

# Introduction Kobe University

Reading Room at University Library

**TAKEDA Hiroshi**

*Executive Vice President*  
March 2011

# Location

**Kobe City, Hyogo, Japan**



**KOBE**  
UNIVERSITY





## Kobe University on the hillside ....



Rokkodai Campus

# Fukae Area (Maritime Sciences)



# Graduate Schools (14)

- **Graduate School of Humanities**
  - Intercultural Studies
  - Human Development and Environment
  - Law
  - Economics
  - Business Administration
  - Science
  - Medicine
  - Health Sciences
  - Engineering
  - System Informatics
  - Agriculture
  - Maritime Sciences
  - International Cooperation Studies

**Research  
Institute  
and  
Organization**

- **Research Institute for Economics and Business Administration**
- **Organization of Advanced Science and Technology etc.**

## Number of Staff

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Teaching Staff	1,322
Administrative Staff (Including Nurses and Technical Staff)	1,147
<b>Total</b>	<b>2,469</b>

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## Number of Students (incl. overseas 1,146)

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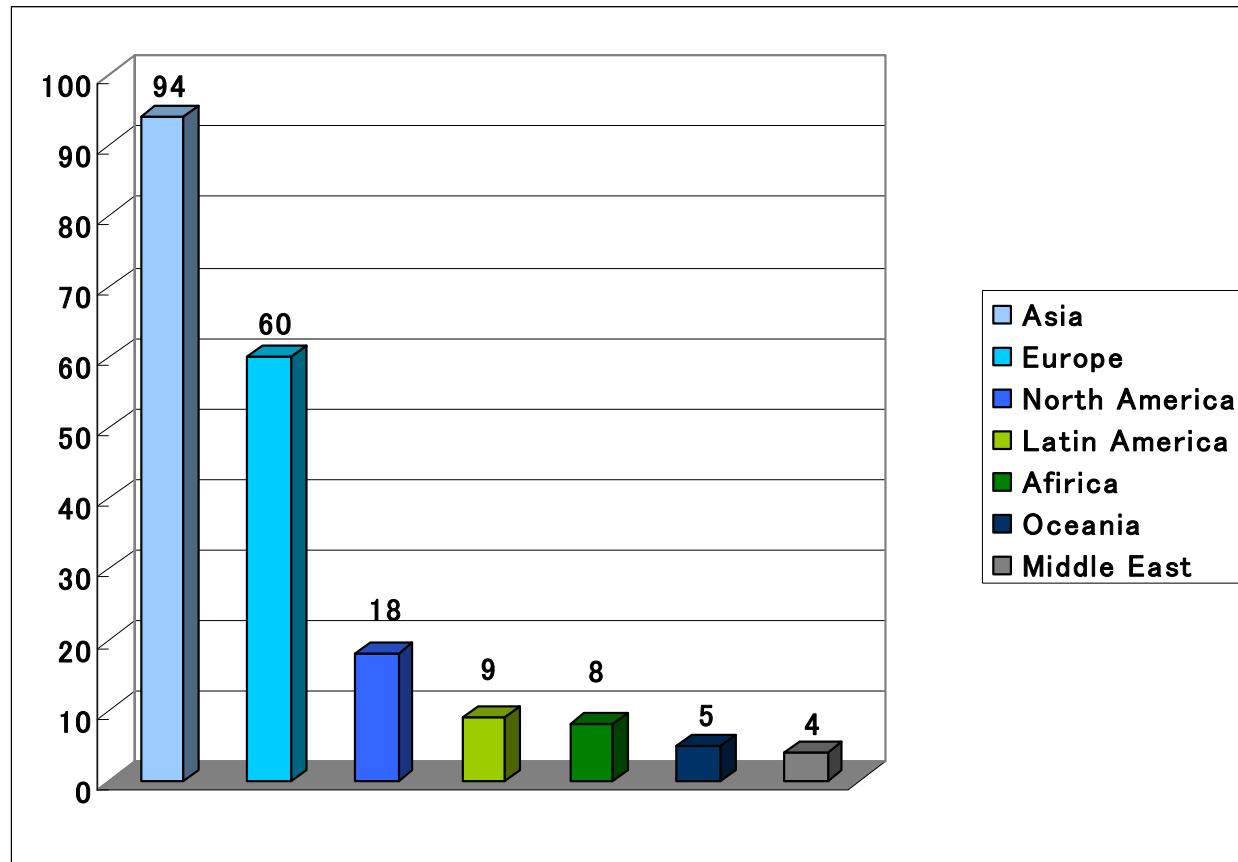
Undergraduate Students	11,924
Students in Master Programs	2,873
Students in Doctoral Programs	1,594
Students in Professional Degree Programs	355
<b>Total</b>	<b>14,746</b>

