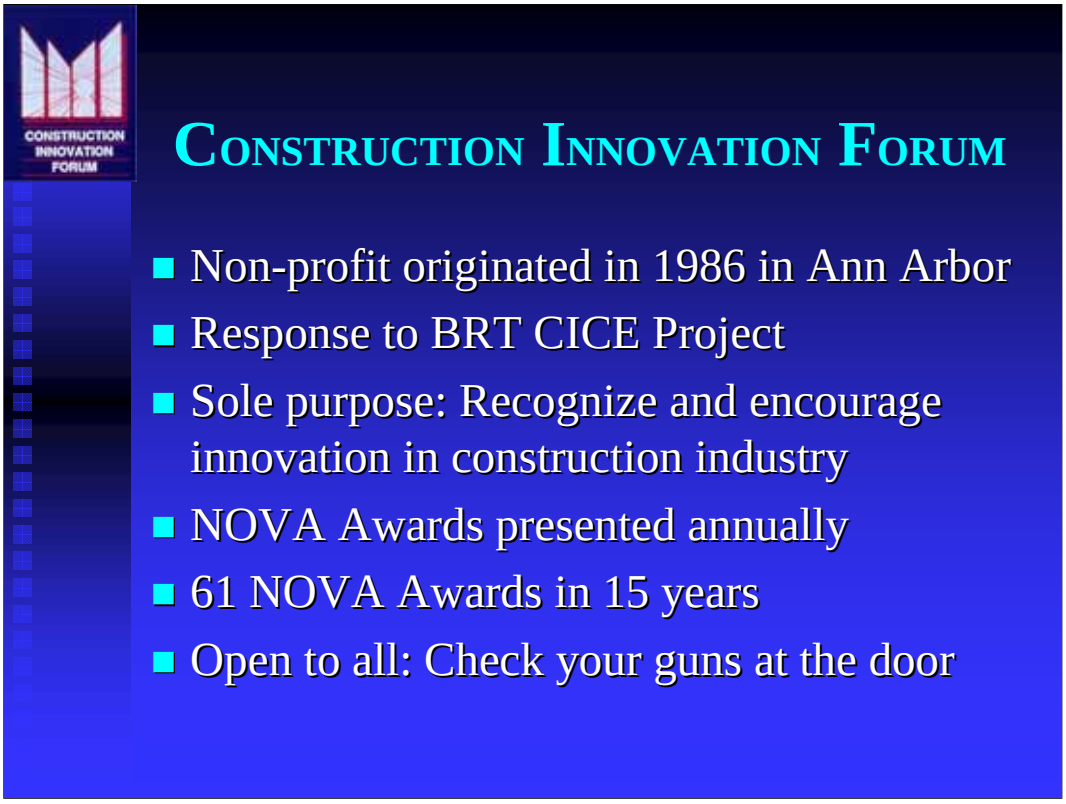
CONSTRUCTION INNOVATION FORUM
CONSTRUCTION INDUSTRY INNOVATION
Tim Alter
Rasha Stino
Robert I. Carr
National Institute for Building Sciences NIBS
Detroit, Michigan
Board of Directors Meeting
September 28th, 2005

The Construction Innovation Forum is a grass roots non-profit organization made up of people, companies, companies, and associations from the full breadth of construction.

Construction Innovation Forum (CIF)

7001 Haggerty Road
Canton, Michigan, U.S.A. 48187
Phone: (734) 455-0600
Fax: (734) 455-3131
info@cif.org, www.cif.org.

CIF goals are focused.



The CIF is a 501C3 non-profit corporation. It originated in 1986 in Ann Arbor, Michigan by individuals from the different parts of the construction industry. It's supposition is there is a lot of innovation in construction, from that required to solve unique problems on individual projects to solutions to major industry problems.The innovative problem solving is what so many of us in construction enjoy about our work. However, good news never gets told, and we hear little about innovation.

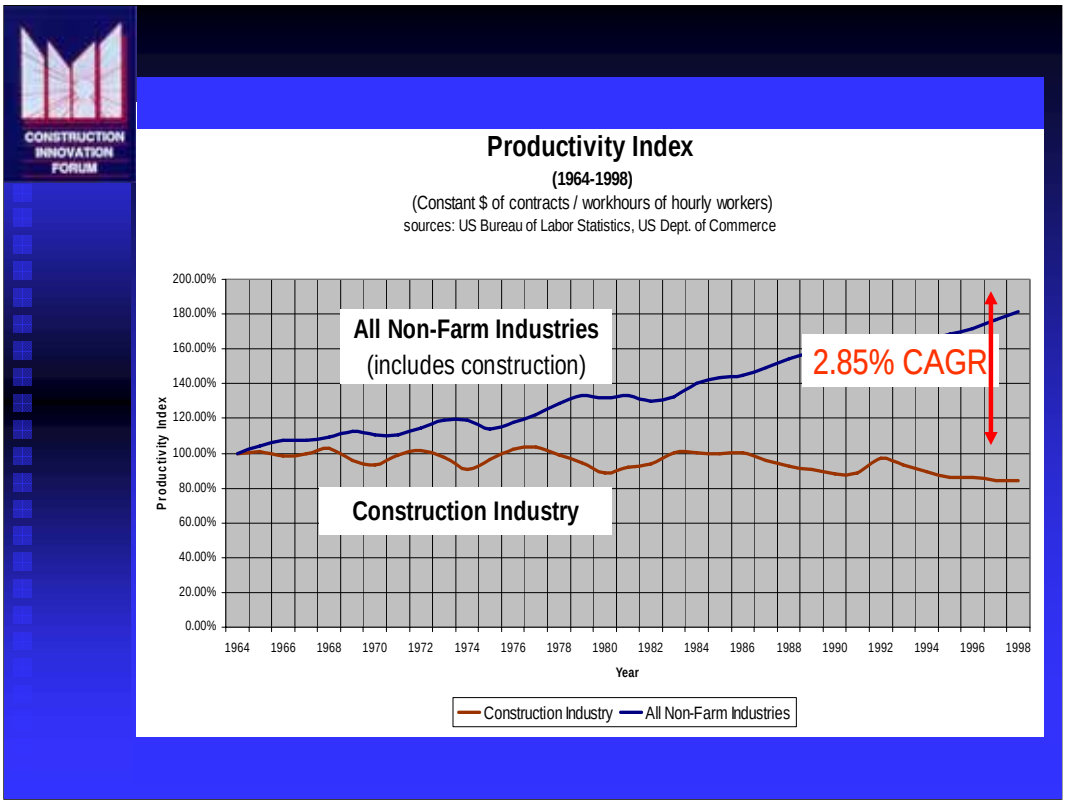
The sole purpose of the CIF is to recognize and encourage innovation in the construction industry. The CIF is really a virtual organization. It has no permanent office or staff. Most of its effort is by volunteers. It exists only because so many people in construction are interested in innovation.

The CIF is most known for the NOVA Awards presented each year at the NOVA Award Innovation Celebration Banquet. It has no equal in construction. 600 people at $200 a ticket meet to celebrate the innovation in our industry worldwide. 67 NOVA Awards have been presented in 16 years to innovations that have changed the word of construction.

All parts of the construction industry participate in the CIF. All are asked to "check your guns at the door" and work together on what we hold in common.

The CIF is a grass roots organization, built on broad, unselfish participation by any and all who believe in working together to advance the construction industry.

People and organizations participate as members, sponsors of projects, attendance at the NOVA Award Innovation Celebration Banquet, nominators of innovations for the NOVA Award, NOVA Award Jurors, or Investigators of NOVA Award Nominations.



