# University of California, San Diego

Submitted by Brian DeMeulle

The Auxiliary & Plant Services (A&PS) group at UCSD encompasses a wide range of business activities, including Facilities Management, Transportation & Parking Services, Imprints (Full Service reprographics and other printing, copying, and scanning services), the Campus Research Machine Shop (a metal fabrication, manufacturing shop), the Early Childhood Education Center (an infant through K child development center), and the Campus Bookstore. Facilities Management (FM) includes all maintenance activity on the UC San Diego campus, as well as all Landscaping and Grounds, Custodial, all Trade Shops, Campus Fleet Operations, the Central Utility Plant, and Special Events Services.

In an effort to become more process-driven – to understand its processes, and to prioritize future improvement efforts – UCSD A&PS undertook the creation of an Enterprise Asset Management (EAM) system. Since more is spent on Facilities Management's (FM) – the largest amount going to Maintenance, Repair, and Operations (MRO), -- A&PS decided to focus initially on their operations and identify opportunities for improvement. The driver for the assessment was spending on materials with a mandate to look at procurement, maintenance processes, and supporting technologies. Their findings highlighted the need for increased collaboration, the benefits of combining redundant processes across A&PS, a lack of resources that drive FM into a reactive maintenance mode, and potential savings to be made by moving from a reactive to a preventative/predictive maintenance culture complemented by an improved training program.

The team initially developed a process architecture of Facilities Management and then proceeded to identify process problems and to develop a roadmap for the elimination of defects. Figure 1 provides an overview of the UCSD A&PS business process architecture developed for Facilities Management (FM).
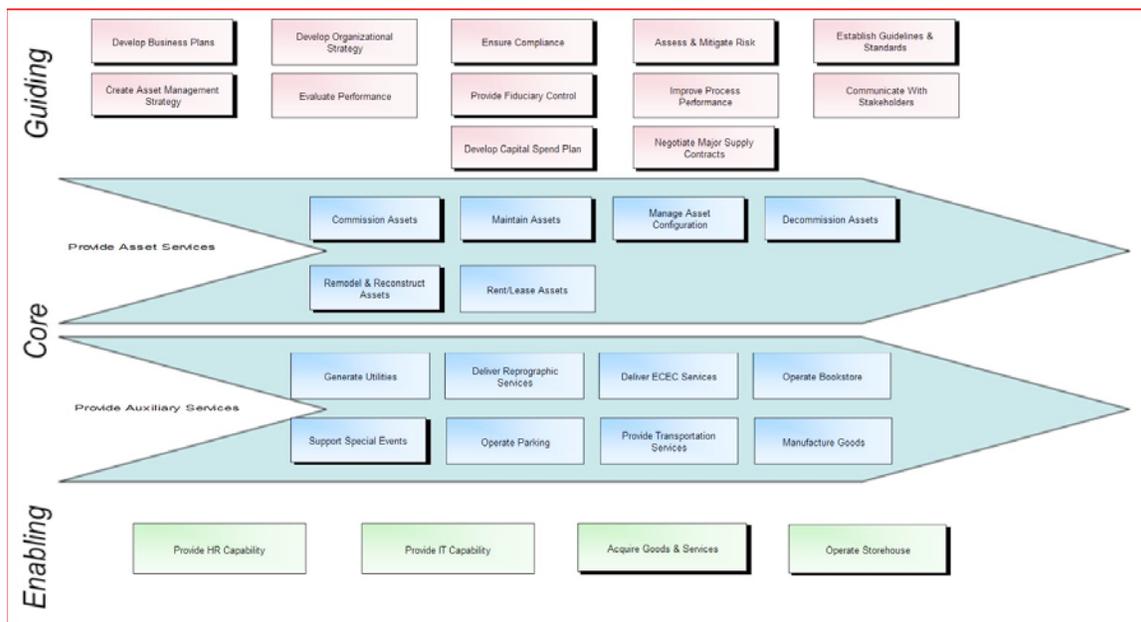
Figure 1. An overview of the major processes comprising the UCSD Facilities Management process architecture.

Facilities Management plans to continue to use the architecture to implement process changes in the effort to become a more mature maintenance organization. The process methodology will be utilized to perform the same analysis on the processes for the other A&PS business units. In addition, A&PS has already begun low-level procedural modeling of activities and tasks utilizing the BPMN specification, aligning those within the process architecture. Long term, the vision is to implement such activities and tasks within a BPM execution package for end-to-end processes and procedures.

While all of the process work to date has been very valuable and a mainstay for A&PS for some time, the approach will be supplemented with an effort to educate staff using system thinking and system dynamics modeling to reinforce conclusions and provide tools to reinforce the new processes and activities. Such tools are now available in an interactive, game-like setting where fast-paced simulated real interactions are experienced in non-threatening learning environment.

UCSD A&PS employed a consultant, Process Renewal Group (PRG), and used the PRG Enterprise Architecture Methodology. It also used a modeling tool, Envision, from Future Tech Systems, that is designed to work with the PRG approach to enterprise process architecture development

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