

Focus on the Bright Spots

What we learned on the 2010 Greater Philadelphia Leadership Exchange to the Bay Area

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A REGION ON THE EDGE, BUT UNDETERRED BY DARK SPOTS

Let's begin at the end. On the final day of our visit to the Bay Area in September, I asked members of the Greater Philadelphia Leadership Exchange for examples of our region's "bright spots." Immediately, a dozen hands shot up around the room. (What's a "bright spot"? See pp. 20-21.)

We quickly rattled off a long list of strengths: our universities, our industries, our parks and neighborhoods. We talked about successful innovations in public education and regional advocacy. We considered our region's many partnerships that span myriad political and economic boundaries.

It's as if our trip had given everyone an optimism boost. In three short days, we had learned that the Bay Area's success depends on many things that Greater Philadelphia already has. Both regions have a strong base of knowledge-generating institutions. Both have a history of entrepreneurship and innovation. Both have global connections in science, industry, and education. Both offer residents a broad range of livable communities and a high quality of life.

In other words, we're both world class regions with world class resources. And, we're also faced with some of the same challenges. We're both sprawling regions full of competing interests. We struggle with troubled public schools, aging infrastructure, a shortage of skilled workers, shrinking public budgets, and persistent poverty. Faced with a global recession, neither region is creating jobs as it should. California's dysfunctional politics and budget process make Pennsylvania, New Jersey, and Delaware look like the poster children for good governance.

And yet in the face of these obstacles, the Bay Area's can do outlook persists, providing us with a refreshing and inspiring lesson. Innovators and entrepreneurs don't succeed by focusing on what doesn't work. Instead, even when surrounded by dark clouds, they look for the bright spots that show a way forward.

We have much to learn from this approach. In this issue of Insight, you'll meet an assortment of Bay Area innovators. They're entrepreneurs seeking new products, treatments, and technologies. They're networkers and matchmakers looking for partnerships and collaborations. They're investors and supporters seeking new ways to drive resources into companies and laboratories. They're public servants and dreamers. What they all share is a commitment to finding and replicating the bright spots in their fields. And while we have many similar leaders here in Greater Philadelphia, the Bay Area has a culture of networking and collaboration that magnifies the impact of such efforts. There, the walls between research and business are highly permeable. Investors, academics, scientists, and entrepreneurs scout each other's ranks for support and opportunity. If the Bay Area is an ecosystem, it's one whose species are wholly and unabashedly interdependent.

The very practices that we've been trying to encourage via the Leadership Exchange since our first learning visit to Chicago in 2005 are what drive the Bay Area's astonishing success. A class community depends on more than just great schools, smart government, or powerful businesses – it depends on great collaboration and innovative thinking across all sectors.

So enjoy this tour through a wide variety of West Coast innovations. You'll find them intriguing and impressive. But you won't find them wholly unfamiliar. We predict that they'll leave you with a new perspective on this region's assets, as well as of your own organization and its work.

After all, if there's anything to be learned from the Bay Area, it's not to get hung up on failure. Instead, look for success and replicate it. That's why in 2011, our Leadership Exchange will stay right here in Greater Philadelphia. We've got bright spots aplenty in the region that we call home – if we let them, they'll show us the path to success.



Steven T. Wray

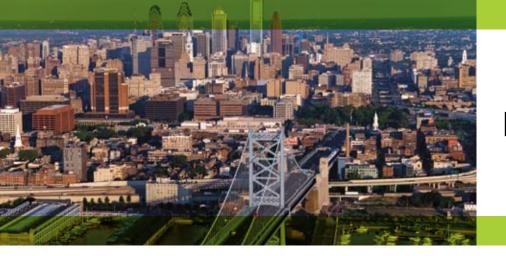
Executive Director

Economy League of

Greater Philadelphia

Devin J. W.





GREATER PHILADELPHIA &

	CITY/COUNTY OF SAN FRANCISCO	CITY OF SAN JOSE	City of Oakland	CITY/COUNTY OF PHILADELPHIA	SAN FRANCISCO-OAKLAND- FREMONT MSA	SAN JOSE-SUNNYVALE- SANTA CLARA MSA	PHILADELPHIA-CAMDEN- WILMINGTON PA-NJ-DE-MSA
Size (S <u>o</u> . Miles)	47	174	56	129.7	3,524	2,695	5,118
DEMOGRAPHICS	'						
POPULATION	815,358	948,279	404,155	1,547,297	4,317,853	1,839,700	5,826,742
White	55%	49%	37%	43%	46%	38%	68%
Black/ African American	7%	3%	30%	44%	9%	2%	20%
Asian	31%	31%	16%	6%	22%	29%	4%
Hispanic/Latino	14%	32%	25%	11%	20%	27%	6%
Foreign born	36%	39%	28%	11%	30%	37%	9%
Median age	40	36	37	36	38	38	38
MEDIAN HOUSEHOLD NCOME	\$71,957	\$79,796	\$48,596	\$36,222	\$73,581	\$83,793	\$58,309
Education							
No high school diploma	14%	17%	23%	20%	13%	7%	15%
HIGH SCHOOL DIPLOMA	15%	20%	20%	36%	19%	17%	32%
SOME COLLEGE	14%	18%	17%	16%	18%	17%	17%
BACHELOR'S DEGREE	31%	22%	20%	12%	43%	44%	31%
Graduate degree	19%	13%	15%	9%	17%	19%	12%
EMPLOYMENT BY OCCU	PATION						
MANAGEMENT, PROFESSIONAL, RELATED	-	-	-	-	44%	48%	40%
Service	-	-	-	-	16%	14%	15%
SALES AND OFFICE	-	-	-	-	25%	22%	27%
Farming, fishing, forestry	-	-	-	-	<1%	<1%	<1%
Construction, extraction, maintenance, repair	-	-	-	-	8%	8%	8%
Production, transportation, material moving	-	-	-	-	8%	9%	10%
Innovation (% of US	Avg.)						
PATENTS/100,000 PEOPLE		-	-	-	-	278%	1492% 92%
NSF/NIH FUNDING/CAPITA		-	-	-	-	221%	334% 166%
VENTURE CAPITAL FUNDING/CAPITA	-	-	-	-	1,302%	2,921%	120%
Research university enrollment/ 1,000 people	-	-	-	-	64%	72%	121%

THE BAY AREA BY THE NUMBERS



	CITY/COUNTY OF SAN FRANCISCO	CITY OF SAN JOSE	CITY OF OAKLAND	CITY/COUNTY OF PHILADELPHIA	SAN FRANCISCO-OAKLAND- FREMONT MSA	SAN JOSE-SUNNYVALE- SANTA CLARA MSA	PHILADELPHIA-CAMDEN- WILMINGTON PA-NJ-DE-MSA			
Infrastructure										
Air passenger Boardings/capita	-	-	-	-	6	3	3			
PUBLIC TRANSIT PASSENGER MILES/ CAPITA	-	-	-	-	507	153	323			
POPULATION IN HIGH-BROADBAND AREAS	-	-	-	-	95%	96%	68%			
Housing										
OWNER-OCCUPIED	39%	61%	43%	57%	58%	61%	71%			
VACANT	10%	4%	12%	43%	8%	5%	8%			
REAL ESTATE										
COMMERCIAL VACANCY	18%	25%	16%	14%	20%	19%	17%			
Crime (per 100,000 residents)										
Homicides	6	3	26	20	-	-	-			
CRIMES AGAINST PERSON	730	358	1,653	1,219	-	-	-			
CRIMES AGAINST PROPERTY	4,262	2,385	4,987	3,611	-	-	-			
QUALITY OF LIFE										
Average commute (minutes)	29	26	28	29	29	25	28			
PARKLAND (ACRES)	5,384	16,303	5,217	10,886	-	-	-			
ECONOMIC CONTRIBUTION										
	-	-	-	-	GDP 2% of US; 17% of CA	GDP 1% of US; 8% of CA	GDP 2% of US; 43% of PA			

Sources: Brookings Blueprint for American Prosperity; American Community Survey of the US Census Bureau; Bay Area Census; Federal Bureau of Investigation Uniform Crime Reports; analysis of data from the Trust for Public Land; Bureau of Labor Statistics; Bureau of Economic Analysis; Grubb & Ellis; Jones Lang LaSalle





Adapted from a presentation by Lenny Mendonca, Director, McKinsey & Company, to the Greater Philadelphia Leadership Exchange, September 15, 2010

Lenny Mendonca is a Director in the Washington DC and San Francisco offices of McKinsey & Company, a global management consulting firm. He sits on the Shareholders' Council of McKinsey (its board of directors) and for many years led the firm's knowledge development efforts overseeing the McKinsey Global Institute and the firm's communications which includes the McKinsey Quarterly. He has helped dozens of corporate, government, and not-for-profit clients solve their most difficult management challenges and has written and spoken extensively on globalization, corporate social responsibility, economic development, regulation, education, energy policy, health care, financial services, and corporate strategy. Also, Mendonca is the chairman emeritus of the Bay Area Council and is chairman of the Economic Institute of the Bay Area. And he serves on the boards of several national and regional policy organizations.

