

# 100KIN10 IS A NETWORK DESIGNED TO FUEL THE NEXT GENERATION OF INNOVATORS AND PROBLEM-SOLVERS BY PROVIDING AMERICA'S CLASSROOMS WITH 100,000 EXCELLENT STEM TEACHERS BY 2021, WHILE SUPPORTING TENS OF THOUSANDS MORE.

100Kin10 challenges a broad cross-section of America's best organizations to take action toward the goal of 100,000 excellent STEM teachers. The 150+ leading organizations from across sectors have designed and taken on specific pieces of work to help achieve the goal while committing to collaborate in new ways to better solve challenges that stand in their way.

100Kin10 is not your grandfather's coalition. It's a new model for how to take on and achieve an ambitious national goal—networked and collaborative, derived from and amplifying the unique strengths of its diverse and powerful partners.

100Kin10: Together, we'll solve it.

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### IN 2013

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We became an independent organization with a sharper strategic focus.

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We brought dozens of new partners into our national network.

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We discovered new ways to act collaboratively and amplify our work.

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We set the stage for learning and for sharing lessons with the field.

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We provided more funding to our partners and smarter ways for them to access it.



In January 2011, President Obama issued a challenge to the nation in his State of the Union Address:

"Over the next 10 years, we want to prepare 100,000 new teachers in the fields of science and technology and engineering and math."

That call for excellent STEM teachers magnified various reports of the past decade and resonated widely around the country. The President's words confirmed what many of us knew already: that the future of America's young people depends on strong STEM skills and knowledge—and that great teaching is the single most powerful tool for transforming our schools and expanding opportunity. The question was, how would our educational system respond?

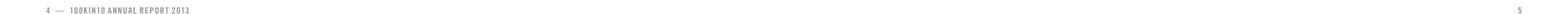
What was needed, we saw, was a response that was coordinated without being top-down or lock-step, that would tap into and combine the strengths of many organizations, that would be disciplined while also encouraging innovation.

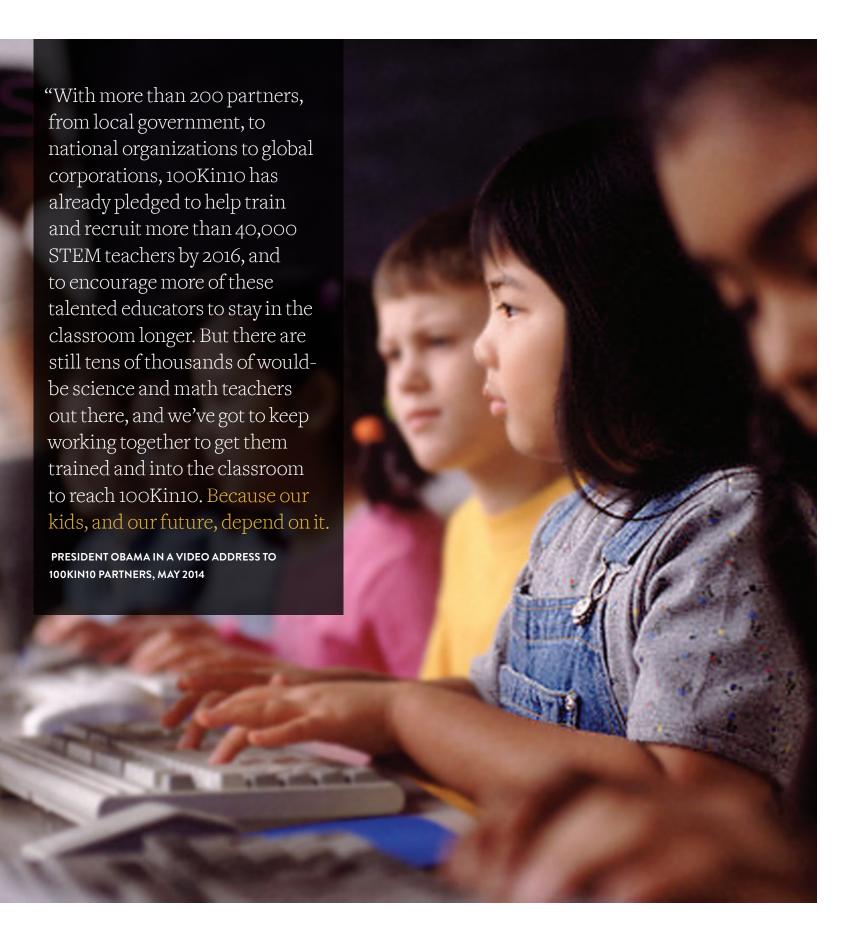
We believed that a strong response would pull together some of the nation's most respected practitioners and thinkers in STEM teaching and learning and encourage them to stretch—both in what they committed to do individually and in their willingness to work together, even in unconventional ways. We also knew that an effective response would not be driven by numbers alone. Training thousands of excellent new teachers would mean very little if they

