

Aplication - Ocean Centre Denmark

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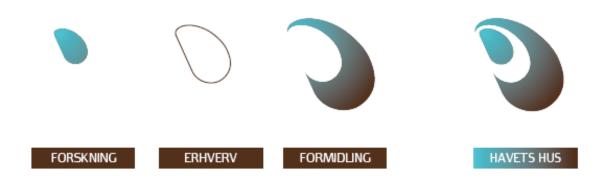
## **Ocean Centre Denmark**

It is evident that there are many perspectives, possibilities and benefits in the Ocean Centre Denmark. The project adds value to a number of different stakeholders from different sectors and in doing so, creates an icon and a "beacon", for the city, the region and Denmark in general.

Ocean Centre Denmark will create increased fascination of the sea on an international level, host e.g oceanic, environmental and energy research projects and offer private knowledge based companies opportunities to collaborate with scientists working within these fields.

We hereby apply Region Midtjylland for 15.357.000 dk.kr to cover the projects administration and development costs in the period from 2009 to 2011.

## **Description of concept and idea**



Ocean Centre Denmark is developed in collaboration primarily between Norddjurs Municipality, the Kattegat Centre in Grenaa, and the University of Aarhus, and the University of Copenhagen, Roskilde University, the Technical University of Denmark, and the University of Southern Denmark also support the project.

The overall vision behind the Ocean Centre Denmark project is to create an environment where research, dissemination of knowledge, and businesses are united in order to create unique research results, business growth, and increased fascination with the sea.

Ocean Centre Denmark consists of three units, which have different objectives, but are situated in the same building and continuously working together:

- o A Science aquarium, including travelling exhibitions
- o A Research Centre
- o A Company House

### Science aquarium



Breathtaking, fun, interactive, inclusive and scary experiences together with learning and enlightenment are the keywords for describing a visit in the Science aquarium in Ocean Centre Denmark.

The Science aquarium will contain two main types of activities:

- I. "Education" focusing on the sea and organisms and processes herein, mainly directed towards schoolchildren, but also the general public.
- II. "Experiences/entertainment" addressing everyone. Here the keywords are interaction, play and fun, and learning is more of an indirect "added value", but not necessarily less effective.

Combining these two activities into an edutainment concept and modern "Digital Aquarium" will on the one hand create increased fascination and on the other hand increased learning ability within the target groups.

The Science aquarium in Ocean Centre Denmark will, every 3 or 4 years, present a new, themed exhibition in a purpose-built  $400m^2$  "Digital Aquarium" inside the centre. This room will be a mixture of a 3D "cinema" and a Science aquarium with interactive floors and walls and it will contain science installations as well as smaller aquariums.

The "Digital Aquarium" will be designed to give visitors a feeling of grandeur as well as closeness, fascination, enthralment and absorption. In this room you can face a natural sized, digital blue whale, listen to authentic whale communication, get wet, get cold and feel the power of the elements or whatever will be relevant, depending on the theme.

Modern projection technology will be included in the concept's basic audio-visual structure. In the large "Digital Aquarium" projectors will illuminate the interior from the inside, creating a breathtaking illusion of being submerged in the ocean. The latest audiovisual technology will be used to create scenery that also interprets and presents the world beneath the surface for the visitor. Taken together, this mix of technologies creates distinctive and unique experiences not found elsewhere in the world.

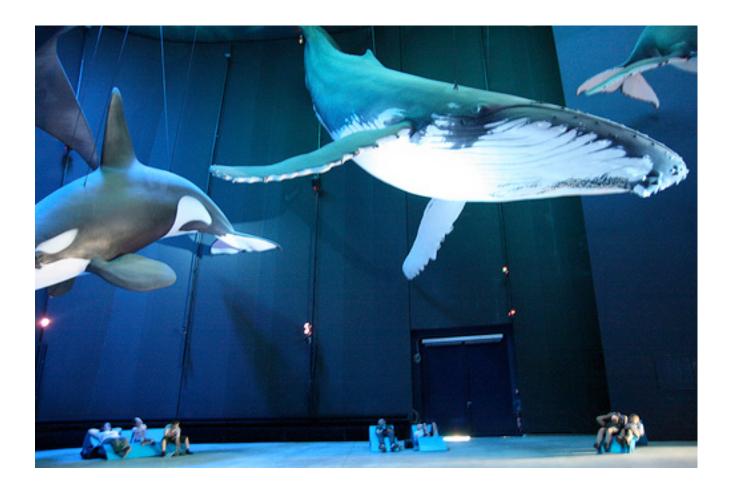
Experiences inside Ocean Centre Denmark will take advantage of several types of modern interactive technologies. This includes technologies, which adapt to the visitor's personal preferences. As an example, user active tickets can be used by the visitor to activate parts of the exhibition and also to adapt experiences to the visitor's own interest/level of comprehension. It is even possible to take selected information home from a visit to Ocean Centre Denmark using the active ticket.

