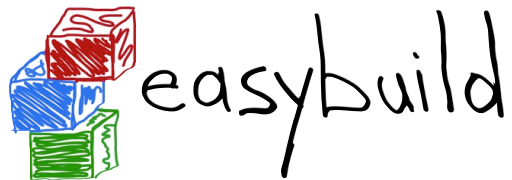# easybuild

building software with ease
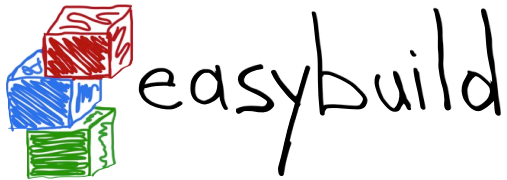
Status update
EasyBuild hackathon @ Nicosia, Cyprus
Oct 22th 2013

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Release schedule

- first public release in April 2012 (v0.5)

- **stable** since EasyBuild v1.0

  - released November 13th 2012 (at Supercomputing'12)

- **release early, release often** strategy

  - release whatever is there, don't stall waiting for major features

  - monthly releases since v1.1.0 (Jan'13)

  - occasional bug fix releases, as deemed necessary

  - most recent release is v1.8.2 (Oct 18th 2013), v1.9.0 is planned for Nov'13

- **feature freeze** strategy, **well-planned** releases we (try and) stick to

  - only open PRs with stable contributions are eligible for inclusion

- **careful testing** for every merge/release

  - unit test suite is run on every merge: try and make sure nothing breaks

  - full regression test is run for every release: build *everything* from scratch

Features

EasyBuild v1.1.0

- decent support for *extensions* (R libraries, Perl modules, ...)

EasyBuild v1.2.0

- new backend for option parsing / configuration (*generaloption*)
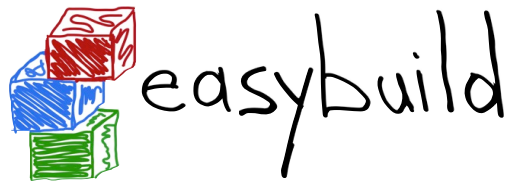- support for using string templates/constant in easyconfig files

EasyBuild v1.3.0

- support for *bootstrapping* EasyBuild
- consistent support for *configuration* via cmdline, env, cfg file

EasyBuild v1.4.0

- support for *CUDA-enabled compiler toolchains*, e.g. *goolfc*
- *unit testing* for all 3 repositories: framework, easyblocks, easyconfigs

EasyBuild v1.5.0

- (no major new features)

