EPO IN A MULTINATIONAL CONTEXT

Heidelberg, June 2013

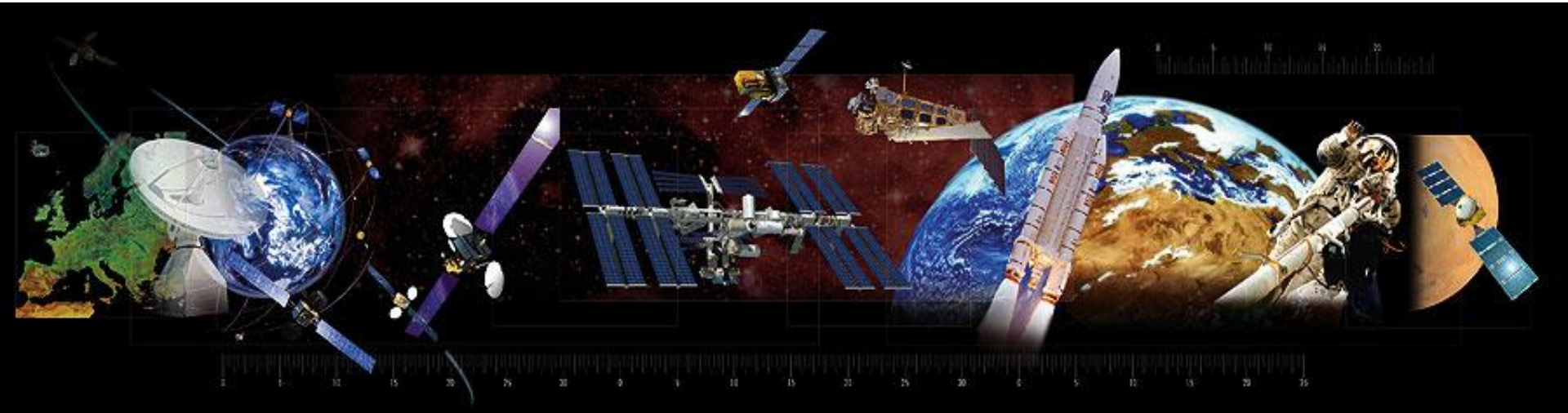
ESA FACTS AND FIGURES

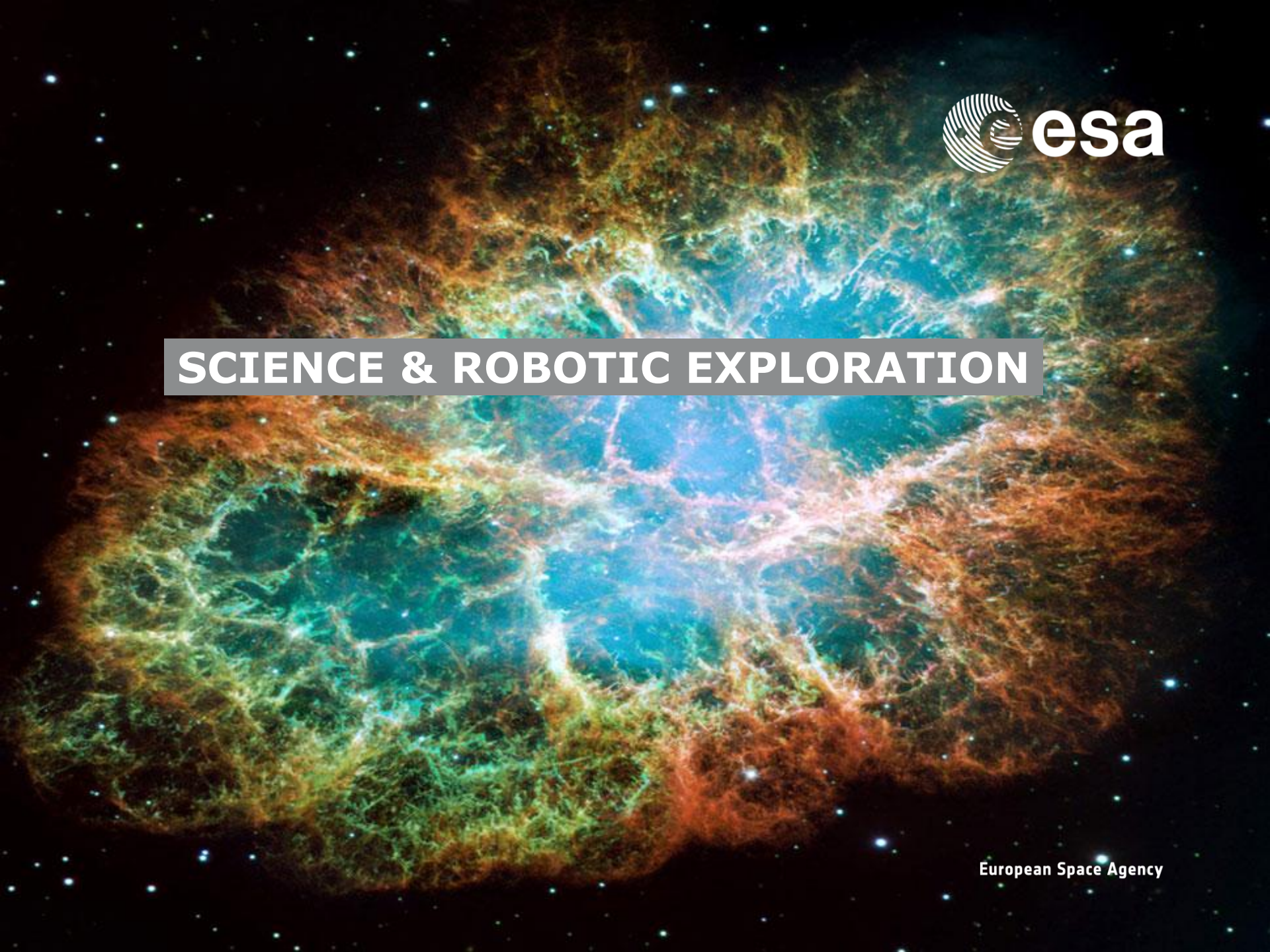
- Over 40 years of experience
- 20 Member States
- Six establishments in Europe, about 2200 staff
- 4 billion Euro budget (2013)
- Over 70 satellites designed, tested and operated in flight
- 17 scientific satellites in operation
- Six types of launcher developed
- Celebrated the 200th launch of Ariane in February 2011

