



Summer 2015

TRENDEVENTS

IN THIS ISSUE

This issue of TrendEvents features news about financial markets, new high efficiency jet engines, light metals production, followed by The History of Technocracy, an original article that delves into the history and benefits of Technocracy.

TECHNOCRACY IN ACTION

Technocracy now has a CHQ-sanctioned Facebook Group. A goal is to provide a peaceful, harassment-free zone where people interested in Technocracy can discuss issues of interest. Opinions there are those of the writers and are not necessarily those of Technocracy Inc. The *Technocracy Discussion and News* group is at:

<https://www.facebook.com/groups/1619544621624125/>

Remember to visit the **Technocracy Inc. official site** for further news and updates.

<http://www.technocracy.org>

NEWS

GLOBAL FINANCIAL JITTERS

China's stock market plunged 7% in one day on June 26th. This would be an equivalent one-day drop of over 1200 points on the Dow Jones Industrial Average. Possible causes cited were weakness in the market due to over-leveraging of both firms and investors. China made an emergency interest rate cut to try to turn around the decline. Yet China's stock market continues to fall, causing wild gyrations in the U.S. stock markets. Meanwhile, Greece struggles with meeting an agreement with its creditors.



The Parthenon in Athens. Its ruined shell is symbolic of today's Greek economy. (Credit: [Steve Swayne](#))

Sources:

China Cuts Interest Rates After Market Plunge, *New York Times*, June 27, 2015 (Keith Bradsher).

Greek debt crisis: Eurozone refuses bailout extension, *BBC News*, June 27, 2015.

Commentary: Though a small country, investment bank Goldman Sachs helped Greece borrow much more than it could afford, perhaps in the order of a trillion \$, the entire annual budget of the US government.

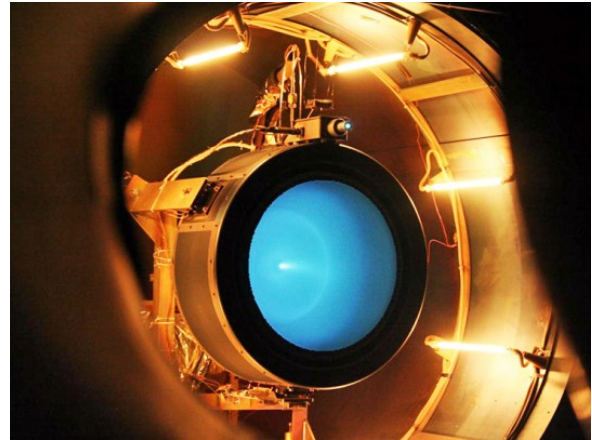
SILENT JET ENGINE

Ionic wind could be used as a silent, efficient propulsion system for small, lightweight aircraft, according to Steven Barrett at MIT. When a current passes between two electrodes – one thinner than the other – it creates a wind in the air between. If enough voltage is applied, the resulting wind can produce a thrust without the need for propellers or jet engines. This phenomenon is called electrohydrodynamic thrust, or ionic wind.

Experiments run in Barrett’s Laboratory of Aviation and the Environment have found ionic thrusters may be a far more efficient source of propulsion than conventional jet engines. In their experiments, the researchers found that ionic wind produces 110 Newtons of thrust per kilowatt, compared with a jet engine’s two Newtons per kilowatt, Barrett said. Ionic thrusters are silent and do not give off heat, making them invisible in infrared.

Barrett has acknowledged one big obstacle to ionic wind propulsion: thrust density, or the amount of thrust produced per given area. Ionic thrusters depend on the wind produced between electrodes; the larger the space between electrodes, the stronger the thrust produced. That means lifting a small aircraft and its electrical

power supply would require a very large air gap. Electrodynamic thrusters for aircraft – if they work – would encompass the entire vehicle, he said.



