CIVISTI

Cross European project under the EU Commission's 7th Framework programme for European research

C I V I S T I

Citizens' Catalogue of Visions - Malta

Visions of the future produced on a two days citizens' consultation meeting - June 13-14, 2009

Index

Foreword

25 motivated and innovative citizens took part in a two days consultation and shaped their visions of the future Europe, 30 to 40 years from now.

The consultation started with an introduction by the national organizer and the facilitators on the purpose of the CIVISTI project. We continued with a presentation of the facilitation methodologies, explaining the use of experiential learning methodologies, games, small group discussions, and plenary group and personal presentations.

Before looking into the future we embarked on a deep glance into the past, using guided imagination methodology. The citizens imagined themselves living 30-40 years ago, and shared their fears and hopes. They imagined and talked about what were people's dreams in the past. Some of the citizens lived 40 years ago and shared their own experiences; others imagined the past based on stories they have heard.

From the past we moved onward into the future, using postcards and pictures from all around the world to encourage creative and metaphoric thinking. The citizens brainstormed in small working groups what would be the hopes and fears, dreams and concerns of the people who will live in Europe 30-40 years from now.

Gathered at the plenary, the citizens presented the results of the small working group discussions and fused them into a cluster of common ideas, feelings, thoughts and hopes agreed upon by consensus.

The rest of the day was dedicated to the introduction of the visions-creation working model and the creation of rough visions. The citizens worked in five groups, formulated rough visions, and presented them before the plenary. Then they selected the top 10 visions (14 merged into 10) – representing 14 strong voices in the plenary. These visions were the basis for the second day work.

In the morning of the second day we started in newly composed small working groups. Thus, during the process of formulating the 10 final visions the citizens were able to suggest ideas and to make comments and proposals regarding other groups' visions. This lead to an even more innovative process of vision creation.

The citizen consultation was concluded by a presentation of the 10 final visions before the plenary and a consensus agreement on “The Maltese Catalogue of Citizen Visions”.

Thank you, to all the citizens who contributed to this wonderful catalogue.

Description and analysis of the CIVISTI catalogue creation process

"What are the fears, concerns, hopes and dreams of the future" was a warm up session to encourage innovative ideas regarding the visions of the future. We had 25 participants who started the day with high energy and great will to contribute their skills to the learning and research process of formulating their visions of the future. The atmosphere was warm and informal and it was easy to get started with the introduction and getting-to-know-each-other exercises.
After being asked for their dreams and fears of the future, the citizens highlighted issues such as: success in life, job instability, medical supplies, eco-systems, misuse and lack of water, air, oil and pollution that might lead to war on resources.
More common issues were: Use and communication via IT education, space research, a search for new energy resources and improvement of oil, water and electricity materials. Furthermore, there was a clear emphasis on social issues such as migration, diversity, unity of nation, multiculturalism, and the advantages and disadvantages of the global village and the global economy. These were some of the main themes aroused in the brainstorming.
We noticed that most of the participants could not find differences between personal and societal fears, dreams and wishes, and that they shared somewhat similar concerns for the society of Malta and in Europe.

The rough visions of the future were very diverse and interesting, and allowed each and every person in the group to present and develop their own vision. The presentations were creative, deep, and sometimes even funny. It was difficult later on to choose only 10 vision, therefore we chose 14 (5 visions received the same amount of votes) and clustered them together into 10 visions. Many of them were somewhat similar and emphasized common ideas for the future. Out of 23 rough visions that were presented, the citizens chose to formulate 10 clear visions.

List of rough visions:

1. Global Information Sharing
2+3. Beyond Being – Going Back to Our Roots.
4. Apparatus for Conversions of Energy- Using Water Pressure.
5. Water Powered Automobile.
6. Immortality.
7. Outer Space Exploration for Future Solutions.
8. Greener Unpolluted Cities – Self–Sustaining Energy of Water Needs.
9. Vision of Transportations
10. Reduce, Reuse, and Recycle – make use of waste material.
11. Dynamic Energy Generation and Energy Recycling.
12. Ubiquitous Natural Access to ICT.
13. Utopia.
14. Nothing Exist Imperfection Balance.
15. Power to the People.
16. Wind Energy Options.
17. Humanity Living in Harmonious Integration with Nature.
18. Sustainable Living.
19. United Europe.
20. Automatic Translation.
21. Celebration of Diversity through Inclusion.
22. Fixing Us?
23. Let the Air Breath.

List of final 10 visions:

1. Outer Space Exploration for Future Solution
2. The 3R's for a Greener Future
3. Our way forward stems from our roots
4. A brighter future – or just a dream?
5. Green Sustainable Living
6. Globally Oriented Diffused Information City (GODIS)
7. Exterminating Fossil Fuels
8. Celebrating diversity through inclusion
9. apparatus for conversion of energy – using water pressure.
10. Natural Access to ICT Services Everywhere!

The participants were extremely enthusiastic about the formulation of visions and got into the working process easily and with a lot of innovative energy. However, the time allocated for the formulation of the final 10 visions was not enough for them. They expressed their feelings of pressure and discomfort due to the time constrains. Thus, we allowed an hour and a half for the final visions formulation, and had only 20 minutes for consultation in a feedback session. Although shorter then planned, the feedback session was very meaningful for the participants.

