



Low-dose Risk Research in Europe

The view from the EU

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MELODI workshop, Stuttgart, 28-29/9/09





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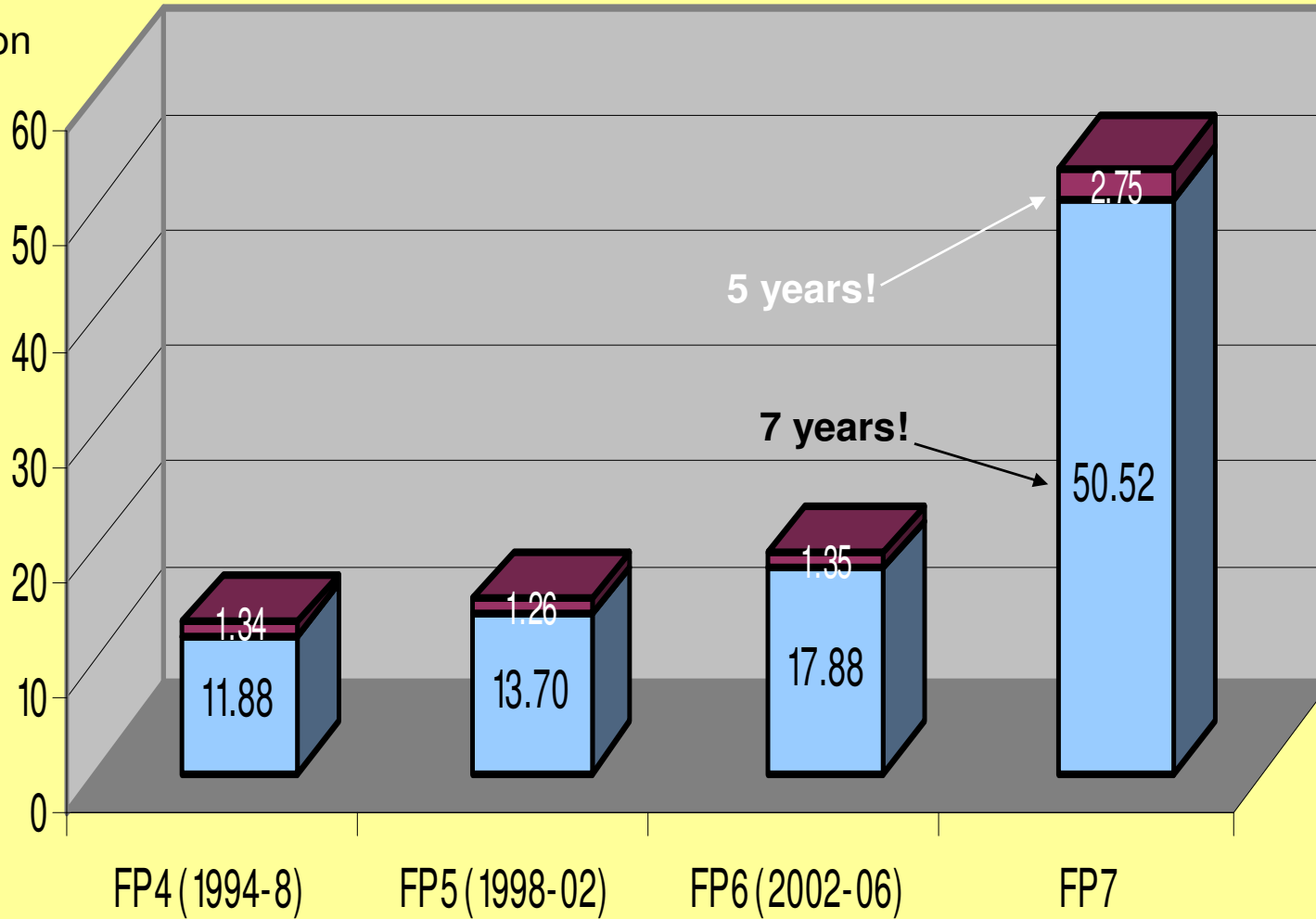
- Overview of the Euratom FP7 programme
 - ➔ Strategic objectives
 - ➔ Implementation
- Radiation protection – specific objectives
- A few facts and figures
- What next?
- Conclusions





