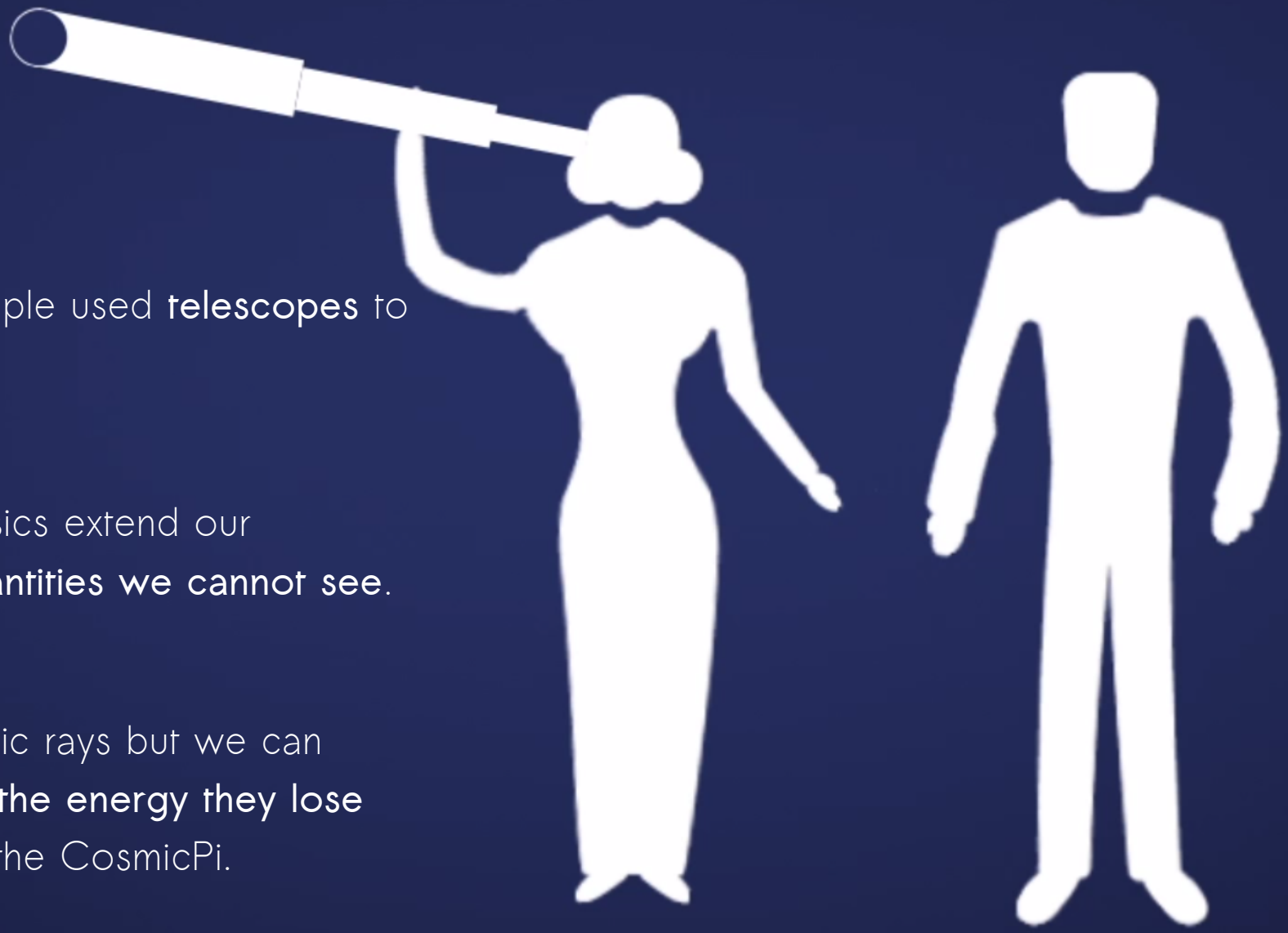
- **senses** : during centuries, people used telescope to see stellar objects. Most of modern physics extend our knowledge using quantities we cannot see.

- **knowledge** : cosmic rays are mysterious, and of different natures. They provide information about the cosmos, about our Sun, about the magnetic field of the Earth. The CosmicPi is gathering information increasing our knowledge of those fields.

- **gaps** : on-the-edge science is done by scientists, who inform the public. This creates a separation between “most of people” and “scientists”. We believe Nature belongs to everybody, and “most of people” can be fascinated and contribute to astrophysics.

- **prices** : cosmic ray detectors are very expensive machines. By dividing it in smaller subdetectors, we are lowering their price so common people can afford them.

Beyond senses



During centuries, people used **telescopes** to see stellar objects.

Most of modern physics extend our knowledge using **quantities we cannot see**.

We cannot see cosmic rays but we can detect them through **the energy they lose** while going through the CosmicPi.