Based on the California Bay Area's experience, it's clear that we are all living in an incredibly interesting time. But without the right kind of leadership, we're heading for trouble. I'm deeply optimistic about the power of entrepreneurialism and innovation. But I have questions about the public sector's ability to respond to change and make the kind of smart, long-term investments that support a successful economy.

Increasingly, it looks like it will fall to people like us – business leaders, civic leaders, advocates for the public interest from all points of the political spectrum – to point the way to prosperity.

In fact, California's success was built on just such a movement. Fifty years ago, a coalition of leaders from both sides of the political aisle agreed on a broad agenda of public investment. The world class infrastructure and education systems we built after World War II helped make our economy the envy of the world.

But these days, California is not adequately focused on what's necessary for another fifty years of success. We're living off the legacy of what we've already done. That won't be good enough as the economic forces of the "new normal" take hold. The Bay Area is being buffeted by five trends that I believe will soon be felt nationwide, if they're not being felt already.

WE'RE TURNING BACK THE CLOCK

For the Bay Area's largest companies, overseas customers now account for 70% of sales. The global balance of power is shifting east, and the vast majority of growth in the decades to come will

be in Asia and Latin America. In many ways this simply returns us to the world of 500 years ago. The pattern of the last two centuries, in which Western growth drove the world economy, was in many ways an exception to the historical rule, and the impact of the shift to the developing world is going to be profound.

WE DON'T KNOW HOW TO PRICE OUR RESOURCES

With this eastward rebalancing, and particularly with the growth of a new middle class in the developing world, demand for food, energy, and scarce resources is going to rise. Our challenge will be to price those things so that we enable continued economic growth without sapping the planet. Here in California, we're already seeing what a struggle this will be. State laws requiring carbon emissions cuts survived a major challenge in the last election. Similar attempts to grapple with the real cost of consumption and growth will face more challenges and redefinition in the years to come.

GLOBALIZATION HAS COME HOME

Like our economy, our workforce and our population are globalizing. The second largest concentration of Chinese outside of China is here in the Bay Area. Our schools are full of languages that aren't English and cultures that aren't European. Ethnically speaking, California is a state in which minorities make up the majority. This poses challenges but also offers tremendous opportunities; these global connections must be put to good use.

In the short term, we stand a better chance of improving that global connectivity through business than through politics. It's no accident that the Bay Area Council and Governor Arnold Schwarzenegger just completed a trade mission to China. In both real and symbolic terms, San Francisco is closer to Shanghai than Washington, DC is to Beijing, and the Bay Area's economic health depends on improving that connection. Once again, this is a global trend – the Bay Area just happens to be at the forefront.

PRODUCTIVITY AND PROSPERITY WILL DEPEND ON INNOVATION

Throughout the Western world, we'll need a revolution in productivity to keep growing our economies. The size of our labor force isn't growing fast enough, and the costs of our entitlements will continue to rise. The only way to boost GDP is to become more productive, and we can't do that just by working harder. Innovation is more important than ever.

WHEN THE MARKET IS THE STATE, DYSFUNCTIONAL GOVERNMENT IS BAD FOR BUSINESS

Everywhere in the world, governments and economies have become deeply entwined. The daily red-eye from San Francisco to Washington used to be pretty empty. Now we've got two flights a day, and they're both full, because DC is where the connections are now. For anyone doing business, understanding the relationship between markets and the governments involved in them is absolutely essential. And the challenge only grows when governments are struggling with the best ways to innovate



their own delivery of service for creating the right environment for real growth.

In California, we're seeing what happens when state government gets trapped in a stalemate of mutually assured destruction. Our legislative system has required a two-thirds' majority to raise taxes or approve budgets.* The result of this well-intended policy is that virtually any group can veto anything. The only ones who benefit are those who benefit from the status quo. We aren't reinvesting or reinventing. We've been resting on our laurels for two generations.

That needs to change. To deal with all five of these trends, in California and everywhere, we need government to work. It must respond not just to short-term but also to long-term needs.

History tells us that this can be done. Recently, I downloaded California's fifty-year-old

master plan for education and read all 500 pages for the first time. I was stunned by its clarity, foresight, and specificity. The system of community colleges and state universities it created laid the foundation for California's culture of innovation and prosperity. It was a farsighted masterstroke, created with deep bipartisan support as part of a statewide effort to move from a wartime to a peacetime economy.

But these days that remarkable system is in decline as is the cooperation and shared vision behind it. Since 1980, California's K-12 schools have gone from the top ten percent to the bottom ten percent, in terms of both spending and outcomes. The cost of poor performance from systems like this is massive. My firm recently completed a study indicating that the so-called "achievement gap" in American education costs

our economy several hundred billion dollars a year. All that untapped human capital represents the equivalent of an annual anti-stimulus program. We're creating our own recession by not investing in our own resources.

Plenty of people on both sides of the political aisle recognize that systems like these aren't working anymore. But finding space where competing interests can come together to find a way forward has proven incredibly difficult.

And yet, as business leaders, as civic leaders, we cannot stop trying to break the deadlock. The public sector won't reinvent itself without continued, serious, and persistent prodding. Institutions and interests that are reasonably comfortable don't change. Those of us who seek to articulate and invest in long-term interests have to get actively engaged. We can't sit back and say, "Deficits aren't my problem," or "Schools aren't my problem." We can't be content that at least we got our own chance, even as we move our companies and our employees offshore.

Citizens today are equally angry and frustrated. We need to show them a positive way forward.

Here in my state, I'm helping to organize something called California Forward. When the 2012 elections roll around, we want a million citizens and 10,000 civic leaders signed onto an agenda of positive governance reform. I think we can build consensus around a basic concept: substantial investments in our public systems in exchange for substantial reforms. I think we can help foster the same kind of changes in the public sector that have revolutionized the private sector.

I'll confess – I have an interest here. I have daughters. I hope I'll have grandchildren. I want them all to grow up in a state and a country that's as fabulous as the one I came into fifty years ago.

But making that happen will take real engagement from the leaders of our business and civic sectors. That kind of engagement is in the interests of every city, every region, and every state in the country. Ultimately it's in the interest of business. With the right leadership, we can adjust to the "new normal" and sustain the innovation and prosperity that has long defined the America economy. If we don't, I can promise you this: things will get worse.

^{*} Prop 25 passed in the November 2010 elections and changed the number of votes required for budget and budget-related measures to a simple majority.

CITY ON A MISSION: A Journey from Brownfields to Neighborhood

by Bill Hangley, Jr



Just about every city with an industrial past has a Mission Bay: a half-forgotten, economically obsolete, potentially useful patch of land that defies revival. It's easy to come up with good ideas for the Mission Bays of the world. But it's hard to turn them into reality.

So when a city like San Francisco does what it did in Mission Bay, it's worth a second look.

It wasn't easy. Mission Bay hasn't been a bay for over a century, not since it was filled with construction fill and earthquake rubble to create a bustling complex of docks and freight yards. By the time Eisenhower was president, major shifts in the industry were killing its competitive edge. By the 1980s, it was virtually abandoned.