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# Overseas partner institutions

The number of overseas partner institutions: 198

(as of November 1, 2010)





# Overseas Office

## ➤ **Brussels European Centre (KUBEC)**

Established on 03 Sep. 2010.

## ➤ **China Office**

Opened on 01 Jan. 2008 in Beijing.

### ■ **Main Activities:**

- \* Promote academic exchange with universities and research institutes in China and in Europe.
- \* Acquire and disseminate information on education and research.
- \* Support networking for students, researchers and alumni group.



# EU Institute in Japan, Kansai



## What is EU Institute in Japan, Kansai?

- Founded in April 2005  
with financial support from the European Commission
- Member Universities of the EUIJ-Kansai  
Kwansai Gakuin University, Osaka University, Kobe University

Partner Universities Institute of Economic Research ,Kyoto University  
Kansai University



## Objectives of the Project

EU Institute in Japan, Kansai ,the executive branch of the EU , in order to contribute to strengthening the ties between Japan and the EU by **promoting educational and academic interactions**, enhancing public relations and sending out information.

The EUIJ-Kansai, intends to develop the following broad activities:

1. To become an EU educational and academic centre
2. To become a source of EU information
3. To promote EU outreach activities

## Visits to Kobe University by EU officials:

- Dr. José Manuel Barroso,  
President of the European Commission  
(April 24, 2006)
- Mr. Lluís Maria de Puig,  
President of Parliamentary Assembly  
of the Council of Europe (PACE)  
(November 12, 2009)
- Mr. Herman Van Rompuy,  
President of the European Council  
(April 26, 2010)



## Research Sessions

(Social and Literature science issue  
between Japan and Europe matter)

Research Sessions

(Date March 4, 15:30- at Room313)

**Historical role of Belgium and the Netherlands in European Integration**

Research Sessions

(Date March 3, 14:30- at European Economic and Social Committee)

**Between Survival and Sustainability**

**- The Corporate Social Responsibility in The Times of Economic Crisis**

Research Sessions

(Date March 5, 13:45- at Université libre de Bruxelles)

**Roles of Culture on the Foundation of European Integration**

## Next-Generation Supercomputer “Kei” in Kobe !

The Next-Generation Supercomputer project is being carried out by RIKEN, with partners in industry, universities, and the government, under an initiative by MEXT (the Ministry of Education, Culture, Sports, Science and Technology).

The elements of the project are as follows:

- (1) Next-Generation Supercomputer, the world’s fastest and most advanced computer, with a speed of **10 petaflops ( =  $10^{16}$  = Kei )**
- (2) Develop and distribute large-scale software applications (the “Grand Challenge” software)
- (3) Connect the supercomputer to the Cyber Science Infrastructure across Japan using the Science Information Network (run by the National Institute of Informatics)
- (4) Set up a center to run the supercomputer, to be the world’s top center of excellence in the field of supercomputing



# Integrated Research Center of Kobe University

next to K Computer

## Objectives

To promote multi-disciplinary advanced research by establishing an integrated research base covering all fields in the university.

As an advanced proto-type of research promotion instrument, the centre will accumulate cutting-edge research results and disseminate the information within Japan and abroad.



