

# A Public-Private Partnership (PPP) for the Future Internet

April, 2009

## ... FUTURE INTERNET

This report is a European Commission internal analysis of possible organizational models and their aspects in the implementation of a FUTURE INTERNET PPP.



# Table of content

<b>INTRODUCTION</b> .....	3
<b>SUMMARY OF THE FINDINGS</b> .....	4
Organisational forms retained for analysis and their characteristics .....	4
Organisation forms which were ruled out from the detailed analysis .....	10
<b>CONCLUSIONS AND RECOMMENDATIONS</b> .....	11
Option A: A JTI using FP7 budget for the years 2011-2013. ....	12
Option B: Dedicated calls in the ICT work programmes 2011-2013, to be followed by further dedicated calls in FP8. ....	13
Option C: Dedicated calls in the ICT work programmes 2011-2013, to be followed by a JTI starting with FP8. ....	14
The choice of a JTI Model (for options A and C): .....	14
Process for a Council Regulation for the setup of a Joint Undertaking .....	16
Conclusions Summary Table .....	17
Recommendation .....	18
<b>JTI SCORECARD</b> .....	20
<b>ANNEXES</b> .....	21
Key features presented in PowerPoint slides .....	21
Draft text for a Future Internet JTI with options .....	22
Mandate of the working group .....	23
Legal Base .....	24
Detailed Analysis of existing Joint Technology Initiatives .....	26
Budget profile of different Joint Technology Initiatives .....	27

# Introduction

This report is a Commission internal analysis of possible organisational models and their aspects in the implementation of a FUTURE INTERNET PPP. It was commissioned in view of the conclusions of the European Telecoms Council of 27/11/2008<sup>1</sup> making explicit reference to the on-going FI activities and noting: "...The Council welcomes the Commission intention to consider public-private R&D partnerships concerning the Internet of the future, in compliance with the Bled Declaration of 31 March 2008..."

Furthermore, this analysis should allow the Commission services and relevant stakeholders to better understand the characteristics and suitability of certain instruments in view of expediting European efforts in setting up a public private partnership visibly supporting research and innovation on the topic Future Internet.

*Section 2* - **Summary of the findings** - summarises the analysis of the existing organisational models, describes their characteristics and suitability (or non-) for a FUTURE INTERNET PPP.

*Section 3* - **Conclusions and recommendations** - provides for implementation options, their advantages and disadvantages and specific characteristics of their use, which can also be seen as the recommendations of the report.

*Section 4* - **JTI Scorecard** - gives a tabular overview of the main characteristics of existing Joint Undertakings (JTIs).

*Section 5* - **Annexes** - collects the attachments to this report for further reference.

The work was carried out by Peter Fatelnig, Pierre Chastanet, Oluf Nielsen and Arian Zwegers during February/April 2009.

---

<sup>1</sup> [http://www.consilium.europa.eu/ueDocs/cms\\_Data/docs/pressData/en/trans/104387.pdf](http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/trans/104387.pdf)

# Summary of the findings

## Organisational forms retained for analysis and their characteristics

This section focuses on the analysis of three possibilities for the implementation of R&D oriented public-private partnership, namely:

- **European Research Infrastructures (ERI)** are organisations set up to establish and operate a research infrastructure. The legal framework provides only for the participation of States and Intergovernmental Organisations, clearly labelling it as a public-public partnership. Under the Council regulation, the Commission confers the legal personality of an ERI on a project by project basis.
- **Framework Programme 7**, based on articles 164-166<sup>2</sup> of the treaty. While FP7 projects have no legal status, the framework of Council regulations, decisions and Commission decisions provide an effective framework for European research cooperation, and they are widely used since many years.
- **Joint Undertakings**, based on article 171<sup>3</sup> of the Treaty, upon which today's Joint Technology Initiatives (JTIs) are based.

The configuration of any public-private partnership depends significantly on the underlying research structure, actors and methodologies, as well as on the specific research and industrial objectives that such an instrument intends to pursue.

Whether Member States contribute financially or not represents also a major difference between the different models looked into.

Within the latter two – *FP7* and *JTIs* - a range of implementation options allows for specific tailoring of shape and functioning of the envisaged PPP to its precise scope, detailed objectives and needs, but more of it further below.

---

<sup>2</sup> See annex section *Legal Base*

<sup>3</sup> See annex section *Legal Base*

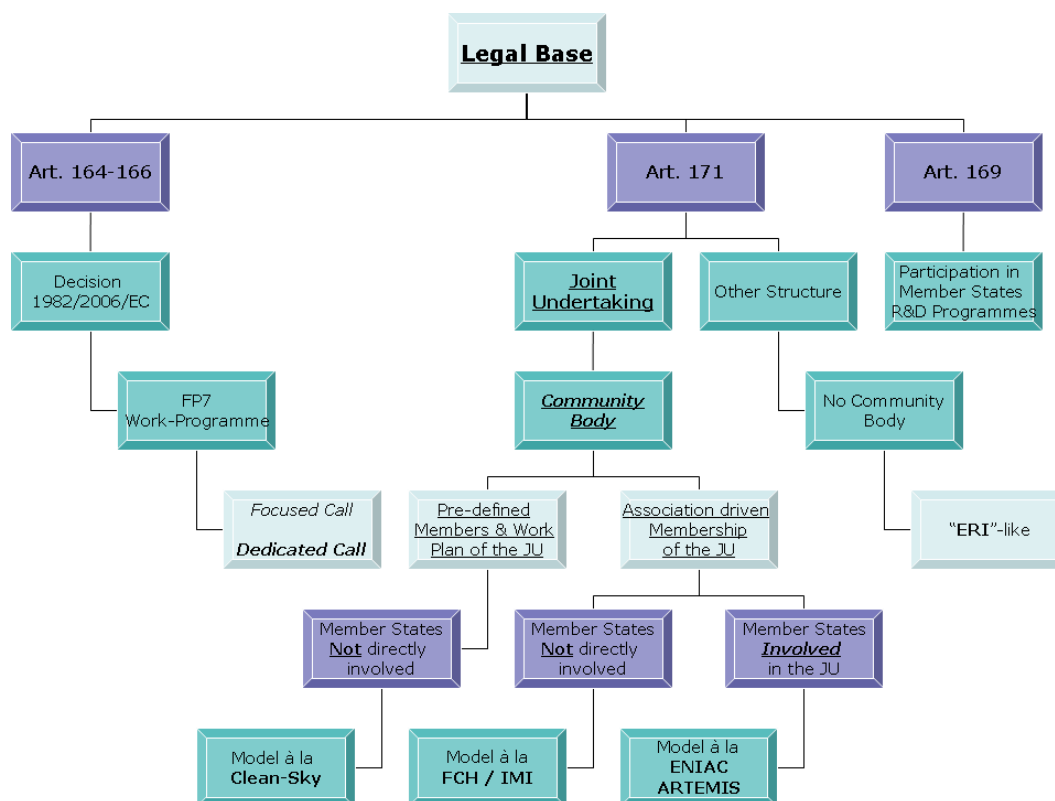


Figure 1 – Selection tree for PPP options starting with the legal base in the EU treaty

## European Research Infrastructures (ERI)

The legal framework for a European Research Infrastructure is designed to facilitate the joint establishment and operation of research facilities of European interest between several Member States and associated countries. The Community is not necessarily a member. It is based on Article 171 of the EC Treaty.

