



Plan for Egypt  
Converting Deserts into Powerhouses  
one OASIS at a time

Using the WWEC2011 in Cairo 31st October - Nov. 2nd  
[www.wwec2011.net](http://www.wwec2011.net)

as the turning point and inspiration for Egypt to become  
A LEADER in VOCATIONAL TRAINING & LEARNING  
and planing a grand scale implementation of sustainable Green  
INNOVATION and Economic Development creating 6 Million modern  
jobs throughout Egypt in the next 10 years

A Brief Concept developed by  
the Executive Committee of the WWEC2011 for the  
Government of Egypt and League of Arabic States

Executive Chairs:  
Dr. Alaa Ezz, Secretary General, German-Arab Chamber of Industry  
& Commerce, Cairo Egypt  
Stefan Gsaenger, WWEA Secretary General, Bonn Germany

Prof. Galal Osman, Dr. Ing., President Egypt WEA Wind Energy  
Association Cairo Egypt  
Volker Thomsen, WWEA Treasurer, retired Global Entrepreneur and  
College President and lead author of this report

## PREAMBLE

When we analyse why the leading countries in innovation and productivity are at the top of the world rankings, we quickly detect that there is a direct relationship between the level of vocational training, the commitment to living harmoniously with the environment, using natural resources wisely, always applying green innovation, efficiency and creating economic opportunities for all communities small or large. Some of the best examples are the Scandinavian Countries as well as Germany.

How can we translate this idea to the Egyptian situation today?

The lead author (who himself has a lifelong exposure as an entrepreneur, author, learner and educator of more than 40 years in over 20 countries) of this short, basic concept has noticed that economic rules and their outcomes are based on the same principles regardless of location see <http://volkerthomsen.com/about/> . The opportunities to convert them into real life will of course vary based on cultural differences as well as differences in political and economical systems. Determining factor will also be the willingness to commit to long overdue change and do this in a peaceful and proactive fashion like the unusual successful Egyptian peaceful revolution has showcased itself to the world.

History has proven that the former Soviet Union model was not sustainable. It may also yet prove that the present American capitalist model may likewise have to be modified and revised. This makes it even more attractive to find a different and more original Egyptian way perhaps more related to the German, Canadian or Scandinavian way of life.

What does this actually mean? It does not necessarily mean going away from capitalism. Ownership and accountability are necessary; we even want to say ownership for everybody is a must. There are many attractive company and ownership models evolving all around the globe. These models will of course move large portions of the activities back from the gambling stock markets to real people in real companies that take ownership. This has been described in "Canada Enroute to Prosperity" with some good examples and best practises.

This book as well as our proposal are meant as an inspiration for Innovation and job creation through education and training, health and wellness and green innovation.

Preferred partnerships between countries do not exclude strong ties and partnerships with other countries. With the right steps a cultural historic country and a sleeping beauty like Egypt will evolve as a giant tiger taking its proper place within world economic development and politics.

Relationships between Egypt and the USA, Canada the European Community, China, India and Russia must be enhanced and even if "Rethinking Egypt" in a more exclusive partnership with the USA is a very tempting option I am strongly recommending building even stronger partnerships with neighbouring countries as well as other particularly dynamic Countries like Germany, Scandinavia, Japan, China and any other interested nations. Nobody would have believed that fighting neighbours like France and Germany ever would become the strongest allies, but it became possible in the context of the development of the European Union. Within the European Union they are the strongest trading partners and allies.

Looking at the recent history in Egypt the latest people movement and overall direction of the development is very encouraging, and going the distinct Egyptian way may prove to be the only sustainable option for real economical growth.

Having had the pleasure to witness the "Egyptian Revolution" as part of the Executive Committee preparing the WWEC2011 in Cairo 2011 see: [www.wwec2011.net](http://www.wwec2011.net) we are impressed with the way the activities unfolded and how it was handled by the Egyptian People

and consequently in a courageous shift also by the Egyptian Military leaders. In order for this not to have been in vain it is long overdue to create a pragmatic grand vision and a understanding of how concerted efforts and leadership shown by all parties can move Egypt to again become a leading Nation back to its old glory as a cultural and economical centre.

