

CFED MONTHLY MEETING

MINUTES (approved 9-10-07)

August 13, 2007 9am - 4:30pm

- Main Street Landing, Burlington, College and Lake Streets -

Attending: Bill Botzow, Hinda Miller, Mary Lintermann, Dawn Terrill, Carl Spangler,
Mary Niebling, Will Patten, Barbara Grimes, Dan Kurzman, Kevin Dorn
Absent: Fred Kenney, Staige Davis, Hope Crifo, David Mount

CFED Business Meeting

At 9:30am the chair opened the meeting and welcomed the commissioners and guests.

The meeting was taped by ORCA Media and copies were distributed to the Cable Access Channels across the state.

The Minutes from July 18, 2007 were reviewed and approved as presented. (moved by Hinda Miller, and second by Mary Linterman)

- Review of follow-up notes on the Creative Economy Glenn McRae, Snelling Center
 - Notes and responses from various members were sent out as part of the board packet
 - Need to define the questions we have; how to develop this so it informs the process.
 - How do we draw the line between the Creative Economy and attracting, retaining and growing businesses?
 - What are the research questions that arise out of these discussions?
 - Coming up with a working definition.

This is to be taken up at September 10th meeting as part of moving ahead.

- Organizational Review Glenn McRae, Charlie Smith, *Snelling Center*
 - CFED web page is now hosted on the Snelling Center Web site:
www.snellingcenter.org/cfed
 - ACCD still hosts a cover page for CFED that links to the Snelling Center pages
 - Future conversation on what role we want the web site to play.
 - Drafts of how the Commission may move forward – the business of the commission and a public engagement process – review for basis of conversation for September 10th.
 - Need to schedule sets of meetings (to be conducted by email)
 - Chose to meet full days once a month.
 - In September we need to catch everyone up on previous discussions. No invited guests.
 - Recommendation by Kevin Dorn to use the current VEPC strategic plan as a framework. What is relevant, what is not, what needs to be added. Kevin will provide along with summary of DED operational plan as discussion basis for September 10th.
 - For September 10th – Need background on what the Commission has heard to date.
 - Keep goal in mind that the legislation focuses the Commission's work on advising the legislature and building tools to help prioritize and evaluate legislative proposals for economic development.

- Vision/Strategic Statements Survey –
This is a building block for September 10th.

- September 10 meeting
 - The focus is to be on the future processes of the Commission as noted under the Organizational Review..
 - Use the survey of members and the current VEPC strategic plan as the building blocks.
- September Letter Report to legislature
 - This will be an outcome of the September 10th meeting.

Forum on Environmental and Energy Product and Service Companies

To explore:

- The comparative advantage of Vermont in regard to these industries
- The branding of Vermont (or not) in regard to green businesses
- The specific needs and opportunities of businesses operating in Vermont
- The infrastructure to support further growth of existing and new businesses

Environmental and Energy Product and Service Companies

-background on each presenter is provided after the overview of the day.

-parts of their presentations and notes that they provided after the meeting follow as an attachment

1030-12:00 - Panel 1 (SEE ATTACHED NOTES)

- David Blittersdorf, Earth Turbines (Hinesburg)
 - manufactures small wind turbines
- Scott Gordon, Green Technologies (Winooski)
 - commercial scale bio-diesel manufacturer
- Alan Cummings, Seldon Technologies (Windsor)
 - nanotechnology company - water purification
- AJ Rossman, Draker Solar Design (Burlington)
 - renewable energy system monitoring

12:00-12:15 - Melinda Moulton, Main Street Landing, LEED certification and Business
(SEE ATTACHED NOTES)

12:15-1:00 - Lunch and general discussion

1:00 - 2:45 - Panel II (SEE ATTACHED NOTES)

- Chris Stone, Stone Environmental (Montpelier)
 - Environmental engineering and consulting services
- Jeff Wolfe, groSolar (White River Jct.)
 - one of the largest solar energy companies in North America
- David Hazelett, Hazelett Strip Casting (Colchester)
 - Manufacturer of energy efficient twin-belt continuous casting machines for the world's metals industries

3:00 - 4:00 - Discussion and Responses from (SEE ATTACHED NOTES)

- Fran Carr, UVM Vice President of Research and Graduate Studies
- Domenico Grasso, UVM, Dean & Professor of Engineering, College of
Engineering and Mathematical Sciences

Brainstorming of Themes by Commissioners as a response to presentations:

- Is Rural a theme?
- We understand that federal R&D funds will diminish
- Seed capital funds are needed for start-ups, but need to be par of larger funds to be sustainable
- Scientists and engineers can be entrepreneurs; R&D can equate jobs
- Green collar is a new perspective to think about work
- Profit is essential for growth
- Need a good sector for focus and this is a good sector
- We can see a lot of common themes in a varied group of businesses
- Vermont brand was not as important in this sector as in other sectors
- Link between technology and creativity
- Vermont sustains a vibrant economy encouraging creativity and innovation – to continue this we need to continue to value quality, integrity and trust as business values to promote
- Still need a one stop shop for new and emerging businesses (combine finance, business skills, training, networking)
- Vermont Environmental Consortium is a good investment
- Business issues have common themes across sectors
- Capital needs – always needed –more innovative ways to organize and support its availability; can combine with technical assistance
- Infrastructure needs constant attention
- Businesses in this field often have no real reason to be here, they could be successful anywhere – but they choose to be here for other connections to the state than the business environment. Those qualities are key.

