

Communicating about our missions

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Space Science Editor
EJR-Quartz for ESA

Geoplanet workshop 10 Jan 2018

Overview

- The Who, Why, What, When and How of communications
- Examples: Following a mission throughout its lifetime
- Case study: Rosetta
- Coming soon...



Why communicate?

What is ESA?

The European Space Agency (ESA) is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world.



Why communicate?

To raise awareness, understanding and support of our activities, by providing information and opportunities to engage



Why communicate?

To promote :

- THE Space Agency for Europe
- United space in Europe / International cooperation
- Europe's world class science, industry and technology

...To the largest possible audience

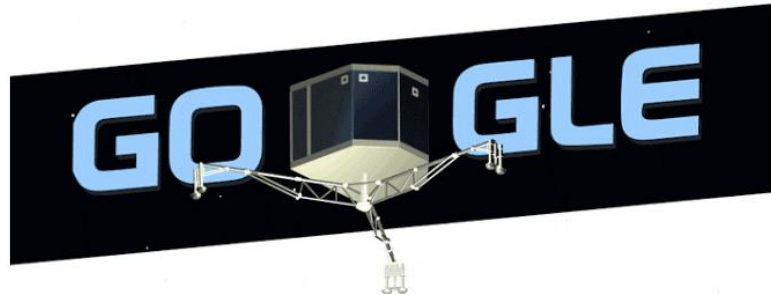


The White House retweeted

Philae Lander @Philae2014 · Nov 12
Touchdown! My new address: 67P! #CometLanding

SpaceX @SpaceX Following

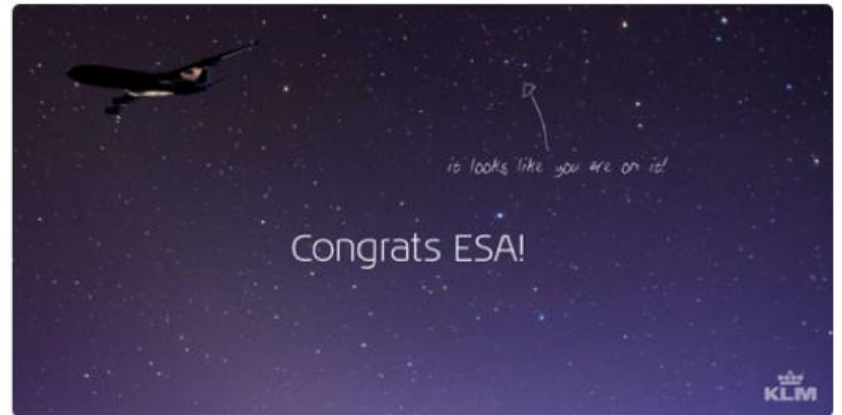
Congratulations @esa on @Philae2014's touchdown on comet 67P! #CometLanding



Neil deGrasse Tyson @neiltyson Follow

Yup. We're soft landing on a comet today. Normally my "We" means @NASA. But in this case it's @ESA, the European Space Agency

Royal Dutch Airlines @KLM · Nov 12
Congratulations @esa! #CometLanding



294 256

Who do we communicate to?

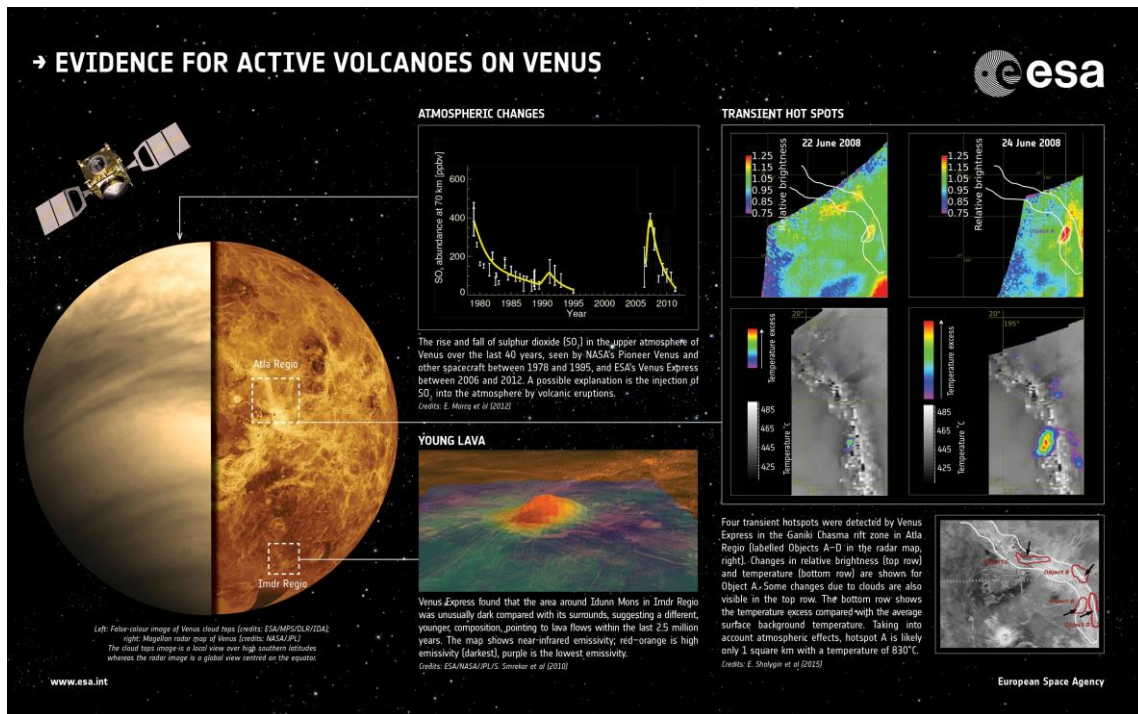


When do we communicate?

- Key mission events



- Important scientific results

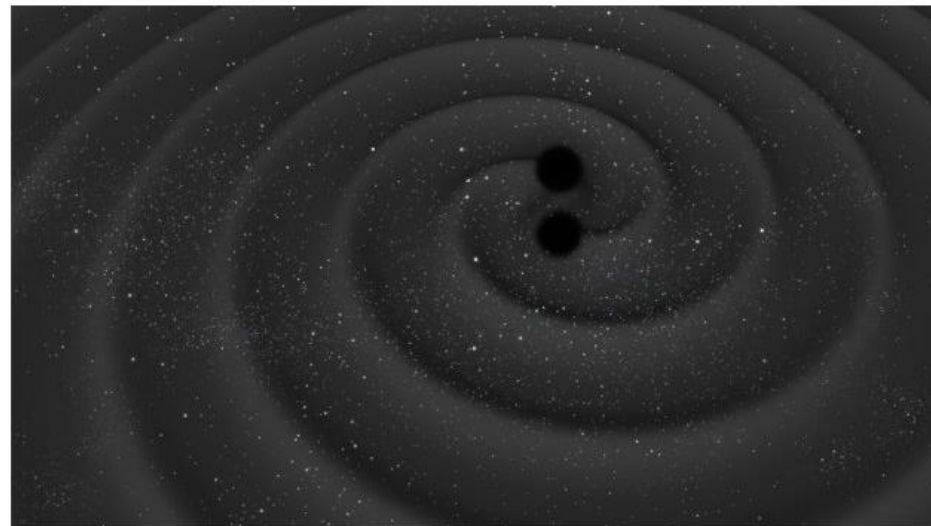




Artist's impression of an active galaxy

ESA'S NEW VISION TO STUDY THE INVISIBLE UNIVERSE

28 November 2013 The hot and energetic Universe and the search for elusive gravitational waves will be the focus of ESA's next two large science missions, it was announced today.