As the time allocated for the final vision formulation was stressful for the participants it seemed to us that more time would allow them to present the vision in a more creative way. Nevertheless, the visions were all completed on time and were presented in a professional and calm manner.

The citizens agreed upon the visions catalogue and are looking forward to the next step.

The Maltese CIVISTI citizen panel

Taking into account the local context, it was decided that the invitation is issued as close as possible to the event. This was done in order to reduce drop outs due to change in personal circumstances in due course, yet allowing enough time for a proper selection. A call for participants was issued on all national Sunday newspapers on the 17th of May, four weeks before the Consultation. 15 people applied, of which 13 were males and 2 females. The call was then distributed through the science popularisation network, the recipients being mostly young people interested in science and society issues, even if they are not necessarily engaged in the field of science. Finally the MCST general mailing list was used. These are people who are interested in MCST events, activities and news, and therefore are contacted regularly. Most of them come from the SME sector, and there are also a number of academics. The list includes people who are not involved in science, but simply interested, included children.

58 applications were received by the deadline: 20 F and 38 M. A great part of the females had a tertiary level of education or higher, so it made it difficult to have a balance in education level and at the same time a gender balance. The number of applicants with a level of education lower than university was less than the quota, so they were all selected. We had one applicant with a physical disability, who was selected, and some people working in this sector (2 out of 3 were selected). We had an applicant under 18, and another over 75, and both were selected. The original selection was very balanced in terms of age, gender, level of education and occupation. Geographical spread was of less priority for a country the size of Malta. The list had to be modified due to people cancelling, and this affected some of the balances.

Eventually the composition of the 25 participants was as follows:

Gender

M	F
15	10

Age

-18	18-25	25-35	35-50	50-60	60-75	75+
1	7	5	4	5	2	1

Education

Primary	Secondary	Vocational	Post secondary	Tertiary	Post grad
0	3	2	5	8	7

Source of information

Newspapers	Science Pop Network	MCST general list
10	5	10

The citizens' visions

1. Outer Space Exploration for Future Solution

A short description:

We believed that there people or sort of living organisms that we can communicate with for the mutual benefits (e.g.: UFO)
To alleviate the explosion of the world population we will be able to send people to live in other planet (e.g.: Tera-forming with the concept of Noah of Ark)
To lead on new discoveries in resources, for instance finding deposit of hydrocarbon to re-developing of upper land & underground space, climate, and magnetism, etc.
to put in practice the theory of Albert Einstein for the prolongation of life on earth or another planet (Based on Einstein Twin Paradox – space travel- theory tells the faster you travel through space, the slower you travel through time. He believed that when chromosomes exposed to cosmic rays, the penetration can damage the telomeres, which are linked to aging and perhaps cancer).

What is the vision?

A vision is based on our emotions, needs, hopes & dreams that may or may not be achieved in the period of 50-100 years from now. As a Japanese proverbs said: "A Vision without action is a daydream; whilst action without a vision is a nightmare". So we based for instance the theory of Einstein, if we don't act on our vision right now, then how will our vision be achieved & move on?

What are the benefits associated with it? For whom?

Theory Twin Paradox: we could benefit everyone on earth and in space to live longer with the proof of telomeres is the key to aging and cancer.
If we find a better place in space/ planet, which we can save our population from being totally destroy by cataclysms (e.g.: Comet Halley, Sun goes nova & destroy the earth; World war III; major earthquakes; volcano eruptions; Major climate change which may totally destroy which are now only a few feet above the sea level)
Travel in the beam of light – tele-travel in space, time saving, new knowledge and further exploration of the universe.

What are the negative repercussions of this future? On whom?

Human health and safety to the researcher (e.g.: Astronaut): risking their life in long term travel in space; may lead to poor bone density or faster cataract at least 7 years earlier than normal human – that proof of symptoms of aging.
Cost effective and time consuming as precise and sufficient technology and equipments are needed to support the missions.
Very little knowledge about the link between radiation and telomere loss.

What is necessary for this future (knowledge, policies, resources, skills)?

High technology: Shuttle & Station- heavy investment in machinery;
Involve robotics mission for detail analysis studies.
Resources: to have proper equipment to overcome the problems we may face in outer space (e.g.: Proper clothing to protect from dangerous rays – UV, chemical exchange during outer space research);
Policies: World co-operation in space project planning, because this cannot be achieved by one individual country, as the expenses involved are very exorbitant.
Knowledge from Expertise: Geologists, physicist, astronomists; scientists, from all over the world to pool together their scientific knowledge and further research & experiments based on Einstein theory
Knowledge: training of new generation to further study in universe, solar system, moon & Mars, & difficulties in space, such as control in space region where the force of gravity is nil