An ERI is a legal entity with legal personality and full legal capacity recognised in all Member States. It is based on membership: its members (Member States, third countries and intergovernmental organisations, i.e. building a public-public partnership) jointly contribute to the achievement of the objectives of an ERI, primarily the establishment and operation of a research infrastructure of European importance. Its internal structure is flexible, allowing the members to define, in the Statutes, their member rights and obligations, the organs and their competences and other internal arrangements. However, it must have at least:

- (a) an assembly of members as the body having full decision-making competency, including the adoption of the budget; and
- (b) a director or a board of directors, appointed by the assembly of members, as the executive body and legal representative of the ERI.

The liability of the members for the debts of the ERI will in principle be limited to their respective contributions. The ERI shall also be considered as an international body or organisation in the sense of the directives on value-added tax, on excise duties and on public procurement; it shall be thus exempted from VAT and excise duties and its procurement procedures shall be out of the scope of the directive on public procurement.

An ERI shall be set up by a decision of the Commission, acting upon an application submitted by those who wish to become founding members of the ERI.

An ERI receives contributions from its members and may apply for Community funding. The work to set up and operate the research infrastructure can be subcontracted by the ERI to industry.

The major disadvantage which limits this instrument in respect to a FUTURE INTERNET PPP is that at the level of membership it is a public-public partnership, including the funding, and that the scope is in principle limited to ICT infrastructure related activities.

## Framework Programme 7 – Work Programmes

A PPP can be implemented using the legal and operational structures provided by the Framework Programme 7. In fact most activities of FP7 are in principle public-private partnerships. However, in the case at hand, we look at an activity larger in terms of size, duration, funding and ambition than what we usually see in Integrating Projects in FP7.

A PPP can be implemented through specific text in the Work Programme by detailing:

- the nature of the action called for, focus area and detailed objectives,
- the expected impact in technological and socio-economic terms and their timeframe,
- the expected stakeholders and actors to achieve the impact,
- the size of the action in terms of partnership, duration and funding,
- the instruments for implementation,
- the eligibility criteria, and,
- the evaluation criteria.

In particular, this model has been retained for building up the three PPP's European Green Cars initiative, European Energy-efficient Buildings and Factories of the Future initiative, proposed under the European Economic Recovery Plan<sup>4</sup>.

Within the scope of using Framework Programme 7, a light approach, meaning little modifications to existing rules and procedures (hereafter called 'focussed call') and a more heavy approach, meaning a deviation from existing rules and procedures can be envisaged (hereafter called 'dedicated call').

### FP7 implementation option 1: Focussed call

Within the FP7 ICT Work Programme an objective is created with the express focus on Future Internet. Ideally a focussed call would serve as a preparatory action for larger follow-on actions, as a one-off focussed call without continuation will have little differentiation effect from the objective of other challenges (e.g. 1, 5 and 6). A minimum critical size is needed to kick-off a small number of preparatory actions; previous preparatory actions suggest a budget of 50 MEuro<sup>5</sup>.

Advantages: Relatively easy and fast to set-up,

Re-uses existing FP7 and ICT specific provisions, instruments, general rules and guidelines, the model contract, evaluation criteria and guidelines, and so forth,

Could deliver activities starting in 2010.

Challenges: 2010 Work Programme has to be modified.

There are limits to how narrow the call can be defined, which have to be negotiated with the programme management committee.

Might be seen a "business as usual" and not initiate the "shifting gears" process asked for by industry and stakeholders.

---

<sup>4</sup> COM(2008) 800 – A European Economic Recovery Plan, 26.11.2008

<sup>5</sup> The Commission preparatory action on security research (2004-2006) had a budget of million 65 Euro.

## FP7 implementation option 2: Dedicated call

Within the FP7 ICT work programme - but separately from the seven existing ICT challenges - the work programme specifies in detail the actions for a Future Internet PPP.

As mentioned above, the PPP can then be implemented through specific text and calls in the Work Programme by detailing:

- ↳ the precise nature of the action called for, the focus area and detailed objectives,
- ↳ the expected impact in technological and socio-economic terms and their timeframe,
- ↳ the expected stakeholders and actors to achieve the impact,
- ↳ the size of the action in terms of partnership, duration and funding, i.e. they could be much larger than today's FP7 Integrating Projects, in the order of 100 Meuro project cost and have a structuring effect on the constituency.
- ↳ the instruments for implementation,
- ↳ the eligibility criteria and the evaluation criteria.

Advantages: Still relatively easy and fast to set-up.

Re-uses general FP7 and ICT specific provisions, such as instruments, general rules, the model contract, however differs from existing ICT related provisions in terms of purpose and level of detail in the description, evaluation criteria and implementation.

Could deliver activities starting in 2011.

Challenges: This has never been done before with this size and ambition.

Obtaining the ICT programme management committee agreement; however there is time up to spring 2010 to define details, work and negotiate with the programme management committee.

There are limits to how specific and narrowly defined the call for the PPP can be, and there is a risk that the outcome of the negotiations with the ICT programme management committee will not be ideal for what the envisaged industry action requires in terms of implementation (risk of defocusing and diluting).

New provisions regarding the general objectives, the set-up, eligibility, evaluation and operational aspects must be defined.

Dedicated calls could be implemented as follow-on to a focussed call, as described above, or stand-alone.

The three newly established PPPs relating to *European energy-efficient buildings*, *Factories of the Future* and *European Green Cars*<sup>6</sup> will make use of existing instruments within the Framework Programme in order to guarantee a quick start. The Commission should launch cross-thematic calls for research proposals from the FP7 thematic areas "Nanotechnologies, Materials and Production technologies", Environment, Energy and ICT in July 2009. A multi-annual work programme will then be developed together with the industry.