Merging black holes

GRAVITATIONAL WAVE MISSION SELECTED, PLANET-HUNTING MISSION MOVES FORWARD

20 June 2017 The LISA trio of satellites to detect gravitational waves from space has been selected as the third large-class mission in ESA's Science programme, while the Plato exoplanet hunter moves into development.

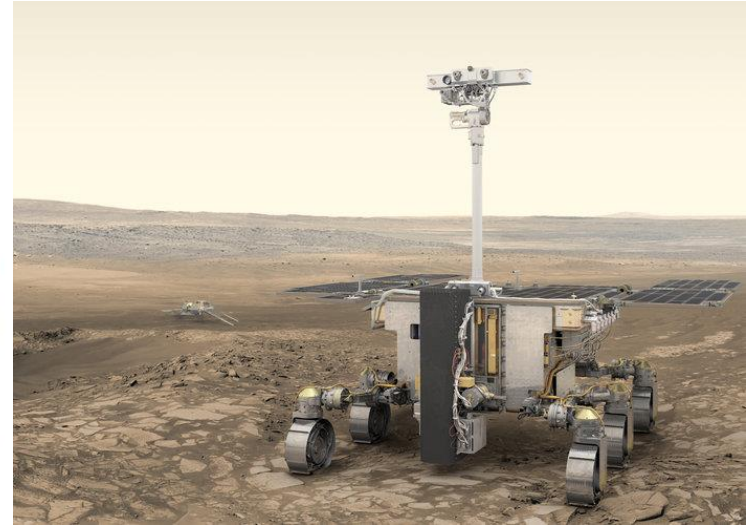
EUROPE DELIVERS FIRST JWST INSTRUMENT



MIRI being prepared for vibration testing

9 May 2012 The first instrument to be completed for the James Webb Space Telescope, MIRI, was handed over by the European consortium that built it to ESA at a ceremony held in London today, and will now be delivered to NASA aiming for launch in 2018.

The delivery of MIRI, the Mid InfraRed Instrument, marks an important milestone for JWST, an infrared space observatory with a collecting area more than two and a half times larger than ESA's Herschel Space Observatory – the largest infrared scientific telescope so far flown to space.



FULL GO-AHEAD FOR BUILDING EXOMARS 2020

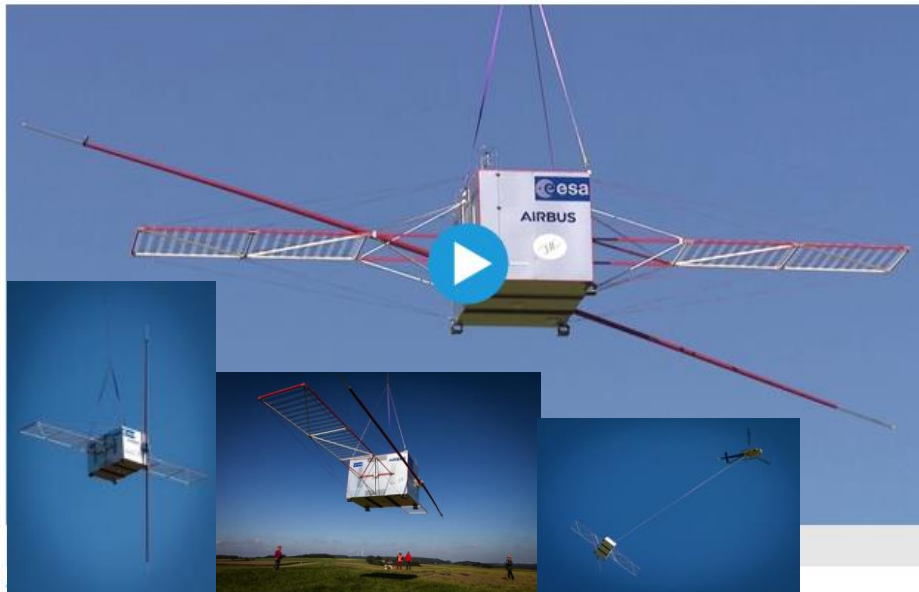
16 December 2016 The first ExoMars mission arrived at the Red Planet in October and now the second mission has been confirmed to complete its construction for a 2020 launch.

ESA and Thales Alenia Space signed a contract today that secures the completion of the European elements of the next mission.

Testing milestones



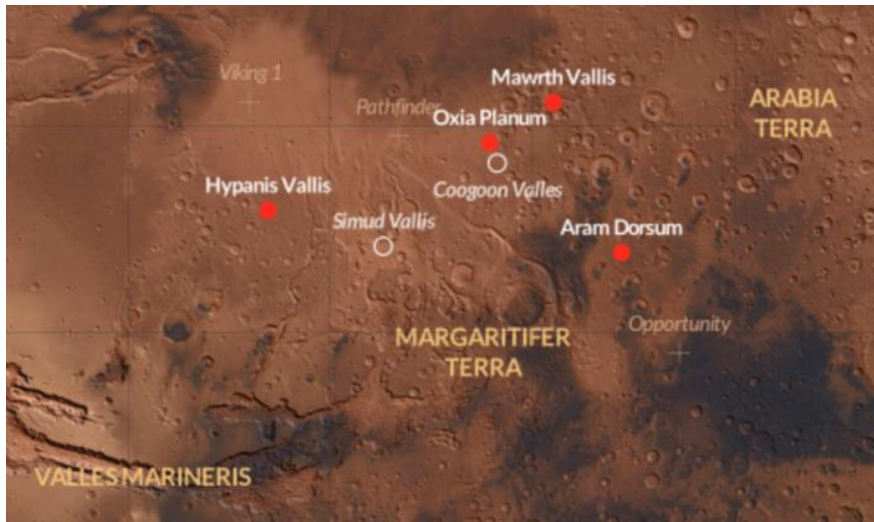
BEPICOLOMBO SOLAR WING DEPLOYMENT TEST



HELICOPTER TEST FOR JUPITER ICY MOONS RADAR

26 September 2017 A long radar boom that will probe below the surface of Jupiter's icy moons has been tested on Earth with the help of a helicopter.

Landing site selections



REPLAY: ROSETTA LANDING SITE ANNOUNCEMENT



CALL FOR MEDIA: ROSETTA LANDING SITE ANNOUNCEMENT

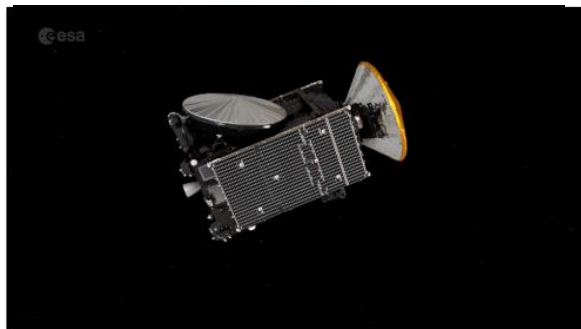
4 September 2014 Members of the media are invited to ESA Headquarters in Paris, France, on 15 September for the announcement of the primary landing site for Rosetta's lander Philae, where in November it will attempt the first soft touchdown in history on a comet.

FINAL TWO EXOMARS LANDING SITES CHOSEN

28 March 2017 Two ancient sites on Mars that hosted an abundance of water in the planet's early history have been recommended as the final candidates for the landing site of the 2020 ExoMars rover and surface science platform: Oxia Planum and Mawrth Vallis.