Funding of EU research programmes

€ Billion



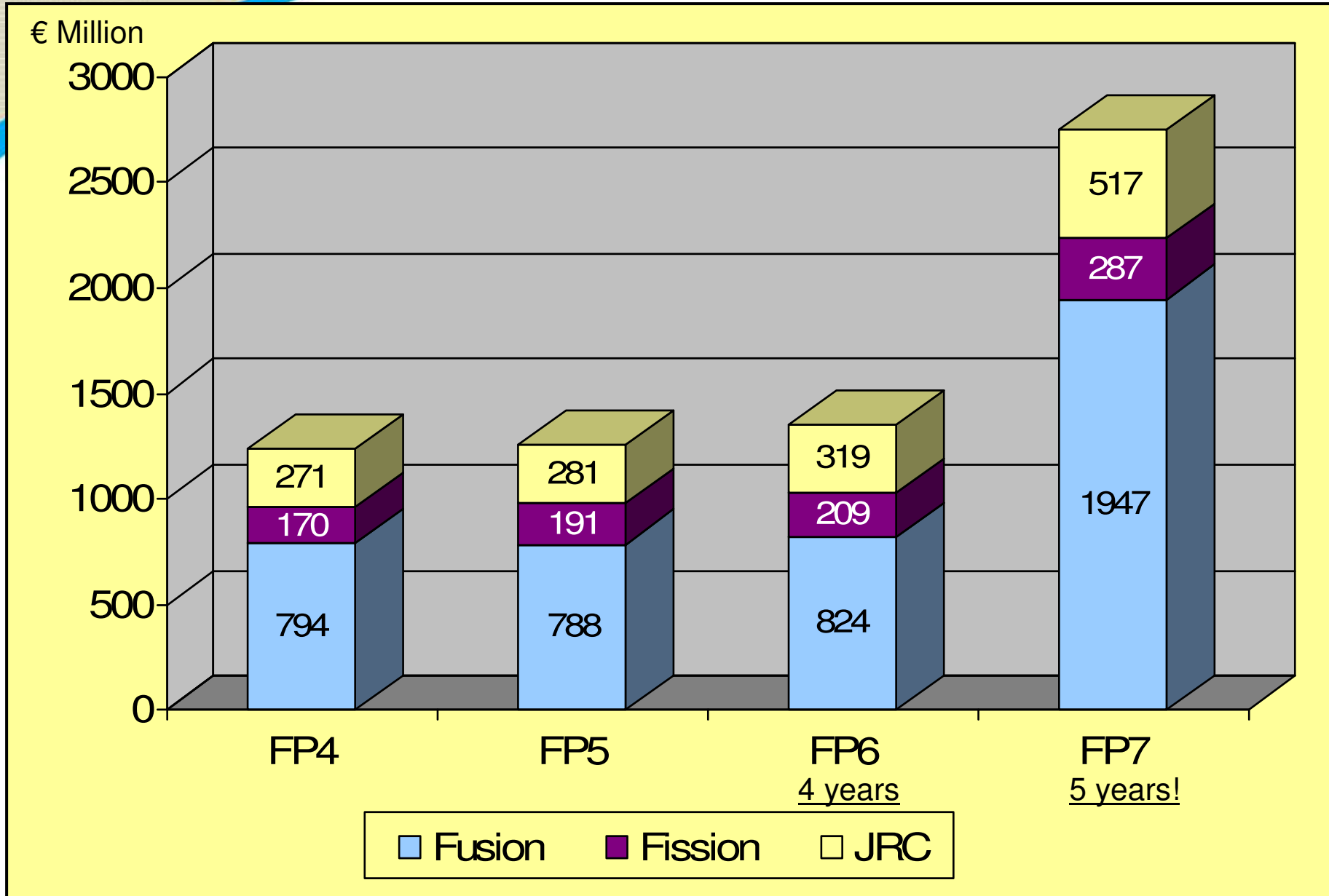
■ EC ■ EURATOM



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Euratom research budget

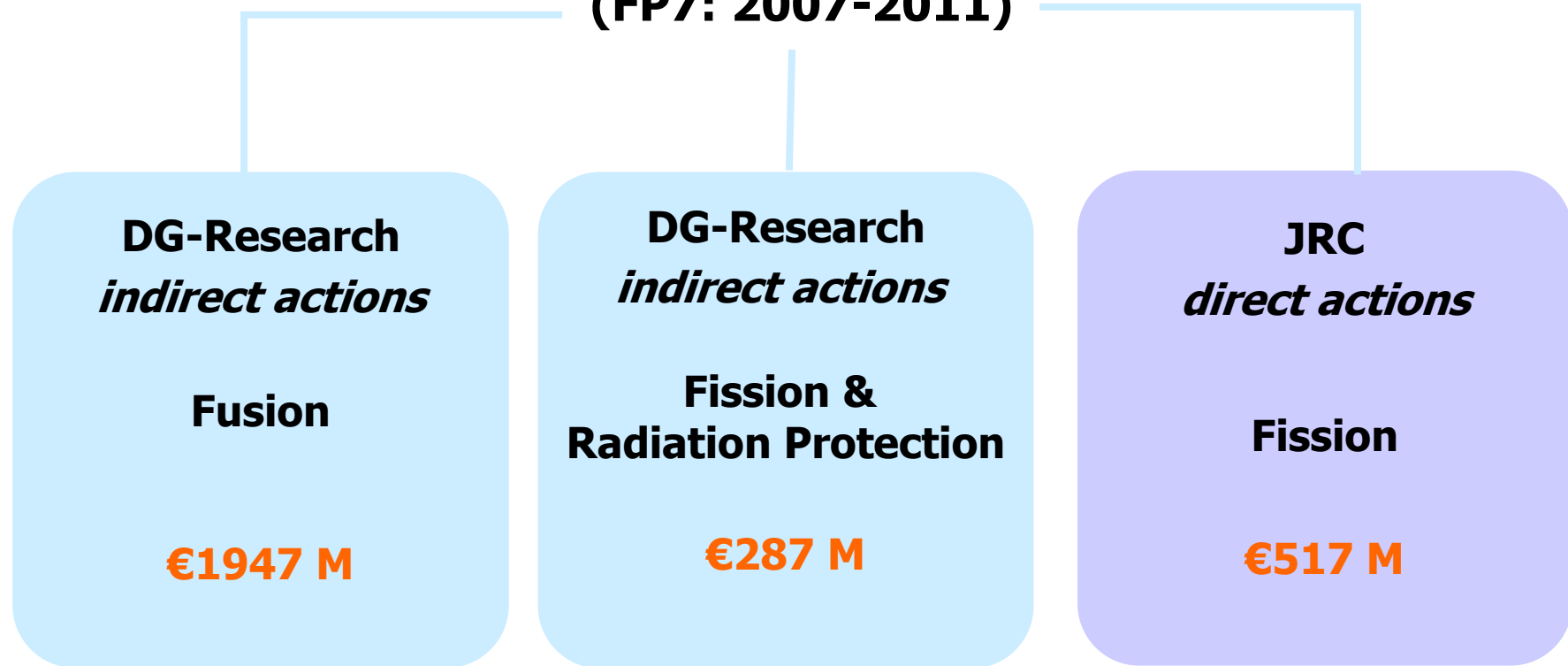




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Euratom 7th Framework Programme for “Nuclear Research and Training Activities” (FP7: 2007-2011)



Total Euratom FP7 = €2751 M





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Euratom FP7 fission & RP – *programme objectives*

- Establish a sound scientific & technical basis for the safe long-term management of hazardous radioactive waste
- Promote safer, more resource-efficient and competitive exploitation of nuclear energy
- Ensure a robust and socially acceptable system of protection of man & the environment against the effects of ionising radiation.





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Euratom FP7 fission & RP – *strategic priorities*

- **Promote a true “European Research Area” in nuclear science and technology**
 - Major stakeholders agree “Strategic Research Agenda” and coordinated “Deployment Strategy” in key R&D fields
- **Support key EU policy initiatives**