Living in Canada and neighbouring the USA requires a strong and close relationship with the neighbours. However at the same time it is existential to maintain as much independence as possible. The present strong dependence on the USA is totally unacceptable and unnecessary. More than 80 % of all Canadian exports are going to the USA.

Growing up as part of the Danish minority in the border region of Germany and Denmark it was experienced what it meant for Denmark to export 80 % of its agricultural production to the UK and Germany. Denmark was then primarily dependent on agriculture. Today the agriculture without having been reduced in size is only a few percent of the GNP and both Germany and the UK are reliable and respected partners representing each less than 15 % of the overall market including all industrial goods and services. This together with a strong focus on learning and training, the environment and green innovation has made Denmark a leading and fully independent industrial nation ranked among the five world leaders. Because of a similar development in other Scandinavian countries three of them are ranked among the five world leaders in productivity and innovation.

Taking these and other factors into consideration, history offers the newly evolving Egypt a unique opportunity to create a new model that could lead her to an independent and to-no-avail level of success.

In Volker Thomsen's book, *Canada Enroute to Prosperity: An Inspiration for Innovation and Job Creation through Education and Training, Health and Wellness and Green Innovation*, it is called the new opportunities the Canadian , German or Scandinavian way of life, but there is no reason why Egypt could not participate in this kind of peaceful revolution, creating a sustainable economic model

of its own, and do this together in a special partnership with countries such as Scandinavia, Germany and Canada.

The Egyptian Population in Canada, USA , throughout all of Europe and the rest of the world with more than three million members should be encouraged to act as ambassadors and catalyst for the Egyptian, Arabian and African evolution. The global shift from depleting resources like oil coal and gas to renewable resources that in great variation and abundance are available every where in world is the greatest opportunity for the modern world to create quality and equity for every person in each country. The CHALLENGES or rather the OPPORTUNITIES are the same everywhere and are not any different in Egypt or better than most places.

All across Egypt, the government and private sector have certain difficulties to align themselves with forward-thinking visions and policies that embrace the public interest. This is like in most other countries quite understandable considering the history of the country, and should not discourage the present interim leadership from interpreting the challenges as great opportunities. The present opportunity in cultural, social and economic growth can be seen as a special gift to Egypt from heaven; it should be used wisely to create the necessary infrastructure and education/training foundation for the future which will lead Egypt to a renaissance of prospects, and which can make her a leading nation in economic growth, productivity and innovation in a sustainable way. Change is always difficult to implement but the only way out of our present dilemma and economical depression.

### OPPORTUNITIES

Opportunities can only be fully developed if you prepare the ground for a thriving economy by installing a certain basic infrastructure and a strong knowledge base. Egypt is blessed with just as many talented, brilliant and dedicated people as any other country; it is now up to the political leaders to inspire the self-motivation it will take for people to create their wealth and opportunities for the entire population.

When we look at the recent history of industrialization throughout the world, it is obvious that only those countries succeed that have a well-prepared and educated workforce. Unfortunately, the perception of most people today is that only a university education will prepare one in an appropriate fashion, and thus enable innovation and development.

Even if it is important that a certain percentage of the population is university-trained, the truth is that it is equally or more important that the broader public has the benefits of training and education at various applied levels, and these are considered to be just as important and valuable as a university education. If you want to build a house, you require a good foundation. That means you will need a qualified mason, carpenter, bricklayer, plumber, electrician, engineer and architect and so on.

To continue the present Egyptian success story, you need a similar input or stimulus as the Marshall Plan after the war. If this is a private/public, private or public partnership is secondary important is that it opens up opportunities for every single community of any size. To create a nation with the full partnership of its people, you need policy in place to allow and enable everyone to participate. Again, when we compare successful countries like Scandinavia, Germany and others, we soon see that the participation ratio is in the neighbourhood of 80-95%. When I say participation rate, I mean that all people receive a basic elementary education, and then progress on to either vocational, college or university education, and that all of these types of training combined reach roughly 80-95% of the population. This may sound like an ambitious goal however other countries have proven that it is possible and it is the only sustainable long term plan for successful integration of a meaningful integration of the largest asset any country has: its human resources.

