

EUROfusion Consortium Agreement under Horizon Europe

v.1.0

CONSORTIUM AGREEMENT:

THIS CONSORTIUM AGREEMENT is based upon the REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing Horizon Europe -the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination as endorsed by the Permanent Representatives Committee at its meeting held on 18 December 2020 and the COUNCIL REGULATION establishing the Research and Training Programme of the European Atomic Energy Community for the period 2021-2025 complementing Horizon Europe – the Framework Programme for Research and Innovation as defined by political agreement reached by the Permanent Representatives Committee at its meeting held on 18 December 2020 and the European Commission General Model Grant Agreement and its Annexes, and is made on **01.01.2021** (= Project Start Date of the related Grant Agreement), hereinafter referred to as the Effective Date.

BETWEEN:

Max-Planck-Gesellschaft, represented by Max-Planck Institut für Plasmaphysik, Germany

the Coordinator

AND

Agenzia nazionale per le nuove tecnologie l'energia e lo sviluppo economico sostenibile (ENEA), Italy,

Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT), Spain,

Univerzita Komenského V Bratislave, Slovakia,

Commissariat à l'énergie atomique et aux énergies alternatives (CEA), France,

Dublin City University (DCU), Ireland,

Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland,

Ecole Royale Militaire, Koninklijke Militaire School. Laboratoire de Physique des Plasmas, Laboratorium voor Plasmafysica (LPP-ERM-KMS), Belgium,

Forschungszentrum Jülich GmbH, represented by its Board of Directors, for: Institute of Energy and Climate Research - Plasma Physics IEK-4, established at Wilhelm-Johnen-Straße, 52428 Jülich, Germany, hereafter referred to as "JUELICH",

National Science Center "Kharkov Institute of Physics and Technology" (KIPT), Ukraine,

United Kingdom Atomic Energy Authority (UKAEA)

Institute of Atomic Physics, Romania,

Institute of Plasma Physics v. v. i. (IPP.CR), Czech Republic,

Instytut Fizyki Plazmy i Laserowej Mikrosyntezy im. Sylwestra Kaliskiego (IPPLM), Poland,

Institute for Nuclear Research and Nuclear Energy, Bulgaria,
Instituto Superior Técnico (IST), Portugal,
Jožef Stefan Institute (JSI), Slovenia,
Karlsruher Institut für Technologie (KIT), Germany,
Lithuanian Energy Institute, Lithuania,
National Centre for Scientific Research "Demokritos" (NCSR), Greece,
Ruđer Bošković Institute (RBI), Croatia,
Österreichische Akademie der Wissenschaften (ÖAW), Austria,
Stichting Nederlandse Wetenschappelijk Onderzoek instituten (DIFFER), The Netherlands,
Swedish Research Council (VR), Sweden,
Technical University of Denmark (DTU), Department of Physics, Denmark,
Institute of Solid State Physics, University of Latvia (ISSP-UL), Latvia,
University of Malta, Malta,
University of Tartu, Estonia,
VTT Technical Research Centre Of Finland Ltd, Finland,
Centre for Energy Research (EK-CER), Hungary

hereinafter, jointly or individually, referred to as "Parties" or "Party"

relating to the Action entitled

Implementation of activities described in the Roadmap to Fusion during Horizon Europe through a Joint Programme of the members of the EUROfusion consortium under Horizon Europe'

in short

"EUROfusion"

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Preamble

HAVING REGARD to the Fusion programme undertaken by the EUROfusion Consortium under Horizon 2020 (Grant Agreement No.633053 - Eurofusion),

HAVING REGARD to Memorandum of Understanding and Non-Disclosure Agreement for the EUROfusion Consortium under *Horizon Europe*, entered into force on 22nd December 2020, hereinafter referred the “MoU”,

HAVING REGARD to the proposal for a Council Regulation establishing the Research and Training Programme of the European Atomic Energy Community for the period 2021-2025 complementing Horizon Europe – the Framework Programme for Research and Innovation,

WHEREAS the Euratom Programme will complement Horizon Europe using the same instruments and rules for participation. It will be implemented for five years in accordance with Article 7 of the Euratom Treaty, to be extended in 2025 by two years in order to be aligned with the Multiannual Financial Framework 2021-2027,

WHEREAS a Co-funded European Partnership in fusion research will implement the roadmap towards the goal of fusion electricity production by the second half of this century,

WHEREAS the Co-funded European Partnership in fusion will be implemented through a grant to be awarded to the legal entities established or designated by the Member States and any third country associated to the Programme.

The Parties have concluded the MoU with the intention:

- to submit a proposal (hereinafter referred to as the Proposal) for a European Joint Programme Co-fund Action in response to the call issued by Euratom under the Research and Training Programme of the European Atomic Energy Community for the period 2021-2025 complementing Horizon Europe – the Framework Programme for Research and Innovation;
- to negotiate with the European Commission as Granting Authority the signature of a Grant Agreement, and to negotiate between them a Consortium Agreement, provided the Proposal has a positive evaluation;

The Parties have agreed to name this European Joint Programme Co-fund Action as Implementation of the Roadmap on Fusion Energy in 2021-2027, in short: “EUROfusion” (hereinafter referred to as the “Programme”);

The Parties wish to specify or supplement binding commitments among themselves in addition to the provisions of the specific Grant Agreement to be signed by the Parties and the Funding Authority (hereinafter “Grant Agreement”). The Parties are aware that this Consortium Agreement is based upon the DESCA model consortium agreement.

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

Section 1: Definitions

Words beginning with a capital letter shall have the meaning defined either herein or in the Rules for Participation or in the Grant Agreement including its Annexes.

Affiliated Entity	means	Entities affiliated to a beneficiary within the meaning of Article 187 of EU Financial Regulation 2018/1046 which participate in the action with similar rights and obligations as the beneficiaries (obligation to implement action tasks and right to charge costs and claim contributions).
Annual Work Plan (Work Plan)	means	the description of the work and the related agreed budget for one year.
Associated Partners (AP) —	means	Entities which participate in the action, but without the right to charge costs or claim contributions.
Background	means	any data, know-how and/or information whatever their form or nature, tangible or intangible, including any rights such as intellectual property rights which are (i) held by participants prior to their accession to the action, (ii) needed for carrying out the action or for exploiting the results of the action; and (iii) identified by the participants in accordance with Grant Agreement.
Beneficiary	means	the signatories of the Grant Agreement (either directly or through an accession form).
Commission	means	the European Commission, i.e. the granting authority awarding the grant for the Consortium Work Plan
Consortium Agreement	means	This agreement with its annexes
Consortium Work Plan (Work Plan)	Means	the description of the work for the entire period of the Grant Agreement.