2. The 3R's for a Greener Future

A short description

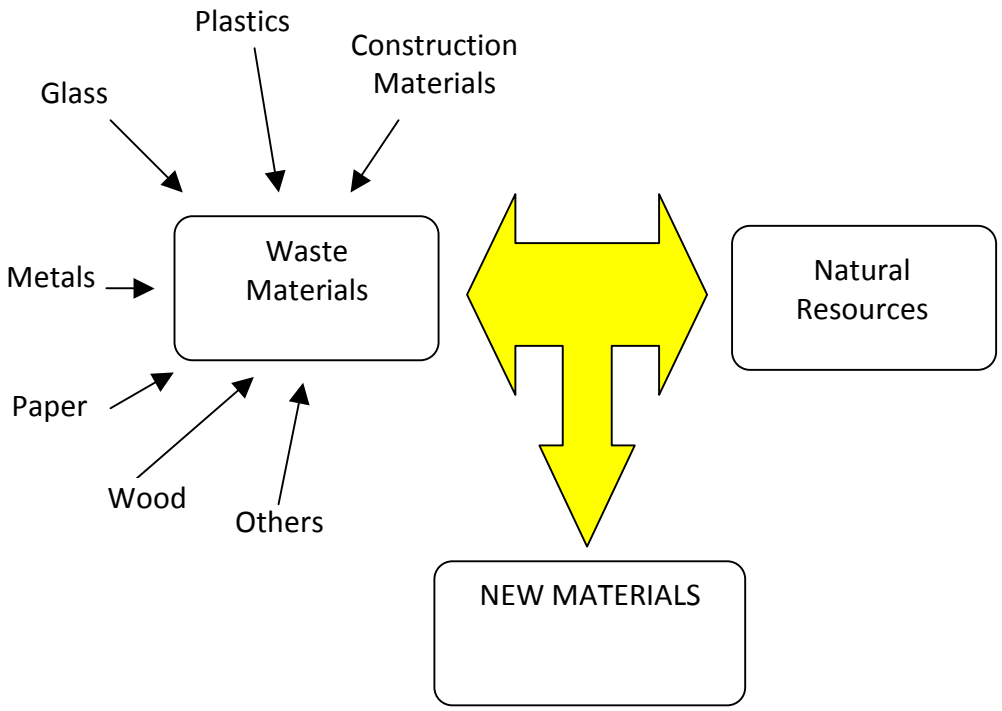
We are living in a world where the natural resources are constantly being depleted. Simultaneously, a lot of waste material is being generated in our every day life. This is having a negative impact on society and the environment in terms of land use and pollution.

What if we make use of the waste materials rather than just consider them a burden?

The combination of waste products with natural resources can result in useful materials. Their application to different sectors will benefit society.

What is the vision?

The use of waste materials in conjunction with natural resources to produce new materials.



What are the benefits associated with it? For who?

- **Reduce** the use of natural resources
  - Conservation of natural resources.
  - Reduction of energy in resource extraction.
  - Less environmental impact.

- **Reuse** waste material
  - Reduction of landfill volume.
  - Less impact on the eco-system.
  - Facilitation of waste material disposal.

- **Recycle** producing new materials
  - Elimination / Reduction of imported finished products.
  - Creation of a superior quality product.
  - Cost reduction of the final product.

For Whom?

- The producer of the waste material who is presented with a market opportunity.
- The manufacturer enjoying the benefits of the alternative material on the market.
- The end user benefiting from a superior product at a competitive cost.

What are the negative repercussions of this future? On whom?

- Possible high initial investment and funding.
- Possible high costs in manufacturing a suitable material.
- Possible degradation in time of the material characteristics.
- Possible future identification of potential health hazards.
- Possible redundancy of jobs requiring a change of skills.
- Possible limitations on the future recycling of the new material.

For Whom?

The effects could be felt by the manufacturer, the end user and the persons handling the material. Apart from this, there could be a negative effect on those countries otherwise supplying the natural resource.

What is necessary for this future (knowledge, policies, resources, skills)?

- Research laboratories, well-equipped with the necessary apparatus.
- Material specialists working on research and production of new materials.
- Political support through incentives and funding.
- Drafting of regulations and methodologies.
- Training of new trades.`
- An educated society that is receptive to new products.

3. Our way forward stems from our roots

A short description

We share a fast-paced and dynamic lifestyle where everything and everyone is being taken for granted. Our surroundings form the boundaries of our life; and when we look thoroughly at the plethora of resources handed over to us by our ancestors we cherish their successes and mentor ourselves through their failed attempts in making our world a better place. We are often succumbed into regenerating what was originally good. We believe that the only way forward is to create a more tolerant ecosystem rather than carry on focusing on exploiting what's already outstanding, in its own right.

What is the vision?

Remember those special moments of our lives… like peeping over a window sill at the first drizzles of snow, when the worry of not seeing it anymore got washed away by the dazzling whiteness of this blanket…or when you learnt how to swim and paddle with no worries of gulping down infectious toxins… We long to relive those beautiful moments, where serenity and peace reigned and all the worries of the harmful side effects of our careless lifestyles were unknown. Thus, being young or old, in Asia or Africa, in Finland or Malta, our vision is simply sharing a unified dream. A dream which is in everyone's best interest and is easily understood.