Presently in Canada, 25% of the Canadian born population is graduating from university, and approximately the same number has credentials from either community college or vocational training. That means that a full 50% of the population receive no recognized or formal credentials beyond the secondary school level. Because of the huge immigration influx after World War Two with

well qualified professionals of any scope and calibre my estimate for Canada today is around 60 to 70 %. However it will decline if we not increase the participation rate of the Canadian raised and trained population.

We are pleased to tell you that for example the Ontario government during the last 11 years has been budgeting, planning and implementing to increase the participation rate beyond the 70% in the near future, and it is implementing very innovative strategies that will lead to this goal. For example the college system together with its local school boards in Ontario is engaged in several very forward looking pilot projects. These projects include dual credits where students parallel receive credit from the high school and the college. One of the most promising models is called triple play, where students are being prepared for their future at the high school, the college and an employer all at the same time. Some barriers created through concern of unions must be overcome to fully explore inspiring pathways for all our young people.

We must realize that most underdeveloped countries have a participation rate as low as 10 %. When we at the same time remember that all countries even the highly developed ones all started at zero the conclusion will be that this is one of the most important keys to economical, social and cultural success that needs to be introduced and provided for in all countries. Particularly countries like Egypt with a former record of a high development are logical candidates to be brought back to an equal level of development even more quickly than others.

The review of post secondary education that led to the report Ontario: "A Leader in Learning" was undertaken and completed with great thoroughness by former Ontario Premier Bob Rae and a well qualified small research team. Within less than a year they went through a broad public and international consultation with all parties and it is a very interesting document to study in the context of what needs to be done in Ontario. Modified to the actual needs in Egypt this could be a good model for the training, education and side part of the overall project. Having participated in this remarkable review it was fascinating to witness the change and increase in the Ontario commitment to post secondary education

(including apprenticeships) by new additional funding of \$ 6.4 billion. Furthermore it triggered another remarkable most important annual federal/provincial funding increase for apprenticeship from \$ 500 million to 1.2 billion per year. For Egypt the apprenticeship aspect will probably have to be one the most important focus points of any development.

It has two significant advantages for a society. Firstly it can integrate the entire population in a better training as well as being used to upgrade knowledge within adult continuing education and training that is at the centre of any forward looking plan.

This kind of Rae Review is one of the key tools to succeed in implementing and following through with a good, fair and equitable process see A Leader in Learning: <http://www.tcu.gov.on.ca/eng/document/reports/postsec.pdf>.

Approached properly it could for Egypt truly generate amazing results and also give it a leadership role for the Arabic and African countries.

To truly identify the opportunities in this area in Egypt, a similar review needs to be undertaken, and could initially be done in a more condensed form, to be used as a guideline for your decision-making regarding how you would like to proceed with future steps. This report however needs to put an equal emphasis on economical development as well as preparing the workforce.

Without knowing the exact participation rate in Egypt (again, those people who have received credentials from a university, college or vocational training) I can still assure you that your challenges and opportunities are similar to those we have found in Ontario and other jurisdictions all over the world as long as the action is supported by the people of Egypt in a passionate way.

Working together in partnership, there will be great prospects for your partner countries to help Egypt in a meaningful way to help her make the quantum leap from the old centralized dominating model to a new and truly innovative Egyptian social, economic and cultural model.

A broad-based innovation strategy needs to include a capacity for Egypt to create many of its own products in a competitive fashion (in both price and quality) with other countries. Doing this in an environmentally friendly basis similar to Northern Europe will automatically put your development and progress into a similar league and good quality.

It will therefore be necessary to create the capacity to train enough people in vocational skills on an ongoing basis everywhere to ensure that every community—city or group of villages—have the appropriate infrastructure to support such development. You must also consider the specific professional training needed for both a civil updated policing force and correctional capacities.

How can these outcomes be accomplished? Like anything else, it starts with learning and education concepts so that the school system can re structure curriculum and pathways for all students. There are many good role models available in Germany and Scandinavia, as well as some newer, innovative models in Canada (especially in Ontario) which can be readily converted and even improved to serve Egyptian needs. Some of the biggest task will be to combine all needs into one concerted plan focussing on creating thousands of small new oasis's of new agriculture land, using renewable energy as the tool for development including many new installations of water sources of any kind where desalination probably will have to play a key role.