Features

EasyBuild v1.6.0

- support for using Lmod as modules tool

EasyBuild v1.7.0

- added `--dry-run` command line option

EasyBuild v1.8.x

- (initial) support for using *alternative module naming schemes*
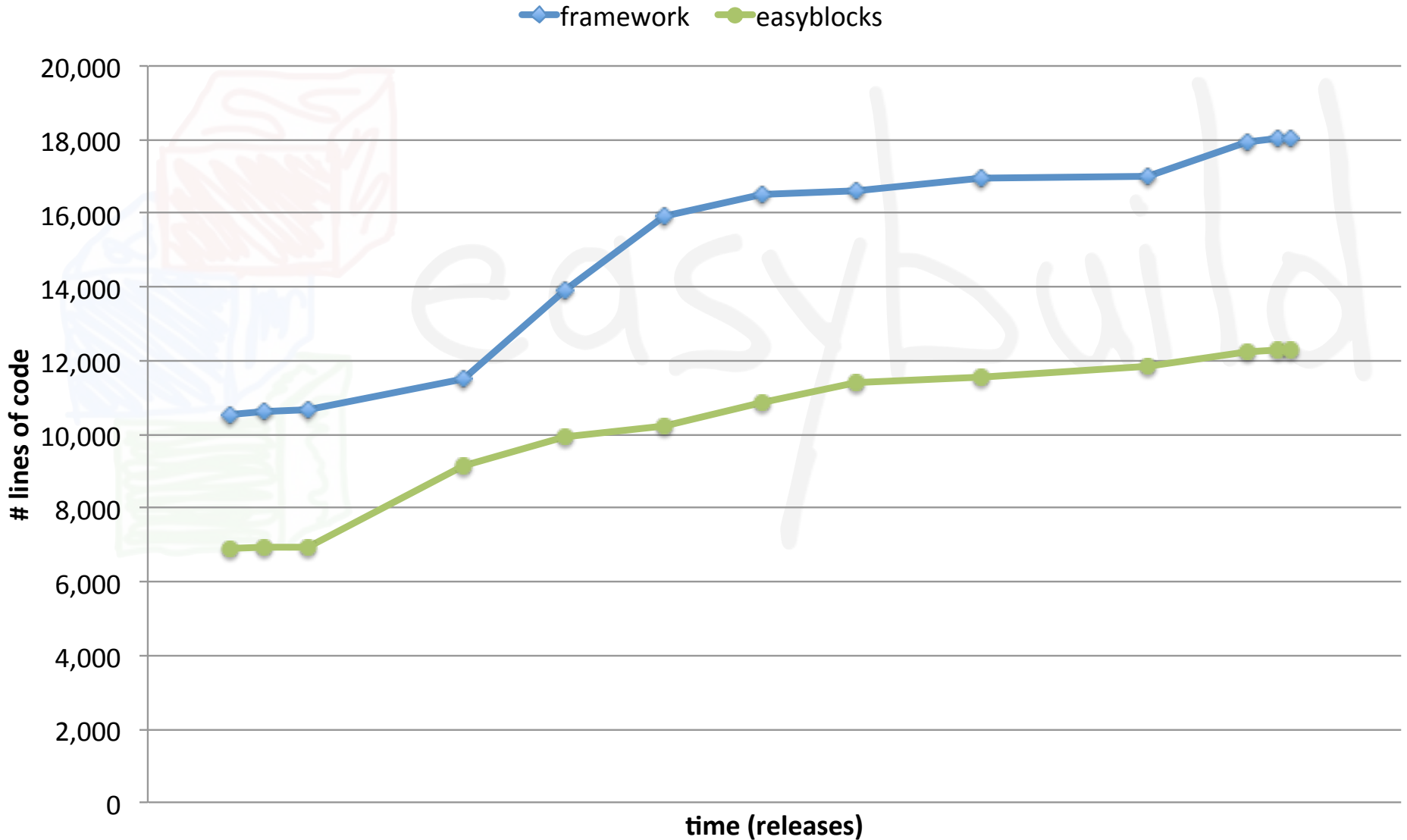
- *work-in-progress*