The action for which the grant is to be awarded is described in the Consortium Work Plan at Annex 1 of the Grant Agreement. It provides a 5-year perspective on the basis of the approved Roadmap and details the main milestones to be achieved during this period and contains a preliminary annual breakdown of resources (commitments and payments).

Coordinator	means	The legal entity having signed the Grant Agreement and which is acting as the intermediary between the Parties and the Commission.
Fair and reasonable conditions		Appropriate conditions, including possible financial terms or royalty-free conditions, taking into account the specific circumstances of the request for access, for example the actual or potential value of the results or background to which access is requested and/or the scope, duration or other characteristics of the exploitation envisaged.
Defaulting Party	means	a Party, which the General Assembly has identified to be in breach of this Consortium Agreement and/or the Grant Agreement as specified in Section 4.2 of this Consortium Agreement.
Force Majeure	means	Force Majeure shall have the meaning defined in the corresponding Article of the Grant Agreement
Fusion for Energy	means	Fusion for Energy (F4E) is the European Union's Joint Undertaking for ITER and the Development of Fusion Energy.
Fusion Programme	means	the Programme that will be carried out under the co-funded action in order to implement the Roadmap.
Infrastructure	means	a Party's research facilities, laboratories, joint facilities.
Needed	means:	<p>For the implementation of the Consortium Work Plan:</p> <p>Access Rights are needed if, without the grant of such Access Rights, carrying out the tasks assigned to the recipient Party would be impossible, significantly delayed, or require significant additional financial or human resources.</p> <p>For exploitation of own Results:</p> <p>Access Rights are Needed if, without the grant of such Access Rights, the Exploitation of own Results would be technically or legally impossible.</p>
Participants	means	the same as in the Grant Agreement
Party	means	the parties of this Consortium Agreement and the Grant Agreement, which are also referred to as Beneficiaries.
Party's Representative	means	a representative of a Party in the General Assembly, in other bodies at the level of the Consortium, as well as towards the Coordinator, and the other Parties.

Programme	means	the coordinated set of joint actions conducted under this Consortium Agreement in implementation of the Roadmap and co-funded by the Grant in the frame of the Euratom programme for the period 2021-2027.
Project Execution Plan	means	a part of the project management plan that defines scope, schedule and costs.
Results	means	any tangible or intangible output of the action, such as data, knowledge and information whatever their form or nature, whether or not they can be protected, which are generated in the action as well as any rights attached to them, including intellectual property rights.
Roadmap	means	the Roadmap on Fusion Energy, adopted in 2018 in its initial version by the Heads of Research Units of the Euratom Associations, which is updated by the EUROfusion General Assembly, if need be.
Software	means	sequences of instructions to carry out a process in, or convertible into, a form executable by a computer and fixed in any tangible medium of expression.
Third Party	means	any entity which is not a signatory to this Consortium Agreement (e.g. affiliated entities, entities under the same control, associated partners, third parties giving in-kind contributions, subcontractors, and recipients of financial support to third parties)

Section 2: Purpose

The purpose of this Consortium Agreement is to specify with respect to the Programme the relationship among the Parties, in particular concerning the organisation of the work between the Parties, the management of the Consortium Work Plan and the rights and obligations of the Parties concerning inter alia liability, Access Rights and dispute resolution.

Section 3: Entry into force, duration and termination

3.1 Entry into force

An entity becomes a Party to this Consortium Agreement upon signature of this Consortium Agreement by a duly authorised representative.

This Consortium Agreement shall have effect from the Effective Date identified at the beginning of this Consortium Agreement.

A new entity becomes a Party to the Consortium Agreement upon signature of the accession document (Attachment 2) by the new Party and the Coordinator. Such accession shall have effect from the date identified in the accession document.

3.2 Duration and termination

This Consortium Agreement shall continue in full force and effect until complete fulfilment of all obligations undertaken by the Parties under the Grant Agreement and under this Consortium Agreement.

However, this Consortium Agreement or the participation of one or more Parties to it may be terminated in accordance with the terms of this Consortium Agreement.

If

- the Grant Agreement is not signed by the Commission, or
- the Grant Agreement is terminated, or
- a Party's participation in the Grant Agreement is terminated,

this Consortium Agreement shall automatically terminate in respect of the affected Party/ies, subject to the provisions surviving the expiration or termination under Section 3.3 of this Consortium Agreement.

3.3 Survival of rights and obligations

The provisions relating to Access Rights, Dissemination and confidentiality, for the time period mentioned therein, as well as for liability, applicable law and settlement of disputes shall survive the expiration or termination of this Consortium Agreement.

Termination shall not affect any rights or obligations of a Party leaving the Consortium incurred prior to the date of termination, unless otherwise agreed between the General Assembly and the leaving Party. This includes the obligation to provide all input, deliverables and documents for the period of its participation.

Section 4: Responsibilities of Parties

4.1 General principles

Each Party undertakes to take part in the efficient implementation of the Consortium Work Plan, and to cooperate, perform and fulfil, promptly and on time, all of its obligations under the Grant Agreement and this Consortium Agreement as may be reasonably required from it and in a manner of good faith as prescribed by Belgian law.

Each Party undertakes to notify promptly, in accordance with the governance structure of the Consortium, any significant information, fact, problem or delay likely to affect the Consortium Work Plan.

Each Party shall as soon as possible provide all information reasonably required by the General Assembly, the Programme Manager or by the Coordinator to carry out its tasks.

Each Party shall take reasonable measures to ensure the accuracy of any information or materials it supplies to the other Parties.

4.2 Breach

In the event that a responsible consortium body (General Assembly or other) identifies a breach by a Party of its obligations under this Consortium Agreement or the Grant Agreement, the Coordinator or, if the Coordinator is in breach of its obligations, the Party appointed by the General Assembly, will give formal notice to such Party requiring that a proposal be submitted within 30 calendar days for approval by the General Assembly on how and by when to remedy the breach.

If such breach is substantial and is not remedied within the agreed period or is not capable of remedy, the General Assembly shall assess the consequences for the Consortium Work Plan and may decide to declare the Party to be as Defaulting Party and to decide on the consequences thereof which may include termination of its participation. Parties considered to be in default may not vote on such decisions.

4.3 Involvement of Third Parties

A Party that enters into a subcontract or otherwise involves Third Parties (including but not limited to Affiliated Entities, Associated Partners or other Participants) in the Project Consortium Work Plan remains responsible for carrying out its relevant part of the Consortium Work Plan and for such Third Party's compliance with the provisions of this Consortium Agreement and of the Grant Agreement.

It has to ensure that the involvement of Third Parties does not affect the rights and obligations of the other Parties under this Consortium Agreement and the Grant Agreement.

