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## **The Cherenkov Telescope Array CTA - a global endeavor for astronomy and particle astrophysics with very high energy (VHE) gamma rays**

Ground-based gamma-ray astronomy has witnessed a major breakthrough with the results of the current generation of imaging atmospheric Cherenkov telescopes. In order to exploit the full physics potential of this field, the next generation instrument –the Cherenkov Telescope Array CTA - aims for an improvement in sensitivity by an order of magnitude with respect to current experiments, an extension of the accessible energy regime from some tens of GeV into the 100 TeV range and improved angular and energy resolution. CTA will therefore need to consist of ~50-100 telescopes.

This project was initiated by all major European groups in the field and has meanwhile reached a global scale. CTA has been included in the 2008 update of the Roadmap of the European Strategy Forum on Research Infrastructures (ESFRI). An initial Asia-Europe partnership is already established through a strong collaboration with Japanese institutions within the Design Study for this endeavor. CTA as an observatory is expected to start partial operations by 2014.

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