Internal Audit Report

Contract and Grant Administration – Office of Sponsored Projects

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Frank Beahan
Senior Auditor

Approved
Barry Long, Director
Internal Audit & Advisory Services

UC SANTA CRUZ

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I.   EXECUTIVE SUMMARY

Internal Audit & Advisory Services (IAS) has completed an audit of contract and grant administration – Office of Sponsored Projects. The purpose of the audit was to evaluate the effectiveness of the campus office of sponsored projects in supporting campus efforts in reviewing, endorsing and submitting proposals with funding agencies.

Overall, the campus Office of Sponsored Projects (OSP) was effective in supporting campus efforts in submitting proposals and negotiating awards with funding agencies. OSP operations were aligned with the campus research mission and were effectively optimizing the balance between ensuring compliance and facilitating research opportunities.

However, OSP was challenged to keep pace with research growth. The VC Research is aware of these challenges and is focusing on near term optimization of OSP information systems and business practices to address the long-term strategic goal of supporting growth within the campus research infrastructure. The following observations requiring management corrective action were identified:

A. Proposal Review Prior to Submission
OSP was accepting and submitting grant proposals from principal investigators (PI) either close to or on the sponsoring agency submission due date resulting in the potential that a proposal was not sufficiently reviewed by OSP or pre-approved by the PI's department/division by the time is was submitted.

B. OSP Workload Impact on Campus Research Infrastructure
The present OSP infrastructure is challenged in accommodating the growth in sponsored awards and their expanding workload may be contributing to a holdback in the number and complexity of proposals submitted by campus principal investigators.

C. OSP Business Practices – Standardization and Documentation
OSP has not established uniform business practices to allow for a seamless transfer of workload among staff. In transitioning to electronic documentation, OSP business practices have become more individual, reflecting personal preference. As a result, all OSP employees do not do things the same way.

D. Delegation of Authority
The campus re-delegation of the UC President's delegation of authority to the campus "to solicit and accept or execute certain extramural grants and contracts" was outdated.

Management agreed to all corrective actions recommended to address risks identified in these areas. Observations and related management corrective actions are described in greater detail in section III. of this report.

II.   INTRODUCTION

Purpose

The purpose of the audit was to evaluate the effectiveness of the campus Office of Sponsored Projects in supporting campus efforts in reviewing, endorsing and submitting all proposals with funding agencies.

Background

The Office of Sponsored Projects (OSP) is UCSC's institutional office responsible for reviewing, endorsing and submitting all proposals to extramural sponsors for research, training and public service projects. OSP also negotiates and accepts awards on behalf of The Regents. OSP ensures institutional compliance with Federal and State regulations, sponsor policy and University policy. OSP staff consists of 10.75 FTE: OSP Director, OSP Assistant Director, four OSP analysts, two senior contract and grant officers, two grant officers, and one special agreements officer.

Each fiscal year, approximately 1,000 proposals are submitted, and 1,200 awards and amendments are accepted. In FY14, 1001 proposals were submitted totaling $535M. During the same time period, 810 grants, 271 contracts, and 51 cooperative agreements were awarded in the amount of $139M.

OSP operational role and responsibilities span the life of an extramural award. OSP shares responsibilities for grants and contracts administration with principal investigators and their department/division, and with Financial Affairs Extramural Funding unit (EMF). OSP is involved in the proposal or pre award phase and the post award phase. EMF is involved in the post award phase invoicing the sponsor, submitting financial reports, assisting principal investigator/divisional (PI/Div) personnel with grant expenditure compliance issues, and acting as liaison with external auditors. The control environment for proposals and awards is one of shared responsibility and overlapping roles as illustrated below.
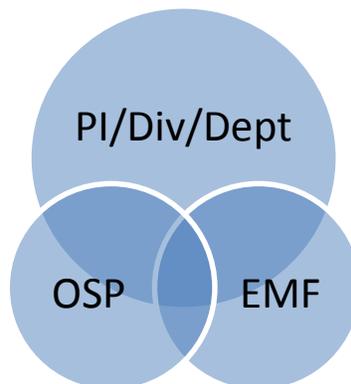
The PI and OSP work together with the sponsor throughout the life of the proposal and award. Division/department personnel assist the PI in finding funding opportunities. The

Division/department approves the proposal. The Division/department research accountants assist the PI in handling transactions and reporting in the post award period.

