

ATMEA, THE FRANCE + JAPAN OFFER FOR CZECH REPUBLIC

Benoit Blassel
ATMEA President & CEO



NERS – Prague - 08 November 2017



OUTLINE OF ATMEA COMPANY

- ▶ Company name: **ATMEA S.A.S.**
- ▶ Office Location: **Paris La Defense**
- ▶ President & CEO: **Benoit Blassel**
- ▶ Deputy CEO: **Yoshiki Ogata**
- ▶ Establishment: **November 2007**
- ▶ Capital: **126 Million Euros**

▶ Scope of activities:

Development, Marketing & Sales,
Construction & Commissioning of
the 1200 MWe class Generation
III+ ATMEA1 Nuclear Island



50%

ATMEA

A JOINT VENTURE
BETWEEN 2 WORLD
NUCLEAR LEADERS



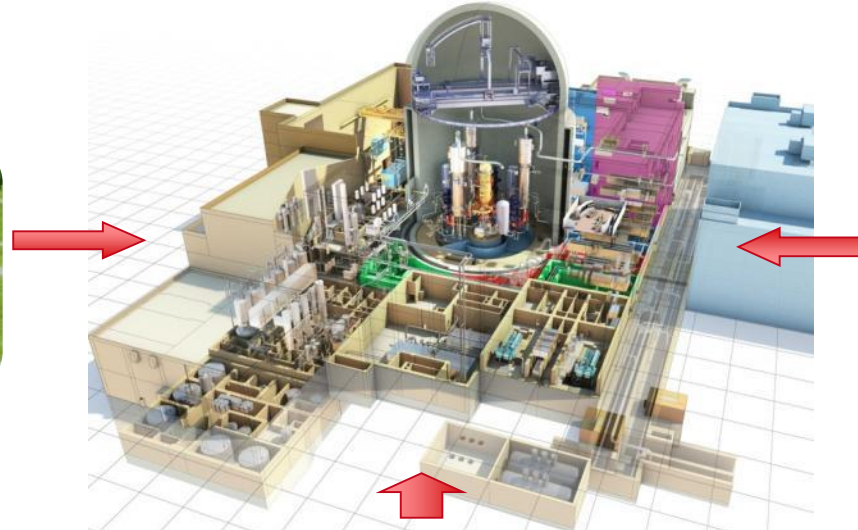
50%

DESIGN CONCEPT

Integrated-design based on **proven technology**

ATMEA1 = compilation of nuclear technology of MHI and AREVA

ATMEA1



OVERALL SUPPORT FROM FRANCE & JAPAN



Japan

- Government
- Utilities
- ECAs(*)

Support



Country Typical Project requirements

- Proven and advanced technology
- Highest Standard of Safety
- Economical Efficiencies
- Fuel Supply and Rad-Waste Management
- Localization
- Human Resource Development
- Operation and Maintenance
- Regulatory & Legal framework
- Finance Support

Support



France



- Government
- Utilities
- ECAs(*)

Coordination



ATMEA1



Gen III+ Plant

Coordination



* ECAs:
Export
Credit
Agencies



ATMEA



- Design development derived from APWR/EPR
- Project management
- Own manufacturing capabilities
- Access to experienced supply chains

ATMEA FULL SUPPORT TO CZECH NUCLEAR EDUCATION

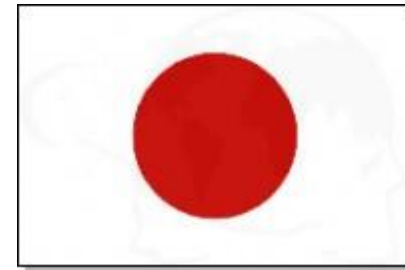
- ▶ ATMEA technical lectures in Czech universities (West Bohemia, Brno, Prague)
- ▶ Co-sponsorship of the Becquerel Prize award to young nuclear researchers. This event is organized by the French Embassy in the Czech Republic.