ACTIVITIES

ESA is one of the few space agencies in the world to combine responsibility in nearly all areas of space activity.

- **Space science**
- **Human spaceflight**
- **Exploration**
- **Earth observation**
- **Launchers**
- **Navigation**
- **Telecommunications**
- **Technology**
- **Operations**




esa
SCIENCE & ROBOTIC EXPLORATION
European Space Agency

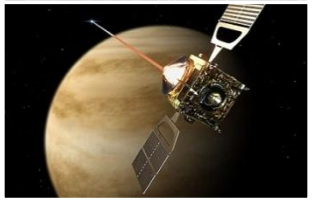
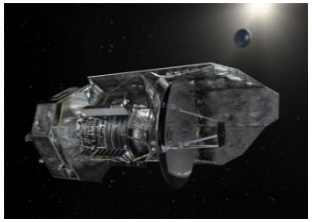
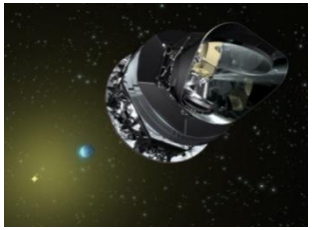
TODAY'S SCIENCE MISSIONS (1)

- **XMM-Newton** (1999–) X-ray telescope
- **Cluster** (2000–) four spacecraft studying the solar wind
- **Integral** (2002–) observing objects in gamma and X-rays
- **Hubble** (1990–) orbiting observatory for ultraviolet, visible and infrared astronomy (with NASA)
- **SOHO** (1995–) studying our Sun and its environment (with NASA)

TODAY'S SCIENCE MISSIONS (2)