Beyond knowledge

Several CosmicPi pixels will see **particles originating from the same cosmic ray**.

Scientists call them "**cosmic ray showers**", so every pixels detects a "**drop**".

From the information of several drops, we can **reconstruct the primary cosmic ray**.

Each pixel also records other information, such as the **particle rate**.

Cosmic rays are nowadays studied by physicists as they may bring information on **solar activity, astrophysical sources**, **dark matter properties**, **Earth magnetic field** and even **cloud formation** !

Beyond gaps

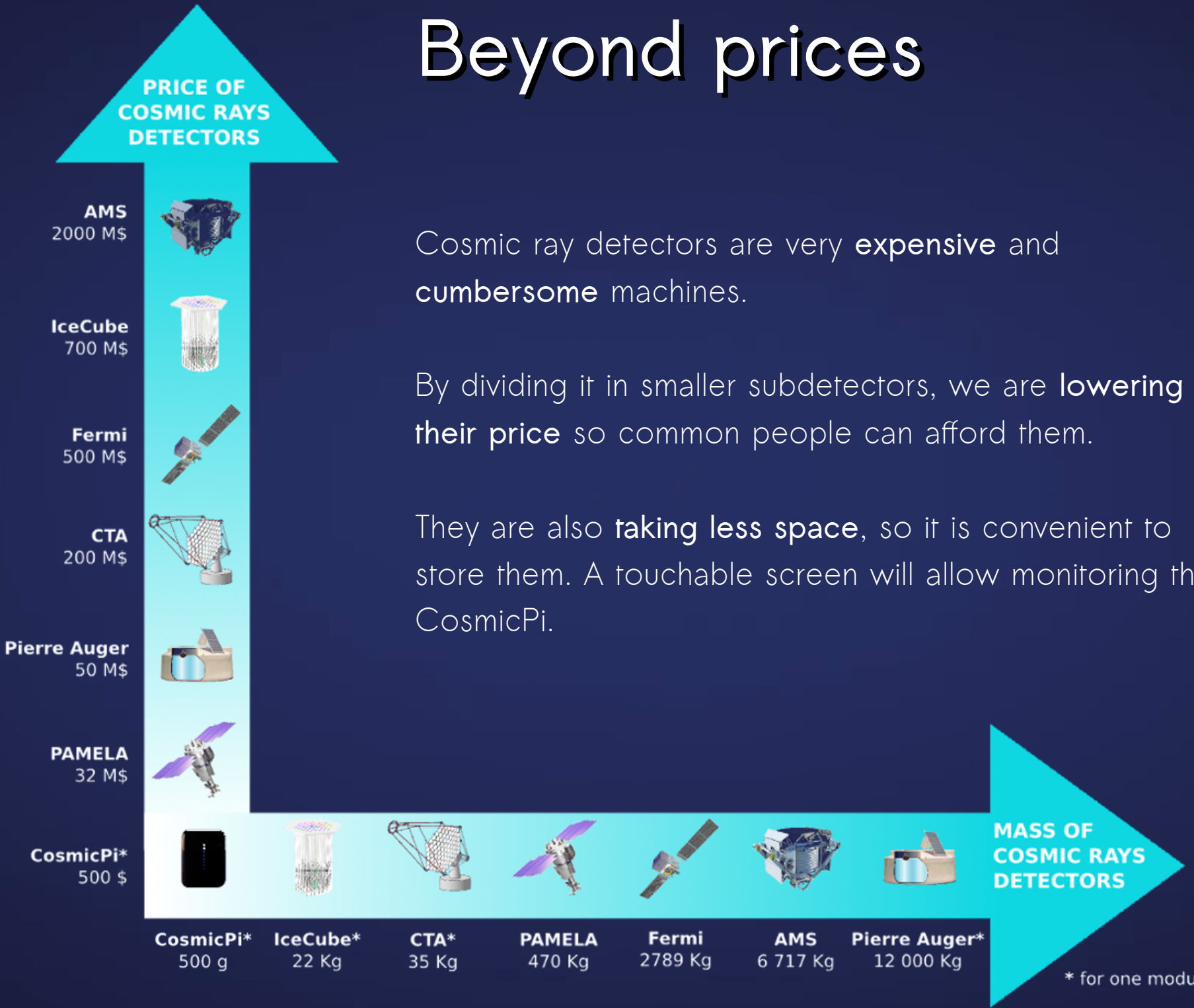
Those information are more informative **combined with other pixels**.

The **CosmicPi is connected to the network** so every data is collected and combined with others.

Everybody has access to it.

We will hold the "**Cosmic Days**" to which every owner of a CosmicPi pixel is invited to discuss the information we collected about cosmic rays.

Beyond prices



Cosmic ray detectors are very **expensive** and **cumbersome** machines.

By dividing it in smaller subdetectors, we are **lowering their price** so common people can afford them.

They are also **taking less space**, so it is convenient to store them. A touchable screen will allow monitoring the CosmicPi.