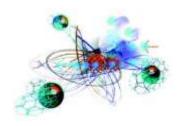
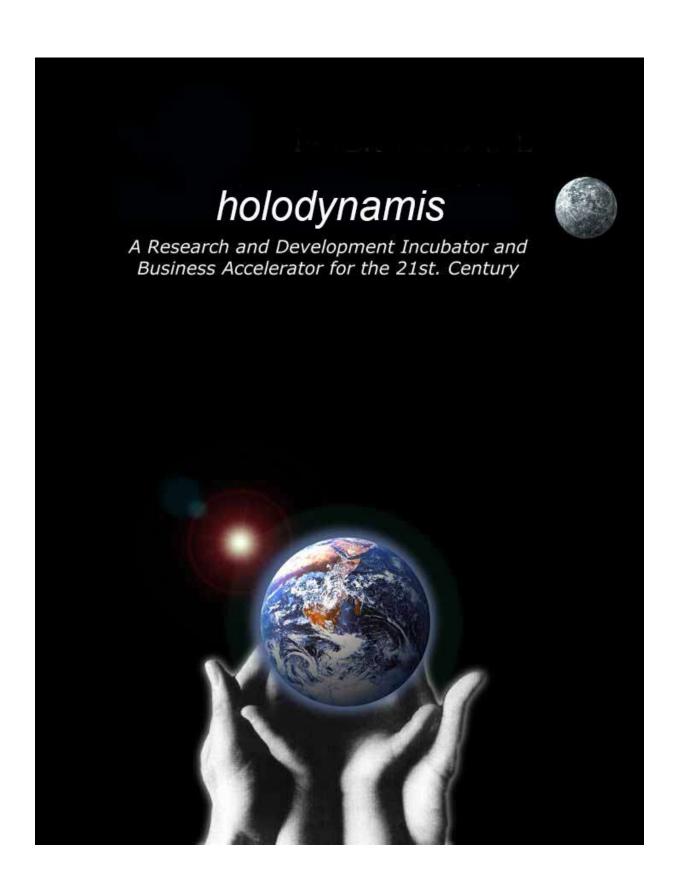
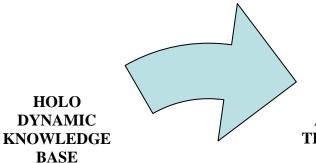
# THE INTERNATIONAL ACADEMY OF NATURAL SCIENCE



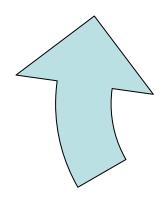
# And

# THE HOLODYNAMIS PROJECT

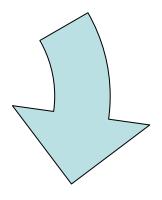




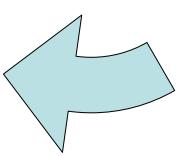
NEW ADVANCED TECHNOLOGY



HOLODYNAMIS PROJECT



SUSTAINABLE COMMUNITIES OF THE FUTURE



CONSCIOUS CAPITALISM

**HOME** 

**HOLODYNAMICS** 

**CONSCIOUS CAPITALISM** 

MULTIDIMENSIONAL INFORMATION MANAGEMENT

Latest in COMPUTER TECHNOLOGIES

RESOURCE RECOVERY: REMEDIATION PARKS

RENEWABLE ENERGY SYSTEMS WIND, WATER, PLASMA, ETC.

POLLUTION CONTROL AND CLEANUP

WATER & AIR PURIFICATION

**SUSTAINABILE COMMUNITIES** 

**NEW MOTORS** 

R & D LAB

## INTRODUCTION: THE HOLODYNAMIS PROJECT

# Making the Transition to Globally Sustainable Business and Economic Systems

As we experience perhaps the greatest transition in human history, we are challenged to effectively transform unsustainable systems into those that will allow future generations to survive and thrive. The International Academy of Natural Science (herein *the Academy*) has organized a team of experts and formed **the Holodynamis Project** to assist in the transition and brings to you the following:

- An embracive knowledge base that has proven effective in solving complex problems and includes the whole dynamic: Holodynamics
- Advanced models of economics and methods of doing business that insure a high standard of living for everyone: Conscious Capitalism
- New technologies that provide: advanced computer capabilities; multiple dimensional information management; resource recovery and recycling; renewable energy devices; new local food growing processes; and much more.

It is well recognized that our current continual-growth-and-high-consumption pattern of human activity cannot be sustained. Making the shift requires dealing more efficiently with entire complexities of global challenges as an interrelated whole. The shift demands an expanded framework and knowledge base that embraces the whole dynamic (Holodynamics).