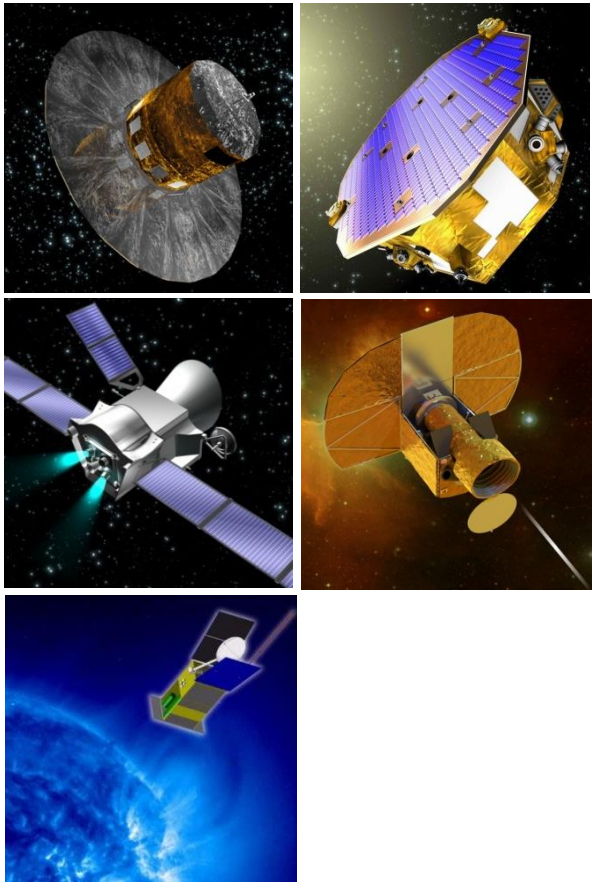
- **Mars Express** (2003–) studying Mars, its moons and atmosphere from orbit
- **Rosetta** (2004–) the first long-term mission to study and land on a comet
- **Venus Express** (2005–) studying Venus and its atmosphere from orbit
- **Herschel** (2009–) far-infrared and submillimetre wavelength observatory
- **Planck** (2009–) studying relic radiation from the Big Bang



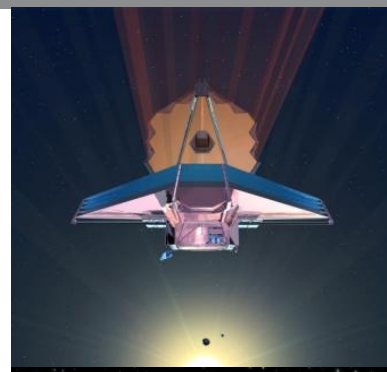
UPCOMING MISSIONS (1)

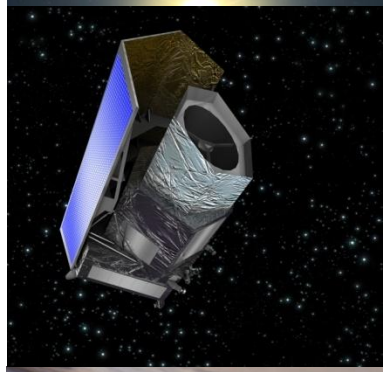
- **Gaia** (2013) mapping a thousand million stars in our galaxy
- **LISA Pathfinder** (2015) testing technologies for gravity wave detection
- **BepiColombo** (2014) a satellite duo exploring Mercury (with JAXA)
- **Cheops** (2017) studying exoplanets around nearby bright stars
- **Solar Orbiter** (2017) studying the Sun from close range

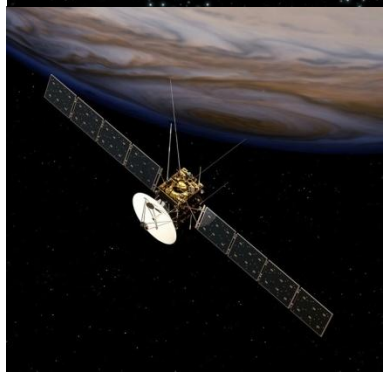


UPCOMING MISSIONS (2)

- **James Webb Space Telescope** (2018) studying the very distant Universe (with NASA/CSA)
- **Euclid** (2020) probing 'dark matter', 'dark energy' and the expanding Universe
- **JUICE** (2022) studying the ocean-bearing moons around Jupiter

