

Are you

ready ?

Goals of the Workshop

**Information +
Collaboration**

on

Beamline Control Systems

Thanks to ... YOU and ...

- Vicente Rey (his idea)
- Michael Krisch (ESRFUP project leader)
- European Union (money)
- Fabienne Mengoni + LOC



EU Motto



Unida en la diversidad

My holidays ...



- *Unity in diversity*, 18 000 islands, 5 principles (pancasila)

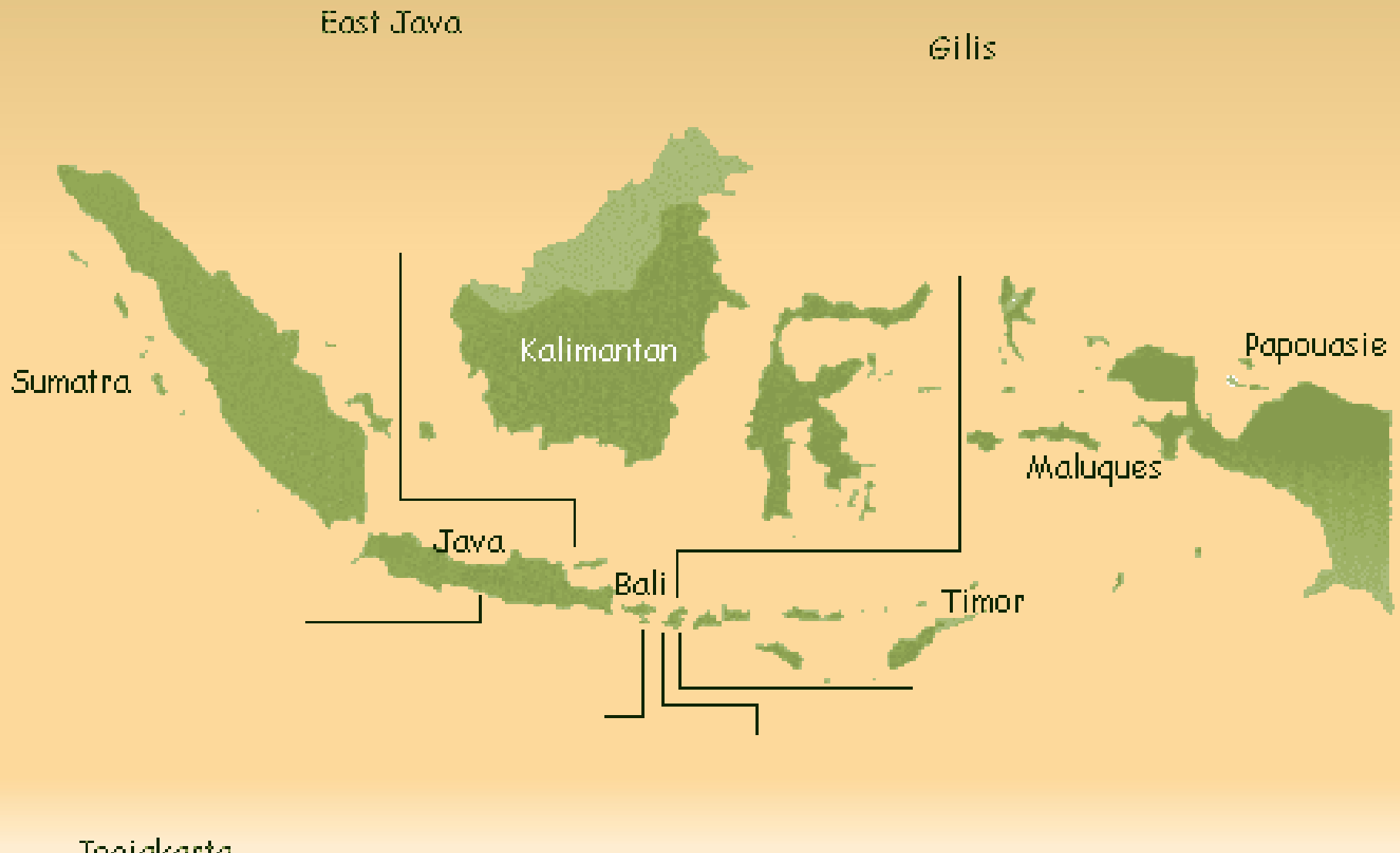
... in Bali .. are ricefields ...



... and lots of temples ...



Bali is opposite to ... JAVA



Bali has ... PYTHON



We are United in Diversity

- TANGO + EPICS
- JAVA + PYTHON + C++
- QT + ECLIPSE/RCP + SWING + SWT
- GDA + SARDANA + SPEC
- LINUX + WINDOWS

What is WP10 ?

- *The goal of this work package is to explore the grounds for an integrated beamline control and data acquisition software platform.*
- *These software developments could be of potential interest for other European synchrotrons.*

WP10 Tasks

- Study for possible procedures for a remote access service to beamlines.
- Study of the software components needed for the integration of instrumentation into a high speed data acquisition scheme.
- Feasibility study of a possible collaboration between European synchrotrons for common software standards and/or tools allowing for easy exchange of instrumentation and software developments.
- Design study of a beamline software platform integrating fast acquisitions, standardised access to detectors, automated experimental sequences, interfaces and remote access functionalities.

Read the deliverables !

WP10 Tasks

REMOTE ACCESS

HIGH SPEED DATA ACQUISITION

COLLABORATION

DESIGN STUDY

Opposite of COLLABORATION



Isolation

Well dang

Why COLLABORATE ?