K Computer

## Integrated Research Center of Kobe University

### Research Projects

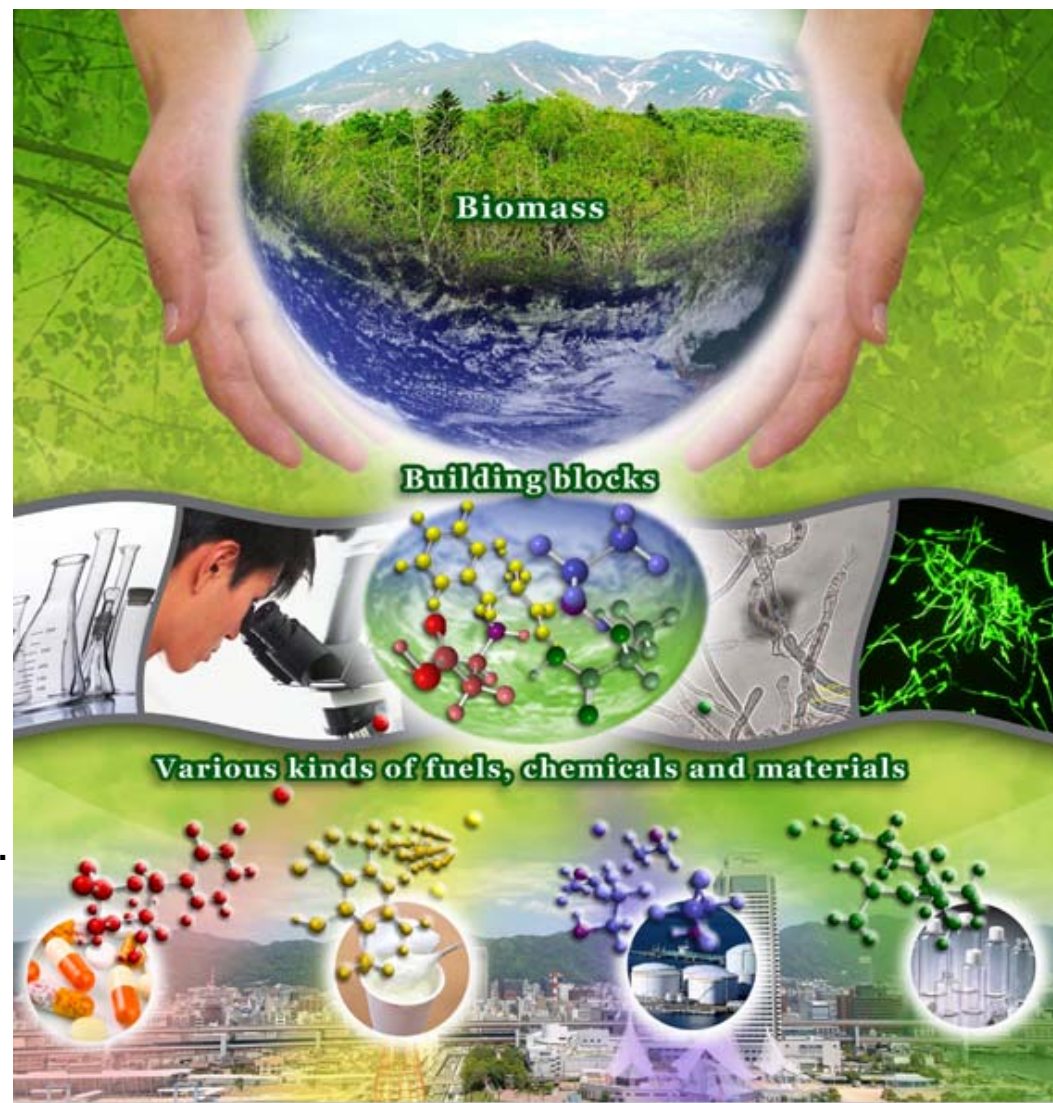
- Project on Advanced Membrane and Film Technology
- Structural-based Drug Discovery Project
- International Research Project on Health science and Technology
- Research project on integrated bio-refinery
- Research Project on Computational Science and Computer Engineering
- Kobe Education Project on Computational Science and Engineering
- Research and Education Project for Planetary Sciences
- Kobe Space Development Research Project



## Innovative Bio-Production Kobe , Kobe University

To build a sustainable oriented society , we must promote the “Bio-Production” which can produce various kinds of fuels , chemicals , materials , food and medicine from renewable resource and biomass.

