


MALTA COUNCIL FOR SCIENCE & TECHNOLOGY

**The ERIK Network**
**Second Trans-Regional Workshop**

**"Regional Foresight: a tool to enhance regional development in a knowledge-based economy"**

**Larissa, 12-13 February 2004**

# eFORESEE:

# Malta's First Foresight Experience

# OUTLINE

## Pilot Presentations:

1: The mission statement
2: Objectives
3: Success criteria
4: Foresight process & timeline as originally planned
5: Foresight process & timeline as implemented
6: Self-assessment: Success in meeting objectives and main challenges

## Results from all three pilots:

7: Learning Processes in terms of actors, interactions and outcomes for example:
8: Other added value created in the project

# Pilot 1: “Exploring Knowledge Futures in ICT and Education in 2020”

## 1: The mission statement

**To elaborate a vision for Malta as an advanced knowledge economy in 2020 whose main resource is its ability to develop human capital in new economy skills all round the world from a Mediterranean base.**

## 2: Objectives

- Guide the decision-making of MCST's input into NDP+SPD (2004-6).
- Mobilise PPPs to take action on business opportunities
- Revitalise old (NSIT) and stimulate the formation of new networks (cross-disciplinary/sectoral)
- Explore foresight methodology and approaches & record the process.

## 3: Success criteria

**SC1: Develop high quality scenarios and action plans worthy of publication.**

**SC2: Identify textual modifications or inputs to the NDP resulting from this exercise. A specific reference to the results of this exercise and follow-up activities in the NDP.**

**SC3: Bring to the table in the form of the ‘core group’, the main high level visionaries and strategic planners in Malta (from Malta Enterprise, the NDP, and the e-Malta Commission).**

**SC4: Identify the formation of new public-private partnerships that form to take action on business opportunities identified via this exercise. (This should be clear from the action plans).**

**SC5: Involve new actors beyond the established players in the ICT and Education domain (consultants, private sector education and training institutes, people from the media, games, psychology or other industry sectors).**

**SC6: Record in a detailed way the process of consultation and consensus building and all processes of the foresight pilot from preparation to implementation and evaluation.**

## 4: Foresight process & timeline as originally planned

The process as planned is indicated on the next slide.