Brno Technical University – May 30, 2017



Becquerel Prize- Embassy of France – June 16, 2017



MHI EXPERIENCE IN CONTRIBUTION TO DEVELOPMENT OF INDUSTRY ABROAD

MHI EXPERIENCE

- ▶ Extensive experience in localization including Technology transfer in various industries worldwide
- ▶ Countries :
 - ◆ Canada, China, Czech Republic, Finland, France, India, the Netherlands, Spain, Thailand, the USA, the UK, Vietnam
- ▶ Technology:
 - ◆ Gas Turbine Combined Cycle plant, Thermal Power Plant, chemical Plant, Pulp and Paper Plant, Tire Maker Plant, Diesel Engine, Air Conditioner, etc...

MHI large experience is available for Czech republic

MHI NUCLEAR EXPERIENCE OVERSEAS

Delivery Record of More Than 70 Major Components to Overseas



U.S.A

- 15 Reactor Vessel Heads
- 6 Steam Generators
- 1 Pressurizer
- 2 Water Jet Peening works



BRAZIL

- 1 Reactor Vessel Head



CHINA

- 3 Reactor Vessels
- 8 Reactor Coolant Pumps
- 6 Turbines



KOREA

- 3 Reactor Vessel Heads



Taiwan

- 2 Turbines



South Africa

- PBMR Turbine Generator / Core Barrel Assembly (Basic Design)



Mexico

- 2 Turbines



FRANCE

- 15 Steam Generators



Spain

- 1 Turbine



Slovenia

- 1 Turbine



BELGIUM

- 10 Steam Generators



SWEDEN

- 3 Reactor Vessels Heads
- 1 Pressurizer Nozzle Replacement



FINLAND

- 1 Reactor Vessel

	Total
Reactor Vessel	4
Reactor Vessel Head	22
Steam Generator	31
Pressurizer	1
Reactor Coolant Pump	8
Turbine	12

MHI LOCALIZATION EXPERIENCE IN ASIA

- ▶ **Larsen & Toubro-MHPS Boilers Private Ltd.** joint venture in **India**. Its scope is to design, engineer, manufacture, sell, maintain supercritical boilers and pulverisers in India.
- ▶ **Mitsubishi Heavy Industries Asia Pacific Pte. Ltd.** is a business development, marketing and service base for various products of MHI such as chemical plant projects, oil and gas production plants and environmental protection plants in the Asia-Pacific region. It is able to provide certain EPC services based on collaboration with parent company MHI.



Hazira plant in Gujarat (India)



Ammonia / Urea Plant (Oman)

MHI LOCALIZATION EXPERIENCE IN THE USA

- ▶ **Mitsubishi Hitachi Power Systems *Americas, Inc** offers complete solutions throughout the US, Canada, Mexico and Latin America: project management, steam turbines, supercritical boilers, wind turbines, reciprocating engines, gas turbines, combined cycle power plants, integrated gasification combined cycle, selective catalytic reduction and others.



Lake Mary Office in Florida

*Mitsubishi Hitachi Power Systems, Ltd. (MHPS), a thermal power generation systems company jointly established by Mitsubishi Heavy Industries, Ltd. and Hitachi, Ltd., have launched business operations effective February 1, 2014.

MHI LOCALIZATION EXPERIENCE IN EUROPE

- ▶ **Mitsubishi Turbocharger and Engine Europe B.V.** supplies all European leading automotive manufacturers with products such as turbochargers, diesel and gas engines for marine applications, industrial, construction and agricultural industry.



Almere plant in the Netherlands

MHI LOCALIZATION EXPERIENCE IN CZECH REPUBLIC

PRUNEROV II project

- ◆ Mitsubishi exported 5 units of FGD (Flue Gas Desulfurization Plant) to Prunerov II coal-fired power plants of CEZ.
- ◆ This project was signed on February 1993 and completed September 1996.
- ◆ The International Bank for Reconstruction and Development (IBRD), group company of the World Bank, financed 45% of total amount. And Czech Government guaranteed the payment of IBRD.
- ◆ Mitsubishi organized consortium with ZVU and completed this project with local companies in Czech such as ZVVZ and Transporta, who were in charge of building and civil work, erection, part of the procurement of equipment.
- ◆ MHI had taken over the role of ZVU due to its financial problem after 1995.



