

The Kavli Foundation Decadal Review

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THE KAVLI FOUNDATION DECADAL REVIEW

Looking Back Over Two Decades and Looking Forward to the Third Decade *Framework, Outlook and Strategy Considerations*

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As the foundation looks to its third decade, it is time to reflect on our first two decades, on where the foundation has come from, what has been accomplished, what lessons have been learned, and then to look to the future. The first decades were about getting started, establishing the core elements of strategy, rising up programmatically, making adjustments through the Great Recession, planning for growth as the economy recovered, and managing and enabling the transition to another level made possible by the new resources left so generously to the foundation by Fred Kavli. We end this second decade having risen to be among the world's most consequential science foundations.

Ahead of us is the foundation's third decade. We need to strategize together, staff and board, to address the central issue going forward: sustaining greatness and impact over time in the context of essentially steady financial resources – that is, annual budgets that now will grow more slowly, perhaps around two percent, year over year. The aim of this framing report is to help us set the context for a forward-looking discussion. We have extraordinary assets, and these are the basis for our future success.

Decade One (2001-2010): Starting Up and Establishing a Powerful Base

In the first decade, Fred Kavli, with the board and other advisors, established the mission and core elements for the future of the foundation. In the early years of 2001 to 2003, a number of approaches were tried, including for example the establishment of a set of Fred Kavli endowed chair professorships.

As the foundation experimented with different philanthropic endeavors, it became more focused, seizing opportunities for greater impact and developing a strong strategic vision. What emerged from work in these early years was the decision to focus on two central elements – the Kavli Institutes through endowment gifts as the foundation's primary mechanism for funding science; and The Kavli Prize as our primary mechanism for recognizing great science and great scientists.

Additionally, four fields were chosen for science support: astrophysics, nanoscience, neuroscience and theoretical physics. Fred, the board, and the staff thought that these fields had immense longevity and that the foundation could make a significant difference by funding research in these areas. It was sometimes phrased as focusing on areas that

would be centerpieces of basic science in the 21st century. Three of these fields were selected for recognition through The Kavli Prize – astrophysics, nanoscience and neuroscience, and for emphasis when establishing institutes.

Meanwhile, certain philanthropic experiments, such as the Kavli Operating Institute and support for the creation of endowed professorships, were not continued. Focus became essential as a strategy.

Beginning in late 2002, a concerted effort was made to identify universities with very strong programs in these focused areas, where the foundation might establish Kavli Institutes. Locations were scouted internationally, and a rigorous, detailed process was developed to assess and select candidates. Endowing a network of prestigious institutes enabled high-risk research focused on the selected scientific fields to enable basic science in perpetuity. This initial effort led to the establishment of 10 Kavli Institutes, each awarded \$7.5M, for a total of \$75M.

Continuing on between 2006 to 2008, the foundation funded another five institutes, including three abroad, two in China and one in Norway. This brought the total number of Kavli Institutes to 15.

The foundation recognized that the initial \$7.5M gift of endowment was not sufficient for the longer term. What came to be called “Phase II” of endowment enhancement began during this time. The general formula was that the host university commits to raising \$8M and the foundation matches with \$4M, bringing the endowment corpus nominally to \$20M total. In general, this approach has taken most of the second decade to complete.

The Phase II endowment enhancement approach also represented a key element of our programmatic strategy – the use of leverage – that continues in various forms to this day. By gaining matching funds, we leveraged our resources while ensuring that the institutes programs were funded at the proper level. For example, we partnered in fundraising with our partner universities that are the homes to the Kavli Institutes, and in cost sharing with The Norwegian Academy of Science and Letters and The Norwegian Ministry of Education and Research with respect to The Kavli Prize.

The Kavli Prize was conceived by Fred Kavli and he personally negotiated the prize agreement with the Norwegian government and The Norwegian Academy of Science and Letters in 2005. Guided by this agreement, the first Kavli Prizes were awarded in 2008 – \$1 million for each of the three scientific fields – and they have been awarded every two years ever since.

In the latter years of the first decade, the foundation added new efforts in support of the other piece of its mission: public understanding of science. An example is the AAAS Kavli Science Journalism Awards. Originally an annual grant, the foundation in 2009 decided to endow these awards, and doubled the endowment with a second gift a few years later. These highly regarded awards continue to this day and with great impact.

We also began exploring how to help scientists become more effective communicators by supporting the Alan Alda Center for Communicating Science at Stony Brook University. Additionally, individual public engagement programs were implemented, but more on an ad-hoc basis since resources did not allow for a larger strategy.

In a way, the first decade was also defined by self-limited funding. The foundation endowment was nominally about \$200M by the end of the first decade. Fred Kavli and the board chose to spend \$12-\$15M a year, in a combination of foundation spending and personal giving by Fred Kavli. This necessarily was reduced in the last years of the decade when the Great Recession hit.