4:00- 4:30 - Public Comments

- Janice St. Onge, Vermont Sustainable Jobs Fund

- need technical assistance as well as capital – programs need to be linked
- need more opportunity for mentoring – business to business
- peer networking for CEOs has demonstrated value in growing companies
- education for entrepreneurs – need to be adaptable as there are different types of entrepreneurs
- building markets – what can the state do?

- David Bradbury, Vermont Center for Emerging Technologies

Key issues for success

- Teams: How to build the right team to launch successful ventures
- Time to Market: How do we get government out of the way or make it more responsive as needed: local zoning, state permits, etc.
How do we expand access to capital, what can the state do to increase this
- Time to Capital: How long does it take to raise sufficient capital to actualize a business idea

ATTACHMENTS

COMMENTS

David Blittersdorf, Earth Turbines (Hinesburg) 5

Scott Gordon, Green Technologies (Winooski) 5

AJ Rossman, Draker Solar Design (Burlington) 6

Alan Cummings, Seldon Technologies (Windsor) 7

Chris Stone, Stone Environmental (Montpelier) 8

Jeff Wolfe, groSolar (White River Jct.) 8

David Hazelett, Hazelett Strip Casting (Colchester) 9

Fran Carr, UVM Vice President of Research and Graduate Studies 10

Domenico Grasso, UVM, Dean & Professor of Engineering,
College of Engineering and Mathematical Sciences10

Melinda Moulton, Main Street Landing, LEED certification and Business11

Additional Materials provided by Domenico Grasso as a follow-up12

Background on Presenters 19

PRESENTATIONS

David Blittersdorf, Earth Turbines/NRG (Hinesburg)

Why are we here?

- born and raised in Vermont
- quality of life
- UVM grad
- able to grow a worldwide business
- creative, non-conventional business models find encouraging environment

Vermont Assets

- Small size- businesses and individuals can make a positive impact on state policy
- close to transportation Hubs (Port of Montreal is especially important for export)
- good workforce
- quality of life
- Efficiency Vermont – great model
- Vermont Solar-wind Rebate program – model of how effective a simple straight-forward program can work and make a difference
- Partnerships growing with VTC and UVM on workforce development

Vermont Barriers

- lack of state leadership support for renewable energy
- poor understanding of the energy problem
- state economic development incentives are not designed well; tax credits linked to conditions that businesses cannot honestly respond to
- Old codes and regulations in place (e.g., building codes) that need to be updated to encourage and take advantage of new technologies and approaches.

State Support Needed:

- Policy leadership for renewable energy- (See Pennsylvania as an example)
- Incentives, equally available to all businesses – an even playing field to access
- Support Vermont businesses first
- Encourage niche leaders
- Business-State-University collaboration for workforce development and R&D

Scott Gordon, Green Technologies (Winooski)

NEED TO BUILD A "GREEN COLLAR" SECTOR:

GREEN COLLAR:

- Overlaps with white & blue collar (e.g. organic farming, green manufacturing, green engineering, green R&D, green business)
- Encompasses pollution prevention & remediation (despite inherent split in perspectives)
- Inherently based on green products & processes
- Intrinsically cost competitive (NOT fundamentally dependent on premiums)
- Capitalizes on green economies (e.g. local, waste utilization, innovation)
- Litmus Test: Preserves equity of future generations.

The green collar sector is real, it creates jobs, and it is a very important part of what VT should strive to become - a leader in Green Technologies.

FINANCING For my business we are desperately in need of a way to refinance our debt. For most small businesses the choice between venture capital and a loan mechanism is largely irrelevant: because a startup business cannot generally qualify for either of those funding mechanisms. Once a business starts to gain some traction, usually the high interest startup funding (typically defaulted credit cards) kicks in and kills the business immediately or pushes breakeven so far back that only a select few can wait out the growth cycle long enough to succeed. The state could increase the amount of business activity in the state substantially by identifying and promoting a mechanism for affordable seed funding, basically a state guaranteed loan program. Since I am currently paying over 30% in interest, such a program would be highly attractive at the 15% interest level, a high enough rate of return to help alleviate the states risk. Of course to be helpful at all, the interest rate needs to be fixed, and the repayment terms highly flexible - otherwise it just becomes another burden.