Launch, cruise and arrival

ExoMars orbiter @ESA_TGO · 14 Mar 2016
YEEEEAAAAHHHHHHH! Thank you @Roscosmos for a rockin' ride to #space! 7 months & 500 million km to #Mars! #ExoMars



32 799 862



ExoMars orbiter @ESA_TGO · 14 Mar 2016
Sit back, relax & enjoy the cruise to #Mars! Will provide regular updates during flight & about destination :-)



9 298 356

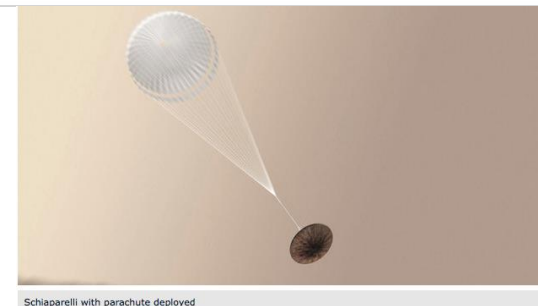


ExoMars orbiter @ESA_TGO
Oct 19, 2016

YES! CONFIRMED! I'm in Mars orbit! #ExoMars



3.6K 5.2K



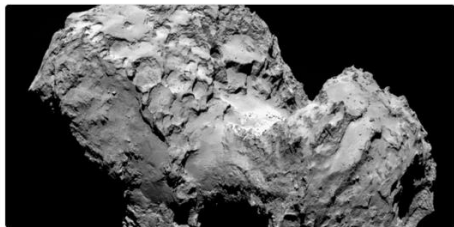
Schiaparelli with parachute deployed

SCHIAPARELLI LANDING INVESTIGATION COMPLETED

First views, last views

ESA Rosetta Mission @ESA_Rosetta · Aug 6

"Hello, Comet!"

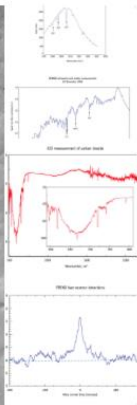
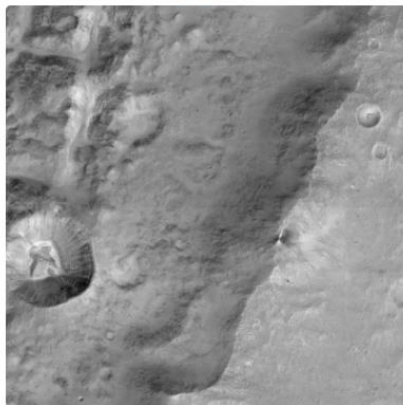


8.7K 4.5K View more photos and videos



ExoMars orbiter @ESA_TGO · 29 Nov 2016

Incredible week testing out my science instruments for first time at #Mars! Full summary, incl images: [ow.ly/6JyH306CzNC](https://www.esa.int/our_work/ESA_programmes/exploration/exo_mars/ExoMars_mission/ExoMars_orbiter/ExoMars_orbiter_instrument_status_report) #ExoMars

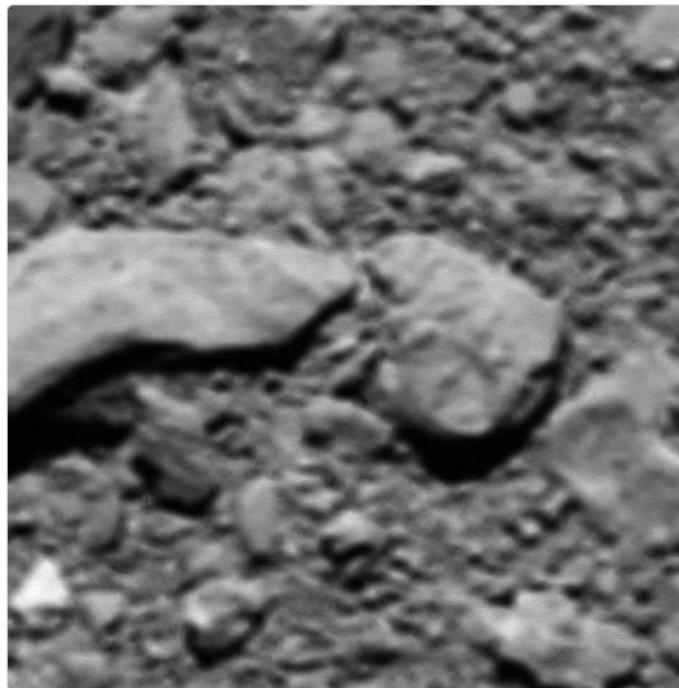


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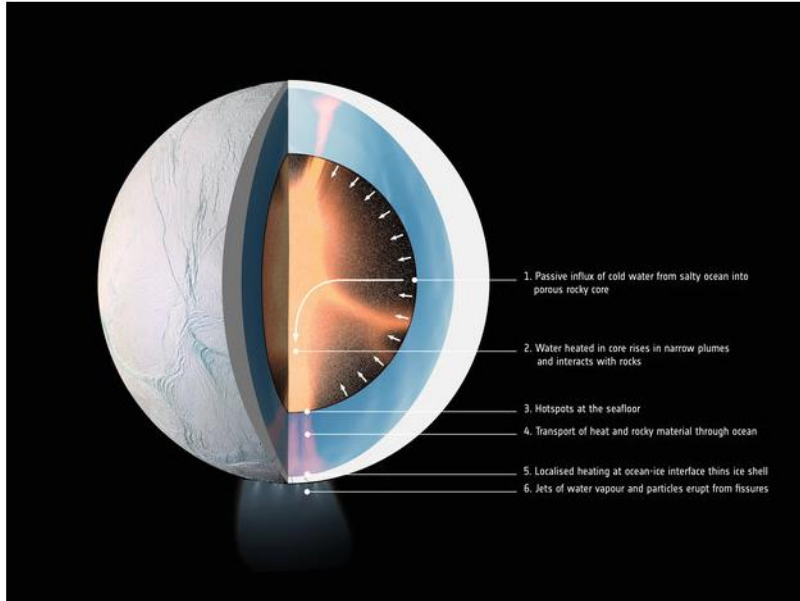
ESA Science @esascience · 30 Sep 2017

The final image from @ESA_Rosetta #OTD last year turned out to not be so final! Last impression reconstructed: [ow.ly/atsL30fvHwc](https://www.esa.int/our_work/ESA_programmes/exploration/rosetta/rosetta_mission/rosetta_mission_overview/rosetta_mission_overview_images/rosetta_mission_overview_images_images)



30 61

Science, science and more science!



Enceladus interior

HEATING OCEAN MOON ENCELADUS FOR BILLIONS OF YEARS

6 November 2017 Enough heat to power hydrothermal activity inside Saturn's ocean moon Enceladus for billions of years could be generated through tidal friction if the moon has a highly porous core, a new study finds, working in favour of the moon as a potentially habitable world.

