

## - An Alternative restructuring for ING -

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### Background.

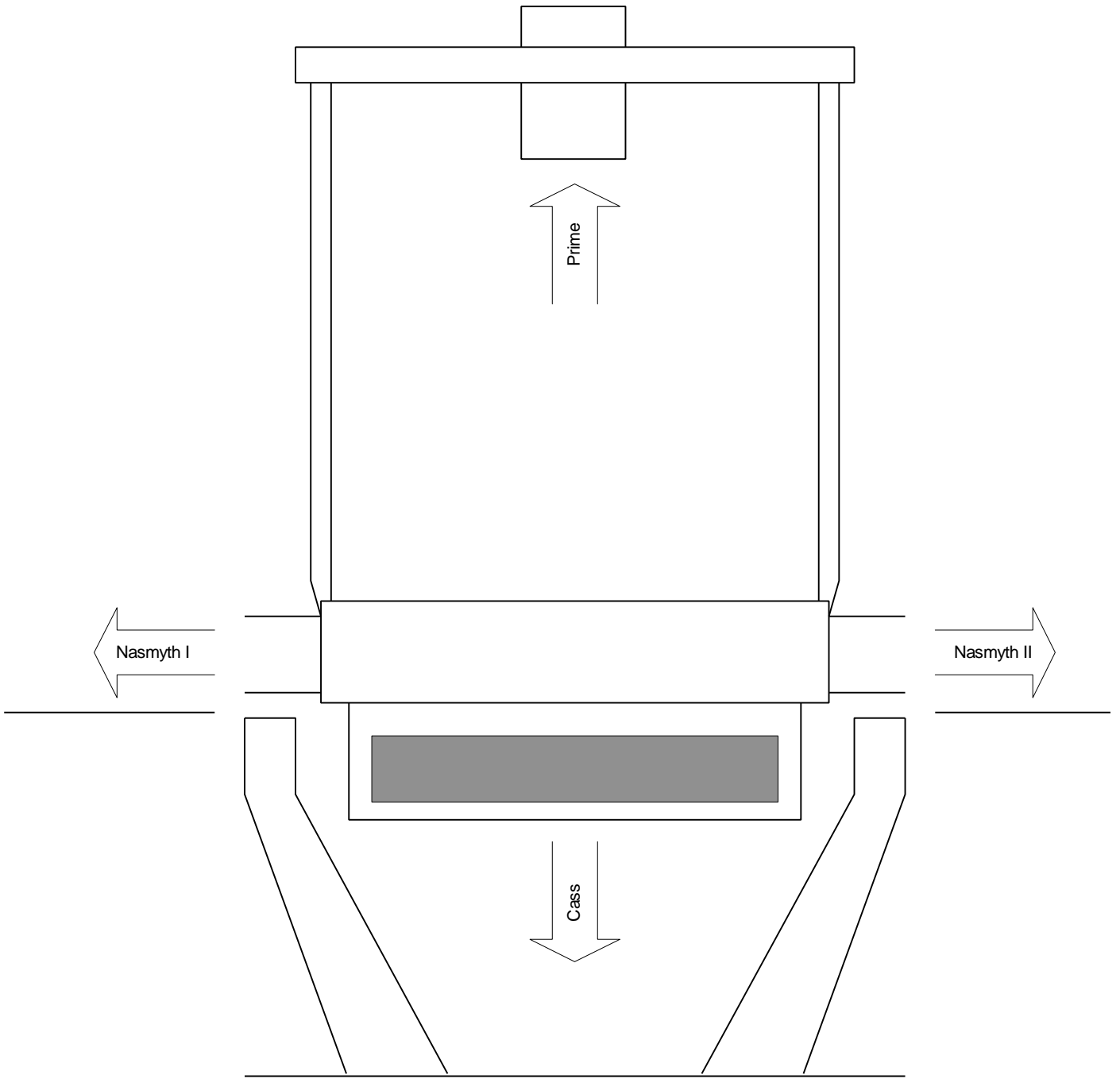
With the availability of sufficient technology within ESO, Dutch and British astronomers are clamouring to join the large aperture club. The most recent announcement concerning availability to eight meter time is disconcerting. In this announcement it appears that at least the British astronomers will have access to the VLT 'capped' while still having to pay a full annual subscription. This rag briefly exposes the reader to a novel concept that potentially makes a Dutch / British owned eight meter telescope available at less cost than a modern four meter telescope; For example VISTA.

