# IFER: Integrated Fire Engineering and Response? COST in Malta! Welcome

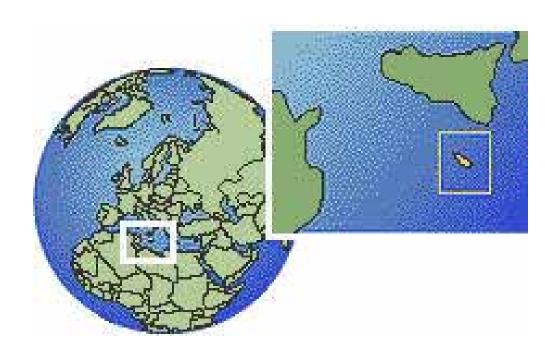




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### Malta....





50 miles south of Sicily and 150 miles from North Africa



• 400, 000 inhabitants.





• First inhabitants 7,000 years ago during the Neolithic period, when the megalithic temples were constructed.

## **Neolithic Temples in Malta**



- since 3600 BC, at over 20 sites in Malta and Gozo.
- god(dess) of fertility are same shape as the temples.





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Figurines from Hagar Qim, 2800 BC

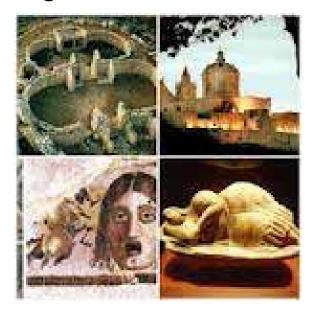


Mnajdra complex, Zurrieq, 3000 BC

- highly complex: structure aligned to summer equinox
- first scholarly/industrial synergy?
- is big beautiful?



 The first known inhabitants in historic times were the Phoenicians, followed by the Carthaginians and Romans and Arabs.



• The Knights of the Order of St John, founded before the First Crusade (1099) arrived in 1534, after King Charles of Spain donated the island to them.

- The earliest members of the Order came from throughout Europe and were of noble birth. Its distinctive emblem the Cross of Malta, whose eight points represent the Beatitudes, and also 8 'langues' of the order.
- Eight pointed cross First mini EU?

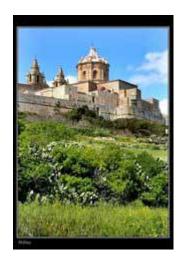




- An annual feudal tax was paid to the Kingdom of Sicily, though it was largely symbolic, that included a "Maltese falcon."
- Grand Master La Valette strengthened defences and built new capital city (Valletta).



- The Maltese rebelled against French and it became a British protectorate and a base for the British Mediterranean Fleet in 1800.
- This resulted in the island suffering some of the heaviest bombing of World War II.

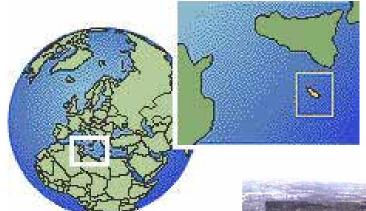




• The Island became independent in 1964 and a member of the European Union in 2004.

### Malta....





Marsamxett Harbour

**Grand Harbour** 



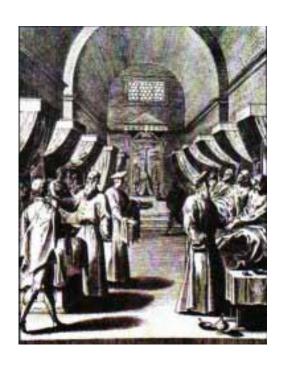
Fort St Elmo



### **Research in Malta**



#### Medicine in Malta...first research



- The main hospital, the Sacra Infermeria (Holy Infirmary) was built in 1574 by Grand Master Jean de la Cassiere.
- 900 beds for male patients who included knights, soldiers, sailors and foreigners.
- Maltese patients and slaves were accommodated in hall below.
- In 1676, a School of Anatomy and Surgery was set up in the building.
- The administration was entrusted to knights of the French Langue.
- It is now the Mediterranean Conference Centre.



#### Malta....





**Hotel Excelsior** 

Mediterranean Conference Centre

**Grand Harbour** 



Marsamxett Harbour

Fort St Elmo

## The University of Malta today





#### The University of Malta today

• Founded in 1777, now 3 miles outside Valletta, a campus University, with separate premises for Medical School and Faculty of Health Sciences at the main teaching hospital.