Ion thruster (Credit: NASA)

Another drawback is the voltage needed to get a vehicle off the ground. Small, lightweight balsa models require several kilovolts. A small craft with onboard instrumentation and a power supply would need hundreds or thousands of kilovolts, he said.

“The voltages could get enormous,” Barrett said. “But I think that’s a challenge that’s probably solvable.” Power might be supplied by lightweight solar panels or fuel cells, he added.”

Mechanical Engineering, October 2014; pg.23.

LIGHT METALS

Aluminum, magnesium and titanium are light and strong, but have a downside – the large amounts of energy required to refine and produce them. The Department of Energy’s research arm ARPA-E aims to make aluminum, magnesium cost the same as steel, while titanium could become as cheap as the slightly pricier stainless steel.

Last week 18 teams presented their work at ARPA-E’s annual energy innovation summit in Washington DC, showing new ways to produce these metals and handle valuable scrap. ARPA-E’s stance is that reducing the energy cost of light metal production would benefit the US in the same way as its recent glut of cheap gas, by bringing it closer to energy independence.

Massachusetts-based Infinium is one firm aiming to revolutionize aluminum production. It is exploiting a new kind of electrochemical cell that separates the metal from its ore without generating carbon dioxide, a byproduct of traditional methods. Chief technology officer Adam Powell says their process is 30 percent more energy-efficient, and the company is already producing rare earth metals like neodymium and dysprosium in this way.

Magnesium is present in huge quantities in the ocean, but at such low concentrations that extracting is very energy-intensive. At the Pacific Northwest national Laboratory in

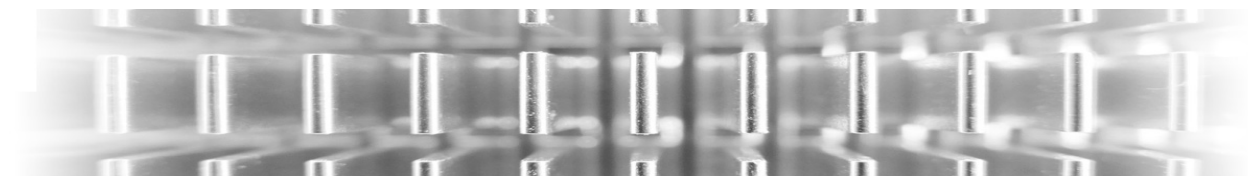
Richland, Washington, researchers have partly solved that problem, using a catalyst that reduces the working temperature of the process from 900 to 300 degrees C.

Recycling is the next problem. ERCo, a company based in Plainfield, New Jersey, is working to adapt a steel recycling technique for use with aluminum. The firm uses lasers to determine the composition of a vat of molten metal derived mainly from aluminum scrap. An automated system then adds more scrap chosen to turn the mix into a desired alloy.

Scrap which contains aluminum is currently crushed and shipped to China, India or Bangladesh, where it is sorted by hand. A University of Utah spin-out uses a finely tuned varying magnetic field to do the same sorting without human intervention. Different metals feel the field to different degrees, depending on how it interacts with their atoms. The demo unit on the ARPA-E conference floor perfectly sorted a conveyor belt feed of copper and brass from aluminum, spitting each metal into its designated container. The firm will trial the technology this year at a plant in Plymouth, Utah, owned by Nucore – the largest steel producer in the US – which generates much of its own raw via recycling.

New Scientist: February 28, 2015; pg. 22.

Below: a part made from a light metal (credit: Infinium)



THE HISTORY OF TECHNOCRACY

By George Wright

The World Population Grew

During the two hundred thousand years prior to 1900, the biological progression of man, in his struggle for subsistence on this earth, had advanced so far that the total world population in that year reached the approximate number of 850 million. 100 years later the world population had reached 1800 million.