- fully featured support for custom module naming schemes

- 2nd generation of easyconfig file format

  - to combat explosion of only marginally different easyconfigs
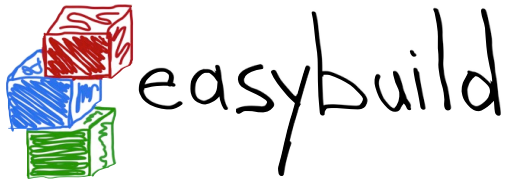
  - also: track software license, documentation URL, ...
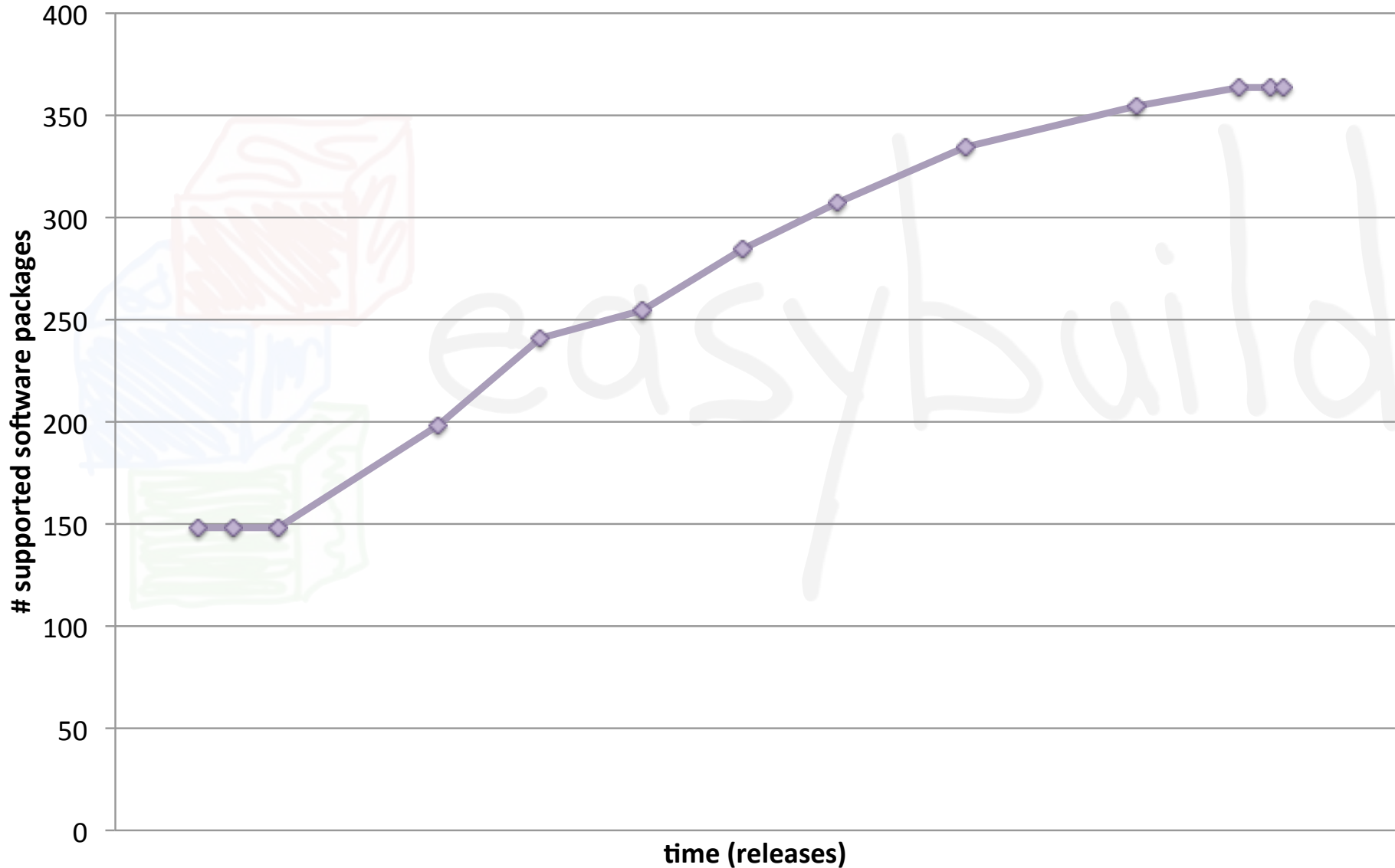
Growth: codebase