Interactive exhibitions will use modern sensor technology, which detects the visitor's movements and movement patterns. The visitors will be able to influence elements in the room by their mere presence and thus use the body as a natural interaction tool. Please refer to the idea catalogue by Centre for Advanced Visual Interaction (CAVI) for further information.

The themed exhibition will eventually be more or less directly transformed into a travelling exhibition. A travelling exhibition could have the same theme and be built to take advantage of the experiences gained during the 3-or 4-year lifespan in the permanent Digital Aquarium.

Examples of themes for exhibitions in Ocean Center Denmark

- It all began in the sea (evolution)
- Forces of the sea (waves, cyclones, tsunamis, climate change)
- Giants of the sea (fascination, conservation)



Please see the Report from the NIRAS Consultants for further information on travelling exhibitions (Appendix 7).

Our mission is that when visitors leave the science aquarium in Ocean Centre Denmark:

- They have had an educational and fun-filled day out
- They have had shared experiences and intellectual, as well as sensory, "marine" revelations
- They have gained knowledge about current research
- They are more aware of the sea and the organisms living under its surface
- They are more aware of the need to protect the sea
- They feel fascinated by the sea

## **Educational activities in the Science aquarium**

The close proximity of the informal educational environment in the Science aquarium and the working scientists in the Research Centre creates a unique opportunity for research communication and for direct interaction between school children and other visitors to the

Science aquarium and the researchers. Visiting children and adults alike will be able to meet and communicate with real scientists in action in an authentic setting.

The combination of a university environment in the Research Centre and an informal educational environment in the Science aquarium will make a wide range of exciting and innovative learning opportunities for both primary and secondary schools possible.

This will create an outstanding platform for the establishment and development of a wide interest in science, not least among children and young people, and very likely encourage a permanent interest in science. In all likelihood the exciting meeting with scientists as role models will inspire some young people to eventually pursue a career in science.

Educational activities planned to take place in the Science aquarium include various hands-on activities, boat trips, experimental work in the laboratories of the Research Centre and informal lectures. The activities directed at school children from primary as well as secondary school will be planned so they support the curriculum as specified by the Ministry of Education.

Another activity is "SeaScienceCamps" that is directed at gifted children, as well as summer camps open to all interested children of a certain age and camps targeting grandparents together with their grandchildren.

## **Travelling exhibitions**

The idea of a travelling exhibition as a supplement to the Kattegat Centre's existing exhibition originated from an earlier project "From competitor to partner". This project investigated whether it would be possible for the Kattegat Centre and AQUA Freshwater Aquarium to work together. The result was the idea of a travelling exhibition "Living Technology" based on the theme of "Salmon Migration" in a mobile building. The production budget for this concept was around 45-50 million Kr.

The concept was put on hold, mainly because there were obvious synergies between the larger concept Ocean Centre Denmark and the travelling exhibition. The idea of a travelling exhibition to extend the Kattegat Centre's ability to communicate and generate new business on a larger geographic scale was incorporated into the concept of Ocean Centre Denmark.

The aim of travelling exhibitions is to do away with the geographical limitations that are imposed by being a typical stationary aquarium and Science aquarium. By using travelling exhibitions, it would be possible to reach more people, and at the same time the exhibition would contribute to the running costs and the marketing of the 'permanent' Ocean Centre Denmark.

The most important aims in developing the travelling exhibitions platform and network in Ocean Centre Denmark are:

- Wider communication of the newest research
- Marketing platform for the Ocean Centre Denmark
- Economic contribution to the running costs of the Ocean Centre Denmark (expansion of the product portfolio)

• Networking in a European context in order to create a synergy between new business opportunities and new markets.

