

# Defying money crunch, Europe sets new goals in space

November 21 2012, by Richard Ingham

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Europe on Wednesday set its sights on a new rocket and a deeper involvement in the International Space Station (ISS) despite intense constraints on budgets.

In a hard-fought strategy meeting in this southern Italian city, science ministers from the 20 nations of the [European Space Agency](#) (ESA) agreed to keep spending levels stable, at a total of just over 10 billion euros (\$12.7 billion) for the next three years.

"It's a big success in spite of the [economic situation](#)," ESA Director General Jean-Jacques Dordain said after the two-day meeting, the first top-level talks at the agency in four years.

The budget includes funding for a new launcher, called [Ariane 5](#) ME, which would start to fly in 2017, and work towards a successor, Ariane 6, whose maiden flight would be in 2021 or 2022.

It also finances ESA's continuing participation in the [International Space Station](#) to 2020.

Ending weeks of uncertainty, France and Germany bridged their differences over rocket preference with a compromise that will include an assessment in 2014 of the fast-changing market for satellite launches.

"Europe has taken a new leap in space," French Science Minister Genevieve Fioraso said as she hailed the deal.

The Naples talks had been overshadowed by discord over a replacement for the ageing but reliable Ariane 5, and many countries cast a worried eye at the emergence of US rivals, notably the fledgling corporation [SpaceX](#), in the satellite launch market.

The goal for the [new rocket](#) is to provide more flexible launch options and reduce, the 120 million euros (\$152 million) the Ariane 5 needs from ESA's budget each year.

France had been pushing for a smaller, sleeker Ariane 6, able to deal with one or multiple [payloads](#) up to about six tonnes, to meet an expected trend towards smaller satellites. It would require investment of about four billion euros (\$6.45 billion).

Industrialists feared the scheme was too vague and ambitious.

They preferred a German-backed option, an Ariane 5 ME (for "Midlife Evolution"), able to carry two large satellites each weighing five to six tonnes, and using a new engine, the Vinci, that can reignite in order to drop off payloads in different orbits. It would be ready by 2017 at a putative cost of two billion euros (\$2.5 billion).

In the end, engineers will push ahead with the ME but do everything they can to ensure that its technology is compatible with the Ariane 6.

"We are delighted, we got everything we had hoped for," Arianespace chief executive officer Jean-Yves Le Gall told AFP.

In another decision, ministers gave the go-ahead for continuing Europe's involvement in the ISS, a \$100-billion US-led project whose construction is now finished after years of delays and spending overruns.

For the first time, Britain said it would contribute directly to ESA's

share, promising 20 million euros to the kitty.

Europe's contribution to the ISS until 2020 will be to provide the navigation and propulsion, derived from its highly successful ATV space freighter, to a manned capsule that NASA is planning as a successor for the phased-out shuttle.

"Its maiden flight (will be) about 2017 or something like that," Jan Woerner, chairman of German space giant DLR, told reporters.

"The first flight will be an unmanned flight, but Orion is a future for capsule for human transportation. So it's a big deal. ESA is now on a critical path with the Americans for human transportation" in space, he said.

Ministers also gave the nod to a joint European-Russian plan for an unmanned mission to look for signs of life on Mars—the much-troubled ExoMars mission, on which more than 400 million euros (\$500 million) has been spent since it was first mooted in 2005.

It calls for sending an orbital probe to Mars in 2016 that would look for traces of methane gas and other biological clues in the Red Planet's atmosphere, followed by a six-wheeled rover in 2018.

The scheme was badly hit in February when NASA pulled out, prompting Europe to turn to Russia for help.

Under a draft deal, Russia will provide heavy-lift Proton rockets for the launches and in return get instrument space onboard the satellite and rover.

"It's a pity that we've lost the partnership with NASA but it's good that we've now got the Russians coming in instead, so we're optimistic that

this is now on track," British Science Minister David Willetts said.

But a 500-million-euro (\$600-million) project proposed by Astrium, part of the giant EADS aerospace corporation, to send an automated lander to the Moon's south pole in 2019, failed to clear the hurdle in Naples. Another idea, still at the drawing-board stage, to collaborate with China on a [space](#) weather forecasting system was similarly sidelined.

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