This HOLODYNAMIS PROJECT outlines how to make the transition from competition to creativity, from wasteful consumption to resource recovery and maintenance, and how to shift from the failing profit-driven digital economic system with its polarizations between rich and poor, rampant consumption, waste and environmental pollution, and endless poverty and wars; to a new expansive system that is built on the scientific management of natural resources with access to all people. This approach is known as <u>Conscious Capitalism</u> which potentially produces a sustainable high standard of living for everyone.

The shift requires the implementation of new technologies that reach well beyond the scope of issues that individuals, organizations or governments have had to deal with before. To meet these challenges the Academy has acquired <u>advanced proven technologies</u> such as: intellectual property,

computer chips (Aquarian), renewable energy devices (efficient motors and advanced solar, wind and water, devices), waste remediation (Waste Remediation Parks), resource recovery (Super Plasmic Arc) and other technologies. The Academy now seeks to implement these technologies into various markets through the Holodynamis Project.

The transition requires your participation in its education and training program. It's about creating a collaboration of minds, with professional seasoning in teambuilding and management that is grounded and visionary, capable of carrying out grand humanitarian programs beyond the confines of our old systems.

## The New System

The project is a manifestation of the new system: a combination of a Holodynamic framework, Conscious Capitalism and new technology. It models a dynamic organization whose people can think and act in new ways and encompass a new expansive world view, a new paradigm.

The HOLODYNAMIS PROJECT openly works in multi dimensions and demonstrates the success of implementing a multiple bottom line that includes resources, people and the environment. The people involved are capable of conducting research, performing due-diligence, and combining their knowledge base within the laboratory with the goal of manufacturing and the marketplace. They have a local as well as a global perspective.

This project has the ability and the technology to transform great ideas and concepts into workable prototypes and implement these into society. It serves as a prototype, a learning and application organization, whose ultimate objective is to generate new enterprises that have great societal value and impact. Like a starfish, HOLODYNAMIS reproduces itself by generating parts of itself as <u>projects</u> that become <u>self-sufficient within one to three years</u>. It is a dynamic research, development and implementer incubator and business accelerator.

The HOLODYNAMIS Project is organized into Sub-Projects that begin with proven technology ready for market.

### SAMPLE SUB-PROJECTS

Among major Sub-Projects included in the Holodynamis Project are:

**HOLODYNAMICS**: Implementation of Knowledge Base:

MIMS: Multidimensional Information Management System: the use of advanced computer technology and intellectual property to integrate systems such as legal/judicial, economic/banking, and other ontologies.

**CONSCIOUS CAPITALISM**: Development and support of a resource based Economics System.

#### **RESOURCE RECOVERY:**

**Remediation Parks:** 

Pollution Control of Industrial Plants:

Water Purification: Desalination and Mineral Recovery:

Air Decontamination: Grids and Reforestation:

Mobile Waste Remediation Units:

RENEWABLE ENERGY

**XGEM Rotary Engine Microgenerators:** 

TURBOSTAR: Ambient fluid-powered turbines:

**SEMU: Solar Electric Micro-Utilities:** 

**AEROTECTURE: Vertical Axis Urban Turbines:** 

**HOLODYNAMIS** Laboratory:

# OVERVIEW TECHNOLOGIES AND PROJECTS

#### 1. HOLODYNAMICS: Knowledge Base Implementation

Holodynamics refers to the interdisciplinary and multidimensional study of the whole dynamic. What have emerged from this study are embracive knowledge bases that have proven effective in raising the conscious level of people and in solving complex problems from micro to macro (see <a href="https://www.holodynamics.com">www.holodynamics.com</a>).

HOLODYNAMIS uses the Holodynamic knowledge base to implement its technologies into various ontologies and now seeks funding to expand its influence through global education and the development of films and online games about the science of consciousness.

### INTELLECTUAL PROPERTY: Multidimensional Information Management System (MIMS)

MIMS contains advanced intellectual property (IP) that permits thousands of platforms to be analyzed, evaluated and integrated in multiple dimensions within microseconds. The IP is combined with a chip with many dozens of cores allowing the integration of entire systems in multiple dimensions. MIMS also contains a security system making it almost impossible to hack. The goal is to manufacture the chip for distribution. Currently the chip has more than ten thousand apps programmed into its cores.

## CONSCIOUS CAPITALISM: Resource-Based Economic System

The Conscious Capitalism movement seeks to transform the current economic system by developing: a resource based currency, a multidimensional information management system for all banking and currency systems, integration of the current judicial system with currency laws and establishing more scientific management of natural resources leading to a more balanced, sustainable economic system.

#### 4. RESOURCE RECOVERY: WASTE REMEDIATION

Rapid population growth has increased pollution to the point that extreme climate change now threatens civilization. This condition is amplified by the fact that

human rampant consumption and incineration of community by-products is destroying the planets natural resources so fast that experts estimate the world will run out of access to natural resources within the next twenty years.

