

April 5, 2013

Mr. Edward T. McIntyre
Chair, Productivity Investment Board
500 West Temple Street, Room 565
Los Angeles, CA 90012

Dear Mr. McIntyre:

I am pleased to submit the Museum of Art's application requesting a \$205,000 Productivity Investment Fund (PIF) grant to support our project "Incubating Emerging Technologies for the Cultural Sector". This pilot program will transform the museum library, developing a physical location, as well as a sustainable public program, The Art & Technology Incubator, to introduce new technology applications at the museum. The Incubator improves our quality of service, positions the museum and Los Angeles as a center for innovation, and introduces our diverse public to innovative technology experiences.

Today, surprising advances in information technology are being made every day, so rapidly that it can be difficult for organizations and individuals to keep up and derive the potential for meaningful applications of these new technologies. LACMA has an established history pairing artists and technologists to create projects that advance public understanding of both disciplines. In 1970, the museum introduced the Art and Technology Project, pairing artists with leading companies throughout Southern California. That project, which produced innovative works of art developed via collaborations like that between Claes Oldenburg and Walt Disney, or Andy Warhol and Cowles Communication, still attracts substantial interest around the world through the extensive documentation the museum has made available online.

Inspired by this history, the museum seeks to revive the Art and Technology initiative in the form of an Art and Technology Incubator with a permanent home in the museum, to expose the public and our staff to meaningful experiments with emerging technologies.

The corporate sector has long been familiar with the idea of the incubator as an environment for cultivating fledgling business ideas, subjecting them to the advice of established experts willing to help an entrepreneurial effort advance. The idea of an Art and Technology Incubator at LACMA has already garnered enthusiasm and

direction from Genevieve Bell, Director of Intel's Interaction and Experience Research; Dan Goods, Visual Strategist at Jet Propulsion Labs; Christopher DeFay, an Analytical Linguist at Google who wrote his PhD dissertation on LACMA's Art and Technology program, and technologists from the Annenberg Innovation Lab at USC.

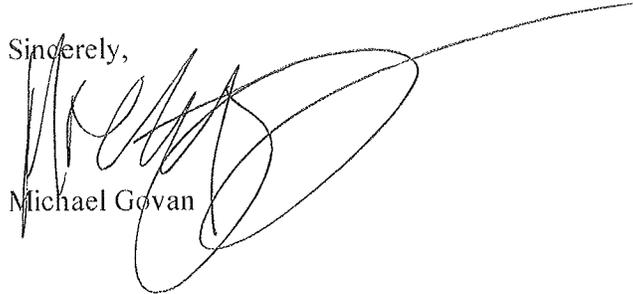
The proposed structure of the program is to assemble an advisory board including the experts mentioned above that will solicit proposals from artists and innovators to be in residence at the museum for a period of up to one year, to create and pilot projects utilizing emerging platforms in areas like social robotics, "Big Data", data visualization and augmented reality. The advisory board will select, guide, mentor and ultimately evaluate such projects, and disseminate findings and prototypes. Throughout, the Incubator staff and residents will be available in the public space of our library to share their working methods with also convene and host events for the public to reveal new technologies and trends in information science.

Because the Museum's County allocation is fixed by a contract between the County and Museum Associates, this project is not included in that request. A Productivity Investment Fund grant would allow the Museum to remodel our library to reconfigure it as a center for art and technology; seed the Art and Technology Incubator, to launch the advisory board and the first year projects focusing on data visualization and social robotics, and generate momentum to produce ongoing revenue. We have also performed an assessment that indicates that if we can "seed" the project with startup funds in the form of a PIF grant, we are highly likely to generate ongoing revenue to sustain the project in the form of corporate donations from advisory panel participants and title sponsors.

Given our history, we feel LACMA is perfectly positioned to provide a public forum for exploring emerging technologies and their relevance for the diverse public of Los Angeles.

Thank you for considering our request.