A key challenge most likely will be to NOT create more research and more university capacity; it will be to create many small technology centres enough workshops, laboratories and continuing learning of an applied nature where millions of young and mature learners can be trained or retrained and become qualified trades people and professionals. The thousands of community technology centres particularly in Northern Europe were one of the key tools to create the boom after World War Two.

If we again may be permitted to use the example of building a foundation, upon which you can build an Egypt that is independent and leading in terms of cultural, social, industrial and economical

development, and this will then carry Egypt to lead, compete and participate in the global economy in a more enhanced way.

All this combined with a forward thinking strategy on innovation and economic development, that is based on new technologies such as for example renewable energy and IT all in tune with the environment, will help Egypt to make a quantum leap and join the world leaders in innovation and productivity. This will of course take some time but can be accomplished particularly if you can create your sustainable model that is less focussed on a huge never ending consumption and waste of goods anybody really needs.

A Modern “Marshall Plan” carried by the Egyptian Government, the Arabic League as well as supported by its European, American, Chinese, Indian and other International Partners that want to participate. Even if it is not possible to get all parties to agree Egypt could together with a limited consortium of Countries carry this out. As long as the people of Egypt are united around this goal the movement would be so powerful that it is bound to get support and to succeed on all levels.

Like in Europe the success would be showing by “Converting Desserts in Powerhouses” one OASIS at a time.

When the Marshall Plan was implemented in Europe after World War Two it contained USA help over a period of more than 4 years starting in 1948 and ending in 1952. It was relative small around 13 Billion Dollar in total and even including the \$12 billion in American aid to Europe between the end of the war and the start of the Plan it was “only” \$25 billion that merely presented 10 % of the 1948 USA GNP or 1.5 % of the four year period. this investment in form of a gift has been one of the most meaningful and profitable large actions or investments done by any nation. the smartness of this simple strategy prevented the creation of a third world war and initiated a big boom of innovation and productivity. The included extract from Wikipedia demonstrates the great potential for something similar for Egypt and other African and Arabian countries. If we would analyse the economic return on the investment into the “Marshall Plan” we will find that it has had a

stunning outcome far beyond normal situations and has been paid back manifold.

## Marshall Plan

From Wikipedia, the free encyclopedia

The **Marshall Plan** (officially the **European Recovery Program, ERP**) was the large-scale American program to aid [Europe](#) where the [United States](#) sent monetary support to help rebuild European economies after the end of [World War II](#) in order to combat the spread of [communism](#). The plan was in operation for four years beginning in April 1948. The goals of the United States were to rebuild a war-devastated region, remove [trade barriers](#), modernize industry, and make Europe prosperous again. The initiative was named after [Secretary of State George Marshall](#). The plan had bipartisan support in Washington, where the [Republicans](#) controlled Congress and the [Democrats](#) controlled the White House. The Plan was largely the creation of [State Department](#) officials, especially [William L. Clayton](#) and [George F. Kennan](#). Marshall spoke of urgent need to help the European recovery in his address at Harvard University in June 1947.<sup>[1]</sup>

The reconstruction plan, developed at a meeting of the participating European states, was established on June 5, 1947. It offered the same aid to the [Soviet Union](#) and [its allies](#), but they did not accept it.<sup>[2][3]</sup> The plan was in operation for four years beginning in April 1948. During that period some US \$13 billion in economic and technical assistance were given to help the recovery of the European countries that had joined in the [Organization for European Economic Co-operation](#). This \$13 billion was in the context of a U.S. GDP of \$258 billion in 1948, and was on top of \$12 billion in American aid to Europe between the end of the war and the start of the Plan that is counted separately from the Marshall Plan.<sup>[4]</sup> The Marshall Plan was replaced by the [Mutual Security Plan](#) at the end of 1951.<sup>[5]</sup>

The ERP addressed each of the obstacles to post war recovery. The plan looked to the future, and did not focus on the destruction caused by the war. Much more important were efforts to modernize European industrial and business practices using high-efficiency American models, reduce artificial trade barriers, and instil a sense of hope and self-reliance.[6]