4.4 Checks, reviews, audits and investigations

Each Party must ensure that the bodies mentioned in Grant Agreement Article 25 (e.g. granting authority (Commission), OLAF, the European Public Prosecutor's Office (EPPO), Court of Auditors (ECA), etc.) can exercise their rights also towards its Third Parties (e.g. affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors, and recipients of financial support to third parties), if any.

4.5 Data protection

Each Party commits itself to respect applicable data protection laws as stipulated in Art. 15 of the Grant Agreement.

Where necessary, the Parties shall furthermore cooperate in order to enable one another to fulfil legal obligations arising under Data Protection Laws within the scope of the performance and administration of this Consortium Agreement.

In particular, the Parties shall, where necessary, conclude a separate data processing, data sharing and/or joint controller agreement before any data processing or data sharing takes place.

Section 5: Liability towards each other

5.1 No warranties

In respect of any information or materials (incl. Results and Background) supplied by one Party to another under the Consortium Work Plan, no warranty or representation of any kind is made, given or implied as to the sufficiency or fitness for purpose nor as to the absence of any infringement of any proprietary rights of third parties.

Therefore:

- the recipient Party shall in all cases be entirely and solely liable for the use to which it puts such information and materials, and
- no Party granting Access Rights shall be liable in case of infringement of proprietary rights of a Third Party resulting from any other Party (or its Affiliated Entities) exercising its Access Rights.

5.2 Limitations of contractual liability

No Party shall be responsible to any other Party for any indirect or consequential loss or similar damage such as, but not limited to, loss of profit, loss of revenue or loss of contracts, provided such damage was not caused by a wilful act or gross negligence or by a breach of confidentiality.

For any remaining contractual liability, a Party's liability towards the other Parties collectively shall be limited to the Party's consortium contribution received in the year when the damaging incident happened provided such incident was not caused by a wilful act or gross negligence.

The terms of this Consortium Agreement shall not be construed to amend or limit any Party's statutory liability.

5.3. Damages to property

Except in case of wilful misconduct or gross negligence, each Party waives the right to take any actions against other Parties, for damage to its property in the performance of this Consortium Agreement.

5.4. Exceptional circumstances

In the event of a breakdown preventing a facility from being used by several Parties in the frame of shared research activities as foreseen in the Consortium Work Plan, no Party shall be liable to any other Party for costs incurred in relation to its participation in the experiments on the broken facility, unless the breakdown was due to gross negligence or wilful misconduct.

In case of failure that prevents the programme to be exploited in part or in full, the timeline of the experiment will be amended jointly by the Programme Manager and the operator of such facilities and the budget will be adjusted accordingly.

5.5 Damage caused to Third Parties

Each Party shall be solely liable for any loss, damage or injury to third parties resulting from the performance of the said Party's obligations by it or on its behalf under this Consortium Agreement or from its use of Results or Background.

5.6. Injury to the personnel of a Party

Each Party is responsible for having the insurance coverage for its own staff in accordance with applicable legal requirements for occupational injuries and occupational diseases. As a consequence, each Party must fulfil the required formalities and sustain all the costs, if any, involved in the insurance policies underwritten to cover its own staff against the risks.

Each Party shall without delay inform the other Party of any incident or injury to the staff of such other Party occurring in the course of any work by the staff of such other Party received by it in order to allow such other Party to proceed to the declarations required by law within the prescribed time.

5.7 Force Majeure

No Party shall be considered to be in breach of this Consortium Agreement if it is prevented from fulfilling its obligations under the Consortium Agreement by Force Majeure.

5.8. Notification and decision

In case of Force Majeure or other exceptional circumstances (see section 5.4 above) which may affect the Programme, such as facility unavailability, the affected Parties shall inform without delay the Chairperson of the General Assembly, the Programme Manager and the Coordinator.

The Programme Manager in collaboration with the Coordinator and the affected Parties shall assess the situation and seek mitigation measures. In the case of significant consequences to the Consortium Work Plan and/or the Annual Work Plan, the Programme Manager shall inform the Chairperson of General Assembly and the Coordinator shall inform the Commission.

If the consequences are not overcome within six (6) calendar weeks after such notification, the General Assembly shall take a decision concerning the future of the implementation of the affected tasks. It may decide to:

- transfer the tasks to other Parties,
- suspend the execution of the implementation of the affected tasks
- propose an Amendment to Annex I and or II of the Grant Agreement.

5.9 Export control

No Party shall be considered to be in breach of this Consortium Agreement if it is prevented from fulfilling its obligations under the Consortium Agreement due to a restriction resulting from import or export laws and regulations and/or any delay of the granting or extension of the import or export license or any other governmental authorization, provided that the Party has used its reasonable efforts to fulfil its tasks and to apply for any necessary license or authorization properly and in time.

Section 6: Governance structure

6.1 General structure

The organisational structure of the Consortium shall comprise the following Consortium Bodies:

The General Assembly (GA) as the ultimate decision-making body of the consortium

The *Bureau* is an accompanying body to the General Assembly. It shall report to and be accountable to the General Assembly.

The *Coordinator* is the legal entity acting as the intermediary between the Parties and the Commission. The Coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and this Consortium Agreement.

The *Programme Manager (PM)* is in charge of scientific and technical matters of the Programme, within the administrative and management structure set by the Consortium Agreement. The *Programme Manager* is responsible to the General Assembly for the overall top-level planning, coordination and implementation of the Consortium Work Plan in line with the strategy agreed by the General Assembly. The PM shall report to and be accountable to the General Assembly. The PM is supported by the Programme Management Unit (PMU).

The *Scientific and Technical Advisory Committee (STAC)* is a committee advising the General Assembly on strategic and implementation issues related to the Annual Work Plan and its coherence with respect to the Roadmap.

An organizational chart illustrating the Governance structure is attached as Attachment 3 for information.

6.2 General Assembly

6.2.1 Role

The General Assembly is the ultimate decision making body of the Consortium. It may decide to delegate any of its decision-making responsibilities to others within the Consortium structure including, but not limited to, the Bureau and the Programme Manager.

The General Assembly defines and regularly reviews the overarching strategy as laid down by the Roadmap and policies necessary to implement the Consortium Work Plan in a manner consistent with the Grant Agreement and the Euratom Work Programme. The details of the strategy and Work Plans, and any supporting policies and procedures, are elaborated by the Bureau and the Programme Manager.

6.2.2. Composition

6.2.2.1 General composition

The General Assembly shall consist of one Representative of each Party. Each Party shall designate its Representative duly authorised to deliberate, negotiate and decide on all matters listed in Section 6.2.6 of this Consortium Agreement. The complete list of all Party's Representatives shall be held and updated by the Coordinator. Each of the Parties shall immediately give notice to the Coordinator in case of change of its representative.