The ability to exchange/swap minor exhibitions within this European network, which will

be a considerable money saving venture for the aquariums involved.



The actual production of the travelling exhibitions will take place as a cooperation between, amongst others, Centre for Advanced Visual Interaction (CAVI), Midtjysk OplevelsesProduktion (MOP), The Alexandra Institute, Aarhus School of Architecture and various companies and designers.

The new Science Aquarium will be regarded as much more attractive and dynamic – worth visiting **and** re-visiting on a regular basis. With a relatively frequent (3-4 year span) radical change in the content, combined with focused advertising, Ocean Centre Denmark will be able to attract at least 45,000 additional visitors compared to the present level. This change in the economic structure will have a radical positive effect on the possibilities for rethinking strategies, acting offensively and being constantly in development.

#### **Research Centre**

The Research Centre will consist of state of the art research and teaching facilities, mainly directed towards scientists from Danish universities, but also open to – and attractive for – scientists from abroad.

The planned research facilities in Ocean Centre Denmark include facilities unique for Denmark as well as basic laboratories. Thus they will be able to accommodate very specialised world-class research in different fields including marine ecology and biology, climate change, oceanography, animal physiology, acoustics, and sustainable energy, as well as education at levels ranging from primary school through secondary school to university.

Initially the Research Centre is mainly directed towards users from the University of Aarhus who will be the main tenant in the start-up phase. However the aim is to expand the group of permanent tenants to include other Danish universities such as the University of Copenhagen, Roskilde University, the Technical University of Denmark, and the University of Southern Denmark. Letters of intent from these universities, stating a pronounced interest in Ocean Centre Denmark, are attached as Appendix 1.

Roskilde University (RUC) has a particular interest in Ocean Centre Denmark because the university is currently developing a collaboration with Ocean University, China. Ocean University is an elite Chinese university that specializes in marine sciences. RUC and Ocean University China have committed to establishing a Joint Marine Science Centre in Denmark and RUC considers Ocean Centre Denmark as a way of expanding this promising collaboration to include other Danish universities, and promoting the Danish Research Agency initiative to strengthen ties between Denmark and China. This aspect of the future possibilities in Ocean Centre Denmark is very promising and will very strongly enhance the international profile of the centre. Please refer to letter of intent from Valery Forbes, RUC, for further details.

Furthermore it is expected that, in the long term, Ocean Centre Denmark can be classified as a EU supported European Large Scale Facility, which will facilitate funding of equipment as well as research projects taking place in Ocean Centre Denmark.

The Research Centre will be used to carry out research projects ranging from smaller individual master theses and Ph.D. projects to projects involving a number of Danish scientists from one or more research institutions and, on an even larger scale, large international research projects. Furthermore the Danish universities will use Ocean Centre Denmark on a regular basis for field-courses and Ph. D. courses for students. Also conferences for e.g. teachers or decision makers working in the public administration arranged in collaboration between the Science aquarium and the universities will be held in Ocean Centre Denmark.

The expectation is that over a ten year perspective Ocean Centre Denmark will be not only the most modern Danish marine research laboratory with the best facilities - used by Danish scientists from all the major universities as well as international researchers - but also a focal point for Danish research into topics related to the ocean. Ocean Centre Denmark will be a centre where essential knowledge is generated and shared. Shared with scientific colleagues, with the

associated business community, with decision makers, with students and schoolchildren and with the general public.

### **Research facilities**

The Research Centre will include state of the art research facilities, including research and teaching 'wet' and 'dry' laboratories, very advanced controlled temperature rooms, various analytical laboratories, an isotope laboratory, a greenhouse, very specialized experimental mesocosm facilities unique for Denmark, workshop, meeting, teaching and conference facilities, accommodation and kitchen facilities for students as well as scientific personnel, offices and outdoor research facilities. All 'wet facilities' will be equipped with various qualities of running and re-circulated seawater with an ability to control temperature and salinity in a setup unmatched in most existing research facilities worldwide. Other facilities may be added at a later stage as activities grow and/or more tenants sign on.



