

TECHNOLOGY TRANSFER AND MARINE BIOTECHNOLOGY IN THE ARAB WORLD

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Present activity in marine biotechnology in the Western World reflect its assessment of marine biotechnology as the « greatest remaining technological and industrial frontier ». A National Arab initiative in marine biotechnology is needed to fund the best science throughout the nation, to exploit this new technology. Marine biotechnology has the potential to develop rapidly - and to provide major economic returns to the nation. To take advantage of this opportunity, however, Arab countries must have the following.

- Affirmative programs in marine biotechnology research and development that draw on cutting-edge science,
- Encouragement and support of multi-disciplinary research and ensure rapid technology transfer,
Active plans for partnerships with industry and commercial enterprise,
- Facilitation of efficient technology transfer and utilisation of Arab Scientists and Technologists Abroad (expatriate scientists who work in the advanced industrial countries in North America, Western Europe and Japan),
- Training of the next generation of scientists and technologists.

Focused research in marine biotechnology in concert with commercial development offers the promise of economic and social opportunities: it will help upgrade and advance higher education to meet Arab needs in an increasingly technical and competitive world, second only to petroleum it will lead to new international markets and overall economic development. A national commitment to research and development in marine biotechnology will also help the nation respond to the critical needs of society; it will open new avenues for monitoring health and treating disease provide innovative techniques to restore and protect aquatic ecosystems, increase the food supply through aquaculture, enhance seafood safety and quality, develop new types and sources of industrial materials and processes, expand knowledge of biological and geochemical processes in the world ocean.

Activities in this area may include coastal programs and numerous discrete inland projects, involving universities, scientists, educators and students. It will provide benefits to resource management agencies and to a range of marine-related industries - to those in commercial and recreational fishing, aquaculture, shipping, mining, boating, seafood processing and biotechnology. It is a means to provide links to academia, business and industry, government agencies, including the environmental agencies.