That left the city with a scruffy, 300-acre plain of warehouses and brownfields, lacking roads, sewers or electricity, hemmed in by railroad tracks and an interstate. Its only residents lived in houseboats. Its land was so unstable that nothing of substance could be built without driving piles 200 feet to bedrock. Redevelopment plans came and went, but none promised a profit. In a crowded city famous for sky-high rents, Mission Bay was almost empty.

And yet it was too tantalizing to be ignored. Big, flat, and right on the water, it sits less than a mile from downtown, close to light rail and city transit. Its residents were eager for new neighbors. Its owners wanted it put to profitable use. For all its drawbacks, Mission Bay had possibilities that could not be found elsewhere on the tiny peninsula -- seven miles on a side -- that is San Francisco.

Today, Mission Bay is well on its way to success. It is home to 3,000 new residences, ranging from luxury condominiums to subsidized low-income apartments. At its commercial heart is a growing cluster of biotech and life science labs, anchored by a University of Cali-

fornia campus. Tenants include such names as Bayer, Merck, FibroGen, and Old Navy.

Work on a \$1.5 billion hospital starts in early 2011. This fall, one of the city's fastest-growing tech companies, Salesforce.com, announced that Mission Bay will be the site of a \$278 million corporate campus. Plans are underway for parks, bike paths, police and fire stations, 3,000 more homes, and a total of \$400 million in infrastructure. The San Francisco Public Library opened a Mission Bay branch – the city's first new branch in 40 years.

This is all pretty good performance from land too toxic for vegetable gardens, in a city where neighborhood opposition can entangle even the most modest construction projects in decades of legal wrangles. Ambitious proposals to redevelop other major waterfront sites, like Hunters Point Shipyard (a former naval base) and Pier 70 (a once-bustling shipyard, purchased by city in the 1980s for \$1), have struggled to get through the most basic planning steps. As appealing as San Francisco may be to visitors and residents, for developers it has long been a very tough nut to crack.

So what made Mission Bay different? At the root of the success is the careful coordination of four major forces: the city, the original residents, the developers who owned it, and the university. The story of Mission Bay is the story of the right plan, the right players, and the right timing.

A BLANK SLATE

Twenty years ago, when Corinne Woods looked out of her houseboat, she saw potential and not much more. "We had no electricity, we had no sewers, no storm drains – nothing," recalled the environmental activist who would eventually help shape the new Mission Bay.

The nearby hills of the Mission District are crowded with homes and businesses, but all that ended at the Embarcadero Freeway. "What's remarkable is how cut off Mission Bay is historically," said Kelley Kahn, who oversaw the Mission Bay project for the San Francisco Redevelopment Agency. "How to knit this into the rest of the city is one of the great challenges."

Redevelopment plans for Mission Bay were nothing new. Four came and went between 1980 and the mid-90s. "One of the earlier plans called for a high-rise office core," Woods said. "The planning went through,

the zoning went through, and then the economy tanked. There was no demand."

But the owners – Catellus, a development corporation created to manage the holdings of Mission Bay's original owner, the Southern Pacific Railroad Company – were eager to put the land to work. Citywide, residents were clamoring for affordable housing. Mayor Willie Brown, elected in 1996, was intent on capturing some of the high-tech and lifescience businesses that were locating elsewhere in the region. Mission Bay's houseboat dwellers wanted better connections to the rest of San Francisco.

And in what would emerge as a critical factor, the city's second-largest employer was looking for a new home. The University of California's San Francisco branch (UCSF), a graduate medical school, had 3,700 students and 22,000 employees in facilities across the city. "We simply did not have enough space," said Kevin Beauchamp, UCSF's planning director. "There were people going back and forth on shuttles and a lot of material and logistical issues. All these scattered sites were breaking up the intellectual community."

City officials saw a win-win - they could

keep a major employer from fleeing for the suburbs and use it to anchor a high-tech business cluster. After lengthy negotiations among the landowners, the city, and the residents, a Mission Bay plan emerged to satisfy multiple needs: dedicated biotech space to attract jobs and business, market-rate housing and retail to provide profitable development, subsidized housing to address constituent demands, and a major land donation - 43 free acres - to put UCSF at the core of this new community.

A funding scheme was built around taxincrement financing. (Known as TIF fund-



Mission Bay Development panel (from left): Kevin Beauchamp, Mike McCone, Corinne Woods, and Kelley Kahn



Mission Bay ceilings are wired

ing, the developer fronts the infrastructure costs and is paid back by the city using bond revenue; those bonds are sold based on anticipated revenues from the new development.) The TIF allowed the city to support the project without having to draw from its general funds while allowing the developer to recapture the costs of roads and other public amenities.

"The city and the Redevelopment Agency were really supportive of our need to find a creative financing solution," said Mike McCone, who managed the redevelopment for Catellus. The plan was approved in 1998, and McCone's first project was a 595-unit, highend residential complex called Mission Place. "That was a huge risk," he said, "but one that was critically important to driving up that tax increment and making the financing possible for the rest of Mission Bay."

GROWING PAINS

A decade after McCone broke ground, Mission Bay is still half-built but carries a positive vibe. Bright, blocky low-rises pop out of the plain, some clustered around transit lines, others in what seem like random spots on a grid of new streets. A master plan guides it all, but the actual development has moved in bits and pieces as various players stake out their turf.

The initial surge was largely residential, with 3,000 units going up in less than six years. "That's very fast for this city," said Kahn. "And when the [residential] market tanked and that quieted down, demand for the biotech space was picking up."

UCSF has completed five research buildings, along with student housing and other campus amenities. Several tenants have built headquarters of their own, including Old Navy and the California Institute for Regenerative Medicine. Private developers have bought most of the available commercial plots, many of which are pledged to incoming tenants like Salesforce.com.

But perhaps the clearest sign that Mission Bay is becoming a real place is the fact that residents are now fighting over parking. "People who moved in early said, 'Oh, there's plenty of parking, it's free and it's there all day.' Well, it's going away," said Corinne Woods. "Mission Bay was set up so that parking would be short-term. Managing those expectations for the residents who moved into a building that was surrounded by nothing, and is now surrounded by other buildings, is a challenge.

"You have to say right off the bat, 'No,

"You have to say right off the bat, 'No, you can't have residential permit parking. We need the turnover for retail, for visitors.' These are all growing pains, I guess."

As the head of the Mission Bay Citizens' Advisory Committee (CAC), Woods is at the forefront of Mission Bay's transition from plan to reality. During the planning process, the CAC was charged with representing the interests of potential residents, speaking out on behalf of affordable housing and transit needs. Now that Mission Bay is home to thousands of new residents, Woods finds herself trying to convince newcomers to support the original plan.

A typical problem is noise. McCone is getting used to complaints. "A lot of dwellers who live in these new units don't realize the noise that was created when their unit was built," he said dryly.

Woods tries to keep those complaints at a



Leadership Exchange on the move in Mission Bay

minimum. "We know we're going to have to pile-drive. We're telling [new residents] now. When they start screaming, we can say, 'We told you, and you've going to have to live with it.' We've all lived with it."

And just as new residents have to learn to work with their new neighbors, so do the big tenants. UCSF was so pleased with Mission Bay that it bought 14 acres to build a 289-bed hospital. That will bring new jobs and

residents (the hospital will subsidize affordable housing for employees), but also traffic, parking problems, and even helicopter noise. So for two years Kevin Beauchamp found himself hashing out solutions with the community – just like in any other neighborhood.

"This is the first-ever rooftop hospital helipad in San Francisco, and it was a really big deal," Beauchamp said. "When we first heard about the desire for this from our clinicians, we thought, 'No way.' But we did come up with some pretty novel ways to minimize the impact."

Among other things, UCSF will pay for soundproofing in nearby homes and design its hospital to keep traffic as far away from residences as possible. But the larger lesson, Beauchamp said, is that there are plenty of things that can't be solved with master planning. Now the university must collaborate with actual residents – or, as Woods put it, it must be "nagged – seriously nagged."

It can be contentious, but works. "Co-

rinne [Woods] is a big part of that nagging," said Beauchamp with a laugh. "It's a symbiotic relationship that leads to better plans."