Ocean Centre Denmark continually cooperates with other research facilities in Denmark to make sure that research facilities offered in Ocean Centre Denmark complement existing facilities in order to ensure the most beneficial use of resources nationally.

## **Company House**

Company House offers high-standard office facilities for knowledge-based businesses. Office facilities may be rented as 'managed space' with the option of joint reception and secretarial services. Companies based in Ocean Centre Denmark will also be able to use the excellent meeting and conference facilities in the house. The aim is to create one of the regions most prestigious business addresses offering, for example, start-up and smaller companies an image generally reserved for much larger corporations.



### Project's aim and the expected return from the financing of its development

The overall aim of Ocean Centre Denmark is to create a unique environment where engaging, hands-on exhibitions, spectacular aquaria, and informal learning in a Science Aquarium are combined with state of the art research facilities for Danish and international marine scientists and excellent facilities for knowledge based businesses.

The advantages of bringing together a Science aquarium, a Research Centre, and private companies are expected to be many and include profitable synergies both conceptually and economically.

### Why combine a Science Aguarium with research and business facilities?

The goal of establishing such a "melting pot" where exciting experiences and creative science exhibitions are integrated with informal and formal education and world-class research and business is to promote an attractive innovative environment where knowledge build-up and sharing will thrive, new ideas will be born and new technologies, concepts, products and businesses will be developed.

### Local, regional, national and international effects

Ocean Centre Denmark will have considerable positive effects both locally, regionally, nationally and internationally.

### **Local effects**

Ocean Centre Denmark will have a strong educational and intellectual profile. The existence of a university research institution in Grenaa will strongly work towards changing the image of the city and the region. Ocean Centre Denmark will help redefine the way people look at Grenaa – formerly an industrial city, in the future a city defined by knowledge, innovation, and education.

Ongoing significant local initiatives and projects strongly support the general value of building a facility like Ocean Centre Denmark and underpin the relevance of Grenaa as the choice of location.

The establishment and expansion of a company (Danish Biofuel Holding) based in Grenaa, which is engaged in the development of sustainable energy technologies using marine plants in the production of biofuel, will benefit greatly from the possibilities of use of facilities and cooperation with scientists in the Research Centre – and vice-versa. Moreover, the concept of sustainable energy being extracted from marine plants is a fantastic subject to communicate in the Science Aquarium, and of obvious interest to schoolchildren and general public alike.

Likewise, the coming offshore windmill park near Grenaa can benefit greatly from the nearby laboratory facilities and scientists – and vice-versa - both regarding environmental assessments and in the possible development of new technologies regarding, for example, offshore aquaculture or marine environmental monitoring systems. Naturally, a huge offshore windmill park is also an excellent exhibition theme for the Science Aquarium with outstanding international appeal, which will be able to "put Denmark on the world-map".

Permanent and temporary exhibitions, experimental setups and science installations in the Ocean Centre Denmark will be able to make visible - nationally and internationally - those local sustainable energy activities and for example explain the scientific background and research behind the technologies used. A viewing-platform or -tower allowing visitors in Ocean Centre Denmark to enjoy the sight of one of the world's largest offshore windmill-parks, and a sustainable wind-energy supply to the centre will complete the picture very nicely.

Locally and regionally the increase in the number of people visiting Ocean Centre Denmark (45.000 estimated by Rambøll in a 'base-case' scenario) will have a substantial economic impact on local shops, restaurants and accommodation providers. For a remote area like Grenaa this effect will be notable. Moreover, the mere existence of Ocean Centre Denmark in Grenaa and the qualities associated with it, e.g. research, education, and innovation, are expected to have a positive influence on the image of Grenaa and thereby the possibilities of attracting new – especially higher educated – citizens to the area.

Furthermore the iconic building of Ocean Centre Denmark will function as a landmark for Grenaa and the region.



### **Regional effects**

Apart from the outstanding synergies between Ocean Centre Denmark and the above-mentioned local projects, the foci of Ocean Centre Denmark strongly support the major regional focus areas concerning environment and energy. The establishment of a strong research and innovative milieu focusing on, among many other things, the development of sustainable energy technologies and the implications of climate change in Ocean Centre Denmark will ensure that the regional focus areas are implemented even in more remote parts of Region Midtjylland as Grenaa

Ocean Centre Denmark will also be able to function as a competence and resource centre for educational institutions and the general public as well as decision-makers and industry from Region Midtjylland.