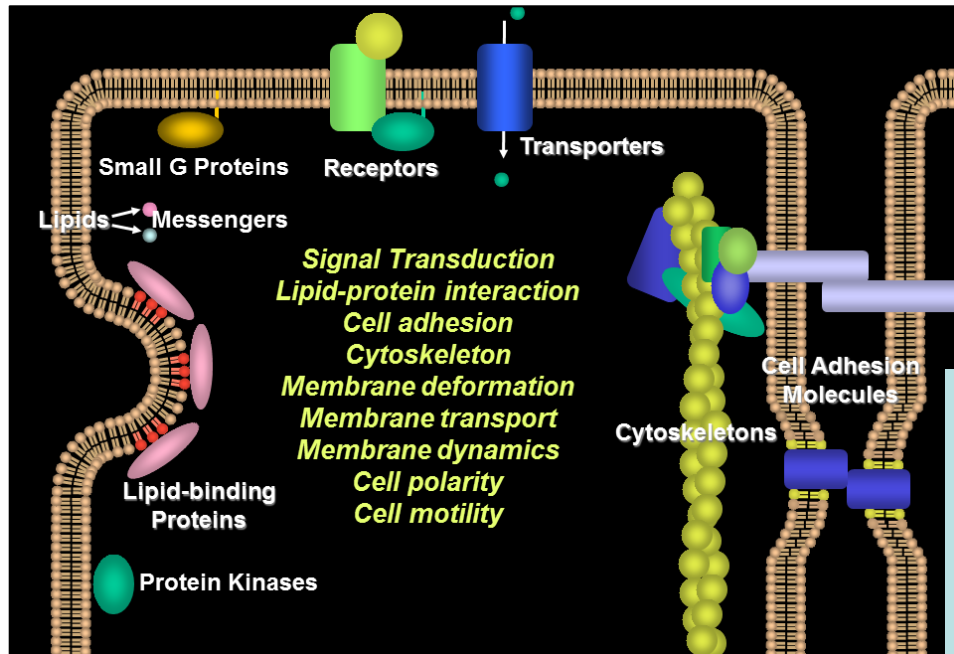
As the bio-refinery center of Kobe University, a core institute, we are promoting systematic integration of research and education across various fields and we are collaborating with 12 companies as industrial platforms.



Two research projects based on “protein kinases C”  
in Graduate School of Medicine, Kobe University,  
supported by **Global COE program** of MEXT  
(the Ministry of Education, Culture, Sports, Science and Technology).

### Projects

- Global Center of Excellence for Education and Research on **Signal Transduction Medicine**
- Global Center of Excellence for Education and Research on **Integrative Membrane Biology**

