Esri and University, Government, or Non-Profit Research Labs:

Collaborative Pathways

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Esri Chief Scientist

esri

Esri market share and worldwide scope:
Carefully managed growth and zero debt give Esri stability that is uncommon in today's highly volatile business world. Private ownership means no stockholders forcing short-term decisions at the expense of long-term objectives.

Esri as a whole still functions according to its non-profit roots.

Esri Professional Services division is our soft-money environmental consulting firm, that "jets in" from time to time helping users. Everything there is billable and must be paid for or covered, even if other parts of Esri need to use its services.

Esri "Philanthropy" = Software, Training, in-kind Support

The mantra from our CEO, Jack Dangermond: While we are very interested in using our technology (and occasionally our people) to support our values and visions, especially in conservation, we do not do "corporate sponsorship" with money. It is not our philosophy. Esri gives away so much of its software (and so much of our time and travel pro bono), that many have the impression that we can automatically fund other entities. Many are even under the impression that we have a foundation, which is untrue.

While we certainly do spend money on marketing, **our primary focus is to use our limited resources to build our technology and support our users**. Therefore, our philanthropic efforts involve software, training and support.

One note about software under the framework of university site licenses: by our best count, we have about 2,000 higher education "site" licenses (~1200 U.S.). In addition, there are some 7,000 departmental licenses ("lab kits"and "lab packs"). One of our the important recent projects of the Esri Education Team (completed in 2017) has been a site license modernization program that represents the most substantial upgrade in the program¹s 25-year history. We expect this new "Education Enterprise License Agreement" will serve to remove many of the real and perceived obstacles to broader and deeper usage of the platform in higher education.
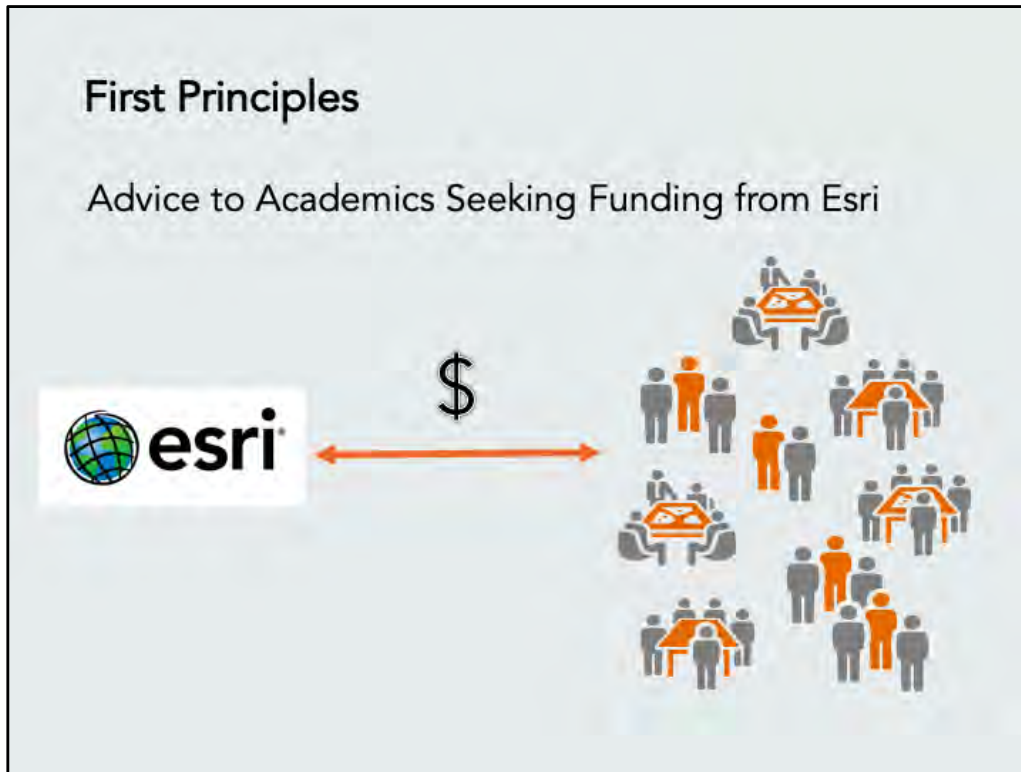
First principles (advice to academics seeking funding from Esri):
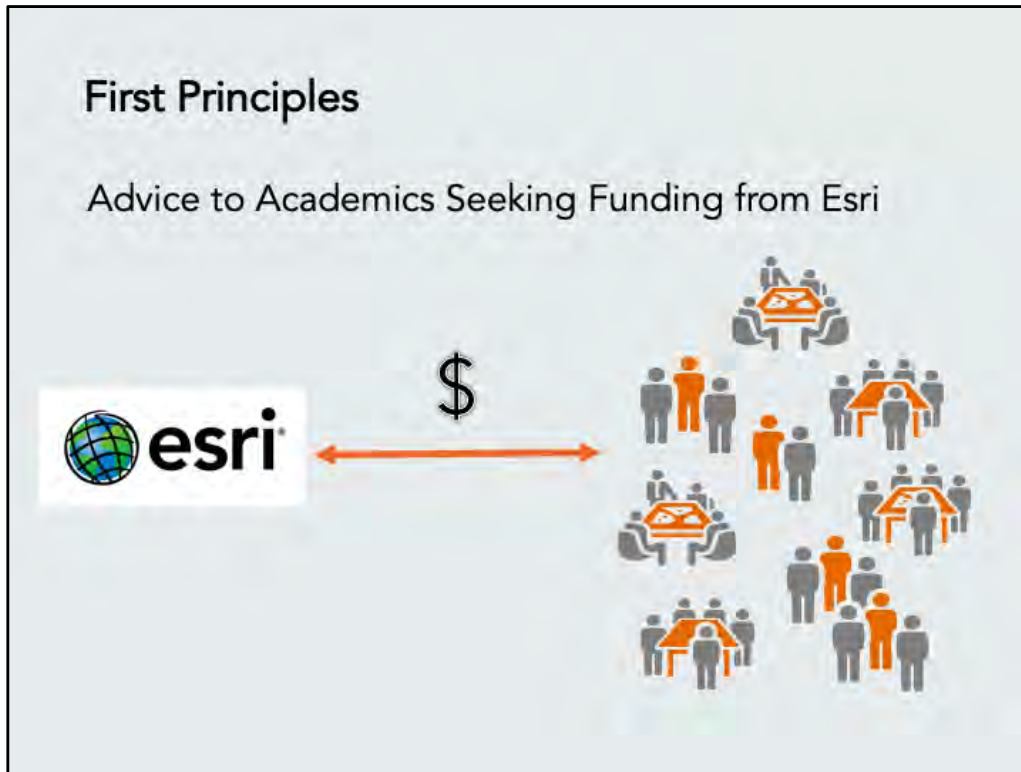
It is helpful to understand the difference between:
(1) A request for Esri to give sponsorship dollars for a conference or similar EVENT.
and
(2) A request for Esri to collaborate with you on research (and in rare cases, to fund your research).