As a side note - VEDA is hopeless, because VEDA in my experience only loans against guaranteed capital - businesses with guaranteed capital can qualify for loan funding from a bank or attract other investment mechanisms.

INFORMATION AND NETWORKING Within the green sector in VT there is no clearing-house of green information. Although there are a variety of associations e.g. REV, VEC, VBA, VSJF, sustainable business network and many others - that is precisely the problem, there are a great number of individual organizations. What is needed is quite simple - a green B to B - a centralized resource, WITH STRINGENT GREEN STANDARDS FOR ENTRY, that identifies all of the green business activity in the state and starts leveraging that resource through collaboration and through localized buying to jumpstart the sector.

The green collar sector is real, it creates jobs, and it is a very important part of what VT should strive to become - a leader in Green Technologies.

UNIVERSITY PARTNERSHIP for R&D, for workforce development, for creative support of students; to develop small grants to encouraging joint work, financing to encourage start ups (doesn't take a lot of money).

AJ Rossman, Draker Solar Design (Burlington)

ASSETS

- People and social networks
- Best qualified workforce being found in Vermont (best results through Front Porch Forum, ONE)
- Cluster of renewable energy companies (one benefit has been the ability to absorb skilled labor from a business that was bought out and moved out of state – lots of good people who want to stay in VT)
- VT Global Trade Partnership – good networking with other businesses trying to sell outside of Vermont
- Vermont Community Loan Fund, Chittenden Socially Responsible Banking Fund both provided essential loans for building the business – understood and valued our business.
- Great secondary ed, vocational education, and colleges, especially Champlain College

BARRIERS

- Seed Capital is almost impossible to find in the state

- Need better access to equity capital who believe in green energy
- Difficulty of accessing UVM research and design capacity
- Local regs and zoning (e.g., not able to put up PV panels on their building), makes it difficult to operate the business in a way consistent with their product and image.

WHAT CAN THE STATE DO:

- Need better training for the renewable energy workforce (VTC is good at the technician level) but we also need research engineers
- More business support – running a business, marketing

VERMONT

- I believe it is a great state to do business in – lots of creative people and energy
- People ask me why we don't move to California where so much of the cutting edge activity is; or Wisconsin, where they are actively recruiting companies like ours, and have great state resources to support companies like ours.
- My answer is simply I love living here, as do our other workers. This is often in spite of the lack of the many resources offered elsewhere at the state and university level.

Alan Cummings, Seldon Technologies (Windsor)

WHY IN VERMONT

- We lived here; we want the lifestyle it affords
- Had a great association with Dartmouth College
- We needed inexpensive space to get started – biggest start-up challenge; Found it in the old Cone-Blanchard building in downtown Windsor. Key to a successful start-up
- Have started up Windsor technology park a few years later to try and attract synergistic businesses
- We can get skilled labor (connection to Dartmouth College) – PhDs
- Support for Congressional Delegation key

BARRIERS TO GROWTH

- State funding not appropriate for a start-up. VEDA was not available to us in early stages- need a positive cash flow; even now what we need to do to secure VEDA financing makes it of questionable value. Start-up capital is essential, and more sources need to be made available.
- Corporate laws need to change. Vermont corporate laws should model themselves on Delaware. Hard to raise capital / find investors as a Vermont corporation.
- Tax structure penalizes the successful entrepreneur – when you are successful the tax code penalizes you
- Web access
- Competitive energy prices
- health care costs
- Air travel – access to for southern Vermont

WHAT CAN THE STATE DO

- Address the barriers (above)
- Foster and support entrepreneurs; starting with Vermont companies – don't go shopping out of state
- Lot's of capacity to generate a host of new and high tech businesses from the resources (e.g., Dartmouth, UVM) at hand – focus on making the transition from idea to business.
- Focus on green technologies and businesses
- Small businesses will generate jobs and opportunities

- Create industry – university clusters around the green tech ideas, and use R&D to focus energy around these clusters
- Create an even playing field to access start-up and growth funding
- Put money into R&D – small grants to develop new ideas
- Sustain the infrastructure (e.g., roads)
- Facilitate new sources of capital – central source to assist entrepreneurs to shop for capital from multiple sources
- Improve the brownfield redevelopment program; can be a great asset if handled properly

Chris Stone, Stone Environmental (Montpelier)

Able to run a national / international environmental consulting firm from Vermont
Have a specific set of niches.

WHY IN VERMONT

- Went to school in Vermont, wife is from Vermont, ski in Vermont.
- Decided to stay in Vermont and build a business that works here
- People who work for us, want to be in Vermont – strong incentive

VERMONT ASSETS

- Lifestyle is number one.
- Most employees are working for us because they want to be in Vermont. Not always the best career choice as there are better opportunities in Boston, New York, California, but those places are not Vermont. But we can provide good challenging work – that is critical too.
- Burlington Airport – good access
- Broadband – at least in Montpelier – great asset;

BARRIERS

- for some Vermont is not attractive, and so makes recruiting more challenging.
- Burlington air port and air flight in general is becoming problematic
- Broadband does not reach out – problem for employees to telecommute from their homes outside Montpelier

-

WHAT CAN THE STATE DO

- Continue to improve the infrastructure (Broadband, airport- more airlines like SW)
- capital for service companies like ourselves
- health care insurance costs need to be controlled

Jeff Wolfe, groSolar (White River Jct.)