Ocean Centre Denmark will work as an infrastructure for active cooperation between the general public in broad terms including schools, the academic world and industrial partners.

Overall, Ocean Centre Denmark is therefore expected to have a significant positive influence in the region, in relation to, among other things, economy, average educational level, development and support of new and existing businesses, and knowledge about and perception of the area nationally and internationally.

### **National effects**

The unique "melting pot"-concept resulting in growth and knowledge build-up and sharing throughout all levels of society will act as a "beacon" locally, nationally and internationally. It will set a new standard for the possibilities of, and perspectives in, bringing together school children, the general public, highly qualified scientists and innovative businesses in a shared environment.

The educational activities in Ocean Centre Denmark creates a superior opportunity for children to immerse themselves in the wonders of natural science through fantastic experiences, involvement, and direct interaction between scientists and schoolchildren of all ages. This will inevitably increase the interest in natural science among Danish schoolchildren, which completely supports the official national strategy, as formulated by The Ministry of Education and The Ministry of Science, Technology and Innovation, of reinforcing the interest and achievement level in natural science among Danish children and young people.

### International effects

Over 8 to 10 years it is our vision that Ocean Centre Denmark will evolve into an internationally recognized capacity with three major international functions:

- 1. The research centre is a "Large scale European research facility" and one of the most important research environments in Northern Europe, attracting students, scientists, and conferences from all over the world
- 2. The science aquarium is a major international player in the market of travelling exhibitions and events, focusing on e.g. the environment or climate change, in public outdoor spaces across the world. The Science Aquarium is collaborating with Danish universities but also e.g. Ocean University China regarding research-communication. The science aquarium is collaborating within an international network on developing exhibitions, event platforms and concepts.
- 3. Businesses in Company House are hosting conferences and international network activities in Ocean Centre Denmark and participating in activities to attract scientists, international businesses and other resources to the centre.

## Total budget and documentation for public or private financing

## Project administration 3 years

Salaries and administration

Project leader 1.800.000 dk.kr Research and specialist Consultant 1.600.000 dk.kr

Administration costs (excl. Salary) 250.000 dk.kr

**Project development costs** 

Consultants 2.000.000 dk.kr

Business model

Experience designers

Communication experts

Education experts

Legal advice Accounting

Finansiel advisors

Engineers

**Travel costs** 

Network development 475.000 dk.kr

Europe 10\*40.000 kr.

Scandinavia 5\*15.000 kr.

Sales activities and marketing Europe 280.000 dk.kr

7\*40.000 kr.

Sales activities and marketing, new markets 300.000 dk.kr

North America and Asia 5\*60.000 dk.kr

Transportation 252.000 dk.kr

Denmark 36\*7000

# **Development costs**

Conferences and meetings	450.000 dk.kr
10*20.000+5*50.000	
Further development of research facilities	450.000 dk.kr
Development of mobile exhibition platforms	1.500.000 dk.kr
Technological setup and infrastructure	500.000 dk.kr
Development of Digital aquarium (black box)	1.500.000 dk.kr
Architectural design competition	2.500.000 dk.kr
** 6	4.500.000 11.1
Unforeseen expenses	1.500.000 dk.kr
Total administration and development costs	
2009-1011	15.357.000 dk.kr

# **Building expenditures**

				Total price
		Gross m <sup>2</sup>	Price/m <sup>2</sup>	Mio. Dk. Kr.
Building Plot	m <sup>2</sup>	3500	2.000,00	7.000.000
Laboratories etc.	m <sup>2</sup>	1394	30.000	41.808.000
Laboratory apparatus				12.500.000
Large storagefacility	m <sup>2</sup>	180	10.000	1.800.000
Administration etc.	m <sup>2</sup>	638,4	25.000	15.960.000
Tecnical center	m <sup>2</sup>	210	15.000	3.150.000
Accomodation	m <sup>2</sup>	525,4	25.000	13.135.000
Company House	m <sup>2</sup>	800	25.000	20.000.000
Science Aquarium	m <sup>2</sup>	640		22.400.000
Science Aquarium – "instrumentation"				12.000.000
Outdoor, largescale facilities and	m <sup>2</sup>	500	5.000	3.300.000
Pontoon- bridge (in situ mesokosmos facilities)	#	1	400.000	400.000
Landing dock	#	1	500.000	500.000
Total costs				153.453.000