In the case of (1):
- First and foremost, please know and go to your Industry Manager/Marketing contact. The Chief Scientist cannot process these requests for you. The Chief Scientist delivers keynotes and papers, often at the behest of the Esri CEO (and sometimes at the behest of an Esri distributor), but arrangements for sponsoring and exhibiting should be handled by the Industry Manager/Marketing contact, as they have a specific budget for such. The contact may also be able to assist with arranging for the appropriate short courses at your event.

- Please do NOT just ask if Esri would be "interested." Come right out with a dollar amount for what you REALLY need.

- Please make the request between August-September before Esri marketing plans and budgets are due in October/November. As such, you'll need to plan ahead. The timing of the request is extremely important and must come with significant lead time before the event. Not only do Industry Manager/Marketing contacts need the lead time in order to prepare, but the event cannot overlap with key existing Esri events. Scheduling and budgeting for events receiving Esri support normally occurs in October/November BEFORE the year in which the event is to take place. As such, any invitations/requests need to be received by at least then so that Esri staff can factor them in. For example, if you ask in January for sponsorship of a meeting occurring in March or April of that same year, this request is likely to be denied. This is especially true for one-time specialist meetings, as opposed to the larger, major conferences. And anything that overlaps with our four largest events is almost always impossible to consider. These large Esri events are the Federal GIS Conference in February, the Developer's Summit and Esri Partner Conferences in March and the International User Conference in July.

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In the case of (2):
- Specify what Esri is to get out of it, what role you envision for us. We are generous and caring (e.g., university and non-profit licensing and resources), but we ARE a for-profit business. We do **not** have endless resources, as many perceive.
- Consider first cultivating a relationship with Esri over a longer term before making a request. Get to know us and let us get to know you (e.g., come to our User Conferences, Summits, or Specialists Meetings). This will make all of the above MUCH easier!!