Sincerely,



Michael Govan

County of Los Angeles Quality and Productivity Commission
PRODUCTIVITY INVESTMENT FUND PROPOSAL
(Please submit the proposal with a cover letter signed by the department head)

Department: Los Angeles County Museum of Art (LACMA)

Date: May 7, 2013

Project Name: Incubating Emerging Technologies for the Cultural Sector

County of Los Angeles Quality and Productivity Commission
PRODUCTIVITY INVESTMENT FUND PROPOSAL
(Please submit the proposal with a cover letter signed by the department head)

SUMMARY DESCRIPTION OF PROJECT (Describe the project, for example, new or replacement equipment or additional staff needed. NOTE: PIF projects should not fund staff unless the need is temporary/start-up/short term.)

“Incubating Emerging Technologies for the Cultural Sector” proposes to transform LACMA’s public library, an under-utilized 1500 square foot, park-facing public space, into an Art and Technology Incubator, the first of its kind. The Incubator promises to further the museum’s relationships with innovative companies, better leverage our library and information services staff, and improve our quality of service to the public by inviting them into an environment that expresses the marriage of art and science through exciting projects on the cusp of both.

After a year of planning and discussion at the museum, including taking advice from leading technology innovators at Qualcomm Labs, Intel, Jet Propulsion Labs, and Google, we envision the Incubator as an inviting, modern architectural environment, enlivened by a full ongoing program, including an artist-in-residence series, pilot projects, demonstrations, talks and drop-in hours for the public.

The Incubator program will be driven by an advisory panel of representatives from leading technology companies in Southern California, including those mentioned above. The Incubator, under guidance from the advisors and the museum’s curators, will fund two pilot projects per year, to be proposed by artists interested in engaging with emerging technology. These projects will be nurtured by experts at the advisory companies. In its inaugural year, we envision the Incubator issuing a call for proposals that focus on two areas of technology: data visualization and social robotics. We have selected those two areas for their relevance. In the arena of data visualization, we imagine a project that will aggregate data about how visitors traverse and utilize the campus and present that data in a beautiful, legible format that provides a lucid picture of how the public really uses the space of the museum. Such a project may inform museum operations, marketing, signage and wayfinding, education, and more. In the area of social robotics, we already have relationships with academic researchers in this discipline, and have begun to explore how “socially intelligent machines” can respond to physical cues from our visitors, and eventually lead to better service in areas like visitor services and visitor engagement.

We have strong reason to believe that the energy and visibility we create for the Incubator during its inaugural year will attract corporate sponsorship for the program, thus ensuring its sustainability and ongoing contribution to productivity and quality of service at the museum. Thus, our request here for seed funding to start up the Incubator builds capacity for sustained innovation. The Incubator proposed here would be the first of its kind, a research and development operation situated inside a public cultural institution, nurturing projects that are of significant value to other institutions and the broad public.

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PRODUCTIVITY INVESTMENT FUND PROPOSAL
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SUMMARY OF BENEFITS (Describe benefits, for example, revenue increase, service enhancement, future cost avoidance, cost savings)

Productivity, Improved use of existing space:: The incubator turns a largely underutilized space (the library) into a vibrant public center, better leveraging the physical asset we have in the space. The museum library is one of the best spaces in the museum, with a wall of windows looking out onto Hancock Park. The Incubator will reconfigure and redesign the library as a bright, modern space with display technology, a workbench-like space for the artist-technologists in residence, and a space for the Incubator to hold public discussions. As such, it takes an old-fashioned public space and represents it for the 21st century as a vital information hub.

Productivity, People: The Incubator also repositions the museum's information services staff, housed in what is now the library, to provide a broader array of services in hosting the public and supporting the Incubator's day-to-day operations. The R&D projects taking place at the Incubator will generate findings that enable museum staff in visitor services, education, web and digital media to make better, more strategic decisions about how to deploy emerging technology to support museum objectives. Finally, the Incubator cuts across longstanding departmental boundaries at the museum, to create new, more nimble pathways through the museum's established infrastructure to accomplish innovative projects.