As human beings we all feel a natural desire and a moral obligation to procreate our species and sustain our presence in the universe. We persist in making feeble attempts to schedule the future because we are too pressured to tackle our imminent fears rather than pursue our hopes and dreams. This leads us to survive the present and plan our future in a crisis management mode.

Ideally, our projections of the future should be a means of conquering universal harmony through an environmental symbiosis. Luckily, our fear of extinction is presently driving us to reconsider our current habits, our consumerist lifestyles, in flagrant abuse of our natural habitat. We envision that in order to guarantee ourselves a future we should also remedy for our past misuse of the resources at our disposal.

Together as a unified nation we should be able to business process re-engineer all our current approaches, namely the following:

Manufacturing processes
Construction materials
Pharmaceuticals
Transportation systems
Environmental implications
Political commitment
Legal compliance
Social justice, and
Information and Communications Technologies

Our ultimate aim is to create a more tolerant ecosystem!

What are the benefits associated with it? For who?

Our vision affects all humanity in its extent and repercussions. This vision serves as a catalyst to stimulate the delivery of several benefits ranging from environment, such as pollution reduction and eventual removal, and the transformation of our waste landfills into valuable future resources to socio-economical, political and legal aspects. Other major benefits are among the following:

- Usage of more efficient alternative and renewable energy sources
- Reversal of the global warming effects
- Enhances the spread of knowledge and collaboration between nations
- Longer and healthier life through advanced medical research and better nutrition
- Sustainable development

What are the negative repercussions of this future? On who?

Those adversely affected will probably be those contributing to our situation today, and at the source of our global problems. These are mainly those persons and organisations that are toying with our rights to a better life.

What is necessary for this future (knowledge, policies, resources, skills)?

Our vision is dependent on a global commitment, effort, collaboration, knowledge sharing and an objective acceptance of the common good over our subjective and egoistic cultures. Our focus is on prevention rather than cure. The solutions we require need to cater for a multi-disciplinary and integrated approach.

4. A brighter future – or just a dream?

A short description

A true co-operation between peoples and nations, with the sole purpose of achieving justice, peace and serenity.

What is the vision?

This vision is a future world with a new generation achieving justice, peace and serenity on a global scale. This entails mankind to put aside any egoistic attitudes and start to genuinely feel responsibility and respect for those experiencing inequalities and injustices created by society itself.

This problem has been challenging mankind ever since, and it is sad to see that the more powerful nations are not sensitive enough to this, or is not in their main agenda to tackle this problem.

Within this vision we also see a wide-spread exploitation of new and existing technologies to improve our standard of living in general. We imagine a society living a more peaceful and less hectic lifestyle, in harmony with nature and the environment.

What are the benefits associated with it? For who?

The benefit of achieving this vision is the fulfilment and sense of belonging of each individual regardless of status, age, colour, creed and financial disposition. Every i
ndividual will have more scope in life and more possibility to release his full potential.

Working together will result in finding solutions to many of the world's problems. More creativity will emerge if everyone is given an equal opportunity. We would like to be able to live a more serene life that will allow more time to cherish values, altruism and the beauty of nature.

What are the negative repercussions of this future? On who?

If this vision ever becomes reality we may say that the planet would be heading towards a genuine Utopia. There cannot be negative repercussions in such a situation. It is expected that there will opposition from certain sectors. Ignorance and lack of will power will also hinder this achievement. Moreover, there will only be the frustration of those who through their selfishness and greed attempt to hinder the progress of such a vision, besides damaging the environment and creating injustices.

What is necessary for this future (knowledge, policies, resources, skills)?

- A real and detailed analysis of the problem with the publishing of accurate statistics to show the true scale of the current situation.
- Leaders and policy-makers who are able to take tough decisions and implement them
- The deployment of technology on a world-wide scale to accelerate the achievement of the solution.
- Concrete policies with consensus from all nations in favour of this vision.
- Implementation of such policies in a rigid time-frame.
- Dedication of all resources necessary and correct management to obtain maximum benefit out of these resources.
- Continuous monitoring and evaluation.

5. Green Sustainable Living

A short description

The present ways of living are highly unsustainable, involve overexploitation of earth resources principally because of extraction of resources at a faster rate than they can be replenished naturally. The use of natural resources at such rates is resulting in harmful repercussions such as pollution, global warming, collapse of fish stocks, negative health effects, etc. Our vision is of greener cities for present and future generations using sustainable energy production and measures to reduce pollution. This requires greater political will, improved planning, better education and a concerted effort in cooperation.

What is the vision?

The vision is to implement fundamental changes in our approach to urban living such that we ensure that what we consume is sustainable in the long term. Success of this vision can only be achieved through widespread and concerted education. The ultimate aim is a better quality of life.

These changes are...

Greater utilisation of renewable energy sources

- Energy production through the use of largely untapped sources such as wind, earth, sun and sea
- Alternative technologies to fossil fuels to cater for transport systems.

Reduced pollution

- Wider adoption of the "three R's" – Reduce, Reuse, Recycle – for all aspects of daily living.