As a result of the Great Recession, new agreements and programs halted after mid-2008. In 2009 and 2010, we began to develop strategies and to find opportunities that would extend the reach of the foundation and achieve significant impact but would do so with modest new investments. Within these constraints, we deliberately chose to expand and make much broader our meetings and convenings programs as well as programs with scientific societies. And we looked for opportunities to provide national and international leadership on issues important to the foundation and our partners.

During this period (2009-2011), we used board meetings and retreats to discuss strategies for the foundation over the longer term, preparing ourselves for what we would do when the financial tide eventually turned. These exercises stood us in good stead as the economic outlook began to improve. When the recovery began in late 2010, we were in a good position to move ahead with a solid strategy – and we acted.

The base established in the first decade still defines the foundation: using the Kavli Institutes as primary means of supporting science in our four focus fields; and awarding The Kavli Prize to honor great science and scientists. These assets would grow in reputation over time.

We likewise ended the first decade still with the view that the foundation needed to become better known. One way this manifested itself was the desire of the foundation to do things on our own, to make an impact that would be clearly Kavli. As a result, there were few, if any, partnerships with other major foundations or donors. This is a contrast to our strategy for financial leverage with our institute and prize partners, but most importantly, it is not how we see ourselves today. Partnerships are today a major element of our strategy – made possible in part by the reputation we now have.

Decade Two (2011-2020): Recovering After the Great Recession, Planning for Growth and Rising to Greater Consequence

The second decade, as the first, had distinct parts. From 2011 to 2014, the foundation moved ahead but in constrained financial circumstances. Spending did return to levels similar to that of the mid-2000s once the Great Recession passed, but not higher. We took

some strong new steps, yet we were careful to stay within our lanes, particularly after Fred Kavli became quite ill in 2012 and we remained that way through the end of 2014.

Implementing Phase II for the existing 15 Kavli Institutes continued in the first few years of the second decade, using a high leverage matching fund formulation. Beginning in 2011, we were again prepared to establish new Kavli Institutes. We did so, establishing an astrophysics and cosmology institute at the University of Tokyo in late 2011 and a nanoscience institute at UC Berkeley in 2013. We continued to use the leverage feature that characterizes most of what we still do, but in these cases and for the first time, we targeted reaching \$20M in the first phase. For Berkeley, this was achieved by the university committing to raise \$10M, matched by \$10M from the foundation.

At the University of Tokyo, we had to follow a different model because there is little tradition of private giving in Japan. The university could accept endowment gifts but was severely restricted by Japanese law in the financial assets it was allowed to invest. This severely limited any returns on endowments to less than one percent. We had to adapt and develop a different approach. We did and had a successful launch of the Kavli Institute for Physics and Mathematics of the Universe in 2012. This experience helped us learn to work in other countries which have different cultures and traditions regarding private giving and university endowment investing.

We also began in this same period our rise into the upper ranks of science foundations. The decision in 2010 to double down on our new strategy related to meetings and convenings led the way to this further rise in reputation. The foundation's ability to catalyze and enable new directions in science through meetings and convenings emerged as a powerful asset. We became a trusted convener, and in key instances became the enabler of major new funding commitments to science. Over the second decade, this capability became a strategic asset and today stands with our Kavli Institutes and The Kavli Prize in terms of how we make an impact and why our reputation has grown as it has.

Two singular events helped distinguish The Kavli Foundation from others. The first was our role in the U.S. BRAIN Initiative, a product of the decision to grow our meetings and convenings program as we made our way through the Great Recession. This extraordinary outcome convinced us that Kavli being able to catalyze and enable new initiatives was a real strategic asset, and that we had the skill, the people and the relationships to make this a repeating and unique capability for science. This activity also involved leverage on many levels. With modest funds, we have achieved significant ongoing impact throughout this second decade.

The other major element that drove external recognition was our role in founding the Science Philanthropy Alliance, an idea originated by The Kavli Foundation in 2012, and that has grown into the alliance as it exists today. It took several years to get this effort going, and real thought leadership. Since its inception as an operational organization in mid-2014, the Science Philanthropy Alliance has grown from the six foundations with assets of roughly \$35-40 billion to almost 30 foundations and philanthropists today with assets of

around \$140 billion. The role of the Science Philanthropy Alliance in enhancing philanthropic giving to basic science is palpable, and the likes of the Chan Zuckerberg Initiative and the Schmidt Family Foundation are examples of the impact. The fact that the concept came from Kavli, and that we have chaired the Science Philanthropy Alliance board of directors since the start of 2015, has helped to place the foundation among the country's most consequential science philanthropies.