•This slide illustrates that productivity in the construction industry is not keeping pace with other industries

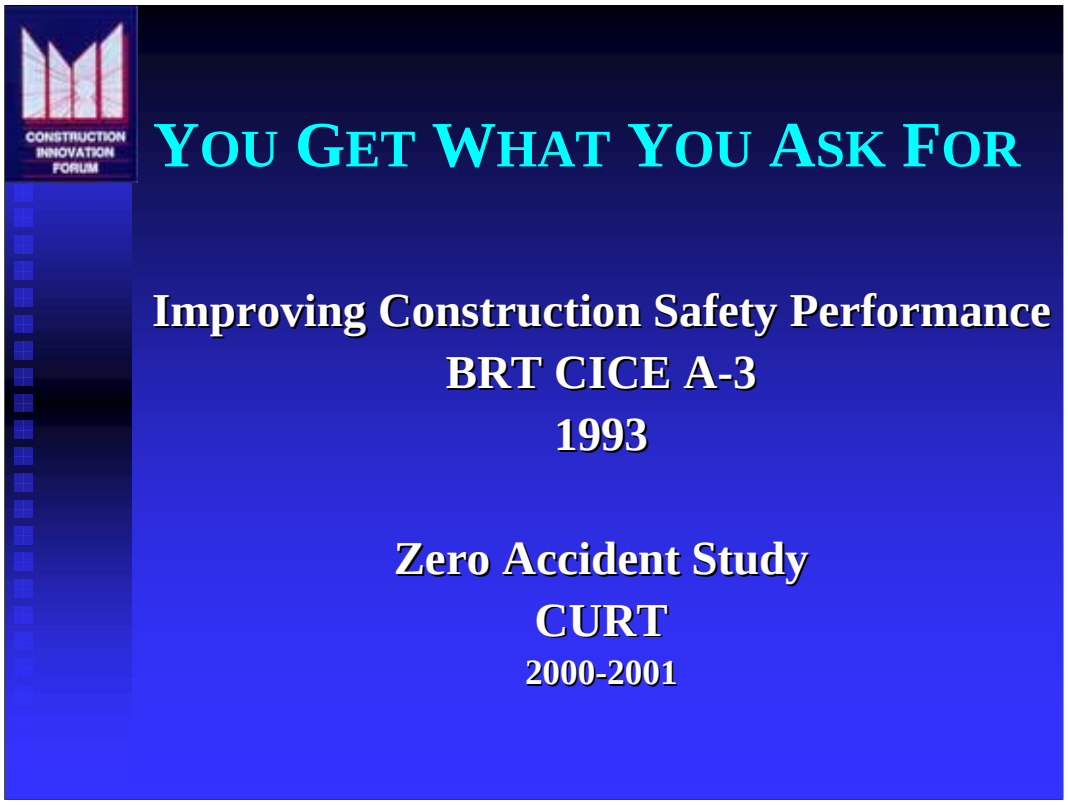
•Innovation is one of the most significant drivers of productivity.

•Our industry needs significant improvement and we need it <u>now</u>

In the Electronics industry 2 years and a computer is obsolete

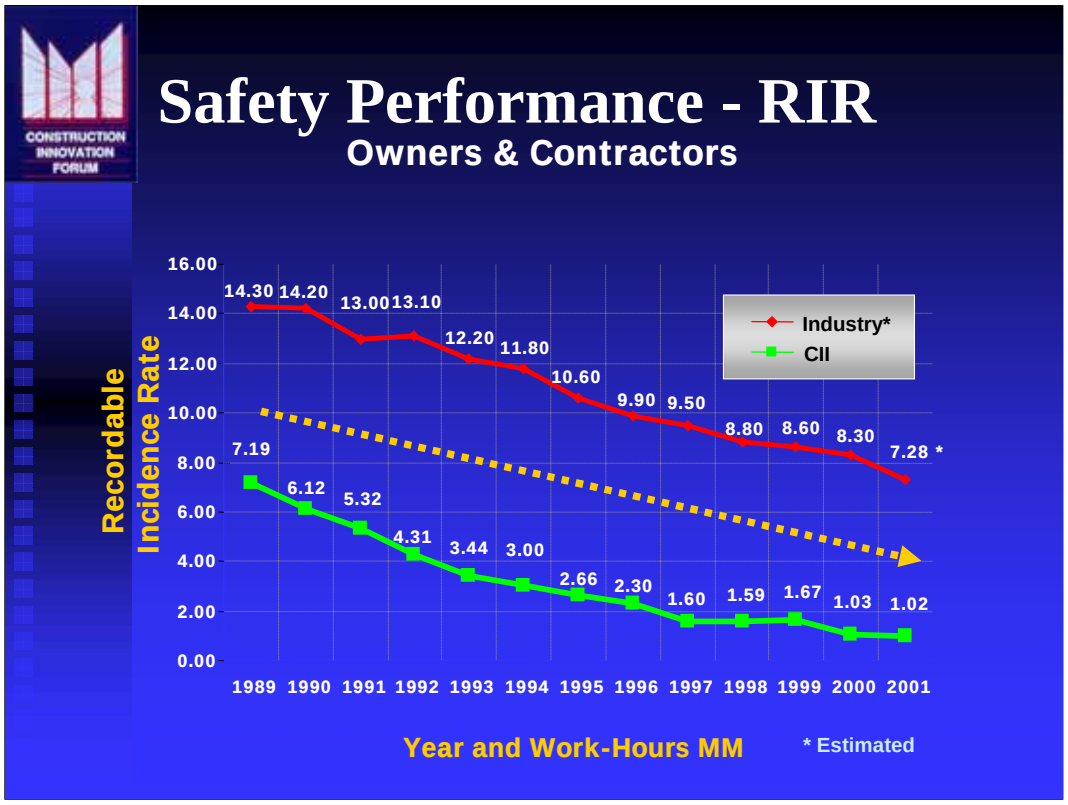
In the construction industry we use the same means and methods for decades

We are not keeping pace with the rest of the world



We believe at CIF that you get what you ask for

Owners asked for construction safety improvement in 1993 and again in 2001

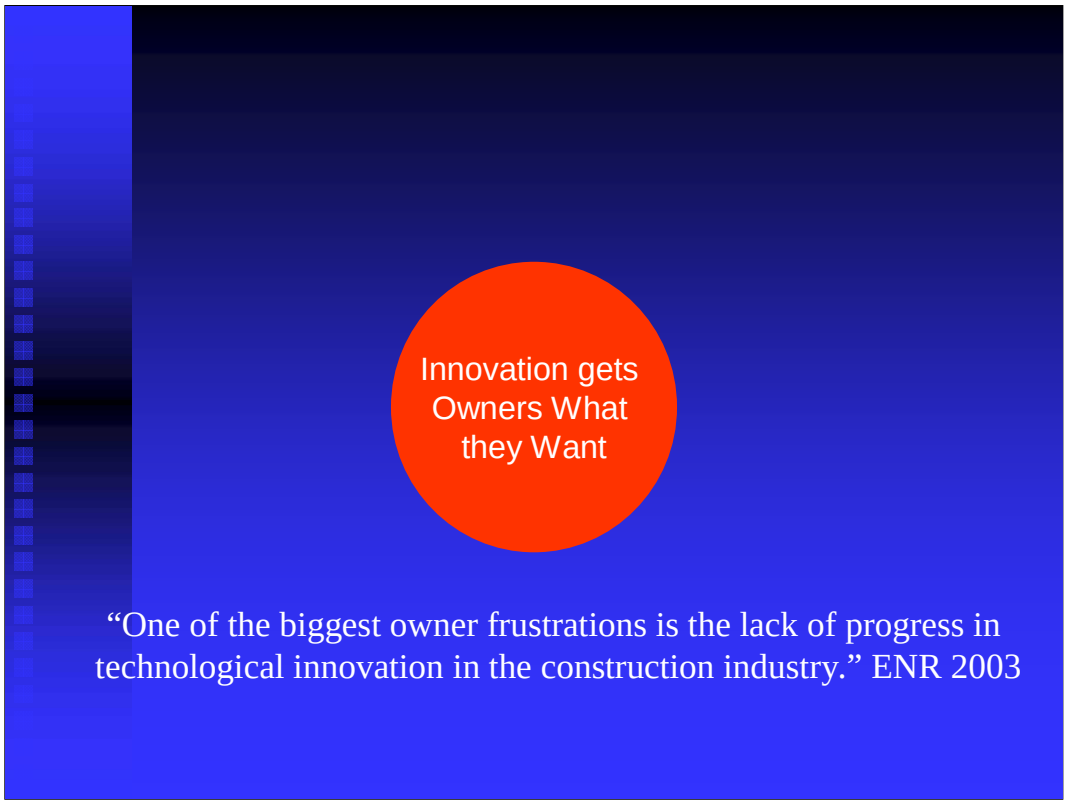


OWNERS GOT RESULTS!