Institutional governance begins with UCOP and campus policy and procedures. The University and campus policies and procedures are designed primarily to respond to federal regulations and guidelines. The non-federal sponsors vary in specifics yet share the purpose of the federal regulations and guidelines to ensure that the sponsor's funding is expended for the intended research activity and as allowed per agreement. The business rules for research in institutions of higher education are essentially dictated by the sources of funding. The current and past directors of OSP described OSP as a service unit. Its level of service varies with the experience of the PI, the preferences of the PI, the type of sponsor and the complexity of the proposal/award.

Reviewing broad historical outcomes indicate that controls are working as intended. The quantity and amount of proposals and awards are increasing. The quality of UCSC research is held in high regard. Financial Affairs reports that UCSC has an excellent external audit track record with few findings. The campus units involved in research administration have worked to clarify roles and responsibilities for all stakeholders. They have composed a detailed roles and responsibilities matrix. This is a living document published on the OSP website intended to inform stakeholders now and in the future as sponsors amend and add to the extensive responsibilities governing research administration.

In addition to usual operations, OSP is replacing its home grown proposal and award tracking FileMaker database with the purchase of a web-based application from Evisions Inc. The Cayuse application, with some modification, will achieve most of what is accomplished currently with FileMaker. The new application adds a routing/authorization capability to administration workflow and will offer more direct access by stakeholders. See Appendix B for additional information.

Scope

We contacted representatives from each of the academic divisions and the central units involved in grant and contract administration.

We interviewed the following:

- 20 faculty/researchers
- 9 divisional research administrative employees
- 9 OSP staff members
- Interviewed representatives of two informal groups of administrative employees that meet regularly to discuss best practices

Procedures for testing OSP administration included:

- Review of OSP budget and FY2014 expenditures
- Review of Cayuse selection and contract (new OSP information system)
- Review of OSP staffing

- Review of OSP delegation of authority
- Review of UCOP grants and contracts policies
- Review of other UC campuses grants and contracts policies and procedures.

Procedures for testing OSP proposal and award management methodology included:

- Review of 33 judgmentally selected OSP files containing 33 proposals and 21 awards
- 5 of the awards reviewed were traced from transactions in FIS to contract documentation
- Examined the approval dates on 26 proposal datasheets
- Conducted interviews with OSP employees that included a walk-through of their procedures and documentation

We excluded from our testing in depth analysis of the appropriateness of specific compliance decisions made as documented in files selected for review. Our focus was on OSP procedures for identifying and appropriately handling compliance issues as they arise in the process of composing and reviewing a proposal prior to submission to the sponsoring agency.

III.   OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION

A.	Proposal Review Prior to Submission

OSP was accepting and submitting grant proposals from principal investigators (PI) either close to or on the sponsoring agency submission due date resulting in the potential that a proposal was not sufficiently reviewed by OSP or pre-approved by the PI's department/division by the time it was submitted. OSP was accepting and submitting proposals to the sponsor agency without a signed UCSC Data Sheet to provide evidence of review.

Risk Statement/Effect

If proposals are submitted to a sponsor agency without appropriate review and approval, there is an increased likelihood of unintended commitments and a lack of department/division visability over PI activity and related impacts. Without sufficient lead time provided in proposal submission due dates, OSP is not able to effectively manage workload and may not provide adequate review prior to submission.

Agreement

A.1	The VCR will issue a policy implementing a change in OSP procedures. Under this new policy, principal investigators will be required to submit their proposal with appropriate approvals to OSP prior to the sponsor agency submission deadline. The OSP deadlines established by this policy will be conditional, based on the size and complexity of the proposal.	Implementation Date
		April 1, 2014
		Responsible Manager
		Vice Chancellor, Research

A. Proposal Submission and Review Process – Detailed Discussion

The need for sufficient review and approval of a grant proposal by OSP and department/division prior to submission to a sponsoring agency are addressed in the UC Contract & Grant Manual:

"2-510 SPECIAL REVIEWS OR COORDINATION - Each Contract and Grant or Sponsored Projects Office requires that proposals be submitted to it with a completed proposal approval form. This approval form is developed by the Contract and Grant Office to provide a checklist of items to be addressed as part of the proposal development, approvals required in accordance with University policies, and signatures required from other University officials.