I hope these guidelines help you with future planning.
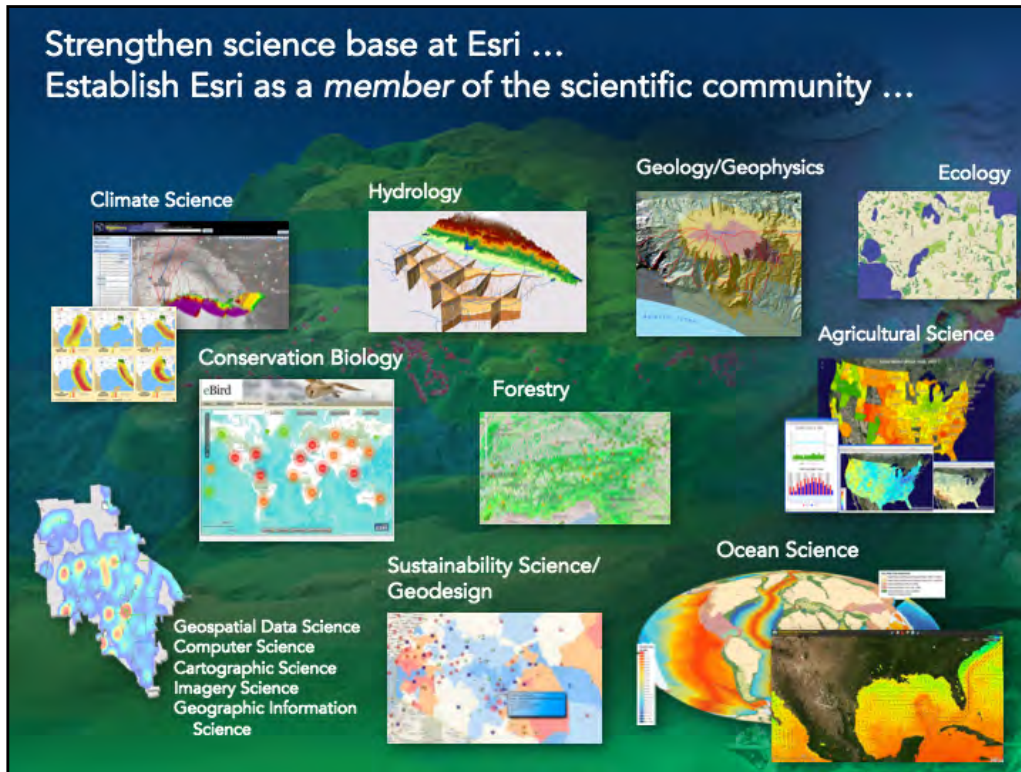
The Chief Scientist's role is to strengthen the science base at Esri, particularly in the domains pictured, and to establish Esri as a member of the scientific community rather than just a software vendor. Contributions to the scientific community are made in part via scientific advisory board service to the National Academy of Sciences, the National Science Foundation, NOAA, EPA, and more (chronicled at **http://esriurl.com/scicomm**). **HOWEVER**, the Chief Scientist does not have a pot of money to fund research proposals coming to Esri, nor does she function as the equivalent of an NSF program officer. Esri is not and does not have a foundation.

Collaborative Strategies/Engagements

(1) Informal, No-Cost
**(e.g., NSF letter of support,
free leveraging of Esri staff, beta software)**

To us, an informal and free leveraging of our staff time is a significant investment, given that our normal Professional Services staff rates can be upwards of $100-$400/hour. It's just not in the form of a traditional NSF grant.

(1) If the NSF or other government or foundation program that you are applying to requires an industry partner or having an industry partner might give you an extra edge, then our usual modus operandi is to contribute a letter of support for your proposal that commits us to no-cost participation in an advisory role and/or taking part in project meetings, **OR ASSISTING WITH YOUR DATA MANAGEMENT PLAN as we host or can help you host that special kind of infrastructure**. It may indeed be appropriate for the Chief Scientist to prepare such a letter for you on behalf of the team(s) at Esri that you would collaborate with. The usual expectation is that your team would collaborate with Esri in terms of research & development that you see as really pushing the limits BEYOND what our software and services can already do, or vice-versa, where you¹d like the advice of our think tanks. The Chief Scientist can connect you with our Development, Products, and Application Prototype Teams, where appropriate, for discussions that you can have via email or via teleconference either as you prepare your proposal and during the project itself if it gets funded. Oftentimes the most valuable information for academics is who to contact within the dense network of a software company. This is a role very much enjoyed by the Chief Scientist: helping academics to navigate through this (having struggled with knowing who best to talk to at Esri while at Oregon State professor). Now she can be part of the solution.

