Westinghouse Electric Co.

Jorge Baños
Spain Director Engineering

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Today's Nuclear Power Industry

- Supplies15% of the world's energy needs*
- Streamlined nuclear regulatory process
- Greatly improved plant designs
- Proven track record of safe, efficient operation
- Modular construction, digital controls, scheduling software help to control costs, increase efficiency, and reduce construction time

Today: 438 operating commercial nuclear reactors in 31 countries generate more than 372 gigawatts of electricity.

*Source: World Nuclear Association

Westinghouse Electric Company Overview

Nuclear Services

Focused on operating plant success through reliable operation, maximized power output and better (shorter, more predictable) outages

Nuclear Power Plants

Specializing in the technology of new nuclear power plants and component manufacturing

Nuclear Fuel

A single-source fuel provider for PWR, BWR, VVER, AGR and Magnox reactors worldwide

Nuclear Automation

Instrumentation and control solutions to enhance the reliability of nuclear plant control and safety systems

Westinghouse

Teaming with Toshiba

Today's Westinghouse Electric Company

More than 14,000 People in 17 Countries Around the World

One Westinghouse

Regional Model

PRODUCT

"…to ensure market & technical leadership"

REGION

"…to move decision-making closer to the customer"

CENTER-LED (HQ)

"…to ensure One Westinghouse"

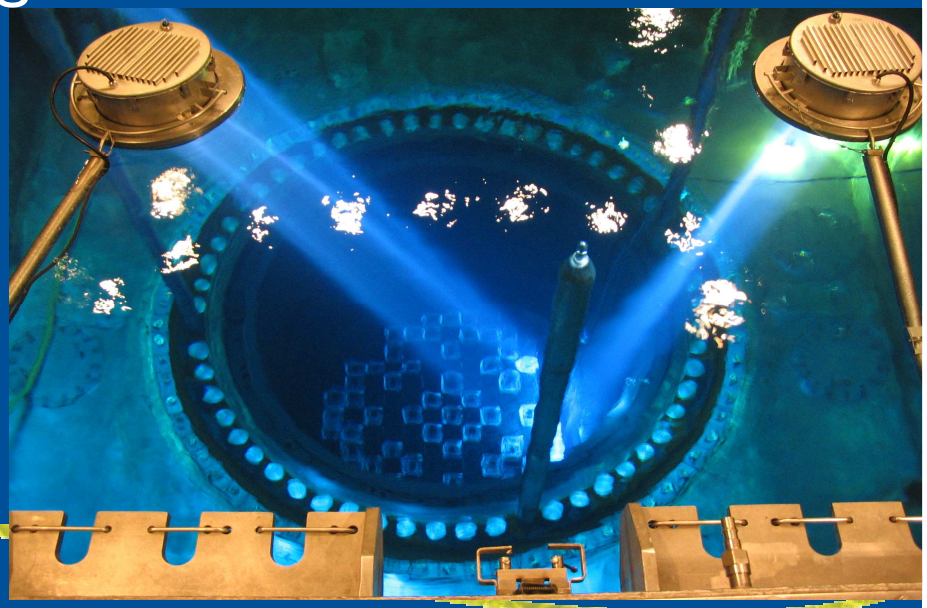
Westinghouse in Spain

Engineering staffing: 450

- Worksites:
  - C/Padilla, 17
    28006 Madrid
  - Central Nuclear Ascó/Vandellòs
  - Servicios de campo:
    L'Hospitalet de l'Infant (Tarragona)
  - El Cabril–Enresa (Córdoba)

Westinghouse in Spain-Scope

- Engineering Services
- Field Services
- Waste and Decommissioning
- Automation (I&C)
- New Nuclear Power Plants