Owners have had a positive positive impact on improving safety performance in the construction industry.

Working with CIF can Improve the Pace of Innovation in Construction

We performed a survey of your organization two weeks ago regarding innovation

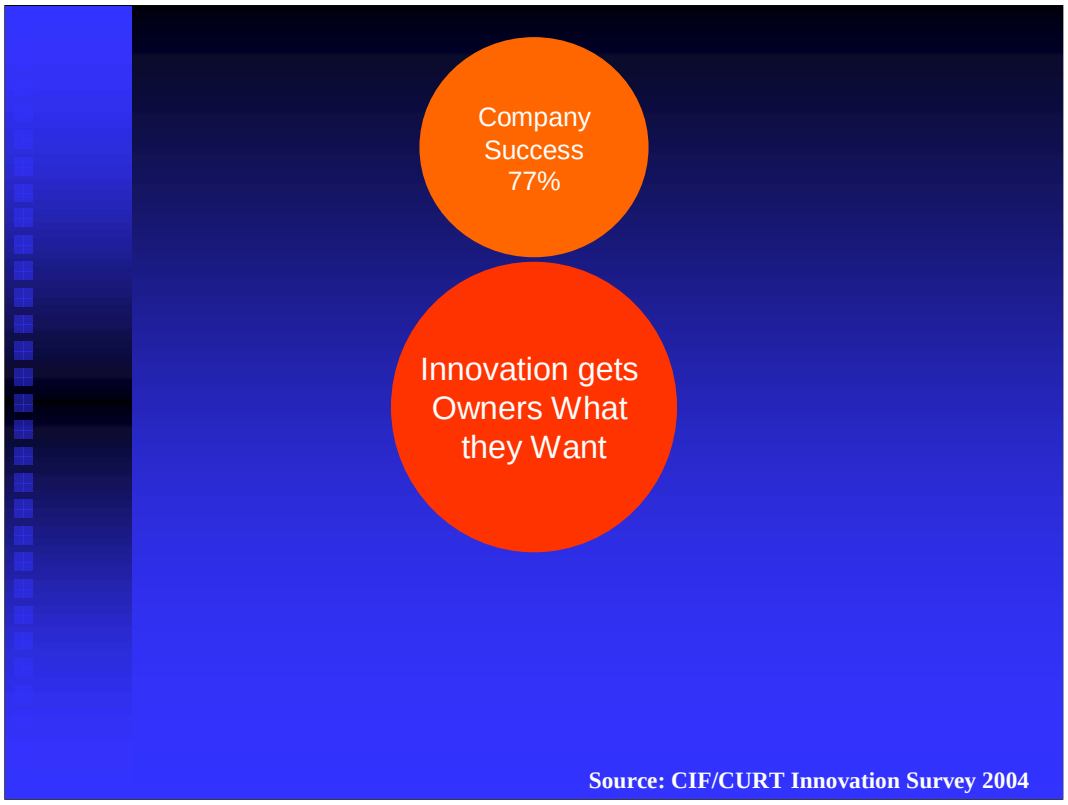


Owners have clearly been expressing concern over the pace of change in construction. In fact CURT Owners stated,

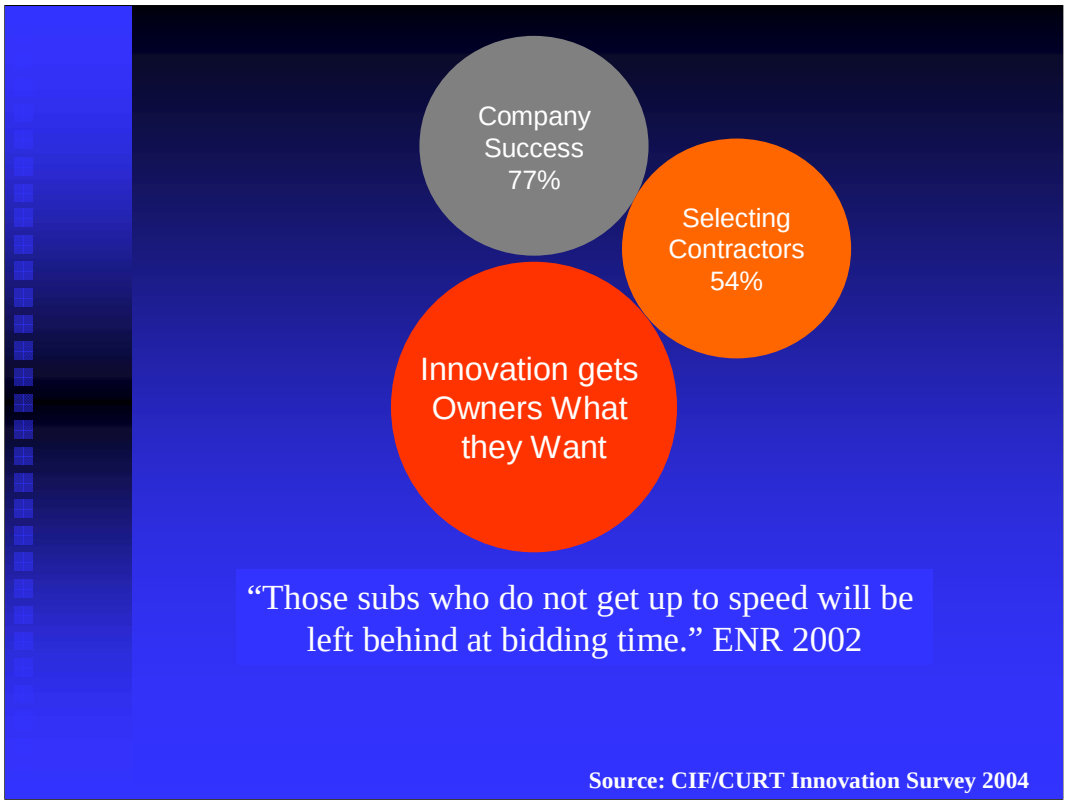
•"One of the biggest owner frustrations is the lack of progress in technological innovation in the construction industry." ENR 2003

•This survey gave us the opportunity to quantify and better understand your opinions and preferences regarding construction innovation.