To circumvent the seemingly irreversible catastrophic results of this condition, the Academy has acquired the technology to recover natural resources from waste and pollution sites and to prevent further pollution of the environment. This new technology makes it possible to clean up the waters, land and air of our environment and re-establish ecological balance.

To recover our precious resources and clean up our planet the Academy has established a network of Cleanup and Recovery Programs that include: Remediation Parks using the super plasmic arc with scalable units for Pollution Control of Industrial Plants and other pollution sits; Water Treatment for oceans, lakes and streams; Air Decontamination and Mobile Waste Remediation Units for Super Funded and other contaminations sites and placed them within the Holodynamis Project. (Details are available in the Data Support section). In brief, Resource Recovery includes:

#### a. Remediation Parks

Remediation requires the use of the certified <u>super plasmic arc</u> that operates at temperatures high enough to separate the molecular bonds and makes possible the retrieval of natural resources. The process also releases more than enough energy to run the entire operation. The stream of natural resources and the excess energy become available to the public.

#### b. Pollution Control on Industrial Plants

The super plasmic arc can be scaled down to fit within coal firing plants and transform pollutants. In a similar way, these portable units are effective in eliminating all pollutants from industrial plants.

#### c. Water Treatment

Desalination and purification of water removes minerals and pollutants and restructures the molecules so it becomes "living" clean water.

#### d. Air Decontamination

**Grids:** "Grids" fit on the front of any vehicle, gather pollutants as the vehicle moves and, when full, can be traded in at any location including gas stations and replaced free of charge for new Grids. Oil companies purchase the Grids, use the pollutants in oil recovery and replace them with new Grids.

**Reforestation:** Special growing technology allows reforestation to be accelerated using grey water from industrial and commercial sewage treatment plants.

#### Mobile Waste Remediation Units

The super plasmic arc is scalable and portable. It can be transported to any site, used to clean up the site and recover the precious resources. The site can then be restored to its natural state.

#### RENEWABLE ENERGY

The HOLODYNAMIS network of Renewable Energy includes the following Projects: The XTGEM Rotary Engine Microgenerator; Turbostar (ambient fluid-powered turbines); SEMU (Solar Electric Micro-Utilities); AEROTECTURE (Vertical Axis Urban Turbines); and the HOLODYNAMIS Laboratory (details can be found in the Data Support section). In brief:

#### a. XGEM Rotary Engine Microgenerators:

The XGEM Rotary Engine Microgenerator increases power generation efficiency and dramatically reduces the cost of production and deployment of distributed power systems. It may be used in a variety of applications ranging from large portable powered generators to distributed power stations in remote, residential, and business/industrial zones.

#### b. TURBOSTAR: Ambient fluid-powered turbines:

The new proprietary wind and water turbine systems (Turbostar and HydroStar) substantially reduce the cost of turbine generators and fulfill a pent-up world demand. No other wind and ambient water turbine has the design and performance features of TurboStar/HydroStar system. No other water turbine exists that can harvest the energy from a stream without the use of dams. This underwater device generates hydraulic pressure which runs on-land hydraulic motor generators.

#### c. SEMU: Solar Electric Micro-Utilities:



The mobile solar electric power system is an intelligent energy storage device. The device, designed for individuals, will power the energy requirements for a home, offices, clinics, laboratory, wherever electrical power is needed.

#### The Personal Power Carte®

A complete business plan exists for manufacturing, distributing and licensing the technology world-wide.

# d. SOLMAN: Mobile PV Power with built in Batteries and a 2KW Sinewave Inverter

These large micro-electric, water and waste utilities are the components of self-reliant eco-villages. The buildings are essentially rebuilt shipping containers. The buildings have been engineered to be earthquake and hurricane proof.



# d. AEROTECTURE: Vertical Axis Urban Turbines

The Aerotecture vertical axis windturbine is designed to operate on the roof-top of buildings in the city. The machine is now being certified with the California Energy Commission Buy down program for utility intertie with the power grid.



www.aerotecture.com

# e. The HOLODYNAMIS Laboratory: Innovation Incubator and Accelerator Facility

The incubator is a laboratory that acts as an accelerator for catalyzing scientific research into the development of new technologies and manufacturing. Working as a laboratory, the incubator requires a physical facility that supports and nurtures the completion and testing of new technologies. As an accelerator we are an innovation management team that builds new enterprises around the new prototypes and "spins them off" to become sustainable businesses with global markets.

We also require open land, a test platform for many novel solar and wind energy systems. We also require the ability to bring vehicles inside the building for retro-fit modifications. The ideal would be placement in a science and technology park.



HOLODYNAMIS US Proposal with building integrated wind turbines and PV.