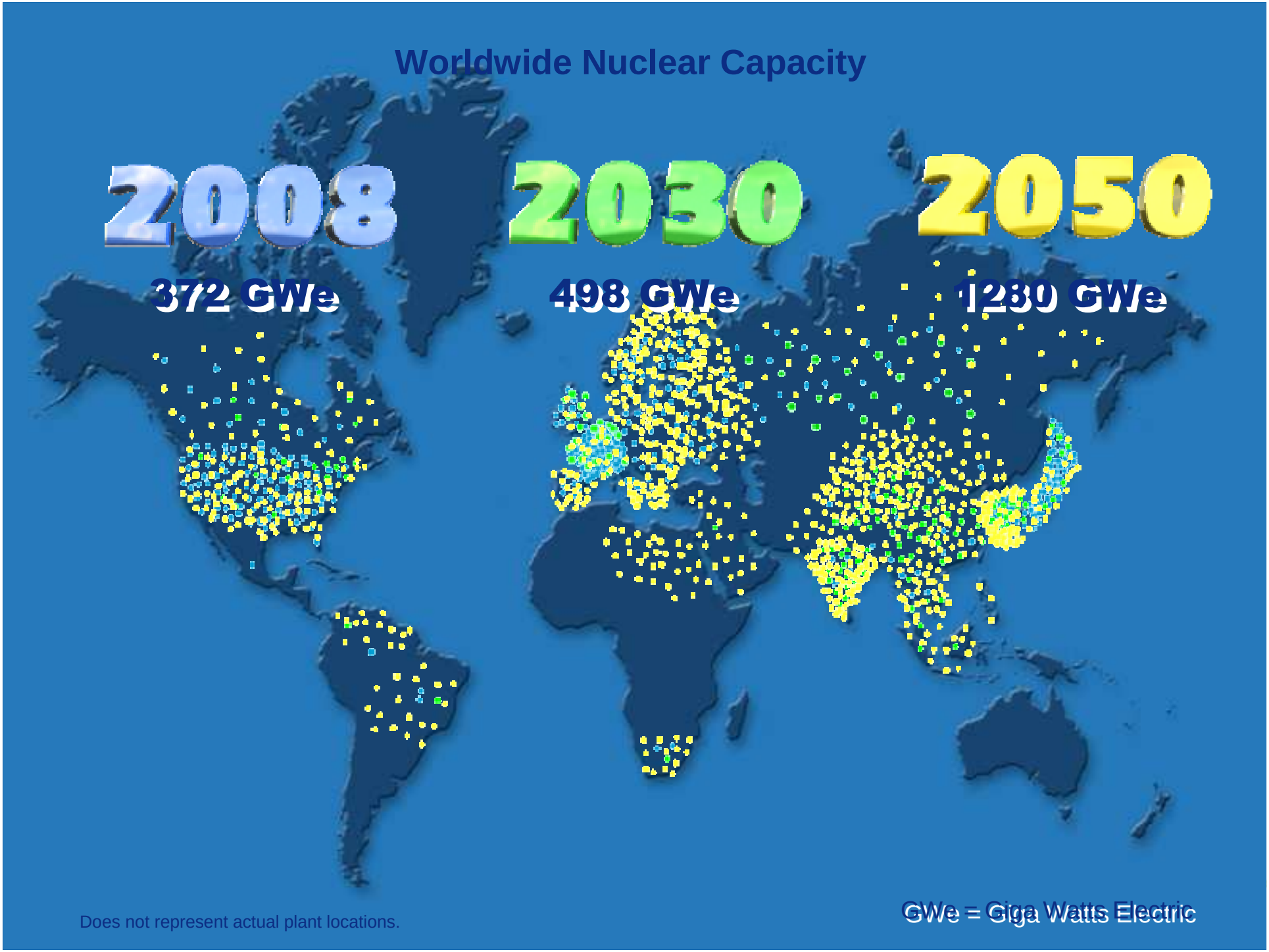
Westinghouse New Reactor AP1000

Jorge Baños

AP1000 Overview

- ap1000.wmv