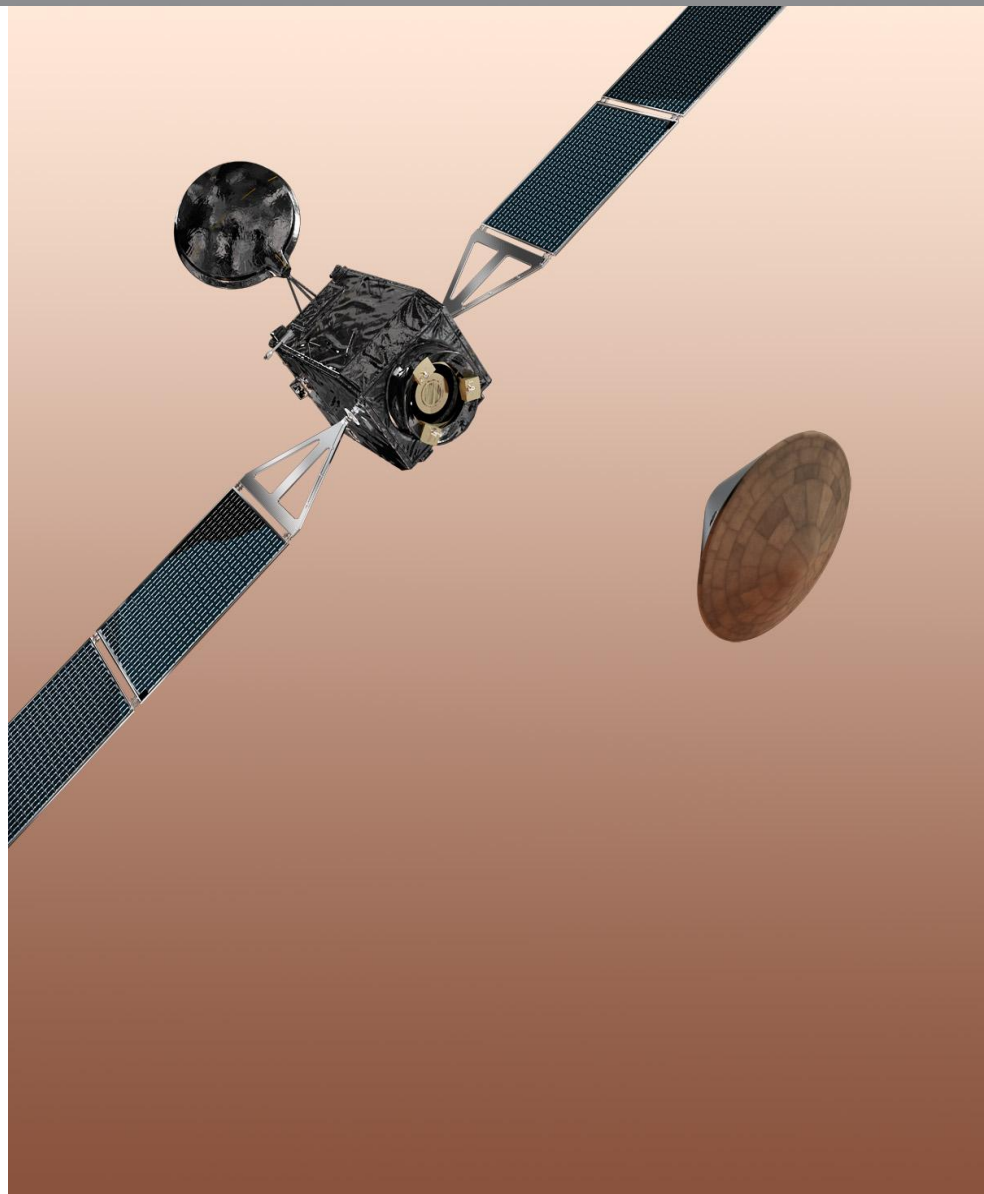






ROBOTIC EXPLORATION

In cooperation with Roscosmos, two **ExoMars** missions (2016 and 2018) will investigate the martian environment, particularly astro-biological issues, and develop and demonstrate new technologies for planetary exploration with the long-term view of a future Mars sample return mission.



ESA CONTEXT

- **Multinational**
  Multilingual and multicultural
  (20 member states)
- **International**
  Space Agencies
- **Multi-programme context**
  ESA wide
  Directorate wide

EPO STRATEGY AT ESA

Target Groups

1. General Public
2. European scientific community
3. Media and opinion formers
4. Decision makers
5. Space industry
6. Stakeholders (Delegations)
7. Students (primary, secondary schools and University)

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Communication Mix

1. Media Relations
2. Online
3. Events
4. Exhibition
5. Social Media
6. Partnerships

PLANCK

INPUT

1. CMB image
2. 50 scientific papers
3. International Planck Science Team

PLANCK

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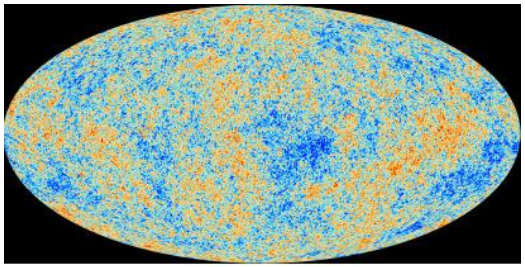
OUTPUT

1. 

