



РОСАТОМ



ТОПЛИВНАЯ КОМПАНИЯ РОСАТОМА

ТВЭЛ

ALVEL

ГОСУДАРСТВЕННАЯ КОРПОРАЦИЯ ПО АТОМНОЙ ЭНЕРГИИ «РОСАТОМ»

ALVEL, a.s.

**Engineering and Technology Service Center in
Czech Republic**

Joint venture of ALTA, Co. and TVEL Fuel Company

ALVEL, a.s
Josef Běláč
CEO
06.06.2012

Deployment of the E&TS Center in Czech Republic - JV «ALVEL»

Engineering and technology service center was formed as JV of
ALTA Invest, a.s. and «TVEL» Fuel Company

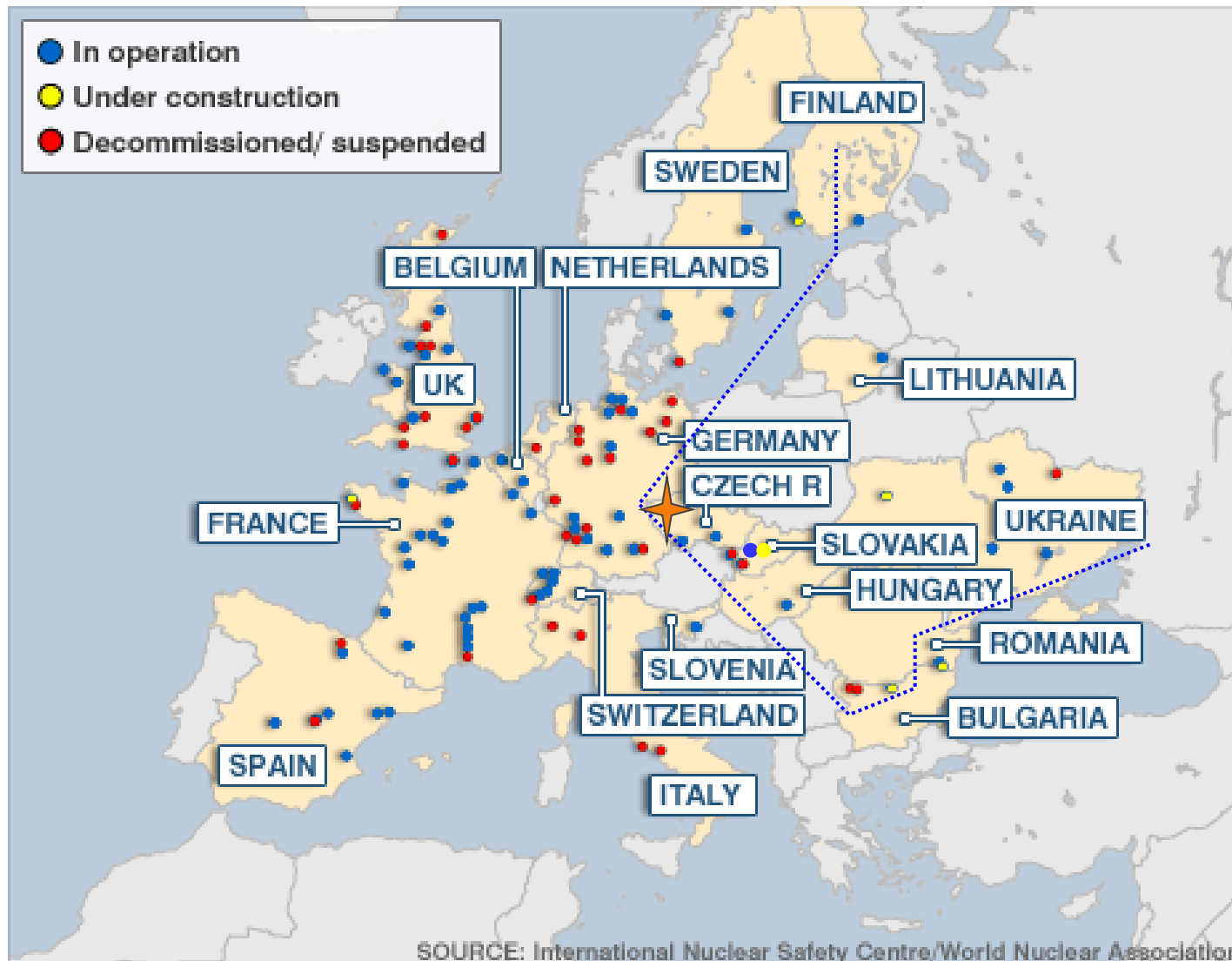
The logo for ALVEL, consisting of the word "ALVEL" in white, uppercase, serif font, centered within a dark blue square.

Key events:

- Dec. 2011 – «ALVEL» basic corporate documents signed;
- Jan. 2012 – company registered, basic organizational structure approved;
- Feb. 2012 – beginning of work, first contracts and agreements signed;
- Mar. 2012 – shareholders meeting approved the 2012 budget;
- May. 2012 – contract with Bochvar Institute (VNIINM) signed;
– business development strategy approved by Board of Directors



Location of the Center relative to NPP's in Europe



ALVEL Principal Tasks:

- **Technical and marketing support of TVEL fuel on target markets;**
- **Business development of TVEL high end products and services in the area of NFC on existing markets;**
- **New markets and business development in the non-nuclear areas for new products and services;**
- **State of art and effective management of projects.**



- **Integrated approach in product proposals: fuel+service+logistics;**
- **Localization of services at the customer plant sites in Europe as well as in Russia;**
- **Engagement of Czech and other foreign experts in competence centers in key technical areas of TVEL and ALTA business.**
- **Gather team of first class engineers-researchers. Provide for world wide and high effective communication and cooperation of experts;**
- **Stimulate transfers of the latest technologies and materials;**
- **Promotion of trade marks of TVEL and ALTA on existing and perspective markets as first class high-tech and reliable business partners with competent in-house technical capabilities.**



R&D Projects

- 3D fuel behavior modeling for alternative fuel cladding alloy materials;
- Experimental research on irradiation induced growth of current and prospective fuel cladding and assembly structural materials from zirconium alloys;
- High temperature oxidation and hydriding of zirconium alloy materials;

Services

- Core monitoring systems support and modernization;
- Transient analyses with new fuel types;
- Consulting services, participation of Russian experts in „post-Fukushima/stress tests“ modification implementation projects at NPP's;
- Reload core design and Reload safety evaluation of units operating with TVEL fuel, using customized, country specific licensing approach;
- TVEL and CEZ support in Dukovany NPP modernized fuel development program and licensing / Dukovany LTO project;
- Fuel deliveries using combined air and ground transport routes to different European countries;
- Licensing support for PWR TVS-Kvadrat fuel in line with western standards and methodologies;

New Products

- Customized product development;
- New generation Core monitoring systems for modernized fuel designs (in cooperation with RNC KI and other European partners);



ALVEL

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Thank you!