Other problems can't be solved within the Mission Bay community. An example: demand for transit is growing, and residents want more frequent service. But that battle must be fought with the transit agency.

"Tax increment money can't be used to increase [transit] service," said Kahn. "We're out there trying to find other pots of money because the TIF is spoken for. Changing these agreements in midstream is really hard because we made them strong so that the risk to the developer and the city was diminished. We were all very

protected – but it means that responding to changes is tough."

What helps, Woods said, is that the relationships built during Mission Bay's planning allow its stakeholders to present a unified front when it comes to things like transit problems. "We're all working together on this," she said, "because we all know that the success of Mission Bay depends on access. We have to maximize access every way we can."



LOOKING BACK, LOOKING AHEAD

Mission Bay's supporters don't have to look far to see that success was far from guaranteed. "Hunters Point Shipyard has a redevelopment plan that was also adopted in 1998," said Kahn. "They have not built one building. My project was built -- where are they?"

Woods has an answer: Hunters Point is suffering in the purgatory of neighborhood opposition, bogged down in environmental lawsuits and political battles. "You can't do anything down there without a fight," she said. "It doesn't matter what the subject is, somebody's going to be against it."

That Mission Bay dodged those bullets is something of a matter of luck. It had only a tiny group of original residents. It was given important momentum by the construction of nearby AT&T Park, new home of the city's baseball team.

But good planning mattered, too. Kahn credits former mayor Willie Brown with helping forge almost ironclad consensus about the project's nuts and bolts, from parking to parks to affordable housing. "There were very tight agreements between the city, UCSF, and the master developer," Kahn said. "The heads of every agency signed on the dotted line. You can always wave [the agreements] around if you get any grief."

Looking back, Woods thinks the plan could not have happened without UCSF. "The university is a stabilizer," she said. "Whether the residential market gets back to being as crazy as it was, whether the office market gets back to being as crazy as it was, there is a base." Kevin Beauchamp says the process taught UCSF a new level of collaborative skills. "We learned the importance of coming to the table with transparent motives, with a good-faith, open-minded willingness to work in a productive way with everyone," he said.

And to Mike McCone, the project worked not just because the numbers finally added up, but because the timing was right to get the agreements needed to make those numbers add up. His advice to Greater Philadelphia, or any other region saddled with a Mission Bay of its own, was to take advantage of the economic downturn's silver lining.

"Approvals come in a downturn," McCone said with a wry smile. "You get a lot more cooperation from the community when you're in economic strife. We had that in the mid-nineties, and we have that now. So when you go back to Philadelphia, it's time to strike."

San Francisco's Targeted Incentive for Biotech

Under a 2004 law, qualifying biotech companies in San Francisco can be exempted from the City's 1.5% payroll tax for as long as 7 1/2 years. The exemption is part of a larger package of city policies designed to build the biotech industry, including a streamlined permitting process and increased parking ratios in Mission Bay, the heart of the city's biotech cluster. "We're not just building Mission Bay and saying, 'Okay that's it,'" said Todd Rufo, director of

business development for the City of San Francisco. "We want to adapt to the needs of the industry. We need to be planning for the future."

Rufo said that when the city was making its biotech plans, industry supporters successfully argued that the tax break was needed because it can take longer for life science technology to reach profitability. That's

not the case in all high-tech sectors. For example, San Francisco's Zynga, maker of the popular online games Farmville and Mafia Wars, exploded from a handful of employees in 2007 to more than 1,200 today.

Such near-instant success is almost impossible in the complex biotech market, where clinical trials and extensive regulation mean products can take years to reach the public. "It's a different ramp-up to market and a different ramp-up to profitability," said Rufo.

City officials say the biotech exemption has been relatively cheap and a smart investment – costing less than \$1 million in forgone revenue between 2004-2008, according to a recent city report – and helped lure 58 new companies and 2,750 new jobs in the last six years. According to the report, these biotech employees "generate \$7.6 million annually in payroll, sales, utility user, and hotel taxes to the city's General Fund. This is approximately 20 times the payroll



Todd Rufo

tax excluded as of the most recent year available, 2008."

With San Francisco facing a budget deficit, tax breaks of any kind can be hard to justify. But despite some opposition from members, the city's Board of Supervisors voted this spring to extend the biotech break and have created an exemption for clean-technology companies. "We've built on the success of this program and developed a similar incentive targeting the cleantech industry," said Rufo.



Portraits from in the world's most unique economic ecosystem

Talk to anyone about Bay Area innovation, and one word is sure to crop up. "There is definitely an ecosystem here," says Mark Dwight, a former Silicon Valley executive who founded Rickshaw Bagworks, an artisanal manufacturing firm in San Francisco. "It stimulates and perpetuates the innovative cycle – a process of investing in potentially promising technologies, seeing a certain number come to fruition and produce a return. We are big proponents here of the power of business."

Again and again, Bay Area leaders will tell you that that no single thing accounts for their region's signature success. Instead they consistently cite a blend of factors big and small whose organic interaction has created a distinctly experimental entrepreneurial culture.

Here(...) you can be slovenly, you can have bad manners, you can be nobody. The only thing that matters is, do you have good ideas? Can they make money?"

"It's a state of mind," says Russell Hancock, who runs a regional think tank and networking organization called Joint Venture: Silicon Valley. "It's conceptual. We're a results-oriented meritocracy. There is really something to this. I've lived in other parts of the country, other parts of the world. And in those places, other things matter — a lot! Your last name. Your dress. How you conduct yourself. Here, it just doesn't matter — you can be slovenly, you can have bad manners, you can be nobody. The only thing that matters is, do you have good ideas? Can they make money?"

Like any ecosystem, the modern Bay Area economy needed time to develop. The Gold Rush triggered the first of many booms. Its current success rests on a foundation of massive 20th century public investments: in research, in infrastructure, and in education.

But if public institutions like the University of California are this ecosystem's old-growth trees, investor dollars are its sun and rain. The venture capital industry was born in the Bay Area, and one out of three venture dollars is spent here still. "I wish I had more than 24 hours in a day," says Vish Mishra, a venture capitalist. "You can be hanging out in

the airport and you can't keep from hearing a conversation about this idea or that."

After decades of nourishment by this kind of public and private spending, the Bay Area now supports healthy populations of virtually all the types of people essential to profitable



Vish Mishra

innovation: high-tech geeks who bury themselves in code for months at a stretch; MBAs and number crunchers hungering for projects to turn into profits; lawyers, designers, suppliers, and countless other adjunct professionals looking for opportunities among the thousands of experiments underway at any given time.

University scientists take leaves to start businesses. Executives take breaks to teach. Entrepreneurs leap from project to project as companies and markets rise and fall. In this environment, failure is not a stigma, but a rite of passage and even a sign of vitality. Likewise, success is admired, but understood to be impermanent.

Bay Area innovators are used to being asked how their region can be replicated. They answer with two points. One is that the Bay Area is unique in the world. Its history, its climate, and its combination of powerful institutions and cultural appeal make it as hard to recreate as a coral reef.

"We probably get ten delegates a month, from India or China that want to build their own Silicon Valley," says José "JoJo" Flores of Plug and Play Tech Centers, a privately run incubator with three locations in the Bay Area. "They're free to do so. It's a free world. But I think there are certain limits – the soul is not there. They've got really smart people, but the spirit of taking innovations to commercialization; they need to learn that quite a bit."

But the other point is that the basic formula is no secret. "You need excellent universities doing basic research. And you need a cluster of companies around them. That you can build anywhere," says Hancock.

The innovators profiled here – entrepreneurs, networkers, investors – face challenges that are by no means unfamiliar to anyone from Greater Philadelphia. They worry about infrastructure and education. They complain about entrenched interests that block innovation. They struggle with congestion, sprawl, and dysfunctional governments in a decentralized and competitive region where planning is the exception, not the rule. "It's like living in the Balkans sometimes," says R. Sean Randolph, head of the Bay Area Council Economic Institute.