6.2.2.2 Substitute or representation by proxy

In case the Representative is unable to attend the meeting, the respective Party may appoint a substitute or a proxy to attend and vote at any meeting. Such appointment or proxy shall be notified in advance to the Chairperson. Parties that are unable to send a Representative to a meeting shall send an explanation to the Chairperson.

6.2.2.3 Election of Chairperson and Co-Chairperson

The General Assembly shall elect its Chairperson and a Co-Chairperson from among the Parties for two years term renewable once. If a Representative of the Coordinator is not elected as Chairperson he/she shall act as Co-Chairperson. The Chairperson may appoint a secretary to the meeting.

If the persons elected as Chairperson/or Co-Chairperson, are, at the time of the said election, acting as Representatives of their Party, that Party shall replace their Representative in order for such persons to take up the role of Chairperson/Co-Chairperson.

6.2.2.4 Other participants to the General Assembly meetings

The Programme Manager and the chairperson of STAC shall be invited to attend the General Assembly meetings without voting rights.

The Director of Fusion for Energy and the Commission representative shall be invited as guests to the meetings. The General Assembly may invite other persons as guests to its meetings as it deems necessary.

Each Party may invite experts to attend the meeting within the limitation of one (1) expert per Party. In the case of CEA, UKAEA and ENEA an additional expert may be invited.

In any case the experts must be bound by equivalent obligations to confidentiality as stipulated in section 10 below. Such invitation shall be notified by the Party before the meeting of the General Assembly.

6.2.3 Preparation and organisation of meetings

6.2.3.1 Convening meetings

The Chairperson shall convene ordinary meetings of the General Assembly at least twice a year.

Additional meetings may be held if required. Extraordinary meetings for urgent issues may be convened at any time upon written request of any Party or on request of the Chairperson, the Coordinator or the Programme Manager.

6.2.3.2 Notice of a meeting

The Chairperson shall give notice in writing of a meeting to each Party as soon as possible and no later than two weeks preceding an ordinary meeting and one week preceding an extraordinary meeting.

6.2.3.3 Agenda of the meeting/Distribution of the Agenda

The Chairperson shall send each Party a written original agenda no later than two weeks preceding the meeting, or one week before an extraordinary meeting. The agenda shall be approved by the General Assembly and, amended if necessary and decided under the conditions hereinafter set out in section 6.2.3.4 and 6.2.3.5.

6.2.3.4 Adding agenda items

Any agenda item requiring a decision by the General Assembly must be identified as such on the agenda.

Any Party may add an item to the agenda by written notification to all of the other Parties no later than one week or 3 calendar days for an extraordinary meeting preceding the meeting. In the latter case Saturday and Sunday do not count towards the three days.

6.2.3.5 Adding a new agenda item

During a meeting of the General Assembly the Parties present or represented can unanimously agree to add a new item to the original agenda notwithstanding the provision in 6.2.3.4. A Party that was not represented in a meeting may retroactively object to any decision taken on such an item within two weeks following issue of the summary of decisions. In that case the decision shall be void and the agenda item shall be added to the agenda of the subsequent General Assembly meeting.

6.2.3.6 Supporting documents

Supporting documents related to topics that require a decision other than those raised according to 6.2.3.5 shall normally be distributed no later than one (1) week preceding the meeting.

6.2.3.7 Reserved

6.2.3.8 Participation by videoconference

Representatives may participate to the meetings of the General Assembly by teleconference or other telecommunication means. Such form of participation shall be subject to the agreement of the Chairperson.

6.2.3.9 Reserved

6.2.3.10 Closed sessions

When the Chairperson deems it necessary, or on request of a Party, the General Assembly may, regarding either all or part of the agenda, be convened as a closed session where participation may be limited to the Representatives.

6.2.4 Quorum, votes

6.2.4.1 Quorum

The General Assembly shall not deliberate and decide validly unless two-thirds (2/3) of the Parties Representatives are present or represented (quorum). If the quorum is not reached, the chairperson of the Consortium Body shall convene another ordinary meeting within 15 calendar days. If in this meeting the quorum is not reached once more, the chairperson shall convene an extraordinary meeting, which shall be entitled to decide even if less than the quorum of Members are present or represented.

6.2.4.2 Vote

The Parties represented in the General Assembly shall have the votes as set out below:

Party	Country	Votes
MPG, KIT and FZJ jointly	Germany	6
ENEA	Italy	5
CEA	France	5
UKAEA	UK	4
EPFL	Switzerland	4
CIEMAT	Spain	4
DIFFER	Netherlands	3
LPP-ERM-KMS	Belgium	3
VR	Sweden	3
IPPLM	Poland	3
VTT	Finland	2
IST	Portugal	2
ÖAW	Austria	2
IPP.CR	Czech Republic	2
NCSR	Greece	2
JSI	Slovenia	2
DTU	Denmark	2
IAP	Romania	2
EK-CER	Hungary	2
KIPT	Ukraine	1
CU	Slovakia	1
DCU	Ireland	1
ISSP-UL	Latvia	1
UT	Estonia	1
RBI	Croatia	1
INRNE	Bulgaria	1
LEI	Lithuania	1
UM	Malta	1

An entity becoming an additional Party to the Consortium Agreement shall have the votes identified in the accession document (Attachment 2).

A Party which has the General Assembly declared to be a Defaulting Party according to 6.2.6.1 may not vote on decisions about the consequences of such default (see section 4.2).

6.2.5 Summary of decisions and minutes of meetings

6.2.5.1 Summary of decisions

The summary of decisions shall be approved by all the Parties at the end of the meeting and be communicated to them in writing within three (3) calendar days for comments within one week.

6.2.5.2 Minutes of meeting

In addition to the text of the summary of decision already approved as stated in 6.2.5.1 at the end of the meeting the Chairperson shall produce written minutes of each meeting, which shall be the formal record of all decisions taken. He/She shall send draft minutes to all Parties within two (2) weeks of the meeting.

The minutes shall be considered as accepted if, within two weeks from sending, no Party has sent an objection in writing to the Chairperson with respect to the accuracy of the draft of the minutes. If a Party has sent objections the minutes shall be approved at the next meeting.

The Chairperson shall send the accepted minutes to all the Parties, and to the Coordinator, who shall safeguard them.

6.2.6 Decisions of the General Assembly

The General Assembly shall be free to act on its own initiative to formulate proposals and take decisions in accordance with the procedures set out herein. In addition, proposals made by the Bureau, the Coordinator and the Programme Manager shall be considered and decided upon by the General Assembly.