Approvals by Department Chairs, Unit Heads, or Deans are needed in order to assure the appropriateness of any commitments of University resources required by the proposed project as well as the appropriateness of the project in accordance with University Regulation No. 4. (See Section 2-130.) Such commitments may include laboratory space, computer facilities, cost of renovations, personnel, and cost sharing. The Principal Investigator's proposed effort, salary, and any leave or release time in the proposal require the approval signatures of the Department Chair, Unit Head or Dean, as applicable, according to local procedures."

(Note – the UCSC approval form is called the proposal Data Sheet form).

In our review of proposal submissions, we observed a pattern of review and approval signatures dated after the sponsor's proposal submission due date. Of 26 submitted proposal Data Sheet forms reviewed, only two contained review and approval signatures dated prior to the sponsor's due date.

Upon further inquiry, we found that OSP's standard procedure was to submit a proposal to the sponsoring agency, without having a signed Data Sheet, and then if an award was granted, require receipt of a Data Sheet signed by the PI and their department chair prior to the release of the award. Ultimately, until OSP releases an award, no expenditures can be made on the award.

While this step by OSP ensures the receipt of a signed Data Sheet, the effectiveness of the Data Sheet as a tool to demonstrate review and approval of the agreement is marginalized. A Data Sheet signed after the proposal has been submitted and near the award start date brings the effectiveness of the review process into question.

In addition, when proposals are given to OSP at the sponsor's submission deadline, it has little choice but to respond. This triage work-style may be effective, however, continuous reordering of OSP workflow priorities is not an efficient nor sustainable method of operation.

In examining the extent of department/division reviews, we observed that deans or their representatives from Social Sciences and Humanities were signing Data Sheets on grants submitted within their divisions. However, PBS and BSOE had implemented a risk based conditional review process; Data Sheets were routed to the dean and business officer in these divisions only if they were large, complex, and/or proposed the use of division resources. Part of the reason provided as to why PBS and BSOE had implemented this conditional approach was that they were not provided enough lead time to review the proposals. Regardless of the methodology and reason for it, a review by the PI's department and division representatives after proposal submission is of limited utility.

The VCR is planning to issue a new policy that establishes due dates for the submission of proposals to OSP. This policy is expected to include a three tier deadline structure which strikes a balance between the time available to the PI to finalize the proposal and the lead time required to review and approve more complex proposals. Refer to Appendix A for the full text of the new policy. Included in the policy would be a Late Proposal Approval Request form that would be submitted to the VCR to handle policy exception requests.

Allowing time for departmental and division level review, the imposition of a pre-submission deadline will provide OSP the opportunity to more effectively manage its workflow. In addition, the implementation of the new OSP online system, Cayuse, and its automated approval process with the routing of an electronic version of the Data Sheets, is expected to improve the efficiency of the approval process. OSP is implementing business rules in Cayuse that will route proposals to the appropriate party based on the risk criteria of size, complexity and proposed use of UCSC resources, in line with the new policy.

B.	OSP Workload Impact on Campus Research Infrastructure

The present OSP infrastructure is challenged in accommodating the growth in sponsored project proposals and their expanding workload may be contributing to a hold-back in the number and complexity of proposals submitted by campus principal investigators.

Risk Statement/Effect

The ability to increase research activity and achieve the campus goal of establishing a sufficient research Infrastructure outlined in Envision UCSC may not be fully realized if the capacity of OSP to review and submit proposals, manage award agreements, and maintain compliance expertise is not sufficiently addressed.

Agreement

B.1	In the near term the VCR will monitor the need for temporary OSP positions. Longer term, the VCR and OSP director have agreed to reassess OSP workload after the implementation of Cayuse and the new proposal submission deadline policy.	Implementation Date
		July 15, 2015
		Responsible Manager
		Vice Chancellor, Research