•<u>We had an excellent response rate. 47 of you responded to our survey and this is what you had to say</u>:

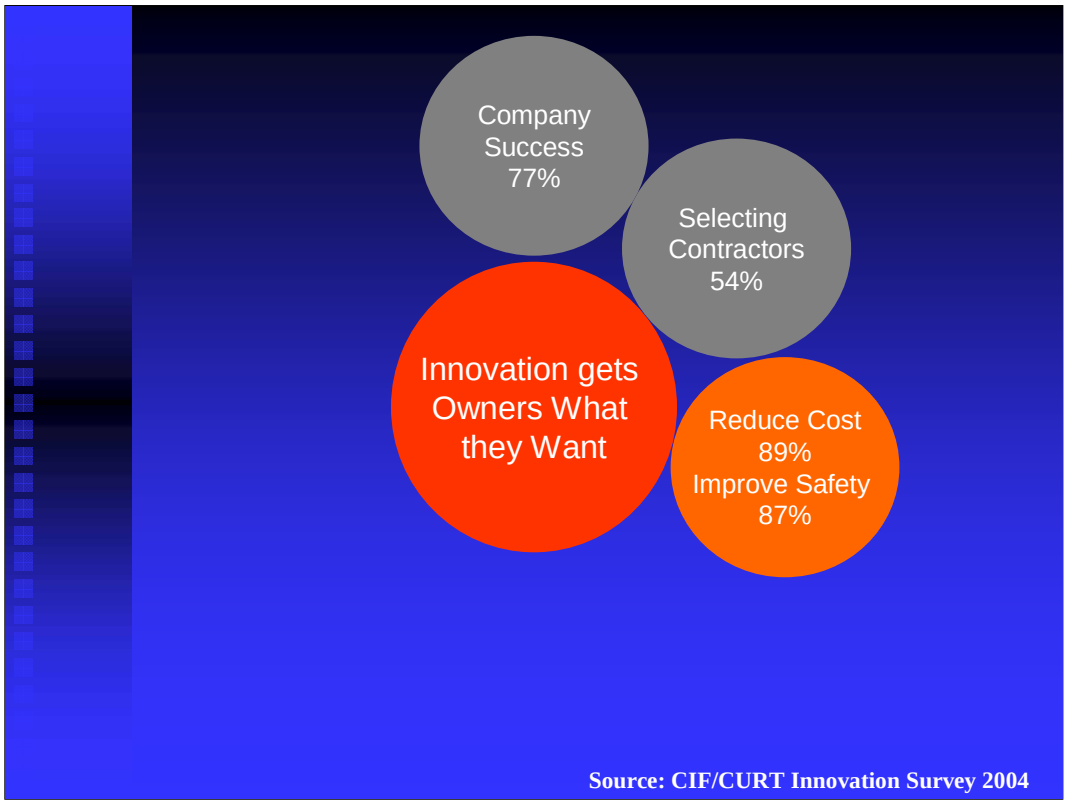


•77% find innovation in the construction industry important to crucial to CURT/Owner company's success



•More than half of CURT/Owners surveyed believe that innovation is an important factor in selecting contractors to perform construction work for their company.

•This is an important message to the contracting community, in fact, in a 2002 ENR article, Owners and CURT Members indicated that contractors who are not up to speed are left behind at bidding time.



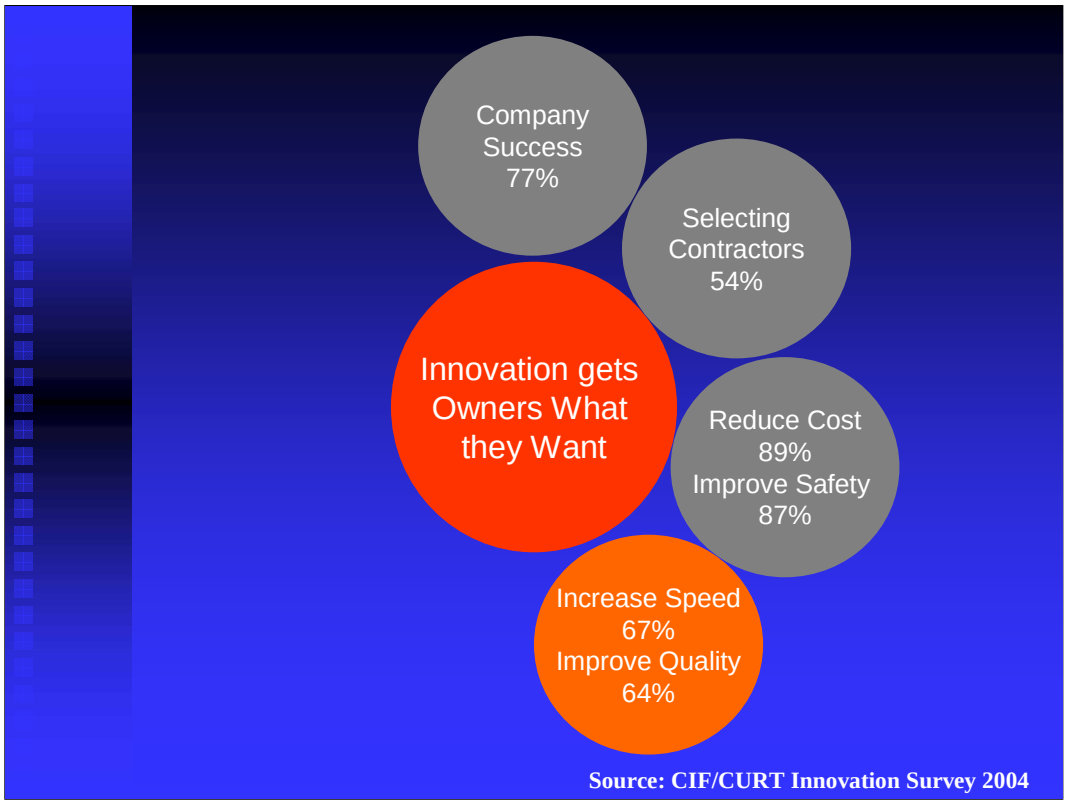
•When asked to <u>rank</u> the criteria that CURT/Owner found most important in deciding to use an innovation on their construction projects:

•Almost 90% of CURT/Owners ranked Reduces Construction Cost and Improves Worker Safety in the top 3 criteria.

OR

•89% of CURT/Owner placed Reduces Construction Cost in the top 3

•87% placed Improves Worker Safety in the top 3

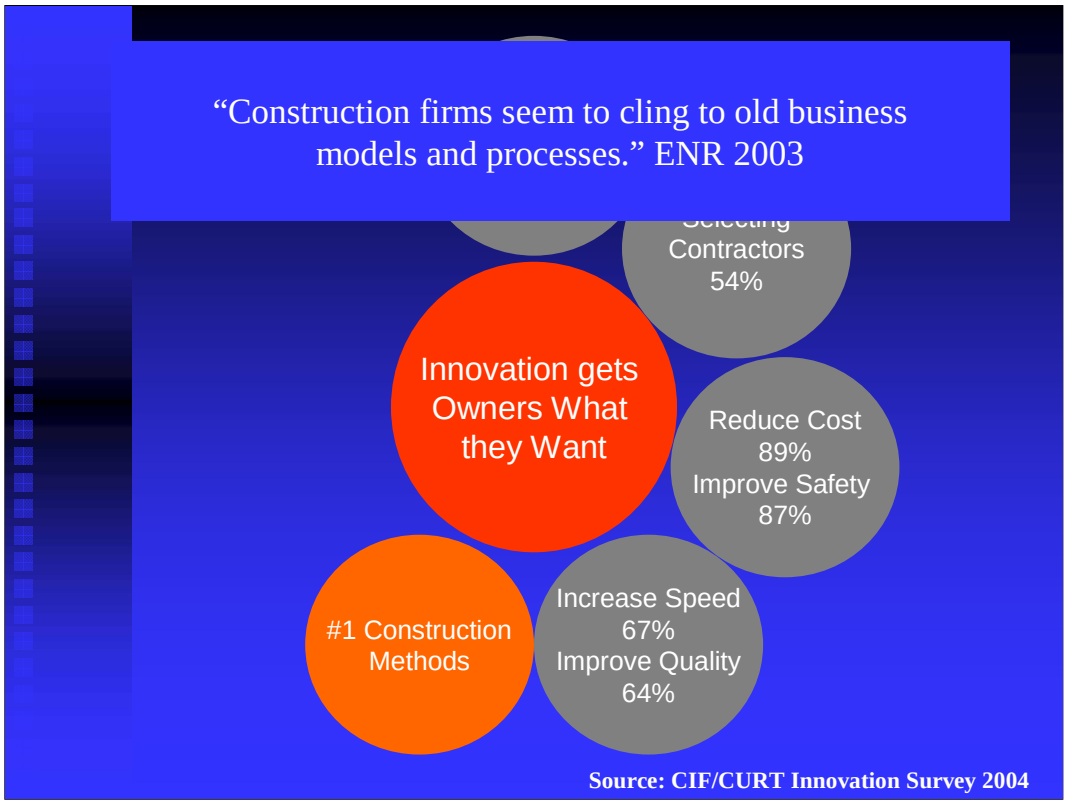


•About two-thirds of CURT/Owners feel that:

•Increasing Construction Speed &

•Improving Project Quality

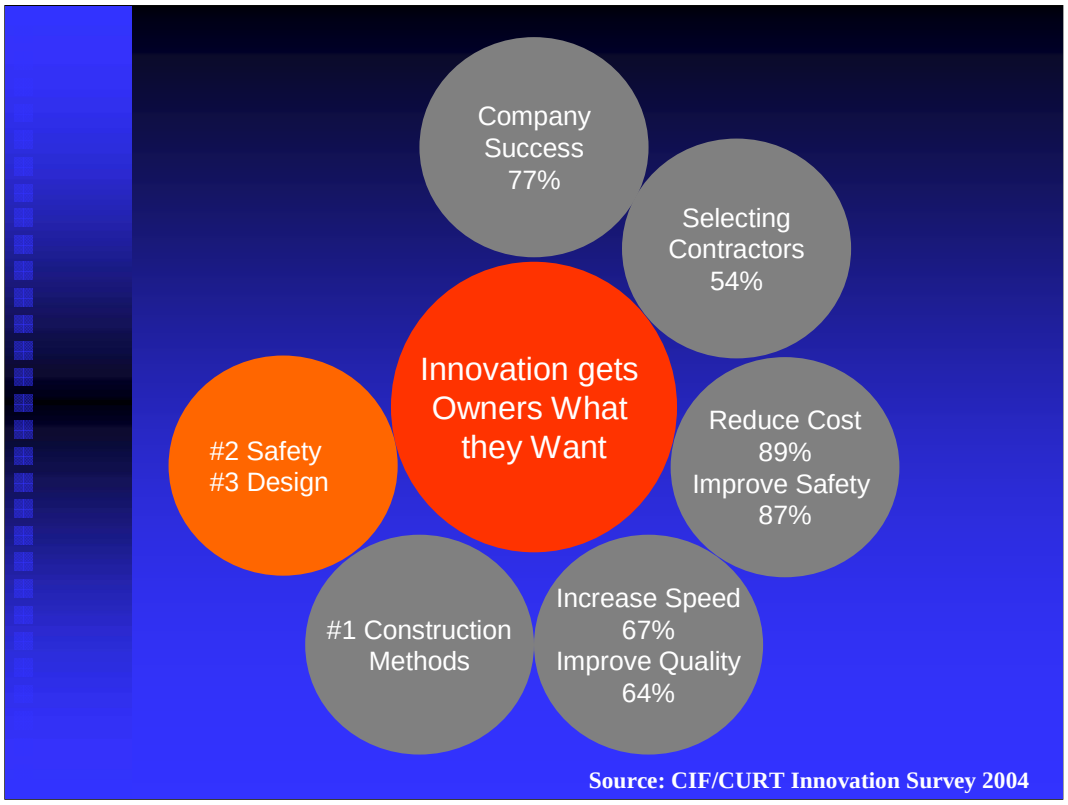
are a close tie in the top three criteria for selecting an innovation for their construction projects.



Next, we asked CURT/Owners which segments of the construction industry are in most need of innovation:

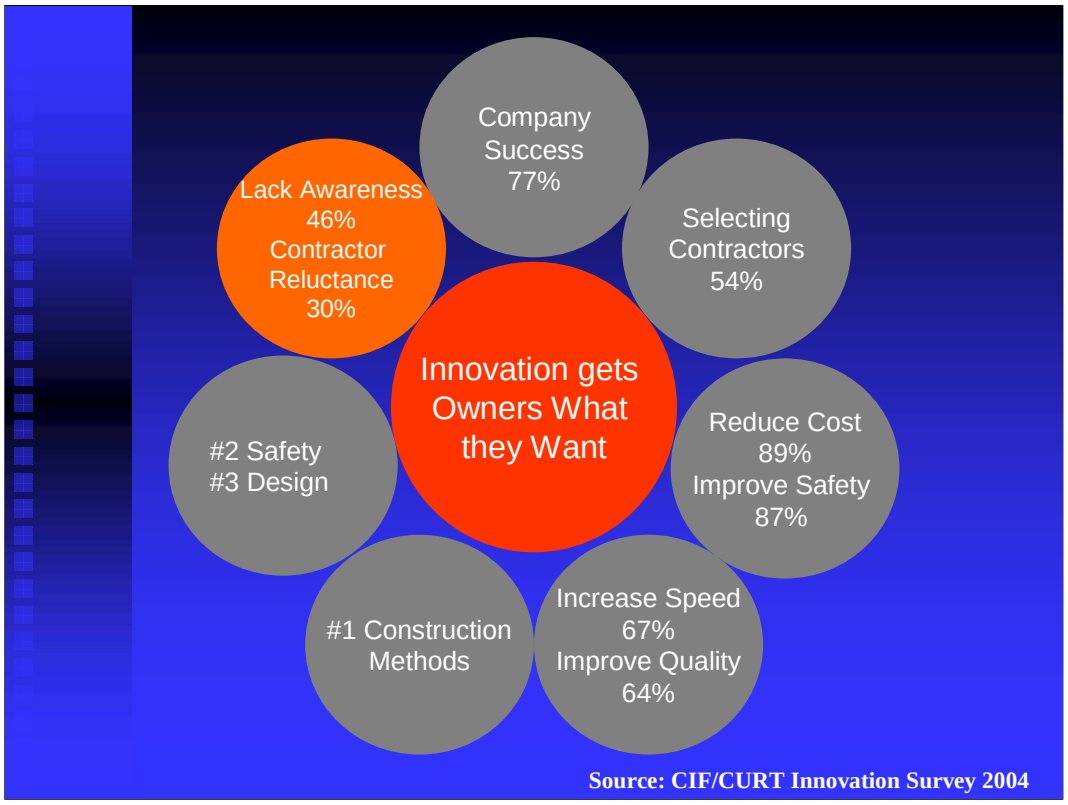
•Construction Methods came in as the #1 area in most need of innovation, or as CURT put it in ENR quote:

> **"Construction firms seem to cling to old business models and processes"**



•Worker Safety was ranked as the second segment in most need of innovation, followed by

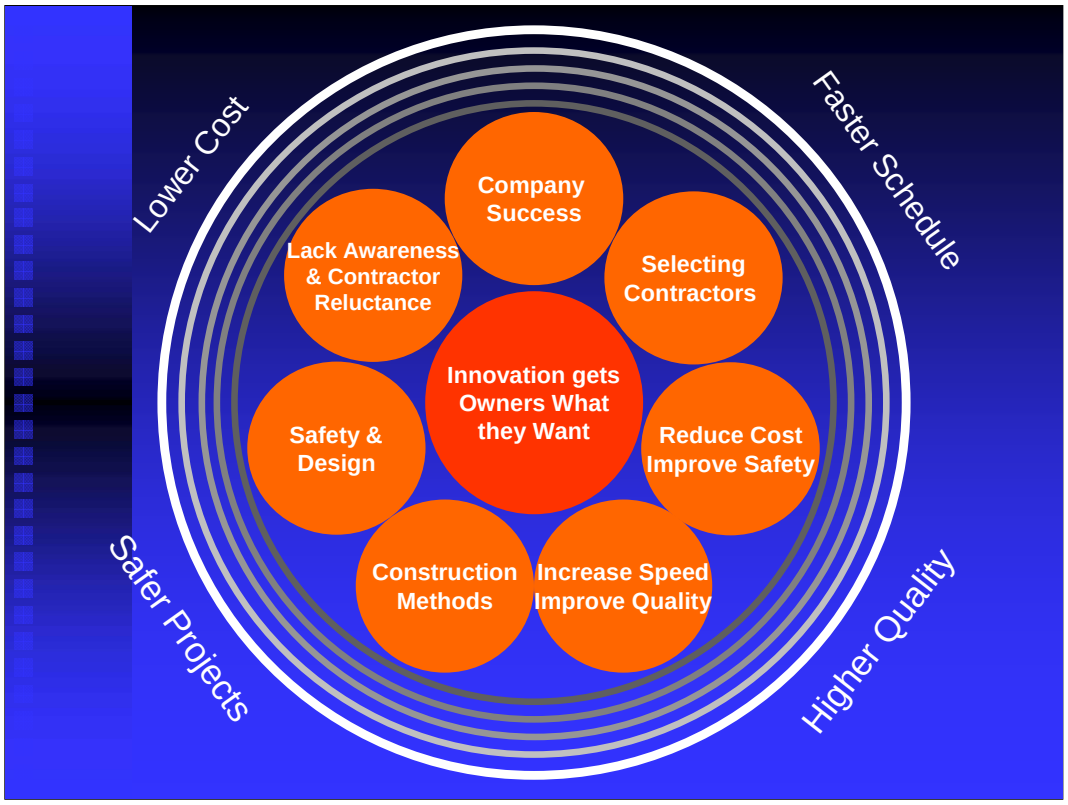
•Design at #3 in fact, Owners/CURT noted in the 2003 ENR article that the design community, like the contracting community, is not taking advantage of technological innovation.