Greener Cities

- Better planning of cities (Layouts, buildings, road network & infrastructure, good balance of low-level and high-rises)
- More open spaces in areas of high vertical development.
- Green rooftops, walls, balconies (used for plant cultivation, gardens, crop)

Reduced Energy Use

- Energy efficient buildings & transport
- Alternative transport systems (electric vehicles, bicycles, smaller cars)
- Efficient public transport
- Safer road networks

Education

- promote the concepts of sustainable living
- encourage non-wasteful consumption (food, energy, water, etc)
- increase the appreciation of, and respect for nature

Better quality of life

- fewer health expenses ... less stress, fewer environmental related illnesses
- fewer social conflicts...

What are the benefits associated with it?

Clean, renewable energy and sustainable living with reduced pollution
A less stressful and healthier populations (physical, social, psychological, political aspects)
Less political turmoil

For who?

… for all humanity and other forms of life on Earth

What are the negative repercussions of this future? On who?

Producers of non-renewable fossil fuel energy

- Unless they diversify their product

Conflict on use of space

- Land-based producing facilities take up land which may be in conflict with natural settings and agriculture
- Visual impact...but can make use of space which are currently underutilised and give minimal negative visual & environmental impacts.

There may still be unknown negative repercussions (to health, environment, society, etc)

Resistance to adoption

High cost to implement & develop – finding the funds may entail increased taxes

What is necessary for this future (knowledge, policies, resources, skills)?

Political

- The will
- Regulation
- Implementation and enforcement of supporting legislation

Funding

- For research
- For development and implementation
- For maintenance
- For education

Education

- Population level
- Political level
- Highly skilled / technical education

Technology

- Development of new technologies

Human Resources

- Highly skilled workforce for implementation and maintenance.
- Workforce to enforce legislation.

6. Globally Oriented Diffused Information City (GODIS)

A short description

This vision is of having a common resource between different organisations in the same field of work in which they can pool information, work together and help each other out in problems one may not be able to solve or does not have the requirements to perform such tasks.

This system will also provide organisations to publish their results and studies for the general public to benefit from such information.

What is the vision?

The vision is that all problems that arise can be proposed and worked on from anywhere in the world. Therefore the best way of implementing this would be using a web based, online, easily accessible system. This system will utilize a distributed system in which the information kept will be stored on different servers (to decrease load) but will still be accessible globally. Having a system like this means that universities, organizations and researchers are not working alone anymore but now have a system to interact with different sources or organizations in the same field of work.

As there is a lot of information being uploaded, once the information is verified to be correct, this can be published under the organization producing it and the general public can access the information and therefore learn about new things that are being discovered in real time.

To give a concrete example where this system could help in the medical industry (as an example) is that if a doctor discovers a new disease in a third world country, he probable does not have the labs, apparatus, research needed to investigate it, therefore this system will provide a means where as this doctor can upload his findings on this system and scientists can research this new disease in another country, university where there are competent labs, technology and other requirements. This doctor will then receive the results of this disease, cures and other information which he wouldn't be able to retrieve on his own.

This idea can now be used in all industries be it medicine, educational methods, engineering botanists etc.

What are the benefits associated with it? For who?

The direct benefits of a system like this are that worldwide researchers and scientists can now work together to help solve the same problems. Research can be carried out easier and more results will be achieved faster as more minds work on the same problems.

The indirect benefits are that there will be great advances and these industries will advance more therefore serving the public better.

Information is available worldwide and easily accessible by all.

What are the negative repercussions of this future? On who?

Although Internet is available in many regions of the world, there are still a lot of regions that do not enjoy this type of communications. This has created what is known

as the Digital Divide. The repercussions with this vision is that while those who *HAVE* Internet can benefit from this vision, those who *HAVE NOT* remain in the dark and fall ever backward in relation to the others.
Another problem is Intellectual Property (IP), individual parties to an idea may request the copyright of the result, thus creating IP conflict.

What is necessary for this future (knowledge, policies, resources, skills)?
This system definitely requires to have a distributed system accessible from everywhere. At present the best way for information to reach places is using the 'Internet'. This implies that communities which do not have access to the internet or do not have the relevant hardware will not be able to make use of this system.

7. Exterminating Fossil Fuels

A short description

- Substituting fossil fuel energy to natural power
  - Use energy resources where they are most abundant
  - Water powered automobiles (hydrogen fuel cell)
  - Wind turbines
  - Nuclear fusion
  - Geothermal

What is the vision?

- Alternative powered vehicles and alternative energy generation
- Working hand in hand with nature to generate electricity
- Classic sustainable energy is still useful but we need to invent newer ways to generate electricity

Classic sustainable energy

- Solar energy
  - Photovoltaic Cells
  - Direct solar energy for heat energy
- Wind energy
  - Horizontal axis wind turbines
  - Vertical axis wind turbines
- Nuclear Fission
- Fuel Cells (to power cars)
- Hydro Electric power

Newer Sustainable energy

- Nuclear fusion (possible cold)
- Peltier effect for highly efficient light sources
- Perpetual energy

What are the benefits associated with it? For who?