**Timeline**

**Start-up:** Formally Step 1 in February 2002 but in fact work had already started Dec 2001.

**Completion:** It was envisaged that Step 6 would be completed by Dec 2002 with Step 7 underway in January 2003.

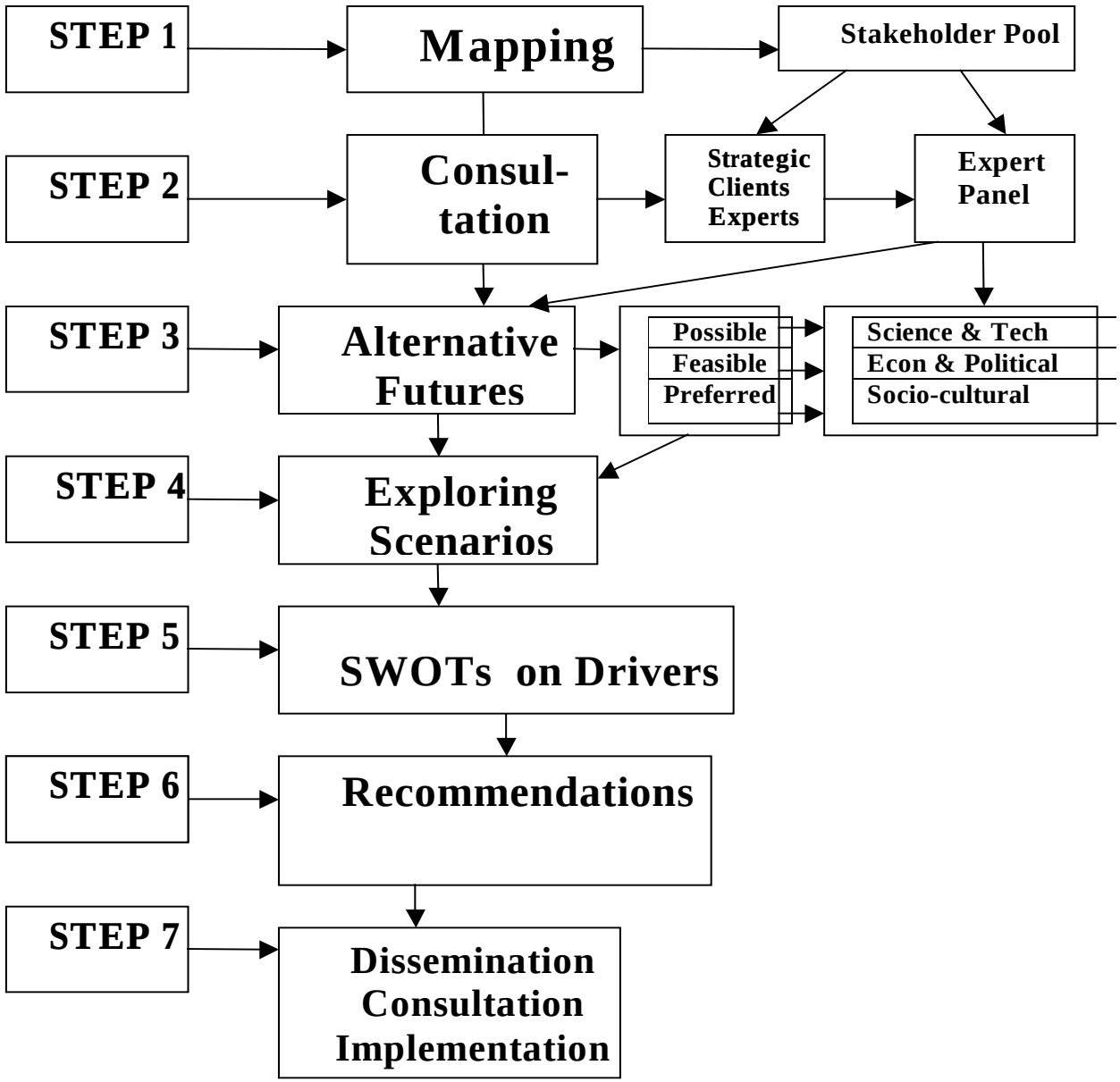
## 5: Foresight process & timeline as implemented

The process as indicated was followed, although of course this is not a linear process but involves iterations with work in parallel on the various steps.

**Timeline**

The projected timeline was observed but Step 7 in terms of formal consultations was delayed to later in 2003 – March-May.

# Phased Approach to the ICT and Education Pilot



# 6: Self-assessment: Success in meeting objectives

- ✓ http://Go.Malta.Go - Malta in 2010: Living in a Knowledge Community
- ✓ Contrasting high quality scenarios and action plans – published in report and poster.
- ✓ Specific reference to the foresight exercise & pilot results in the NDP+SPD 2004-06
- ✓ Reference in National Budget speech 2002 and National RTDI Programme 2004-6
- ✓ Follow-up in SPD: ESF Mobility Action 2004-6 SME Foresight
- ✓ Strategic networking with Regional Policy Directorate, ME, OPM, MITI, ….
- ✓ CompetitiveMalta, Future Action Foundation and other Foundations.
- ✓ NSIT ex-Director on new MCST Board, revival of NSIT through new Ministry for IT
- ✓ Foresight training course (July 2002) and inputs in two events abroad.
- ✓ Foresight within new MA on Creativity and Innovation at University of Malta
- ✓ Knowledge Narrative initiative
- ✓ Involvement of consultancies, private sector training institutes, culture..
- ✓ FutureChild, Theatre Foresight, Tourism Foresight, CompetitiveCareers…

## Main Challenges:

- the lack of relevant statistics and background documents.
- the general lack of a local research and innovation culture
- the lack of foresight expertise
- the difficulty of engaging the key players in the process – due to the ‘many hats syndrome’

**Pilot 2:** 'Towards enhancing the marine sector's contribution to the Maltese economy in 2020'

## 1: The mission statement

To elaborate a forward look on how Malta could optimize the sustainable exploitation of its marine resources through emerging science and technology, in order to meet the needs of an evolving knowledge-driven society and a vibrant, diversified economy projected in 2020, whilst underpinning the essential management and development strategies to secure delivery.