And as successful as the Bay Area has been, residents will tell you that its ecosystem is vulnerable. Recession is the biggest threat. "Banks have not been lending easily," says Esther Park, director of lending at RSF Social Finance. "Even in venture capital, there are a lot of funds sitting on money. We deal with a lot of young companies that are driving innovation, and they're saying, 'We just need a little bit of money, and we can't find it right now."

Other dark clouds abound: federal immigration restrictions have cut into the vital flow of foreign talent. Round after round of budget cuts are weakening California's state university system. Bioscience and clean en-



Sean Randolph

ergy are promising, but in their early stages still depend heavily on public investment that may not be forthcoming. Venture capitalists still have a heavy presence in Silicon Valley, but they have been slow to invest in many green technologies, in part because they don't yet promise the profits investors demand.

Overall, the global recession has taken a toll on basic research in big companies, startups and universities alike, leaving some ob-



Glenn Cornett

servers to worry that Silicon Valley could lose its edge. "Probably the most disturbing thing I've heard was from a friend of mine in patent law. They'd gone through a series of layoffs, because the younger companies aren't filing as many patents as they used to," said Glenn Cornett, CEO of Navitas Pharma, a biotech company. "That causes me a lot of concern."

"The big question is, can we keep doing this?" asks Hancock. "It could all go away." Unemployment is at about 10% in the Bay Area and isn't likely to decrease soon, he says. "The model of corporate capitalism is changing. The model is no longer to hire people – the model is to enter into contracts. We're not growing jobs. What's growing are firms with no employees."

Randolph agrees. "We haven't created a lot of new jobs here for awhile," he says. Real estate is down; trade is down; investment is down. "Everything is not necessarily well, even though we're really optimistic about the long term."

And there's the other word that always come up: optimism. It is the essential ingredient of innovation, and these Bay Area residents have it in spades. Their region's obituary has been written before, but when faced with challenges, they don't stay in their silos. They fall back on the practices of networking and collaboration that have brought so much success. As long as the ideas keep flowing, they say, the region will keep growing.

Let's meet some of the faces of Bay Area innovation.

THE SMALL BUSINESSPERSON

He grew up in Silicon Valley watching his father make lasers, but Mark Dwight is very happy making messenger bags. "I'm in the seemingly low-tech business of cut-and-sew," he says. "Turns out it's a very interesting business. Low-tech doesn't mean there's no opportunity for innovation."

"We use a lot of fabrics that are made from recycled bottles. We have a design that generates no cutting floor waste. These kinds of things are very much part of our culture."

Dwight's company, Rickshaw Bagworks, is a small-scale operation that makes bags to order. He is committed to sustainable design and manufacturing. "We use a lot of fabrics that are made from recycled bottles. We have a design that generates no cutting floor waste," he says. "These kinds of things are very much part of our culture."

But Dwight's most important innovations may be as a regional marketer. An MBA and former Cisco executive, he's launched a new nonprofit called SFMade. "This is a project I started out of self-interest, to celebrate my own company," says Dwight. "But then I decided to make it a platform." The goal is to help artisanal companies like his to grow in numbers, advocate for their collective interests, and cash in on the region's consumer appeal.

In less than a year, SFMade has signed up more than 80 businesses, including food and beverage makers, brewers, and other apparel manufacturers. Dwight wants to help his members offset some of the city's drawbacks – like high costs and what he calls a "less than business friendly government" – and become part of the region's larger business community. "Small businesses find the Chamber of Commerce intimidating," says Dwight, a Chamber board member. "This is designed as a sort of incubator – they come in, understand the benefits of networking and association, and hopefully graduate to join the Chamber."

SFMade's members may represent only a fraction of San Francisco's 80,000 businesses, but Dwight thinks promoting their efforts is a win-win, both for his members and for a city that depends heavily on tourism. "We get people from all over the world, saying, 'Hey, we saw your video online, this is really cool," he says. "People are seeking us out. We need more of them to do so."

THE INSTITUTION BUILDER

After a lifetime in the lab, Regis Kelly has embraced a new role: institution builder, Bay Area style. "We're trying to create a very clear interface between the scientists in the university labs and the private sector," says the director of the California Institute for Quantitative Biosciences, known as QB3. "This is very much a Bay Area thing. We think things get solved by community."

Housed in a gleaming new building at the heart of Mission Bay, QB3 puts startup companies (housed in its so-called "garage") side by side with researchers from three branches of the University of California system, watched closely by investors and industry scouts. Kelly's eyes sparkle as he describes the research underway: computer-aided drug design, gene-based diagnostics, and bacteria that produce biofuels or artificial spider silk.



Sewing room at Rickshaw Bagworks (Courtesy Rickshaw Bagworks.)

"The big companies can see the science going on in the university labs," he says. "They're getting access to 30 to 60 new companies. They can look for the ones that they might want to acquire. And the small companies are looking for what the big companies can bring – not only startup funds, but this wealth of experience about market analysis and reimbursement policies and regulatory constraints."

"Innovators are talking to people in China, Italy, Holland, and Denmark. They're saying, 'If America won't solve it, we'll take it, wherever we can get it done."

Kelly sees QB3 as an "unusual commons" that can break down the barriers that stand between ideas and implementation. It even has its own newly-created venture fund to support startups whose innovations are still too far from profitability to attract venture capital. But some challenges are beyond him. He describes a promising implantable dialysis device that could be made cheaply, used easily, and save insurers millions. But investors won't touch it because "byzantine" regulations and insurance reimbursement policies make bringing it to market nearly impossible.

"Innovators are talking to people in China, Italy, Holland, and Denmark," says Kelly. "They're saying, 'If America won't solve it, we'll take it wherever we can get it done."

THE BIOTECH PIONEER

Mike Schwartz likes market pressure because it forces collaboration. "Within academia and the clinical world, there's an increased awareness of what's going on in industry," said the founder of Fluxion Biosciences. "There's been a big divide historically, but those walls are getting a lot thinner. There's going to be a lot of good, positive pressure to bring things to market this decade, not the next decade."

Schwartz's company makes chips and devices that help scientists test medications. He started working in startups when he was still a Berkeley undergrad. "I got hooked," he says, and five years ago he became one of the first entrepreneurs housed in Mission Bay's QB3 (see "The Institution Builder").

Federal small business grants, venture capital, and QB3 connections ("we met a lot of

customers there") have helped Fluxion bring four products to market. In an industry full of layoffs and cutbacks, Schwartz employs about 30 people. "There's lots of opportunity despite what you see in the news," he says.

Still, the challenges of serving the mass market mean Fluxion is setting its sights lower than it otherwise might. The company sells to researchers, a relatively lightly-regulated market. Getting its technology approved for wider use would be expensive and risky – not every innovation finds an application. One company Schwartz knows spent \$50 million winning FDA and Medicaid approval for a blood test that measures cancerous cells. So far the test isn't selling. "You're counting tumor cells, but no one knows how to make treatment decisions based on that," Schwartz says.

Schwartz thinks QB3-style public/private partnerships can do a lot to get young companies off the ground, particularly those developing the kinds of drugs and treatments that require years of testing and clinical trials before coming to market. But he trusts private investors to pick the ultimate winners. "That model works," Schwartz said. "There's a normal correction right now. But the venture capitalists that are still around will do more with less. That's what our company is doing."

THE INDUSTRY ADVOCATE

Biotech has been "the next big thing" for as long as Gail Maderis can remember. She's been in the field for decades, as a startup CEO, as a manager in larger firms, and now as the head of the Bay Area's leading life science industry group, BayBio. "Every time we think we've addressed the last big technology, something even bigger opens up," she says.

The Bay Area life science community encompasses about 2,300 companies employing 125,000 people at average salaries of \$75,000, producing everything from medical technologies and drugs to biofuels and industrial enzymes. In health care alone, Maderis sees countless possibilities for low cost, life-improving innovations, like stem-cell based regenerative therapies and the genebased "personalized medicine."

Getting those innovations to the public is another matter. "The business model is broken," Maderis says. "Our approach has been to whittle away at hospital costs – 10% less



Small can be beautiful in urban manufacturing. (Courtesy Rickshaw Bagworks.)

for doctors, 12% less for pharmaceuticals. That's the way that Medicare attacks it.