Total cost 168.810.000 dk.kr

# **Co-finacing**

Norddjurs Municipality

Building Plot 7.000.000 dk.kr

Investment in buildings 20.000.000 dk.kr

The Kattegatcentre

*Working hours (37h\*45w\*3y\*400kr)* 1.998.000 dk.kr

*Office facilities (3000kr.\*36m)* 108.000 dk.kr

Building capital 6.200.000 dk.kr

University of Aarhus

*Working hours (15h\*45w\*3\*400kr)* 810.000 dk.kr

*Office facilities (3000kr.\*36m)* 108.000 dk.kr

Total co-financing sum from partners 36.224.000 dk.kr

## The project's international, national and local base and supporters

The following institutions and companies are supporting Ocean Centre Denmark:

### Locally

Norddjurs Municipality

The Kattegatcenter

**Danish Biofuel Holding** 

### **Nationally**

Centre for Advanced Visualization and Interaction, CAVI, University of Aarhus

The Alexandra Institute, Denmark

University of Aarhus, Denmark

National Environmental Research Centre, Denmark

University of Copenhagen, Denmark

Roskilde University, Denmark

Technical University of Denmark

University of Southern Denmark

Aarhus School of Architecture, Denmark

### Internationally

The Deep, Hull, England

Ozeaneum, Stralsund, Germany

Sven Lovén centrum för marina vetenskaper, University of Göteborg, Sweden

Please refer to Appendix 1 for letters of intent supporting Ocean Centre Denmark and depicting future cooperation.

### Business plan, an overview of the operational budget and the project's financing capability

We have, in the development project supported by Region Midtjylland, used a lot of time dealing with the various special needs of the potential partners, especially the Danish universities Because of the challenges regarding the creation of an economic sustainable platform for the project as a whole, we have considered it evident that the priority was to find a sustainable and feasible economy for the overall concept before making business plans for products and services.

In the following is a short summary of Rambøll's conclusions regarding economic feasibility of the project. Please refer to the report by Rambøll for further details.

#### Research Centre

In the beginning of the feasibility analysis of Ocean Centre Denmark carried out by Rambøll we were advised to expand the Research Centre part of the project into a national research facility. The process of getting all of the Danish universities involved in the project and getting clear-cut declarations regarding the extent of their economic involvement has been very long, difficult to speed up and basically beyond our influence. However, as written in the report by Rambøll, it recently became clear that the creation of a national research facility is possible if we build it in phases over the next 10 years.

However, the report written by Rambøll (Appendix 3) contains two scenarios whereof one includes a number of Danish universities as long term tennants in the Research Centre, while the other, scenario 2, operates with a model where the University of Aarhus is the instigating permanent tenant with the other Danish universities using the facilities on an ad-hoc basis.

Presently this second scenario including University of Aarhus as a permanent tenant is considered the most likely in the start-up phase of Ocean Centre Denmark, while the development of a national research facility is the longer-term aim. As stated elsewhere, and as can be seen from the letters of intent from the other Danish universities, this progression towards a facility servicing a growing number of universities on a regular basis is to be expected.

As can be seen from the attached feasibility-analysis by Rambøll (Appendix 3) the operating economy of the Research Centre, "Scenario 2", is balancing going towards a small surplus.

### Science Aquarium (Science Centre)

The analysis by Rambøll (Appendix 3) estimates that the proposed Science Aquarium can generate, on average, (base-case scenario) 45.000 more visitors per year. Assuming a 50% funding of the planned new building and requiring a yearly provision of 1 million dk.kr. a year towards renewal, the Science Aquarium is estimated to give a surplus of 200.000 dk.kr. a year.

### **Company House**

Estimating an average leasing percentage of 60% of the office facilities the economy of the Company House balances.

Please see the report by Rambøll (Appendix 3) for further details.