- 10,000 students including over 750 foreign/exchange students from nearly 80 different countries.
  - Thirteen faculties: Architecture & Civil Engineering; Arts; Dental Surgery;
     Economics, Management & Accountancy; Education; Engineering; Laws;
     Medicine & Surgery; Science and Theology.
  - Interdisciplinary institutes and centres: Agriculture, Baroque Studies, Health Care, Linguistics, Public Administration and Management, Physical Education & Sport, Mediterranean Institute and Edward de Bono Institute for the Design & Development of Thinking; Centre for Communication Technology, European Centre for Gerontology, Centre for Environmental Education and Research.
- A centre on Malta's sister-island, Gozo, offers part-time courses.



## **Malta Council for Science and Technology**

## Malta Council for Science and Technology

Set up in 1988

Scope: Science, Technology, Research & Innovation

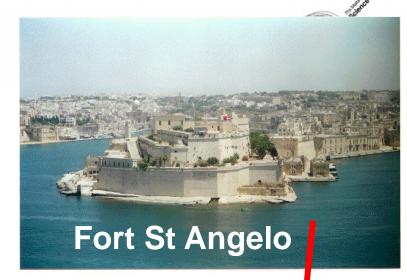
#### Responsibilities:

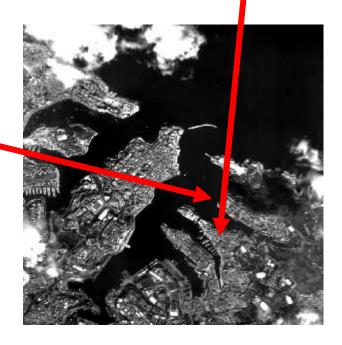
- National R&I Strategic Plan
- EU Policy Initiatives
- FP7 National Contact Organisation
- National RTDI Funding Agency
- Science Popularisation

Staff (FT and PT): **35,** April 2011.



Malta Council for Science and Technology, Villa Bighi, Kalkara





### **National Strategic Plan**



#### Vision:

"Research and innovation are at the heart of the Maltese economy to support value-added growth and wealth".

#### Mission

- " Building and sustaining of an R&I enabling framework".
- Seven strategic principles addressed through 66 recommendations.

#### **Overview of actions undertaken - 1**

- Boosting HR in S&T and increasing researcher numbers –
   STEPS (€10 million ESF project) and MGSS schemes (approx €466,000 annually) have increased PhDs
- Approximately €28 million in new or upgrading of research infrastructures at the University of Malta.
- €15 million in a Life Sciences Centre strategically positioned to combine research, innovation and higher education aspects.
- Science popularization campaigns.

# Overview of actions undertaken - 2

- Incentives package for industry (including grants and tax incentives).
- University Trust Fund set up.
- Pursuit of collaboration with international scientific organizations including possible access to research infrastructures.
- Awareness raising on the importance of patents.
- Financial support for researchers to participate in brokerage events.
- Increase in funding of the national R&I programme.

# The New R&I Strategic Plan 2011-2020 - principles -



# An ecosystem approach to R&I

- Supporting innovation in its widest sense.
- Ensuring linkages and continuity of support from one stage to the next.
- Ensuring the right framework conditions are in place.

#### **Smart specialisation**

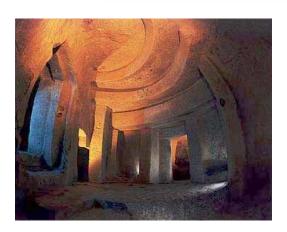
- Identifying and investing in specific niches.
- Building critical mass, excellence and research competitiveness.
- Balancing advantages and risks of this approach.

#### **Grand Challenges**

- Alignment with and capitalisation on European approach of using research investments to address societal challenges.
- Strive towards an analogous model supporting the alignment of national challenges to national research and innovation efforts.

#### Where is research in Malta going?





Hypogeum underground Temple, Tarxien, 3000 BC

#### 17 indicators of the innovation process covering

- Human resources
- Creation of new knowledge
- Transmission and application of new knowledge
- Innovation finance, output and markets

#### Where is research in Malta going?





Sleeping Lady, Hypogeum, Tarxien 3000 BC

#### **Challenges:**

- Lack of human resources in S&T
- Significant R&D funding lacking
- Low innovation activities in SME's





The Order of St John, St John's Co-Cathedral, Valletta, c1700

'There should be no borders between industrial and academic research, the former working on products and solutions for tomorrow, the latter for the day after tomorrow.....'











#### Thank you