How to make a news story

Project scientist alerts comms team of upcoming peer-reviewed paper

'Editorial Board' (science experts and editors) discusses potential for news coverage and for which audience / platform

Coordination with lead authors, journal and external partners, and production of story and graphics

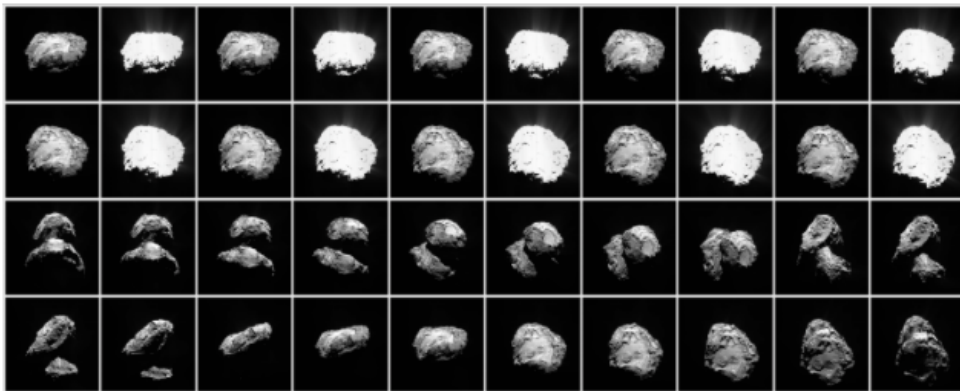
Publish and promote on ESA channels, address any feedback

Archiving and Legacy

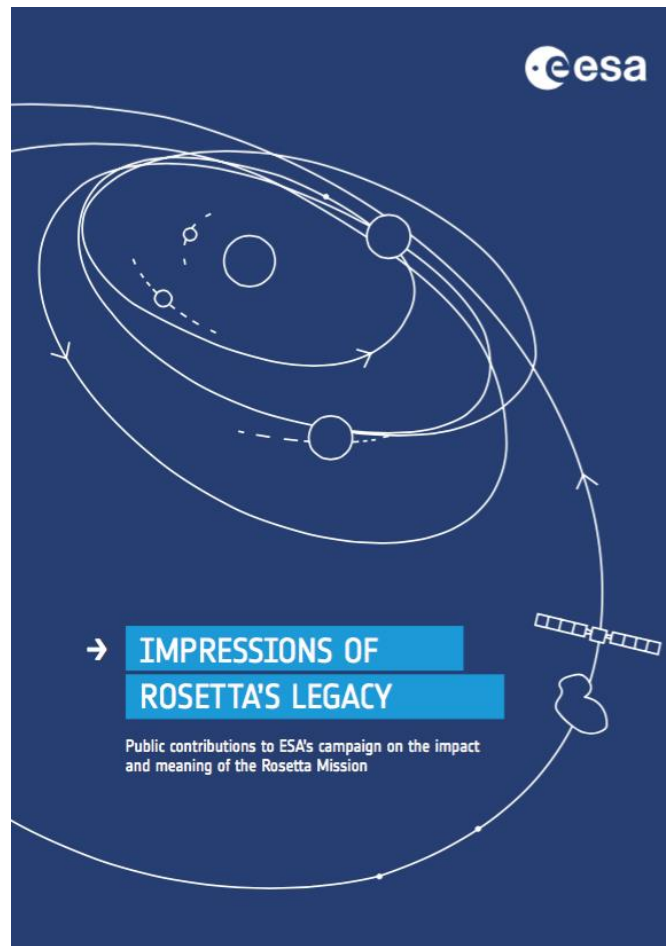
→ OSIRIS DATA RELEASE: MARCH–MAY 2015

A new batch of thousands of images from Rosetta's OSIRIS imaging system have been released into ESA's [Archive Image Browser](#) and the [Planetary Science Archive](#).

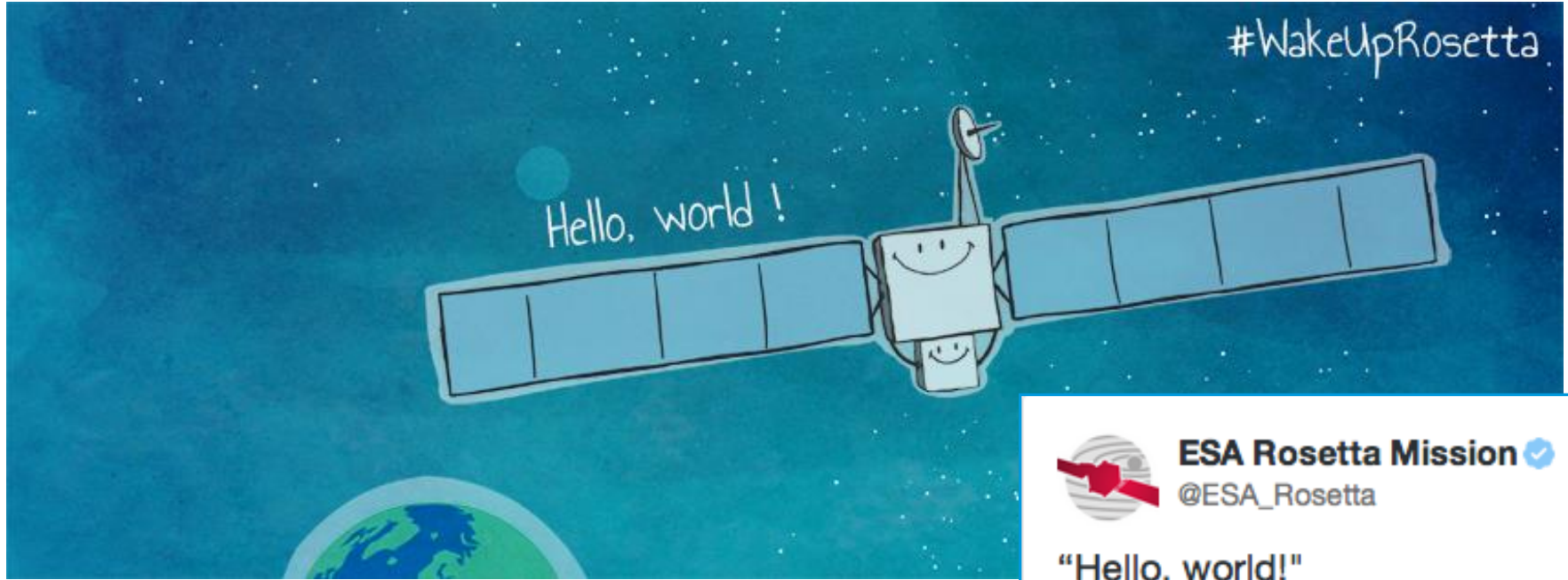
This latest OSIRIS data release comprises 2423 narrow-angle camera images and 4378 wide-angle camera images from the period 11 March – 24 May 2015. You can browse through the new images in the MTP 014, 015 and 016 albums [here](#).