lines of code

```
find . -name '*.py' | xargs cat | egrep -v '^#|^[ ]*$' | wc -l
```
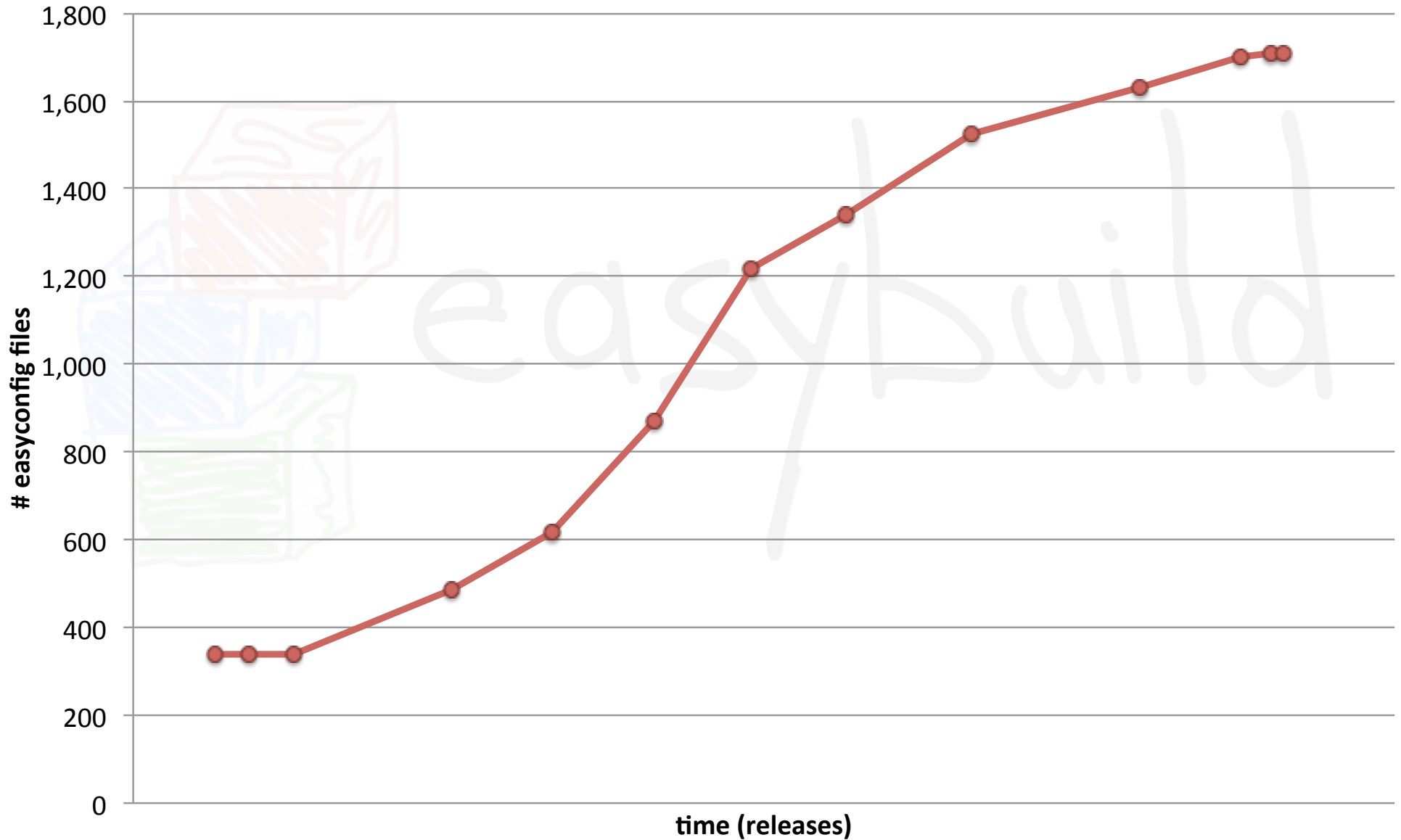
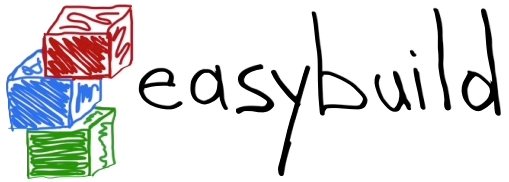# Growth: supported software