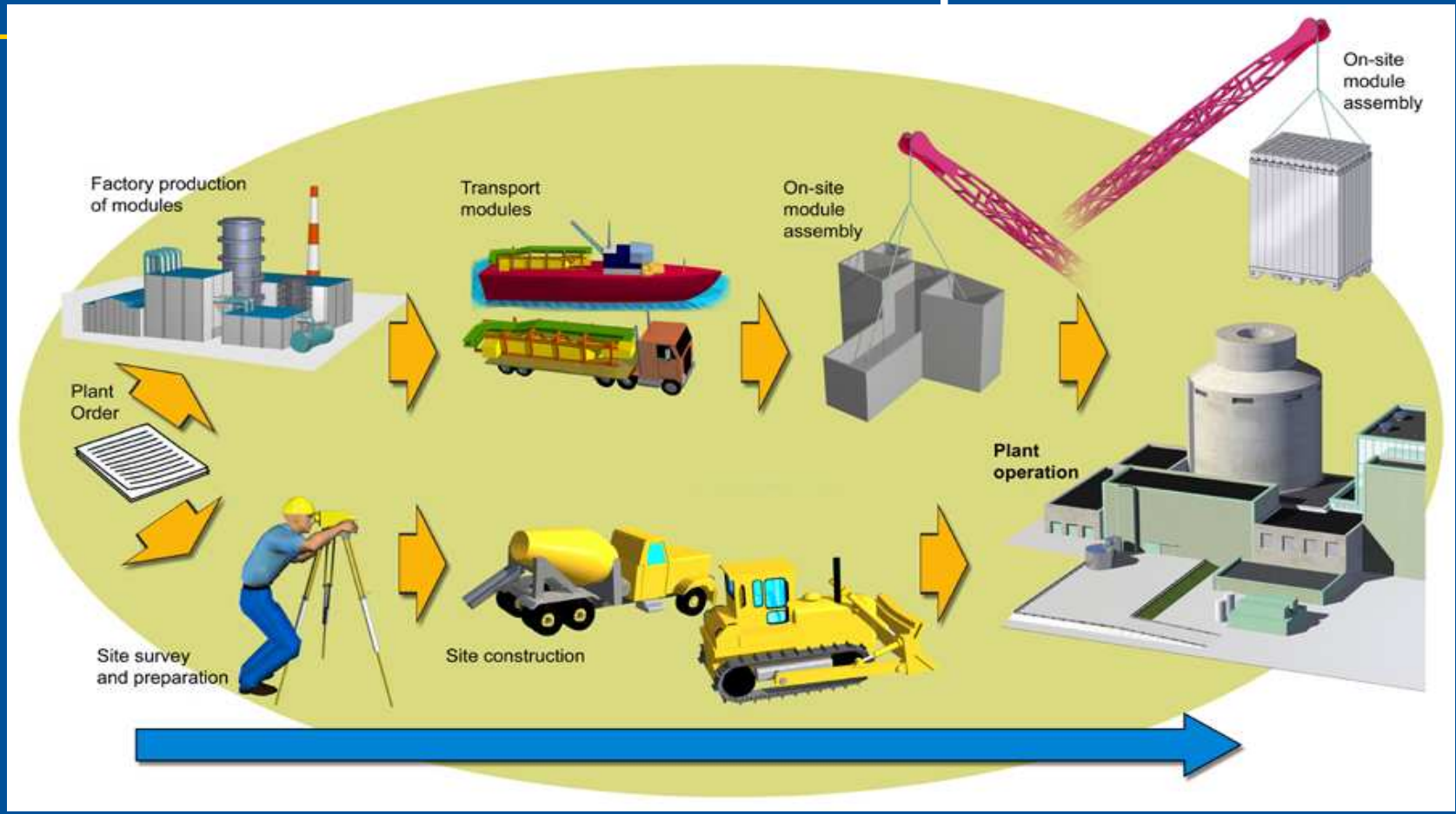
Worldwide Nuclear Capacity



Does not represent actual plant locations.