•Finally, when asked what the greatest barriers are to incorporating innovations in their construction projects:

•46% of CURT/Owners pointed to Lack of awareness of applicable innovations, and

•30% indicated that Reluctance on the part of contractors is also a main barrier. Some of CURT/Owners added that this was likely due to contractors avoiding the risk of being the "first to try something different."



•As stated earlier, we believe that you get what you ask for. As Owners and Members of CURT you can and ARE DRIVING improvements in the construction industry that have and will continue to bring about progressively better Industry Practices.

•Owners/CURT Driving construction innovation can lead to:

More Cost effective projects

Faster Schedules

Safer Projects and

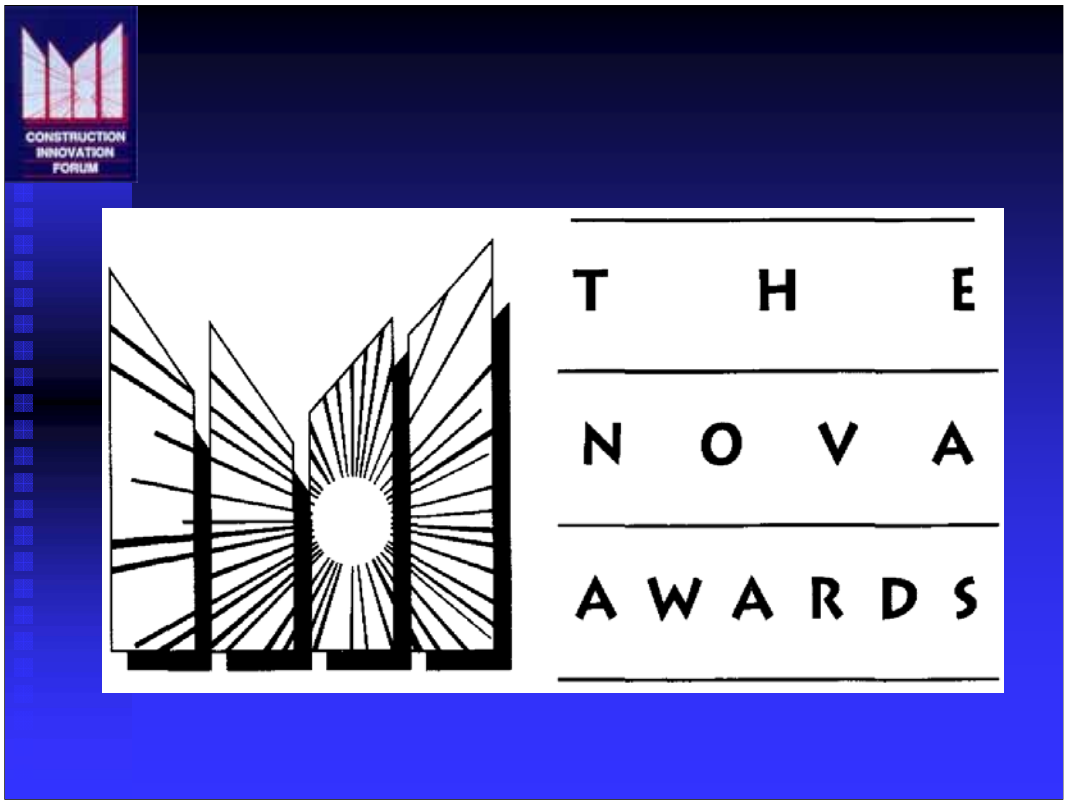
Higher Quality Work

CONSTRUCTION
INNOVATION
FORUM
CONSTRUCTION
INNOVATION
FORUM®

Next, we will discuss the Construction Innovation Forum's various efforts to deliver construction innovations to you, the Owners, and the construction industry

CIF is a grass-roots, all inclusive, industry wide organization formed in 1986 to recognize and encourage innovation in construction.

CIF created the NOVA Awards in 1989 to recognize the most outstanding innovations worldwide that have proven to improve quality and reduce costs.

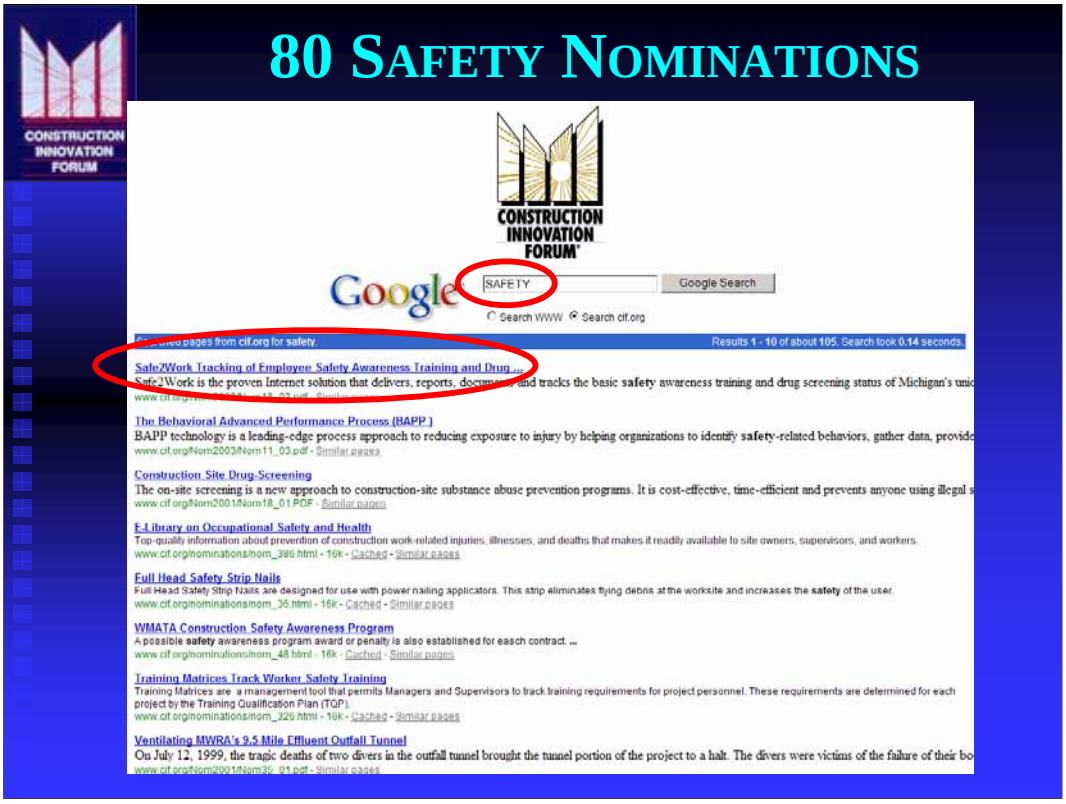


The CIF is particularly known for presenting the NOVA Awards each year to innovations from around the world that have proven to save cost and increase quality of construction.

