



## **INDO-FRENCH MEETINGS INE Mumbai 2017**

### **Speech of Gérard Kottmann, President of AIFEN & World Nuclear Exhibition (WNE)**

Ladies and Gentlemen,

It is my privilege to end this series of addresses. This is the second time I have the honour to speak at this conference. Some 8 years ago it was to introduce the Burgundy Nuclear Partnership, a cluster with 200+ industrial members, dedicated to nuclear R&D. Today it is to pledge the support of AIFEN to the ambitious Indian nuclear program initiated by your Government.

As his Excellency, M ZIEGLER pointed out, nuclear is one of the cornerstones of the long time strategic partnership between India and France. It is in the spirit of this partnership that we came here with a delegation of 70 members of the French nuclear Industry in order to cooperate with Indian companies.

Let me start with a few quick words about AIFEN. AIFEN is an official organization created in 2013 by the Export working group of the French Nuclear Strategic Committee established by our Ministry of Industry 2 years before. The Board of Directors today comprises EDF and the 2 AREVAs at the Vice-Presidency positions, the main associations such as GIIN, PFME –who are with us this week- and the former Burgundy Nuclear Partnership now renamed Nuclear Valley + individual companies such as ANDRA, ASSYSTEM, ONET, ENGIE and others. AIFEN has 2 main missions:

- First, coordinate the actions on the export markets in support of the French nuclear technology. This is what we do this week here in India.
- Second, organize every 2 years in Paris an business oriented exhibition covering all segments of the value chain for the international nuclear community. The WORLD NUCLEAR EXHIBITION or WNE as it is called has become in only 2 editions the largest nuclear business forum in the world by far with close to 700 exhibitors and 20000 attendees and visitors from all parts of the globe. I invite you to visit the WNE booth at INE to learn more about the event.

Nuclear is a world industry, an industry that relies heavily on exchange of good practices and on international cooperation for continuous improvement. Does the ITER project located in the south of France to which India participates so extensively along with 7 other countries, does this project not represent the best example of our long term cooperation with India? Around the world, there is an informal society of nuclear countries and India and France are definitely 2 of its most prominent members.



40 years ago, France started with a PWR technology from the USA and launched the construction of 58 reactors adding constantly improved features and regulations. This enabled EDF to acquire the most extensive operating experience record in the world with close to 2000 reactor years of operation without any noticeable incident; and also it enabled AREVA NP to come up with several upgraded versions of the 900 MW model which lead finally to the proprietary French Generation III model EPR that India is contemplating today to build 6 units. Like India did by reinventing and upgrading the original Candu design, France became master of its own technology with a deterministic approach. And finally it lead France to develop front and back end technologies in enrichment or waste management for example.

During these 40 years a whole array of companies emerged – large, medium, small – in order to support this program. Two factors made it possible for them to exist:

- First the magnitude -58 reactors !- plus the standardization of the new build program. This size effect was further enriched by the on-going maintenance activities; a nuclear industry definitely needs a critical mass to grow and expand, also you cannot manufacture nuclear island equipment one day and something else the next day. An ambitious program like the one initiated by your government and stretching over the long term is therefore essential.
- Second, the implementation of a master plan to gain expertise in all segments of the value chain from fuel extraction to waste management, including – apart from reactor technology of course - engineering, training, component manufacturing, civil nuclear works, radioprotection, non-destructive testing, balance of plant equipment, etc. When former President Giscard d’Estaing opened the first World Nuclear Exhibition in 2014, he reminded the audience of the French master plan that he validated during his term 40 years before, a master plan that still allows French consumers to pay 80% less for their electricity than our German neighbors.

And today, thanks to these 2 factors, our banner “nuclear expertise from France” covers 2500 companies and 220 000 employees.

70% of them are active on the export markets generating a turnover of 5,6 Billion Euros, not only in support of EDF or AREVA driven projects, but also supplying products and services for other technologies. They are accustomed to partner on EPR projects with foreign companies:

in China for instance in the case of the Taishan units

or in the UK for the Hinckley Point project.

And many of these companies have already local ties or have settled down in India. The members of our delegation are all set to join forces with Indian companies to make Jaïtapur a successful project. This conference is the perfect place for networking in this respect.



Many thanks to NPCIL for welcoming our delegation yesterday for a fruitful seminar on 4 topics: the suppliers' return of experience on EPR projects, training and competences, localization, experience with other technologies.

Thanks also to TATA CONSULTING & ENGINEERING, RELIANCE and L&T for the friendly networking with their teams yesterday and the day before.

India and France share a common energy vision with the parallel development of renewable and nuclear energy. You just have more sun in India therefore you rely more on solar than we do ! A decarbonated energy mix including nuclear is the only solution for addressing efficiently climate change. The 6 units of Jaitapur and the 10 domestic PHWR units decided by India will definitely contribute greatly to this world challenge.

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*(Thank you for your attention)*