Example of images from the OSIRIS narrow-angle camera albums in the latest data release. Credits: ESA/Rosetta/MPS for OSIRIS Team MPS/UPD/LAM/IAA/SSO/INTA/UPM/DASP/IDA



Rosetta case study



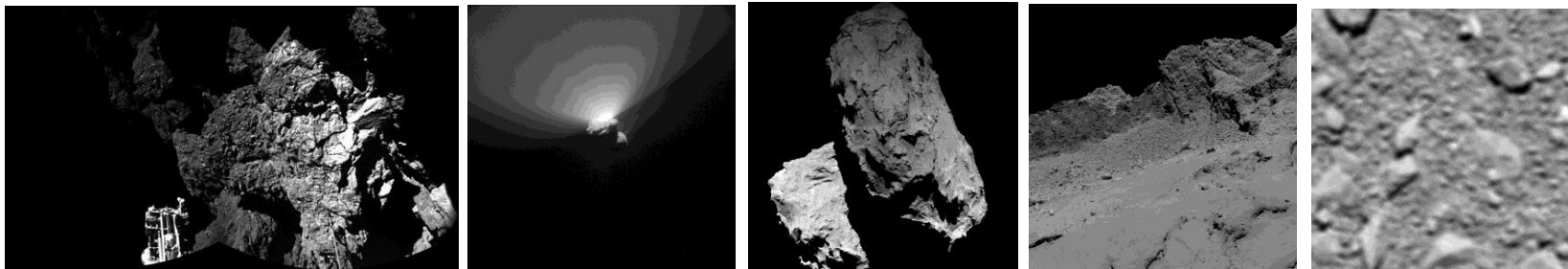
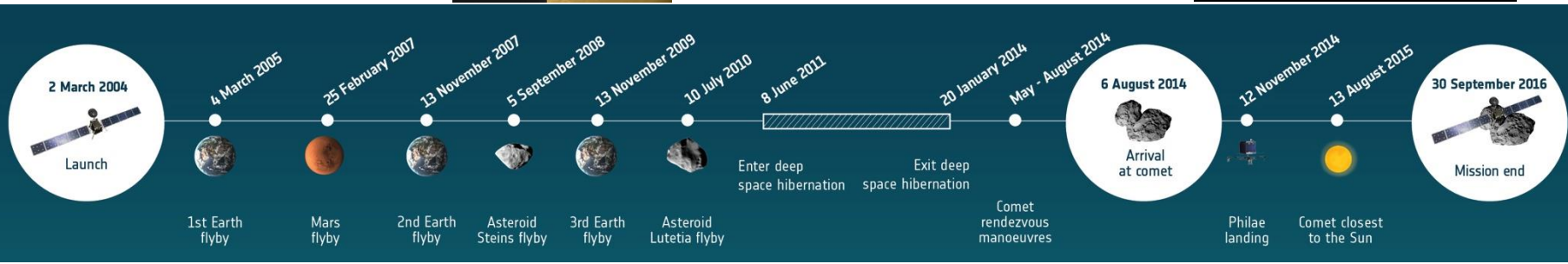
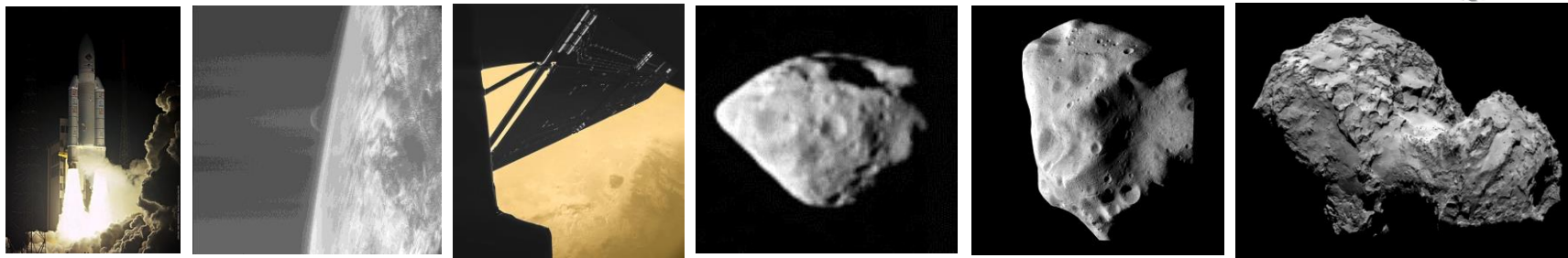
 **ESA Rosetta Mission** ✓
@ESA_Rosetta

“Hello, world!”

7:18 PM - 20 Jan 2014



Rosetta's journey...



Credits: ESA/CNES/ARIANESPACE-Service Optique CSG, 2004; ESA/Rosetta/NAVCAM – CC BY-SA IGO 3.0 ; ESA/Rosetta/MPS for OSIRIS Team MPS/UPD/LAM/IAA/SSO/INTA/UPM/DASP/IDA; ESA/Rosetta/Philae/CIVA



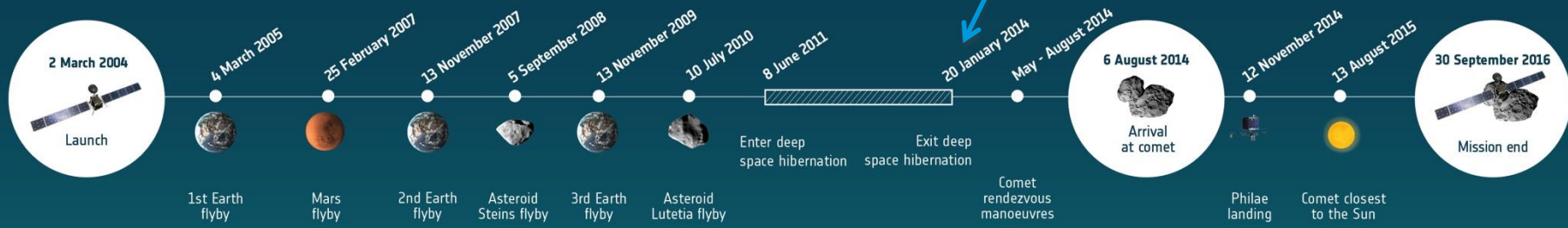
European Space Agency

...compared with evolution of social media

Platform launch



"...Once mission controllers have established contact with Rosetta, our @ESA_Rosetta Twitter channel will also wake up, making this the best immediate source for confirmation that the spacecraft is awake..."
(ESA Press release text)



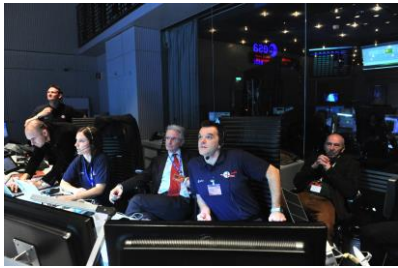
Main ESA accounts opened

Rosetta Mission accounts opened

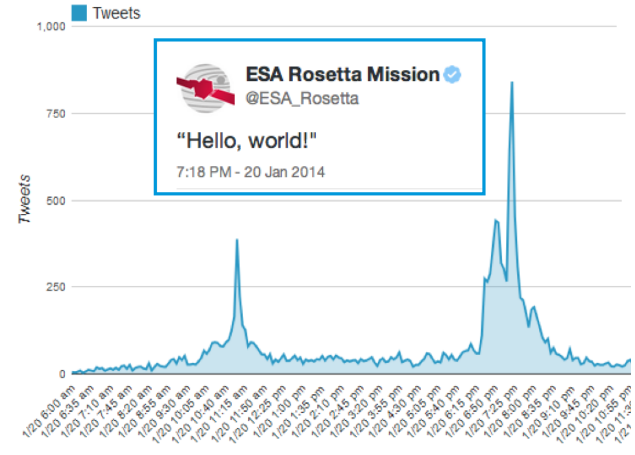


#WakeUpRosetta

The power of a hashtag, and sharing the emotion – live



Tweet volume throughout the day:



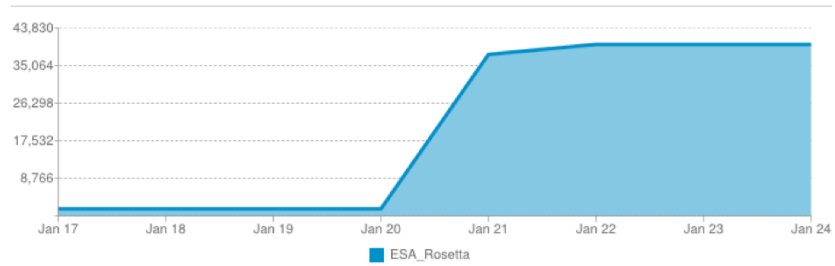
Peak 1 of 388 tweets at 11:00 CET at time of the wake-up
Peak 2 of 841 tweets at 19:20 CET Rosetta signal is received