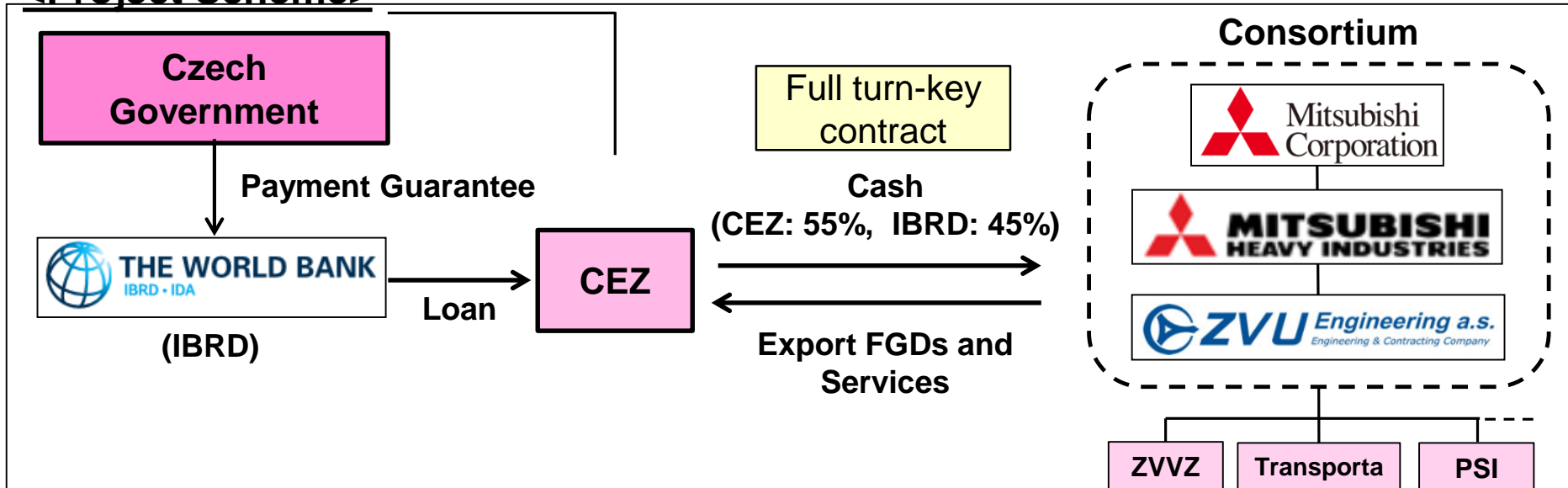
【Location】 : Kadan

【Capacity】

: 5×210MW

【COD】 : 1981, 1982

<Project Scheme>



MHI LOCALIZATION EXPERIENCE IN CZECH REPUBLIC

DETMAROVICE project

- ◆ Mitsubishi exported 2 units of FGD (Flue Gas Desulfurization Plant) to Detmarovice coal-fired power plants of CEZ. (1 FGD is common to 2 plants.)
- ◆ This project was signed on May 1995 and completed November 1997.
- ◆ Consortium organized by 4 companies completed this project with local partners in Czech such as ZVU, Transporta and Skoda Energo, who were in charge of building and civil work, erection, part of the procurement of equipment as PRUNEROV II project achieved.
- ◆ CEZ covered all the costs by its own finance.



