

# 38th COSPAR Scientific Assembly

## Service & Solutions for Scientific Endeavours

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# Space in Everyday Life (1/2)

- **For more than 28 years, Arianespace has contributed to placing space at the center of everyday life : Arianespace launched 259 payloads for 70 customers**
- **Space for Telecommunications: connecting the world on a global scale to support enhanced applications such as rural telephony, TV broadcast and telemedicine**
- **Space for Security: delivering independent, ubiquitous and secure information around the globe as a crucial part of today's defense and security strategies**



# Space in Everyday Life (2/2)

- **Space for Earth: monitoring the environment to support sustainable development; essential imaging is provided around the clock through meteorological and observation satellites**
- **Space for Science: understanding the Universe with space observatories undisturbed by the Earth atmosphere and exploring the solar system and beyond**
- **The governmental space programs promote the development of satellites services and space science to the benefit of the society for scientific and educational purposes**



# Guaranteed Access to Space

- **Arianespace is an European company:**
  - **23 shareholders**
  - **10 European countries**
  - **Convention with the European Space Agency**
- **Launches are performed from the Guiana Space Center (CSG) in French Guiana**
- **Three launchers are operated by Arianespace:**
  - **The heavy-lift Ariane 5 (fully operational at CSG)**
  - **The mid-size Soyuz (fully operational at Baikonur, operational at CSG from 2009)**
  - **The light Vega (operational at CSG from 2009)**



# Service & Solutions

- **From contract signature to in orbit delivery, Arianespace is committed to:**
  - **Provide financing, insurance and schedule assurance**
  - **Procure launchers from industrial manufacturers and monitor their quality**
  - **Perform the mission**
    - mission analyses and interface validation
    - satellite, launcher and combined operations
    - launch facilities and launch operations
- **Arianespace has the largest order book of this industry:**
  - **25 GTO satellites to launch (Ariane 5, Soyuz)**
  - **10 Ariane 5 institutional launches (8 ATV)**
  - **7 Soyuz specific launches**



# Scientific Endeavours

- **During the last 28 years, Arianespace launched many scientific missions**
  - **Ariane 4, Ariane 5 : Giotto, Hipparcos, Topex-Poseidon, ISO, XMM, Smart 1, Rosetta, ERS 1 & 2, ARD, Artemis, Envisat, ATV Jules Verne, 30 scientific auxiliary payloads**
  - **Soyuz : 2 Cluster 2, Mars Express, Venus Express, Metop-A, Corot**
- **For the future**
  - **Ariane 5 : ATV, Herschel-Planck, ExoMars, James Webb Space Telescope,...**
  - **Soyuz : MetOp-B, Solar Orbiter, Bepi Colombo, Gaia, Sentinel 1,...**
  - **Vega : Lisa Pathfinder, Swarm, Aeolus, Sentinel 2, Sentinel 3,...**



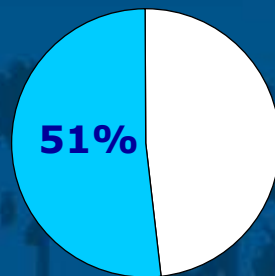
# World Reference



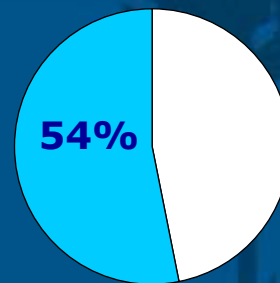
Satellites launched by



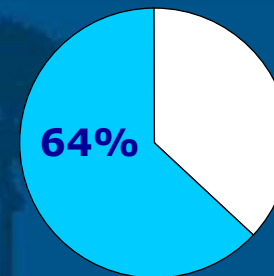
**AMERICAS**



**EMEA**



**ASIA**



# Ariane 5

- **The most reliable heavy-lift launcher:**
  - **39 launches overall**
  - **25 successes in a row**
- **Ariane 5 ECA: the best solution to launch satellites in GTO**
- **Ariane 5 ES: the perfect launcher to deploy complex systems in LEO (ATV) or in MEO (Galileo)**
- **7 to 8 launches per year:**
  - **2 launch tables: surge capability**
  - **52 launchers currently in manufacturing**



# Soyuz

- **The Soyuz launch pad at CSG is now being completed by the European Space Agency, Arianespace, CNES and their Russian partners**
- **Inside a complete dedicated facility, the Russian contribution to the project is launcher and equipment**
- **With a 3.0-ton capability to GTO, Soyuz at CSG will serve primarily the civil market for scientific and telecommunications missions**
- **Soyuz at CSG will inaugurate commercial service in 2009**



# Vega

- **A new launch system currently developed by the European Space Agency**
- **Vega is a light launcher for scientific and Earth observation missions with a 1.5-ton capability to LEO**
- **The Vega launch pad at CSG is presently under construction**
- **Vega will inaugurate commercial service in 2009**



# The Tempo of Success

- **Launch after launch, Arianespace record-breaking launch tempo fully validates Europe strategy:**
  - **A family of launchers covering all customer needs**
  - **Qualified and stabilized launchers configuration**
  - **Success proven organization**
- **In 2008, Arianespace commitment will confirm once more company leadership:**
  - **Ariane 5 launched successfully the ATV Jules Verne to the ISS (9 March), Star One C2 & Vinasat-1 to GTO (18 April), Skynet 5C & Turksat 3A to GTO (12 June); 8 other commercial satellites will be launched this year**
  - **Soyuz launched successfully the second Galileo demonstrator satellite Giove-B (27 April)**
  - **Arianespace Service & Solutions will continue to be Number 1 worldwide**
  - **Capitalizing on its strength, the company will be a key player to prepare the future of Europe in space**

# Service & Solutions For Scientific Endeavours

