

| VDFS Project reports: earned value analysis from 2004 October to 2007 September |   |              |            |             |             |             |             |             |             |             |             |             |      |  |  |
|---|---|--------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|--|--|
| WSA VDFS Science Archive: Phases 2-5 (2004 Oct - 2007 Sep)                      |   |              | mmo        | 2004        | 2005        |             |             |             | 2006        |             |             |             | 2007 |  |  |
|   |   |              |            | Q4          | Q1          | Q2          | Q3          | Q4          | Q1          | Q2          | Jul         | Aug         | Sep  |  |  |
| <b>Ph2</b>  | <b>WSA with experience of real WFCAM data (10/04 - 9/05)</b>                |              |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Database and Pixel Data Hardware  | 1.0          | 67%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        |      |  |  |
|   | Data transfer and ingestion tools   | 7.0          | 29%        | 43%         | 64%         | 81%         | 85%         | 86%         | 90%         | 90%         | 90%         | 90%         |      |  |  |
|   | Catalogue maintenance tools   | 6.0          | 14%        | 57%         | 75%         | 83%         | 83%         | 83%         | 83%         | 83%         | 83%         | 83%         |      |  |  |
|   | Data Delivery and Image processing tools                                    | 14.0         | 8%         | 21%         | 41%         | 73%         | 79%         | 83%         | 83%         | 83%         | 83%         | 83%         |      |  |  |
|   | <b>Phase 2 Earned value analysis</b>  | <b>28.0</b>  | <b>4.7</b> | <b>10.4</b> | <b>15.7</b> | <b>21.9</b> | <b>23.0</b> | <b>23.6</b> | <b>23.9</b> | <b>23.9</b> | <b>23.9</b> | <b>23.9</b> |      |  |  |
| <b>Ph3</b>  | <b>WSA with advanced data access &amp; maintenance tools (10/05 - 3/06)</b> |              |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Database design (re-factor in light of experience and user feedback)        | 1.0          |            |             |             | 50%         | 50%         | 70%         | 100%        | 100%        | 100%        | 100%        |      |  |  |
|   | Database and Pixel Data Hardware  | 1.0          |            |             |             |             | 50%         | 75%         | 100%        | 100%        | 100%        | 100%        |      |  |  |
|   | Data transfer and ingestion tools   | 4.0          |            |             |             | 2%          | 57%         | 94%         | 100%        | 100%        | 100%        | 100%        |      |  |  |
|   | Catalogue maintenance tools   | 9.0          |            |             |             |             | 27%         | 46%         | 62%         | 69%         | 69%         | 69%         |      |  |  |
|   | Data Delivery and Image processing tools                                    | 6.0          |            |             |             |             | 23%         | 44%         | 75%         | 100%        | 100%        | 100%        |      |  |  |
|   | <b>Phase 3 Earned value analysis</b>  | <b>21.0</b>  |            | <b>0.0</b>  | <b>0.0</b>  | <b>0.6</b>  | <b>7.1</b>  | <b>12.0</b> | <b>16.1</b> | <b>18.2</b> | <b>18.2</b> | <b>18.2</b> |      |  |  |
| <b>Ph4</b>  | <b>VSA ready 2006 December for VISTA science data (10/05 - 12/06)</b>       |              |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Preparatory design for review: benchmarking OS/DBMS and hardware            | 13.0         | 1%         | 2%          | 3%          | 3%          | 6%          | 28%         | 40%         | 40%         | 62%         | 98%         |      |  |  |
|   | Database design   | 7.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Database and Pixel Data Hardware  | 4.0          |            |             |             |             |             | 10%         | 13%         | 13%         | 13%         | 13%         |      |  |  |
|   | Data transfer and ingestion tools   | 8.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Catalogue maintenance tools   | 10.0         |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Data Delivery and Image processing tools                                    | 8.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | <b>Phase 4 Earned value analysis</b>  | <b>50.0</b>  | <b>0.1</b> | <b>0.3</b>  | <b>0.4</b>  | <b>0.4</b>  | <b>0.8</b>  | <b>4.0</b>  | <b>5.7</b>  | <b>5.7</b>  | <b>8.6</b>  | <b>13.3</b> |      |  |  |
| <b>Ph5</b>  | <b>Complete VSA shaken down with real VISTA data (1/07 - 9/07)</b>          |              |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Database design (re-factor, add surveys)                                    | 1.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Database and pixel data hardware  | 1.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Data transfer and ingest tools (code maintenance)                           | 3.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Catalogue maintenance tools (re-factor as required, code maintenance)       | 7.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Data delivery and image processing tools (re-factor, additional features)   | 10.0         |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Advanced data analysis tools  | 5.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | Further grid services connectivity  | 3.0          |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | <b>Phase 5 Earned Value Analysis</b>  | <b>30.0</b>  |            |             |             |             |             |             |             |             |             |             |      |  |  |
|   | <b>Whole Project Earned value analysis (mmo)</b>                            | <b>129.0</b> | <b>4.8</b> | <b>10.6</b> | <b>16.1</b> | <b>22.8</b> | <b>30.9</b> | <b>39.7</b> | <b>45.7</b> | <b>47.8</b> | <b>50.7</b> | <b>55.4</b> |      |  |  |
|   | <b>Whole Project resource use (£k)</b>                                      | <b>923.4</b> | 46.4       | 85          | 141         | 205         | 277         | 346         | 436         | 465         | 491         |             |      |  |  |
|   | <b>Whole Project Earned value analysis (% of defined project)</b>           | 0            | 4%         | 8%          | 12%         | 18%         | 24%         | 31%         | 35%         | 37%         | 39%         | 43%         |      |  |  |
|   | <b>Whole Project resource use (% of funds allocated in VDFS grant)</b>      | 0            | 5%         | 9%          | 15%         | 22%         | 30%         | 37%         | 47%         | 50%         | 53%         |             |      |  |  |