- RESOURCES
- MONEY
- QUALITY
- IDEAS
- TESTING

Collaboration Antipatterns

Use my source code

Not in my favourite language

Not invented here

We are the better / best

Program – Session 2

Day one - 13th January

Auditorium

1. **9:00 Introduction + Goal of Workshop (A.Gotz) (15')**
2. **9:15 Detector Control – Laurent Claustre (Chairman)**
 1. LIMA 2D Framework (L.Claurent) (20')
 2. AreaDetector 2D Framework (N.Rees) (20')
 3. Distributed Fast Acquisitions systems for Multi Detectors experiments (A.Buteau) (10')

Discussion : A 2d detector API for suppliers of detectors for synchrotrons. Can the same API be used for 1d detectors ? (20')

COFFEE

Program – Session 3

3. 10:45 High Data Throughput – Andy Gotz (Chairman)

1. ESRF - High Data Throughput Detectors (A.Homs) (20')
2. DIAMOND - Networks/computing (N.Rees) (20')
3. SLS beamline infrastructure (H.Billich) (20')

"Data acquisition at high data rates with 2d-Detectors: Storage, network, compute nodes - What did work for Pilatus? What will future detectors need? " (H.Billich, SLS)

4. *Past Present Future - PILATUS Developments and Challenges* (M.Kobas) (20')

Discussion : What is the ideal infrastructure solution for high data throughput ? Will this satisfy future needs ? (20')

LUNCH in canteen

Program – Session 4

4. 14:00 Hardware Synchronisation – Laurent Clautre (Chairman)

1. Introduction (G.Berruyer) (20')
2. DANCE hardware platform (J.M.Clement) (20')
3. SOLEIL hardware synchronisation (P.Betinelli) (20')
4. DIAMOND hardware synchronisation (N.Rees) (10')

Discussion : How to synchronize experiments (20')

COFFEE

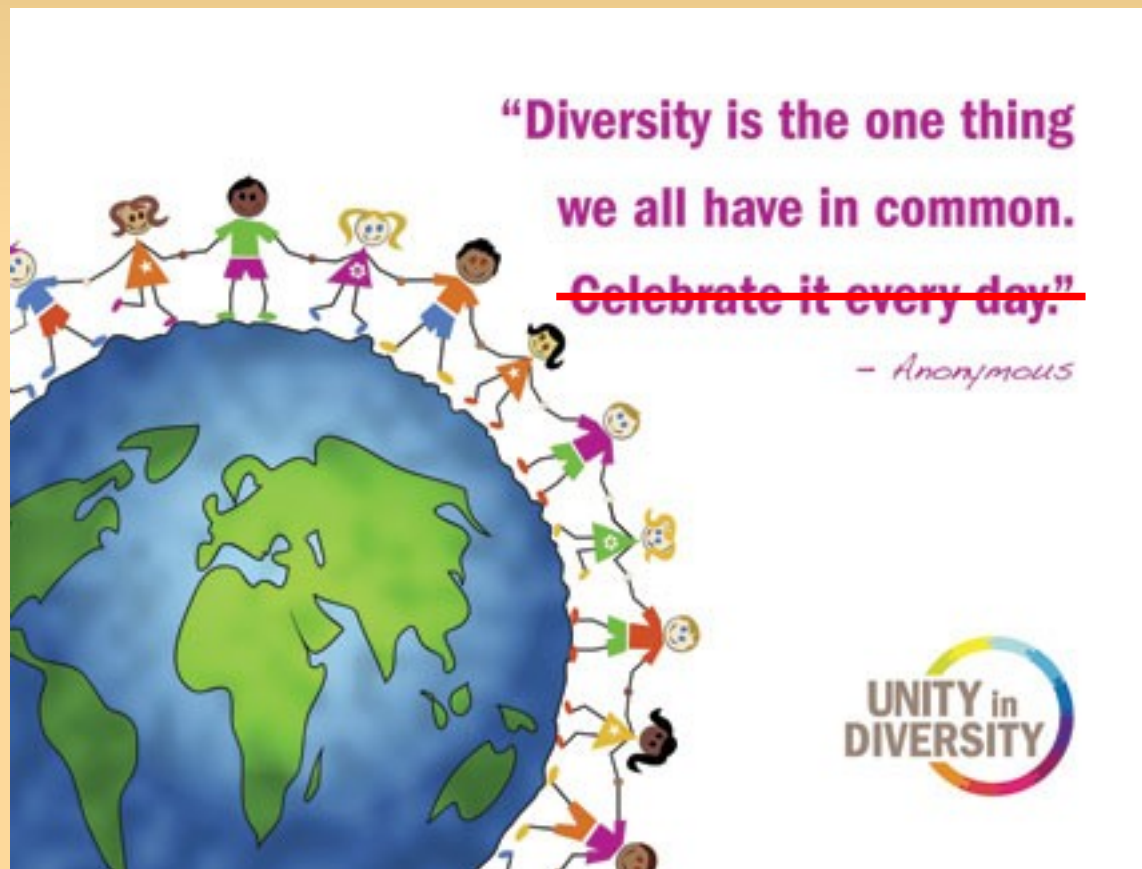
Tomorrow's Program

Sessions 5, 6 + 7

- Beamline Graphical Layer
- Data Management
- Data Analysis
- Conclusion

Workshop Goal

MORE **Unity** and LESS *Diversity*



Let us (try to)
celebrate
Unity