---

<sup>6</sup> <http://ec.europa.eu/research/index.cfm?pg=newsalert&lg=en&year=2009&na=ppp-310309>

## Joint Undertakings - JTIs

The major effort of the working group went into the analysis of all existing JTIs. They can be grouped into two categories:

1. *More general structures*, such as ARTEMIS, ENIAC, FCH<sup>7</sup>, IMI<sup>8</sup> and CLEAN SKY which are public-private partnerships and could be adapted rather easily to a new field of technology. A detailed analysis of these JTIs has been carried out, see further below and annex 5.5.
2. *Very specific structures*, such as SESAR<sup>9</sup>, GALILEO and GMES<sup>10</sup>. They are public-public partnerships and are tailored in terms of membership, governance and functioning for the very specific purpose they serve. Therefore only a quick analysis was performed to see if they contain any additional interesting elements or provisions.

## Comparison

Besides differences in technical objectives of JTIs, the main differences in terms of organisational set-up are:

### ARTEMIS/ENIAC:

1. Members are the EC, some Member States and an industry association.
2. The funding includes FP7, Member States funds and co-financing by the participants. The funding model leverages flexible Member States funding which eventually renders the funding model more complex than in other instances.
3. The Council regulation sets the broad technological objectives, however the precise scope of the work is defined by work programmes and all projects are obtained by open calls.
4. The IPR rules are defined upfront in great detail and largely follow FP7 IPR provisions.

### FCH/IMI:

1. Members are the EC and an industry association.
2. The funding includes FP7 and co-financing by the project participants<sup>11</sup>.
3. The Council regulation sets the broad technical objectives. However the detailed scope is set out in the work programme and calls for proposals and all projects are obtained by open calls.
4. The IPR rules are defined upfront only in general terms.

---

<sup>7</sup> Fuel Cell and Hydrogen Joint Technology Initiative

<sup>8</sup> Innovative Medicine Initiative

<sup>9</sup> Single European Sky Air Traffic Management Research

<sup>10</sup> Global Monitoring for Environment and Security

<sup>11</sup> In the specific case of IMI, the funding is brought in-kind by the industry association, and in cash by the EC. The beneficiaries are SME's, research institutes, hospitals, patients groups, regulators... This funding mechanism reflects on the research structure of the pharmaceutical industry, where the industry provides lab equipments, infrastructure and staff and a large amount of the research is carried out by research institutes, in partnership with hospitals for clinical trials and validation.

To this respect, the FCH model is more generic and could be more easily reapplied.

## CLEAN SKY:

1. Members are the EC and 98 named
  - ↳ companies (large & small),
  - ↳ research organisations (public & private), and,
  - ↳ Universities.
2. The funding includes FP7 and co-financing by the members. 75% of the funding is pre-allocated to the 98 organisations named in the Council regulation.
3. The scope and specified, quantified objectives are part of the Council regulation. 75% of the funding is allocated to the members, the remainder, 25% of the funding, is invested via an open call to contribute to the specific objectives.
4. The IPR rules are defined upfront only in general terms.

Beyond membership, overall governance, funding model and IPR provisions, other aspects and features where differences can be noted are (see also the scorecard in chapter 2 of this report):

1. *Advisory Groups*: The following variations have been observed:
  - ↳ Public Authorities board to involve Member states representatives, e.g. in ARTEMIS, ENIAC, where the Public Authorities Board is a decision making body, or in CLEAN SKY, where the National States Representatives Group has an advisory role.
  - ↳ Scientific and technical committees, e.g. in FCH,
  - ↳ SESAR has an interesting provision which allows for the ad-hoc creation of formal working groups.
2. *IPR provisions*: There are either no, or only basic IPR provisions modelled after FP7 – leaving the detailed IPR provisions for the model grant agreement. The only exceptions are ENIAC and ARTEMIS, which have quite detailed IPR provisions in the Council regulation which with hindsight appear as very useful (in view of the difficulties CLEAN SKY had after its launch).
3. Some JTIs call explicitly for *preparatory actions*, not so much for making the setup of the JTIs faster or more efficient, but more as a bridging action.

All JTIs enter into force between 1-3 days after publication of the Council regulation. If they draw on FP7 budget, they can do so up to 2013, i.e. the end of FP7 and the current financial framework<sup>12</sup>. Thereafter the regulation remains in force until 31 December 2017 (using a sunset clause for automatically winding-up the operations by then).

Joint Undertakings are Community bodies and have to follow the Financial Regulations. Therefore, other provisions are in essence the same across all JTIs. They concern legal status, the applicability of the EC staff regulation, jurisdiction, reporting, evaluation, discharge, confidentiality, transparency, anti-fraud and winding-up.

---

<sup>12</sup> See [http://ec.europa.eu/budget/documents/multiannual\\_framework\\_en.htm](http://ec.europa.eu/budget/documents/multiannual_framework_en.htm)

## Organisation forms which were ruled out from the detailed analysis

Organisational structures based on **article 169<sup>13</sup> of the EU treaty** enable the Community to participate in research programmes undertaken jointly by several Member States, including participation in the structures created for the execution of national programmes.

Aiming at integrating national programmes the instrument's basic criteria are:

- ↳ involvement of enough Member States to obtain a significant structuring effect and critical mass;
- ↳ topic of great interest to the Community and fits with the thematic priorities of the Framework Programme;
- ↳ principles of co-funding by Member States and Community, and of additionality are respected;
- ↳ significant European added-value;
- ↳ Article 169 is the only way the project could be implemented.

Because of these characteristics, this instrument is not suitable to set-up an industry led public-private partnership.

**European Economic Interest Groupings (EEIG)<sup>14</sup>** are legal entities created under European Community (EC) Council Regulation 2137/85. It is designed to make it easier for companies in different countries to do business together, or to form consortia to take part in EU programmes. Its activities must be ancillary to those of its members, and, as with a partnership, any profit or loss it makes is attributed to its members. Thus, although it is liable for VAT and employees' social insurance, it is not liable to corporation tax. It has unlimited liability. An EEIG cannot employ more than 500 persons. More than one thousand EEIGs now exist; one of the most famous EEIGs is the Franco-German television channel ARTE.

In general **private company forms**, e.g. limited liability companies such as GmbH or AG have been ruled out for similar reasons. While these forms provide great flexibility in organisational terms, they are subject to national law, also in terms of VAT regulation, social security and applicable tax regimes.

---

<sup>13</sup> For EU and national research activities based on article 169 of the EU treaty see: [http://cordis.europa.eu/fp7/art169/home\\_en.html](http://cordis.europa.eu/fp7/art169/home_en.html)

<sup>14</sup> Detailed rules on EEIG: <http://europa.eu/scadplus/leg/en/lvb/l26015.htm>

# Conclusions and Recommendations

The option “**business as usual**”, i.e. the implementation of the longer-term Future Internet related research and innovation objectives is currently taking place in the various FP7 ICT challenges and the CIP programme is not further pursued, since this report aims at pointing out alternatives to “business as usual”.