Comet-chasing Rosetta spacecraft wakes up from 3-year slumber, tweets 'Hello World!' in different languages

Rosetta Spacecraft Awakens During Comet Chase, Tweets Earth

Rosetta Wakes Up, Phones Home, Starts Tweeting

Twitter : Follower Growth



Photos: ESA/J. Mai



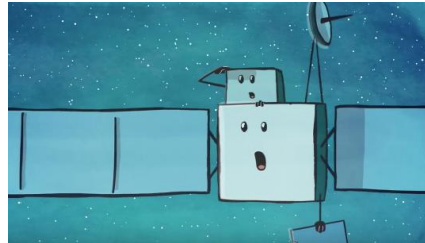
Linking everyday themes to mission milestones

20 Jan 2014: Spacecraft wakes up



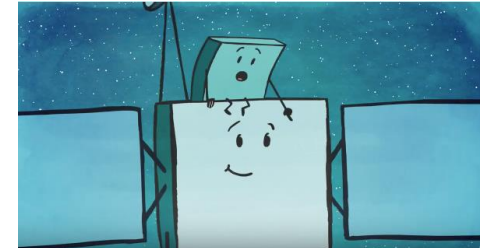
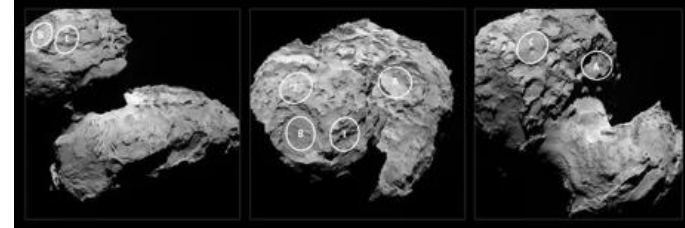
- How do you wake up?
- How do you say 'wake up' in your language?
- Rosetta wakes up at 10am; what do YOU do at 10?
- Sleeping Beauty

6 Aug 2014: Arrives at destination



- "Are we there yet?"
- Journey / Arriving
- Where are YOU going?
- What do we do when we get there? (Mission themes: water, life...)

12 Nov 2014: Landing



- Choosing where to visit
- Finding a name for "site J"

Competitions

20 Jan 2014:
Spacecraft wakes up

**Wake Up Rosetta! –
video contest**



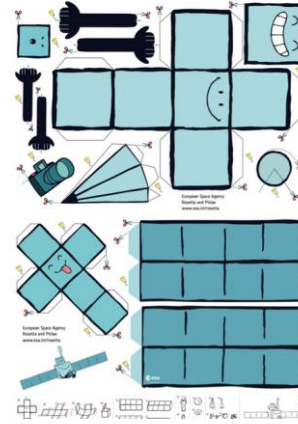
- 218 entries
- 75,000 votes

6 Aug 2014:
Arrives at destination

**Are we there yet? –
photo contest**



- 270 entries
- 23,000 votes



12 Nov 2014:
Landing

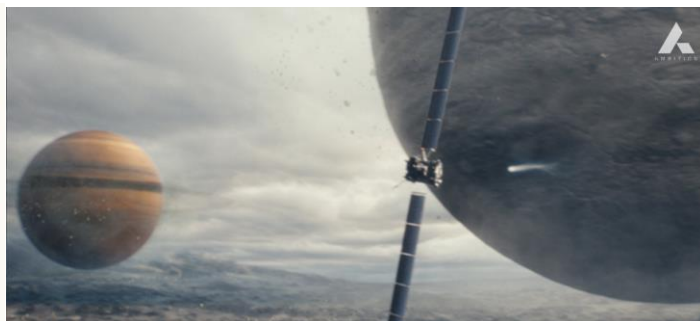
**Name site J –
naming contest**



- 8000+ entries received in 6 days
- 135 countries, 54 languages



Ambition: Sci-fi meets sci-fact



European Space Agency

Rosetta Mission

Rendezvous with a comet
Join the adventure!

12 November 2014

www.esa.int/rosetta

[@ESA_Rosetta](https://twitter.com/ESA_Rosetta) [f RosettaMission](https://www.facebook.com/RosettaMission) [i rosettamission](https://www.instagram.com/rosettamission)



youtube.com/esa

#CometLanding Behind the scenes



Wow! @ESA_Rosetta Tweets 'farewell' photo from space of @Philae2014 heading towards its historic #CometLanding

Philae Lander @Philae2014 · Nov 12
It's me... landing on a comet & feeling good! MT @ESA_Rosetta: I see you too! #CometLanding



ESA Rosetta Mission @ESA_Rosetta

.@Philae2014 right a bit ;)

RETWEETS 327 FAVORITES 432

7:05 AM · 12 Nov 2014

Rosetta And Philae Are Being Absolutely Adorable To Each Other On Twitter

The Huffington Post UK | By Michael Rundle
Posted: 12/11/2014 13:17 GMT | Updated: 12/11/2014 15:00 GMT

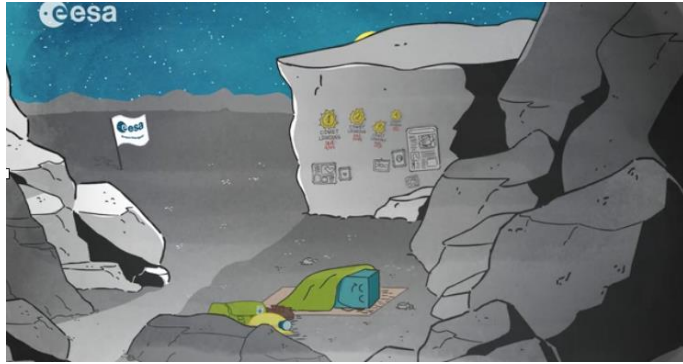
BBC Sign in

newsbeat

Comet landing messages melt hearts on Twitter

Watch Twitter Explode During the Comet Landing **TIME**





Philae: 'I'm feeling a bit tired, did you get my data? I might take a nap' **theguardian**

'I'm feeling a bit tired': comet lander's struggle for power, as seen on Twitter
-CTVNews.ca

Rosetta and Philae are breaking our hearts on Twitter *Washington Post*

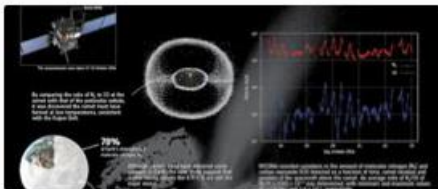


Rosetta and Philae: the most high profile break-up this year

Steven Young - Spaceflight Now / Astronomy Now
Emily Lakdawalla - Planetary Society
Chris Lintott - Sky at Night

Maintaining interest throughout 2015-16

ESA Rosetta Mission @ESA_Rosetta · 15d
 I've made the first detection of molecular nitrogen at a comet! ow.ly/Kyglu
[#LivingWithAComet #67P](https://twitter.com/xub7MZPRMV)
pic.twitter.com/xub7MZPRMV



Details

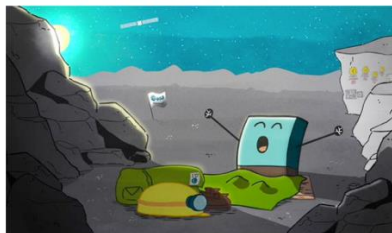
**→ ESAHANGOUT:
 ROSETTA MISSION'S
 DAY IN THE SUN**

13 August 2015
 13:00 GMT / 15:00 CEST

#Perihelion2015

ESA Rosetta Mission @ESA_Rosetta · Follow

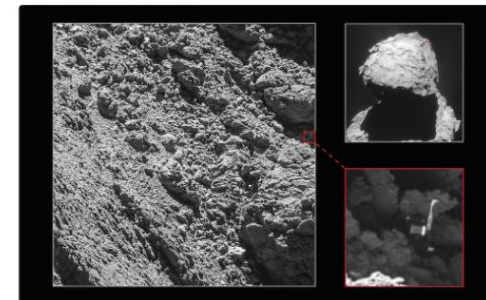
Incredible news! My lander Philae is awake!
[twitter.com/Philae2014/sta...](https://twitter.com/Philae2014/status...)