By 1952 as the funding ended, the economy of every participant state had surpassed pre-war levels; for all Marshall Plan recipients, output in 1951 was at least 35% higher than in 1938.[7] Over the next two decades, Western Europe enjoyed unprecedented growth and prosperity, but economists are not sure what proportion was due directly to the ERP, what proportion indirectly, and how much would have happened without it. The Marshall Plan was one of the first elements of [European integration](#), as it erased trade barriers and set up institutions to co ordinate the economy on a continental level—that is, it stimulated the total political reconstruction of western Europe.[8]

Belgian economic historian Herman Van der Wee concludes the Marshall Plan was a "great success":

"It gave a new impetus to reconstruction in Western Europe and made a decisive contribution to the renewal of the transport system, the modernization of industrial and agricultural equipment, the resumption of normal production, the raising of productivity, and the facilitating of intra-European trade." [9]

Looking that this summary it is clear that the emotional boost and the truly inspiring moral support triggered that the participating European Countries were motivated and encouraged to build a new peaceful and prosperous Europe. This is exactly the kind of encouragement Egypt and all other evolving countries need.

Based on the spectacular opportunities that arise through the internet and modern information technology and the ideal fact that there are renewable energy sources in abundance everywhere in the world makes it for the first in mankind's history possible to reshape and recreate all countries into modern prosperous societies everywhere including each individual community.

It will do one more thing it will even support prosperity in the existing successful countries that will be able to deliver even more goods and services than before.

However there has to be a drastically improved focus on quality which can last for a longer time instead of short lived cheap products that in the long run are more expensive.

This is already happening and the car industry is a really good example.

Once the transition from the fossil fuel driven car to the electrical has taken place this will actually become much more relevant and obvious. An electrical motor to begin with is very robust and can be used for many years with little maintenance. This can be improved to something that moves things without moving parts and a very much longer life span. An interesting example is the electric magnetic train:

Transrapid

From Wikipedia, the free encyclopedia



Transrapid 09 at the [Emsland test facility](#) in [Germany](#)

**Transrapid** is a [German high-speed monorail train](#) using [magnetic levitation](#). Based on a [patent](#) from 1934, planning of the Transrapid system started in 1969. The test facility for the system in [Emsland](#), Germany was completed in 1987. In 1991, the technical readiness for application was approved by the [Deutsche Bundesbahn](#) in cooperation with renowned universities.<sup>[1]</sup>

Its current application-ready version, the Transrapid 09, has been designed for 500 km/h (311 mph) cruising speed and allows acceleration and deceleration of approx. 1 m/s<sup>2</sup> (3.28 ft/s<sup>2</sup>).

In 2004, the first commercial implementation was completed. The [Shanghai Maglev Train](#) connects the rapid transit network 30.5 km (18.95 mi) to the [Shanghai Pudong International Airport](#). The Transrapid system has not yet been deployed on a long-distance intercity line.

The system is developed and marketed by Transrapid International, a joint venture of [Siemens](#) and [ThyssenKrupp](#) <http://www.transrapid.de/> .

Like all innovation as long as it is not introduced on a broad basis there will always be some shortfalls. However properly done this very concept lends itself to create clean, quiet and efficient cities and connect them in a fast way by land. Any distance under 2000 km can in reality be handled much faster, safer and more cost efficient than air transportation.

### SMALL is THE NEXT BIG THING

The industrial revolution also brought the reliance on ever bigger energy systems that became less efficient but more controlling and determining factor where economical development could and can happen.

In principal there is foremost a need of distributed electricity or energy generation of any kind directly based on the local needs and centred where the needs are. It is therefore absurd to create big wasteful systems that have difficulties in a cost efficient way to provide country wide coverage. Clusters of users should therefore be in charge and autonomy is the centre piece in their decision making. That will in most cases be the most efficient and least wasteful method. The standards applied everywhere and the connecting overarching grid must be publicly owned and should be designed as a smart system that connects the various distributed generators to the extend needed by the market. It is able to adjust itself day by day, hour by hour and even minute by minute. This would also be the proper foundation for a connection to the future European smart grid with open access to a free market for sale of electricity.