## 2a: Objectives

- A quantified assessment of the relevance of the current and future diverse range of economic activities related to the marine sector and the projected impact of S&T on the economic development of this sector
- Proposals for a more effective role for research, technological development and innovation to address the needs and potential of the marine sector.
- Pointers towards securing public understanding of, and commitment to, the role of the marine sector in national economic development.
- Exploring public – private partnerships and industry – academia linkages to achieve critical mass, maximize opportunities and exploit synergies.
- Proposals for a National Marine S&T Policy Strategy ( to identify the policy approaches and research investments that need to be made).

## 2b: Instruments used

Extended Group (EG) of experts from all key stakeholders

- Expert reports (*e.g. current snapshot on marine economic sector*)
- Seminars, open public fora and EG meetings
- Scenario building
- Electronic fora and mailshots
- Marine Pilot website
- Marine R&D survey
- Collection of related info sources

# 3: Success criteria

**SC1:** Bring together competent representatives from focal actors in the marine sector; foster their ownership of the project; promote exchange of ideas, synergies in planning and problem identification/solving; introduce foresight methodology

**SC2:** Enable a wide consultation process aimed at reaching the full spectrum of marine-related activities, initiatives and programmes, and targeting the R&D, administrative, industrial and services sections.

**SC3:** Quality of special reports by experts.

**SC4:** Tracking, organisation and recording of all processes of the foresight pilot from preparation to implementation and evaluation.

**SC5:** Links with European institutes/agencies that can offer experiences, background material and regional scale projections relevant to the pilot project.

**SC6:** Dedicated workshops/seminars to: (1) introduce and inform stakeholders about the pilot project; (2) consult with key stakeholders for a wide participation approach; (3) build material for the project; (4) refine scenarios, action plans, results and follow-up actions for a wider consensus.

**SC7:** Awareness at public and government level

**SC8:** Utilization and consideration of the pilot project results in the overall national development plans and implementation processes

**SC9:** A useful Vision Document for the future of the Marine Economic Sector and a concrete follow-up plan

## 4: Foresight process & key milestones

Planning and stakeholder analysis from early 2003

Public launch in May 2003

Extended Group of Experts started functioning in June

Current Snapshot on marine economic sector performance

SWOT analysis and scenarios (Sept/Oct 2003)

## 5: Foresight process & timeline progression

Marine Vision Document to be prepared in Nov/Dec

Feedback and finalisation by end of year

Presentation to government and follow-up

# Roadmap of the foresight exercise

**Step 1**
List key areas/sub-areas of marine-related economic activities.

⇩

**Step 2**
Identify the drivers and shapers taking into account local vs international forcings current and prospective trends social, technological, environmental, educational economic and political factors.

⇩

**Step 3**
SWOT Analysis for each area/sub-area.

⇩

**Step 4**
Prepare recommendations for future policies, and actions to maximise the strengths, minimise the weaknesses and turn the threats into opportunities.

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**Step 5**
Define a number of future scenarios.

⇩

**Step 6**
Identify strategic questions for the future of the marine sector.
Evaluate key uncertainties in the future development of the marine sector.
Target key opportunities, policies and recommendations.

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## Marine Vision Document

# 6: Self-assessment: Success in meeting objectives

***This Pilot is still underway and therefore this is only an indication of how the success criteria are currently being met. The first set of results will be available at the end of December 2003.***

- ✓ Contrasting high quality scenarios and action plans – published in report and poster
- ✓ Future scenarios in 2020: Preferred, Probable and Possible
- ✓ Strategic questions facing the marine sector
- ✓ Key uncertainties in the future development of the marine sector
- ✓ Key opportunities, strategies and recommendations in the various marine-related areas of economic activity
- ✓ Report on Profile and trends of the marine sector
- ✓ Specific reference to the foresight exercise & pilot in the NDP+SPD 2004-06
- ✓ National RTDI Programme 2004-6
- ✓ Strategic networking with Ministry for Rural Development and Regional Policy
- ✓ Involvement of consultancies, private sector training institutes, culture..