RETWEETS 10,895 FAVORITES 7,636

4:34 a.m. · 14 Jun 2015

ESA Rosetta Mission @ESA_Rosetta · 5 Sep 2016
 THE SEARCH IS OVER! I've found @Philae2014!! ow.ly/wGPY303UgXG
[#CometLanding #PhilaeFound](https://twitter.com/Philae2014)



↳ 269 ↺ 7.5K ❤️ 11K ✉️

ESA Rosetta Mission @ESA_Rosetta · 30 Sep 2016
[#MissionComplete #CometLanding](https://twitter.com/Philae2014)

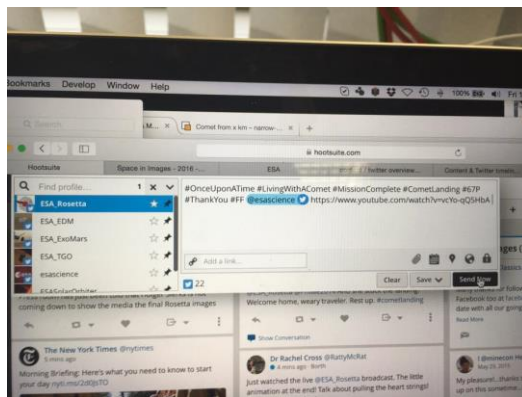
ESA Rosetta Mission @ESA_Rosetta · 30 Sep 2016
[#OnceUponATime #LivingWithAComet #MissionComplete #CometLanding #67P #ThankYou #FF @esascience](https://twitter.com/Philae2014)



Once upon a time... mission complete
 On the last day of her incredible mission, Rosetta slowly descends to the surface of Comet 67P/Churyumov-Gerasimenko. After having sent her extraordinary dat...
[youtube.com](https://www.youtube.com)

💬 131 ↺ 1.8K ❤️ 2.5K ✉️

↳ 172 ↺ 4.6K ❤️ 6.2K ✉️

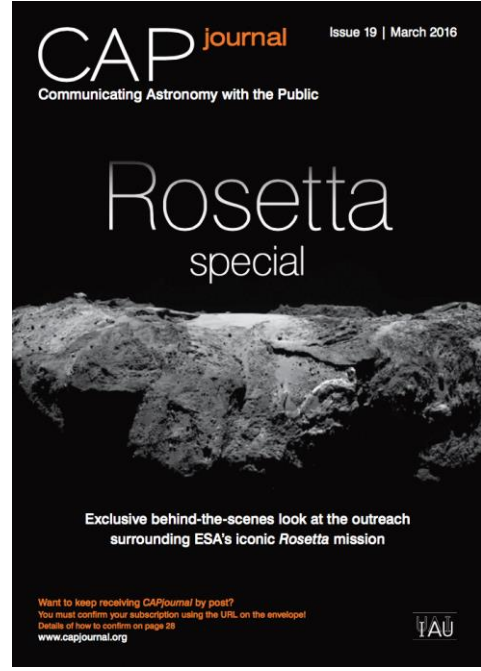
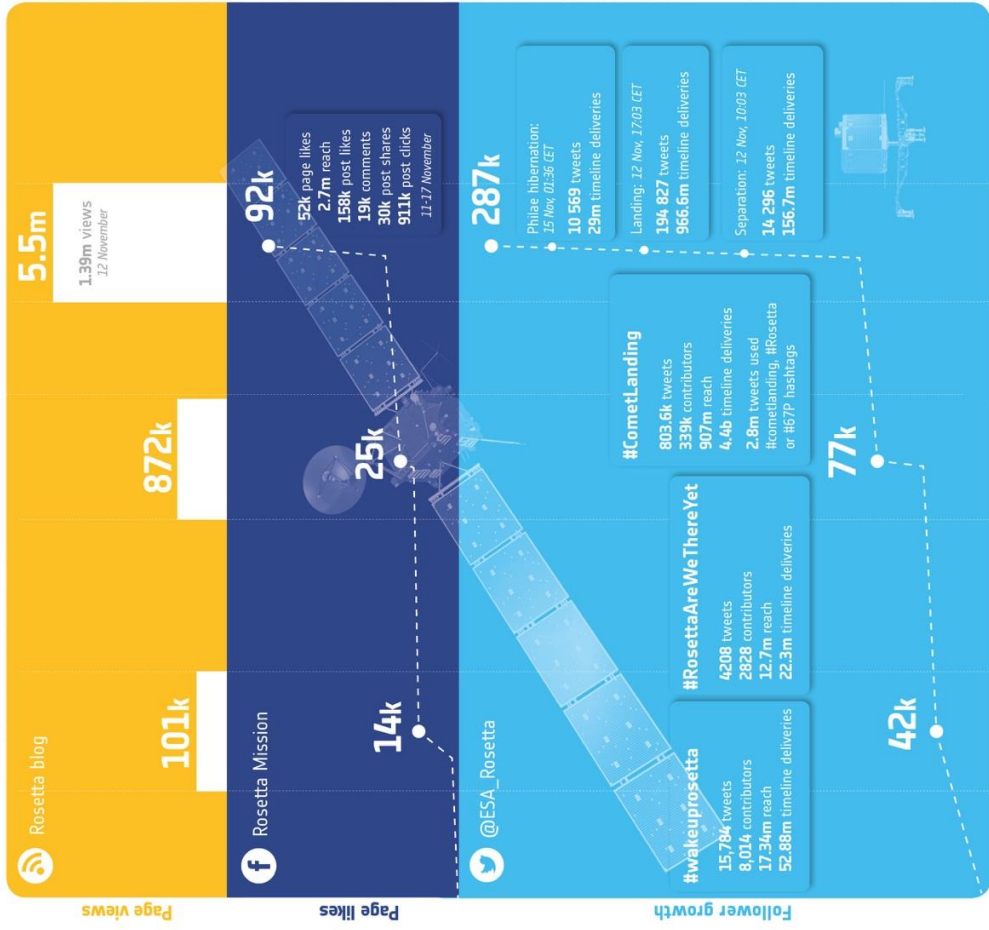


→ ROSETTA SOCIAL MEDIA INSIGHTS 2014

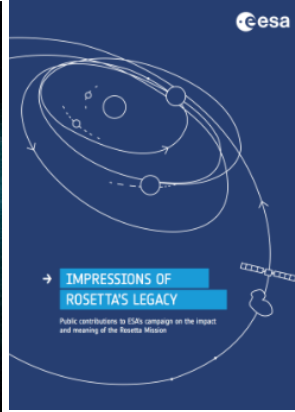
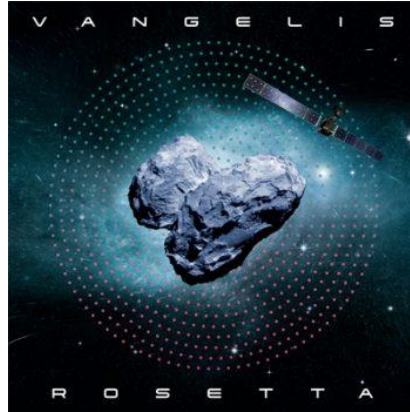
16.8m views
12 November

10m live views
12-13 November

14.5k new subscribers
18.3k likes
4.2k comments
8.9k shares
3.5m channel views
11-17 November



Engagement



Final round of spot prize drawing - Week 5 (4-7 October)
Dear Rosetta friends,
We have selected the last round of spot prize winners from the Rosetta mission.

