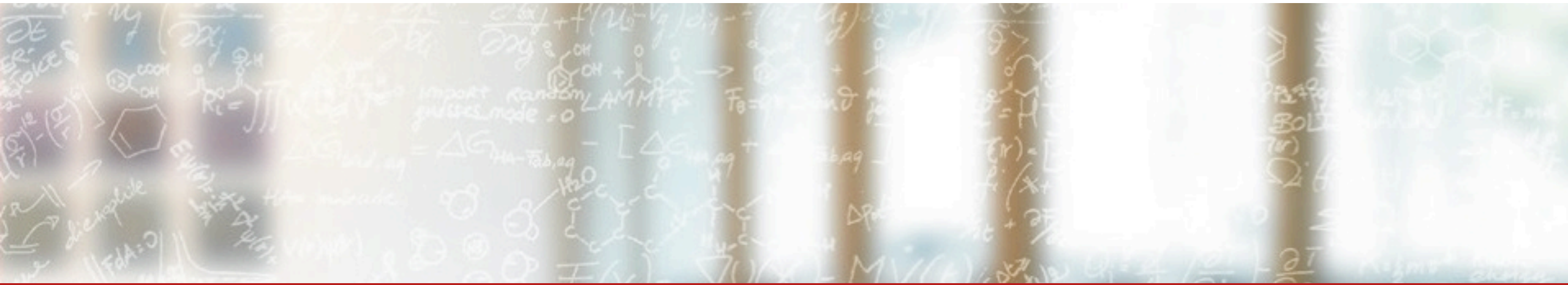




CSCS

Centro Svizzero di Calcolo Scientifico
Swiss National Supercomputing Centre

ETH zürich



1st CSCS EasyBuild Workshop

Kenneth Hoste, HPC-UGent, Belgium

Petar Forai, IMP/IMBA, Austria

Guilherme Peretti-Pezzi, CSCS

Luca Marsella, CSCS

September 8th-9th, 2015

Agenda

Tuesday Sep 8th 2015

- 8.30am – 9am: setup, coffee, introductions
- 9am – 10:30am: Introduction to EasyBuild (K. Hoste)
 - incl. demos, Q&A
- 10:30am – coffee break
- 10:45am – 12pm: Introduction to EasyBuild (K. Hoste)
 - writing easyconfigs/easyblocks: the basics
- 12pm – 1pm: lunch
- 1pm – 2pm: Getting started with EasyBuild: defining toolchains (K. Hoste)
- 2pm – 3pm: EasyBuild on Cray: CrayGNU toolchain, current status (P. Forai)
- 3:00pm – coffee break
- 3:15pm – 3:45pm: EasyBuild @ CSCS: Current status and roadmap (G. Peretti, L. Marsella)
- 3:45pm – 5:00pm: Hands on / Hackathon beginning:
 - Getting started with EasyBuild: installation and configuration, basic usage
 - Hackathon setup
- 8pm: Dinner (to be defined)
 - Pizzeria Da Franco (Lugano)

Wednesday Sep 9th 2015

- 9am - 12pm: Hackathon continued
 - General hacking: try out with your applications
 - Contributing back and working with Github (Pull Requests et al)
- 12pm - 1pm: lunch
- 1pm - 4pm: Informal discussions (P. Forai)

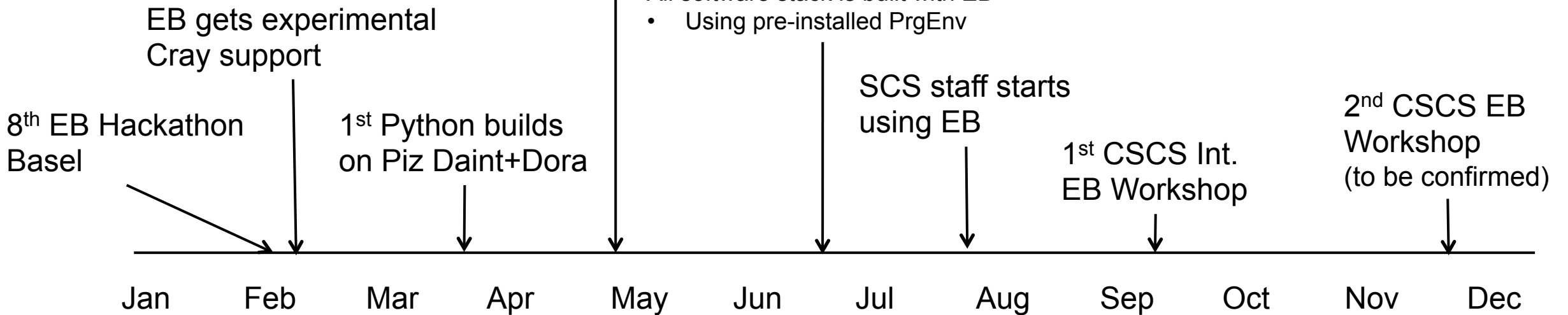
EasyBuild Timeline @ CSCS

SCS' EB pilot project: Python

- EB is installed on Daint, Dora, Santis, Brisi, Pilatus, Castor and Monch
- Successfully builds Python + packages

MCH CS-Storm:

- All software stack is built with EB
- Using pre-installed PrgEnv



2015

Motivation: Why SCS is adopting EasyBuild?

- `find /apps/common/tools/easybuild/ebfiles_repo/machine/ -name '*.eb' -exec eb {} "-r" \;`

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- `find /apps/common/tools/easybuild/ebfiles_repo/machine/ -name '*.eb' -exec eb {} "-r" \;`
- Will build and install all the software under /apps for a given *machine*
 - Download sources
 - Compile using the specified dependencies
 - It will also build dependencies if they are not yet available
 - Create module files

Motivation: Why SCS is advocating EasyBuild @ CSCS?

1. We are not the only ones maintaining HPC software
 - EB can be also potentially useful to other groups
2. Having a common tool enables:
 - Sharing knowledge and interaction among groups
 - Fully exploit EB features
 - Provide uniform PrgEnv across our systems
3. It gets better as the number of users increase
 - Framework and build recipes get tested more often
 - Recipes for more apps will be available (community based)

EasyBuild workshop wiki page

- Slides + hands on instructions
 - <https://github.com/eth-cscs/tools/wiki/EasyBuild-Workshop>