chose to leave the profession, as many currently do, after only a few years. The solution would lie in addressing quality and quantity simultaneously, using a coordinated strategy to bring promising STEM educators into the teaching force; encourage excellent STEM educators to stay, grow professionally, and inspire more students; and build a movement to support both those teachers and their students.

By June 2011, a group of founding organizations had come together and launched 100 Kin10, with leadership from Carnegie Corporation of New York and the Institute for Advanced Study. By December 2013, there were over 165 organizations committed to taking up this challenge. The needs of the network had outgrown its home at Carnegie Corporation.

At the very end of 2013, 100Kin10 became an independent organization, incubated at the National Center for Civic Innovation and with core funding from Carnegie Corporation of New York, the S. D. Bechtel, Jr. Foundation, and NewSchools Venture Fund. With full-time focus and dedicated staff, we now have even greater capacity to stimulate change and support partners to succeed.







### 150+ PARTNERS, A NETWORKED APPROACH

100Kin10 is a multi-sector network of partner organizations, including foundations and nonprofits, corporations and universities, museums, school districts, states and federal agencies, all of them leaders in their fields. In 2013, we added 39 new partners to our expanding network, reaching a total of more than 165 organizations.

Each 100Kin10 partner has made a unique, above-and-beyond commitment to improve STEM learning for all students. To ensure that their individual efforts are mutually reinforcing and add up to widespread, sustainable change, our partners work across three strategic areas:



INCREASING THE SUPPLY OF EXCELLENT STEM TEACHERS



### HIRING, DEVELOPING AND RETAINING EXCELLENT STEM TEACHERS



BUILDING The movement



### **SPOILER ALERT**

By June 2014, our network had reached 200 organizations. See a full up-to-date list of 100kin10 partners at the end of this report.

Prospective partners are nominated by current 100Kin10 members. As nominees craft their commitments, we encourage them to think big—to imagine what it will take to attract, prepare, and retain excellent STEM teachers in American classrooms at an unprecedented scale. We also stress the importance of being both smart and bold. We select partners whose proposed actions offer compelling solutions to real problems; we also look for commitments that are specific, measurable, relevant, and attainable within five years or less. In addition to fulfilling their commitments, partners work and learn together as part of a networked approach to systemic change.



# PARTNER GROWTH



### **SPOILER ALERT**

Round 4, January 2014
33 new programmatic partners
make 44 unique commitments
to the shared goal.

100Kin10 has grown from a founding group of not even 30 organizations to 200 partners, each contributing to the goal of 100Kin10 by 2021.

### Spring 2011

### LAUNCH

25 new programmatic partners make 43 unique commitments to the shared goal.

### January 2012

### **ROUND 2**

35 new programmatic partners make 47 unique commitments to the shared goal.

### September 2011

### **ROUND 1**

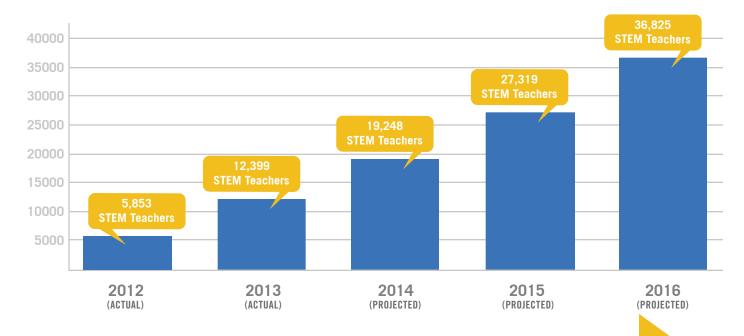
44 new programmatic partners make 94 unique commitments to the shared goal.

### January 2013

### **ROUND 3**

39 new programmatic partners make 54 unique commitments to the shared goal.