In this conjunction it is of great interest to get everybody in one boat and it can in some cases be very supportive and productive if large companies or co-operative organizations can help as minority or equal partners of local organizations by providing knowledge, technical expertise and money. However it is very important in a society like Egypt to get the local community to fully stand behind this kind of economical development that in reality is a cultural, social and economical development that only is sustainable if it is carried by the peoples long term passion, commitment and well being.

For the transition period from big to small from underdeveloped to developed we to our surprise can see that many small projects combined actually can be quite big and even much bigger than a few very big. A good example are many small and midsize farmers or entrepreneurs in Germany or Denmark who became the owners of large, efficient and well maintained wind turbines, solar installations or bioreactors. As an example there are 20.000 members in the German wind power association generation business representing more than 27.000 MW capacity at an investment of around \$ 40 billion (This is a conservative low estimate, if it would be based on an average cost of \$ 2 million per MW it could be up to \$ 54 billion invested over a period of more than 25 years).

Wind power in Germany

From Wikipedia, the free encyclopedia



[Wind farm](#) in [Neuenkirchen](#)



Erection of an [Enercon](#) E70-4 in [Germany](#)

In [2010](#), the installed capacity of **wind power in Germany** was 27.2 [GW](#).  
[\[1\]](#) Wind power currently produces about seven percent of Germany's total electrical power. More than 21,607 [wind turbines](#) are located in the German federal area and the country has plans to build more wind turbines.[\[2\]\[3\]](#) As of 2011, Germany's federal government is working on a new plan for increasing [renewable energy commercialization](#)[\[4\]](#), with a particular focus on [offshore wind farms](#).[\[5\]](#)

## Contents [\[hide\]](#)

- [1 Overview](#)
- [2 Repowering](#)
- [3 Offshore wind power](#)
- [4 Statistics](#)
  - [4.1 States](#)
- [5 See also](#)
- [6 References](#)
- [7 External links](#)

[\[edit\]](#)

### Overview

As of 2010, Wind power in Germany provides over 96,100 people with jobs and German wind energy systems are also exported.[\[2\]\[6\]](#) The [Fuhrländer Wind Turbine Laasow](#), built in 2006 near the village of Laasow, Brandenburg, is the tallest wind turbine in the world. Also most other of the tallest wind turbines in the world are situated in Germany, see [List of wind turbines#Tallest wind turbines](#).

At Germany, there are also most of the most powerful wind turbines in the world, the Enercon E-126.

However, the economics of wind power in Germany are under close scrutiny[\[7\]](#) and there are other issues which deserve consideration. These include the effect of wind turbines on the landscape, the effect on the bird population, and the effect on the tourist industry.[\[2\]](#)

[\[edit\]](#)

### Repowering

[Repowering](#), the replacement of first-generation wind turbines with modern multi-megawatt machines, is occurring in Germany. Modern turbines make better use of available wind energy and so more wind power can come from the same area of land. Modern turbines also offer much better grid integration since they use a connection method similar to conventional power plants.[\[8\]](#)[\[9\]](#)

[\[edit\]](#)

Offshore wind power

See also: [List of offshore wind farms in Germany](#)

See also: [Alpha Ventus Offshore Wind Farm](#), [Baltic 1 Offshore Wind Farm](#), and [BARD Offshore 1](#)

Offshore wind energy also has great potential in Germany.[\[10\]](#) Wind speed at sea is 70 to 100% higher than onshore and much more constant. A new generation of 5 MW or larger wind turbines which are capable of making full use of the potential of wind power at sea has already been developed and prototypes are available. This makes it possible to operate offshore wind farms in a cost-effective way once the usual initial difficulties of new technologies have been overcome.[\[11\]](#)

On July 15 of 2009, the first offshore German windturbine completed construction. This turbine is the first of a total of 12 wind turbines for the [alpha ventus](#) offshore wind farm in the North Sea.[\[12\]](#)

Following the [2011 Japanese nuclear accidents](#), Germany's federal government is working on a new plan for increasing [renewable energy commercialization](#), with a particular focus on [offshore wind farms](#).[\[13\]](#)

Under the plan large [wind turbines](#) will be erected far away from the coastlines, where the wind blows more consistently than it does on land, and where the enormous turbines won't bother the inhabitants. The plan aims to decrease Germany's dependence on energy derived from coal and nuclear power plants.[\[5\]](#)

see: [http://www.wwindea.org/home/images/stories/pdfs/worldwindenergyreport2010\\_s.pdf](http://www.wwindea.org/home/images/stories/pdfs/worldwindenergyreport2010_s.pdf) and <http://www.wind-energie.de/> .