"What we really need to think about is transformative medicine. You diagnose diseases early. You're keeping people out of the hospital. But that approach is not something our reimbursers are prepared to take."

Maderis says government and industry need to work together to boost investment in innovation. Her dream policy: a tax holiday for companies investing offshore profits in applied research. "There's billions of dollars sitting overseas," she says. "Tax it at a low rate and bring it back."

THE RECYCLER

Chris Choate has a message for visitors: San Francisco won't waste your waste. "While you're enjoying the scenery, we'll be recycling," he says. "Even the food scraps are being converted into a rich soil amendment for the vineyards. Eventually it's recycled back to San Francisco through the wines we drink."

As a vice president of Recology, a private waste management company that serves most of the Bay Area's communities, Choate helps to run one of the nation's most ambitious recycling programs. After a ten-year effort, San Francisco has hit its first target and now recycles three-quarters of its trash. The city's next goal: 100% by 2020.

"It's the old 80/20 rule - the first 80% is easy, and the last 20% is really hard," says

Choate. "Innovation is not just technology – there's also a social aspect. The last big frontier is multi-family, high density recycling. We struggle with more transient residents – they're not into the recycling movement."

Choate thinks the city will need a new system for processing unmixed trash. Organics might be better used for biofuels than compost. He's delighted to be learning as he goes. But he knows that landfills are still cheaper for most cities. His innovations depend on San Francisco's willingness to pay for them.

"We've been working on long term projects that are just at the tipping point of being economically feasible," says Choate. "I don't know what will push it over the edge, but it will occur."

THE INCUBATOR

Make no mistake: José "JoJo" Flores is watching the bottom line. "We have to make money. We're businessmen," says the vice president of a "chain" of California's leading private incubators, including three located in Silicon Valley. "Everything we offer, we charge for it. Even cleaning your shoes! We're like a hotel. We have to monetize everything."

When Flores and his partners founded the Plug and Play Tech Center in 2006, the idea was to create a miniature Bay Area "ecosystem" under one roof. They found a cheap, empty office complex where they could offer space for startups for as little as \$600 a month. They focused on attracting tenants working on web- or telecom-based technologies with clear commercial applications – the kinds of profit-promising projects that investors still like. Then they built a network of executives and investors to advise and support the startups. About thirty Silicon Valley industry veterans keep offices at Plug and Play, scouting among the tenants for prospective partners. Venture capitalists host regular deal review sessions.

When a partnership emerges, Flores makes sure word gets around. "We're big on parties. We celebrate everybody's success, so everyone knows that this guy got funded, or this guy got acquired," he says. Since 2006, Plug and Play has helped about 300 companies raise over \$700 million.

But Flores, who has started over 100 companies and calls it a "lonely business," likes to keep a low-rent atmosphere. "It's cubicles, not offices," he says. "I couldn't afford indi-

vidual offices at first. But that was a good accident. By having open space, we kind of forced a collaborative atmosphere. I could have had a bigger cafeteria, but I say, let them stay in this small room - they're forced to share a table."

THE CLEAN TECH ENGINEER

Bobby Ram can find work. What he can't find in the Bay Area are workers. In five years, his solar energy company, SunPower Corp.,

has grown from 150 employees to 6,000 worldwide with about \$2 billion in business. "The growth has been phenomenal," Ram says. "But that presents an enormous challenge to meet the skill requirements we need."

Early on, the work was mostly residential and relatively simple.

But now SunPower is getting orders for major industrial installations – the equivalent of building small power plants – and the company now faces all sorts of new needs. "There are public policy issues to deal with, building permitting issues, and environmental issues. All these are surfacing," says Ram.

And while the region has plenty of MBAs and lawyers, it lacks the kind of skilled laborers, system designers, and installers that the emerging clean energy field depends on.

"The industry has begun to realize that there's a whole network of talent that doesn't exist to support the growth," says Ram. To help prime the pump, SunPower is developing training courses at local universities, and its employees visit area high schools to remind students that good math grades can translate into a well-paid career. But the regional shortage is persistent, and Ram thinks it reflects a national problem. "We need really good math and science skills," he says. "In the Valley and in this country, we simply are not producing enough talent."

THE INVESTOR

Esther Park thinks more people could be innovative with their money if they knew what it was doing. "I always ask people, 'Where do you have your money today? And do you know what your bank is using it for?'" she says. "If you think about the financial crisis we've been in, a lot of it has been driven by investors demanding certain returns and not knowing what they were buying into."

As the loan director for RSF Social Finance, a San Francisco firm that invests in nonprofit and for-profit ventures nationwide, Park is trying to turn that equation upside down. Rather than pegging the cost of loans or expected returns to the markets, RSF borrowers and investors meet quarterly to set rates themselves.



Recology's "Stop Trashing Resources' campaign in San Francisco

"It's a really interesting conversation," says Park. "Most people come to the table thinking, 'What do I need to get out of this?' At the end of the hour they say, 'How can we all collectively meet all of our needs?' The loans that we make aren't necessarily innovative as a product. But the 'how' is innovative."

So far, so good: with capital from about 1,000 individual investors and a current loan fund of about \$72 million, RSF has made almost \$300 million in loans and grants since 1984, supporting everything from university programs and international advocacy groups to small schools, startup businesses, and local nonprofits. This fall, RSF announced a loan to Common Market Philadelphia, a whole-saler serving a network of small farms around Greater Philadelphia. Other loans have gone to solar power companies, organic food manufacturers, and even an institute in New Jersey that promotes the design concepts of the late Buckminster Fuller, father of the geodesic dome.

The process depends on highly engaged investors satisfied with relatively modest returns, which is one reason RSF left New York. "We moved to San Francisco in 1998 simply because of the innovative aspects of this area," says Park. "We needed people that believed in what we do. We're very different."

THE REGIONAL ADVOCATE

"We get calls from the Chinese all the time – they want to build Silicon Valley," says Russell Hancock. "To them, it's all about government infrastructure. Need a university? Buildings? Infrastructure? Done! But there was never a plan for Silicon Valley. If you hear someone taking credit, it's bogus – we got lucky."

"The thing that characterizes us more than anything is churn. If you don't reinvent yourself, you die."... "Failure is expected," says Hancock. "It's considered experiential and therefore a very good thing."

As the head of Joint Venture: Silicon Valley Network, Hancock is charged with keeping that luck coming to a 1,500 square mile region that includes 35 cities, four counties, and 23,000 startup companies at any given time. In addition to overseeing studies and assessments of the region's needs and challenges, Hancock tries to organize the kind of regional cooperation that will help it thrive: a uniform regional building code, transit improvements, and even coordinated disaster planning.

But he's the first to tell you that the region largely drives itself. "The thing that characterizes us more than anything is churn. If you don't reinvent yourself, you die," Hancock says. Companies come and go. Immigrants make up two-thirds of the workforce. Market crashes and technological advances periodically upend everything, but there's always someone with a new idea and an investor hoping to profit from it. "Failure is expected," says Hancock. "It's considered experiential and therefore a very good thing."

The culture will thrive as long as ideas and capital keeps flowing, says Hancock. But he worries that a region which attracts so many innovators can't produce more of its own.

"We have really good schools in affluent areas, and we have really poor schools in all other areas," he says. "High dropout rates, kids who can't qualify for the universities. And we're disinvesting. I fear for our state. We could not be Silicon Valley with our own homegrown workforce. We can only do it because Indians and Chinese and Eastern Europeans have come and been highly entrepreneurial. This is our Achilles heel."

Innovation's Berkeley Connection

First, let's not confuse "Berkeley Lab" and "UC Berkeley." Linked, but separate, powerhouse institutions.

Berkeley Lab was founded in 1931 by Ernest Orlando Lawrence, a UC Berkeley physicist who won the 1939 Nobel Prize in physics for his invention of the cyclotron, a circular particle accelerator that opened the door to high-energy physics. It was Lawrence's belief that scientific research is best done through teams of individuals with different fields of expertise, working together. It is a national lab of the US Department of Energy that is managed by the University of California. It's located on 200 acres overlooking UC Berkeley.