### THE FIRST FIVE YEARS OF THE EFFORT: STEM TEACHERS TRAINED BY 100KIN10 PARTNERS



100,000 Excellent STEM Teachers by 2021

# FEATURED PARTNER COMMITMENTS



### **MICHIGAN STATE UNIVERSITY**

Will recruit and prepare 500 middle- and highschool STEM teachers by 2015, and will also prepare 150 elementary teachers as STEM specialists to address the critical need for preK-6, high-quality STEM instruction.

### **NEW VISIONS FOR PUBLIC SCHOOLS**

Will partner with a total of 15 high-need, effective schools and science and mathematics institutions each year to prepare 300 non-traditional science and mathematics teacher candidates by 2016 in a clinically-rich certification program to increase student achievement in mathematics, biology, Earth science and chemistry.



### HILLSBOROUGH COUNTY PUBLIC SCHOOLS

Will train and retain 3,000 effective K-12 STEM teachers to use their knowledge and an innovative implementation of the Common Core State Standards and the Next Generation Science Standards to prepare students for college and career success by 2018.

### **NEW LEADERS, INC.**

Will recruit and provide leadership training to 835 in-service STEM teachers by 2018 through the Emerging Leader Program to increase the retention and effectiveness of high-quality STEM teachers, impacting 200,000 low-income and minority students



### CHARLES A. DANA CENTER

Will work to improve teaching and learning in half of all math and science classrooms in 8-12 large urban districts and to provide high-quality resources that enable districts to scale improvements to all math and science classrooms by 2018.

### DONORSCHOOSE.ORG

STEM teacher innovation at public middle- and high-schools by Spring 2014, delivering \$15 million in critical STEM classroom resources to 600,000 students nationwide.



### WORKING TOGETHER FOR CHANGE

The challenge we face—to build a teaching force with the capacity to transform STEM learning—is enormous. Meeting it demands that we work together, among organizations and across sectors, to expand opportunities for millions of students.

We believe that a network of like-minded organizations can move the needle farther and faster than individual groups could do on their own. Since our founding in 2011, we have experimented with innovative yet practical ways to catalyze the collective power and creativity of 100 Kin10 partners. In 2013, that work really took off.



### **ANNUAL SUMMIT**

Once a year, 100Kin10 partners and key allies get together for a day of high-powered brainstorming, networking, and learning. We also invite leaders and thinkers from outside education to take part to cross-pollinate our thinking with ideas and approaches that are driving innovation in other fields. Most important, our summits "flip the script": partners act as both experts and participants, leading sessions on the things their organizations do best or on the most difficult problems they face.

### **2013 HIGHLIGHTS**

Our second annual summit, held in April 2013 at the Museum of Science and Industry in Chicago, featured nearly 40 partner-led sessions, along with a thought-provoking welcome from Mayor Rahm Emanuel, an intriguing discussion of big data and the changing nature and multiple uses of statistics with writer-statistician Nate Silver, and lightning talks by leading scientists and innovators—Astrophysicist Lucianne Walkowicz, University of Chicago Psychology Professor Sian Beilock, GoldieBlox Inventor Debbie Sterling, and Science Storyteller and Director of The Story Collider Ben Lillie.



### SPOILER ALERT

In May 2014, we convened our third annual Summit at the Exploratorium in San Francisco, kicking off the day with a surprise video from President Obama himself. Special guests included Tom Kalil, of the White House Office on Science and Technology Policy, National Geographic Society Explorer-in-Residence Sylvia Earle, and Black Girls Code founder Kimberly Bryant. Partners determined the content of the day, once again creating and leading all breakout sessions and setting the topics for design workshops on the biggest barriers in STEM teaching.

# CREATIVE SESSIONS FROM 2013 SUMMIT



### CAN MORE SCHOOLS BECOME GREAT PLACES TO WORK? LESSONS FROM GOOGLE

Google works hard to help its employees be productive, innovative, happy, and healthy and has been named 'Best Company to Work For" in the US four times. In 2012, Google ran a pilot program to see if HR and leadership practices from the corporate sector could be transferred to districts and CMOs. The session will cover findings from the pilot, tips for attracting and retaining great STEM teachers, and strategies for expanding the national dialogue on this important topic.



### MAXIMIZING THE IMPACT OF EXCELLENT STEM TEACHERS

Once 100Kin10 partners recruit excellent people into STEM teaching, how can you maximize their impact. This session will explore emerging school designs that reorganize teacher roles and use technology to enable great teachers to reach more students, directly or by leading and developing their peers, and earn more by doing so. Participants will imagine new ways of "doing school" to create new, paid career paths that attract and retain the best STEM talent.