There was Struggle to Find Balance

Most of this increase had been made possible by the social introduction of technology in the machine age. Even with all the technological advancement and resources, society failed to find balance. *Our country found itself* with an economy of plenty while existing in debt and unemployment

The Birth of Technocracy

Technocracy first began in 1919 in New York City in response to the dissatisfaction of people with the economic hardships. The organization was known as the Technical Alliance of North America. This group included such people as **Howard Scott**, an industrial engineer and Director in Chief of the Alliance, **Thorstein Veblen**, a distinguished educator in the field of social science, sometimes called the 'stormy petrel of American economics', **Charles Steinmetz**, known as the Wizard of General Electric, and other highly regarded men and women in science, education, architecture, mathematics and medicine. *It became necessary to guard the studies and*

design of the Technical Alliance, and in 1932 Technocracy Inc. was organized as an informational and educational volunteer membership organization. Technocracy Inc. went public to inform the citizens of North America that the depression was a direct consequence of a money system being unable to cope with the use of advanced technology.

The Great Depression

By 1929 the economic downturn spiralled into a desperate state, known as the Great Depression. The Great Depression (1929-39) was the deepest and longest-lasting economic downturn in the history of the Western industrialized world. In the United States, the Great Depression began soon after the stock market crash of October 1929, which sent Wall Street into a panic and wiped out millions of investors.

Technocracy gained widespread popularity

Around 1932 half the population lost homes and unemployment doubled and tripled. Technocracy was being hailed as a solution to an unacceptable conditions. This was referred to as the revolt of the unemployed. Technocracy was starting what was called the **Bloodless Revolution**.

Current Day Technocracy

Technocracy Inc. has remained *active* all this time. It is our Mission to show people the Plan for a better system of government and social structure. **This plan will help our**

society control our technology instead of it controlling us!

The **old system** clings to an outdated economic structure that uses our technology for the purpose of profiting for the **few at the expense of most**.

In this era, 98% of all work is done using technology at all levels. **We should demand that all of our citizens benefit** – not just those who control our technology through the continued limited confines of our present method of production and distribution.

ECONOMY

“The American public has watched both government and business indulge in the curtailment of food production and its wholesale destruction at a time of the greatest human need in American history. They have seen their factories closed at a time when a large fraction of the population has been in want of the products of industry and when millions have been willing and anxious to work.”

This paragraph was excerpted from an article written some years ago when we were in the grip of a calamitous economic shut down. It is as relevant today as it was then with the lay-offs and cut backs in the present years.

What is so complex about the problem?

What is it that has to be done in order to solve it?

Simply and solely,

Our Continental totality must be operated at a maximum of efficiency with a maximum conservation of resources for the maximum

production and distribution of physical wealth – with a resultant standard of living greater than has ever been obtained on the North American Continent.

ENERGY

“In physical science... the first step is to define clearly the material system which we make the subject of our statements. This system may be of any degree of complexity. It may be a simple material particle, a body of finite size, or any number of such bodies, and it may even be extended so as to include the whole material universe.” – James Clerk Maxwell, Matter and Motion.

The “whole material universe” is composed of matter that can only exist using energy.

What is energy? The strength and vitality required for sustained physical or mental activity

Power derived from the utilization of physical or chemical resources, esp. to provide light and heat or run technology

There are two aspects of Energy that we will address

- **The Energy Crises**
- **The Energy Distribution Plan**

Technocracy as it applies to the Energy Crises

What is the problem?

In a profit driven economy, the main objective is to use the energy sources

developed years ago with the crude technology of the past in order for large powerful corporations to profit. Any effort to develop less harmful energy sources that have become available, will be put down by the entrenched profit enterprises.

The solutions:

Technocracy indicates that we should strive for dynamic equilibrium, thus slowly cutting back on the more harmful, less renewable energy sources while at the same time increasing the use of the safer renewable resources. This would enable the economy and our way of life to continue on uninterrupted while on a steady course to improving our environment and ensuring long term energy stability and independence. It should be mandatory that we use the energy sources that do the least damage to us and the environment.