6.2.6.1 Standard decisions

Unless stated otherwise in this Consortium Agreement, the General Assembly shall decide by a two-thirds (2/3) majority of the votes cast (abstentions not counting) for all decisions concerning the implementation of the Consortium Work Plan and the execution of this Consortium Agreement, including but not limited to the following matters:

- Approval of possible updates of the Roadmap,
- Approval of the Consortium Work Plan,
- Approval of the Annual Work Plan,
- Proposals for amendments to Annex I and II of the Grant Agreement to be agreed by the Commission,
- Modification to Attachment 1 "Background Included" after proposal from the concerned Party/ies ;
- Modification to Attachment 3 "Organisational chart";
- Modification to Attachment 4 "Internal Funding Rules";
- Any addition to Attachment (5) "List of Third Parties for simplified transfer according to Section 8.3.2";
- Approval of a long term strategy on Education and training, including possible industry involvement,
- Approval of a Consortium internal communication plan to ensure that personnel at all levels (including the laboratories) understand the Consortium Strategy and are motivated to contribute to the joint programme in an effective manner,
- Decide on the size of the Programme Management Unit,
- Approval of Financial procedures (Budgeting and payment),

- Approval of procedures concerning the composition of the STAC
- Entry of a new Party to the Consortium and approval of the settlement on the conditions of the accession of such a new Party,
- Withdrawal of a Party from the Consortium and the approval of the settlement on the conditions of the withdrawal respecting legitimate interests of all parties,
- Identification of a breach by a Party of its obligations under this Consortium Agreement or the Grant Agreement,
- Declaration of a Party to be a Defaulting Party,
- Remedies to be performed by a Defaulting Party,
- Termination of a Defaulting Party's participation in the Consortium and measures relating thereto,
- Approval of the consortium Quality Management System (Quality Assurance and Quality Control),
- Decision on the consequences in case of a Force Majeure or exceptional circumstances as set out in 5.4, 5.7 and 5.8
- Proposal to the Commission for a change of the Coordinator,
- Proposal to the Commission for suspension of all or part of the Consortium Work Plan,
- Proposal to the Commission for termination of the Programme and the Consortium Agreement.

6.2.6.2 Decision on specific personnel matters

The General Assembly shall decide by three-fourth (3/4) majority of the votes cast (abstentions not counting) of the Parties present or represented on the following matters:

- Appointment and dismissal of Chairperson and Co-Chairperson of the General Assembly
- Appointment and dismissal of Programme Manager

In case a decision cannot be reached, the General Assembly shall discuss the matter with a view to reaching consensus. Concerns shall be discussed openly to allow finding a solution. If despite at least three unsuccessful trials the required majority cannot be reached the General Assembly shall decide by two-thirds majority on votes cast (abstentions not counting).

6.2.6.3 Secret ballot

In any case of personnel appointment, or otherwise upon the demand of three or more of the members present, voting shall be by secret ballot.

6.2.6.4 No voting of Chairperson and Co-Chairperson

The Chairperson and the Co-Chairperson will have no voting rights and are substituted by another Representative of their Party.

6.2.6.5 Written procedure

Any decision may also be taken without a meeting if the Chairperson or the Coordinator distributes to all Parties a written document. Provided that the proposal is accepted by the Parties in writing with the applicable majority of votes (see 6.2.6.1 and 6.2.6.2 above), the proposed decision(s) shall be adopted. In any case, the Chairperson shall forthwith inform in writing the Parties of the result of such written procedure and shall report it to the next meeting. Written procedure by Email is possible.

In case of refusal, the decision(s) may be included in the agenda of the following General Assembly meeting.

In addition, decisions by other appropriate electronic means may be taken if this is agreed unanimously.

6.2.6.6 Veto rights

A Party which can show that its own work, time for performance, costs, liabilities, intellectual property rights or other legitimate interests would be severely affected by a decision of the General Assembly may exercise a veto with respect to the corresponding decision or relevant part of the decision.

In case of exercise of veto, the Parties shall make every effort to resolve the matter which occasioned the veto to the general satisfaction of all Parties.

A Party may neither veto decision relating to its identification to be in breach of its obligations nor to its identification as a Defaulting Party. The Defaulting Party may not veto decisions relating to its participation and termination in the consortium or the consequences of them.

A Party requesting to leave the consortium may not veto decisions relating thereto.

6.2.6.7 Binding legal effect

Decisions taken during a meeting or by written procedure will only be binding once the relevant draft summary of decisions has been accepted according to Section 6.2.5 of this Consortium Agreement and no veto right was exercised pursuant to 6.2.6.6.

The General Assembly shall not be entitled to act or to make legally binding declarations on behalf of any other Party or on behalf of the Consortium. For the avoidance of doubt it is stated that this Consortium is not a legal entity.

6.3 Bureau

6.3.1 Role

The Bureau shall assist the General Assembly in the preparation for meetings and shall carry out any other tasks that the General Assembly may delegate to it. The Bureau shall seek a consensus when executing its tasks.

The Bureau shall:

- prepare the meetings, propose documents and decisions, and prepare the agenda of the General Assembly,
- act on behalf of the General Assembly in the interactions with the Programme Manager during the elaboration of proposals, for subsequent decision by the General Assembly, related to the Consortium Strategy, Work Plans, policies and procedures.
- monitor the proper execution and implementation of the decisions of the General Assembly
- take decisions by specific delegation of the General Assembly

The Bureau shall meet at least twice a year prior to the GA meetings or at the request of one of its members

6.3.2 Composition

6.3.2.1 The composition of the Bureau shall currently be as follows:

- One (1) representative of each of the “large size” Parties (CEA, UKAEA, MPG representing the German members, ENEA, EPFL, CIEMAT);

- Four (4) representatives of the “medium size” Parties (DIFFER, LPP-ERM-KMS, VR, IPPLM, VTT, IST, ÖAW, IPP.CR, NCSRD, JSI, DTU, IAP, EK-CER) to be elected among and by the relevant Parties;
- Two (2) representatives of the “small size” Parties (KIPT, CU, DCU, ISSP-UL, UT, RBI, INRNE, LEI, UCY, UM) to be elected among and by the relevant Parties.

If an entity becomes an additional Party to the Consortium Agreement, its classification as big, medium or smaller for the purposes of this sub-paragraph shall be identified in the accession document (Attachment 2).

The Programme Manager shall be invited as a guest to the Bureau meetings.

6.3.2.2 Chairperson and Co-Chairperson

The Chairperson and co-Chairperson of the GA will also act as Chairperson and co-Chairperson of the Bureau.