B. OSP Workload – Detailed Discussion

Over the past year, the number of proposals reviewed by OSP is up almost 30%, and is currently around twice the number reported in 2004, while staffing levels have returned to their 2004 level. See the chart below of FTE count compared to proposal and award quantities.
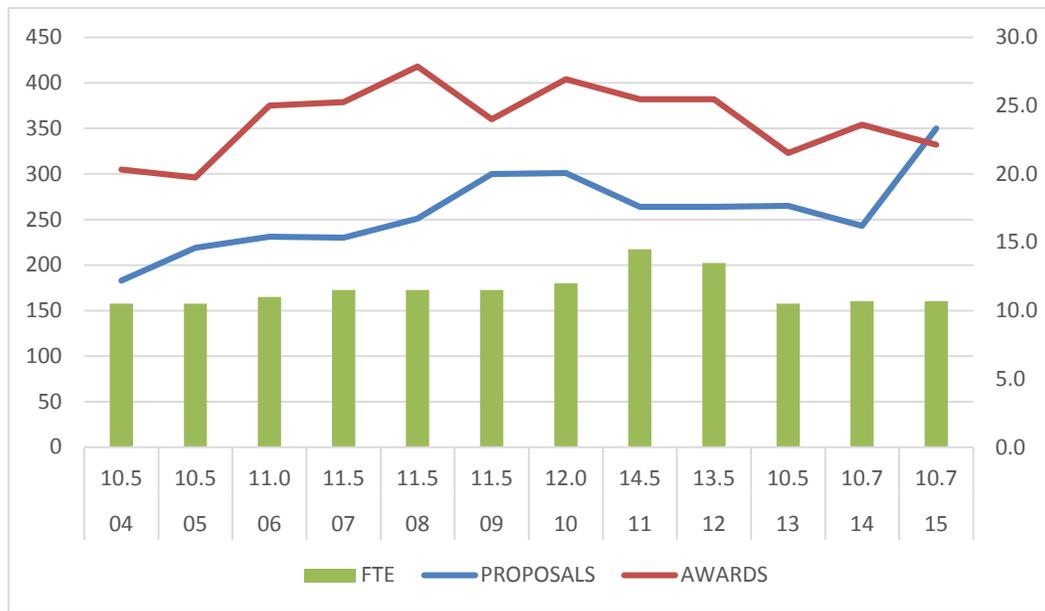
During our review, we observed an OSP unit which was operating at capacity and at a level that appeared to be unsustainable. Key staff have recently left the office, citing workload pressures as a factor in their departure. Another experienced staff member was expected to retire this year. This will leave the group short on experienced contract and grant analysts.

More telling, PIs' and research administrators informed us that they would be able to expand their proposal submissions if UCSC research administration infrastructure, including OSP, had the capacity to accommodate their requests.

In addition to the increase in research activity and staff reductions, other factors are having a near term impact on OSP operations and present challenges to the VCR and OSP management:

- Implementation of Cayuse will have an impact on grants and contracts processes for OSP, the divisions, and PIs. There will be change to manage in terms of business rules and procedures, and roles and responsibilities. The learning curve for OSP, the divisions and PIs will be significant.

- Implementation of Unified Guidance - OMB A-81. The impacts on UCSC contracts and grants procedures are to be determined and will require OSP involvement and leadership. The research community will look to OSP for expertise and training.

- Implementation of UC Path. The new UC payroll system will revise UCSC payroll data and cost accounting methods. The impact on proposal budget compilation procedures will be significant. The research community will look to OSP for expertise and training.

- Interviewees identified a trend toward more complex research proposals in keeping with the campus goals to increase research activity. Complex research projects tend to involve more complicated compliance issues. Larger campuses have individuals dedicated to such issues. For example larger institutions have export control officers, whereas the UCSC OSP office has assigned existing staff as the primary contact.

- OSP Turnover – The work of OSP calls for considerable knowledge. Acquiring knowledge and understanding of applicable compliance issues and sponsor requirements is difficult. The OSP director states that it takes a new employee a year to proceed independently. Even an employee with knowledge of UCSC administrative processes has the challenge of learning the requirements of federal, state, and private sources of funding.

Near term these changes will take extra effort. At a time when research activity is increasing, OSP will be challenged to meet expectations. After these various implementations and the new staff members are trained and able to operate independently, OSP will settle into its new normal in operations. At that time, the workload can be reassessed for an evaluation of right sizing.

It is anticipated that the implementation of the pre-submission deadline and implementation of Cayuse will have favorable impacts on OSP workload; yet that remains to be determined. Until then, the VCR and OSP director will closely monitor progress and performance in order to ensure that OSP is able to support achievement of campus goals. The campus EVC has committed permanent staffing resources in support of campus research infrastructure which will allow the VC Research with options for addressing identified and to-be-determined support needs.

