

**Data Centre Alliance
Workshops**

Garching (Munich), Germany

**Grid and the Virtual
Observatory**

April 9-11, 2008

<http://www.si.inaf.it/eurovow2008>



AstroGRID – GRID interface

N. Deniskina, M. Brescia, G. d' Angelo, O. Laurino, G. Longo

GRID-Launcher (N.V. Denis kina)

GRID-Launcher launches ASTROGRID - applications from Workbench of ASTROGRID to GRID and transfers the results from the GRID to the data storage of Astrogrid.

◇ Security

VO (ASTROGRID) user can launch applications to GRID without personal GRID certificate.

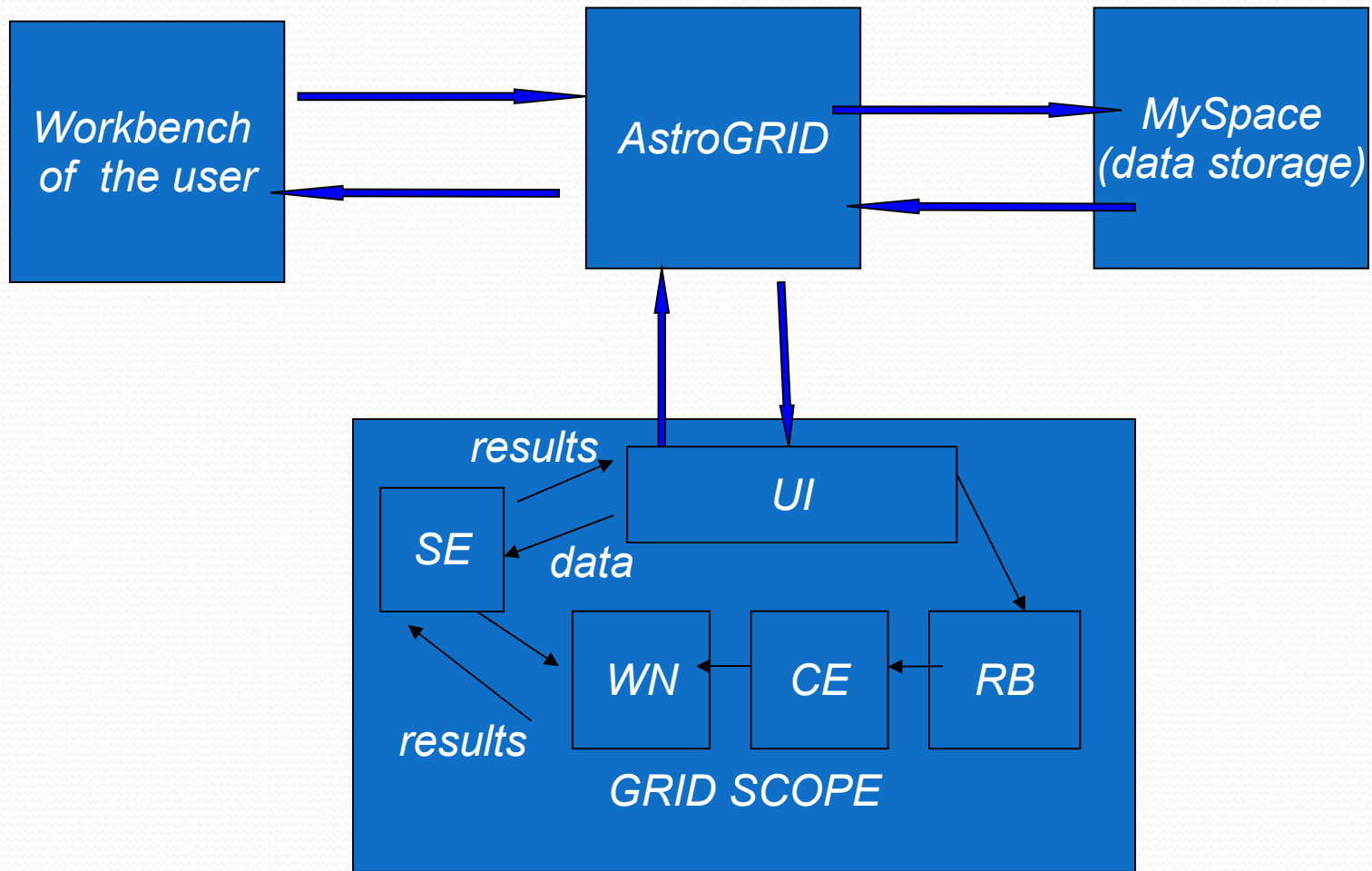
◇ Type of programs which are launched to GRID

ASTROGRID non interactive applications registered in CEC.