6.3.2.3 Other Participants to the Bureau meetings

The Bureau might invite guests to its meetings and appoint a secretary to the Bureau meetings.

6.3.3 Minutes of Bureau meetings

Minutes of Bureau meetings, once accepted, shall be sent by the Chairperson to the General Assembly Members for information.

6.4 Coordinator

6.4.1 Role of Coordinator

The Coordinator shall be the intermediary between the Parties and the Commission and shall perform all tasks assigned to it as described in the Grant Agreement and in this Consortium Agreement.

6.4.2 Responsibilities

6.4.2.1 In particular, the Coordinator shall be responsible for:

- Monitoring compliance by the Parties with their obligations under the Grant Agreement and the Consortium Agreement,
- Keeping the address list of Parties Representative and other contact persons updated and available,
- Collecting, reviewing and submitting information provided by the Programme Manager on the progress of the Consortium Work Plan and reports and other deliverables (including financial statements and related certification) to the Commission,
- Transmitting documents and information connected with the Consortium Work Plan to any other Parties concerned,
- Administering the financial contribution of the Commission and fulfilling the financial tasks described in Section 7.2,
- Providing, upon request, the Parties with official copies or originals of documents which are in the sole possession of the Coordinator when such copies or originals are necessary for the Parties to present claims,
- Presenting an annual report on the distribution of payments to the General Assembly

The coordinator may not delegate or subcontract the above-mentioned tasks to any other beneficiary or Third Party (including affiliated entities).

6.4.2.2 Submission of financial statement

If one or more of the Parties is late in submission of any financial statement requested by the Commission, the Coordinator may nevertheless submit the other Parties' financial statements and all other documents required by the Grant Agreement to the Commission in time.

6.4.2.3 Legal Competence of the Coordinator

The Coordinator shall not be entitled to act or to make legally binding declarations on behalf of any other Party or of the Consortium, unless explicitly stated otherwise in the Grant Agreement or this Consortium Agreement.

6.4.2.4 Competence of the Coordinator

The Coordinator shall not enlarge its role beyond the tasks specified in this Consortium Agreement and in the Grant Agreement.

6.4.2.5 Change of Coordinator

If the Coordinator fails in its coordination tasks as specified above and in the Grant Agreement, the General Assembly may propose to the Commission to change the Coordinator.

6.4.3 Coordinator Unit

The Coordinator may install a Coordinator Unit for executing the tasks described above and any additional tasks that might be assigned to him by the General Assembly with his agreement. Its budget shall be decided by the General Assembly on proposal by the Coordinator.

6.5 Programme Manager

6.5.1 Role

The Programme Manager shall be responsible to the General Assembly for the overall top-level planning, coordination and implementation of the Consortium Work Plan and its day-to day management. The Programme Manager shall be guided by the Bureau during the preparation of papers for decision by the General Assembly.

6.5.2 Responsibilities

6.5.2.1 The Programme Manager is responsible for:

- Preparing the Consortium Work Plan, assessing the need for amending the Consortium Work Plan and preparing the required amendments in close collaboration with the Parties and proposing it to the General Assembly,
- Proposing the Consortium Annual Work Plan, assessing the need for amendments and preparing the required amendments to the General Assembly,
- Proposing the allocation of resources in the Work Packages among the Parties to the General Assembly,
- Monitoring the effective and efficient implementation of the Programme and reporting it to the General Assembly

- Monitoring the progress of the individual missions of the Roadmap and reporting to the General Assembly at least once a year,
- Acting as Chair of the project boards or nominating his/her representative,
- Assessing, in interaction with STAC and the General Assembly, the need for updating the Roadmap,
- Preparing the content and timing of press releases and joint publications by the Consortium or proposed by the Commission in respect of the procedures of the Grant Agreement,
- Presenting to the General Assembly a proposal for a long term strategy on Education and training, including possible industry involvement,
- Proposing to the General Assembly a Consortium internal communication plan to ensure that personnel at all levels (including the laboratories) understand the Consortium Strategy and are motivated to contribute to the joint programme in an effective manner.

6.5.2.2 Assessment of scientific and technical reports

The Programme Manager shall assess and approve scientific and technical reports, on the basis on which the Coordinator will proceed to payments to Parties as defined in section 7.

6.5.2.3 Other tasks

The General Assembly may charge further tasks to the Programme Manager as required.

6.5.3 Programme Management Unit (PMU)

The Programme Manager shall be supported by a Programme Management Unit. Its size shall be decided by the General Assembly on proposal by the Programme Manager. The members of this Unit are selected under the responsibility of the Programme Manager who will seek the support of a panel as appropriate. The Nomination of a Head of Department of the Programme Management Unit shall be confirmed by the General Assembly with simple majority.

6.5.4 Staff selected to work in the PMU

Staff selected to work in the PMU is employed by a Consortium Party or by one of its Third Parties (Employer).

The Employer is solely responsible and solely liable for fulfilling the usual employer's duties such as (but not limited to):

- Income tax,
- social insurance
- Health Insurance
- Insurance for occupational injuries and occupational diseases

Consortium Parties using Third Parties to send staff to the PMU for working there have to pass on the above obligations to their Third Parties.

6.6 Scientific and Technical Advisory Committee (STAC)

6.6.1 Role

The Scientific and Technical Advisory Committee (STAC) is a committee advising the General Assembly on strategic and implementation issues related to the Consortium Work Plan and its coherence with respect to the Roadmap.

6.6.2 Composition

The size of the STAC will be decided by the General Assembly. Members to the STAC are appointed according to their competence as individuals and shall not act as representatives of their laboratories. STAC members are nominated according to a procedure to be approved by the General Assembly for a duration of two years (renewable once).

The committee shall propose its chairperson from among its members for appointment by the General Assembly.

6.6.3 Sub groups and/or external experts.

STAC can form sub groups and/or invite external experts where appropriate.

6.6.4 Rules of procedure

STAC shall define its own rules of procedures which have to comply with this Consortium Agreement and the Grant Agreement.

6.7. External Expert Advisory Board (EEAB)

An External Expert Advisory Board (EEAB) may be appointed by the General Assembly for Review of the Consortium Work Plan.

Any Party that enters into a contract with an External Expert for the EEAB will ensure that confidential information is protected by a non-disclosure agreement signed bilaterally between the Party and each EEAB member. Its terms shall be not less stringent than those stipulated in this Consortium Agreement, and it shall be concluded no later than 30 calendar days after their nomination or before any confidential information will be exchanged, whichever date is earlier.