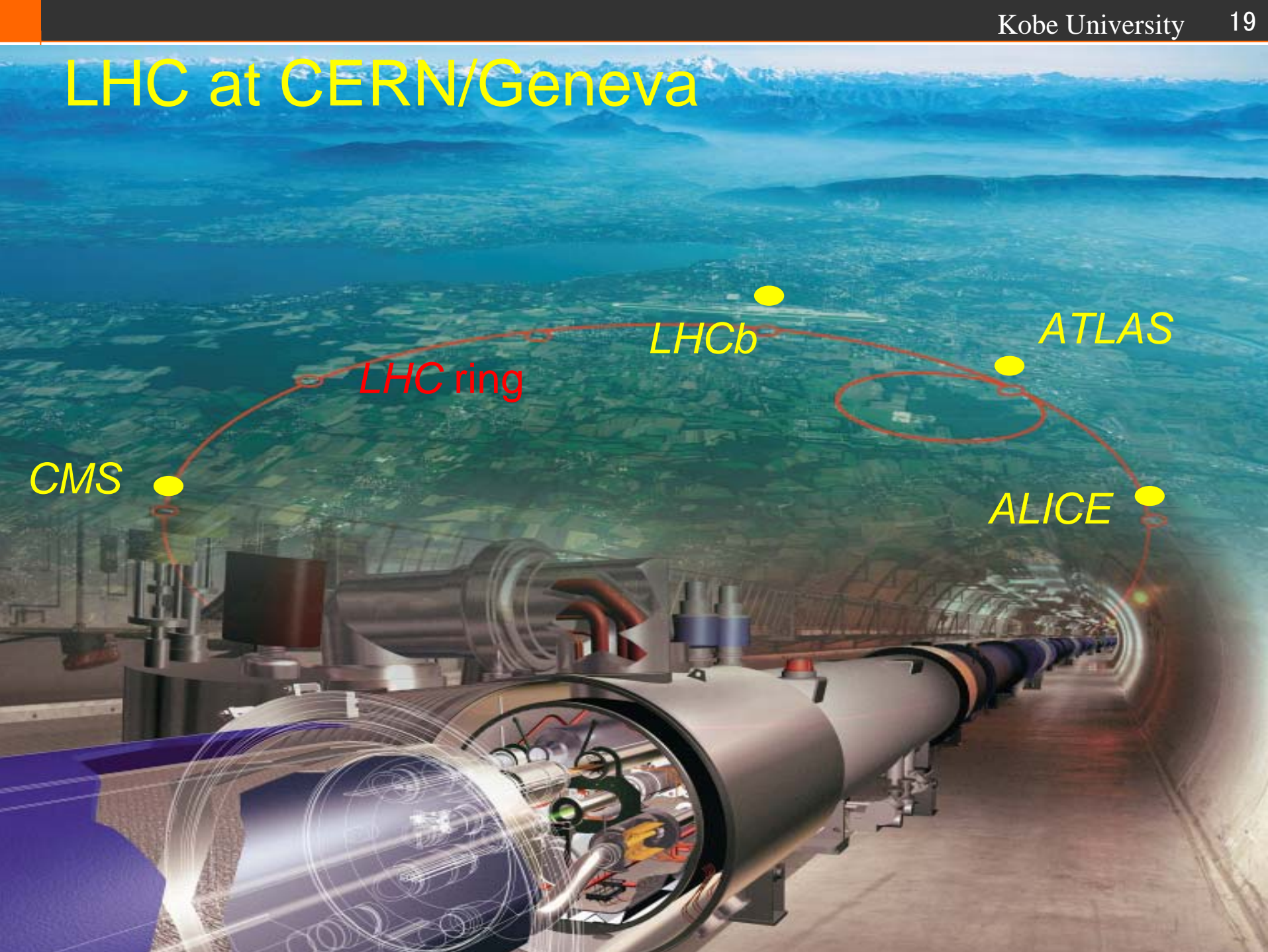


Research Sessions  
(Date March 4, 13:00- at Room311)

“Protein Kinase C:

A key molecule from Kobe University”  
Protein kinase C was found  
in Kobe University in 1977.