- **International cooperation**





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Euratom FP7 *fission & radiation protection*

IGD-TP

Launch event 12 Nov.09
www.igdtp.eu

Management

- Geological disposal
- Partitioning & Transmutation

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Research

SRA published June 09
www.snetp.eu

- Nuclear safety
- Advancing research

MELODI

Radiation protection

workshop Sept.09
www.hleg.de

- Risk from radionuclides
- Medical applications
- Emergency management
- other

• Research infrastructures

• Human resources, mobility & training



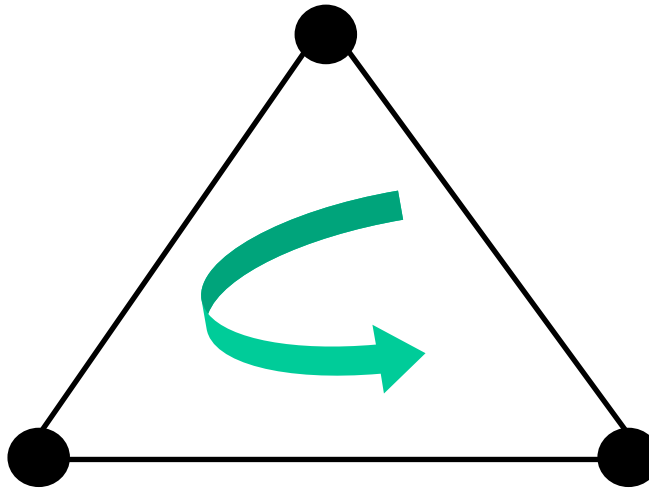
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European Nuclear Energy Forum Bratislava – Prague

Inaugural Meeting
Bratislava, 26-27 November 2007





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FP7 Council Decision

Activities in RP

- Research, in particular on the risks from low doses, on medical uses and on the management of accidents, to provide a scientific basis for a robust, equitable and socially acceptable system of protection that will not unduly limit the beneficial and widespread uses of radiation in medicine and industry.