Section 7: Financial provisions

7.1 General Principles

7.1.1 Internal Funding rates

Notwithstanding that under the Grant Agreement the Commission will reimburse eligible costs at a single rate for the whole Consortium, the Parties have decided that the Commission's reimbursement shall be distributed by the Coordinator to the Parties as amounts calculated on the basis of different funding rates for different types of costs categories and tasks. These rates internal to the Consortium are set out in Attachment 4 and they may be varied by decision of the General Assembly.

In any case where the Commission reduces the amount of reimbursement for one Party in accordance with the terms and conditions of the Grant Agreement, the amount of the adjustment actually applied by the Coordinator shall wherever possible be calculated by reference to these internal funding rates.

7.1.2 Budgeting

The estimated budget for the full duration of the action constitutes Annex II to the Grant Agreement. With the approval of the Annual Work Plan by the General Assembly the corresponding financial resources are allocated to the Parties. The General Assembly is informed quarterly of any budget update/revision.

The budget shall be compiled after evaluation of the proposals submitted by the Parties following the calls for participation for the implementation of the tasks issued by the Programme Manager, in accordance with the procedures in the Consortium Work Plan (Annex I Part B to the Grant Agreement).

Financial information provided by the Parties in their replies to calls for participation shall comply with the conditions of the Grant Agreement for eligibility of costs.

7.1.3 Justifying Costs

In accordance with its own usual accounting and management principles and practices, each Party shall be solely responsible for justifying its costs with respect to the Consortium Work Plan towards the Commission. Neither the Coordinator nor any of the other Parties shall be in any way liable or responsible for such justification of costs towards the Commission.

A Party shall be funded only for its tasks carried out in accordance with the Consortium Work Plan and in accordance with the Grant Agreement provisions.

7.1.4 Financial Consequences of the termination of the participation of a Party

A Party leaving the Consortium shall refund all payments it has received except the amount of contribution corresponding to the eligible costs accepted by the Commission or another contributor. Furthermore, a Defaulting Party shall, within the limits specified in Section 5.2 of this Consortium Agreement and the General Assembly's decision as laid down in 5.8, bear any reasonable and justifiable additional costs occurring to the other Parties in order to perform its and their tasks.

7.2 Payments

7.2.1 Responsibility

Payments to Parties are the exclusive tasks of the Coordinator.

In particular, the Coordinator shall:

- notify the Party concerned promptly of the date and of the composition of the amount transferred to its bank account, giving the relevant references
- perform diligently its tasks in the proper administration of any funds and in maintaining financial accounts
- keep the Community financial contributions to the Consortium Work Plan separated from its normal business accounts, its own assets and property.

Payments will be made by the Coordinator to Parties without unjustified delay.

7.2.2 Distribution of payments to the parties

The distribution by the Coordinator of pre-financing, interim and final payments to Parties, will be handled according to the following:

7.2.2.1 Distribution of Pre-financing

The amount of the "pre-financing" payments by the Commission, received after subtraction of the amount to be paid into the obligatory the Mutual Insurance Mechanism as stated in the Grant Agreement, shall be distributed between the Parties without unjustified delay by the Coordinator

upon receipt. The distribution shall be in proportion to the estimated budget allocated to each Party as foreseen in the Annual Work Plans on the basis of the internal rates set out in Attachment 4. The General Assembly may decide to withhold up to 1% of the pre-financing to reserve funds for the alleviation of cash-flow problems or for any other case the General Assembly deems necessary.

7.2.2.2 Distribution of interim payments

Interim payments shall be distributed between the Parties as amounts due by application of the internal rates set out in Attachment 4 to the eligible costs declared by the Parties in periodic individual financial statements accepted by the Commission, notwithstanding that those financial statements include a requested Commission contribution calculated in accordance with the single rate set out in the Grant Agreement. The distribution of the interim payments to Parties shall be in accordance with the principles and procedures set out below:

- Interim payments shall be distributed only in relation to the declared costs in the reporting period to which the interim payment relates. Interim payments will be released in full after achievement of all deliverables or sub-deliverables foreseen in the Annual Work Plan and in the Project Execution Plans. A deliverable is considered achieved after the related outcome is produced (e.g. document, report, demonstrator, pilot, prototype, design, software, diagram, etc.) and is formally approved by the work packages' leaders or the Programme Manager.
- A Party that reports less costs than foreseen in the budget to achieve its deliverables, will be funded by application of the internal funding rules to the duly justified eligible costs only. A Party that reports more costs to achieve its deliverables will be funded only up to the amount of funding contribution foreseen to achieve those deliverables, unless budget flexibility provisions are agreed by the General Assembly.
- A Party that provides Host Support will be funded by application of the internal funding rules to the duly justified eligible costs. Payments will be released in the same year when costs are incurred provided availability of funds in the Consortium balance.
- An advance payment shall be made by the Coordinator without unjustified delay upon receipt of the interim payment from the Commission.
- A first regular payment shall be made by the Coordinator in respect to those deliverables completed by the end of each reporting period or by a specified date in the following year.
- Further regular payments shall be made in respect to achievement at specified cut of dates of deliverables that were not completed at the time of the distribution of any previous payments.
- If the interim payment made by the Commission is higher than the amount to be distributed in the various payment cycles, the Coordinator shall retain the balance, for distribution at a later date.
- If the interim payment is lower than the amount to be distributed by application of the internal funding rates, and there are no or insufficient balances remaining from previous interim payments, the Coordinator shall allocate the shortfall to the Parties according to a procedure to be agreed by the General Assembly.

7.2.2.3 Payment of the final balance

Payment of final balance of the Consortium contribution shall be in accordance with procedures to be decided by the General Assembly.

7.2.3 Withholding of payments

In case that a Party does not provide the Coordinator and/or the Programme Manager with information, deliverables and other requested documentation needed for the implementation of the Grant Agreement or provides them late or non-compliant, such Parties shall not receive its

contribution, until it remedies such non delivery. This does not affect the Parties' right to withhold information if there is a legal reason to do, such as data protection rules or confidentiality and non-disclosure obligations.

The Coordinator is entitled to withhold any payments due to a Party identified by a responsible Consortium Body to be in breach of its obligations under this Consortium Agreement or the Grant Agreement or to a Beneficiary which has not yet signed this Consortium Agreement.

The Coordinator is equally entitled to withhold payments to a Party when this is suggested by or agreed with the Commission.

7.2.4 Recoveries of Payments

The Coordinator is entitled to recover payments already paid to a Defaulting Party, including its Third Parties.

The General Assembly will decide on a specific procedure on recoveries upon proposal by the Coordinator.