## Future Internet R&D, Holistic view

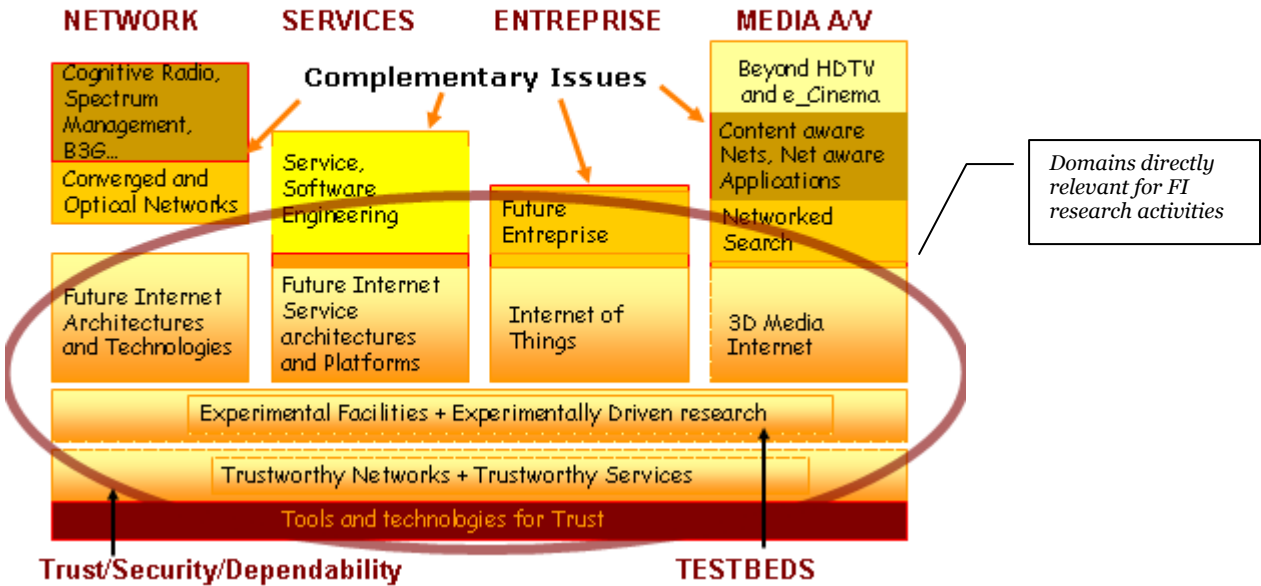


Figure 2 –Current Future Internet activities in view of current FP7 ICT challenges "Business as usual scenario"<sup>15</sup>

<sup>15</sup> courtesy B Barani.

## Option A: A JTI using FP7 budget for the years 2011-2013.

A FUTURE INTERNET JTI can be rather easily modelled on existing provisions like those found in the Council regulations for ARTEMIS, ENIAC, CLEAN SKY, IMI or FCH.

Please see annex 5.2 for a modified draft Council regulation text with options, which is largely based on CLEAN SKY. The key issues in modelling such a draft text and in selecting the options available are the key criteria of:

- ↳ Membership,
- ↳ Funding model,
- ↳ Governance structure, and,
- ↳ IPR provisions.

Their shape is not an arbitrary choice, but rather an outcome of the preparatory work by industry and the research community for the JTI.

Whether organisations themselves become members through the Council regulation (a la CLEAN SKY), or an industry association (a la FCH or IMI) depends on the level of detail of the objectives and planned work, and the commitment of the organisations involved (i.e. establishment and readiness of such an industry grouping).

The major risk is that the preparatory work by industry, i.e. primarily the industrial commitment and the agreement on the detailed objectives, will require more time than envisaged at this stage.

Then the JTI might not be ready in time for the 2011-2013 budget planning.

Furthermore, a JTI created under FP7 will not be able to draw upon the FP budget beyond 2013, hence the budget available might easily become sub-critical for this instrument<sup>16</sup>.



2011-2017

In addition, industrial participants may ask for loans provided under the Risk Sharing Finance Facility (RSFF)<sup>17</sup> operated by the European Investment Bank.

---

<sup>16</sup> see annex 5.6 for overall budgets and budget profiles of existing JTIs. Cost for the operation are fixed cost and do not scale with the budget, hence the smaller the budget the higher the overhead on percent. For budgets of smaller than million 300 Euro, the overhead will exceed 6%, i.e. exceeding administrative overheads of the FP7 programme.

<sup>17</sup> Details see <http://www.eib.org/products/loans/special/rsff/>

## Option B: Dedicated calls in the ICT work programmes 2011-2013, to be followed by further dedicated calls in FP8.

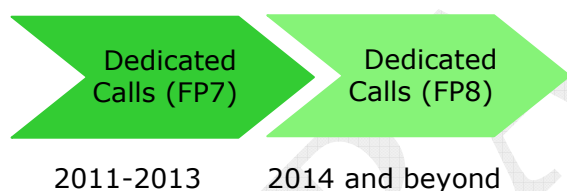
This option could be interesting because:

- ↳ The work programme modifications will be implemented by the Commission service in consultation with the relevant stakeholders and can be done relatively quick, and,
- ↳ in view of early discussions about FP8 regarding simplification (increased use of lump-sums, financial regulation), programme structure and pre-commercial procurement, FP8 dedicated calls might offer interesting implementation opportunities for a PPP.

This route of implementation has been chosen by the recently announced three PPPs that are part of the recovery package. DG RTD has issued guidance on this matter on 30 March 2009<sup>18</sup>.

The major risk though is that the dedicated calls are modified in view of other future priorities, undermining a long-term strategy and commitment towards Future Internet actions.

Furthermore, the setup of FP8 is still very immature, and initial thinking might change later on.



In addition, also within this option, industrial participants may ask for loans provided under the Risk Sharing Finance Facility (RSFF)<sup>19</sup> operated by the European Investment Bank.

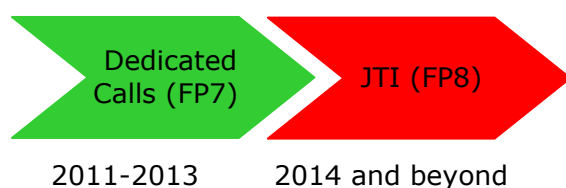
<sup>18</sup> <http://ec.europa.eu/research/index.cfm?pg=newsalert&lg=en&year=2009&na=ppp-310309>

<sup>19</sup> Details see <http://www.eib.org/products/loans/special/rsff/>

## Option C: Dedicated calls in the ICT work programmes 2011-2013, to be followed by a JTI starting with FP8.

This option could be interesting as it offers sufficient time for the setup of the JTI, while in parallel using FP7 dedicated calls as *bridging actions* not to miss the window of opportunity.

There is a risk, though limited, that the dedicated calls for 2011-2013 are modified in view of other future priorities, undermining the long-term strategy and the set-up of the JTI.