Down the hill, the Lab's cousin, the Energy Institute at Haas, is a joint venture of UC Berkeley's Haas School of Business and the UC Energy Institute. It, too, employs a multidisciplinary team approach, in this institution around energy business, policy, and technology commercial-

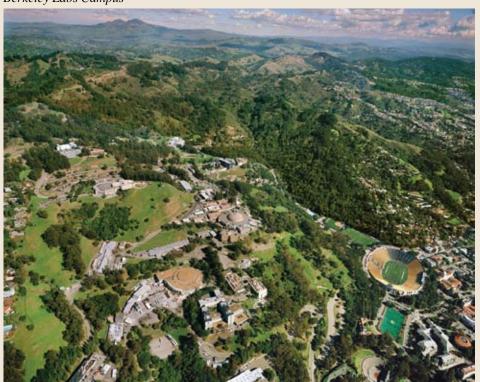
ization to bridge the gap between research and the marketplace.

We gained some insight into this world through presentations from Beverly Alexander, Director of the Cleantech to Market Program (C2M) at the Energy Institute at Haas and Sam Chapman, Government Relations Manager for Berkeley Lab. C2M is a partnership between students, scientists, and professionals to translate cleantech research into market opportunities.

Both institutions have profited materially and intellectually by the mashups of students, researchers, alumni with successful startups, professors, and entrepreneurs working together to bring technological innovations to market.

Learn more about C2M: http://ei.haas.berkeley.edu/c2m/index.html. Learn more about Lawrence Berkeley National Laboratory: http://www.lbl.gov/Tech-Transfer/

Berkeley Labs Campus



Sustainability and

If a sentence could sum up the big takeaway from the day spent in the East Bay, Policy Link's Rube'n Lizardo captured it: "You can't be sustainable without being equitable." As metros become more diverse, addressing equity issues can no longer remain a tacked-on concern if the goal is to be sustainable. What follows are examples of programs and organizations we met that put inclusion at the center of their work.

RICHMOND**BUILD**: TOUGH CITY, TOUGH GREEN TRAINING PROGRAM

Richmond isn't a conventional destination for Bay Area visitors. However, when the bus dropped them deep in a central city residential neighborhood, Leadership Exchange participants found they were in for an inspiring afternoon. Richmond is a city of 104,000 located 16 miles northeast of San Francisco; a majority-minority town that suffered double-digit unemployment before the 2008 economic crisis. However, it's not without assets: about half the residents are between 24 and 45 years old, its shipbuilding and industrial legacy could be retrofitted into present day demand for green building and construction, 60% of homes are owner-occupied, and population is higher than it was during its 1950s boom.

Even so, in 2005 it had the 10th highest per capita murder rate (Camden was #7; Philly was #18) as well as above average crime against property. City leaders chose to address the violence problem by providing a pathway out of crime and poverty for its at-risk population via green jobs. Early in 2007, the city's Employment and Training Department established RichmondBUILD to create employment and career opportunities in construction and renewable energy for low-income Richmond residents. By December 2008, it was awarded the FBI Director's Community Leadership Award.



To apply for one of the 30 places in each class, applicants must already have a diploma or GED and a driver's license. They also must pass tests for basic math, reading – and drugs. Some history with the criminal justice system is permitted. Still, fewer than 10% are accepted into the program.

Students are not paid for participation, but RichmondBUILD's 90%

placement rate for jobs with an average hourly wage of \$18.33 is persuasive. Thirty percent of graduates take green jobs; the rest go into skilled construction. Also the city of Richmond mandates employment of Richmond residents on city contracts.

The 14-week intensive program trains



From top: Framing a "house." (Photo: City of Richmond); Angela Greene, RichmondBUILD graduate and now solar instructor. (Photo: Stuart Locklear Photography.)

students in basic electrical, plumbing, and welding; framing, roofing, and sheet-rocking; eco-literacy, energy efficiency, and solar installation; and in math and fitness. Each class builds a practice house from the ground up and also installs solar panels on an actual city home (deeply discounted to the homeowner).

Equity in the East Bay

More recently, a short course to upgrade skills of experienced construction workers was developed as well as a YouthBUILD course to assist 16 to 24 year-olds obtain their GED or diploma while acquiring work skills.

Visitors to the city's website can see that a significant part of Richmond's business attraction strategy is its Center for Green Business (www. richmondgreenbusiness.com). It goes without saying that RichmondBUILD doesn't exist without public and private support. In addition to city agencies, community-based organizations, unions, and the local Home Depot store provide much in-kind assistance.

OAKLAND ORGANIZATIONS AT THE CENTER OF THE CONVERSATION

Rubén Lizardo Associate Director, Policylink

"You can't be sustainable without being equitable. Which buildings are the most energy inefficient? The homes and workplaces of people of color and low-income individuals because they tend to be in the oldest structures. Yet, the same people are leaders in sustainable transportation because they use public transportation already." PolicyLink's focus on growing "communities of opportunity" takes development discussions to a higher level of consideration for the health and economy of neighborhoods, cities, and regions.

Ian Kim Green-Collar Jobs Campaign Director, Ella Baker Center For Human Rights

"The challenge and the necessity is to make climate change relevant to all, not just the tree huggers. All communities need to be environmentalists and to work regionally." Oakland is consistently ranked as a "top ten green city," and at the same time, is known for violence and a struggling public school system. In Oakland and the East Bay, the Green-Collar

Jobs Campaign works on public policy initiatives and showcases job training that can provide green pathways out of poverty. Nationally, the Campaign played a central role winning the "pathways out of poverty" provision in the federal Green Jobs Act of 2007 which inspired \$500 million in green job training funds in the 2009 American Recovery and Reinvestment Act.

JP Ross Vice President of Strategic Relations, Sungevity

Sungevity makes "going solar" possible for middle income households because it eliminates the upfront cost by leasing the systems. And the amount of power generation is guaranteed – which might be one of the reasons why Sungevity does not take customers in Greater Philadelphia – yet. Sungevity's CEO Danny Kennedy announced on December 15 that it raised \$15 million in a third round of financing. "We're looking to go to many states next year and basically get a national foot print. We're really looking at the northeast."

Darien Louie Director of Public/Private Partnerships East Bay Community Foundation

Established more than 80 years ago, the East Bay Community Foundation's "Core Purpose" is focused on "right to be done through justice, fairness, equity, and inclusion of all residents in the fabric of civic life." To this end, the Foundation leads the way in mobilizing financial resources to transform the lives of lowincome, disadvantaged, impoverished, underserved, and underrepresented people of the East Bay. In 2009, it awarded more than \$65 million in grants. The Foundation also supports research on the communities it serves, most recently, "East Bay Indicators 2010," a first-ever collaboration with the East Bay Economic Development Alliance.



Rubén Lizardo with Matty Hart



Panelists: Darien Louie and Ian Kim



JP Ross

STEERING THE ELEPHANTS: Change, Leadership, and the Hunt for Bright Spots

by Bill Hangley, Jr

According to Chip Heath, the worst lesson a visitor can take away from the Bay Area is "be like Apple."

"That's like your dad saying, 'Be more like your sister!' I can only be a better version of me," says the man whose latest book, *Switch: How to Change When Change is Hard*, debuted last spring at the top of the *New York Times* bestseller list. "You do not have to be Steve Jobs. You have to be you in your best moments."

Heath knows this can make him sound like a power-of-positive-thinking kind of guy, and he's not. "If I were, I'd sell a lot more books on Oprah," he jokes. Instead, he's an academic concerned with the question of what makes change possible in organizational settings. He teaches at Stanford University's Graduate School of Business. His research has been written up in journals of business, science, and cognitive psychology.

And what he's found is that contrary to conventional wisdom, it's possible to engineer change, whether in a company or a city, even in the face of massive obstacles. But leaders must combine the right emotional appeal with the right prescription for response.

MOTIVATING THE ELEPHANT: THE EMOTIONAL APPEAL

Popular belief holds that people hate change, Heath says, and yet they keep getting married and having children -- what could be a bigger change than that? He thinks we're better described as being "schizophrenic" about change. In many ways we like it. We have a great capacity to envision and plan for changes. At the same time we return again and again to patterns and habits.