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The Value Proposition

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## The Vision

Decisive advances in the sciences, particularly physics, chemistry and psychology, are opening fundamentally new understandings of our relationship with matter, energy, space, and time. Technologies are now emerging that reflect and support the practical use of these deepening insights. For example, contrary to fossil fueled energy-generation methods which are damaging the biosphere, new non-polluting systems promise to empower humanity to meet its growing needs and aspirations while simultaneously re-establishing a greater level of balance in the life support systems of our planet.

This emerging body of knowledge (Holodynamics) permits an increase in the management of information systems in multiple dimensions (MIMS) in such a way that humanity can also manage its natural resources in more efficient and effective ways (Conscious Capitalism), transform its wastes and pollutants (Resource Recovery) and establish sustainable sources of clean energy (Renewable Energy). Continual incubation and acceleration is provided by the laboratory research and development (HOLODYNAMIS LAB). The vision of the Academy is to skillfully integrate and compassionately implemented this new information so as to better enable the human race to attain a state of long term ecological sustainability, peace and equitably shared abundance for generations to come.

The systemic problems driving the deepening crises within human society as well as within the biosphere require nothing less than a whole systems solution. Such a solution entails the implementation of a well-coordinated array of simultaneous strategic initiatives on many levels. The Academy has organized the Holodynamis Project as a coordinating body within an extended consortium of individuals, groups, projects and enterprises that share a set of common aims and values:

Maximizing cooperative synergy

Practicing and fostering whole systems thinking

Cultivating global sustainability

These values unify a world class team of scientists, engineers and enterprise development specialists who are actively keeping abreast of emerging technologies across the wide range of new science. The Academy and the Holodynamis team are committed to developing and deploying technologies and projects in the World that provide humanity

with methods of the use of high technology for information management, resource recovery, clean energy generation, ecological remediation, as well as other components of a new sustainable infrastructure.

## The Mission

# Technology Incubator and Business Accelerator for the U.S.A.

The HOLODYNAMIS team acts as an evaluator, incubator and accelerator for catalyzing scientific research, development of new technologies, their manufacturing and introduction into the marketplace.

As an *evaluator*, we assess the claims of each technology in relation to its actual performance measurements.

As an *incubator*, we establish physical facilities that support the development of each technology to its successful completion as a prototype and implement it into the marketplace.

Performing as an *accelerator*, we are an innovation management team that builds new enterprises and "spins them off" to become sustainable businesses within the global marketplace.

## **Primary Functions:**

# Technology Testing, Evaluation & Scientific Due-Diligence.

Prototype selection and validation.

#### Research and Development Incubator.

Engineering support: From concept demonstration to replicable product design.

#### **Enterprise Development Accelerator.**

Enterprise design, business creation, management and employee education, industrial process engineering, manufacturing and marketing support.

The HOLODYNAMIS group is a coordinating body for a range of new enterprises represented in various portfolios that bring technologies to market that benefit the Earth and humanity. The business model includes a significant role for internal reinvestment in new technologies and enterprises that fulfill the mission criteria. These criteria in turn are not

only economic and ecological, but also include a strong humanitarian and philanthropic content.

The HOLODYNAMIS group encompasses, oversees and carries out individual projects and organizational tasks. These can generally be grouped into one of the following categories:

#### **Pure Scientific Research**

The Academy sponsors the Holodynamis Project and brings together its team to both conduct original research in the sciences and potential technologies and also to fund, direct, and coordinate research by other individuals and institutions that meet the objectives of creating sustainable abundance on a global scale.

#### **Technology Development**

- 1. The translation of scientific discovery to engineering practice and development of original inventions by our own incubator laboratory.
- 2. To identify, test, and evaluate technologies developed by others and brought to our attention. Successful technologies from each of these branches are supported through further development into replicable prototypes, and production prototypes for manufacturing.

#### **Enterprise Development**

A number of paths to commercial deployment are available. In some cases, specific technologies will be sold or licensed to existing corporations with established markets. However, in many cases, the creation of new enterprises will be necessary. The incubator will provide financial support, managerial expertise, and administrative services to these new enterprises, to maximize their probability of success.

#### **Market Research and Trade**

The HOLODYNAMIS group understands the necessity for its long-term strategies to be grounded in factual demographic, economic, and marketing data. We will conduct and support the original technology research with market research, trade, an emphasis on branding and intellectual property protection.

#### **Education and Outreach**

The Academy is committed to educating the public about new scientific findings, technological innovations, and their broader implications. Toward this end, the Academy and the Holodynamis group will support an

ongoing program of publication and distribution of media including monographs, periodicals, videos, study guides, school curricula, books, web sites, videos, films and online video games.