In addition, also within this option, industrial participants may ask for loans provided under the Risk Sharing Finance Facility (RSFF)<sup>20</sup> operated by the European Investment Bank.

## The choice of a JTI Model (for options A and C):

In making the choice of the JTI model, participants can in principle choose between two approaches:

1. Define a **programme type of action** in which objectives are described at high-level. The more the content remains at programme level (higher-level) the more likely it is that an industry association should become the member in the Council regulation, because uncertainty in the work to be carried out requires flexibility in the actors carrying out the work.

While the model in itself can be set-up fairly quickly, the set-up of the industry association will require significant preparatory work by industry. ARTEMIS, ENIAC, FCH, and IMI have an association as member; CLEAN SKY is the exception to this. Possible advantages of an association would be

- ↳ that industry would speak with one voice (or at least with less voices) in the Joint Undertaking,
- ↳ that the way industry is organised and governed is left to the statutes of the association rather than to the Council Regulation,
- ↳ that changes in industrial membership and leadership are reflected inside the association rather than inside the Joint Undertaking,

<sup>20</sup> Details see <http://www.eib.org/products/loans/special/rsff/>

- ↳ that organisations could be given a say in decision making that follows the market rather than having it fixed in time, and,
- ↳ the set-up of the Joint Undertaking is more "future-proof" as scope, objectives, programme and work plans can easily evolve.

All JTIs except CLEAN SKY follow this approach and allocate all funding to open, competitive calls, i.e. there is no pre-allocation of funds.

2. Define a **project type of action** in which objectives are described in great detail ("SMART<sup>21</sup>"). The more precise the content is, the more feasible is a project type approach in which organisations themselves can become members through the Council Regulation.

Naming members in the Council Regulation goes hand-in-hand with a certain allocation of responsibilities to carry out the tasks specified. This necessitates an immediate allocation of a certain share of the funds estimated necessary to carry out the work. In the case of CLEAN SKY, the share allocated to members named in the Council Regulation is 75%; the remainder is tendered out through open, competitive calls.

Obviously the rate of pre-allocated budget versus budget for open calls can be varied. As a minimum, the rate must assure a firm commitment of industry partners for the overall responsibility, to carry out the work and attaining the envisaged impact of the Joint Undertaking. Practically the rate will then be greater or equal than 50% and most likely cannot exceed the 75% used in CLEAN SKY (by analogy).

A pre-allocation model as in CLEAN SKY allows for a fast start of the work, as tasks, responsibilities and funding are clear on day one of the JTI.

On the contrary, a JTI along this model will require significant preparatory work and commitment from its members, i.e. more than what is needed for model (1) above. It is expected that companies express their commitment in a joint memorandum of understanding signed at CEO level, prior to the Council regulation. Furthermore an extension of a JTI of this type will require not only an extension in time, but as well an extension or new orientation in terms of detailed objectives.

It has to be noted at this stage, that from the Commission point of view the implementation of the one or other models make very little difference in terms of preparatory work and workflow as presented in figure 3 below.

The **involvement of Member States** should depend on the level of contribution.

- ↳ If Member States contribute financially in a substantial way, a representation in the Joint Undertaking at member level appears legitimate. This model was chosen in ARTEMIS and ENIAC, which both build upon the respective EUREKA clusters ITEA and CATRENE.
- ↳ However, if no Member State funding is envisaged, their involvement could be at the level of an advisory board, thus assuring the coordination of national and European initiatives.

---

<sup>21</sup> Specific – Measurable – Achievable – Realistic – Time

## Process for a Council Regulation for the setup of a Joint Undertaking

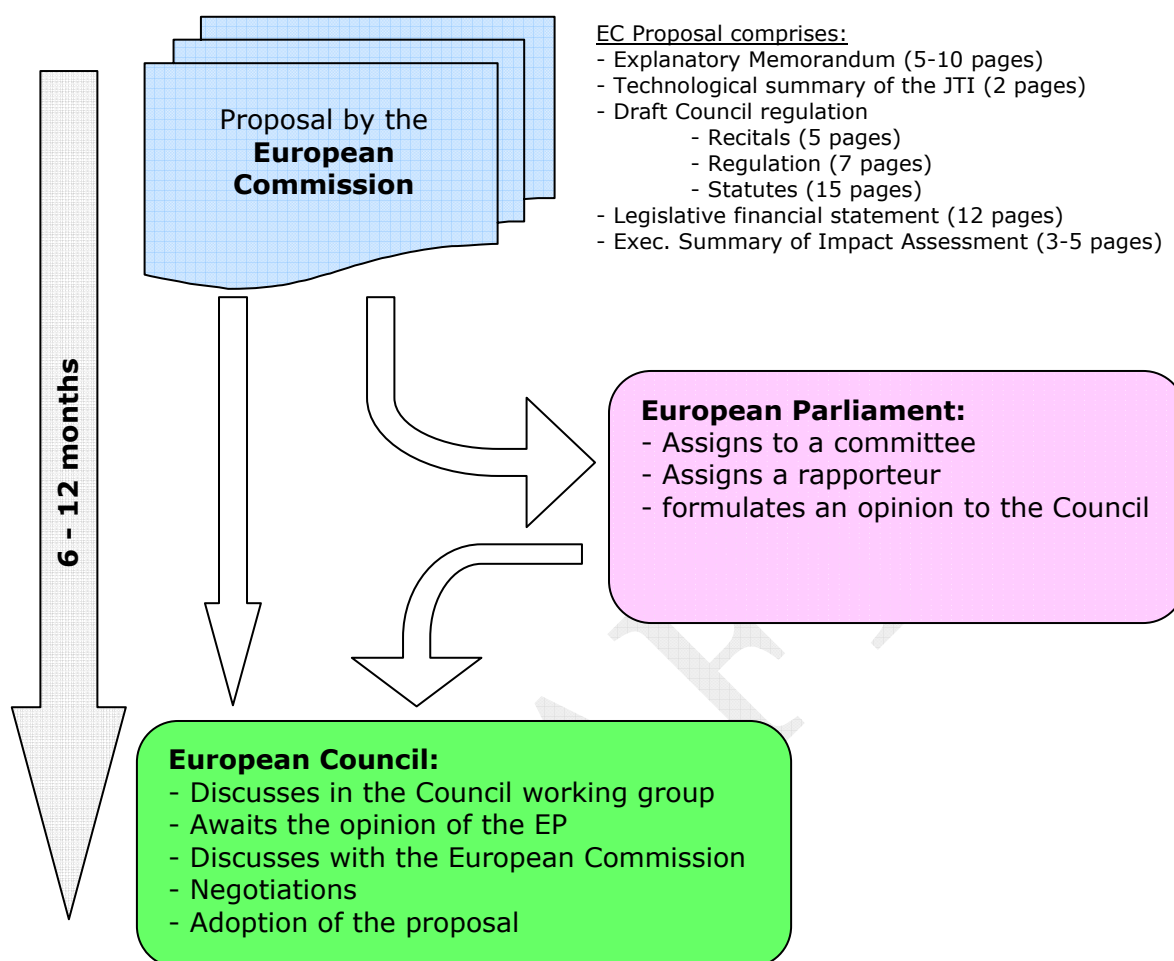


Figure 3 – Process for Setup

A critical matter is how to achieve **long term viability of a Public – Private Partnership for the Future Internet beyond the 7th framework programme?**

Commitment of both public and private stakeholders:

For industry the importance of self organisation should not be underestimated. The experience of ARTEMIS and ENIAC clearly advocates for the **establishment of an industrial association** aiming at a cross-industry coverage given the nature of activities to be covered in a FUTURE INTERNET PPP. The main advantage would be to secure a stronger commitment for the private stakeholders; however it will require significant time and effort to get such an organisation catalysed and formally set-up.