Ongoing funding: We have performed an assessment that indicates that if we can "seed" the project with startup funds in the form of a PIF grant, we are highly likely to generate ongoing revenue by Year Two in the form of corporate donations from advisory panel participants and title sponsors. We have spoken with potential corporate partners at Accenture, Intel, Google and Nvidia, who have been uniformly enthusiastic.

Benefits to participating companies and artists: For the technology firms, this project supports an important talent-retention strategy. All of the companies we have spoken with have mentioned their need to attract top tech talent to Southern California in order for the region to remain a hub of culture and innovation. The Incubator provides a way for the companies to give talented engineers and analysts the "perk" of working alongside artists in a major cultural venue. In addition, participating artists benefit from their exposure to emerging technologies and the expertise of engineers and analysts to whom they would not normally have access.

Real-world case studies: Year One projects in data visualization and social robotics will yield useful data about how people use our campus and how they interact with socially intelligent machines that will inform user interface design for all of our technology applications (and, hopefully, those of other county departments as well.)

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EVALUATION/PERFORMANCE MEASURES (What is to be achieved and how will the project lead to enhanced quality and/or productivity? What measures will be used to evaluate the attainment of these goals?)

Success will be measured this way:

- Increase in total annual attendance to the Museum Library, now reconfigured as the Art & Technology Incubator
- Successful completion of 2 pilot projects in Year One, one focused on data visualization, one on social robotics
- Thorough usage data for year One projects in data visualization and social robotics, to be published online and shared via a public event at LACMA
- Sustained funding for the Incubator beyond Year One seed funds from corporate participants and donors (estimated ongoing cost \$250,000 per year)
- Web traffic to project demonstrations/documentation on lacma.org

Is this is an Information Technology project? If yes, is the IT form attached? <p style="text-align: center;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A </p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: left; padding: 2px;"><u>Amount Requested:</u></th> </tr> <tr> <td style="text-align: center; padding: 2px;"><u>Loan</u></td> <td style="text-align: center; padding: 2px;"><u>Grant</u></td> <td style="text-align: center; padding: 2px;"><u>Total</u></td> </tr> <tr> <td style="text-align: center; padding: 2px;">—</td> <td style="text-align: center; padding: 2px;">205,000</td> <td style="text-align: center; padding: 2px;">\$0.00</td> </tr> </table>	<u>Amount Requested:</u>			<u>Loan</u>	<u>Grant</u>	<u>Total</u>	—	205,000	\$0.00
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<u>Loan</u>	<u>Grant</u>	<u>Total</u>								
—	205,000	\$0.00								

Cost Analysis Summary. Attach detail for A and B, including staff, equipment, supplies, etc.

	<u>Implementation Period</u>	<u>Project Year 1</u>	<u>Project Year 2</u>	<u>Project Year 3</u>
A. Annual Cost of Current Process:				
B. Estimated Annual Cost of Proposal:				
C. Savings (B minus A)		\$0.00	\$0.00	\$0.00

Funds Flow Summary: Indicate the amount of funds needed during implementation by period (fiscal year and quarter)

FY 13/14 First Quarter: \$95,000
 FY 13/14 Second Quarter: \$25,000
 FY 13/14 Third Quarter: \$40,000
 FY 13/14 Fourth Quarter: \$45,000

Quality and Productivity Manager (Print and Sign) Ann Rowland, Chief Deputy Director and Chief Financial Officer <div style="display: flex; align-items: center;"> <div style="flex: 1;"> Telephone Number 323.857.6142 E-mail arowland@lacma.org </div> <div style="flex: 1; text-align: center;"> </div> </div>	Project Manager (Print and Sign) Amy Heibel, AVP, Technology <div style="display: flex; align-items: center;"> <div style="flex: 1;"> Telephone Number 323.857.6138 E-mail aheibel@lacma.org </div> <div style="flex: 1; text-align: center;"> </div> </div>
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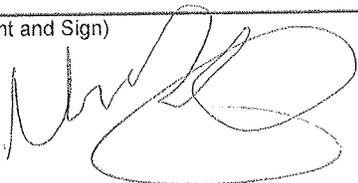
County of Los Angeles Quality and Productivity Commission
PRODUCTIVITY INVESTMENT FUND PROPOSAL
(Please submit the proposal with a cover letter signed by the department head)