# **Financing capability**

We have had contact with several major national funds, which have expressed interest in the project. Realdania has co-financed the feasibility study carried out by Rambøll, indicating an interest in Ocean Centre Denmark.

Please refer to the report by Rambøll (Appendix 5) for a detailed analysis of the financing possibilities of the project.



## Detailed project plan for the period 2009-2011

2009

Primo: Establishment of the Ocean Centre Denmark Property Fund

Production of detailed business plans for the three areas of business

Finishing contract with University of Aarhus regarding Research facilities

Visit to Ozeaneum in Germany – development of partnership contract

Visit to The Deep, England – development of partnership contract

Visit to Lisboa Oceanarium – development of partnership contract

Detailed development of "Digital Aquarium"

Financing activities, EU & Region Midtjylland

Production of pilot project, Living technology, at the Kattegatcenter

Medio: Discussions with The Ministry of Science, Technology and Innovation and The

Ministry of Education regarding possibilities for funding

Financing activities, private, public and international funds

Continued development of "Digital Aquarium"

Establishing new project organization

Production of communication strategy

Ultimo: Continued financing activities, private, public and international funds

Development and production of specific interactive designs

Building of international network and sales platform in Europe

2010

Primo: Continued building of international network and sales platform in Europe

Participation in research projects in e.g. the areas of interactive design, audio design,

and experience design in public spaces

Integration of the local plans for the development of the southern harbour area into

the Ocean Centre Denmark planning

Establishment of organization, leader and management

Medio: Identification of businesses in Company House

Deadline for financing

Production of building programme

Architectural Design Competition

Ultimo: Building process starts

Development of exhibitions in the Science Aquarium

2011

Primo: Building international network and sales platform in Asia and North America

Continued development of exhibitions in the Science Aquarium

Medio: Building process continues

Marketing activities

Continued development of exhibitions in the Science Aquarium

Ultimo: Marketing activities

Building process continues

2012



### Risk analysis and an assessment of how relevant challenges will be met

For all projects that are being realized in the near future it is a fact that the present economic recession does not make financing any easier. To meet this challenge we have down-scaled the physical size of the project, carefully making sure to retain the possibilities and perspectives of Ocean Center Denmark to the greatest extent possible.

However, we feel confident that the aim and outcome of this project are of such value locally, regionally and not least nationally that the chances of getting funding are still good. The official national strategy for the future of Denmark is to strongly promote education, not least in the field of natural sciences, and innovation, which are exactly the expected outcome of the activities in Ocean Center Denmark.

Please refer to the report and the feasibility study by Rambøll (Appendix 3) for further elaboration.

### **Legal Considerations**

Ocean Centre Denmark will be founded by the Norddjurs municipality as a property fund. The fund's obligations will be to establish the organisation that will work with the financing and funding, development of the science aquarium, the production of business plans etc.

The Ocean Centre property fund will take over the Kattegatcentre property fund and the existing buildings in order to build the new spaces in close collaboration with the stakeholders.

The property fund will be responsible for the building process from the initial production of the building program to the grand opening of Ocean Centre Denmark.

The property fund will lease space to the stakeholders, primarily businesses, universities and the kattegatcentre operational fund.

Please see the report from Rambøll management (Appendix 3) for further elaboration.

## Advisory group (følgegruppe)

As for now the advisory group consist of following members and will be expanded as needed.

Jesper Kaas Schmidt, Kommunaldirektør, Norddjurs Municipality

Jørgen Steffensen, Chairman of the Board, Kattegatcentret

Torben Jensen, Mayor, Norddjurs Municipality

Erik Meineche Schmidt, Dean, faculty of Science, University of Aarhus

Valery Forbes, Roskilde University

Katherine Richardson, University of Copenhagen

## **List of appendices**

- 1. Letters of intent
- 2. English summaries of analyses carried out by consultants
- 3. Feasibility studie by Rambøll
- 4. Case study by Rambøll
- 5. Finansieringskilder by Rambøll
- 6. Metode til markedsanalyse by Rambøll
- 7. Travelling Exhibitions by Niras
- 8. Idé katalog by CAVI
- 9. Idékatalog by Jette Gejl, Maria Bruun and CAT productions
- 10. 3D midels by 3D Unlimited
- 11. The Living Technology project
- 12. Project Plan an overview