# LHC at CERN/Geneva



CMS

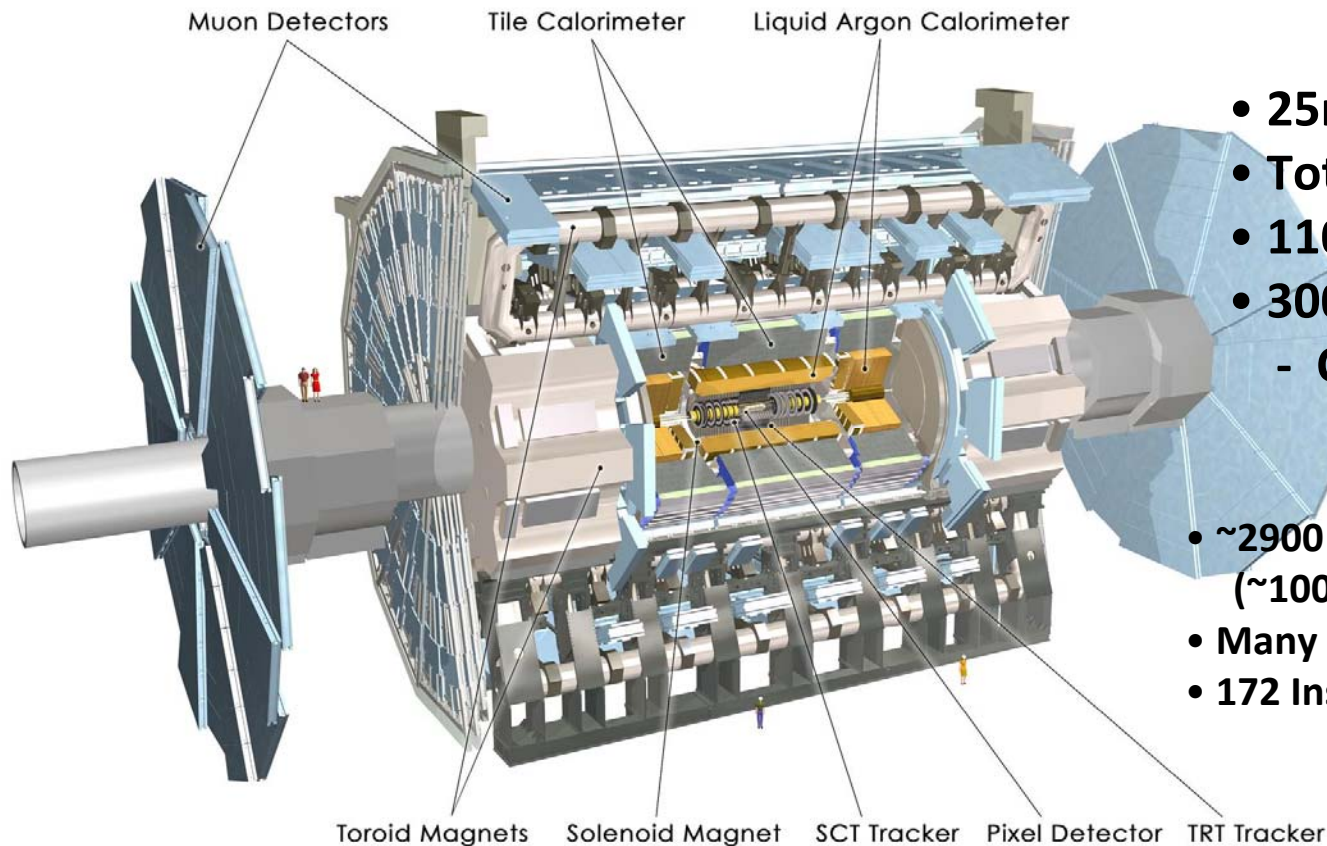
LHC ring

LHCb

ATLAS

ALICE

# ATLAS : *A Toroidal Lhc ApparatuS*



- 25m high, 44m long
- Total weight 7000 tons
- 110M electronic channels
- 3000 km of cables
- Cost: 540MCHF

- ~2900 physicists  
(~1000 PhD students)
- Many engineers and technicians
- 172 Institutions from 42 countries

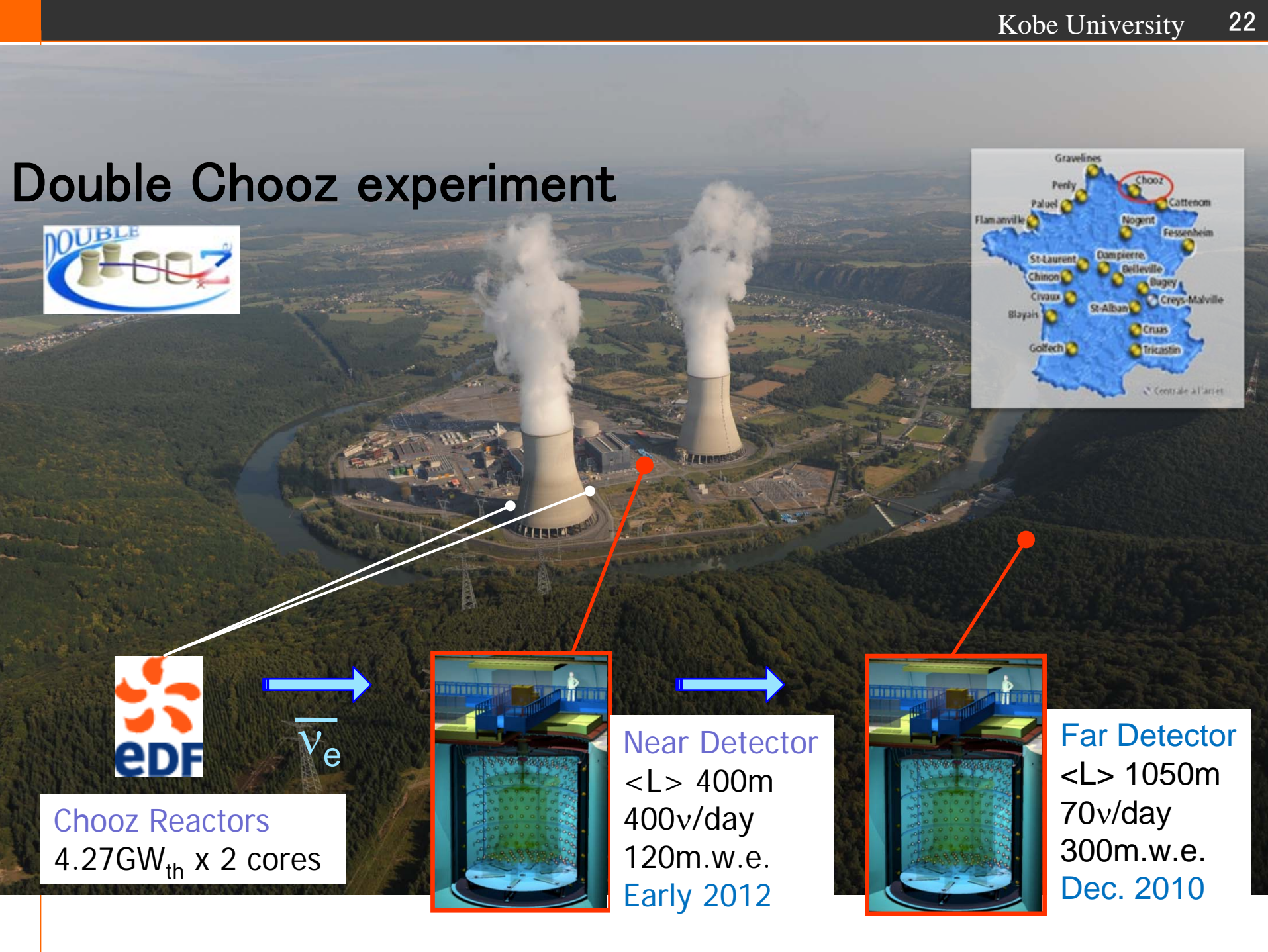
Search for **Higgs particle, Dark Matter,**  
**and Unexpected things**