Department Head (Print and Sign)

Michael Govan

Telephone Number
323.857.6000

E-mail
mgovan@lacma.org



Budget/Finance Manager (Print and Sign)

Mark Mitchell

Telephone Number
323.857.6142

E-mail
mmitchell@lacma.org



County of Los Angeles Quality and Productivity Commission
PRODUCTIVITY INVESTMENT FUND PROPOSAL

QUESTIONS

1. Has this proposal been submitted before for a Productivity Investment Fund loan or grant? Yes No
If so, when (date)?

2. Was this proposal included in the department's current budget request?
Yes No If not, why not? Because the Museum's County allocation is fixed by a contract between the County and Museum Associates, this project is not included in that request.

3. How much of this proposal is for a loan and how much for grant funding?
Loan \$ _____ Grant \$ 205,000 Total \$ 0

4. How many years will it take for the loan to be paid back (3 year maximum without special approval)?

5. When will the funds be needed? Please indicate the amount needed by fiscal year and quarter:

2012-13

1st Quarter \$ _____
2nd Quarter \$ _____
3rd Quarter \$ _____
4th Quarter \$ _____

2013-14

1st Quarter \$ 95,000
2nd Quarter \$ 25,000
3rd Quarter \$ \$40,000
4th Quarter \$ 45,000

2014-15

1st Quarter \$ _____
2nd Quarter \$ _____
3rd Quarter \$ _____
4th Quarter \$ _____

2015-16

1st Quarter \$ _____
2nd Quarter \$ _____
3rd Quarter \$ _____
4th Quarter \$ _____

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6. Where will the funds come from to repay the loan?

Hard dollar savings

Cost Avoidance

Revenue generation

Other (please explain):

7. If this is a grant, does it reduce net County cost?

Not directly. However, exposing county staff to advanced data visualization and other technology applications such as social robotics is likely to have a positive effect on the adoption of emerging technology to add greater efficiency and reduce cost over time for data processing and other manual processes that can be better assisted by technology. For example, an advanced data visualization project using cell phone user data to track the actual movement of the 1.3 million visitors per year to LACMA would reveal important findings about how people navigate our campus that might lead to more efficient use of the facilities. A social robotics project might lead to innovations in the way that we ascertain visitor interests and guide them to information that appeals to those interests in a way that could improve the way we serve our public and decrease the annual cost of printed materials and other means of guiding visitors to the museum.

8. Does this proposal provide technology transferability to other departments?

This project will provide tangible examples and applications of next-generation technology, such as social robotics and advanced data visualization, that may benefit a number of county departments involved in serving the public, processing and presenting large and complex bodies of data to the public, and creating 21st century educational experiences. The approach would be "open source," with thorough documentation of each project, as well as accessible prototypes, use data, evaluation data, and the like. The Incubator will publish all findings and case studies for the benefit of anyone interested in building on its experiments.

9. Does this proposal eliminate a function?

This project is not designed to eliminate a function, though it is designed to transform the traditional role played by our library to better serve a 21st century audience in terms of the expertise with data and information technology represented there.

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10. Does this proposal enhance the County image or provide an innovative service?

Yes. The County of Los Angeles has long been a center for technological innovation in industry since the early years of the aerospace and engineering boom of the mid-twentieth century. The Museum is uniquely positioned to marry art and technology and to feature the region as a hub for advanced thinking and experimentation in both arenas. In fact, the original Art & Technology Project at LACMA, which happened between 1967 and 1970 under the guidance of LACMA curator Maurice Tuchman, has a continued and lively presence online as a stellar example of artistic and technical innovation. Artist, educators and technologists around the world continue to reference that project as a touchstone, with frequent mention of Los Angeles as a city and LACMA as an institution uniquely placed to merge art and science through a project like this one.