### DATA DRIVEN INSTRUCTION IN A COMMON CORE WORLD: INSIGHTS FROM OUR BEST SCHOOLS

he Common Core will require teachers to master new standards and understand how well students are earning material with greater precision. This session will share lessons from eight years of helping teachers use tandards and data in math to shape their instruction. It will cover routines and structures that help teachers lan effectively from standards, use data to understand students' mastery, and take action to address the eeds of each student.



### **COLLABORATION GRANTS**

Our quick-turnaround small grants are designed to give partners ready access to the funds they need to work together and explore an idea, tackle a problem, or sketch out a project to advance their work. Meet-up grants cover expenses for face-to-face gatherings, while joint planning grants help partners develop a concrete, collaborative piece of work. By the end of 2013, we had distributed over \$130,000 through 22 collaboration grants benefiting nearly 50 partner organizations.

### **2013 HIGHLIGHTS**

The Maryland Business Roundtable for Education used a 2013 joint planning grant for a collaborative design workshop, during which ten partners mapped content for a new online platform to support Maryland teachers during implementation of the Common Core. The new content will be accessible on the platform throughout 2014, with hundreds of Maryland teachers attending a summer training to learn how to use and take advantage of the platform.

With funding from a collaboration grant, High Tech High, Illustrative Mathematics, and Mathalicious got together over the summer to dig into curriculum planning for Common Core implementation in math. With their partnership off to a healthy start, Illustrative Mathematics secured funding from the William and Flora Hewlett Foundation, a 100Kin10 funding partner, to work with Mathalicious to organize into units the Common Core Standards.

After participating in collaboration grant activities with several other California-based partners, California State University and Encorps Teachers Program decided to partner more closely in recruiting candidates and expanding the opportunities and resources available through their programs.



### **SOLUTION LABS**

A Solution Lab is a forum for stimulating collaborative problem-solving and focused co-funding. We begin the process by working with partners to zero in on a challenge to be solved through collective action. We target system-level challenges that multiple partners face but that are currently being solved in isolated, redundant ways, if at all. Our goal is to create a mini-market that can aggregate capital to enable bigger, smarter solutions than any partner could afford or access on its own. We then invite partners and a select group of expert, pro bono advisors for a rigorous, fast-paced planning session, during which participants map out a shared project or product that multiple partners are willing to co-fund with their own resources. 100 Kin10 serves as convener and facilitator, helping bring the product to market.



### SPOILER ALERT

In January 2014, we launched a successful co-funding strategy to pay for Cultivated Wit's services, raising >\$125K from partners to cover the projected costs of the campaign.

### **2013 HIGHLIGHTS**

Recruiting excellent STEM teacher candidates is a task districts and teacher prep programs have always faced on their own. In our first-ever lab, partners and top-notch media firms framed an actionable piece of the challenge: develop national communications strategies and messages that will intrigue this sought-after group of STEM undergraduates and recent graduates and draw them to STEM teaching. A committee of partners developed an RFP and a broader group selected a media firm, Cultivated Wit, to develop the campaign strategy and materials. We also began to plan our next lab, a March 2014 session on a truly cutting-edge challenge: managing organizational change during the implementation of the Common Core and Next Generation Science Standards. Dozens of high-performing organizations committed to send representatives to help frame the strategy.



### DRIVING LEARNING AND IMPROVEMENT

100 Kin10 infuses research and learning through all the activities of the network. We aim to be a force for change—and also a force for understanding how change happens. When President Clinton spoke to 100 Kin10 partners in early 2012, he captured this potential, saying:

"If all you do is give us a hundred thousand teachers to assure America's continued prosperity and growth for the next thirty years, that may be worth a lifetime, but if you do it in a way that causes more people to understand . . . the essential characteristic of cooperation in building alliances so that everybody's money goes farther and their good ideas get spread and our not so good ideas get dropped, you may literally change the future of this country and the future of the non-governmental organization movement and the world."

2013 was a pivotal year for building our collective R&D capacity. Most notably, we worked together to create a new tool—the 100Kin10 Shared Measures Annual Survey—for collecting coherent data about the STEM teaching work of all our partners. There is nothing like it in the education field.



### **SHARED MEASURES ANNUAL SURVEY**

The Shared Measures Annual Survey is designed to gather deep, comparative information from across our partners about strategy, context, practices, research, and outcomes. Organized to follow the six stages of a teacher's professional life—recruitment, preparation, hiring, induction, development, and advancement—the survey assembles data from all 100Kin10 partners and opens up myriad opportunities for learning and improvement. This unique resource will enable new insights into what is and isn't working in our collective efforts with STEM teachers.