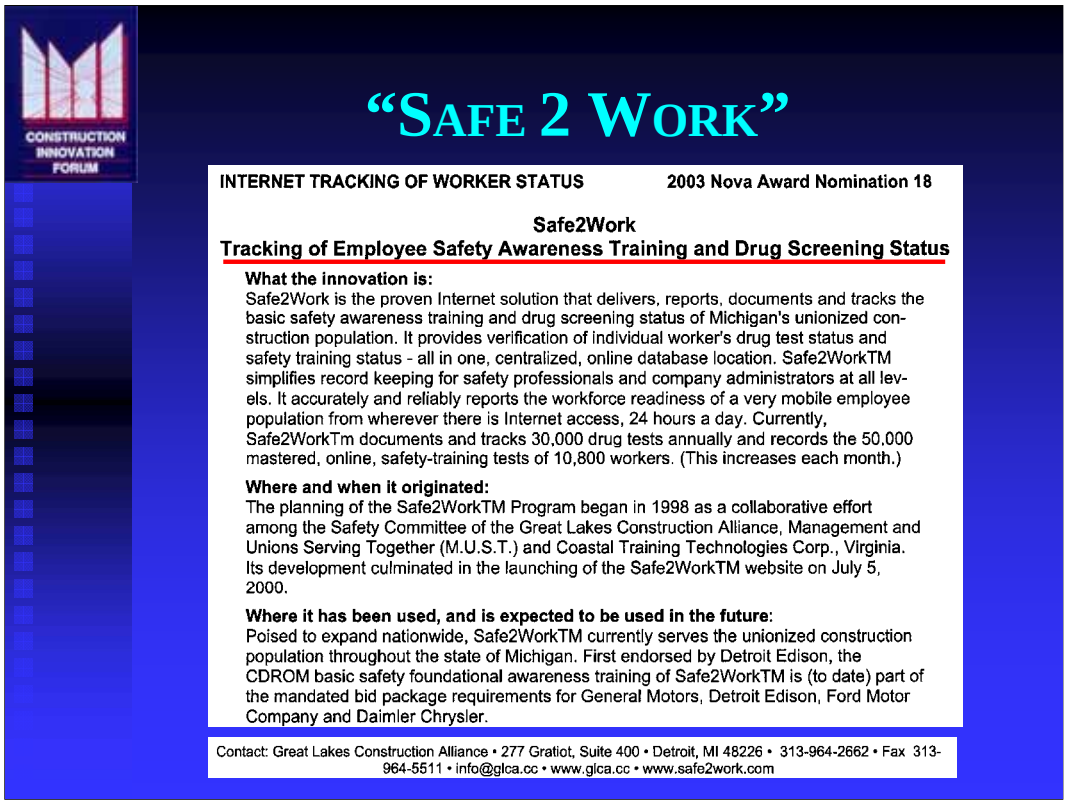
The 16th Annual NOVA Awards were presented in November 2005.

- **Among construction awards, the NOVA Award is unique.**
- **First, it addresses the full breadth of facility construction and maintenance.**
- **Second, CIF itself identifies important innovations and directly solicits their nomination. This produces two-thirds of the nominations received.**
- **Third, the 505 nominated innovations form a unique database.**
- **Fourth, national Jury selects a short-list of the best 7 to 10 innovations for in-depth CIF investigation.**
- **Fifth, the Jury selects NOVA Award winners based on the investigations.**
- **Sixth, CIF prepares a script and a video on each winning innovation, which is shown at the Banquet and distributed broadly.**

80 SAFETY NOMINATIONS



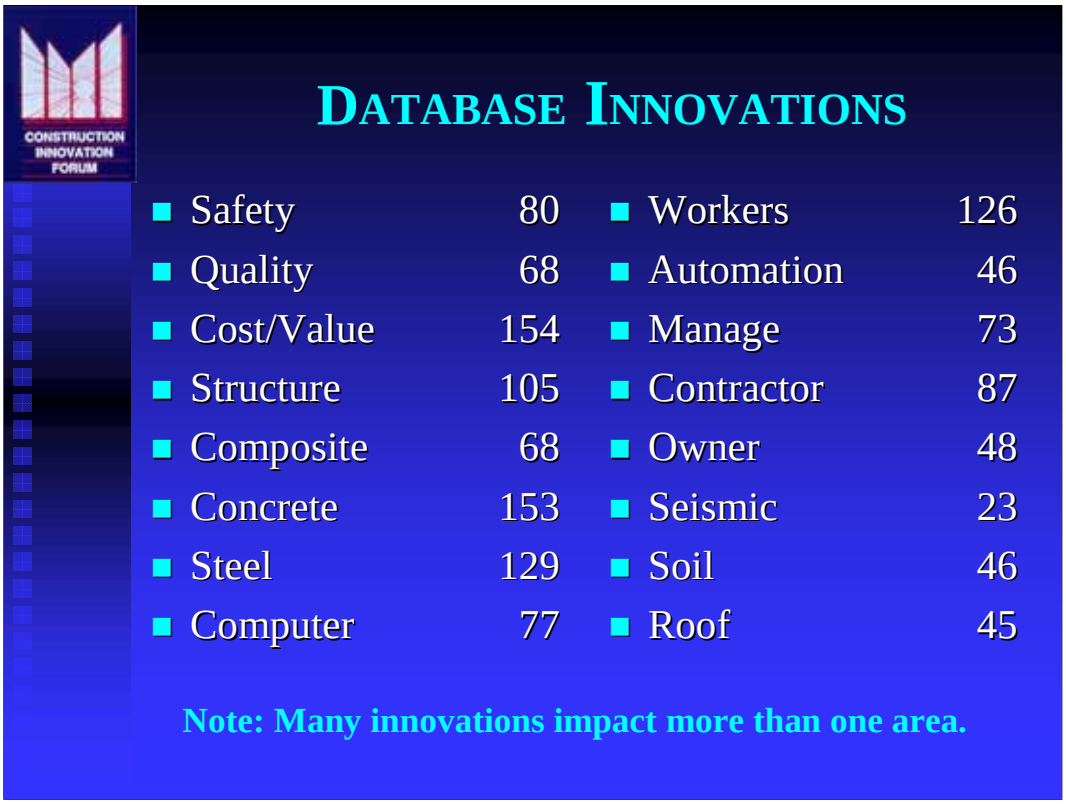
- **The "search" hyperlink at cif.org links to a Google search of the CIF database.**
- **Entering one or more keywords, "safety" in this example, pulls up a list of relevant innovations, shown here, of which there are 80 innovations involving safety.**
- **Each item's hyperlink, "Safe2Work" in this example, links to a description of the innovation and a point of contact for additional information.**