11. Does this proposal promote interdepartmental cooperation?

Yes. We hope that, as a public space in Hancock Park, and online, where we plan to “open source” all project documentation, the Incubator will serve as an R&D lab where other county departments can learn about emerging technologies in a way that is practical and engaging, via “real world” case studies of deployment at LACMA. For example, in Year One, one goal of the Incubator is to fund a project in social robotics, exploring how new socially-aware robots can solve problems in visitor services, education and wayfinding. A solid case study in this area should benefit a number of other county departments, from the Natural History museum to the Library, who are also engaged with education, information services and public engagement.

12. Has this proposal gone through a pilot?

In a sense, yes. In 2011, LACMA director Michael Govan initiated a cross-departmental technology strategy group. Through a series of conversations with leading technologists at Carnegie Mellon, Intel, Qualcomm and JPL, as well as artists engaged with technology, the group developed an interest in piloting creative applications at the museum.

The group was able to secure funds for a pilot to bring technologists from Qualcomm into the museum to work closely with creative staff from LACMA and USC on an evolution of our mobile app. The result, which adds location-based content to our existing mobile app, will debut in June 2013.

The model for that project – corporate technologist collaborating with artists and creative staff on technology applications for public use at the museum, under the guidance of LACMA, and with an open approach to sharing both process documentation and usage data – provides the basis for the project described in this grant proposal.

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In effect, having measured the significant enthusiasm for marrying art and technology to expose our staff and our public to emerging capabilities from the world of computer science and data engineering, we are seeking to secure and establish an inviting public venue (a remodeled version of our beautiful library) and an ongoing program (the Art & Technology Incubator) at LACMA to sustain this direction.

13. Where did the original idea for this project come from?

In 2012, the cross-departmental technology strategy group described above formed a year-long association with the Annenberg Innovation Lab at USC, and brought speakers to campus representing disciplines including data visualization and social robotics. The conversations that took place with leading technologists at places such as Google, Intel, and Jet Propulsion Labs, revealed significant interest in reviving LACMA's Art & Technology project of the late 1960s, and pointed to the potential for a physical home for technology innovation in the museum. That idea gave rise to the idea of the Art and Technology Incubator in what is now our library.

IMPLEMENTATION PLAN

<u>KEY MILESTONES</u>	<u>START DATE</u>	<u>FUNDS NEEDED</u>	<u>FUNDS REPAID</u>
(Major steps in the project development)	(Estimated date for each project step)	(Amount and quarter funds will be needed)	(Amount and quarter funds will be repaid)
Assemble Art & Technology Incubator advisory committee and convene first meeting.	July 15, 2013.	none	\$
Begin build out to create an Art & Technology Incubator facing Hancock Park.	August 1 through September 30.	\$95,000	
Hire consultant to launch Art & Technology Incubator RFP process. Develop RFP and target artists.	September 1, 2013	\$25,000	
Issue RFP for Year One Art & Technology Incubator proposals focusing on social robotics and data visualization	December 1, 2013	none	

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Select and fund 2 Year One proposals from artists to be supported by the Incubator.	February 1st, 2014	\$40,000 (first 50% stipend payment to artists)	
Ongoing support for two Year One projects supported by the Incubator.	May 1 st , 2014	\$45,000 (second 50% stipend payment to artists plus \$5,000 for web documentation and event planning)	
Debut Year One projects at LACMA.	January, 2015	none	
Publicize "open source" documentation of Year One projects via Incubator website.	January, 2015	none	
Host public event "Maker's Fair" at LACMA featuring the work of the Incubator	March, 2015	none (expense represented above)	

LINE ITEM BUDGET DETAIL

(Work with your Budget Analyst)

Salaries and Employee Benefits

Salaries/Wages

(Note: PIF projects should not fund staff unless the need is temporary/start-up/short term.)