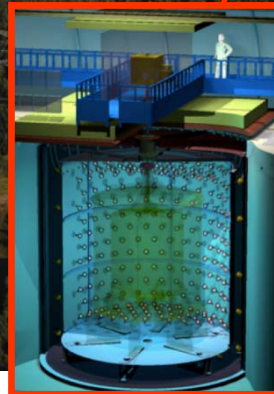
Kobe group made  
an important contribution  
to Muon detection system.

All Big-wheels were installed  
in ATLAS pit (2007.9)

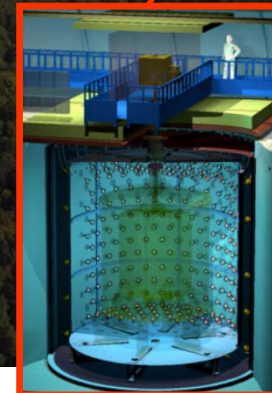
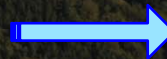
# Double Chooz experiment



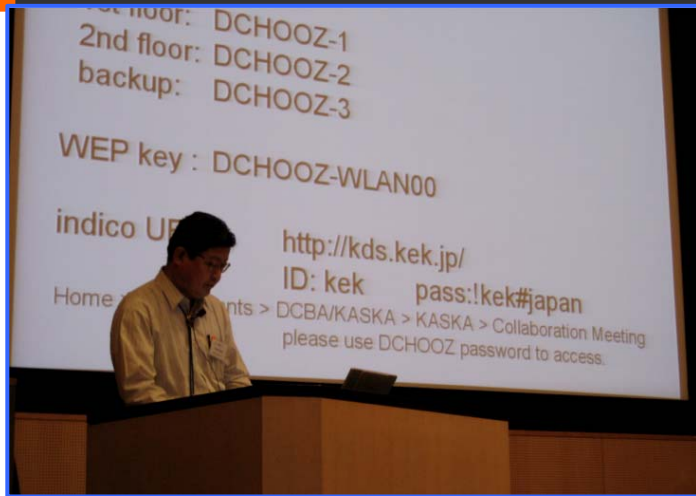
Chooz Reactors  
 $4.27\text{GW}_{\text{th}} \times 2 \text{ cores}$



Near Detector  
 $\langle L \rangle 400\text{m}$   
 400v/day  
 120m.w.e.  
 Early 2012



Far Detector  
 $\langle L \rangle 1050\text{m}$   
 70v/day  
 300m.w.e.  
 Dec. 2010