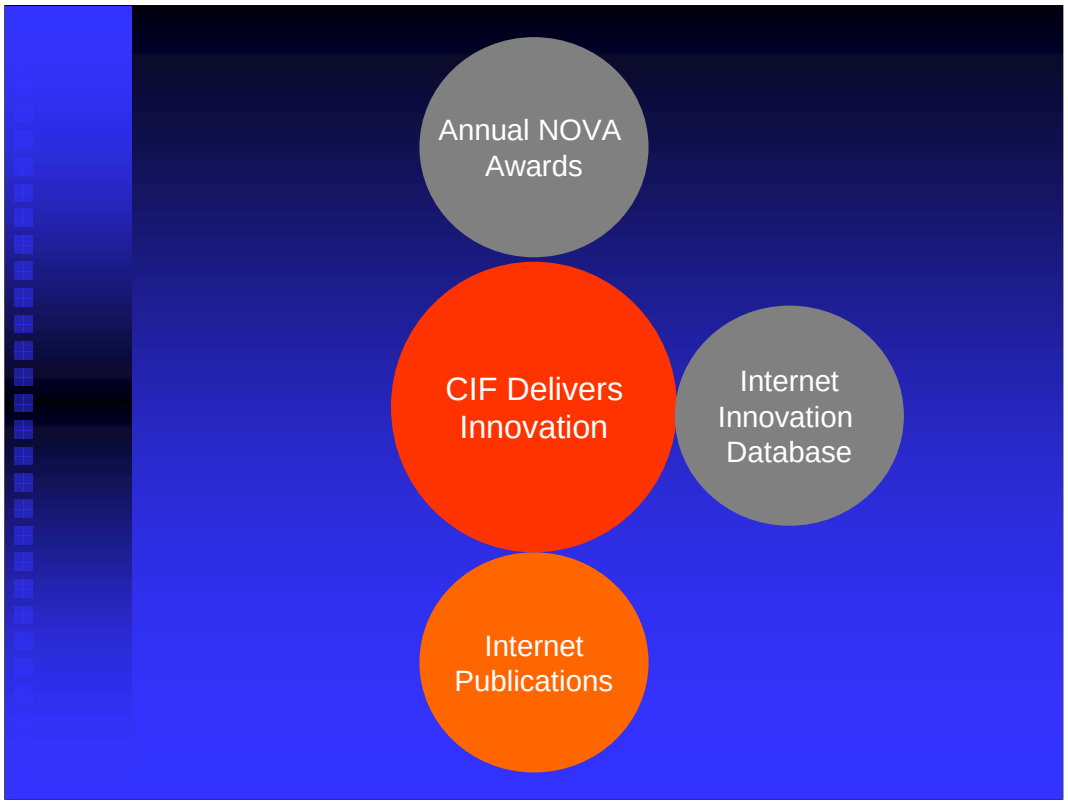
•The "search" hyperlink at cif.org links to a Google search of the CIF database.

•Entering one or more keywords, "safety" in this example, pulls up a list of relevant innovations, of which there are 80 innovations involving safety.

•Each item's hyperlink, "Safe2Work" in this example, links to a description of the innovation and a point of contact for additional information.



There are many innovations in the database on any construction topic



•<u>The CIF freely distributes publications via the internet</u> on innovations and construction innovation research.

•NOVA Award investigation reports are also available to researchers upon request.

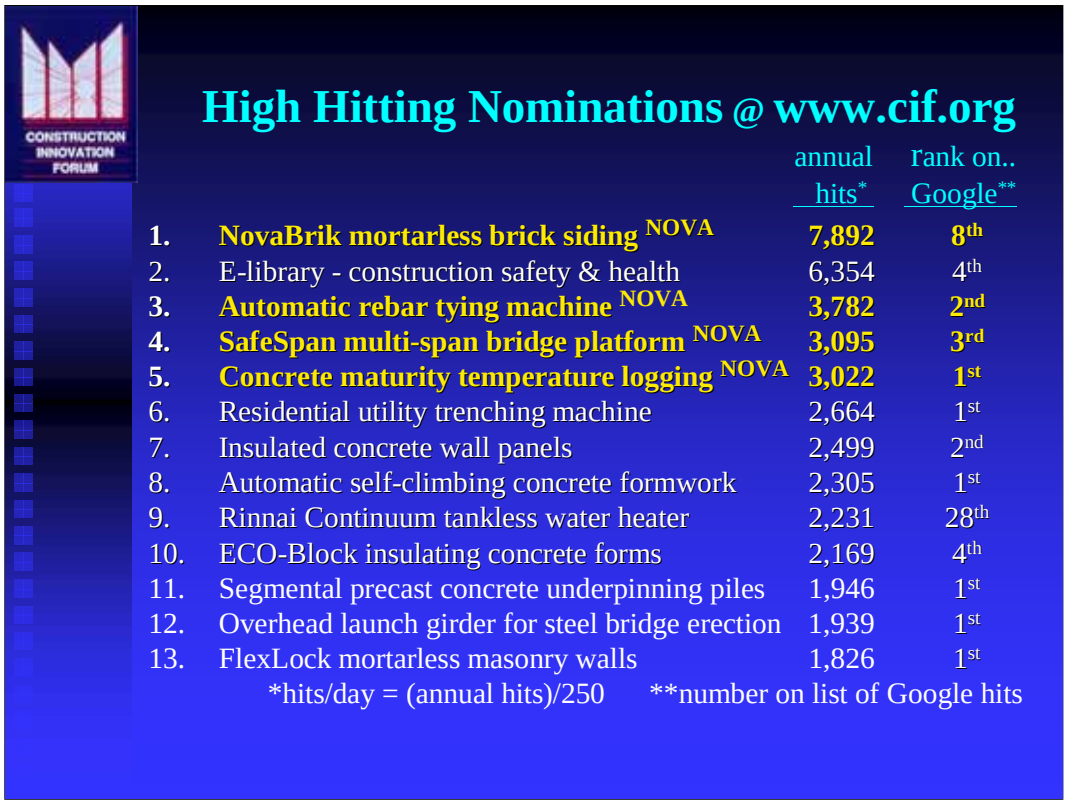
•The CIF freely distributes publications via the internet on innovations and construction innovation research.

•NOVA Award investigation reports are also available to researchers upon request.

The www.cif.org home page receives 70,000 unique hits/visits yearly = 280 / work day.

The primary CIF information is the set of 505 innovations nominated for the NOVA Award, which receive 280,000 unique hits / visits yearly = 1,120 / work day.

Thus, www.cif.org is heavily used world wide as the primary database resource of construction innovations.



Listed are the 13 most heavily visited Nova Award nominated innovations of the 505 in the CIF database.

Particularly notable are two items:

•4 of the 13 are Nova Award winners, and 9 are not,

•which indicates that the value and quality of the innovations in the CIF database go far beyond those that have won the NOVA Award.

•**<u>Looking back 17 years, the CIF invented the term “construction innovation,” and its NOVA Awards proved “construction innovation” was alive and important and not just an oxymoron.</u>**

•**The CIF assists other construction innovation awards and organizations, such as the CERF Construction Innovation Centers and the Charles Pankow Innovation Award.**

•**Just as the BRT CICE project inspired CERF, CII, CIF, and CIFE, the CIF and NOVA Award inspired a host of construction innovation initiatives worldwide, including those shown here.**

•Looking back 17 years, the CIF invented the term "construction innovation," and its NOVA Awards proved "construction innovation" was alive and important and not just an oxymoron.

•<u>The CIF assists other construction innovation awards and organizations, such as the CERF Construction Innovation Centers and Charles Pankow Innovation Award and the Turner Prize for Innovation</u>

•<u>Just as the BRT CICE project inspired CERF, CII, CIF, and CIFE, the CIF and NOVA Award inspired a host of construction innovation initiatives worldwide, including those shown here.</u>

•Looking back 17 years, the CIF invented the term "construction innovation," and its NOVA Awards proved "construction innovation" was alive and important and not just an oxymoron.

•The CIF assists other construction innovation awards and organizations, such as the CERF Construction Innovation Centers and Charles Pankow Innovation Award and the Turner Prize for Innovation

•Just as the BRT CICE project inspired CERF, CII, CIF, and CIFE, the CIF and NOVA Award inspired a host of construction innovation initiatives worldwide, including those shown here.

•The annual NOVA Awards provide the pinnacle of construction innovation recognition, honoring innovation across the full breadth of construction world wide.

•The Google/Yahoo searchable Innovation Database of 505 unique innovations is heavily used world wide by construction professionals working to increase quality and cost effectiveness.

•CIF publications, primarily distributed freely to all from the CIF web site www.cif.org are an objective source of information on construction innovation.

•CIF's success at recognizing and encouraging innovation in construction has generated a tide encouraging and recognizing construction innovation that raises construction boats across the world.