Not included in request:

LACMA AVP, Technology Web and Digital Media (Amy Heibel)	25% FTE, \$35,750
LACMA Project Manager (Joel Ferris)	75% FTE, \$48,750

Employee Benefits

(a) Total Salaries and Employee Benefits: \$84,500 (not included in request)

Services and Supplies

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PRODUCTIVITY INVESTMENT FUND PROPOSAL

List all services and supplies here

Contract: consultant to help set up advisory committee and RFP: \$25,000

Contract: space planner/architect: \$10,000

Contractor/builder: \$37,000

Wiring contractor: \$9,000

Speaker fees, web design, public event planning: \$5,000

Misc print material, Incubator logo, web design, etc.: \$6,000

(b) Total services and supplies **\$92,000**

Other Charges

List all other charges here

Stipend fees for 2 artist/technologists in residence, Year One: \$80,000 (\$40,000 each)

(c) Total other charges **\$80,000**

Fixed Assets

List all equipments and other fixed assets here

Touchscreen LED monitor: \$4,300

Furniture (workbench, tables, chairs, lighting: \$17,000

Flooring: \$9,000

Computers: \$2,700

(d) Total fixed assets **\$33,000**

TOTAL COSTS (a+b+c+d) **\$205,000**

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PRODUCTIVITY INVESTMENT FUND PROPOSAL

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PRODUCTIVITY INVESTMENT FUND PROPOSAL

INFORMATION TECHNOLOGY STATEMENT

1. Is the proposed hardware or software technology compatible with existing and related systems? Specifically, does it conform to the Business Automation Plan?

Our proposed hardware and software would be co-developed with the artists and technologists in residence at the Incubator. We would actively seek projects that can leverage data produced by existing museum systems. And projects in areas like social robotics may inform the county's Business Automation Plan with real-world case studies of applications in a public venue.

2. Does the proposal represent state-of-the-art technology?

We absolutely believe that it does, and that, further, it establishes a permanent home for research and development of state-of-the-art technology projects in a real-world setting such that the museum and other county departments can leverage the Incubator as a sort of laboratory environment.

3. Does the proposed technology-based solution conform to your department's strategic or automation plan and the County's future direction of technology?

Yes it does. The museum's strategic plan for technology mandates that rather than technology being treated in a silo as the exclusive domain of our Information Services department, the full range of museum staff and departments be actively engaged in exploring how technology can improve the way we serve our visitors, track our collections, and analyze our business. The Incubator takes technology out of the "back of house" and puts technology development front-and-center in a beautiful reconfigured public space. It also gives visibility to projects in areas like social robotics and data visualization that affect us on many fronts, from visitor engagement to facilities management and education.

4. Do you have existing knowledge of the proposed technology-based solution?

Through early pilot projects, we have some exposure to researchers working in social robotics (Heather Knight of Carnegie Mellon University was a guest speaker at our technology strategy group and expressed an interest in working with LACMA) and data visualization (Dan Goods, visual strategist at Jet Propulsion Labs, has expressed an interest in serving on our advisory board for the Incubator). Our museum staff includes a senior database programmer who is well-placed to support Incubator projects by making museum data available to appropriate parties.

5. Will you be able to support the technology-based solution with existing staff?

In part, and we will sustain projects developed by the Incubator via the Incubator advisory board, which will consist of expert engineers and scientists who will donate

County of Los Angeles Quality and Productivity Commission
PRODUCTIVITY INVESTMENT FUND PROPOSAL

their time to supporting, advancing and sustaining Incubator projects.

6. Will staff have to be trained in the new technology and its supporting infrastructure?

To a limited extent. For example, if we launch a data visualization project on a touchscreen monitor in the Incubator library space, staff who work there on a daily basis would be trained to run and troubleshoot the monitor. If we pilot a social robotics application for visitor engagement, our visitor services staff would be trained to answer visitor questions about the robot, and work with appropriate tech staff to troubleshoot any issues that arise.

7. Will you hire a contractor to provide the technology-based solution or hire dedicated County staff?

The advisory board for the Incubator will donate their time. The Year One seed money will be used to pay a commission fee to two artist/technologist chosen to be "in residence" at the museum/Incubator for a period of up to one year. We will also hire a contractor to help launch the Incubator (an engineer and professor with whom we are acquainted via the Annenberg Innovation Lab at USC).