VERMONT ASSETS:

- Beautiful place to live
- Good workforce, although tight
- Inexpensive rent, (although not compared to some areas, we're in a national market)
- Good schools, low crime, peace
- “Good place to raise a family”

BARRIERS:

Nice place to live...but

- Expensive airport, few transport options
- Complete lack of understanding of need or requirements to build renewable industries
- Little to negative state support...changing?
- High workers' comp.
- Broadband? Need much fuller coverage.

VT got us by being beautiful, will she keep us?

- We do little business (sales) actually in Vermont so the reason for us being here has to be linked to other issues and a minimum of barriers to growing and doing well.

What does not bother us:

--"High" electric & fuel costs ("we generate our own)

What does bother us:

- Lack of long-term vision by government
(healthcare, energy, environment)
- Over-reliance on property tax
- Lack of comprehension of global warming

WHAT DO WE NEED:

- H.520 – and more – Vermont needs to show that it values what we do.
- Universal Healthcare
- VEDA / VEPC support beyond manufacturing

David Hazelett, Hazelett Strip Casting (Colchester)

ASSETS

3rd generation company in Vermont – Our family wants to be here
Research, engineering, design and manufacturing for a global market.
Produce machinery. In its field it is highly energy efficient.
Success of the business is based on its ability to innovate and evolve.
Good workforce.
Quality of life.

BARRIERS

- Transportation infrastructure. For us, the Circ Highway is critical. We may have to move our facility.
- Telecommunications and mobile phone service – needs to be even.
- beginning to see shortage of skilled machinists and other skilled workers.
- we don't have entry level jobs. We need workers with established skills.
In the work of manufacturing for us we need workers with high level skills from the start
- Environment is not conducive to making quick changes/modifications to facility to accommodate changes in needs of a process to meet a demand. Codes and regulations generally preclude being responsive in this area.
- healthcare cost shift

WHAT CAN THE STATE DO

- Improve math and science education at elementary and middle schools

If we don't build the interest early we will not raise the next generation of engineers and scientists that are needed

- For our business we need the Circ Highway completed in Colchester to thrive.

- Bring the response time down to reduce time for being able to make facility modifications

Fran Carr, UVM Vice President of Research and Graduate Studies

New emphasis at the university on research and economic development.

The research enterprise has been growing, still heavily at the Med School, but now also growing in engineering and environment and spreading to other areas.

Growing interest on the part of faculty.

New Office of Technology Transfer to take ideas from UVM to market

Partnership/association with Vermont Center for Emerging Technologies (VCET) as an incubator.

While incubators can be great to help new businesses, what about getting the "Idea" to a business start-up. UVM just began a grants program for UVM faculty, staff and students, UVM Ventures, to help stimulate that and leverage federal grants.

Small grants (Pre-seed) for prototype development; first stage of a business plan development

Innovation Fund - \$100,000 early stage funding for business launch, or further tech development to accelerate partnerships.

Growing the internship program at undergrad and graduate programs to create partnerships and link research and application.

Themes from the day:

1. Strategic university – business consortiums built around some kind of common interest cluster (sustainable systems, energy, environmental) – Research is built to support the cluster as a whole. Faculty and students participate and contribute. Can we create a discussion of how to build a cluster model? Typically these groups come together to discuss common research needs and interests – look for points of collaboration. Funded by a consortium – businesses, state, federal, university. Some models already present, UVM Ventures, Ag Innovations.
2. Scalability – how do we leverage what we have in Vermont. Can't pick winners as individual businesses, but can look to focus on sub-sector and bring contributions from many places to bear on this. Get a focus to have higher ed organize around it.

Domenico Grasso, UVM, Dean & Professor of Engineering, College of Engineering and Mathematical Sciences

Senior Design Clinic: Link students and faculty with local business and problem solving.

Internships: Placing more engineering students in businesses

Additional notes attached later.

Melinda Moulton, Main Street Landing, LEED certification and Business

Vermont's economic development organically grew and continues to grow from it's transportation network. In the 1800's it was by water and rail. Imagine Vermont with a seamless rail/bus system connecting our growth centers and moving people and goods throughout the State. When the price of gas reaches a level most average people cannot afford, we will see a tremendous downturn in our economic vitality. With global warming and the reduction of our assets such as maple sugaring, foliage, winter sports, etc. the impact on our economy will be seriously challenged.

I would like to see some visioning for the Future of Economic Development include "Transportation". Also a portion of focus on planning and developing protections for those things that keep our economic engine churning - tourism being a mighty powerful piston. Preparing the State for unquestionable environmental climate change will be key to sustaining ourselves economically through the next Century and beyond.

