

The management of risk for the Euro-VO DCA shall be via a risk register. The risk register is established and maintained by the Euro-VO PCT all along the project.

All risks identified by the project are itemized in the register and are assessed:

- for their likelihood of occurrence (1 = very unlikely to 4= highly likely)
- for their likely impact (1 = minimal impact, 4 = disastrous)

For each also a summary of what remedial action is possible if the risk does occur is provided. The product of likelihood of occurrence \* likely impact, provides the risk factor ranging from 1 (no risk) to 16 (extremely high risk), an index of those risks on which attention should be focused, with most attention given to risks with a highest risk factor.

The main risks to delivery of the Coordination Action objectives are tabulated below. Remedial actions are identified that would mitigate the impact of such risks.

RISK	CONSEQUENCES	REMEDIAL ACTIONS
<p><b>Risk 1:</b>  <b>IVOA standards evolving after version 1.0</b></p> <p>Likelihood of occurrence=3            Impact=2  <b>Risk Factor = 6</b></p>	<p>Even after the recommended version, IVOA standards may still be evolving. Therefore, EuroVO-DCA partners who have already implemented VObs services based on recommended IVOA standards will have to adapt them to the new standards.</p>	<ul style="list-style-type: none"> <li>▪ EuroVO-DCA partners should make sure that IVOA adopts standards once they have been properly discussed and agreed so they are not bound to drastic changes in the future.</li> <li>▪ EuroVO-DCA partners should develop their VObs services in a flexible manner, taking into account possible slight evolution of the IVOA standards. Therefore, adapting the existing VObs services to updated IVOA standards should not require too much work.</li> </ul>

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<p><b>Risk 2:</b> <b>IVOA standards not available in time</b></p> <p>Likelihood of occurrence= (3) → 1 Impact=3 <b>Risk Factor = (9) → 3</b></p> <p>Initially at 6, after raising to 9, the risk factor is down to 3 (see comment).</p>	<p>IVOA standards are required for the data providers to implement the VObs services on top of their data holdings. If the standards have not reached the recommendation level (version 1.), EuroVO-DCA partners cannot implement the VObs compliant services.</p>	<ul style="list-style-type: none"> <li>▪ Most of the standards are already at or close to their recommended version 1.0 that should be the baseline for VObs services implementation. The IVOA roadmap defines that most of the remaining ones should reach that state in the course of 2006. Moreover, most of the EuroVO-DCA partners are actively participating in the IVOA working groups and therefore can put pressure on IVOA to make sure that the IVOA standards reach their version 1.0 in due time.</li> <li>▪ Before reaching the recommended version 1.0, there are previous versions which can be used for developing prototypes of the VObs services. This can be done assuming the risk that the IVOA standards can change and therefore the VObs services may have to evolve. If the VObs services are developed in a flexible manner, the update of the VObs services to the final recommendation may not require too much work.</li> </ul> <p><u>Previous Comment (Board-PCT 04/10/2007):</u> 8 IVOA standards adopted in September 2007.</p> <p><u>Previous comment (PCT 04/05/2007):</u> For the time being, the 2007 Workshop is based on the IVOA standards or draft versions at or above release 1.0 and the relevance is thus ensured</p>
<p><b>Risk 3:</b> <b>IVOA standards not properly implemented</b></p> <p>Likelihood of occurrence=2 Impact=3 <b>Risk Factor = 6</b></p>	<p>If the IVOA standards are not precise enough or if the EuroVO-DCA partner does not follow the standards completely, there is a risk that the resulting VObs services can not really interact with each others.</p>	<ul style="list-style-type: none"> <li>▪ EuroVO-DCA partners, through the IVOA should make sure that IVOA standards are precise enough so they can be implemented without risk of errors.</li> <li>▪ EuroVO-DCA partners should make sure that VObs services implemented in the frame of the EuroVO-DCA project are 100% compliant. As part of the yearly project report, the list of 100% compliant VObs services could be given to encourage data providers to develop 100% compliant VObs services.</li> </ul> <p><u>Previous Comment (Board-PCT 04/10/2007):</u> June 2007 and June 2008 Workshops on "How to publish data in the VO".</p> <p><u>Previous comment 1 (PCT 04/05/2007):</u> This risk is low (TWiki, meetings, workshop) and will be assessed at the next PCT meeting.</p> <p><u>Previous comment 2 (PCT 04/05/2007):</u> Recommendation to IVOA and the VO projects to develop a registry curation tool.</p>

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<p><b>Risk 4:</b> <b>VO services not used by the scientists</b></p> <p>Likelihood of occurrence=1 Impact=3 <b>Risk Factor = 3</b></p>	<p>If the VObs services developed by the EuroVO-DCA partners are not scientifically oriented, they will not be used by the scientific community, and the value of the EuroVO-DCA project would be very poor.</p>	<ul style="list-style-type: none"> <li>▪ The EuroVO-DCA Scientist and IST will check the global scientific coherence of the EuroVO-DCA activities.</li> <li>▪ In coordination with the Euro-VO Facility Centre, scientific use cases for the EuroVO-DCA partners will be obtained to implement VObs services which correspond to scientists needs and permit an increase in the science conducted through VObs tools and application.</li> </ul> <p><u>Comment (PCT 3 29/05/2008): Support to users is scheduled within service activities and Networking activities in the EuroVO-AIDA project.</u></p> <p><u>Previous comment (PCT 04/05/2007): A mixed workshop between VO and scientists was organised where participants showed great interest and motivation (Spectroscopy workshop).</u></p>
<p><b>Risk 5:</b> <b>Insufficient collaboration between EuroVO-DCA partners</b></p> <p>Likelihood of occurrence=1 Impact=3 <b>Risk Factor = 3</b></p>	<p>As presented in the proposal, EuroVO-DCA partners need to have strong collaboration between them to ensure consistency and convergence of VObs work within the EuroVO-DCA. If missing, the risk of duplicate or divergent work being performed becomes higher.</p>	<ul style="list-style-type: none"> <li>▪ EuroVO-DCA partners will ensure that necessary time and budget is available for collaboration meetings, teleconferences, workshop, etc... including appropriate reporting and visibility of such activities.</li> <li>▪ EuroVO-DCA to provide collaborative web site containing all the information discussed through these collaborations.</li> </ul> <p><u>Previous comment 1 (PCT 04/05/2007): TWiki site made available in October 2006 and regularly updated since then.</u></p> <p><u>Previous comments 2 (PCT 04/05/2007): Active partners' participation to the EuroVO-DCA meetings and workshops.</u></p>