We will initiate international design competitions that will challenge international design schools and companies to deliver the finest solutions internationally. We will participate in academic and professional conferences and other engagements that have the potential to inform and inspire the larger global community.

#### **Assets**

The following list provides a synopsis of what we presently have to offer.

#### **Science & Technology**

Interface to and a personal rapport with an extensive USA, Russia and Chinese network of leading-edge scientists and engineers on the forefront of innovation.

Strong knowledge-base in physics and engineering and computer aided design and manufacturing.

The development and management of a proprietary portfolio of leading-edge technologies in the areas of:

The Science of Consciousness: Human Development

Computer Technology

Information Management

Resource Management

**Ecological Implementation** 

Biomedical and Health & Wellness Sciences

Waste and Pollution Transformation

**Ecological Remediation and Restoration** 

Renewable Energy Production

**Energy Storage and Distribution** 

**Energy Conservation and Efficiency** 

**Buildings as Energy Producers** 

**Electric Transportation** 

Water Treatment and Restructuring

Sustainable Development of Land & Infrastructure

#### Media and Education

The portfolio presented in this document represents a subset of the full range of project categories in our larger portfolio outlined above.

#### Management

Innovation management skills.

Experience in bringing concepts into practical realization.

Experience in the field of technology licensing and transfer.

Experience in entrepreneuring and business enterprise development.

Ability to build trust and produce cooperative outcomes.

Strength in human resource management.

A professional team working together smoothly with a strong commitment to our vision.

## **Enterprise Development**

A vital element of the incubator mission is to create new enterprises that can successfully deploy breakthrough technologies. These enterprises will build a permanent financial base for the incubator and its ongoing commercialized projects. Toward this end, we have adopted a business incubator model with four essential components:

**Technology Evaluation** will assure that new inventions, products, and processes are thoroughly tested to determine their viability and potential range of applications. This step will enable the incubator to concentrate its efforts on technologies with the greatest potential for success.

Central Services will provide needed business infrastructure to scientists, engineers, and inventors seeking to start new enterprises. Administrative support, central accounting and bookkeeping, marketing and sales support, and enterprise development consulting, will promote best practices and make the most effective use of expertise during critical formative periods.

**Innovation Management and Employee Education** will transfer knowledge and entrepreneurship skills to the founders of new enterprises as they take on added responsibilities.

**Internal Reinvestment** will retain a percentage of equity in each new enterprise, to provide ongoing oversight and a source of continued funding for the incubator and its future projects.

The structures and methods we propose will enable the incubator to create enterprises that are as sustainable as the technologies they develop.

# The Value Proposition

The Holodynamis Project selects the finest emerging technologies in the world, evaluates their potential, sponsors their development, licenses to established companies, initiates successful marketing programs... and thereby receive a substantial equity stake and resulting profits and becomes self sustaining.

## Six Month Plan

A six-month period will be used to lay the foundation for long-term efforts. This phase will include strategic planning and development of organizational infrastructure. Beginning January 1, 2013, we are now focusing on the following areas:

Internal Development: Staffing, physical infrastructure (land, buildings, facilities), business infrastructure (financial, legal, and administrative).

**Technology Evaluation:** Protocols for testing and assessment, determination of viability and applications, market research, and production design.

**External Development:** Strategic Alliances, codification of criteria for funding of new technologies and research programs, corporate communications and public relations.

**Funding:** Presentation of our company and our intellectual property portfolio to interested parties and countries.

First Clients: USA.

# U.S. Employment

#### Anticipated Employment in the USA.

The HOLODYNAMIS core team is made up of 12 executives who will run operations.

We are planning to have satellite facilities in the U.S. each with a minimal operational staff of 6.

The projects that are incubated and then spun-off into private enterprises are made up of leading-edge technologies in the field of: **information management**, **minerals recovery**, **energy generation**, **water processing**, **land development/food production**, **eco-sustainable buildings**, **waste-recycling**, **and transportation**.

#### **U.S. Market Penetration**

When we consider each industry segment and utilize just the marketing segment of the "Cultural Creatives" in the U.S. (about 60 million people who want and can afford to buy sustainable technologies) and when we predict a conservative 5% market penetration, or 3.0 million people, who will potentially purchase our products, then as a result of our efforts for the US market indicate:

The Science of Consciousness: Human Development: Education, marketing and implementation of proven technologies that advance the quality of consciousness including new video games and films about human development will provide income for an anticipated 12,000 people in the USA.

<u>Computer Technology</u>: The continued development, marketing and distribution of the advanced chip and its implementation into various ontologies will employ an anticipated 300 people.

<u>Information Management</u>: The establishment of secured storage facilities and implementation into the various information management systems will employ an anticipated 60 people.

**Resource Management**: Developing and supporting the Conscious Capitalism system of accessing, evaluating and managing natural resources will employ an anticipated 2000 people.