## Main Challenges:

- the lack of relevant statistics and background documents
- exercise could be more exhaustive esp. with more funds for expert contributions and longer time of implementation
- considerable difficulty in orienting the minds of contributors to the objectives of foresight

# Pilot 3: "Realising a Thriving Maltese Biotech Industry by 2015"

## 1: The mission statement

**Produce a plan to develop the fledgling Maltese Biotech Industry into a core sector of the Maltese economy by 2015 through a collaborative venture between academia, the public and private sectors, and society.**

## 2: Objectives

- **Map biotechnology-related activity and resources in Malta current and as projected by 2015**
- **Identify developments in biotechnology that will impact on Maltese economy & society by 2015**
- **Develop a national biotechnology strategy that will provide the basis for the national investment of resources in this area and also help to attract foreign direct investment.**
- **Stimulate the formation of new networks and create an awareness of the fundamental changes required within the public, private and academic sectors for the Biotech industry to take root.**

## 3: Success criteria

**SC1: Develop high quality scenarios and action plans worthy of publication as the basis for the National Biotechnology Strategy 2015.**

**SC2 : Establish the basis of a permanent National Bio-Industry Platform to oversee the implementation of the National Biotechnology Strategy.**

**SC3: Identify textual modifications or inputs to the NDP resulting from this exercise (A specific reference to the results of this exercise and follow-up activities in the NDP).**

**SC4: Map and network the key players whose involvement is essential for the development of a Maltese Biotech Industry (including new actors beyond the established players in the Biotech domain) so that they can act on business opportunities identified via this exercise (This should be clear from the action plans).**

**SC5: Record in a detailed way the process of consultation and consensus building and all processes of the foresight pilot from preparation to implementation and evaluation.**

# 4. Foresight Process and Timeline as originally planned

Start-up: June 2003

- Panel Members (identified and contacted) may co-opt other members
- Participate in virtual brainstorming sessions
- Identify the drivers that influence objective of the exercise with their priorities and uncertainties by the process of voting to ensure maximum level of transparency
- Analyze findings (Jul 03)
- Explore alternative futures in the area of sustainable Biotechnology (Aug 03)
- Scenario-building (Aug 03)
- Carry out SWOT/STEEPV and feasibility analysis (Aug 03)
- Prepare Action Plans and Recommendations for a sustainable biotechnology industry with the help of Sub-Panels (Sept 03)
- Disseminating the results (Nov 03)

The Pilot is currently on target with the planned timeline.

**BIOTECH PILOT CORE GROUP**

Prof Alex Felice, Dorita Galea, Sharon de Marco, Jennifer Cassingena Harper

**BIOTECH PANEL 'A'**
**Human Health & Pharmaceutical Industry**

Main Remit: To develop scenarios Focusing on the development of a niche area where Malta could achieve an economic competitive advantage

**BIOTECH PANEL 'B'**
**Agro-food Industry, Aquaculture & Environmental Biotechnology**

Main Remit: To develop scenarios Focusing on the development of a niche area where Malta could achieve an economic competitive advantage

**SUB PANELS addressing CROSS CUTTING ISSUES emerging from PANEL 'A' and 'B'**

Main Remit: To develop Action Lines and Recommendations

- EDUCATION
- FINANCIAL
- SERVICE
- LEGAL & ETHICAL

**Hurdle**

- Startups failing
- Brain drain as scientists find no employment and hence seek foreign opportunities
- Research and Intellectual Property are not commercialized

**On Top**

- Seamless integration of biotechnology in agricultural, medical, industrial products and processes
- Highly educated workforce
- Interdisciplinary networks functioning
- Sustainable biotechnology industry employing professionals from a broad spectrum of disciplines