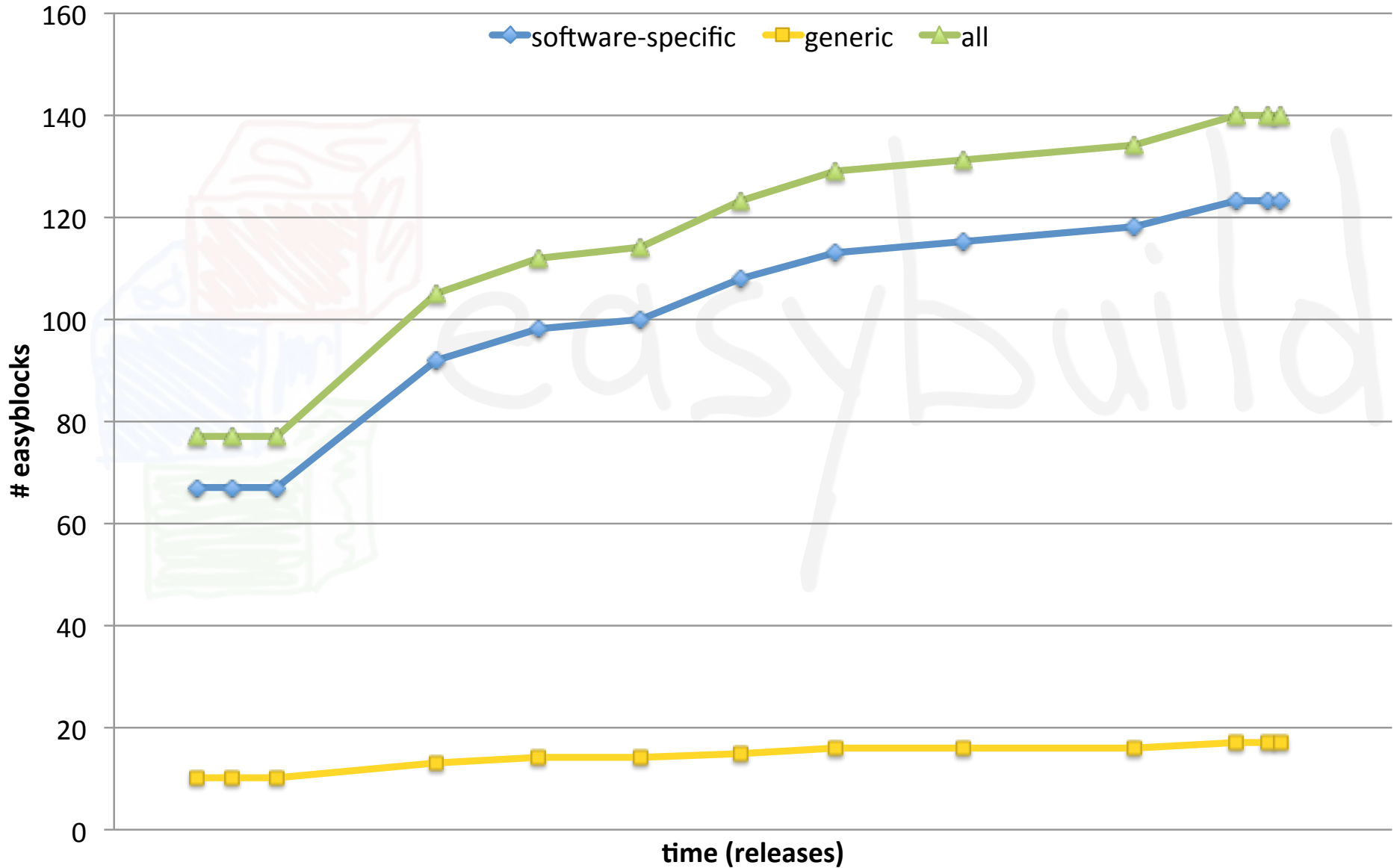*# supported software packages*

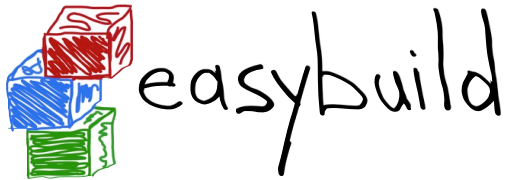# Growth: supported software

easyconfig files

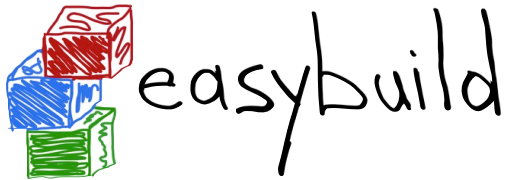# Growth: supported software

 # easyblocks

Growth: community

EasyBuild community is growing slowly but steadily:

- Ghent University (HPC-UGent & users)

- K.U. Leuven, Antwerp Univ., Hasselt Univ. (VSC members)

- University of Luxembourg

- Gregor Mendel Institute (Austria)

- The Cyprus Institute

- NVIDIA Corp. (cfr. previous hackathon)

- Kiev Polytechnic Institute (NTTU, Ukraine)

- Pacific Northwest National Lab (US)

- UC Davis (US)

- University of Auckland (New Zealand)

- Bayer (Germany)

- ...

Open issues

- **documentation** wiki pages need work: incomplete, some outdated
  - e.g., EasyBuild configuration, easyconfig parameters, ...
  - need to figure out a way to verify documentation, or generate it from the code
- support for custom module naming schemes not fully complete yet
- we need a way to handle the easyconfigs explosion
  - i.e., support for **'fat' easyconfig files**
  - already in the works, but far from done
- loose ends here and there
  - minor annoyances, feature requests, ...
- pull requests should be reviewed / processed more quickly (?)
  - more people should actively review PRs
  - more people should gain insight in EasyBuild framework codebase

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