- Cleaner environments
- Lowering our carbon footprint
- Higher efficiencies
- Sustainable energy
- Cheap or free energy (hydrogen, solar and wind)
- Enhance the economy by introducing new jobs

What are the negative repercussions of this future? On who?

- High installation costs
- Noise pollution (wind turbines)

What is necessary for this future (knowledge, policies, resources, skills)?

- People will be more involved in higher technical education
- Looking after our planet
- Less health problems
- Europe becomes the leading example of the cleanest continent

8. Celebrating diversity through inclusion

A short description

Diversity can be celebrated by including everyone. Inclusion means the acceptance of the differences that exist between peoples. It means their involvement and participation in all aspects of life, so as to achieve their full potential and lead to personal and social fulfillment. Inclusion is an entitlement that should be given to all, regardless of their ability, race, culture, religion, language, vision and others.

The principle of equity should be considered in place of that of equality. Equity implies that each person receives according to his needs and gives according to his/her abilities, rather than everyone receiving the same treatment, as happens in equality.

Society and governments have to move away from charity models and think more on the lines of entitlement.

What is the vision?

The vision aims to recognise the diversity of people and use these diversities to enhance learning opportunities and promote inclusion.

Inclusion means the acceptance of the differences that exist between peoples. Inclusion also involves acceptance of differentiated and innovative methodologies to ensure that each person fulfils his/her potential. Whatever the ability, etc, of the persons, they form an integral part of the society they live in. Persons need to be given a chance to succeed at education, learning in the way that is best suited to their needs. Their education should be ongoing throughout life, and does not stop after compulsory education has been completed. They should be given opportunities for employment and contributing to society.

Persons with disability, most particularly, need to continue living in the community with the necessary support. There are good models throughout Europe, where persons with disability live in the environment that they have been raised in and receive the necessary support to live as independently as possible. They are to be given equal opportunities to participate in civil society and to express their views where necessary. For persons with intellectual disability, it means they are allowed to vote and not be discriminated against because of their disability. They should enjoy all the rights of each and every citizen.

Inclusion means the involvement and participation in all aspects of life of disadvantaged persons, so as to achieve their full potential and lead to personal and social fulfillment. Inclusion is an entitlement that should be given to all, regardless of their ability, race, culture, religion, language, vision and other factors.

The principle of equity should be considered in place of that of equality. Equity implies that each person receives according to his needs and gives according to his/her abilities, rather than everyone receiving the same treatment, as happens in equality.

Society and governments have to move away from charity models and think more on the lines of entitlement.

The vision sees that by means of including everyone, we can celebrate diversity.

What are the benefits associated with it? For who?

- A more multi-cultural society, with less harassment and prejudice and more tolerance.
- More productive societies, due to the inclusion of disadvantaged minorities. Research has shown that where the latter are included in the community, they are less of a burden on the financial and social resources of the country.
- Greater learning opportunities for all, due to the use of the diverse talents of a group of people and the learning strategies that have to be put in place to reach one and all.
- Changes in educational systems and pedagogies can lead to all persons fulfilling their potential and being productive members of society.
- Innovation in teaching techniques, individual educational plans that target the needs of each and every individual.

- Education can lead to employment and participation in civil society and can happen on various levels, ranging from full time-employment to sheltered employment.
- Change in perception and values on life-long learning for all, irrespective of their abilities.
- For persons with disability, inclusion not only provides them with good models to learn from, but gives them the necessary skills to continue living in the community and also form stable relationships

What are the negative repercussions of this future? On who?

- Resistance to change from different parties, which could result in greater intolerance.
- Lack of belief in the capabilities of disadvantaged persons.
- Lack of understanding of the advantages of this system.
- Disappointment and disenchantment due to the system not managing to fulfill the expectations of the disadvantaged group.
- The need for funding on various levels, which depends on political will and prioritization.

What is necessary for this future (knowledge, policies, resources, skills)?