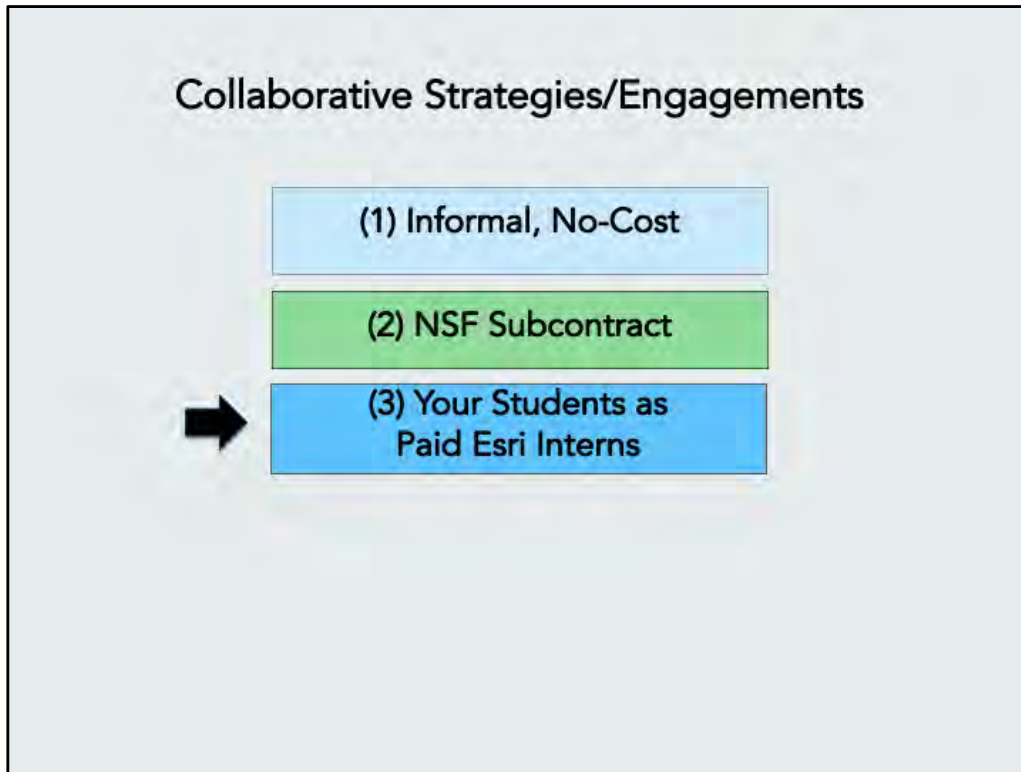Requirements for a proposal letter of support from Esri:
- The **exact deadline (day and time)** by which you need the letter (i.e., before you have to submit the proposal to your research office for processing). **PLEASE also help us to help you by not requesting a letter a few days or a week before your deadline. Requests made at least 1 MONTH in advance are the most successful due to our current ongoing duties.**
- Information on to whom the **letter should be addressed** (you or another lead PI? an NSF program officer? someone else?).
- An NSF or similar project summary of the proposal so that we know what research is being proposed that Esri would support. Please forward also the **names and institutions of all lead PIs** on the project, the **exact title of the proposal**, and the **name of the program** that you are applying to (NSF EarthCube Conceptual Designs? NSF Geography & Spatial Sciences unsolicited? etc.). Please decode all acronyms in NSF program names.