<u>Minerals Recovery:</u> Mining of ore and cleaning up of slag heaps will employ an anticipated 30,000 workers who will build, market, install and operate technology.

**<u>Ecological Implementation</u>**: Restoration and remediation of forests, lakes, streams, oceans and atmospheric sites will employ an estimated 10,000 people.

<u>Waste and Pollution Transformation</u>: Recycling industries which remanufacture from the waste-stream and buy-back centers will help create Remediation Parks and Mobile Units for waste remediation and will employ an anticipated 40,000 people.

**Energy Generation:** Distributed energy generation from solar, wind, microturbines, fuel: will employ an anticipated 90,000 people who will manufacture, market, install and operate technology.

<u>Water Processing:</u> Patented water purification and desalination technology as drinking water becomes more important and expensive than oil. Anticipated employment of 20,000 people to manufacture, market, install and operate plants.

<u>Land Development:</u> Implementation of Agroforestry intercropped organic farms and Growing Towers. Anticipated employment of 80,000 field workers, many from immigrants, homeless and the unemployed.

<u>Eco-Sustainable Buildings:</u> The prefabrication of new and retrofitted buildings as solar collectors and self-reliant living systems will employ an estimated 60,000 trades people and contractors.

<u>Transportation:</u> Implementation of new more efficient electric motors, construction of Group Rapid Transit Systems and development of hybrid-electric road vehicles with anti-pollution Grids will require the anticipated employment of 40,000 mechanics working in regional retrofit centers.

<u>Biomedical and Health & Wellness Sciences</u>: Using advanced consciousness processes and instruments of healing; most diseases can be cured and new wellness programs established in each community. It is estimated the Wellness Program will employ an estimated 4,000 people.

<u>Media</u>: The transformation of media mechanisms and the creation of life generating information systems will employ 500 experts.

**Education**: The establishment of tracks and clusters within the education system will employ an estimated 1,000 teachers.

#### **TOTAL Job Creation:**

Administration of HOLODYNAMIS Headquarters in the US: 12 people

HOLODYNAMIS Affiliates in 20 U.S. States people

HOLODYNAMIS Associates Anticipated U.S. Employment:

100

Arizona: 100,000

California: 300,000

New York: 250,000

Texas: 200,000

Other States: @100,000 x 17 1,800,000

Total: 2,650,112 anticipated new employment opportunities for domestic markets. These figures to not count export orders or the vitalization of existing support industries.

Utilizing a 5% market penetration for these products in the U.S.

#### Source:

V. Vernon Woolf, HOLODYNAMIS (805-504-5001) <a href="www.holodynamics.com">www.holodynamics.com</a>) and Reinhold Ziegler, Synergy California L.P. (415) 290-4990 <a href="www.synergyii.com">www.synergyii.com</a>

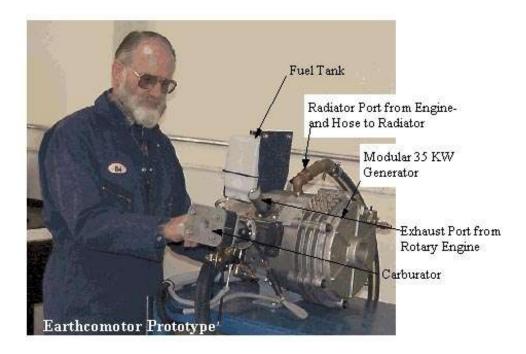
# The Portfolio of Projects

The following is a short sample of the HOLODYNAMIS proprietary list of technologies. Because these projects have had R&D and there exist working prototypes and in some cases patents, they are, in our opinion, Technologies ready for funding, licensing and manufacturing!

Should you desire further information on any of the technologies mentioned here we require that you sign and return our Non-Disclosure and Non-Circumvention Agreement (attached, Addendum A).

The HOLODYNAMIS Executive Directors are the interfacing individuals to this list, and it should be understood that any further interest in these projects relative to details or their developers should be directed to the following instead of trying to contact the inventors themselves.

# Rotary Engine Microgenerators



Principal Investigators: Tim Shattuck P.E. and Paul Butterfield P.E.

Research and Development: Synergy California L.P.

Business Development: Reinhold Ziegler, Executive Director, HOLODYNAMIS R&D Incubator Inc.