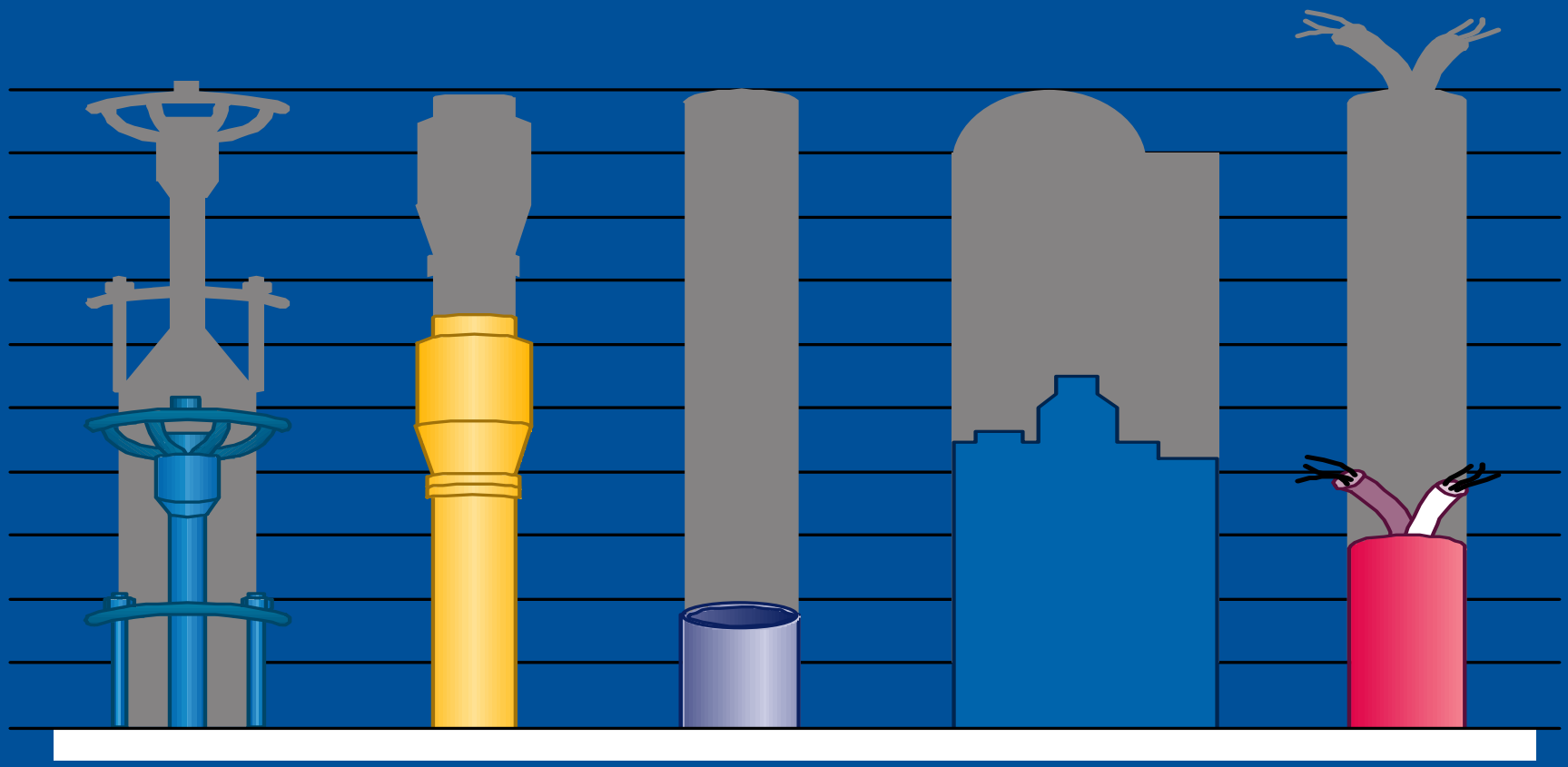
GWe = Giga Watts Electric

Site work done in parallel with module fabrication and transportation



Accelerated construction time 3 years from first concrete to fuel loading

AP1000's Simpler Design Requires Less Equipment



50% Fewer Valves

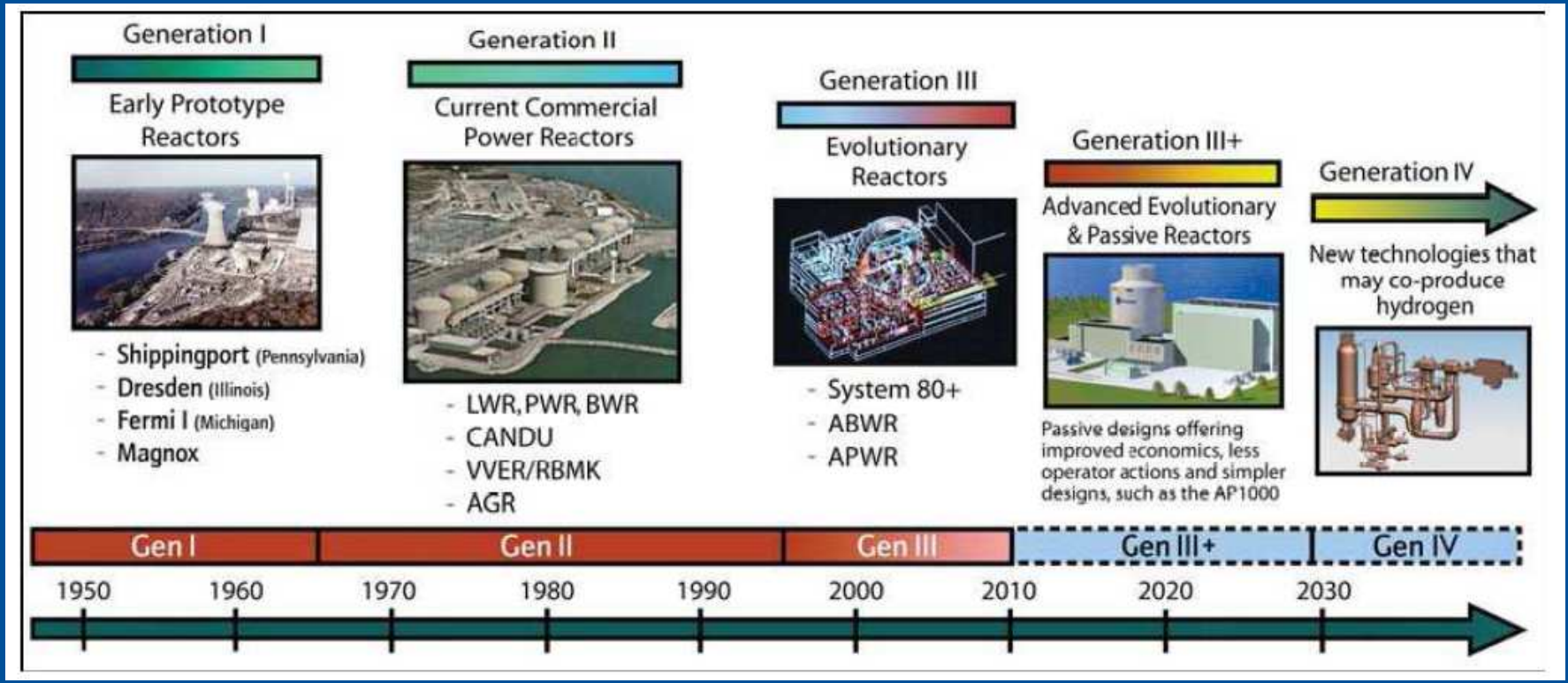
35% Fewer Pumps

83% Less Pipe

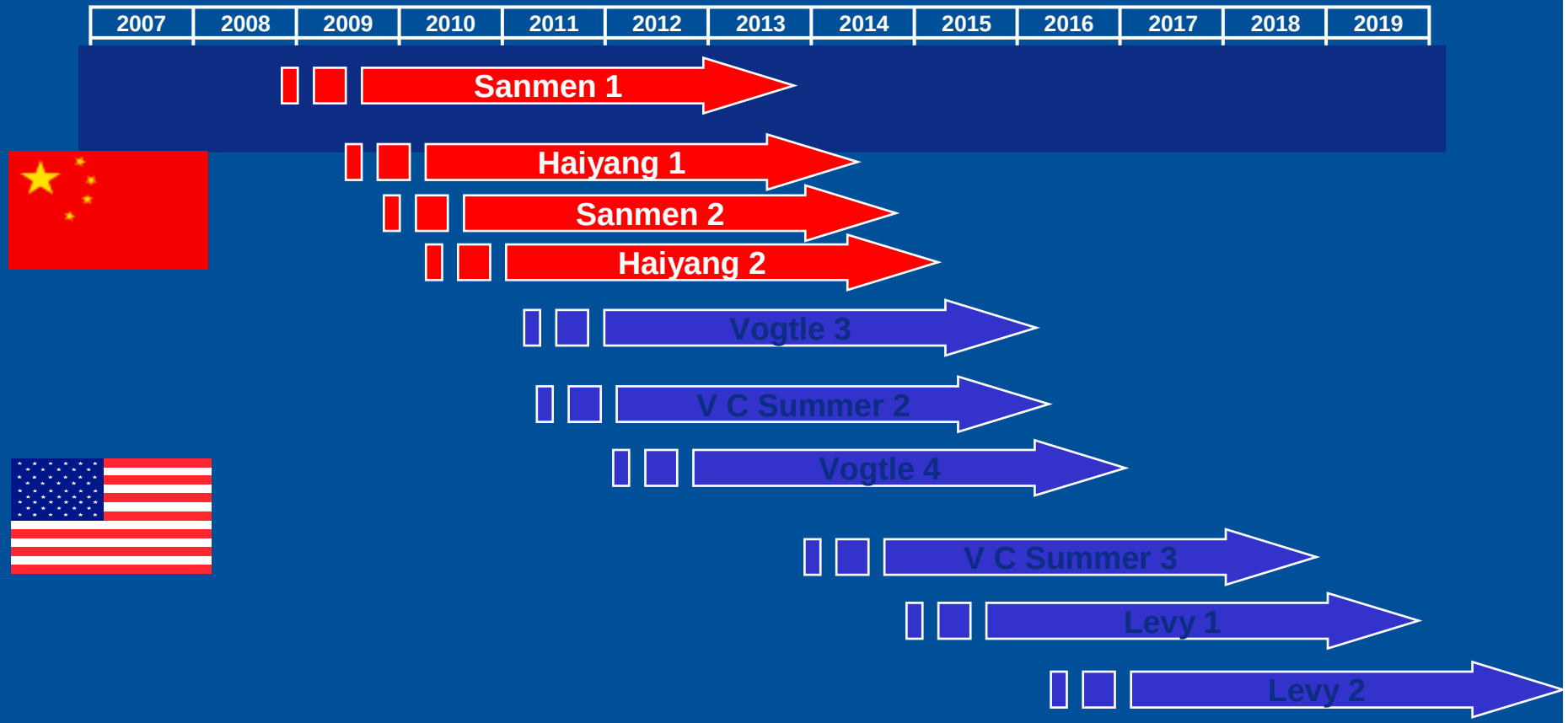
50% Less Seismic Building Volume

87% Less Cable

.....Past.....Present..Future



AP1000 Units Under Contract



Westinghouse: Ready for the Renaissance

First Ten Westinghouse AP1000™ Contracts

USA

14 units planned

6 units under contract

Operation begins 2016

AP1000 U.S. Project Status

First New U.S. Construction in 30 Years Has Begun


Plant Vogtle Aerial Shot of Construction for Units 3 & 4 July 2009 © Southern Nuclear


Plant Vogtle Units 3 and 4 Dec. 10 2009 © Southern Nuclear

Southern Nuclear

Vogtle

Units 3 & 4


Plant Vogtle Construction/ Units 3 & 4/ October 7, 2009 © Southern Nuclear


Plant Vogtle Unit 4 foundation excavation showing Unit 1 and 2 in background with water vapor rising from cooling towers. March 4th, 2010. © Southern Company