Energy/Transportation/Environment.....three areas the State should be focusing on as they plan for the future economic growth and sustainability of Vermont.

I used to say years ago - what a boom for Vermont if we could say to the rest of the World - we are the only state in the Union without a Wall-Mart.....how outstanding we would be and how special that would make us. To be outstanding - we need to cut through the mainstream thinking of economic development. I believe your group has the participants at the table to make that happen!!

Additional follow-up comments from DOMENICO GRASSO

From: Domenico Grasso [mailto:dgrasso@uvm.edu]

Sent: Thursday, August 16, 2007 3:05 PM

To: Glenn McRae

Subject: Re: CFED - thanks

Dear Glenn,

Thank you very much for the summary email and invitation to stay involved. I would very much like to remain involved especially because my Engineering and the Environment Advisory Committee (EEAC) appears to have multiple points of intersection with and similar goals as your Commission. I will take the summary notes from your meeting to our next EEAC meeting.

I don't know if you saw the recent article in the NYT on economic development based on intellectual capital. I will forward you a copy. This approach holds a great deal of promise for Vermont, once we solve our connectivity challenges. You might think about forwarding this article to the Commission. I have give this concept a great deal of thought and would be happy to discussion further if you wish.

Best wishes,

Dom

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Shouldering high ambitions

Domenico Grasso, dean of UVM's College of Engineering and the Mathematical Sciences

By Tim Johnson, Free Press Staff Writer, July 30, 2007

When Gov. Jim Douglas set out his vision for the state's economic future in his inaugural address this year, he vowed to promote "the growing field of environmental engineering" as "Vermont's next captive industry."

When administrators at the University of Vermont discuss ways to position UVM as a "green university" on the vanguard of environmental research and job creation, environmental engineering is central to their vision, too.

It stands to reason that one man who finds himself shouldering these ambitions -- Domenico Grasso, dean of UVM's College of Engineering and the Mathematical Sciences -- is an environmental engineer himself.

Grasso, 51, assumed the dean's position in January 2005 with hopes of invigorating the engineering program. He wanted to enhance students' exposure to non-technical liberal arts courses and to recruit young faculty members whose intellectual and research interests transcended traditional disciplinary boundaries.

"Industry wants engineers who are flexible and can move easily from problem to problem -- this is what the global economy demands," said Joseph J. Helble, dean of engineering at Dartmouth College, who has known Grasso for years and who supports the effort to produce engineering graduates who are interdisciplinary thinkers. "The programs he is helping develop at UVM will produce exactly this kind of engineer."

As for the goal of invigorating the state's economy, efforts to promote environmental engineering as a dynamic new Vermont growth industry that generates high-paying jobs and attracts skilled professionals - depend heavily on UVM's role as a research university. Not surprisingly, when Douglas established the Vermont Environmental Engineering Advisory Council in April and assigned it the objective "to establish the State as a global center of excellence for the study and application of environmental engineering and related disciplines necessary to solve environmental problems worldwide," he named Grasso chairman.

Starting from scratch

Grasso's parents were Italian immigrants. His father was a machinist and his mother, a seamstress. Grasso and his younger brother, Alfred, were the first generation in their family to go to college. There was never any question, as they grew up in Shrewsbury, Mass., that they would do that, Grasso said.

"I had no choice," he recalled, smiling. "My father told me engineering was the way to be successful."

He and Alfred wound up becoming engineers. He went to Worcester Polytechnic for his undergraduate work, Purdue for his master's degree and to the University of Michigan for a Ph.D. in environmental engineering. His doctoral thesis was on the use of ozone to disinfect water -- an alternative popular in France but not in the United States, where chlorine is preferred.

In 1989, he joined the engineering faculty at the University of Connecticut as an assistant professor and where he eventually rose to chairman of the department of civil and environmental engineering. In 2000, he was offered another opportunity -- an unusual challenge: establishing an engineering program from scratch at a women's college.

He was well aware that, in general, women had little interest in engineering.

"Only 1 percent of college graduates are women who have studied engineering," he wrote in an article, "Engineering and the Human Spirit," published in 2004. "Only 20 percent of all undergraduate engineering majors are women. And only 6 percent of engineering professors are women."

The school he moved to was Smith College in Northampton, Mass. A generation earlier, a civil engineer named Samuel C. Florman had tried to spark some interest in engineering on campus, but to no avail. One difference when Grasso arrived was that the college president, Ruth Simmons -- the person who recruited him -- was staunchly behind the idea of starting up an engineering the program.

"By the time I left in 2005," Grasso said, "engineering was the third most popular major." Engineering consistently ranks among the top five majors at Smith, a college spokeswoman said.