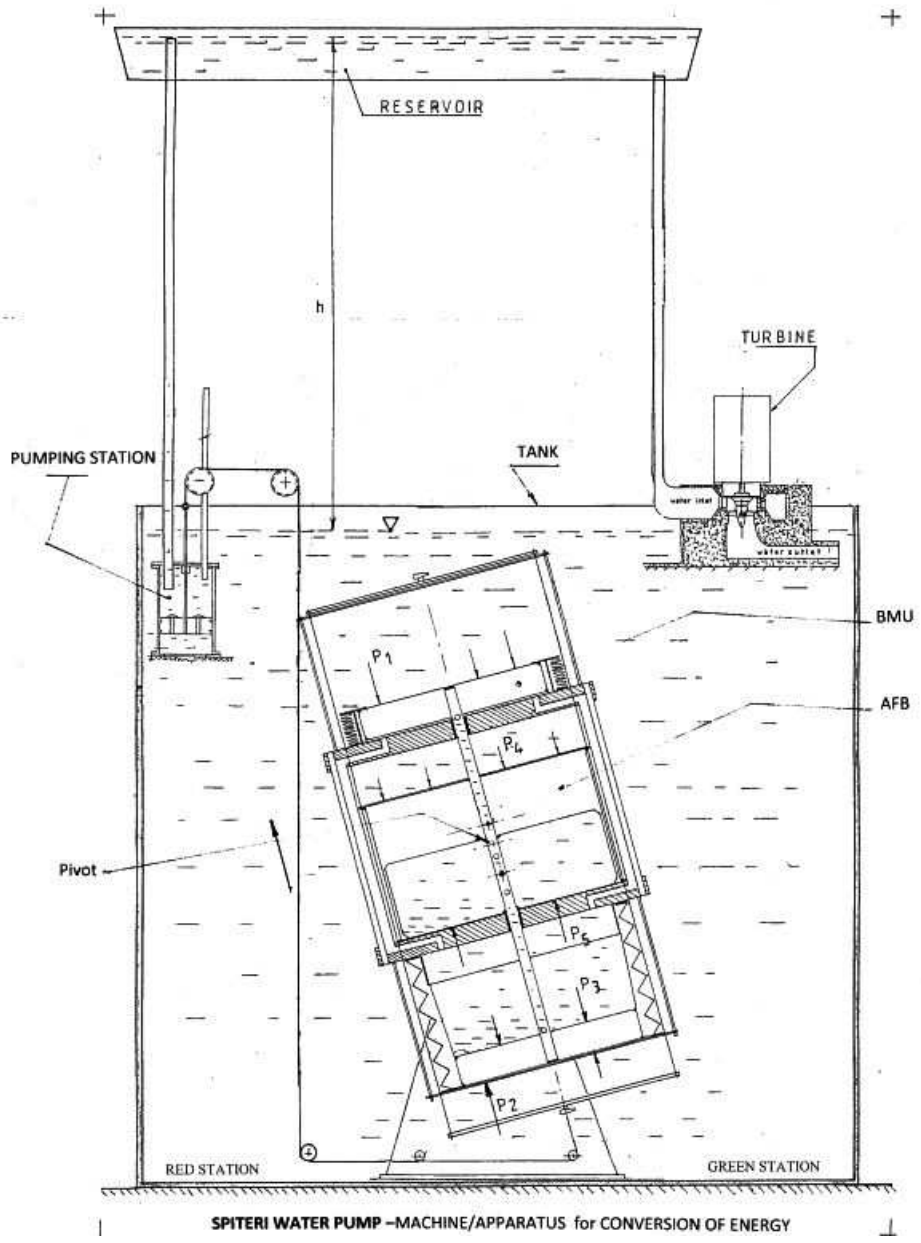
Knowledge, skills and resources

- Research into new educational methods from universities and institutes.
- Analysis of the development of the vision by think tanks and institutes.
- Re-training and development of new skills of those involved in the educational and employment sectors.
- Different methodologies will require different varied resources to achieve the best learning benefits e.g. visual, tactile, auditory resources and experimental techniques.
- A change in attitudes and values, which requires education on all levels and good practice of inclusion to show the benefits that can be reaped.
- Raising awareness to promote the vision.

Policies

- Change in government policies, requires commitment from policy makers towards this ideal.
- Roping in of politicians on a national and European level to change legislation involving fulfillment of this vision.
- Promoting acceptance on part of the unions representing the workforce.

9. APPARATUS FOR CONVERSION OF ENERGY – using water pressure.



A short description

Using two buoyant units arranged in a frame under water it is possible to transfer Hydraulic Energy.

A buoyant unit (Air Fill Barrel – **AFB**) is placed in a frame which is attached to the base of a water tank. Another buoyant unit (Ballast Mass Unit - **BMU**) is also placed in the same frame. This unit has a midway load which travels inside the first unit, together with two air bags at each end of a connecting rod.

Function 1

Up thrust is induced both to the AFB and the BMU simultaneously. While the AFB is rising it transfers water by means of mechanical linkages to a higher level (Artificial Waterfall) by means of a pumping station. This means that work has been done against gravity using a natural force (which is free). This energy can then be transferred to electrical energy by using a conventional turbine/generator.

Function 2

While the BMU is rising it transfers a load from the inner lower face of the AFB to the upper inner face of the AFB. This results in a top heavy machine.

Function 3

The frame has a pivot allowing the two units AFB and BMU to rotate placing both the AFB and the BMU to another starting position. To restart the cycle an electrical valve is used to open up a chamber there by inducing up thrust again to the two units. For continuous flow of water from the water flow four or five units are needed is needed.

What is the vision?

To facilitate the use of Hydro Power worldwide where there are no waterfalls or running rivers.

What are the benefits associated with it? For who?

The Ultimate Selling Point is that electricity is produced at a very low price per kWh. It is calculated that it is better than wind power.
This system will be beneficial to all sites in the world where there are no waterfalls or rivers.
This invention when accepted will be beneficial to all of humanity, diverting funds spent on anti-environmental fuels to social and ecological requirement.

What are the negative repercussions of this future? On who?

The main disadvantage is that it is quite large in size when compared to conventional electrical/diesel water pumps.
We do not vision any other negative repercussions since the machine runs smoothly providing very clean environment. This prime mover machine is a very low technology device using no fuel.