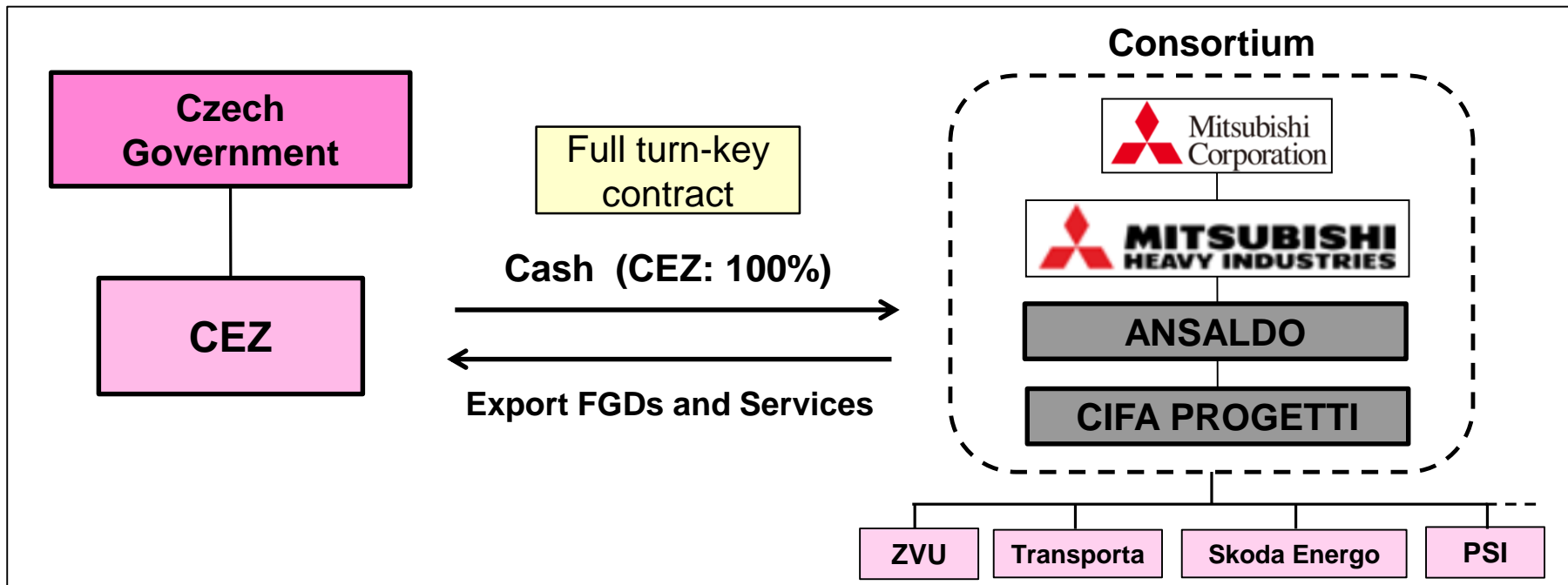
【Location】 : Karvina

【Capacity】

: 4×200MW

【COD】 : 1975, 1976

<Project Scheme>





FRANCE EXPERIENCE IN CONTRIBUTION TO DEVELOPMENT OF THE INDUSTRY IN CZECH REPUBLIC

CZECH REPUBLIC & FRANCE EU PARTNERS

- ▶ Permanent and open dialogue between France and Czech Republic
- ▶ Long term economic partnership
 - ◆ France is 3rd investor country in Czech Republic*
 - ◆ More than 500 French Companies (100 000 employees) in Czech Republic
- ▶ Contribution to local innovation
 - ◆ Recent Valeo R&D center in Prague : more than 600 researchers
- ▶ Close energy policies
 - ◆ Same interest towards nuclear energy