Engineering has more than held its own at UVM over the last decade. The fortunes of the College of Engineering reached a low in 1991, when a Strategic Planning Council report recommended doing away with it. The faculty resisted, however. In the last decade, engineering has made something of a comeback. From 1997 to 2006, undergraduate enrollment in engineering increased 27 percent, compared with 20 percent for undergraduates altogether in general.

Getting there

In seeking to strengthen Vermont's environmental-enterprise sector, Grasso apparently is undaunted by the small size of UVM and the state it serves.

"For the state to develop a robust environmental economy, we must not restrict the extent of our efforts to Vermont, but must be poised to address present and emerging concerns regionally, nationally and globally," he wrote in a recent e-mail. "It is only natural that one would expect resources to support such an endeavor to include world-class expertise and facilities."

UVM President Dan Fogel's commitment to making UVM a "pre-eminent environmental university will ensure that we can be competitive with the best universities in the world," Grasso said.

UVM is already moving in that direction, he said, citing such examples as the engineering school's Design Clinic, where seniors work with local firms to help solve some of their engineering problems; the Vermont Advanced Computing Center, which addresses sophisticated computational needs; the Vermont Center for Emerging Technologies and UVM Ventures, both designed to bring creative ideas to the marketplace; and the National University Transportation Center, which focuses on environmental problems related to transportation.

"There is also a significant effort to encourage an entrepreneurial attitude on campus," Grasso said, "which will hopefully 'spin off' companies from these research labs."

He also cited a conference at UVM this summer on complex systems -- the College of Engineering's central research thrust -- that "attracted world class scholars from U.K. Italy, Austria and France."

All this is congruent with his ambition that UVM become "a beacon for international activities."

"This will not happen overnight," he said, "but if we build it well, they will come."

Contact Tim Johnson at 660-1808 or tjohnson@bfp.burlingtonfreepress.com.

The New York Times August 13, 2007

Off to Resorts, and Carrying Their Careers

By [JOHN LELAND](#)

STEAMBOAT SPRINGS, Colo. — Time was you could tell the urban refugees in places like this: corporate achievers who quit the rat race to open a bed and breakfast or a candle shoppe.

Jim Moylan represents a new tribe in this bucolic mountain town, named for its loud sulfur spring. Mr. Moylan, 59, is a lawyer who specializes in securities and commodities work. When he moved from Chicago in 2003, he did not downscale his career for the small town, keeping his secretary and associates in Chicago and his clients around the country. He conducts his practice by fax and e-mail, just as he did in Chicago.

In Steamboat Springs, Mr. Moylan dug into local affairs, joining three city committees, the Rotary Club, his church finance council and the editorial board of the daily newspaper. “I just wanted to get involved in the community,” Mr. Moylan said, sitting in a bookstore/wine bar off the town’s main street.

As technology enables people to live and work wherever they want, increasingly they are clustering in resort playgrounds like Steamboat Springs (pop. 9,315) that have natural amenities, good weather — and, now, lots of people like themselves.

In places like Nantucket, the Upper Peninsula of Michigan and Teton County, Idaho, the migrants are creating hybrid communities, implanting urban incomes, tastes, careers, ambitions, restaurants, cultural activities and networking opportunities into small towns that until recently could support none of these, and for which there has been little planning and still no consensus.

“You are seeing a transformation of rural communities,” said Jonathan Schechter, executive director of the Charture Institute in Jackson, Wyo., a nonprofit organization that studies small recreational towns.

Into quiet resort spots the migrants have come, laptops on their knees: fund managers from New York, software developers from California, consultants, proofreaders, engineers, inventors. “The same processes that led to the suburbanization of the United States after World War II,” Mr. Schechter said, “are now producing a virtual suburbanization in places like Jackson or Steamboat Springs.”

From 2000 to 2006, population in the 297 counties rated highest in natural amenities by the [United States Department of Agriculture](#) grew by 7.1 percent, 10 times the rate for the 1,090 rural counties with below-average amenities, the department reported.

In towns that once emptied after the ski season or the beach season, these “location-neutral” migrants are complicating the traditional dynamic between tourists and locals. Here as elsewhere, average homes have become unaffordable for teachers, firefighters and others — the people who created the good schools and community closeness that newcomers said drew them. The rate of change “is causing a whiplash,” Mr. Schechter said, “because the towns don’t have the political and economic systems in place to deal with them.”

Routt County, which includes Steamboat Springs, is one of the first places to identify these new émigrés as a source of economic growth and, paradoxically, community stability. A 2005 survey found that as many as 1 in 10 year-round households was involved in a location-neutral business. Unlike retirees and second-home buyers, who are also roosting in vacation towns, they send children to the local schools. “Without kids, you don’t have a community,” said Scott Ford, a counselor at the Small Business Resource Center at Colorado Mountain College.

Cloistered in home offices, isolated from the local economy, location-neutrals are often invisible even to one another, except when they appear on local committees.

Many work as hard as their urban counterparts, often juggling commitments in several time zones, but can step from their offices to a hiking trail or mountain stream.