- An indication of **how you would like Esri to be involved and why** (e.g., no-cost participation in an advisory capacity or occasional project meetings? no-cost advice from us as you seek to partly or fully use our technology in some capacity?, etc.). An extra plus would be some expression as to the research and development that you see us participating in with you that may potentially push the limits BEYOND what our software and services can already do, or vice-versa, and where you'd like the advice of the Esri personnel that you've already connected to.
- Regarding **paid summer internships**, please note that we *cannot guarantee* that your student(s) will be offered one. Our internship program now has a global applicant pool and is extremely competitive with only 30% of the applicants accepted. However, we CAN guarantee that your student applicants will receive full consideration, and we can state this in a support letter.
- After submission, **please forward a full copy of the proposal** for our records. Please keep in touch to advise as to whether or not the proposal got funded, and whether it will be resubmitted at a later date.
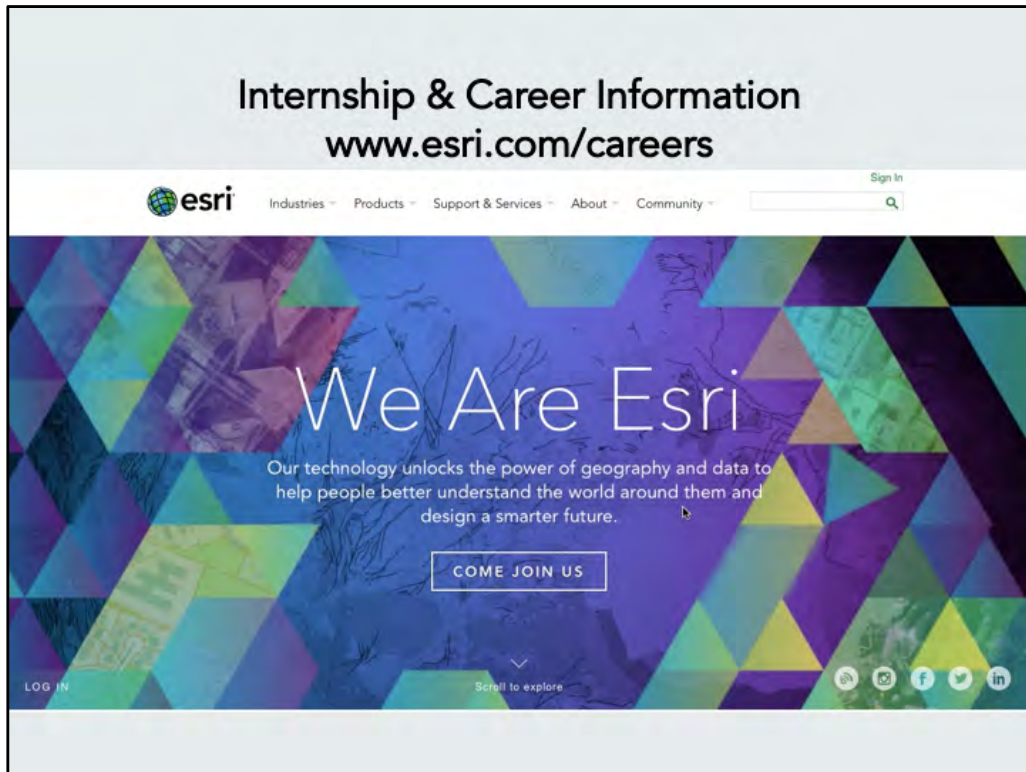
In addition, we often receive special requests for our time simply so that users "can show us what they've been up to" or "where they are headed" with leveraging Esri tools and integrating them into their work. While we appreciate this, we do have hundreds of thousands of users employing our technology in various ways, building on top of it, customizing it, linking it with other technologies. But this does not always require specific intervention from us. We provide the tools and the user community runs with them in various ways, and then presents what they have done to us and to their colleagues at our user conferences and specialists meetings, as well as at many other conferences. Hence, if asking for our time to "show us something," please let us know at the outset specifically what you would like us to consider, and ultimately what you would like to achieve. Is it Esri possibly adopting an approach or an algorithm you have developed for our core software (given of course that we are not already providing an equivalent)? Or are you perhaps seeking a collaborative relationship with us where there would be a new tool produced, jointly between your colleagues and our developers? This is often the goal of a research proposal described prior, or of our sabbatical program (see page 12). Or do you require of us additional effort to promote your work to the broader Esri user community (again, beyond already presenting at our conferences or having your work published in our proceedings and monographs)? Going beyond just telling us that you'd like to "show us something" will help us to respond more quickly and positively to your request.
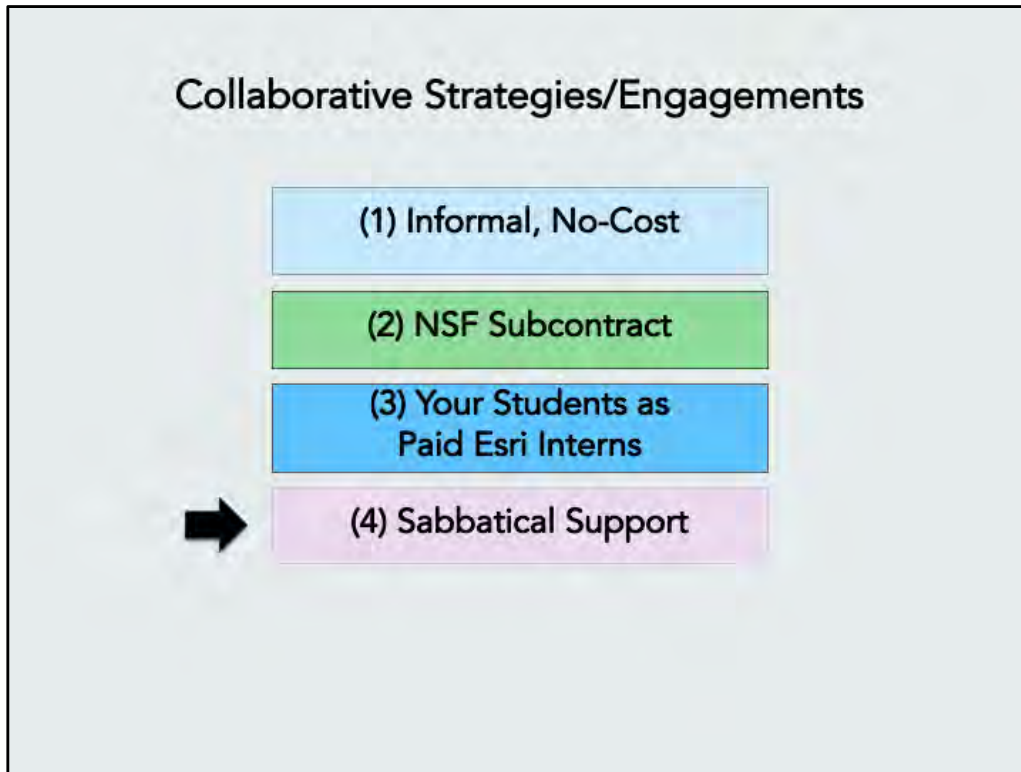
Collaborative Strategies/Engagements