* Excluding Dutch and Luxemburg holdings investments

A SUCCESSFUL FRENCH-JAPANESE JV IN CZECH REPUBLIC

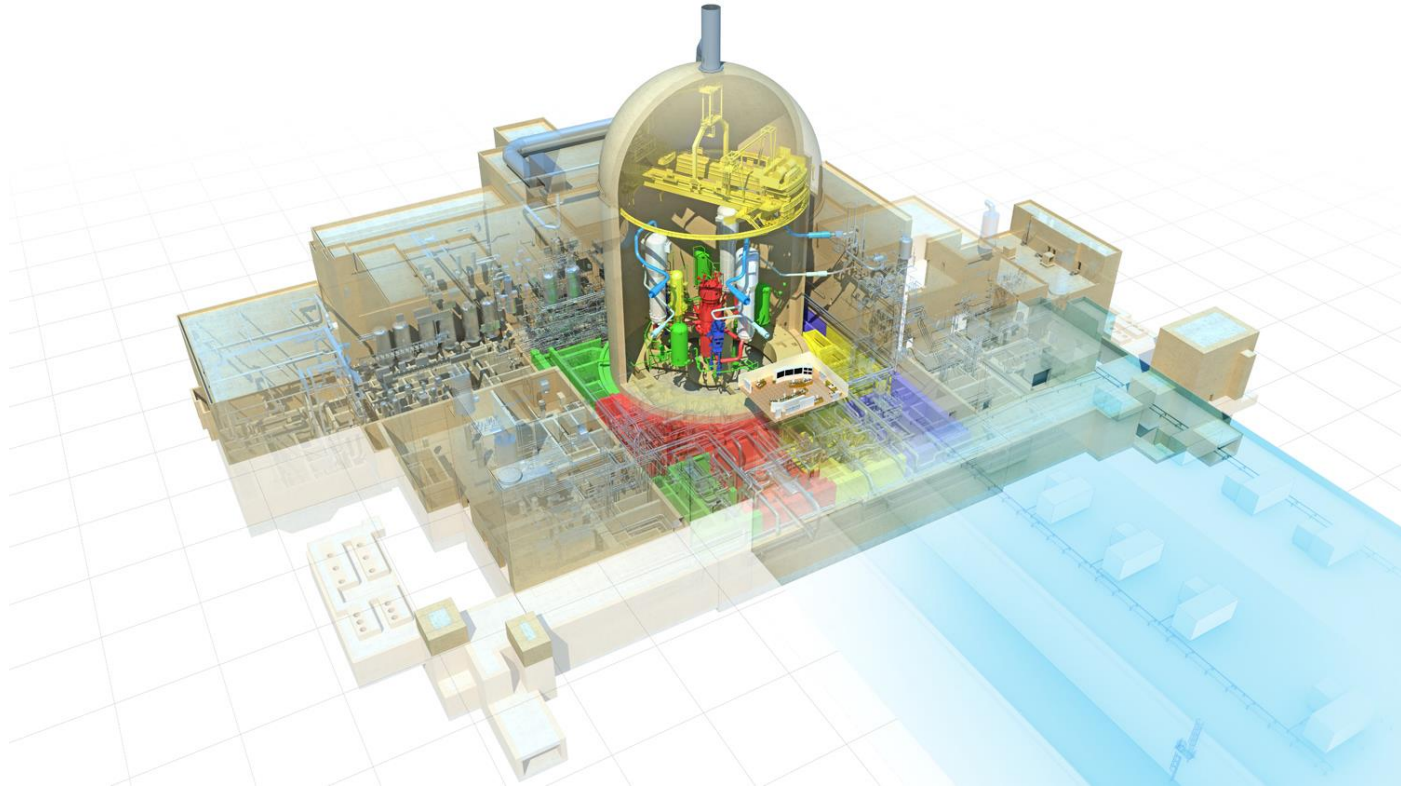
- ▶ Toyota Peugeot Citroën Automobile (TPCA) in Kolin
- ▶ Toyota, Peugeot, Citroën cars manufacturing for sales in Europe
- ▶ Joined Venture founded in 2001, production in 2005
- ▶ 3000 employees
- ▶ About 50 billion crowns : one of the biggest exporters in the Czech republic



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CONCLUSION

- ▶ FRANCE + JAPAN are already important contributors to the Czech Industry, they know how to work in Czech Republic and with the local industry
- ▶ The Czech Industry is strong, is growing fast and has a good level of expertise particularly in nuclear
- ▶ The ATMEA1 reactor is perfectly suitable to Dukovany site
- ▶ **So let's build together another French/Japanese success story around that**



Thanks for your attention

Please visit us at <http://www.atmea-sas.com/>