A communication by the **European Commission** during autumn 2009 could endorse the strategic importance of this field and make it more viable beyond the existing research framework programme. The communication could also be beneficial for a more effective implementation of the actions it will advocate. The Commission would be fairly obliged to implement the strategy set-out in the communication, a strategy which could be multi-stakeholder and multi-annual and encompassing ongoing Member States initiatives.

Given the dynamic nature of the research activities for the Future Internet it would also be important to ensure that private involvement is kept flexible, preventing innovation locking and allowing for new emerging key actors to join at any point in time. This would facilitate that innovation and research are exploited to their maximum within new services and products.

The future approach taken for FP8 might also have important implications for the shaping of such public private partnership both in relation to funding allocation, model and appropriate well working governance structures.

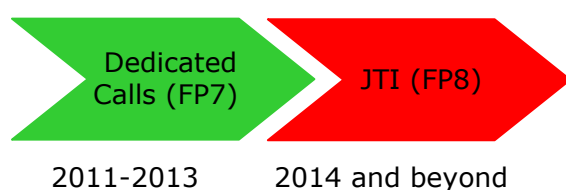
## Conclusions Summary Table

	Option A	Option B	Option C
2011 2012 2013	JTI	Dedicated Calls (FP7)	Dedicated Calls (FP7)
2014 ... 2017	JTI	Dedicated Calls (FP8)	JTI
<b>Advantages</b>	<ul style="list-style-type: none"> <li>➤ Structured engagement on Future Internet activities</li> <li>➤ Recognize major importance of the research topic</li> <li>➤ Shows mutual commitment from EC and industry</li> </ul>	<ul style="list-style-type: none"> <li>➤ Speed of implementation (existing structure)</li> <li>➤ "Business as usual" with a cross-cutting approach</li> <li>➤ Low risk, low effort</li> </ul>	<ul style="list-style-type: none"> <li>➤ Leaves time for industry to setup a research grouping</li> <li>➤</li> </ul>
<b>Drawbacks</b>	<ul style="list-style-type: none"> <li>- Risk that the industry grouping will not be ready on time (limits the choice for JTI model)</li> <li>- "Too big of an elephant" to swallow over a short period of time</li> </ul>	<ul style="list-style-type: none"> <li>- Might not achieve the expected driving commitment effect ("everyone in the same boat")</li> <li>- "Business as usual"</li> <li>- Risk of low outcome (limited multiplying effect) vs. current instruments</li> </ul>	<ul style="list-style-type: none"> <li>- Risk of losing momentum on the research topic (especially if a technical breakthrough occurs in US, Japan...)</li> <li>- Risk of lack of commitment through dilution in time</li> <li>- Might not crystallize necessary engagement from all parties</li> </ul>
<b>Comments</b>	Orient toward a project-type of JTI (Clean Sky Model)		Leaves open the choice of JTI model and allows programme-type of action

## Recommendation

In view of the above considerations, and in light of today's ongoing preparatory activities undertaken notably by industry, and maximising the potential benefit, the recommended course of action for the setup of the FUTURE INTERNET PPP is to follow **option C (see page 14)**.

As described in this document the analysis of this option will best cater for the needs of the R&D community to catalyse the PPP constituency and its longer-term research and innovation ambition. It will offer sufficient opportunities for new players to participate in the process and lay a solid foundation for the Joint Undertaking to be launched under FP8 (2014 and beyond).



### Roadmap of foreseeable preparation actions:

**2009** Memorandum of understanding among core industry partners based on openness and transparency, to establish a dialogue partner for the EC.

Elaboration on the ambitions and objectives of a FUTURE INTERNET PPP.

Establishing a Future Internet Member States Forum to network national and European initiatives.

Future of the Internet Conference '09, Prague, 11-13 May 2009.

Drafting of the objectives for a dedicated call for the budgetary period 2011-2013, as well as the necessary guidelines for proposal submission, evaluation and negotiation.

Structured Dialogue with industry, academia and Member States to advance FUTURE INTERNET related developments for RTD and policy making, including the international dimension.

Communication by the European Commission to endorse the strategic importance of the field.

Obtaining agreement of the ICT programme management committee.

Future Internet Assembly (FIA) Workshop, Stockholm, 23/24 November

**2010** Formal launch of the FUTURE INTERNET PPP

Future Internet PPP Launch Conference '10, Valencia, March 2010

Launch of the first dedicated call under FP7 (drawing on the 2011 budget).

Drafting of a Commission proposal for a Council regulation to establish a joint undertaking for a FUTURE INTERNET Joint Technology Initiative.

Catalyse the setting up of a cross sectorial industrial association for the FUTURE INTERNET private stakeholders, if appropriate.

- 2011** Launch of the second dedicated call under FP7 (drawing on the 2012 budget).  
Commission proposal for a Council regulation to establish a joint undertaking for a FUTURE INTERNET Joint Technology Initiative, building on the policy priorities of the next financial framework of the EU (2014 and beyond) and policy objectives of the next EU RTD framework programme (FP8, 2014 and beyond).
- 2012** Launch of the third dedicated call under FP7 (drawing on the 2013 budget).  
Evaluation of the functioning of the FUTURE INTERNET PPP.
- 2013** Negotiation with Council and Parliament on the establishment of the Joint Undertaking.  
Preparatory activities for the set-up of the Joint Undertaking.  
Formal decision of the Council on the establishment of the Joint Undertaking.
- 2014** Formal launch of the Joint Undertaking.  
Integration of ongoing PPP activities in the new Joint Undertaking.  
Launch of the first activities and calls for proposals.

Activities for 2014 and beyond will be elaborated in detail when the nature and setup of the PPP and the Joint Undertaking become clearer. By analogy, FP8 could last seven years as well, i.e. activities of the Joint Undertaking would be assured until 2024, when the last projects committed under the 2020 budget will conclude.