(1) Informal, No-Cost

➡ (2) NSF Subcontract

(2) A second option is for us to connect you to our Professional Services division (**http://www.esri.com/services/professional-services/**) which can quickly and efficiently custom-build something for your project using our technology, or even aspects that are not yet standard functions in our technology. But they would need to be a subcontractor on your proposal at considerable cost, at the very least to cover the rates (upwards of $100-$400/hour) for our developer and other implementation services. This MAY be a viable option, especially if you need higher-level, higher-quality GIS implementation and customized software code on a shorter time frame than a graduate student or even postdoc may be able to provide. It is also a good entry into the division at Esri where most of our domain scientists reside.

Collaborative Strategies/Engagements

- (1) Informal, No-Cost
- (2) NSF Subcontract
- (3) Your Students as Paid Esri Interns

(3) The Esri summer internship program can be a highly successful third option. One of the hardest ways to fund students is via summer salary. Our summer internship program can take care of that as students are: **(a)** paid, housed and mentored over the full summer; **(b)** may get to work on an R&D project that advances your interests and well as ours; and **(c)** are immediately in line for hiring by Esri. This may actually be a useful a "back door" toward getting an approach adopted or incorporated into our core technology. Students are here at headquarters where they have access to our product engineers and developers, and where good ideas may get the attention of middle managers and directors. We often like to move students from internships in the summer to full-time positions in the fall if they are the right fit. In some cases, internships at Esri regional offices or one of our R&D centers may be arranged instead of just at headquarters.