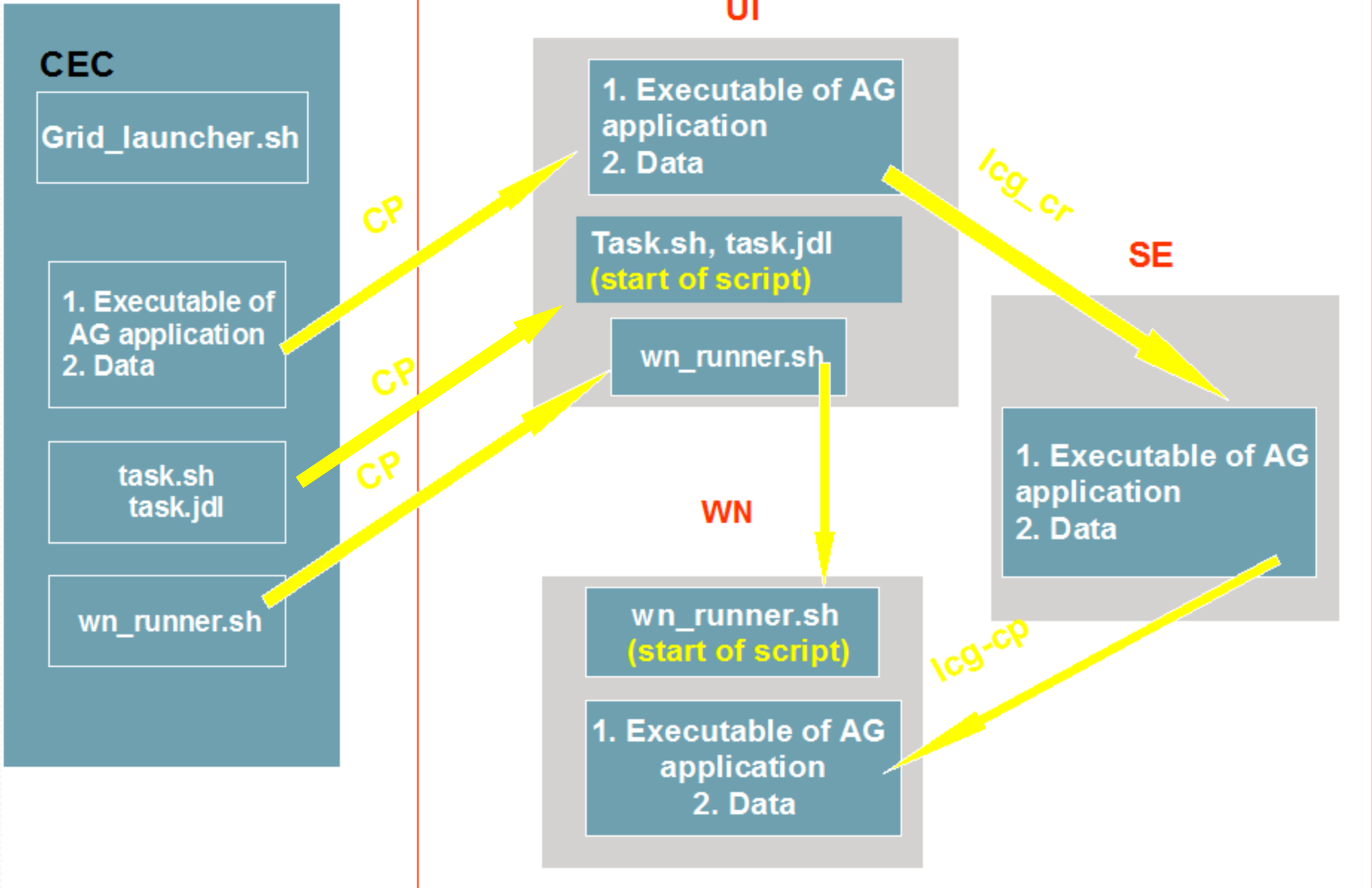
◇ Data location

The data are in data storage of ASTROGRID

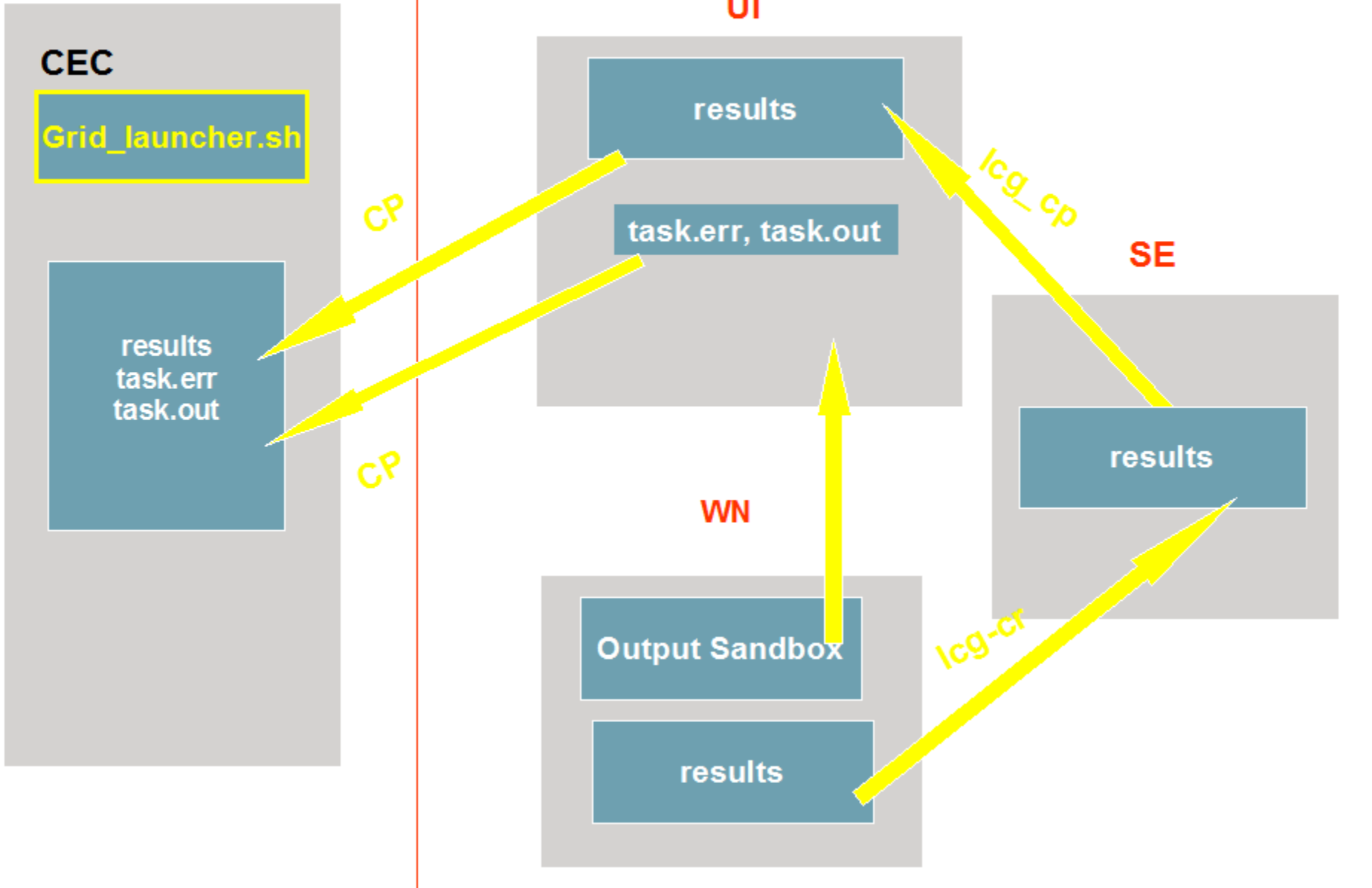
GRID-Launcher work-flow



GRID SCOPE



AG computer
(pcdevauc.na.infn.it)



The workflow of the job is following:

1. "Grid_launcher"
 - a) takes the user input from Workbench of Astrogrid;
 - b) collects all files, tabs and programs needed;
 - c) wraps them in an archive and sends it to the Scope-GRD UG (The Authentication on Scope is done by public keys exchange).
2. The Scope UG receives data and JDL program from "GRD_launcher", unpacks them and translates them to Grid job format.
3. Once GRD job jdl file is ready, "GRD_launcher" starts it in Grid (from a Astro Grid node); periodically checks the status; and then (when job is finished) retrieves the results.
5. "GRD_launcher" receives the data archive, unpacks it and puts the results into the "MySpace" data storage of Astro GRD.

GRID launcher *has been implemented and tested on :*

- **VONeural_MLP**: *supervised clustering*
- **VONeural_SVM**: *supervised clustering*
- **Sextractor**: *for the extraction of object-catalogues from astronomical images*
- **SWARP** - *to resample and co-add FITS images using any arbitrary astrometric projection defined in the WCS standard.*



END