The German solar Power has reached 500.000 individual installations covering every community with more than stunning 17.000 MW installed capacity at a installed value of around \$100 Billion

<http://www.ises.org/ises.nsf>

[http://en.wikipedia.org/wiki/Solar\\_power\\_in\\_Germany](http://en.wikipedia.org/wiki/Solar_power_in_Germany)  
Solar power in Germany

From Wikipedia, the free encyclopedia



A portion of the [Waldpolenz Solar Park](#)

Germany is one of the world's top [photovoltaics](#) (PV) installers, with a solar PV capacity as of 2010 of almost 17,000 [megawatts](#) (MW).<sup>[1]</sup> The German solar PV industry installed 7,400 MW from nearly one-quarter million individual systems in 2010, and solar PV provided 12 TWh (billion kilowatt-hours) of electricity in 2010, about 2% of total electricity.<sup>[2]</sup> Some market analysts expect this could reach 25 percent by 2050.<sup>[3]</sup>

## GETTING STARTED

As proposed in the introductory letter, the best starting point will be to select a very small team of experts from Egypt, Scandinavia,

Germany, USA and Canada; for example, the composition for the team could be 4-5 Egyptian experts, partnered with a total of about 4 experts from the partner countries, and a chair. These people will then be given the task to create the structure or framework for the whole project.

The less bureaucratic the process will be, the sooner a viable concept can be created and prepared for your review. Our offer and willingness to help the Egypt Government to launch this should make it easier and very appealing to get started right away as a direct outcome and inspiration of our WWEC2011.

### THE PARTNERS

Partners for the next steps must include strong political leadership in order to be a catalyst for action; government bureaucracy will need to promote the co operation needed between the various ministries and agencies, as well as the different levels of the federal, provincial/regional and community governments. In addition, this leadership can organize symposia and recommend the process for implementing the program. We would recommend that this be accomplished through an Egyptian agency for innovation as proposed in “Canada on Route to Prosperity” on page 33.

The International partners will be recruited out of a mix of vocational trainers and educators, industrial and political players, and bureaucrats.

### OUTCOMES

We have the courage and the foresight to claim that if the Egyptian Government seriously engage in what we are proposing, Egypt will, within one generation, create a society with an equal skill set, knowledge base and wealth to any leading country that we have previously referenced. If all of these things are accomplish you will have created a platform that will no doubt capture the interest of industrial (as well as other organizations) from around the world that would be interested in investing in Egyptian innovative development on a large scale. It will lead to innovation and productivity at the top level. More important it will involve and include every small and big community in Egypt and over 10 years

create more than 6 million jobs covering the entire spectrum of infrastructure, construction, transportation and last but not least a shift for the entire energy industry to tens of thousands of sustainable long term distributed energy systems linked in one smartly designed interactive and save grid.

### SUMMARY

We started out this proposal by saying that the potential presented to Egypt out of the present political, social and cultural situation is of a great magnitude for a meaningful and sustainable economic development and Egypt truly has an unusual potential for a broad based development with new employment reaching into each community; if you utilize them in this context and in an environmentally sustainable way you will create an Egypt where the wealth of your culture, the richness of your spirit, and the depth of your soul will be nourished, and finally meet the ordinary peoples' desire after many years of emotional and physical starvation. Done in a pragmatic way, you will be able to reach out to everybody and inspire the people to arise, phoenix-like, from the ashes. The biggest task will be to do this in tune with the environment and without further destruction of mother earth.

With determination Egypt can succeed and arise as a true sustainable leader:

**Egypt a Leader in Learning, Training and Green Innovation.  
This will lead to an Egypt with thriving communities and Converting Deserts into Powerhouses - one OASIS at a time.**

Volker Thomsen  
Treasure Island  
Kingston ON Canada