C.	OSP Business Practices – Standardization and Documentation

The Office of Sponsored Projects (OSP) had not established uniform business practices to allow for a seamless transfer of workload among staff. In transitioning to electronic documentation, OSP business practices have become more individual, reflecting personal preference. As a result, all OSP employees do not do things the same way.

Risk Statement/Effect

Diverse business practices make it challenging for one OSP employee to pick up and continue where another OSP employee left off. This causes delays and miscommunication, which is incompatible with the detailed and time sensitive work of OSP.

Recommendation/Agreement

C.1	The OSP director and assistant director has establish a standardized approach to work flow, documentation, and file organization practices within the Cayuse system, and train OSP staff on its application and use for documenting work on projects.	Implementation Date
		December 12, 2014
		Responsible Manager
		Director, OSP

C. OSP Business Practices – Detailed Discussion

OSP has used a FileMaker database to manage the proposal compilation and award maintenance processes and filed supporting documentation for work performed into manual paper folios. These folios were maintained for the life of the proposal/award in file cabinets. Under this manual process, the file content and location were uniform and project documentation could be located and easily followed by OSP staff, even if they did not create the file.

Over time, some OSP employees began saving electronic (pdf) versions of documentation instead of paper files, and with the proliferation of electronic files, OSP business practices changed. With divergent OSP business practices, it became difficult for one OSP employee to follow the work of another.

In our interviews with PIs, we heard the observation that one OSP employee seemed to have difficulty finding and interpreting the work of a co-worker. This caused frustration, errors, delays and miscommunication. We were told that when there is an absence or turnover at OSP there is greater incidence of these unwelcome interruptions in the workflow.

OSP employees indicated that the pace of their workload has changed. In the past, workload levels fluctuated. In low demand times, they would have time to organize and properly document their work. With the increase in the volume and complexity of proposals/awards over the past couple years, they indicated that they are constantly responding to high priority work and struggle to keep up with project management and documentation.

It is anticipated that the implementation of Cayuse will have a positive impact as all OSP employees. They will be trained in common business practices and all the documentation will be stored in Cayuse. When all OSP employees share the same business practices and document and store documentation in the same manner, then transition among OSP employees will be smoother. In the meantime, it is important that documentation and file organization practices using Cayuse be standardized, communicated to staff and staff be fully trained on its use.

D.	Delegation of Authority

The campus re-delegation of the UC President's delegation of authority to the campus "to solicit and accept or execute certain extramural grants and contracts" was outdated.

Risk Statement/Effect

Delegation of authority forms need to be accurate in order to properly document the delegation of authority of the UC President to solicit and accept or execute extramural grants and contracts to UCSC employees that are identified by job title.

Agreement

D.1	The director of OSP has obtained a revised campus re-delegation form SCDA RCG002 signed by Chancellor Blumenthal September 26, 2014	Implementation Date
		September 26, 2014
		Responsible Manager
		Director, OSP

D. Delegation of Authority – Detailed Discussion

At the start of audit work, it was discovered that the campus delegation of authority form for contracts and grants contained inaccurate job titles for OSP employees. The campus re-delegation form SCDA RCG001, dated December 5, 2005, delegated authority to OSP job titles that are no longer in use. This resulted in a misalignment between the job titles with the delegated authority and the job titles currently in use in OSP.

Since 2005, job titles in OSP have been revised in re-assignment of staff roles and responsibilities. The campus delegation form had not been updated to reflect these changes. During the review, the delegation was updated and job titles are now correctly identified in the delegation.

APPENDIX A – VCR Policy – OSP Proposal Submission Deadline and Exception Request

Office of Sponsored Projects (OSP) Deadlines

Tier 1: Standard proposals (up to $3M in direct costs per year AND proposal does not include any of the following: cost sharing, multi-institutional collaborations, required additional space, the proposal is for a contract or the sponsor's funding opportunity announcement (FOA) states that the resulting award may be a contract)

1. Notify OSP at least two weeks before the submission deadline by submitting a preliminary budget and a reference to the proposal guidelines

2. Budget finalization one week before the submission deadline.

3. Final versions of all required documents entered or submitted one week before the proposal deadline.

Tier 2: Non-standard proposals (over $3M in direct costs per year OR proposal includes any of the following: cost sharing, multi-institutional collaborations, required additional space, the proposal is for a contract or the sponsor's FOA states that the resulting award may be a contract)

1. Notify OSP at least one month before the submission deadline by submitting a preliminary budget and a reference to the proposal guidelines.