Westinghouse: Ready for the Renaissance

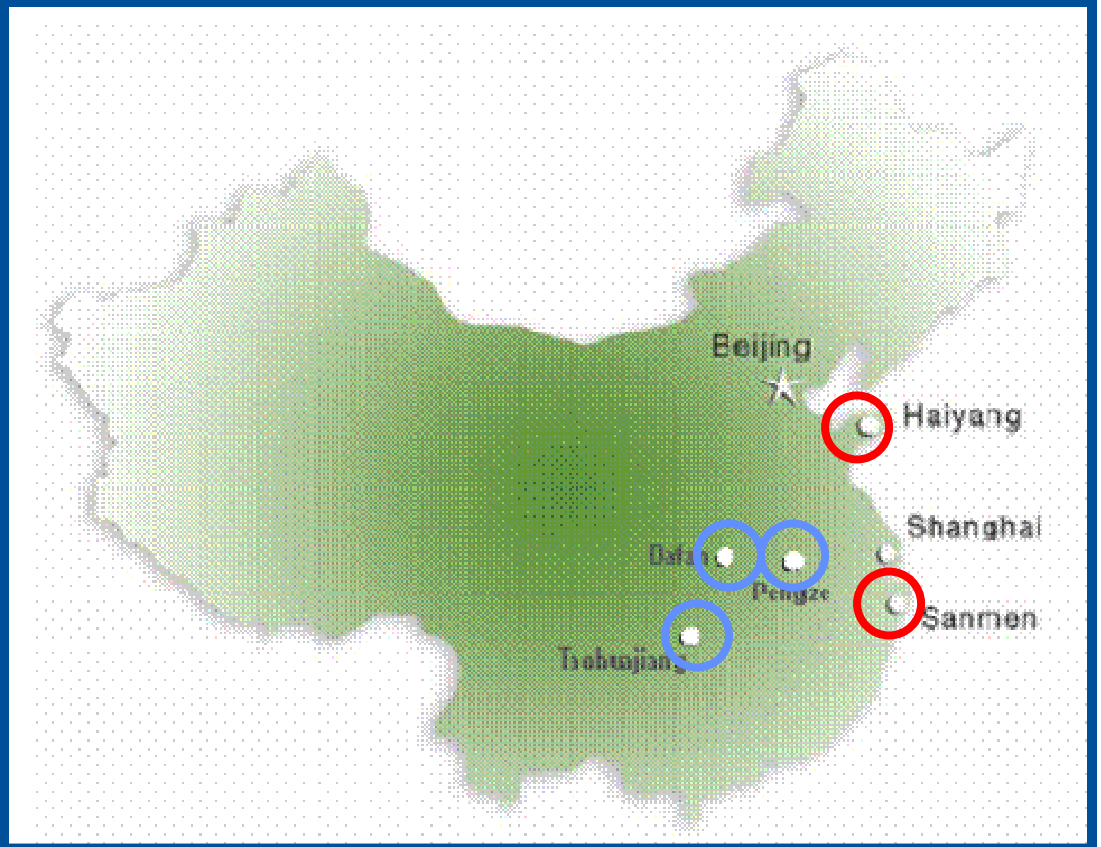
First Ten Westinghouse AP1000™ Contracts

