# Computing discussion: introduction

M. Morandin - INFN Padova

SuperB Workshop

SLAC 14-16 February '08

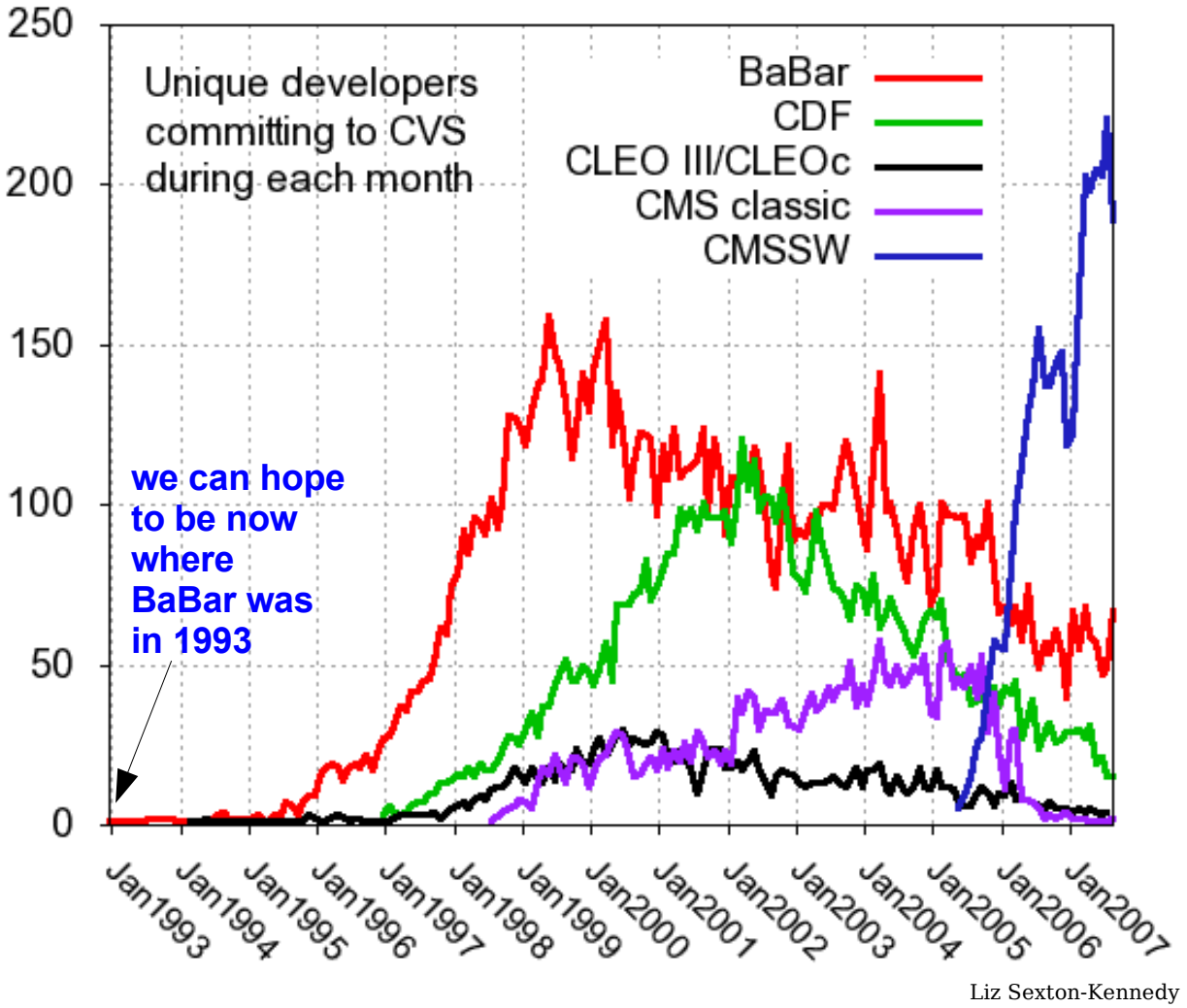
# The issues

- What are the plans ?
- Are they reasonable to cope with SuperB needs ?
- Are we taking the right decisions ?
- Are we missing something important at this stage ?

# The context

- at this point all efforts are concentrated in providing the SuperB community with a minimum set of tools that are essential to prepare the TDR
- no attempt to build now the basis for the SuperB computing model;  that will come later
  - and will likely look different from BaBar one

# the historical view




Liz Sexton-Kennedy

# Areas of actions

- Simulation: three tools have emerged (at least in my opinion) as the building blocks of the basic toolkit:
  - BaBar simulation+reconstruction framework
  - Pravda for fast simulation
  - Geant4 SuperB-specific simulation for background studies and more
- Collaborative tools:
  - a few basic tools (eventually) served by a common Authent./Author. database: Indico, Sympa, etc.
- Development support infrastructure
  - SVN repository, packaged distribution system, etc.

# BaBar Geant4 simulation

- BaBar simulation+reconstruction framework
  - mainly for specific detector optimization studies and extraction of parameters for fast simulation models
  - no plan to develop from here the SuperB detailed simulation
  - only ad-hoc minor adjustments to some BaBar sub-detector code foreseen so far
    - should we plan of keeping these modifications public and managed in a SuperB repository ?
  - no access to non-Babarians so far

# Other simulation tools

- Fast simulation
  - priority now: make Pravda a usable tool for the SuperB user
  - developments will be described by Matteo
- Geant-4 SuperB simulation
  - current framework set up for background studies
  - but it can form the basis for important future developments:
    - simulation of a realistic SuperB detector at the level of Geant4 hits could be completed in a reasonable time scale (few months)
      - and can already represent a powerful tool for initial studied
    - improved fast simulation + fast reconstruction
    - detailed simulation
  - developments plan will be described by Eugenio

# Access to BaBar code

- after encouraging discussions with BaBar management and feedback from the BaBar E.B.
  - plan of drawing a line that could separate critical analysis software (to be kept private within BaBar) from the rest (to be used for SuperB) has not made much progress so far
- pursuing a more limited goal may be more effective: Pravda is the ideal candidate
  - extract the (hopefully not infinite) list of packages it depends on
    - tools are available, manpower not yet identified
  - submit a request to the E.B. for making those available to the SuperB community

# Plan for collaborative tools (I)

- Central AA database (LDAP)
  - design now finalized
  - hosting server in Ferrara installed and configured
  - pre-production tests will start in two weeks:
    - users in Superb-computing@lists.infn.it (28) will form the test bed
- Wiki
  - from anlaysis of available tools, Mediawiki has been selected
  - will be installed on a second server in Ferrara next week
  - integrated with AA database for authentication by first week of March

# Plan for collaborative tools (II)

- Invenio (document archive, CERN development)
  - test installation in Ferrara: OK
  - will be available for general use after the Wiki is operational (middle March)
  - however it must be configured and customized for SuperB usage (librarian needed!); pre-prduction installation available earlier if needed
- Sympa integration with AA database
  - already well tested
  - will follow (target: end of March)
- Integration of other tools later (e.g. Drupal web site)

# Development support

- Subversion repository will be made available to the SuperB community in March
  - new server just arrived, but with wrong hardware configuration (not clear yet how long it will take to fix it)
    - machine equipped to be used also as primary build machine
  - will be used first to host the SuperB Geant4 package
  - Pravda can be the second tool to be supported
    - but will have to insert the related BaBar packages
- want to explore the possibility of creating RPMs for distributing SuperB SW
  - approach already exploited for BaBar simulation on the GRID
- not clear if we have the manpower for all this.... help welcome!