SCIENCE

## RESEARCH AND DEVELOPMENT CAPABILITY

**Stupor**

- Biotechnology products rare and mostly imported
- Public unaware of potential of biotechnology
- Weak educational programmes
- No biotechnology platform
- Nation falling behind because of low GDP

EDUCATION

**Rooted**

- Governmental efforts to boost local industry futile
- Local funding taken up by foreign enterprises that employ foreign nationals on local R&D projects and the Maltese work at jobs of lower salaries

## 6: Self-assessment: Success in meeting objectives

***This Pilot is still underway and therefore this is only an indication of how the success criteria are currently being met. The first set of results will be available at the end of December 2003.***

- ✓ **Vision for 2015**
- ✓ **Scenarios and action plans – published in poster.**
- ✓ **Specific reference to the foresight exercise & pilot results in the NDP+SPD 2004-06**
- ✓ **Reference in National Budget speech 2002 and National RTDI Programme 2004-6**
- ✓ **Strategic networking with Regional Policy Directorate, MFEA, ME, OPM, ….**
- ✓ **Involvement of consultancies, private sector training institutes, culture..**

## Main Challenges:

- **the lack of relevant statistics and background documents.**
- **the general lack of a local research and innovation culture**

# 7: Learning Processes in terms of actors, interactions and outcomes

- **Within the team**

**In-house team: extension of foresight approaches to MCST'activities: FP6+ERA.**

**Pilot leaders: extension of foresight stepped approach to other sectors. Refinement of this approach to make it more effective.**

- **With local mentors**

**Strategic Policy-makers: Ministry of Education (Policy Unit) for joined-up policies.**

**Consultancies: Pooling of foresight-type and complementary approaches**

**Education players: Embedding in curricula and programmes**

- **Within the consortium**

**Coordinator: KM, RTDI policy approaches, foresight learning circles**

**Partners: Know-how on strategic RTDI policy & hands-on foresight approaches appropriate for small accession countries.**

- **With members of the International foresight community**

**EU Regional Foresight HLG: contacts, insights, know-how**

**PREST: scoping, scenarios, training, …**

**FOREN: Practical Guide excellent reference on foresight**

**EU IPTS: setting the context for foresight in enlarged EU**

**EU Presidency Foresight events: contacts; learning thru dissemination**

**FORETECH: opportunity to share hands-on experiences**

**UNIDO: contacts, insights**

**ESTO: contacts, know-how, opportunities for further work**

**COST: sharing experiences on approaches and methodology**

- **Building on the experience of previous pilots**

**NSIT exercise: important insights on expectations management, realistic recommendations and link to implementation.**

- **Other international and regional links**

**IRC and RIS Network:** sharing experiences on approaches and methodology

**Euro-Med** : sharing experiences on approaches and methodology

**PIC MET'03:** linkages with US

- **Through other learning processes**

**eFORESEE project implementation** :

**AcrossLimits:** extensive use of ICT helped make the process more open, transparent, alive, real and dynamic. Web-based learning processes more interactive and real-time. Important spin-off of knowledge narrative database.

**Non-typical actors :** involvement of theatre and arts persons on the panel, students .. provided important linkage and synergies between technology foresight and social and cultural foresight. It also led to spin-off foresight activity in other sectors.

**Enthusiasts:** helped take the foresight process directly into implementation even while the recommendations were still being drafted.

# 8: Other added value created in the project:

- **Foresight embedding**

Sectoral: Education, Theatre, Tourism, Environment ..

- **National follow-up to this exercise**

Second rounds of consultation on eFORESEE Pilot recommendations
National RTDI Programme
Foresight with MITI on RTDI Strategy in ICT
High-level Foresight for the PM
ESF SME Foresight
CompetitiveCareers

- **International follow-up to this exercise**

ERANET FORSOCIETY
COST A22
ESF Action
Euro-Med – EMRIA, MoCo, Netrimed though WNP FP6 INCO

- **International professional networking**

ESTO
EU Knowledge Platform