Manufacturing: China

There is a multi-billion dollar market for small power generators that are playing an expanding role in the rapidly evolving energy market. In its Distributed Energy Services Report, *Bear Stearns* stated that "Micro-Generators are perhaps the best positioned of all distributed power technologies to have a real immediate impact. Years of R&D are coming to fruition in time to capitalize on the deregulation that is sweeping the US and Europe and micro-generators seem to be on the cusp of an explosive market opportunity." In another recent report, *Goldman Sachs* estimated that there is a \$30 billion market for distributed generation technologies, which include micro-utilities and micro-turbines. This distributed power market is estimated at \$200 billion dollars over the next ten years in the

U.S. alone. Distributed Power Generation is not just a new way of generating power. It is the growth future of the electric and gas utility sectors. Because they are environmentally friendly, there is a growing consensus that micro-generators are becoming the predominant enabling technologies for the distributed generation market.

The HOLODYNAMIS group is sponsoring the development and production of highly efficient, cost competitive, advanced micro-generator power systems. The systems use proprietary technology to increase power generation efficiency and to dramatically reduce the cost of production and deployment of distributed power systems. Our rotary-engine micro-generator system may be used in a variety of applications ranging from large portable powered generators to distributed power stations in remote, residential, and business/industrial zones.

The project has involved taking a modified MAZDA 50-hp rotary engine (or another proprietary like engine) attached to a 35KW generator and charging batteries and ultra-capacitors, which are interfaced with a synchronous inverter. The high density generator is made of neodymium magnets from China. The entire system is enclosed in a housing. Energy produced may be sold back to an electrical utility, or the system can be freestanding providing 110/220 volt AC, 50 or 60 cycles, anywhere in the world. The fuel for this Microgenerator may be gasoline, biodiesel, natural or propane gas, and an aqueous solution of water and alcohol.

Funding would complete the product design for commercial applications and sales. Research and Development needs to continue to perfect the engine so that it can run from 60 % water and 40% ethyl alcohol, utilizing a patented plasma spark plug and catalytic ignition components. In addition, as a hybrid system, it will be able to produce large amounts of hot water through a built in heat exchanger.

## TURBOSTAR / HYDROSTAR



**Fluid Powered Turbines** 

www.synergyii.com/turbostar

#### **Participants:**

HOLODYNAMIS: R&D Management, Branding, and Licensing

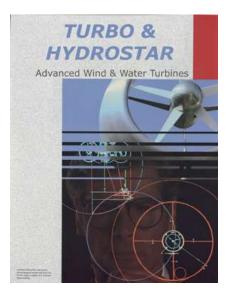
Synergy California Ltd.: Inventor and manufacturer of TURBOSTAR

Manufacturing: China

The HOLODYNAMIS group is seeking equity capital in a new corporate structure to finance the production prototyping and manufacturing of a new and proprietary wind and water turbine which will reduce the cost of such systems by 50%. Additional funds will be necessary for the international licensing and marketing strategy.

Synergy California L.P., the client, is ready to manufacture and market a new and patented wind and stream electrical turbine called TURBOSTAR. Management is convinced that such a turbine manufactured would substantially reduce the cost of windturbine generators and would fulfill a pent-up world demand. No other wind and ambient water turbine has the design and performance features of TurboStar. No other turbine exists that can harvest the energy from a

stream without the use of dams. This ambient energy water turbine is called HYDROSTAR. This underwater device generates hydraulic pressure which runs on-land hydraulic motor generators.



#### **Competition:**

Because TURBOSTAR and HYDROSTAR are the first ducted shrouded turbines to be mass- produced it places most of the competition in a secondary status. From the standpoint of safety, output, and aerodynamics the machine is in a class by itself.

#### **Market Advantage:**

Wind tunnel tests and environmental readings have demonstrated that TURBOSTAR's efficiency can exceed 2 1/2 times the output of any other conventional wind machines of a similar rotor diameter. This will markedly increase the power generating capacity and return on investment. The machine is particularly attractive because it is designed to operate in lower wind speed regimes.

HYDROSTAR, utilizing rivers and current flows, has 25 times the output of a windturbine of the same rotor diameter. With only one moving part, the machine has reduced maintenance costs with less wear & tear.



HYDROSTAR: River prototypes, Output 30KW at 5 knots





TURBOSTAR: 6 KW and 500 watt production prototypes

# A Solar-Electric Micro-Utility



**The Personal Power Carte®** 

www.synergyii.com/SYNERGYCA

The Synergy California partnership with Suntools has developed a mobile solar electric power system that is an intelligent energy storage device. The device, designed for individuals, will power the energy requirements for a home, offices, clinics, laboratory, wherever electrical power is needed.

This device will upload and download electricity from the grid as well as receive energy from other solar sources such as photovoltaic and windenergy collectors.

#### It has the ability to:

Buy energy at good prices for use later when grid power is more expensive.

Back up appliances and services seamlessly.

Provide AC energy for remote or off-grid applications.

Charge the storage system from solar photovoltaics, wind and other sources.

Sell back excess generating capacity to the grid.

Communicate with the user key information.

Communicate with other devices and controllers as necessary.