What is necessary for this future (knowledge, policies, resources, skills)?

The principles behind the project have been already fully explored, what is needed is a team of professionals to produce state of the art working drawings and simulations and build a second generation prototype producing 67 kWh, for eventual preparation to commercialization.

10. Natural Access to ICT Services Everywhere!

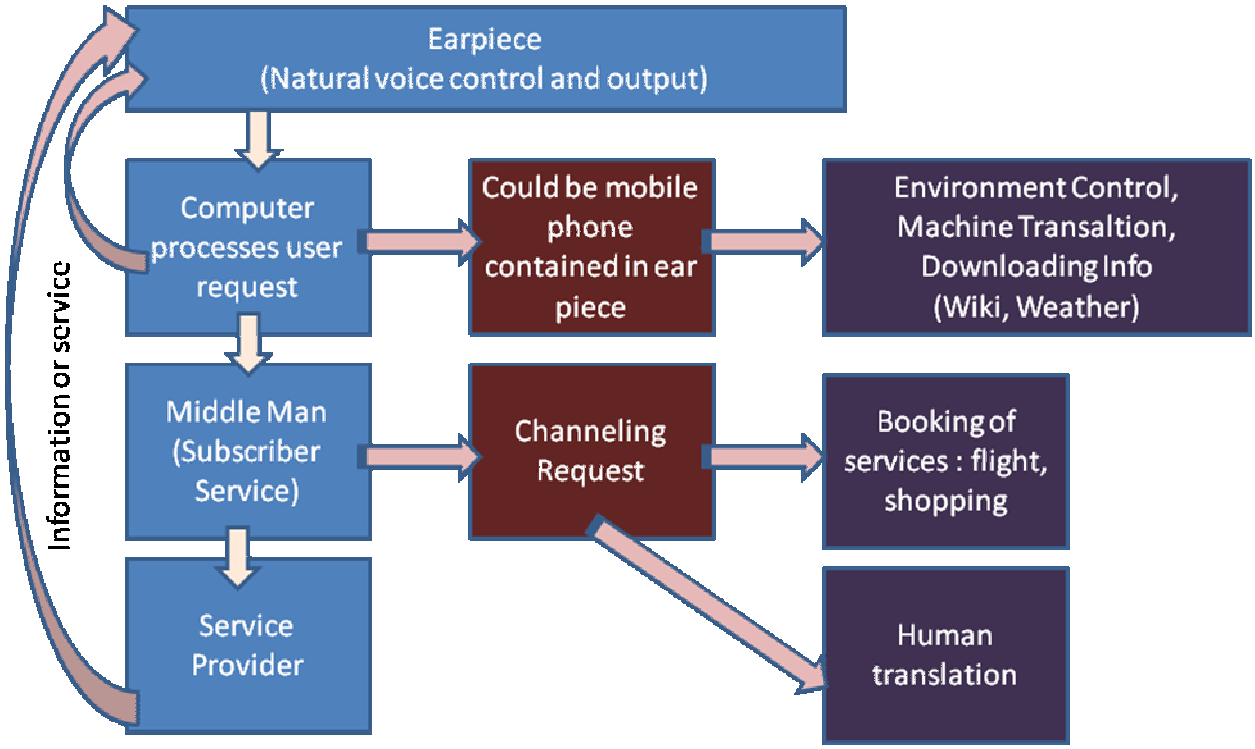
A short description

- Natural voice access (controlled by speech and delivers feedback via speech – eventually also allowing for neural system, and other interfaces based on customer preferences)
- Available everywhere, providing personalised services and information to the user upon request
- Convenient and easily accessible to everyone
- Easy access to services
    - Electronic services
        - machine translation
        - weather updates
        - dictionary definitions, emails)
    - and human services
        - book flights/appointments
        - order taxi
        - human translation
        - shopping
        - manage gifts on birthdays and special occasions

- Makes use of middle man services (provides work for translators, clerks and technicians) to channel user requests as required.

What is the vision?

- A vision where technology in the form of a voice interface or neural systems, enables one's data to f freely and securely, always there when you need it.
- Accessed in your car, at home, public buildings, everywhere.
- The technology is invisible, used only to the extent where it makes sense, in the holistic context of improving our quality of life.



What are the benefits associated with it? For who?

It provides easy access to information, environment control and services. For example:

- Translation services
- Assists illiterate persons
- Helps people to communicate more easily, particularly those with language difficulties
- Helps save time by providing immediate access to services

What are the negative repercussions of this future? On who?

- It is likely to make certain workers redundant.
- When machine translation is utilised through this technology, it discourages language learning and literacy.
- Makes us more highly dependant on technology.
- It alienates users from the intricacy of service provision.

What is necessary for this future (knowledge, policies, resources, skills)?

- Knowledge
  Design and development of human/computer natural interface (the earpiece itself)
- Policies
  Data sharing and protection regulations
- Resources
  Access to technology, information services and middle man (services agency)
- Skills
  Technical services to support technology

What will happen next?

In April 2010 International expert workshop.

In October 2010 second citizen consultation.

In January 2011 results are presented to a policy workshop in Brussels.