According to Donald Elliott (a professor of law at Yale Law School), many countries in Europe get over one-third and some over one-half of their electricity from renewable sources such as wind and solar. Europeans across the political spectrum support government policies to promote renewal energy, but government support for renewable energy is extremely controversial in the United States.

What's preventing us from making these seemingly obvious choices? Could it be corruption and greed?

Energy as it pertains to the Technocracy Energy distribution Plan:

The old Price System:

The Price System grew out of the days of scarcity, when trading his crude materials or stealing them, was the only way in which man could acquire the articles which he required. The trading system has grown until it is now the overwhelming structure of finance, business commerce, and politics. No intention or pretense is made of accurate measurement or control; no physical accounting is involved; no accurate predictions can be made; and no stabilization can be assured. The Price System is simply a method of erratic exchange. In scarcity it sufficed well enough as an exchange method; in abundance it cannot even do that.

After World War 1, the disrupted conditions at that time led to a scientific investigation which in turn proved that the only common denominator of all goods and services was energy.

The scientists who pointed this out simply proposed to measure the total amount of energy used by the North American Continent in a given period; measure the energy cost of physical production and services; and use these measurements as the basis for regulation of all Continental production and distribution.

Technocracy has the solutions:

Technocracy has developed an Energy Distribution plan based on this proposal. "Why not money?" you may ask. On the basis of these requirements, it is interesting to consider money as a possible medium of distribution. But before doing this, let us bear in mind what the properties of money are. In the first place, money relationships are all based upon 'value,' which in turn is a function of scarcity. Hence money is not a 'measure' of anything. Secondly, money is a

debt claim against society and is valid in the hands of any bearer. In other words, it is negotiable; it can be traded, stolen, given or gambled away. Thirdly, money can be saved. Fourthly, money circulates, and is not destroyed or canceled out upon being spent. On each of these counts money fails to meet our requirements as our medium of distribution.

Article you may want to read...

Renewable Energy

TECHNOLOGY

Because of the lack of understanding regarding the importance of science and technology in keeping us alive, many people fear and mistrust it.

Science and technology, are just methods for acquiring knowledge for the benefit of humankind. How this knowledge is applied is up to us. **At present, it is used largely for profit of individual or corporate gain.** The end result is much of what we see today, and of which so many people decry. It is used for short-term, monetary expediency, with little thought to the long-term survival of the human and other species on this planet.

With just a little imagination, what marvels could be expected by removing the restraints of our present method of operations;

- cross-continent 300 mph rail systems, the ability to move about North America with ease;
- food products grown for nutrition – not for sale;
- education for life or as much as you can or want to absorb;

- crime reduced to a fraction of what we see today;
- medicine designed strictly for the prescribed illness without the side-effects;
- inventors with unlimited access for research and development, *and*
- **most significantly, leisure time to enjoy the real treasures of family and friends, and the gifts nature gave to this grand area we call home.**

On and on we could go – just let your imaginations pursue what could be possible.

ENVIRONMENT

What is the problem?

Floods, storms, and droughts. Melting Arctic ice, shrinking glaciers, oceans turning to acid. The world's top scientists warned that dangerous climate change is taking place today, not the day after tomorrow. Future historians, looking back from a much hotter and less habitual world, will puzzle over how a whole generation could have sleepwalked into disaster --- destroying the climate that has allowed human civilization to flourish over the past 11,000 years. The planet now tries to support over 7 billion of us. That is in itself far beyond *what would be* considered a sustainable number, but **we use the planet as a gigantic trash bin**, with no regard for future generations let alone our own. We may have already set the stage for our demise as the *Homo Sapiens* – “the wise ones.” What a colossal misnomer.

Technocracy holds the solutions

Technocracy says that it is not too late. We can slow down and even begin to reverse the damage done to our environment. What we need is change to a system whereby our choices are made based on logic and benefit to the people and the continent that we live on rather than on cooperate profit and political kickbacks.