Heath sees this as the struggle between "the elephant and the rider" – his preferred metaphor for the division between our emotional and rational selves. Picture a person who wants to lose weight. "The emotional system that loves Cheetos is like a big elephant. And it's being ridden by a tiny human rider that represents the analytical side," says Heath. "The rider can plan out a path. But what happens if the elephant doesn't buy in? The elephant has a six-ton weight advantage. This tells us everything about why a diet is hard."

Nor is the elephant always wrong. "The rider's not always the hero," says Heath. "Sometimes he's the wheel spinner. If you've ever driven around for hours looking for the cheapest gas, you've been the victim of an overactive rider."

But when riders and elephants work together, change is possible. Heath cites the simple case of the beleaguered procurement manager who thinks his company loses millions through inefficient purchasing. No one pays much attention until he gathers samples of all 424 types of gloves purchased by various corporate divisions and dumps them in a heap on the executive conference table.

"The result was two reactions," says Heath. "One is, 'This is crazy!" The procurement officer has touched the elephant side of his audience: they think of themselves as smart business people, and the pile of gloves challenges them emotionally. "But the second reaction is, 'We can fix this. Why not narrow down to the ones we really need?" Suddenly, people for whom procurement was a bean-counting bore are intensely interested in improving it.

A PATH FOR THE RIDER: FINDING THE BRIGHT SPOTS

The key to the procurement manager's success, of course, was that he once he'd awoken the elephants, he knew how to direct them down the right path to an efficient glove purchasing policy. But what does one do when the path to success is unclear?

This, says Health, is where change agents must look for what he calls "bright spots." Bright spots are visible, replicable examples of success that engage the problem-solving rider once the emotional elephant is on the move.

Heath cites a vivid example from the rural Vietnam. Jerry Sternin, a doctor with Save the Children, was invited by the Vietnamese government in the 1990s to help end malnutrition among poor rice farmers. There was a catch: he had to show results within six months.

Expert analysis held that malnutrition was caused by structural factors such as bacteria-laden water systems, bad roads that kept farmers from profitable markets, and poor nutrition education. All this Sternin filed under "TBU"— true, but useless. He knew he couldn't make any meaningful changes in roads, water, or education. Instead, he chose a single village, convened its mothers, and asked them, "Do you want healthier children?"

Naturally they said yes. The elephants were ready to go, but where to? Sternin's next decision was remarkable. He put the mothers to work weighing and measuring every child in the village. The results showed that some children were measurably healthier even though their families were no wealthier.

These, Sternin knew, were the "bright spots" he needed to create a path towards change. It soon emerged that the bright spot families, instead of feeding their children traditional meals of pure white rice, were adding greens and wild shrimp from

the paddies. Sternin helped the whole village learn to cook similar meals. Children got stronger, and the word got out.

"People came to see what they had done," says Heath. "What the visitors learned was a technique of looking for bright spots. In almost no other village was the answer brine shrimp and sweet potato greens — every village has excesses of different kinds of food. But in every village there were 'bright spot moms' that were raising healthier kids. If you understand what

In the end, 265 villages adopted Sternin's technique. More than 2 million people reaped the rewards of a process that started with a single group of motivated mothers.

they're doing, you can imitate them."

LEADERSHIP:

FUSING THE EMOTIONAL AND THE RATIONAL

The bright spot technique carries an unmistakable whiff of Bay Area optimism. After all, what is Silicon Valley if not a bright spot hunting ground? Over and over, visitors hear that the region's success depends on a culture of experimentation and selection – if something works, people back it. If it doesn't, they try something else.

There might be a thousand reasons a certain innovation seems impossible, but if one person finds a way to get it done, that's where the money will go. In an entrepreneurial culture, bright spots are magnets.

Cast in that light, a region such as Greater Philadelphia seems suddenly richer in possibilities. Our public schools may be troubled – but successful experiments abound. Our manufacturing base may be shrunken – but certain industries are thriving. We may not have San Fran-

cisco's magnificent vistas, but we have an unmatched selection of livable communities. We have a powerful base of universities, a strong position in health care and related industries, and a tradition of collaboration and cooperation.



Chip Heath

In other words, Greater Philadelphia is alight with bright spots. Conversely, if one applied a "dark spot" analysis to the Bay Area, it wouldn't look much better than Greater Philadelphia: high unemployment? Check. Persistent poverty? Check. Congestion? Sprawl? Check and check. Struggling public schools? Gridlocked state and local politics? Plummeting public investment? Check, check, and check.

And yet as visitors seeking useful lessons, we know intuitively not to spend all our time looking at things that don't work. Just as the investor who would see profits steers towards success, the civic leader who would see change has to balance analyzing problems with replicating successes.

Heath cites the case of a shrinking town in South Dakota. Residents began to organize: how can we stop the bleeding? They encountered plenty of true-but-useless, dark spot facts: jobs are moving overseas, highway policies encourage sprawl, and other states have better weather. The elephants were up and milling around, but their riders couldn't really steer them until local students had a look at the town's spending habits.

"What the kids discovered was, if every resident spends 10% more in Miner County, the tax base would grow by \$7 million. That's one day of week of shopping," Heath says. The town's leaders launched campaign urging residents to

skip a few trips to Sioux City's malls and instead shop locally more often. "Next year the tax revenue came in, and they'd gone up by \$15 million. They'd more than doubled their expectations."

Not every town can solve its problems by shopping on Main Street, just as not every company can be Apple. But Heath's larger lesson is that any place that has a core of people who care about it has a chance to change. That emotional power needs to be brought to life and directed. Get the elephants moving,

the riders can point them towards the bright spots, and change can happen.

This, says Heath, is as true of Greater Philadelphia as anywhere else. This region is not only full of bright spots, but it is also full of people who are deeply emotionally committed to its continued success.

This is the job of a leader: to tap into emotional energy by articulating a problem everyone agrees must be solved and demonstrate a path towards a workable and satisfying solution. "The question for you is, how do we connect emotionally to the citizens of our city?" says Heath. "You want something straightforward, simple, and measurable. Create some small wins."

But the first challenge for leaders, he adds, is to overcome the risk-averse elephant within. "You are often in the position where you, as a manager, as a leader in the community, have done some analysis that other people haven't," says Heath. "And you have a set of tools to persuade and cajole people to follow, even in a very political context like yours. If you sit around a wait for everyone in a city to say, 'We're all going in this direction,' it's not going to happen."



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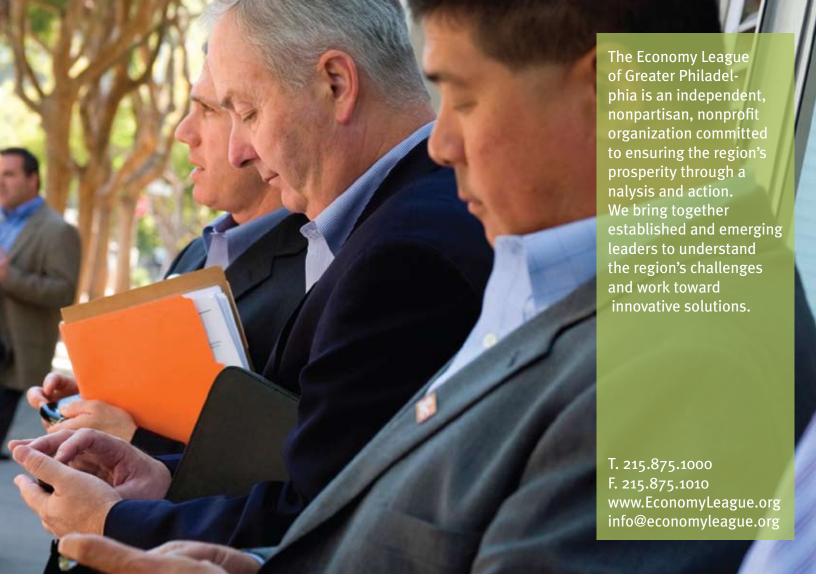
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