The Shared Measures Annual Survey was co-designed in 2013 by more than 40 partners, who carefully drafted survey content or contributed structured reviews. Partners co-constructed the survey in rounds, passing the drafts forward, from one to the next, like batons in a relay race, adding, changing, tweaking, and deleting. To help us close in on a final product as quickly as possible, we asked each contributor to actively advance the draft, not just leave critiques and unanswered questions.



#### SPOILER ALERT

Our first Shared Measures Annual Survey was distributed to partners in early 2014. We are approaching a 100% response rate and presented early analytics at the annual summit in May. Toward the end of the design process, more than 100 partners came together to workshop the Shared Measures Annual Survey and inform how the data will be used, how findings will be shared, and what types of information will be kept confidential. IDEO kept things interesting with a pirate-themed set of activities (it was the day before Halloween, after all) that helped clarify what we really wanted to know about one another's work.

Partners' enthusiastic engagement throughout the design process bodes well for the quality of the information we expect to gather. We look forward to digging into this rich treasure chest of data together.

"Finally, somebody is going to ask...questions about programs around the country, not only what they're doing, but also how they're doing their work."

"Finding common ways to measure and discuss progress has been quite a challenge, but also an incredible opportunity; it has really pushed my own thinking."

"This project is leveraging the power of the entire 100Kin10 network. The results will move us closer to fulfilling our shared commitment [and] to doing everything we do better every day."



### **RESEARCH COMPETITIONS**

Our research design competition gives partners a chance to carry out investigative projects using randomized control trials to generate rigorous, practical, high-quality evidence of the efficacy of their work. Partners propose research designs for evaluating specific components or practices and for pinpointing the conditions that enable success. The winners get expert assistance from leading social-science researchers at the University of Chicago Urban Education Lab (UEL) to design the intervention and study it, as well as a \$100,000 award.

The 2013 winners, California State University and Mathalicious, are working with UEL to study particular interventions that each organization is using with local school districts during the transition to the Common Core State Standards in mathematics. Mathalicious is providing access to real-world lessons and optional online support and development for teachers from 52 middle and high schools in three Virginia school districts; CSU is engaging treatment teachers in "lesson study" professional development activities designed to promote higher-order thinking and conceptual understanding among students in grades 2-6.



#### SPOUER ALER

The winner of our 2014 competition was announced in May. The Charles A. Dana Center, in partnership with Agile Mind, will test the effectiveness of teacher training techniques that explain the psychology of student success in math. Again, UEL will supply research expertise, and the Dana Center, like both the California State University system and Mathalicious, received a \$100,000 award.



### SMART, TARGETED FUNDING



### SPOILER ALERT

Fund III opened in January 2014 with initial pledges of \$5 million.

Funders are an essential part of 100Kin10. Our network is intentionally structured to enable dynamic, learning-oriented relationships between donors and partners, and those connections seem to be taking root. We see evidence that partners are beginning to benefit from economies of scale and that the priorities of funders and others are coming into closer alignment. An important tool for this work is our funding registry, which lets partners place their ideas before a wide range of funders at an early stage of development. This straightforward approach saves time and effort for everyone and expands funders' vantage on emerging needs in STEM teaching and learning. We also coordinate "funding office hours" to advise partners on funder priorities and grant-seeking strategies.

Since our launch in 2011, we have raised more than \$52 million, organized into two funds, to support the work of our partners. Each fund is a collection of pledges, not a pooled fund—meaning that commitments are dispersed at the discretion of individual funders. By the end of 2013, 27 funders had awarded nearly \$32 million through 106 grants.

### SELECT FUNDING PARTNERSHIPS PROMPTED BY 100KIN10 IN 2013

### MUSEUM OF SCIENCE AND INDUSTRY + NOYCE FOUNDATION

nnovative science center-school district partnership for sustained science teacher professional development

# SESAME WORKSHOP + CA TECHNOLOGIES, S. D. BECHTEL, JR. FOUNDATION, AND HEISING-SIMONS FOUNDATION

Online STEM hub - "Little Discoverers: Big Fun with Science, Math, and More" - for preschool educators

### RELAY GRADUATE SCHOOL OF EDUCATION + CARNEGIE CORPORATION OF NEW YORK

Online STEM-specific training modules for high school teachers and STEM immersion coursework for under-credited math and science teachers

## THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES (MATHEMATICS TEACHER EDUCATION PARTNERSHIP) + THE LEONA M. AND HARRY B. HELMSLEY CHARITABLE TRUST

mprovements in the preparation of secondary math teachers, in response to the implementation of the



### **FUNDING COMPETITIONS**

In 2013, we managed five specialized funding competitions directed exclusively toward 100 Kin10 partners, thus expanding available funding mechanisms beyond the registry to award 19 distinct grants to 16 organizations, totaling nearly \$1 million in support for partners' work. Each competition was designed to stimulate and incentivize a strand of work of particular interest to the field and the funding partner.

JPMorgan Chase sponsored a competition to award \$100,000, through four grants of \$25,000 each, to partners working in Southern California or South Florida. Each winner also needed to identify matching funds, doubling the impact of the JPMC commitment. One went to Torrance Unified School District to provide targeted training and support to empower teacher leaders to improve the district's math outcomes.

Carnegie Corporation of New York, the S. D. Bechtel, Jr. Foundation, and NewSchools Venture Fund offered 12 grants through three separate competitions for innovations in STEM teacher preparation, for a total of \$700,000 in support.

The Fund of Funders – the Jeffrey H. and Shari L. Aronson Family Foundation, Tammy and Jay Levine Foundation, and Samberg Family Foundation – awarded \$150,000 in grants to three partners working in the State of New York as risk capital for developing innovative ideas or facilitating collaboration.



### **SPECIAL FUNDING FOR 100KIN10 PARTNERS**

In late 2013, the New York State Attorney General directed a \$7.5 million settlement from the Pearson Charitable Foundation for projects by 100 Kin10 partners in New York and other states that recruit, retain, and support excellent K-12 STEM teachers. Grants will be recommended by 100 Kin10 and awarded by the Attorney General's office.



100 Kin10 has taken the national call for 100,000 STEM teachers and given it an explicit focus—not just on numbers, but on quality and excellence. Our partnership has brought significant national attention to the need to recruit and retain excellent STEM teachers at an unprecedented scale and has emerged as an innovative, effective, and highly recognized vehicle for raising the issue of STEM education nationally and locally. 100 Kin10 has been cited by the Washington Post, USA Today, Smithsonian, Education Week, Science Magazine, and GOOD Magazine, among others, and has twice been recognized onstage at Clinton Global Initiative: America.

In late 2013, the <u>New York Times</u> called 100Kin10 "the most important effort" happening today in STEM teacher preparation.

Through 100Kin10, organizations have begun to work together—often in new ways, through structured or more informal partnerships—to strengthen their work and advance the wider field. 100Kin10 is committed to strengthening opportunities available to partners.

We have become a marquee example of collective impact, cited in profiles and case studies by groups such as Grantmakers for Effective Organizations, whose publication "Strategic Co-Funding: An Approach for Expanded Impact" uses 100Kin10 as its leading example of "targeted co-funding." Our unusual structure has enabled dozens of organizations to participate in addressing an ambitious national goal while also maintaining their distinctive identities.



We have set an ambitious agenda for our first full year as an independent organization. Our new Partner Advisory Council will expand and formalize the role of partner organizations in guiding the 100Kin10 network. Data gathered through our first annual partner survey will form the basis of a full-fledged learning and improvement agenda. We will further develop our Solution Lab model, as we launch the first shared effort—the co-funded Cultivated Wit recruitment campaign—and monitor its progress—and kick off a second project on change management for implementing the new academic standards; we have a hunch this model will work for other challenges, too, and we will look for those in the year ahead. On the funding front, we anticipate creating new ways for programmatic partners and funding partners to collaborate for change by improving the operation of our funders' collaborative.

We will also continue to get together, share ideas, compare notes, laugh a little, and keep on going. We intend to meet our shared goal of 100,000 excellent STEM teachers by 2021, leveraging the power of our collective-impact approach.



### IN 2014

We will give partners a more decisive leadership voice.

We will strengthen the connections that make our network strong.

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We will stimulate even greater innovation and problem-solving among our partners.

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We will push our shared knowledge and step up our ability to drive learning and improvement.

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We will find new ways to link great ideas to ambitious, visionary funders.

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We will leverage the power of our network and maintain focus on our shared goal: 100,000 excellent STEM teachers to deliver high-quality

STEM learning for all students.

100Kin10: TOGETHER WE'LL SOLVE IT