SOCIETY

For centuries people have dreamed of an age of peace and plenty, an age without crime, debt – or war! Would you believe that this North American Continent already has the above requirements to make that happen?

Technocracy's Technological Continental Design has been ready for installation for over 80 years.

The small fraction of the population that controls our society today, has decided that it alone has the right to determine the direction of the whole society. Not too surprisingly, this consists of them continuing to do what they have been doing, only more of it. It is this mysterious "they" who decide what the whole society is to think and what ideas are fit for public consumption. This problem alone would indicate the need for social change – a change from the historical domestic confrontations or “revolutions” that in the past only resulted in a change of characters while the society in question regressed back to the same old problem. Technocracy would go beyond that and put in place a genuine revolution that would begin the way for society to truly achieve the enhancement of the human condition.

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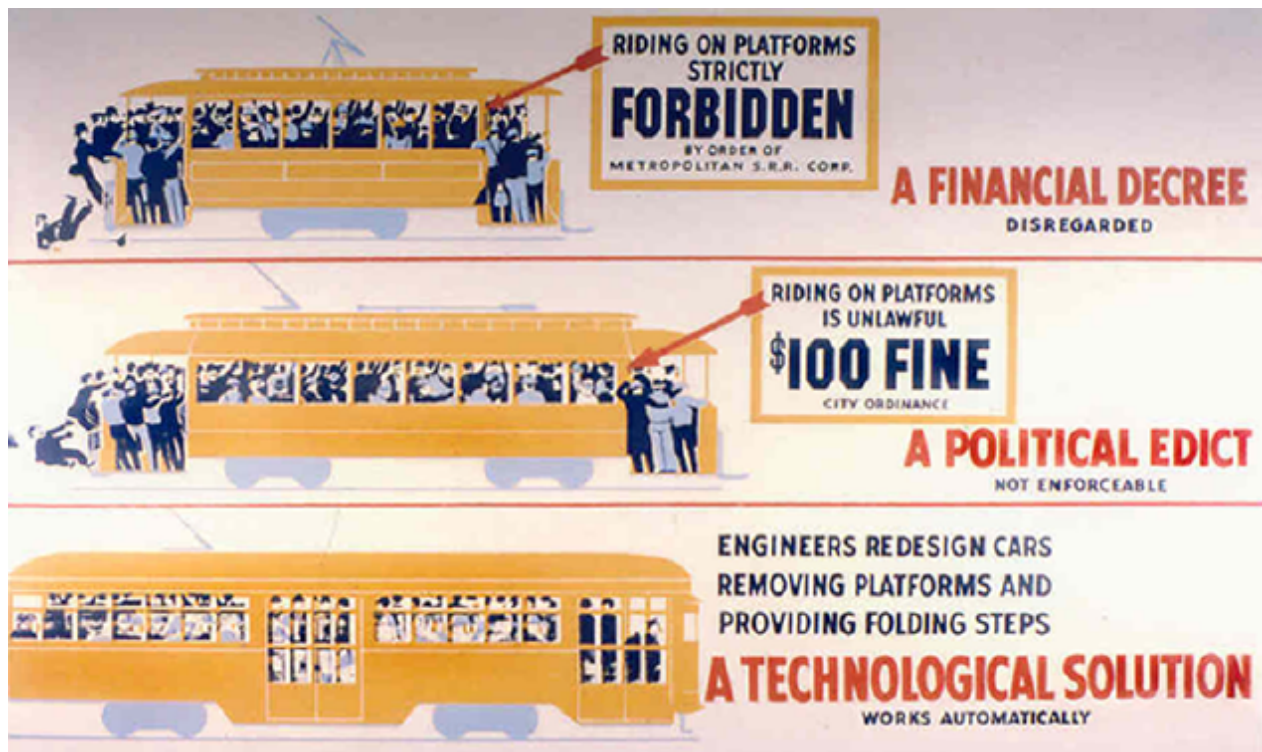
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