In the mid-period of this second decade, after the passing of Fred Kavli in November 2013, the foundation found itself in the position of being the primary recipient of Fred's enormous generosity as the main beneficiary of his trust. He left more than most any of us had anticipated. So in these middle years of this decade, the board and foundation had to make a series of truly transformative decisions:

- When and how to invest larger funds towards the foundation's future?
- Where would the foundation locate itself for the long term?
- Where and how would the foundation honor Fred in a way consistent with his vision and legacy?
- How would the foundation distinguish itself further, and reach a stature that everyone would recognize as unique and impactful? And,
- How would we set ourselves on a course to achieving greatness in what we do?

These questions, and the decisions surrounding their answers, were asked and decided upon by the foundation in the middle of the second decade, and all the decisions have turned out to be highly impactful and positive. Some of the key decisions include:

1. Legacy and Partnership – Make a major gift to the National Academy of Sciences and arrange for the naming of the Fred Kavli Auditorium at NAS headquarters in Washington, D.C. This gift and naming decision honors Fred Kavli in a way that no other idea could have, and this has made the NAS a partner of the foundation throughout this second decade.
2. Location and Expansion – The foundation's decision to move to the west side of Los Angeles and to purchase its headquarters building in the Playa Vista/Silicon Beach area. This decision has recently been reinforced by the board's approval to build an annex building and the Kavli Conference Center with the aim of making the foundation a future destination for science.
3. Budget – The board decision in 2015 to increase sharply the annual budget for the foundation, acting as if the endowment was immediately whole following Fred's passing, was catalytic and absolutely enabling. This courageous decision was transformative, even as it took through 2018 before Fred Kavli's remaining assets were fully transferred to the foundation.
4. Capacity – The decisions to grow the staff and redesign internal functions to meet the long-term opportunities and programmatic directions of the foundation.
5. Programs – Agreement to embark on an enhanced, dedicated program in the area of Public Engagement with Science in order to fulfill the second element of our mission statement.

6. Global Capability and Reach – With now a constellation of Kavli Institutes globally, an internationally recognized prize in science, and a major role in the International Brain Initiative, the foundation has a unique asset for the future.

The years 2017 to 2019 have been the years of execution on the decisions made mid-decade, of remaining entrepreneurial and nimble, and willing and able to seize unique opportunities. An example is the foundation's role in the International Brain Initiative, and outcome of our role in the U.S. BRAIN Initiative, is but one that has given the foundation international reach beyond our institutes and The Kavli Prize. One can argue that the foundation is today considered among the most impactful of foundations supporting science because of these decisions.

A clear result of the second decade was that the foundation found its footing for the long term. Today, the foundation's assets include:

- a unique model and a constellation of international science institutes;
- an ever-more-renowned science prize, The Kavli Prize;
- the strategic ability to catalyze and enable both science and public engagement with science through meetings and convenings;
- being a trusted partner in science and in public engagement by partners, including governments;
- a plan that to greatly expand our impact in the areas of public engagement and science communications; and now
- an expanded Kavli Foundation headquarters building and the new Kavli Conference Center, which should be available in early 2021.

In fact, our ability to catalyze and enable in both Science and Public Engagement and Prizes, is the key reason behind our decision in 2017 to move forward with construction of the Kavli Conference Center.

As is often said these days about us, The Kavli Foundation “punches above its weight.” Being an old ball player, I put the metaphor in baseball terms: Today, we are truly a major league club, but more like a team in a mid-sized city – more Minnesota Twins or St. Louis Cardinals than NY Yankees, Boston Red Sox or LA Dodgers. Yet as with the Twins and Cardinals, we do win the World Series from time to time and we are always competitive. We are indeed in the big leagues. We have risen to a level of very substantial consequence.

Decade Three (2021-2030): Sustaining Greatness with Steady Budgets

We end this second decade having found our place among the best of science foundations. We reached a steady state in terms of staff, infrastructure and budget. The strategic challenge as the foundation enters its third decade is to sustain impact and influence over time in an environment of now relatively constant annual budgets. Budgets may begin to rise slowly, perhaps two percent annually, but not faster. In phrases borrowed from science and engineering, the strategic question is:

In an environment of relatively constant resources, how do we ensure we operate in a highly dynamic equilibrium that will allow the foundation to remain impactful in science philanthropy?

Our strategy must enable us to sustain a truly dynamic equilibrium, with new initiatives from time to time replacing aging ones, and to being flexible and quick in responding to new opportunities. The strategy must be built upon a commitment to remain true to our core values and mission while building our activities and decisions around the foundation's strategic assets: the Kavli Institutes; The Kavli Prize; the foundation's Science and Public Engagement with Science Programs; and our distinctive characteristics:

- Kavli as a trusted partner;
- Kavli as a catalyzer, enabler and convener;
- Kavli as an entrepreneurial and opportunistic enterprise, willing to take risk and not fearing failure;
- Kavli being flexible, nimble and able to act with speed; and
- Kavli using leverage and partnerships to ensure the largest impact of our efforts to support science for the benefit of humanity.

We look forward to a highly interactive and consequential biennial strategic retreat.