# JTI Scorecard

Evaluation Criteria	ARTEMIS	ENIAC	FCH	CLEAN SKY	Sesar	IMI	Galileo
<b>Level of detail of Objectives (clear, specific measurable)</b>	Broad technical objectives (then detailed calls for proposal)	Broad technical objectives (then detailed calls for proposal)	Broad technical objectives	Specified technical objectives	Broad technical objectives	Broad scientific objectives	Specific objectives provided in annex to Council Regulation
<b>Level of definition of Membership</b>	EC + industry association and Member states	EC + industry association and Member states	EC + industry grouping (+ research grouping)	EC + 98 named organisations	EC and Euro-control	EC + industry association	Inter Institutional Panel (GIP) Council, EP and Commission
<b>Appropriateness of the governing structure versus the objectives Governance Models</b>	Governing Board, Executive Director, Public Authorities Board, Industry and Research Committee	Governing Board, Executive Director, Public Authorities Board, Industry and Research Committee	Governing Board, Executive Director	Governing Board, Executive Director, Technical Steering Committees, General Forum	Administrative Board and Executive Director	Board, Executive Office, Scientific Committee	European Space Agency plus Commission assisted by Committee
<b>Advisory bodies</b>	Public Authorities Board, Industry and Research Committee	Public Authorities Board, Industry and Research Committee	States Representatives Group, Scientific Committee	Member States	Allows for working groups to be set-up	Member States Group, Stakeholder Forum	Supported by independent advisors and GNSS Supervisory Authority
<b>Funding - model, processes and allocations</b>	National financial contribution from MS, EC 55% via JTI, private participants	National financial contribution from MS, EC 55% via JTI, private participants	EC 50%, Industry 50% Member states and regions can allocate budget to individual projects	EC and Members, 75% pre-allocated, 25% open calls	EC and Euro-Control, but also industry	EC 50% (in cash for SME, Academia, Regulators and patients), Industry 50% (in kind for SME...) Industry doesn't received EC funding	Community paid from Community Budget and a revenue-sharing mechanism concluded with private sector entities via ESA
<b>EC funding (MEuro)</b>	420	450	470	800	700	1000	3405
<b>Legal status</b>	Community Body, art 171	Community Body, art 171	Community Body, art 171	Community Body, art 171	Community Body, art 171	Community Body, art 171	PPP concession contract between EU and a private sector partner art 156
<b>IPR provisions</b>	Follows EC regulation and is provided in detail	Follows EC regulation and is provided in detail	High level principles modelled after FP7	High-level general provision, modelled after FP7	None	High level principles modelled after FP7	Community owner of all tangible & intangible assets & agreements shall be concluded with third parties when appropriate
<b>Preparatory actions</b>	Industrial Association put in place	Industrial Association put in place	"Bridging structure" (an FP7 CSA) put in place with the Industry Grouping	Encouraged to facilitate a quick start-up	None	"Take all necessary preparatory actions" until the JU is setup	Partnership with ESA

## Annexes

### Key features presented in PowerPoint slides<sup>22</sup>



J:\INFSO FIA\TF  
Model\Future Interne

DRAFT

---

<sup>22</sup> Should you wish to receive a copy of these slides, please contact [info-future-internet@ec.europa.eu](mailto:info-future-internet@ec.europa.eu)

## Draft text for a Future Internet JTI with options

Attached a complete draft proposal for a Council Regulation for a FUTURE INTERNET Joint Undertaking. The purpose of this is:

1. To show the three elements of a JTI council regulation, which are the RECITALS, the REGULATION and in annex the STATUTES. Further annexes are not excluded, e.g. CLEAN SKY annexes the list of companies/organisations.
2. To show to which degree existing models, i.e. existing text, can be reused and what effort is needed to adapt it for a possible FUTURE INTERNET JTI.
3. What options – depending on the final set-up – are available where, including draft text for them.

In most cases, the Clean Sky provisions were taken as a basis. This was done not for the choices made in this JTI, but for the clarity of the articles in the Regulation. In its turn, most of the Clean Sky provisions are similar to ARTEMIS and ENIAC provisions, with some added clarity in certain articles.



C:\Documents and  
Settings\fatelpe\Desk23

DRAFT

---

<sup>23</sup> Should you wish to receive a copy of this document, please contact [info-future-internet@ec.europa.eu](mailto:info-future-internet@ec.europa.eu)

# Mandate of the working group

Scope of the work of the "Process/Instrument" working group: Develop 1-3 options for a possible legal, financial, managerial and organisational model for the Future Internet PPP Initiative (JTI).

## Issues to analyse:

Governance (statutes, leadership, voting, core partners, founding members, bodies & roles)	Legal entity, status, legal base, seat, legal commitments prior to set-up?
Operational models (management, planning, decision making processes, staffing, ...)	Financial, funding (public funding model, rules, private funding model, funding of projects, funding of the organisation), relation to EIB, RSFF, relation to financial regulation, VAT,
Reporting (to whom, when, what,... discharge procedure)	Audit, anti-fraud measures,
Membership (nature and number of core participants, role of SMEs, associated members, openness, accession/cessation)	Intellectual property, exploitation,
Conflict of Interest, confidentiality/transparency	Ethical issues (organisation/processes, research/proposals)
Advisory groups (Scientific community integration, EU member countries, ...)	Set-up phase & time-frame to become operational
Coordination with ERA, FP, national programmes, ...	Time-horizon (2015+)
Work programme, calls for proposal, evaluation & criteria	Integration mechanisms (financial, management, scientific)

## Existing or planned JTIs/PPP<sup>24</sup>:

- ↳ ENIAC, [www.ENIAC.eu](http://www.ENIAC.eu)
- ↳ ARTEMIS, [www.ARTEMIS-ju.eu](http://www.ARTEMIS-ju.eu)
- ↳ CLEAN SKY, [www.CLEAN SKY.eu](http://www.CLEAN SKY.eu)
- ↳ FCH - Fuel Cell & Hydrogen, [www.HFPeurope.org](http://www.HFPeurope.org)
- ↳ IMI - Innovative Medicine Initiative, [imi.europa.eu](http://imi.europa.eu)
- ↳ SESAR - Single European Sky ATM Research, [www.eurocontrol.int/sesar](http://www.eurocontrol.int/sesar)
- ↳ GMES - Global Monitoring for Environment and Security (GMES), may be proposed in 2008-09, [www.gmes.info](http://www.gmes.info)
- ↳ GALILEO - <http://www.galileoju.com>
- ↳ European green cars initiative<sup>25</sup>
- ↳ European energy-efficient buildings<sup>25</sup>
- ↳ Factories of the future initiative<sup>25</sup>

<sup>24</sup> For a complete table and further information, see <http://cordis.europa.eu/fp7/jtis>

<sup>25</sup> <http://ec.europa.eu/research/index.cfm?pg=newsalrt&lg=en&year=2009&na=ppp-310309>

# Legal Base

Legal base taken from the Treaty establishing the European Community (consolidated text) Official Journal C 325 of 24 December 2002.

