



# Joint Technology Initiatives (JTIs)

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# Joint Technology Initiatives (JTIs)

## JTIs aim to:

- establish long-term public-private partnerships in research at European level in fields of high industrial and policy relevance
- co-ordinate research efforts and respond to industry needs
- lead to flagship projects for European competitiveness

## JTIs build on European Technology Platforms (ETPs):

- in a small number of cases, scale and scope of Strategic Research Agendas of ETPs require implementation through dedicated legal structure
- normal FP instruments not sufficient



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## **JTIs: identification criteria**

- **Added value of European-level intervention**
- **Degree and clarity of definition of objective**
- **Strength of commitment from industry**
- **Scale of impact on industrial competitiveness and growth**
- **Importance of contribution to broader policy objectives**
- **Capacity to attract additional national support and leverage industry funding**
- **Inability of existing instruments to achieve objective**



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## JTIs: potential topics

- **In the 'Cooperation' Specific Programme, six fields identified:**
  - Innovative Medicines (IMI)
  - Nanoelectronics Technology 2020 (ENIAC)
  - Embedded Computing Systems (ARTEMIS)
  - Fuel Cells and Hydrogen (FCH)
  - Aeronautics and Air Transport ('Clean Sky')
  - Global Monitoring for Environment and Security (GMES)



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## Potential JTI: Hydrogen and Fuel Cells

- **Objective:**  
to deliver “fit-for-use” hydrogen energy and fuel cell technologies developed to the point of commercial take-off
- **Key deliverable:**  
new generation of prototypes and demonstrators for testing and validation in the fields of transport, stationary and portable applications



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## Potential JTI: Aeronautics and Air Transport ("Clean Sky")

- **Objective:**  
to develop environmentally-friendly and cost efficient aircraft
- **Key deliverable:**  
demonstrated technologies and concepts for environmentally-friendly, cost efficient aircraft



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## Potential JTI: Innovative Medicines (IMI)

- **Objective:**  
to improve the overall efficiency of the pharmaceutical R&D process
- **Key deliverable:**  
reduced drug development time and clinical attrition rates, thus ensuring that patients have access to more targeted medicines with fewer side effects



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## Potential JTI: Embedded Computing Systems

- **Objective:**

to support the design of electronic and software systems of high complexity and a *lingua franca* that allow diverse electronic devices and systems to “talk to” and “understand” each other

- **Key deliverable:**

development of building blocks that underpin the emergence of new markets and societal applications of ambient intelligence



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## Potential JTI: Nanoelectronics Technologies 2020

- **Objective:**  
to keep Europe abreast of the shrinking size in most widely-used technologies and to address next generation technologies
- **Key deliverable:**  
development of the capabilities of nanoelectronics in Europe through the creation of an attractive R&D and human capital environment for investment



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## Potential JTI: Global Monitoring for Environment and Security (GMES)

- **Objective:**  
to use geo-strategic information to support policy making in resource management, planning or hazard mitigation as well as every-day life optimisation
- **Key deliverable:**  
the provision, on a sustained basis, of reliable and timely information services (data, simulations, scenarios, etc.)



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## JTIs: approach

- **No “one size fits all” approach**
  - nature of technological challenges vary
  - stakeholder relations differ
  - tailored financial engineering needs
- **But need for key guiding principles**
  - ensure efficiency and durability
  - support long-term stakeholder commitment
  - promote openness, transparency and co-operation



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## JTIs: Legal basis

### Joint Undertakings set up under Article 171 of the Treaty

#### Article 171

***"The Community may set up joint undertakings or any other structure necessary for the efficient execution of Community research, technological development and demonstration programmes."***



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## JTIs: Implementation

- **Joint Undertaking: “sui generis” entity with a legal personality**
- **All issues are to be defined and agreed by:**
  - the founding members,
  - the Council, and
  - the country where the structure will be established
- **Applicability of the principles of the Financial Regulations**



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## JTIs: roadmap

- **First proposals envisaged early 2007, depending on the following inputs:**
  - From industry: confirmation that the '*Keys for Success*' are met: additionality, market failure, governance & role of Member States
  - From Commission: analysis of economic & social effects
- **Commission will work actively with the stakeholders to maintain momentum**