3. 

esa plain text press releases

European Space Agency

ESA 13-Jun-2013

Back to Index

French | German

Nº 7–2013: PLANCK REVEALS AN ALMOST PERFECT UNIVERSE

20 March 2013

Acquired by the European Space Agency's Planck space telescope, the most detailed map ever created of the cosmic microwave background – the relic radiation from the Big Bang – was released today revealing the existence of features that challenge the foundations of our current understanding of the Universe.

The image is based on the initial 15.5 months of data from Planck and is the mission's first all-sky picture of the oldest light in our Universe, imprinted on the sky when it was just 380 000 years old.

At that time, the young Universe was filled with a hot dense soup of interacting protons, electrons and photons at about 2700C. When the protons and electrons joined to form hydrogen atoms, the light was set free. As the Universe has expanded, this light today has been stretched out to microwave wavelengths, equivalent to a temperature of just 2.7 degrees above absolute zero.

This 'cosmic microwave background' – CMB – shows tiny temperature fluctuations that correspond to regions of slightly different densities at very early times, representing the seeds of all future structure: the stars and galaxies of today.

According to the standard model of cosmology, the fluctuations arose immediately after the Big Bang and were stretched to cosmologically large scales during a brief period of accelerated expansion known as inflation.

Planck was designed to map these fluctuations across the whole sky with greater resolution and sensitivity than ever before. By analysing the nature and distribution of the seeds in Planck's CMB image, we can determine the composition and evolution of the Universe from its birth to the present day.

Overall, the information extracted from Planck's new map provides an excellent confirmation of the standard model of cosmology at an unprecedented accuracy, setting a new benchmark in our manifest of the contents of the Universe.

5. 

PLANCK


Le Monde
LE MONDE DES LIVRES
En Tunisie, le drame des disparus de la révolution
CRISE CHYPRIOTE : L'ULTIMATUM DE FRANCFORT
DES GTI POUR ROULER DES MÉCANIQUES
IL Y A 13,8 MILLIARDS D'ANNÉES
International Herald Tribune
THE GLOBAL EDITION OF THE NEW YORK TIMES
PLAYERS UNITED BIGGER CHECKS ON THE WAY
FLOYD NORRIS THE FOLLY OF GIANT BANKS
Obama asks Israelis and Palestinians to talk
Kurd leader issues a call for cease-fire with Turkey
The New York Times
"All the News That's Fit to Print"
FRIDAY, MARCH 22, 2013
PRESIDENT URGES ISRAELIS TO PUSH EFFORT FOR PEACE
APPEAL AIMED AT YOUNG
In Jerusalem, He Eases Stance on Settlement Halt Before Talks
By MARK LANDLER
The Cosmos, Back in the Day
An image from data recorded by a European Space Agency satellite shows a heat map of the universe as it appeared 370,000 years after the Big Bang. Page A10.
As Pollution Worsens in China, Solutions Succumb to Infighting
Once Few, Women Hold More Power in Senate
By JENNIFER STEINHAUER
SCIENTIFIC AMERICAN
Science Agenda
View of Primordial Universe Confirms 'Inflation' after Big Bang
"High inte and a lively style."
FINANCIAL TIMES
Dimon's not forever
Has whale affair harmed JPMorgan boss? Page 15
Look smart with wearable technology
Analysis, Page 7
ECB ultimatum on bank bailout ● Island pushed to agree deal ● Queues at cashpoints
Cyprus unveils fresh rescue plan
TOMORROW IN FT WEEKEND
New view of oldest light in the sky
The universe But not as we know it
NRC HANDELSBL
Op weg naar de Biënnale in Venetië
Cultureel Supplement
KNVB komt met actieplan
Binnenland 10-11
Interview met Sidse 'Borgen' Knudsen
Media 36
Nieuwe 'babyfoto' van het heelal: 100 miljoen jaar ouder dan gedacht
Frankfurter Allgemeine
ZEITUNG FÜR DEUTSCHLAND
Ganz früher war alles besser
Versprechen

Multinational Coordination

1. Input of international Planck Science Team's
2. Non Embargo policy
3. Space Agencies and National Science Institutes involved in Planck
4. Priority within ESA
5. Space industry
6. Stakeholders

EPO IN A MULITNATIONAL CONTEXT

Principles

1. Cooperation
2. Competition
3. Based on Missions
4. Priority to content
5. Uniqueness

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Challenges

1. Sustainability
2. Brand communication
3. Grand themes

THANK YOU

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