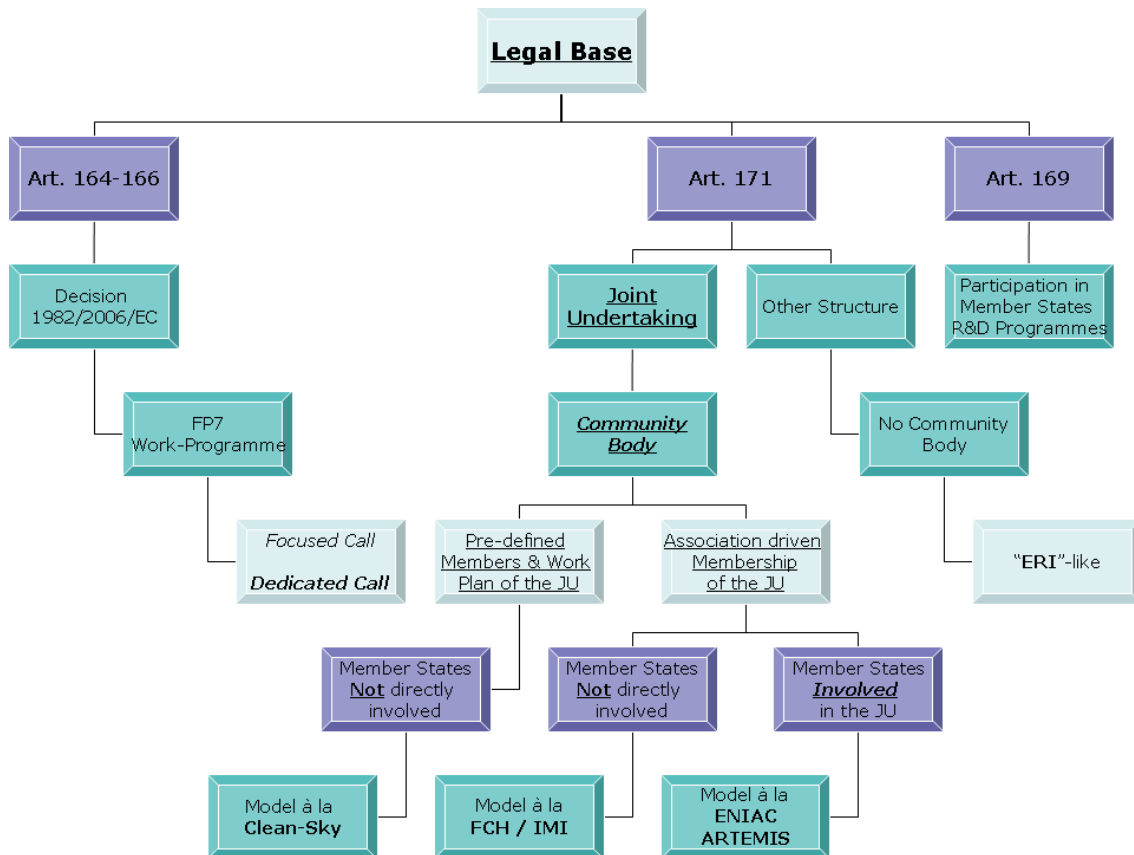


Figure 3 – Decision tree for a PPP Model

## Article 164

In pursuing these objectives, the Community shall carry out the following activities, complementing the activities carried out in the Member States:

- (a) implementation of research, technological development and demonstration programmes, by promoting cooperation with and between undertakings, research centres and universities;
- (b) promotion of cooperation in the field of Community research, technological development and demonstration with third countries and international organisations;
- (c) dissemination and optimisation of the results of activities in Community research, technological development and demonstration;
- (d) stimulation of the training and mobility of researchers in the Community.

## Article 166

1. A multiannual framework programme, setting out all the activities of the Community, shall be adopted by the Council, acting in accordance with the procedure referred to in Article 251 after consulting the Economic and Social Committee.

- The framework programme shall:
  - establish the scientific and technological objectives to be achieved by the activities provided for in Article 164 and fix the relevant priorities,
  - indicate the broad lines of such activities,
  - fix the maximum overall amount and the detailed rules for Community financial participation in the framework programme and the respective shares in each of the activities provided for.
- 2. The framework programme shall be adapted or supplemented as the situation changes.
- 3. The framework programme shall be implemented through specific programmes developed within each activity. Each specific programme shall define the detailed rules for implementing it, fix its duration and provide for the means deemed necessary. The sum of the amounts deemed necessary, fixed in the specific programmes, may not exceed the overall maximum amount fixed for the framework programme and each activity.
- 4. The Council, acting by a qualified majority on a proposal from the Commission and after consulting the European Parliament and the Economic and Social Committee, shall adopt the specific programmes.

#### 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.

#### Article 172

The Council, acting by qualified majority on a proposal from the Commission and after consulting the European Parliament and the Economic and Social Committee, shall adopt the provisions referred to in Article 171.

The Council, acting in accordance with the procedure referred to in Article 251 and after consulting the Economic and Social Committee, shall adopt the provisions referred to in Articles 167, 168 and 169. Adoption of the supplementary programmes shall require the agreement of the Member States concerned.

# Detailed Analysis of existing Joint Technology Initiatives<sup>26</sup>

## ARTEMIS

  
\\net1\info\INFSO  
(Shared Space)\INFSO

## ENIAC

  
J:\INFSO FIA\TF  
Model\13 - Eniac\ENI

## FCH

  
J:\INFSO FIA\TF  
Model\14 - FCH\Fuel

## CLEAN SKY

  
J:\INFSO FIA\TF  
Model\12 - CleanSky\

---

<sup>26</sup> Should you wish to receive a copy of these documents, please contact [info-future-internet@ec.europa.eu](mailto:info-future-internet@ec.europa.eu)

# Budget profile of different Joint Technology Initiatives

Overall funding ceiling authorised by the Council regulation

ARTEMIS	420 MEuro
ENIAC	450 MEuro
FCH	470 MEuro
IMI	1000 MEuro
CLEAN SKY	800 MEuro
SESAR	700 MEuro

The attached document provided the detailed budget profile for these JTIs<sup>27</sup>.



J:\INFSO FIA\TF  
Model\JTI Budget pro

DRAFT

---

<sup>27</sup> Should you wish to receive a copy of this document, please contact [info-future-internet@ec.europa.eu](mailto:info-future-internet@ec.europa.eu)