



**Invited Lecture**

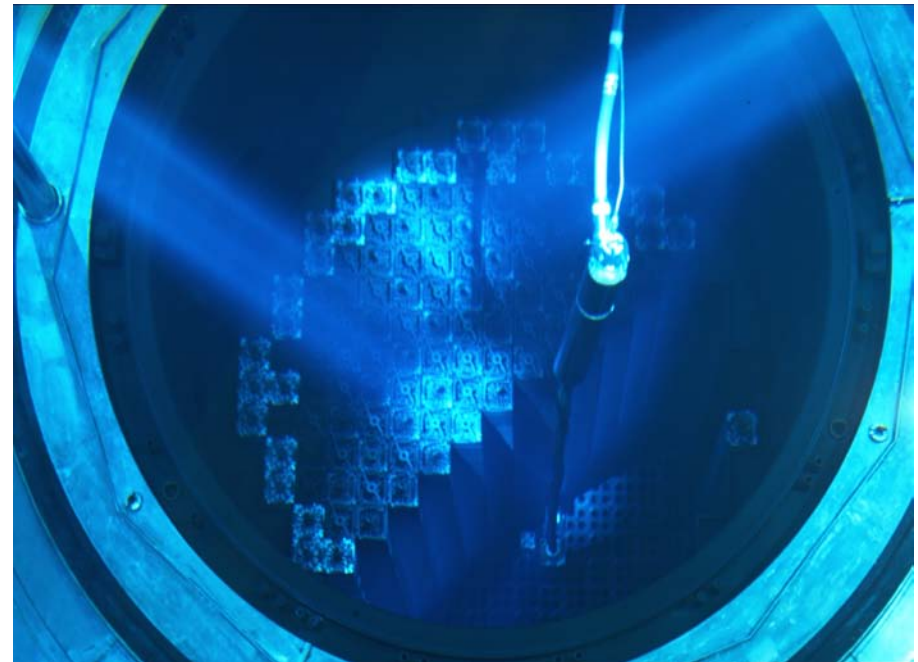
*Serge BELLET*

**SEPTEN  
Basic Design Department**

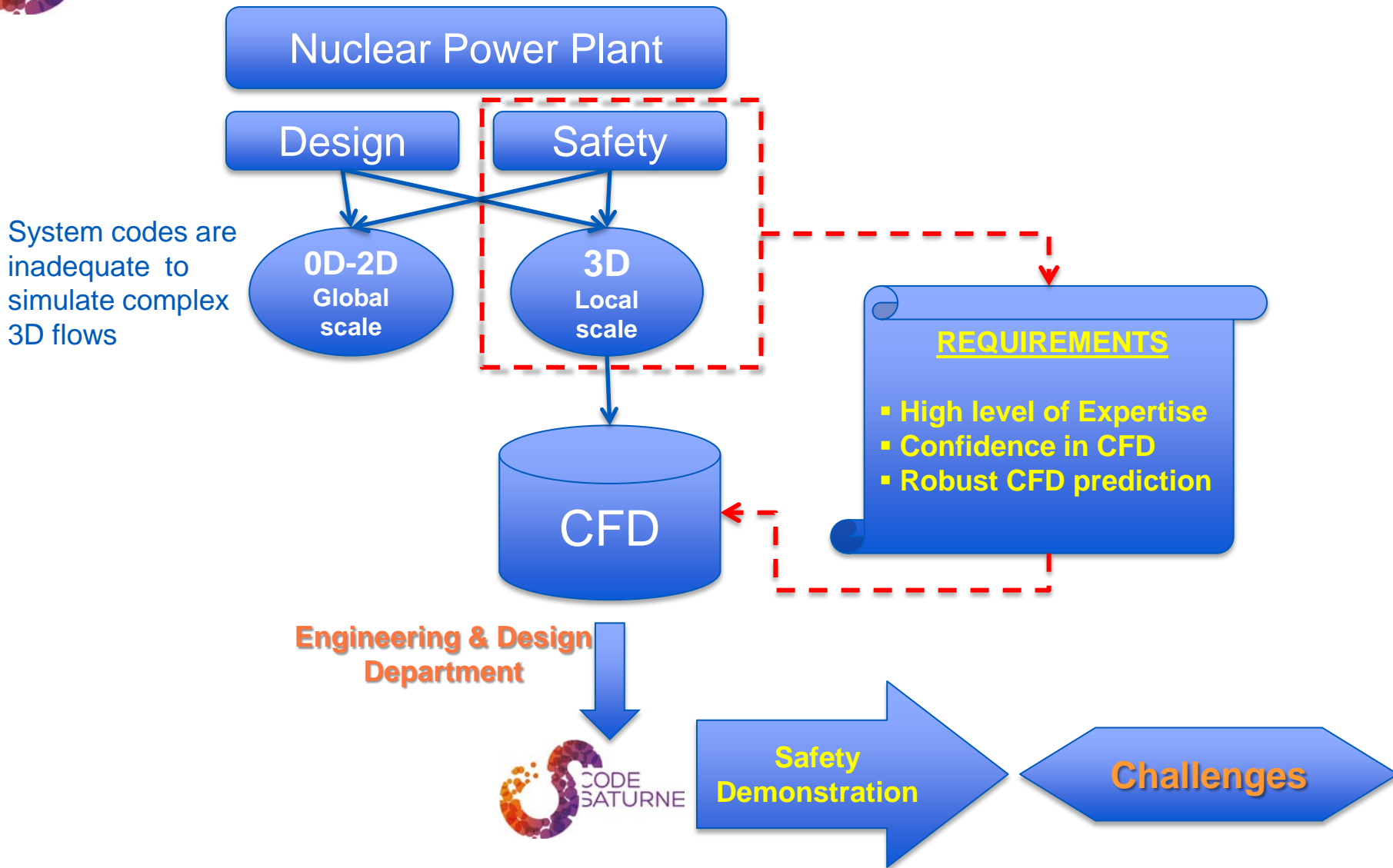


**User Meeting**

**9th April 2013**



# CFD Usage at SEPTEN



# Challenges for Industrial Use

## ► CFD Verification & Validation

- A continuous **code improvement process** in place (CFD with EXPERIMENTS)
- An automatic tool for the code releases numerical verification
- An up-to-date organization for **Code\_Saturne V&V activities** and documentation
- A global methodical approach based on PIRT, V&V and UQ

## ► CFD Uncertainty Quantification

- Methods currently being developed for UQ
- Share this ambitious goal with all industrial partners in the domain  
[ERCOFTAC - Lyon Workshop in 2013 June 17th-18th .....http://lyon2013-cfd-uncertainty.org](http://lyon2013-cfd-uncertainty.org)

## ► High Performance Computing (HPC)

- Access is guaranteed to ensure capability to carry out a sufficient number of sensitivity calculations to achieve **robust simulation results**

# Purposes of the User meeting

## ▶ Efficiently share experiences

- **Highlighting the code's strengths and weaknesses**
- Contributing to added-value in comparison with commercial codes
- Sharing different (and potentially best) practices from those outside the nuclear domain

## ▶ Move forward together

- Strengthen relationship between users/developers
- **Development program is enlightened by user's needs**
- Share experience with users of other codes (to enhance knowledge and objectivity)
- Show the new developments of the code
- Improve the code to **promote the use of CFD**

## ▶ Maintain/improve a high level of CFD industrial expertise

- Opportunity for young engineers and researchers to present their activities
- Facilitate/enlarge contacts for *Code\_Saturne* community



# THANK YOU FOR LISTENING

*Serge BELLET*

**SEPTEN**  
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