In Steamboat Springs, a pawn shop and loan store amid the expensive restaurants on the main drag illustrates the growing inequality in a region that produces few middle-income jobs. Each day 1,500 workers commute to Routt County from neighboring Moffat County, an hour away. Meanwhile, the airport, once filled with tourists, caters to people in business suits.

“You’ve seen changes in politics,” said Carl Steidtmann, the chief economist for Deloitte Research, who moved from Brooklyn two years ago. “The county tipped Democratic in the last election. You see the tension in the City Council. It went from being pro-business-and-development to more conservationist.” He added, “Twelve years ago, not everyone you met had a Ph.D. or was from New York. There are still a lot of locals here, but that aspect is changing.”

Peter Parsons, 45, who runs a microchip design company in Boulder, Colo., a city of 92,000 about three hours away, moved here five years ago to raise his three children in a small-town environment, keeping the company in Boulder. “It’s a real town,” Mr. Parsons said of the appeal of Steamboat Springs. “If your kids are running around, adults will see them and call you.”

He has kept a Boulder telephone number and does little to remind clients he is not in the city. “I wouldn’t have been able to come here with my family if it meant opening a coffee shop,” he said.

To combat isolation, he volunteered at the school and at church, and briefly moved from his home office into a town-run business incubator “in order to meet people,” he said. Now his office overlooks the ski slopes and is a short walk from a fly-fishing spot; computers vie for desk space with hand-tied flies. He still has to persuade associates that he has not slowed down or retired.

“We have big discussions about what it means to be a local,” Mr. Parsons said of his fellow location-neutrals. “Some people snub anybody who hasn’t been here a long time. And some people think they know everything when they haven’t been here long.”

The Routt County Economic Development Cooperative has embraced the new tribe as an asset, especially to an area with no strong industry other than tourism. Location-neutrals tend to volunteer heavily in civic organizations and local government. County interviews with 61 location-neutral businesses found they held 120 volunteer positions.

But their enthusiasm has not always rubbed long-timers the right way, Mr. Ford said. “If they haven’t bonded with the community,” he said, “they begin with the ‘You people’ speeches: ‘What you people don’t understand is...’ When they start that, it’s almost impossible.” Sometimes disputes spill out in the local newspaper or its blogs, where old-timers and newcomers point fingers.

Thomas Miller-Freutel, a partner in a directory-assistance startup, knows this chasm firsthand. Though he has lived here since 1990, first as owner of the Steamboat Inn, he sometimes struggles to balance his fast-paced work life with the small-town community.

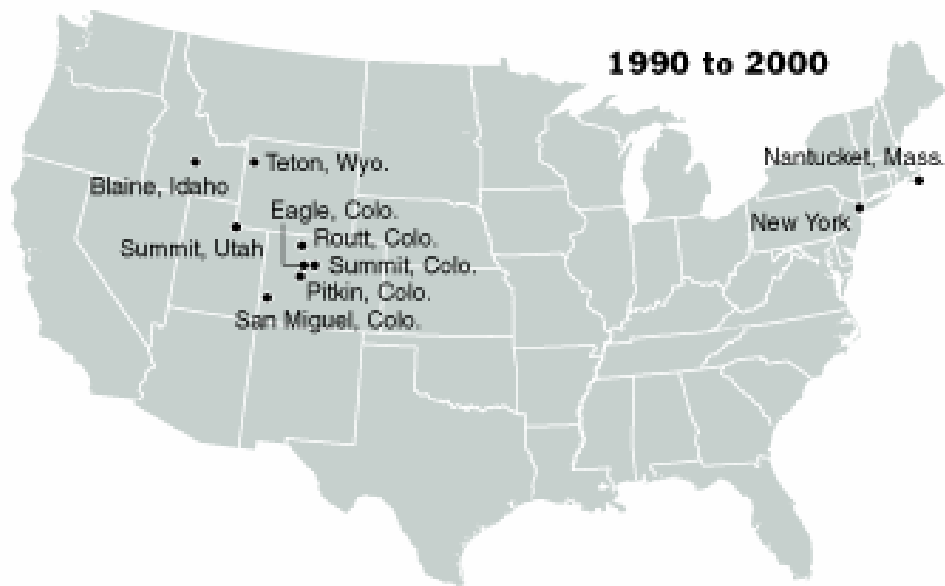
“I have to switch gears from what I was doing in other parts of the world to sit down and be productive as a community member,” he said. “You have to be careful not to say, ‘Look, I deal with people all over the world and this is how it’s done.’ You have to change gears in a small town.”

For Bill and Stephanie Faunce, who run a marketing company for cable operators, small-town life often means starting work at 7 a.m. and quitting at 11 p.m., but with breaks to hike, ski or be with their two young children. Their goal in coming here was not to slow down but to eliminate urban distractions and pressures.

