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address by

Prof. Dr. Johann D. Woerner

Director General, European Space Agency

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Nanostructures - a perspective for the future.

In the past several developments were driven to investigate the possibilities of nanomaterial. Nanomaterial is not just looking to the scale of 10^{-9} but leads to new material properties and new possibilities. One out of this is the possible increase of strength compared to “ordinary” material.

For me as a civil engineer and now the Director General of ESA, the European Space Agency those properties are of utmost importance: Space structures should be light because of the transport issue and should have a high strength because of various applications. One very special one is the dream of having a space elevator as described in the novel “Limit”, written by Frank Schätzing: The idea behind it is to build an elevator to the geostationary orbit where the orbiting time is identical to the rotation of the Earth. However “ordinary” materials do not allow the design of such a structure. More to the basis of day to day work all space structures should be as light as possible as the cost of transport are extremely high by using today's launchers.

I therefore congratulate OZ for the intention to discuss on an international level nanostructures and their possible perspectives.