Reduce the power requirements of lightly loaded motors by 25-40%.

Funding is being sought to incorporate:

Ultra-Capacitors, (double layer capacitors) for rapid charge and discharge.

Fuel Cells and electrolyzers.

Computer with a wireless Internet system for remotely monitoring loads.

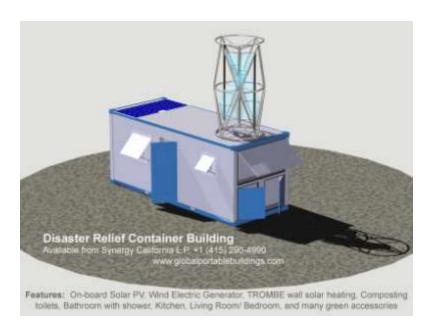
A to D cards for activating remote loads.

A complete business plan exists for manufacturing, distributing and licensing the technology world-wide.

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SOLMAN: Mobile PV Power with built in Batteries and a 2KW Sinewave Inverter





These large micro-electric, water and waste utilities are the components of self-reliant eco-villages. The buildings are essentially rebuilt shipping containers. The buildings have been engineered to be earthquake and hurricane proof.

# AEROTECTURE: Vertical Axis Urban Turbines



www.aerotecture.com

The Aerotecture vertical axis windturbine from Chicago is the first legal windturbine operating in San Francisco. The machine coined an "Urban Turbine" is designed to operate on the roof-top of buildings in the city. HOLODYNAMIS is now certifying the machine for the California Energy Commission Buy down program for utility intertie with the power grid.

# The HOLODYNAMIS Laboratory

#### Innovation Incubator and Accelerator Facility

The incubator is a laboratory that acts as an accelerator for catalyzing scientific research into the development of new technologies and processes. Working as a laboratory, the incubator requires a physical facility that supports and nurtures the completion and testing of new technologies. As an accelerator we are an innovation management team that builds new enterprises around the new prototypes and "spins them off" to become sustainable businesses with global markets. Our two primary functions are research and development and enterprise development.

In order to support this effort we require facilities: (i.e. buildings with offices and conference rooms, computer-aided design studios, computer aided manufacturing facilities, rapid prototyping facilities, limited fabrication tools, assembly benches and testing areas.) Our primary research is in energy and environmental technologies. We also require open land, a test platform for many novel solar and wind energy systems. We also require the ability to bring vehicles inside the building for retro-fit modifications.

This laboratory will also have facilities for around-the-clock operations. The facility is also its own demonstration project where our own energy systems will power the building, selling excess energy back to the local utility. The laboratory tests new energy hardware systems.

We are looking for facilities in Arizona, New Mexico, California, Nevada, and Illinois. In addition, India, Asia, and Italy seek to create much needed jobs and opportunities abound. The ideal would be placement of new technologies in science and technology parks.



HOLODYNAMIS US Proposal with building integrated wind turbines and PV.

# **Funding Request**

The Holodynamis Project brings expertise in new science, technology development and market supply. With its management system for commercialization of technology, HOLODYNAMIS is creating jobs, environmental improvements, and thereby regenerating the World economy.

Team members fully recognize both our strengths and weaknesses, and understand that in order to accomplish our goals it is imperative that we assemble and draw on the needed expertise. There is a desire to partner with foundations, trusts, and investor groups who are willing to work with us in a cooperative manner in fulfilling those goals.

Our immediate need is for:

#### 1) Seed Capital to finance:

The HOLODYNAMIS Operating Budget: 2013 \$10 Million

The ongoing portfolio of technologies, research projects, and potential new enterprises, technology acquisition.

\$3 Million Line of Credit

#### 2) Equity Capital for:

The acquisition of land for laboratory and facilities.

Third Stage Capital for the acquisition of both successful private enterprises and good buyout/partner opportunities that we are tracking.

Estimated at \$65 Million

#### 3) Strategic Allies:

Seasoned financial expertise with a long-term global vision.

Eminent individuals who can serve on advisory boards.

Participation by foundations and major corporations to assist with the process of understanding and opening new global markets.

Estimated at \$132.5 Million

TOTAL: \$217.5 Million

## TO PARTICIPATE

To participate please <u>click here</u>:

# Post Script

The previous Portfolio of products is a partial listing of technologies available for manufacturing and technology transfer. We will continue to add to this list. Contact us if you have a particular interest in anything that you have seen so far.

## The Holodynamis Project

The Holodynamis Project is operated under the sponsorship of the International Academy of Natural Science and also incorporates the International Academy of Holodynamics and the research of a number of independent researchers and the International Green Technology Institute. The Holodynamis Project serves as the bridge builder between innovators, entrepreneurs, investors, manufacturing and the market.

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