Double Chooz Collaboration Meeting at Kobe University March 3 ~ March 5, 2008

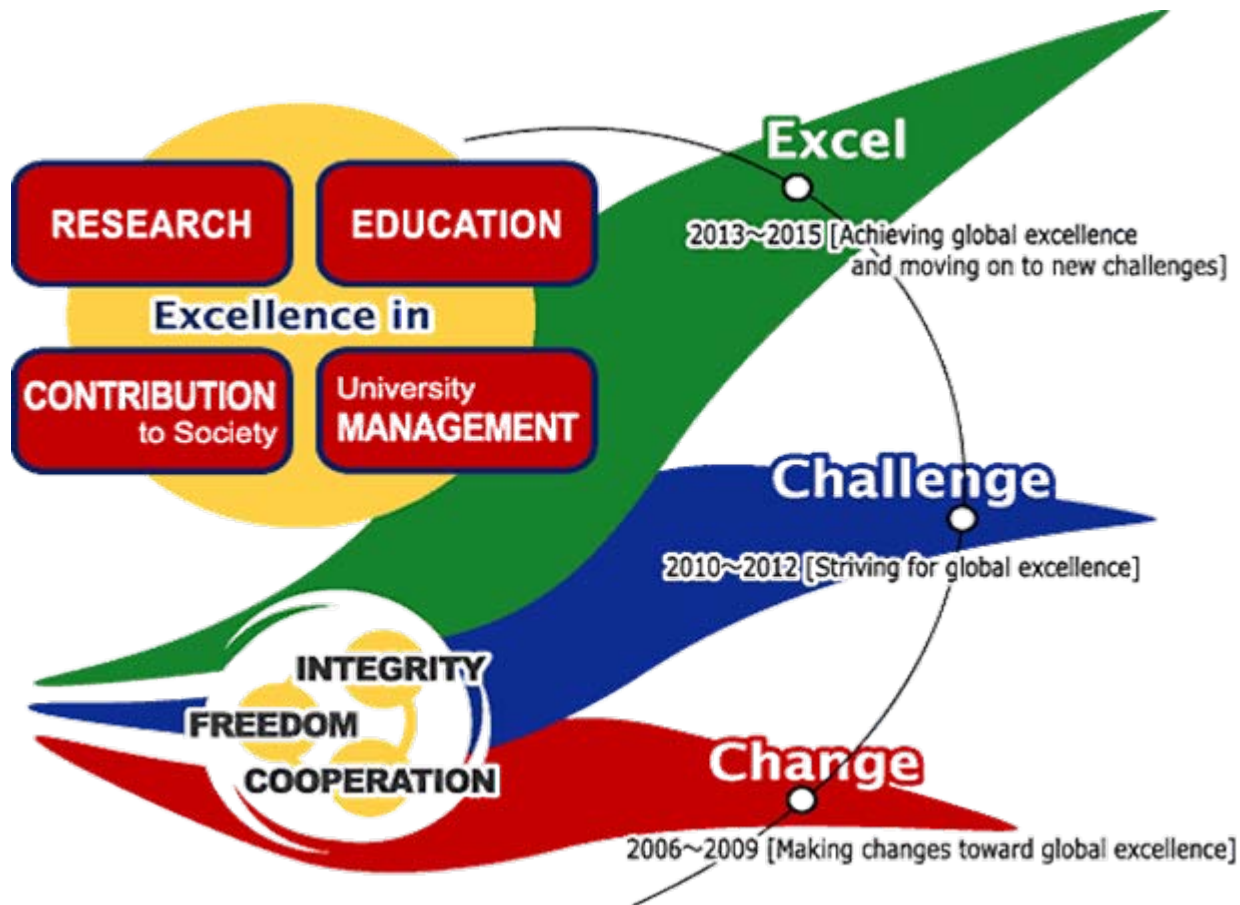


# Kobe University Vision 2015

“Toward Global Excellence in Research and Education”

## Missions Statement

Kobe University, working in a spirit of *integrity, freedom, and cooperation* in keeping with its open and cosmopolitan culture and environs, aims to contribute to the global community through the creation of knowledge founded on universal values and the fostering of rich understanding and strong leadership skills.



view from Kobe Univ.





**Thank you.**  
**Kobe University**