2. Budget finalization two weeks before the submission deadline.

3. Final versions of all required documents entered in the sponsor's web portal or submitted to OSP one week before the proposal deadline.

Tier 3: Non-standard proposals (direct costs exceeding $3M per year AND proposal includes any of the following: cost sharing, multi-institutional collaborations, required additional space, the proposal is for a contract or the sponsor's FOA states that the resulting award may be a contract)

1. Notify OSP at least two months before the submission deadline by submitting a preliminary budget and a reference to the proposal guidelines.

2. Budget finalization and draft of proposal one month before the submission deadline.

3. Final versions of all required documents entered in the sponsor's web portal or submitted to OSP two weeks before the proposal deadline.

If circumstances beyond the control of the Principal Investigator prevents, or will prevent, the submission of a proposal as required above, an exception may be requested by:

1. Completing a Late Proposal Approval Request (LPAR) Form.
2. Submitting the LPAR form to the Dean/ORU Director (responsible for the department/research unit submitting the proposal) for review and endorsement.
3. The Dean/ORU Director submitting the endorsed form to the Vice Chancellor for Research Scott Brandt; vcr@ucsc.edu. Incomplete forms will be returned without consideration.

After a request is reviewed, the approval decision will be made by the Vice Chancellor for Research (VCR) or the VCR's designee. The approval decision will be communicated to the Principal Investigator, Dean/ORU Director and OSP.

APPENDIX B – Cayuse Information System

OSP is implementing a proposal and award management software suite to replace its homegrown FileMaker database. OSP has purchased four modules of the Cayuse web-based application sold by Evisions Inc. The Cayuse Research Suite is a web-based application designed as a "complete sponsored project life cycle management" tool. UCSC is implementing four Cayuse modules:

> Cayuse 424 – Electronic Proposal Development and Submission
> Cayuse SP – Sponsored Project Life Cycle Management
> Cayuse Compliance – IRB, IACUC, COI – Compliance Documentation Solution
> Cayuse Analytics – Research Data Management and Reporting

The other UC campuses use the Cayuse 424 module and they use some other application to manage proposals and awards. UC Merced is the only other UC campus that uses more than one Cayuse module.

The Cayuse 424 module is used by all UC campuses to manage the proposal submission process. The output of the module is specifically designed for submission of proposals to Grants.gov. Grants.gov is the website used my many federal agencies for proposal submission. The biggest advantage in using Cayuse 424 is its business rule validation processing with over 1,500 formatting and compliance validations. Evisions claims "a 99% successful first time submission" rate due to its validation process.

Cayuse 424 is specifically designed for proposal submission at the Grants.gov website. However, there are large federal agencies, all state agencies and private/corporate funding sources that have their own websites and protocols for uploading proposals. In those instances, 424 can be used to prepare the proposal and print out information (or pdf) that can then be sent or submitted to another agency. Cayuse has templates that can be used to merge its data into Word document templates for proposal submission to non-Grants.gov funding sources.

The Cayuse SP module is the core application which allows management and access in each phase of the proposal/award life cycle. PIs, their department/division and OSP can access Cayuse 424 and SP to see the relevant sponsor request-for-proposal documents, enter data, enter the budget and complete the proposal. Cayuse workflow capabilities will route the finished proposal for approval replacing the UCSC proposal Datasheet form. Information from the Cayuse 424 module (the proposal information) is used for the award setup and management in the SP module. The SP module is also used to manage subcontracts, facilitating data merge into Word subcontract templates. UCSC will also be using additional Cayuse modules for management of compliance issues, recording and storing conflict of interest forms, and the Cayuse Analytics module for research activity reports.

The impact of the implementation of the Cayuse modules remains to be seen. The implementation itself will be challenging in terms of managing all the change. There will be changes in business rules, automation of processes and approval routing, and sorting out of new roles and responsibilities. For OSP, it is expected that after implementation there will be further standardization of OSP business practices, automated and therefore less burdensome processes, and better connection and transparency with the PIs, divisions and EMF personnel throughout the life cycle of the proposal/award. Impacts on OSP workload remain to be re-assessed post implementation.