An important web site for your students…

Collaborative Strategies/Engagements

(1) Informal, No-Cost

(2) NSF Subcontract

(3) Your Students as Paid Esri Interns

(4) Sabbatical Support

(4) A fourth option is for a faculty member to consider longer term engagement with Esri via our new sabbatical program (see **esriurl.com/sabbatical**). On the shorter term, one example is that of two University of Wisconsin-Madison faculty members who spent a few days with us working with our Applications Prototype Lab (APL). This was due mainly to a presentation that one of the faculty members gave at our Geodesign Summit which caught the eye of our CEO Jack Dangermond, who then set the process in motion for their subsequent visits and project work with the APL.
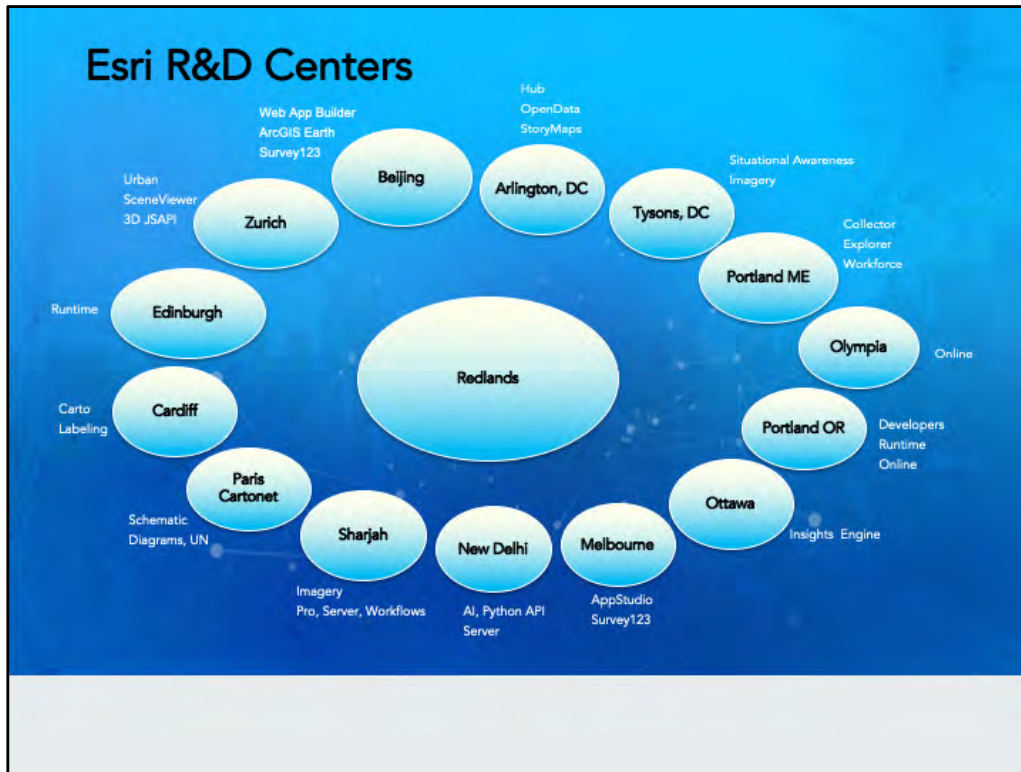
Note also that we are now making significant investments in our own R&D Centers. These are spread out across the globe with a large number of us here in Redlands.

Approximately 31% of Esri revenue goes to R&D (the norm for other, similar companies is 8-10%).
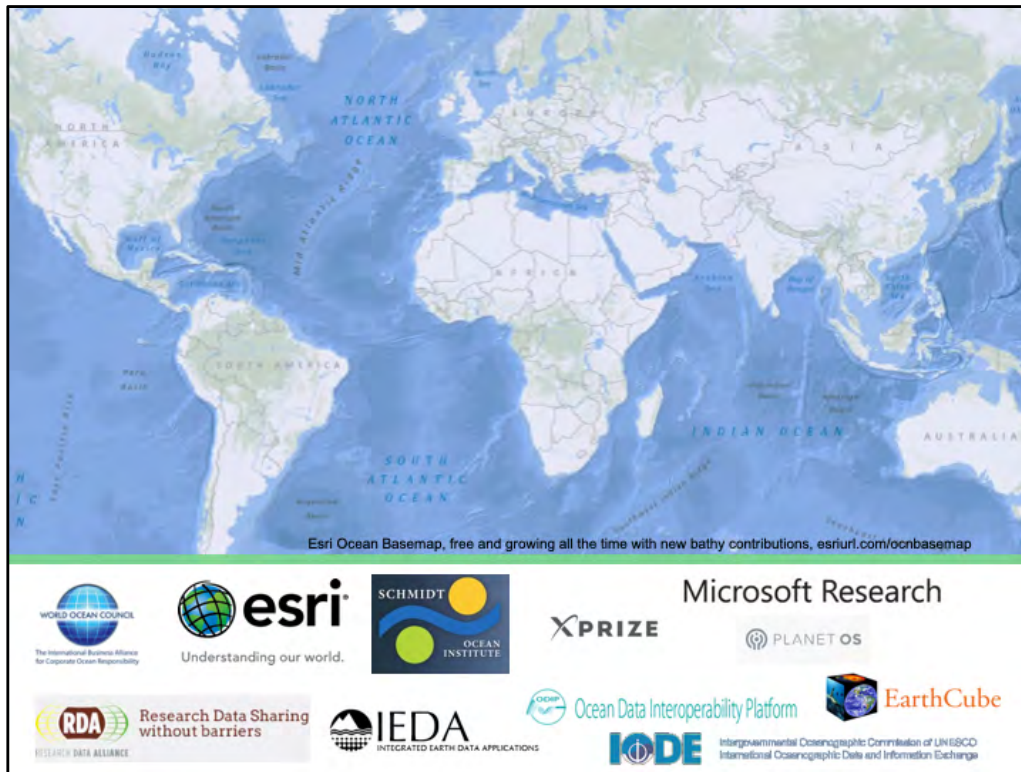
Esri also has several partnerships with other commercial companies, as well as government and academic *consortia.* **This is an ocean science example.**