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FP7 (Specific Programme) Council Decision *Objectives of RP research*

- ... research plays a key role in maintaining and improving the standards of protection ...
- ... research also has the important objectives of underpinning Community policies and their effective implementation ...
- ... a key objective will be to help resolve the controversy over the risk from exposures to radiation at low and protracted doses ...
- ... important cost and/or health implications for the use of radiation in both medicine and industry ...





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... **Specific Programme** *5 activity areas*

- Quantification of risks for low and protracted exposures
- Medical uses of radiation
- Emergency management and rehabilitation
- Security
- Other topics





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Implementation of Euratom FP7 “fission”

- Annual work programmes & calls for proposals
- 3 calls completed to date (c. €150M in grants provided to R&D community)
- Evaluation by independent experts
- Main criterion: scientific and technical excellence
- Range of funding schemes promoting integration
- Shared cost & leverage effect of EU funding

4th FP7 Euratom “fission” call for proposals to be published on 13Nov.09 with deadline 8 April 2010





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Examples of FP6/7 research in RP

Project	partners / countries	Instrument & EU / total cost	start/ duration
NOTE: Non-Targeted Effects of Ionising Radiation	20 / 9	FP6 - IP €6.3M / €11.9M	1/9/06 4 years
SOUL: Southern Urals Radiation Risk Research	12 / 7	FP6 - IP €6.8M / €12M	1/8/05 4 years
CARDIORISK: Mechanisms of Cardiovascular Risks after Radiation Doses	12 / 6	FP7 - CP €2.86M / €3.83M	1/2/08 3 years
BREAST-CT: Breast Computed Tomography	5 / 3	FP7 - CP €2.7M / €2.0M	1/1/08 30 mths





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Call 2010: *foreseen actions in RP*

- Radiation protection

low dose → Contribution to low-dose risk research

c. €13M

medical uses → Optimisation of doses from new technologies in medical imaging

emergency management → European platform on emergency and post-accident preparedness and management

other → Integrated approach to radioecology research in Europe

- Research infrastructures

→ **TALI** (transnational access)

- Training and mobility

→ **EFTS**

- Cross-cutting

→ **Actions supporting programme implementation**

- Cooperation with China

c. €6.8M





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Call 2010 topics inviting cooperation with 3rd countries

- **Research activities in support of implementation of geological disposal**
(Fission-2010-1.1.2)
- **Ageing of non-metallic NPP components**
(Fission-2010-2.1.1)
- **Optimisation of doses from new technologies in medical imaging**
(Fission-2010-3.2.1)
- **Transnational access to large infrastructures**
(Fission-2010-4.2.1)
- **Euratom Fission Training Schemes (EFTS) in nuclear energy and radiation protection**
(Fission-2010.5.1.1)





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Approx. total budget allocations to RP activities, WP2007-9 (3 calls)

- Activity "Fission-3" (RP) and cross-cutting (E&T + infrastructures) with RP focus
 - Total EC funding = **€37M**
 - Total project costs = **€54M**
- Total all 5 activity areas
 - Total EC funding = **c. €150M**
 - Total project costs = **c. €300-310M**

(WP2010: indicative EC budget of c. **€13M** for RP)





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Conclusions – 1

- FP6 restructured the EU fission/RP R&D “landscape”
- FP7: more strategic approach to maximise effectiveness & EU added value (-> ERA), particularly in response to EU policy objectives
 - EU energy policy at the top of the agenda
 - better coordination between EU, national & industrial programmes in nuclear systems/safety
 - TPs / JPIs established in key areas ...
 - SNETP, IGDTP, MELODI
 - SRAs / Deployment Strategy
 - key R&D stakeholders, especially industry and/or end users need to be involved and commit their own resources
 - interaction with ENEF and ENSREG
 - international cooperation also a priority





Conclusions – 2

What next in low-dose research?

- MELODI is the key initiative ...
 - Effective joint programming crucial
 - DOREMI a major part of the EC's contribution and commitment to this process – sustainable integration amongst key organisations
 - ... & the international dimension?
- Euratom – RP research is to reinforce regulation
 - NB Large body of RP legislation under the Euratom Treaty
- Current Euratom programme runs till end 2011
 - Proposal for next programme to be adopted by Commission mid-2010





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Thank you for your attention!

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Information on FP7 and access to programmes and calls:
http://cordis.europa.eu/fp7/home_en.html