“There are no stressors here,” said Mr. Faunce, 43. “In L.A., it took 90 minutes to get to the office, so we had a Mercedes and a Land Rover. Now we drive a Suburban. In three years we’ve put 15,000 miles on it.”

The New Urban Refugees

The 10 counties with the greatest increase in the median value of homes, according to an analysis of Census Bureau data.



Source: *The Charters Institute*

Environmental and Energy Product and Service Companies Presenting 8-13

Earth Turbines (David Blittersdorf)

Hinesburg, VT

<http://www.earthturbines.com>

We are a new manufacturing company formed expressly to bring innovative technology to the world of home wind power. Wind power is a viable option for many, many homeowners. We are bringing our expertise to the field to make wind power even more practical for residences in Vermont and across the country. Our dream is to make wind turbines as commonplace in America as high-efficiency home furnaces.

Green Technologies, LLC (Scott Gordon)

Winooski, VT

www.greentechvt.com

The only commercial-scale producer of biodiesel in the state of Vermont. Green Technologies is located in Winooski, Vermont. Our main product is currently [biodiesel](#)- a cleaner-burning and non-toxic alternative to diesel fuel and #2 heating oil. We are strong advocates for "micro-biodiesel" production, similar to what occurs in the beer industry.

Draker Solar Design, LLC (AJ Rossman)

Burlington, VT

www.drakersolar.com

Draker SolarDesign offers complete performance monitoring solutions that are ready to go "out of the box" and easy to install. Our systems fill the need of the renewable energy industry for cost-effective, reliable data collection with accurate measurement and automated data management of critical renewable energy system information. Draker's VER·TECH line of performance monitoring products deliver real-time and historical data that is continuously archived. Performance and natural resource information is intelligently processed and presented in easy to use graphic visualizations for local and web-based viewing. Accurate, reliable data is a fundamental component of power system performance optimization.

Seldon Laboratories, LLC (Alan Cummings)

Windsor, Vermont

<http://www.seldontechnologies.com/>

Seldon was started in January 2003 in Woodstock by founders Christopher Cooper and Alan Cummings who lived in the Upper Valley area of Vermont. The company was founded in order to develop commercial applications for the nanotechnology breakthroughs discovered by Mr. Cooper. Later in 2003 the company moved to the former Cone-Blanchard building in Windsor where nearly 220,000 square feet was unused other than for storage. Funded largely by research and development contracts from the US Government (USAF and NASA), Seldon has developed a material that purifies air, fuel, and water far more efficiently than other technologies. In a strategic partnership with one of the world's largest filtration companies, Seldon is rapidly scaling up production of the material and expects to be selling water purification products later in 2007.

groSolar (Jeff Wolfe)

White River Junction, VT

www.grosolar.com

groSolar, the leader in solar energy systems. groSolar is dedicated to energy independence and the reversal of global warming. A leading distributor of sustainable, green energy products and services, we deliver and install solar power systems for residential and commercial customers.

groSolar and set about “installing as much solar as fast as we could,” says Jeff. Today, the company is among the largest solar energy companies in North America, with offices throughout the northeast and in Colorado and western and eastern Canada.

Hazelett Strip-Casting Corporation (David Hazelett)

Colchester, VT 6

www.hazelett.com

Hazelett Strip-Casting Corporation designs, manufactures, installs, and services twin-belt continuous casting machines for the world's metals industries. One of the major selling point for the machines, especially on the international market, is that they are extremely energy efficient.

Stone Environmental, Inc. (Chris Stone)

Montpelier, VT

www.stone-env.com

Stone Environmental, Inc. was founded in 1992 and quickly established itself as one of the top US firms evaluating the environmental effects of agrochemical use. Since then, we have expanded to a 26-person multidisciplinary team with expertise in a wide range of scientific disciplines. Our scientists are organized into five distinct groups that share a common theme: water quality. Stone is based in Montpelier, Vermont, a New England state admired for its quality of life and strong environmental values. Because we're in such a desirable location, we have been able to recruit some of the country's best scientists and professionals.

RESPONDENTS

- **Fran Carr**, UVM Vice President of Research and Graduate Studies
- **Paul Hale**, Executive Director of the Vermont Technology Council, and Associate Vice President for Research and Economic Development at the UVM

GUEST Melinda Moulton (along with her partner Lisa Steele) are Sustainable Redevelopers of the Main Street Landing property on the Burlington Waterfront. They have been involved in environmental and socially conscious redevelopment since the early 1980's. Together they created the innovative "team approach to design, development, permitting, and construction" philosophy, and produced in concept a 25-year incremental redevelopment project for the Burlington Waterfront. Main Street Landing is predicated to creating beautiful buildings that are healthy, safe, and comfortable. They have completed over 250,000 square feet of new and renovated space, which includes the Union Station, CornerStone, Wing, and Lake & College Buildings.

Melinda Louise Moulton, CEO/Redeveloper

Main Street Landing

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