Several ocean information technology companies including the industry partners depicted above, are members of the World Ocean Council, a unique international BUSINESS alliance for corporate ocean responsibility, collaborating on issues of stewardship of the seas, including multisectoral voluntary ocean observations, ships of opportunity for science, coastal and marine spatial planning, and, of course, improved data infrastructure and data sharing for science. As partners, we are all working on different aspects of data science.

The Research Data Alliance (RDA) is fostering public-private partnerships focusing on data use, data quality, and the adoption of data sharing approaches and tools.

Please contact the Chief Scientist for information on the other organizations depicted above.
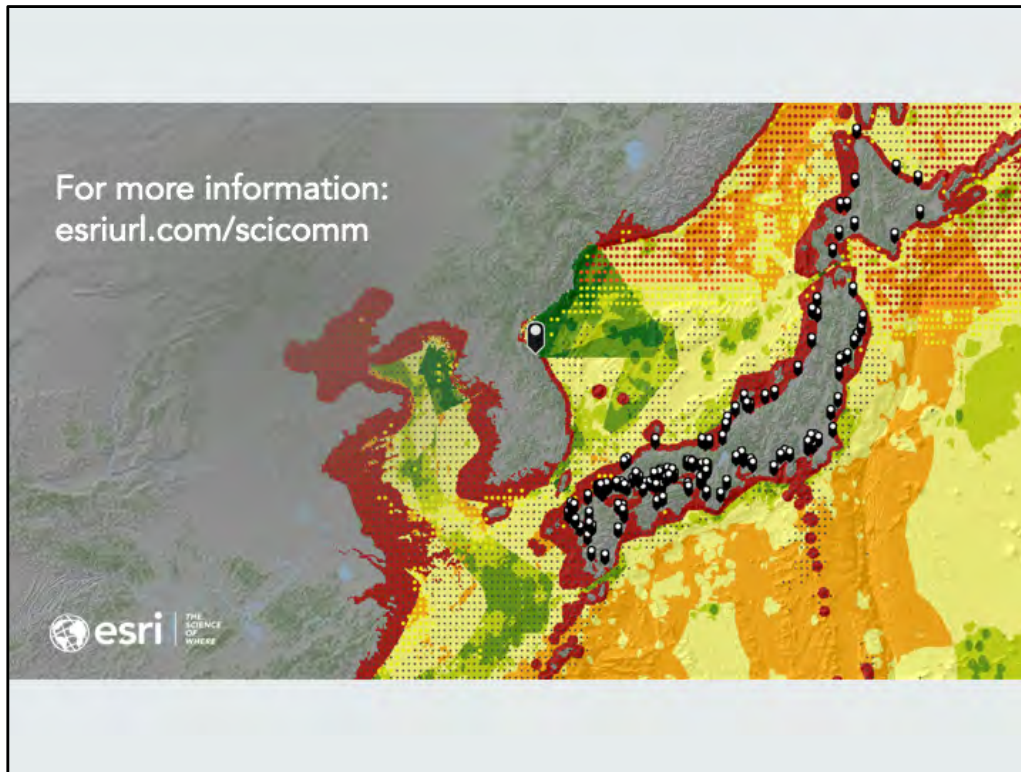
For more information on collaborative pathways, consult or bookmark Esri's online scientific portfolio at http://esriurl.com/scicomm, which is regularly updated with new initiatives and resources as they arise.

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