

## □ After Hours

### ASTRONAUT FRANK DE WINNE: "The EU space programme also benefits developing countries"

While working for the Commission one can meet very interesting people, even amongst the people that work in the EU offices. It becomes even more interesting when those people are available to talk about their experiences and their work. And, that they are so enthusiastic about their work for the European Union. Frank De Winne (43) is such a person. He became known worldwide as the flight engineer of the Odissea mission, bringing him in October-November 2002 with a Soyuz to the International Space Station. As a staff member of the European Space Agency (ESA), he is now working at DG Research to help establish a European space programme. "A programme that has the ambition to be helpful in a lot of other domains, of which development aid is one of the most important", Frank says. As a Unicef ambassador, having visited Darfur lately, he knows about the importance of development aid.

#### From fighter pilot to Unicef ambassador

After studying civil engineering at the Belgian Military Academy, Frank followed fighter pilot training. He was the first non-American pilot to receive the Semper Viper Award for demonstrating exceptional skills during a flight. Before joining the ESA's European Astronaut Corps in January 2000 he worked for the Belgian Air Force as a test pilot; he was responsible for flight safety programmes; commanded the 349<sup>th</sup> fighter squadron (based in Kleine Brogel); and lead a combined Belgian-Dutch detachment during the war over Kosovo, in which he had himself 17 combat sorties.

For his space trip, in the newly designed Soyuz TMA spacecraft, he

had to be trained in Moscow and therefore learn Russian in a very short time. The flight took 11 days in total. At the space station, he carried out 23 experiments in life and physical sciences and education. These included experiments in the 'microgravity science glovebox', an important new research facility designed and developed in Europe.

The space flight changed his life considerably. The pilot - Frank is a detached member of the Belgian Air Force - is now dedicated to improve co-operation in order to bring a better life for more people. "My Russian space flight commander was of my age. We realised that we had both followed a fighter plane training and that in the worst case we might have been fighting each other. Up there we were working together to build up something that is helpful for all mankind." This experience has also motivated him to accept becoming a Unicef ambassador.

This brought him to Darfur in Sudan at the end of July. "For education and a better life for children, I am always ready to help." Environment care has also become important for Frank. "The image of the earth is so impressive from up there. But also you realise how vulnerable the earth is. The atmosphere is so thin! We need to do everything possible to protect it. But I have enough confidence in mankind and technology to be reassured that we can work it out. Yes, man has made mistakes before, but now we don't take the first findings for granted, also alternatives are being looked for."

#### The EU makes a difference

Frank is convinced that the EU has an important role to play in general, and that working out a space programme has to be one of the main objectives. "I am prepared to support the initiatives to make people understand the need for more Europe. The EU's example of co-operation can inspire other parts of



Nico Keppens (right) interviews Frank De Winne, recently nominated viscount by the King



the world. And, unlike other 'space nations', the EU does not keep the results for itself. For instance, the proposed space programme accepts all possible partners, in the research stage as well as for the implementation of the results. Co-operation in the Galileo programme has already shown this. Another difference: in the US, most of the budget for space comes from the Pentagon."

Space exploitation and exploration is the only new domain the Constitution adds to the EU's tasks. The space policy will not stand on its own, though. Frank: "The intention is to have space as an integrated part of, and as a support for, other EU domains and objectives." The White Paper on a European space policy describes it as: Space technologies and applications will make contributions to: economic growth, job creation and industrial competitiveness; a successful enlargement of the Union; sustainable development; a stronger security and defence for all; and fighting poverty and aiding development.

"Europe needs this space programme for several reasons. If Europe wants to be a global player, a space component is a necessity. There is the need of some degree of independency. Free access to space must be reassured. This means also that one does not depend on others to launch European rockets or for other necessary technology. Also there is the need for scientific knowledge to prepare for the future. Education and vocation have to be in line with this objective. And don't forget the importance of exploration as a driver for new technologies. Just one example: water recycling. In space ships, more than 90% of water is recycled. The technology will be used in a research camp on Antarctica where from end 2004 onwards 70 people will stay for 9 months. With more research and miniaturisation of the system, it will become affordable to use it in other environments." He also defends human space flights. "When people

ask questions about my voyage, they want to know about how I felt, what I have seen, if I was afraid. That is what people are interested in. Robots cannot tell those stories afterwards. People want to 'feel' what happens. Therefore, I also support the efforts to start tourist space excursions. Of course, now it is only for the happy (fortunate) few, but in time it will become more affordable. Compare it with the evolution of airplane travelling."

### To the benefit of all

The Commission is already preparing the space programme part of the Constitution. A roadmap has been made and in the 7<sup>th</sup> research Framework Programme (FP7) space actions are foreseen, with a budget for space and another in the context of security and defence. Together with ESA and the member states' space agencies the priorities have to be defined. Three main actions are foreseen. Galileo – the in Europe started alternative for GPS – is already well under way and shows the European importance for co-operation and interoperability: devices for Galileo will have to be able to recognise GPS signals, too. With Global Monitoring for the Environment and Security (GMES), the programme intends to set up a permanently operating system not only with satellites but also with monitoring devices on the earth, in water and on mountains to support EU's goals on sustainable development and global governance. With this system, for instance nature disasters or sudden massive people migration will be spotted quicker. Creating a 'Global Big Brother' ? "No, certainly not. Again, Europe does not want to keep the information for itself, but to use it in co-operation with others to improve the daily life everywhere on earth. The EU seeks equal partnership. Therefore, and at the request of the Parliament, a world forum 'Earth & Space Conference' will be organised in 2005. The third action already foreseen

shows that too. With Digital Divide the inequality in the capability of access by broadband technology connectivity will be reduced."

Frank is not the only astronaut involved in using space technology to serve mankind. The members of the European Astronaut Corps have signed up a charter describing their common goal: 'peaceful human space exploration for the benefit of humankind at large and for the European people in particular'. They want to share their dream and experiences with others. They believe that Space Exploration has an important role to play in creating a European Identity; creating the knowledge base society; and inspiring the young generations that will continue to build the Europe of tomorrow. Most of them have taken up important functions in research or in politics in order to participate in the achievement of their goals.

How does he, as an 'outsider', evaluate the Commission ? "I am so far pleased with the work done at the Commission and I don't agree with criticism of Commission staff that is sometimes expressed. I have got to know a lot of people who are really dedicated to the job that they are doing, to the benefit of the people living in Europe and beyond."

Nico Keppens

#### More about:

- The White Paper that describes the action plan for implementing the European Space Policy: Com (2003) 673.
- Frank's space mission: [http://www.esa.int/export/esaMI/Odissea\\_Mission\\_ENGLISH/](http://www.esa.int/export/esaMI/Odissea_Mission_ENGLISH/)
- Under [www.esa.int](http://www.esa.int) you also find information about ESA, the Astronaut Corps.