China

14 units planned

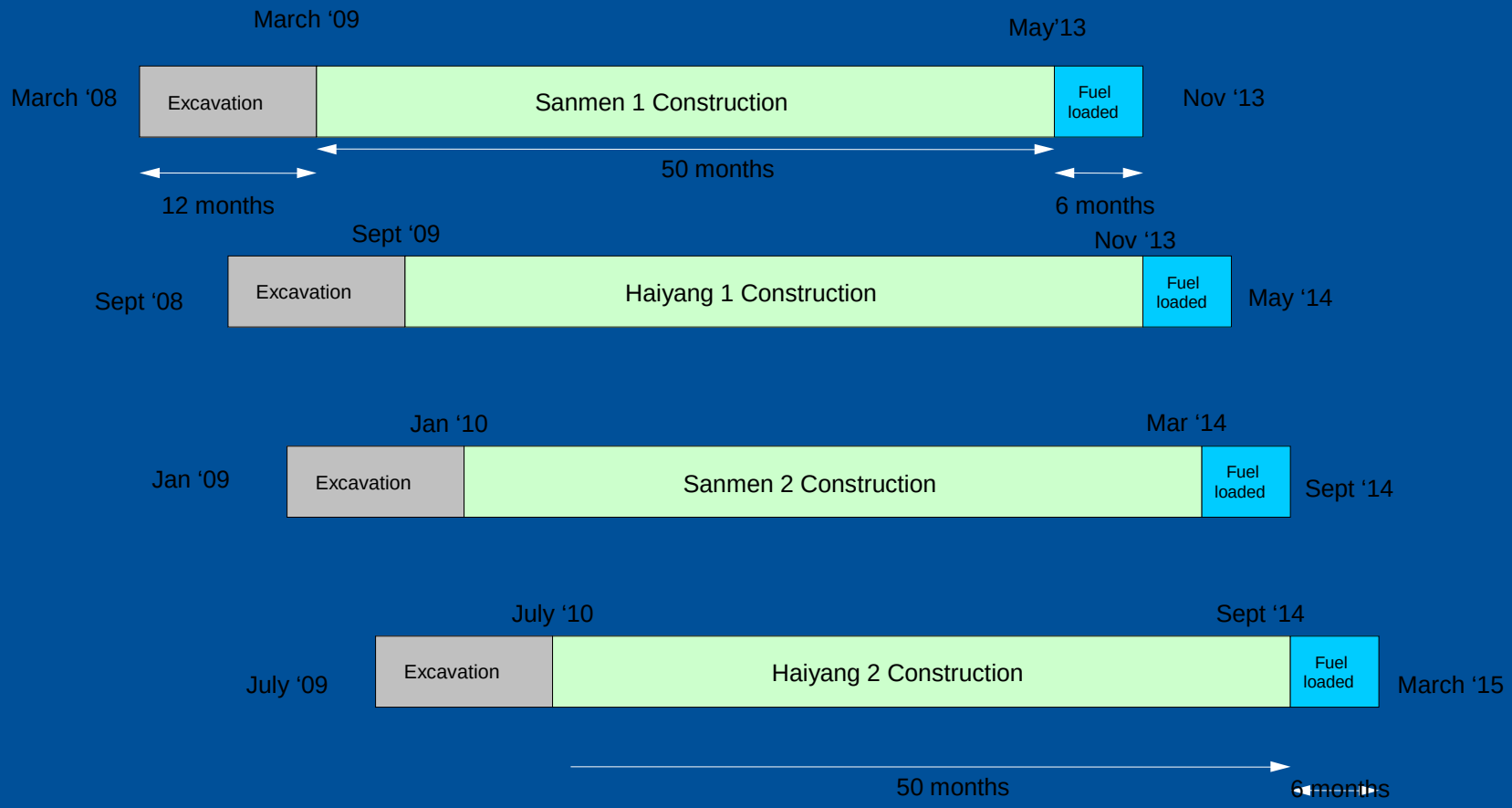
4 units under contract

Operation begins 2013



China AP1000 Project

Schedule Overview – All Four Units – All on schedule



Sanmen

Sanmen – On schedule!

Westinghouse

Construtions show

- CA20.wmv
- CV Bottom Head Transport and Lift20091221_CV1.WMV

Europe is Next

- AP1000 was certified by the EUR in 2007
- Approaching finalized licensing process in the UK
- Passed pre-qualification by CEZ and Delta
- Downselected for prestudies by Vattenfall
- A growing number of countries have expressed interest in the AP1000

Westinghouse New Build Opportunities

- EU opportunities
  - UK (Horizon) 3+3 AP1000
  - Finland 1+1 ABWR
  - Czech Republic 2+1 AP1000
  - Slovakia 2 AP1000
  - Poland 3+3 AP1000
  - UK (Iberdrola/GDF) 3 AP1000
  - Switzerland 2 ABWR
  - Sweden, Lithuania, Hungary, Holland, Italy, Bulgaria ……
- Outside EU
  - India 2+6 AP1000
  - China 10 AP1000
  - Brazil 2 AP1000
  - Japan 1+1 ABWR
  - Vietnam, Saudi Arabia, Egypt, Thailand, Taiwan …….

European & Spanish Presence in New W Westinghouse Plants

Legacy forms our platform for current and future AP1000 deployment

- Westinghouse Spain: Waste & Auxiliary building
- Westinghouse Belgium: Piping and Systems Analysis
- Westinghouse Mannheim: I&C
- Westinghouse Sweden/UK: Fuel
- Other Partners
  - Ensa, Enusa, Tecnatom, Ansaldo, Mangiarotti, Sheffield Forgemasters, Rolls Royce, KSB, LoR


Questions
Jorge Baños
http://www.westinghousenuclear.com/Careers/working_at_westinghouse.shtm