The concept is simple. Twenty year old technology supplied the means for the William Herschel Telescope to be built: At that time, as state of the art. The proposed concept is to *build onto* that technology rather than *replace it*. We take the WHT 4.2 meter telescope and turn it into the William Herschel 8 meter telescope.

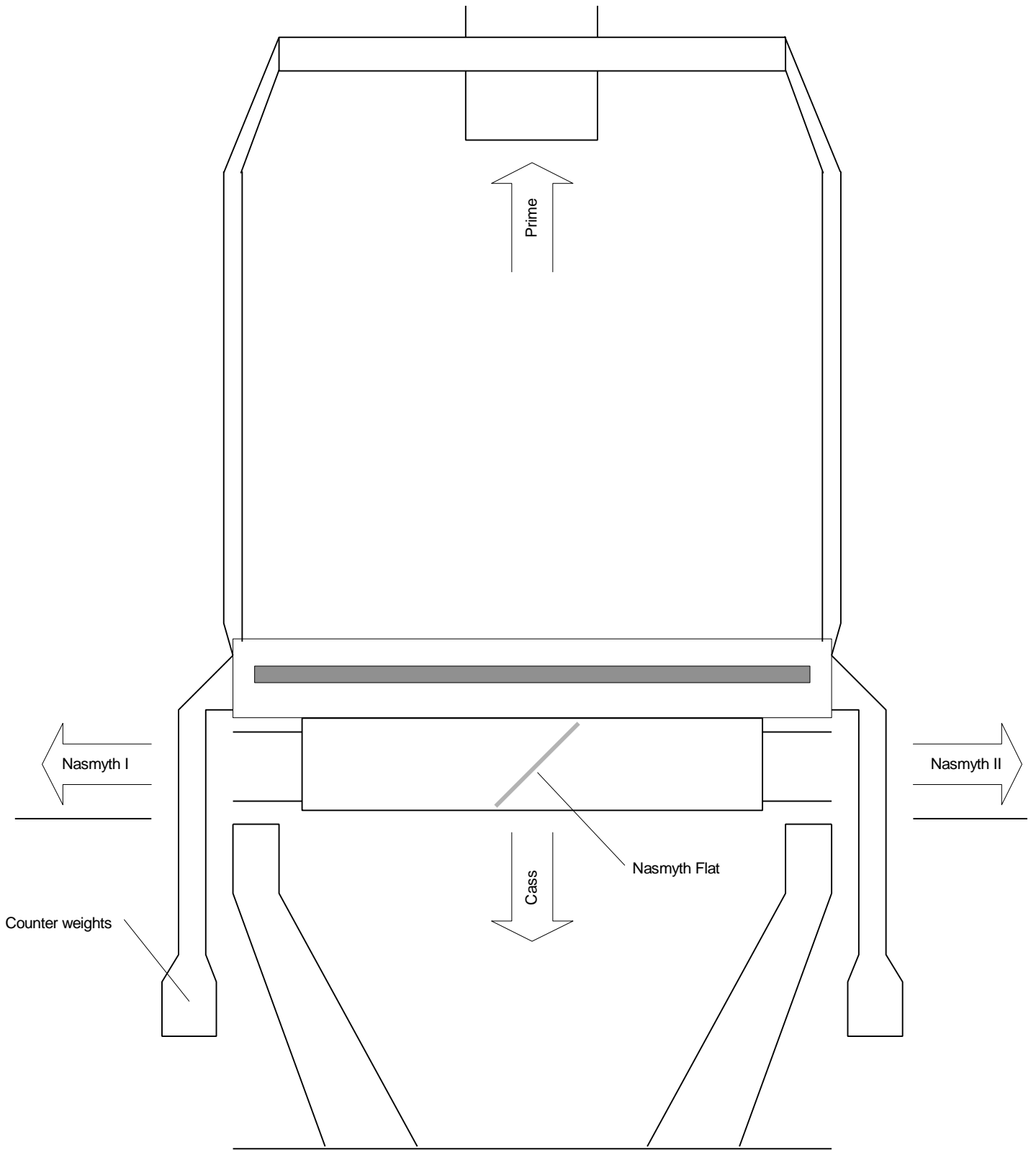
The massive primary mirror, mirror cell and secondary support structure of the current telescope means that the everything up to the altitude bearings will support the weight of a meniscus type eight meter mirror structure. The dome, built to accommodate large nasmyth instruments, has sufficient clearance to support an f1 / f2 wide field design.

All telescope controls, drives, infrastructure and possibly, some instruments, could be used with little modification on a new 8 meter platform.

The following pages illustrate the basic concept.



4.2 meter William Herschel Telescope



8 meter William Herschel Telescope