A long social space journey
My passion for space was not limited by space itself. I want to communicate and share. I was looking for a good reason to...
Rosetta has changed my life and made me realise my dream. I've been interested in science my entire life, and I was so excited...

Arrival of the Comet
As we are interested in space, we were at home during the landing of the Philae lander on the comet. I chose this, as...

Rosetta, Philae et moi
I'll encounter Rosetta at Philae on 14th of October...

Cosmic Lullaby
Watching in silence as the Philae lander stopped at the moment for me, and I am sure for everyone else...

End of Mission celebration cake

Crossing oceans, borders and cultures, Rosetta is inspiring American students.
Rosetta Mission: a story of human...
The first time I found out about Rosetta Mission was when I had used to browse the internet aimlessly during which time I...

Rosetta Legacy and Prize winners - Week 5 (4-7 Oct 2016)
Dear Rosetta & Philae followers, contributors & supporters. Many thanks again for joining...

Life Lessons from a Comet
I've recently read a new book that connects Rosetta's mission to our lives...

Incredible dream from Rosetta
Rosetta comes to me as the first research job in my life and the most exciting one when I am. For me, these...
Nos habéis llevado a lomos de un cometa. Nunca imagine que se pudiera. Hacer una misión a un cometa. Lo mucho más desquies de mi vida. Pero lo habéis...

Amazing journey to far!
Dear Rosetta & Philae,
Congratulations on your mission! Those who have been involved in your mission must be so proud of you. I'm...

Une aventure extraordinaire!
J'ai suivi cette mission dès la phase de lancement de Rosetta car j'ai toujours voulu le début de la mission et très vite j'ai été...

How the Rosetta mission changed my life - let me count the ways
The mission to comet has not only changed my life, it has been so influential that I...

Goodbye Rosetta! Color My Comet Guppy
Giuseppe Conzo
External image

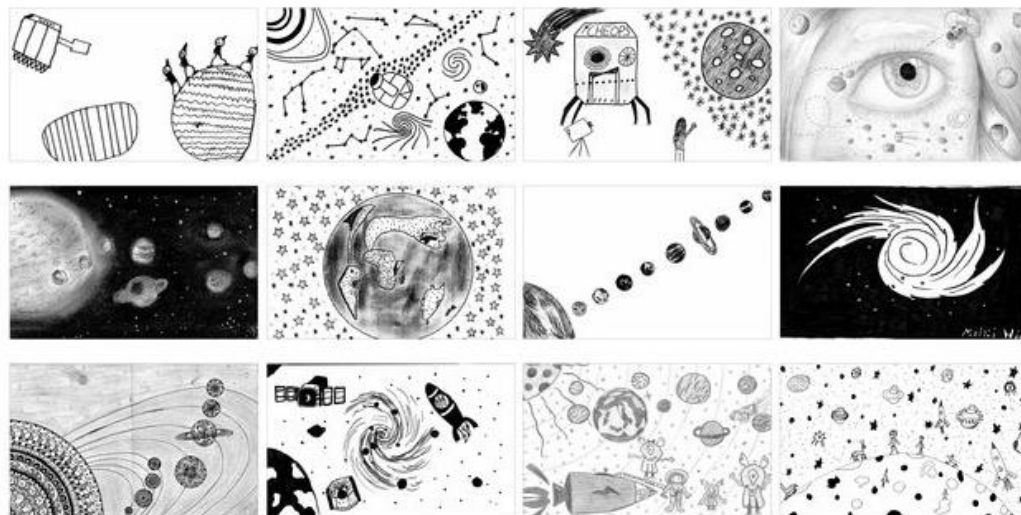


What next?



LAUNCH YOUR DESIGN WITH CHEOPS

2 November 2017 ESA is offering graphic designers and artists a unique opportunity to feature their work on the rocket carrying the Cheops satellite.

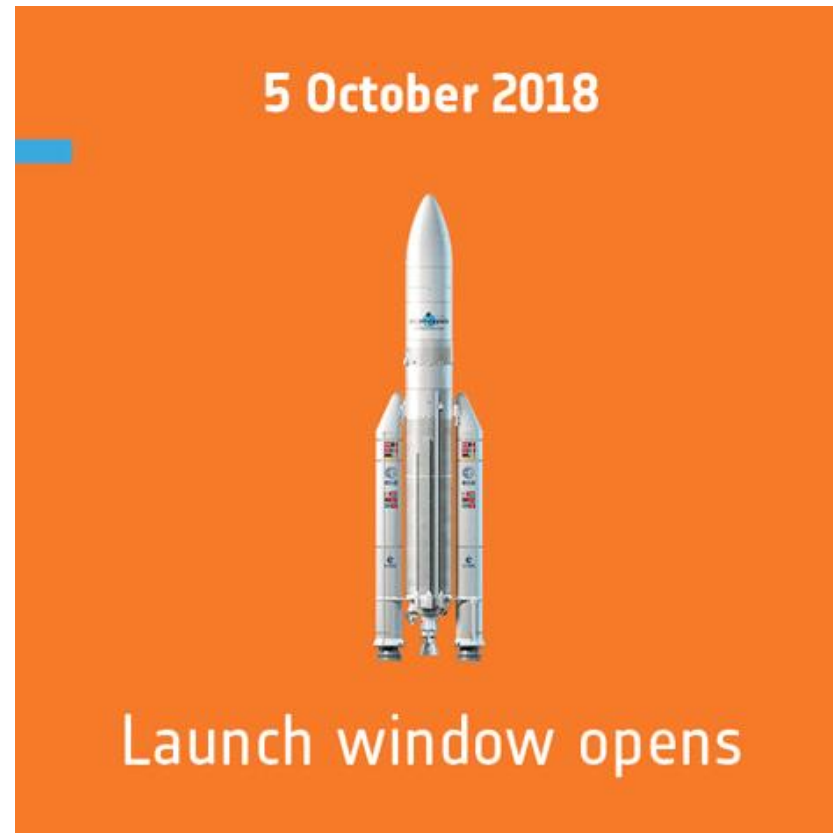


Cheops competition drawings

THREE THOUSAND DRAWINGS TO FLY INTO SPACE ON CHEOPS

31 March 2016 Thousands of children across Europe have taken part in a competition to submit drawings that will be miniaturised and sent into space onboard ESA's Cheops astronomy satellite.

What next?



Thank you!



emily.baldwin@esa.int
www.esa.int

[@astroemz](https://twitter.com/astroemz)
[@esascience](https://twitter.com/esascience)