7.3 PMU Host Support

Organisations hosting Programme Management Unit personnel shall make available and be entitled to recover costs relating to the accommodation, plant, use of site and administrative, technical and social services that may reasonably be required by them to support the implementation of the Consortium Work Plan. These may include costs relating to scientific publications, including the costs for publication of articles in journals and those relating to the IOP database, costs relating to public relations, costs for EIROforum activities, and costs incurred in relation to international collaborations. Upon request from the Programme Manager the Hosts shall place contracts and orders for the procurement of scientific and technical products and services required by the Programme Management Unit for the implementation of the Consortium Work Plan.

Section 8: Results

8.1 Ownership of Results /Joint ownership

Results are owned by the beneficiaries that generate them.

However, two or more beneficiaries own results jointly if:

- they have jointly generated them and
- it is not possible to:
 - establish the respective contribution of each beneficiary, or
 - separate them for the purpose of applying for, obtaining or maintaining their protection.

The joint owners must agree — in writing — on the allocation and terms of exercise of their joint ownership ('joint ownership agreement'), to ensure compliance with their obligations under this Agreement.

Unless otherwise agreed in the joint ownership agreement or consortium agreement, each joint owner may grant non-exclusive licences to third parties to exploit the jointly-owned results (without any right to sub-license), if the other joint owners are given:

- at least 45 days advance notice and
- fair and reasonable compensation.

The joint owners may agree — in writing — to apply another regime than joint ownership.

If Third Parties (including employees and other personnel) may claim rights to the results, the beneficiary concerned must ensure that those rights can be exercised in a manner compatible with its obligations under this Agreement and the Grant Agreement.

8.2 Protection of Results

Beneficiaries which have received funding under the grant must adequately protect their results — for an appropriate period and with appropriate territorial coverage — if protection is possible and justified, taking into account all relevant considerations, including the prospects for commercial exploitation, the legitimate interests of the other beneficiaries and any other legitimate interests.

8.3 Transfer of Results

8.3.1 Transfer of ownership

The beneficiaries must ensure that their obligations under this Agreement and the Grant Agreement regarding their results are passed on to the new owner and that this new owner has the obligation to pass them on in any subsequent transfer.

Moreover, they must inform other beneficiaries with access rights of the transfer at least 45 days in advance (or less if agreed in writing), unless agreed otherwise in writing for specifically identified Third Parties including affiliated entities (see section 8.3.2 below and Attachment 5) or unless impossible under the applicable law. This notification must include sufficient information on the new owner to enable the beneficiaries concerned to assess the effects on their access rights. The other beneficiaries may object within 30 days of receiving notification (or less if agreed in writing), if they can show that the transfer would adversely affect their access rights. In this case, the transfer may not take place until agreement has been reached between the beneficiaries concerned.

8.3.2 Transfer to so called ‘specific identified Third Parties’

Beneficiaries may identify specific Third Parties it intends to transfer the ownership of its Results to in Attachment (5) to this Consortium Agreement. The other Parties hereby waive their right to prior notice and their right to object to a transfer to listed Third Parties according to the Grant Agreement.

8.3.3 Obligation to inform other Parties

The transferring Party shall, however, at the time of the transfer, inform the other Parties of such transfer and shall ensure that the rights of the other Parties will not be affected by such transfer.

Any addition to Attachment (5) after signature of this Agreement requires a decision of the General Assembly.

8.3.4 Obligation to inform in case of mergers and acquisitions

The Parties recognize that in the framework of a merger or an acquisition of an important part of its assets, it may be impossible under applicable EU and national laws on mergers and acquisitions for a Party to give the full 45 days prior notice for the transfer as foreseen in the Grant Agreement.

8.3.5 Granting licences

The beneficiaries may grant licences to their results (or otherwise give the right to exploit them), including on an exclusive basis, provided this does not affect compliance with their obligations under the Grant Agreement. Exclusive licences for results may be granted only if all the other beneficiaries concerned have waived their access rights.

8.3.6 Duration

The obligations above apply only for as long as other Parties still have - or still may request - Access Rights to the Results.

8.4 Dissemination

8.4.1 Dissemination and Confidentiality obligations

For the avoidance of doubt, nothing in this Section 8.4 has impact on the confidentiality obligations set out in Section 10.

8.4.2 Dissemination of own Results

During the Consortium Work Plan and for a period of 1 year after the end of the Consortium Work Plan, the dissemination of own Results by one or several Parties including but not restricted to publications and presentations, shall be governed by the procedure stipulated in the Grant Agreement and its Annex 5 Section Dissemination subject to the following provisions.

8.4.2.1 Prior Notice

A beneficiary that intends to disseminate its results must give at least 15 days advance notice to the other beneficiaries, together with sufficient information on the results it will disseminate.

Any other beneficiary may object in writing to the Coordinator and to the Party or Parties proposing the dissemination within 15 days of receiving notification, if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the results may not be disseminated unless appropriate steps are taken to safeguard those interests.

If no objection is made within the time limit stated above, the publication is permitted.

8.4.2.2 Justified Objections against publications

An objection is justified if

- (a) the protection of the objecting Party's Results or Background would be adversely affected;
- or
- (b) the objecting Party's legitimate interests in relation to the Results or Background would be significantly harmed.

The objection has to include a precise request for necessary modifications.

8.4.2.3 Settlement of Objections

If an objection has been raised the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not

unreasonably continue the opposition if appropriate measures are taken following the discussion.

The objecting Party can request a publication delay of not more than 90 calendar days from the time it raises such an objection. After 90 calendar days the publication is permitted,

8.4.3 Dissemination of another Party's unpublished Results or Background

A Party shall not include in any dissemination activity another Party's unpublished Results or Background without obtaining the owning Party's prior written approval. The same shall apply with regard to Affiliated Entities' Results.

8.4.4 Cooperation obligations

The Parties undertake to cooperate to allow the timely submission, examination, publication and defence of any dissertation or thesis for a degree which includes their Results or Background subject to the confidentiality and publication provisions agreed in this Consortium Agreement.

8.4.5 Use of names, logos or trademarks

Nothing in this Consortium Agreement shall be construed as conferring rights to use in advertising, publicity or otherwise the name of the Parties or any of their logos or trademarks without their prior written approval.

Section 9: Access Rights

9.1 Background included

9.1.1 Identified and agreed Background

In Attachment 1, the Parties have identified and agreed on the Background for the Consortium Work Plan and have also, where relevant, informed each other that access to specific Background is subject to restrictions or limits.

Anything not identified in Attachment 1 shall not be the object of Access Right obligations regarding Background.

9.1.2 Changes to the identified and agreed Background

Any Party may add further own Background to Attachment 1 by written notice to the other Parties. However, approval of the General Assembly is needed should a Party wish to modify or withdraw its Background in Attachment 1.

9.2 General Principles

9.2.1 Sole responsibility

Each Party shall implement its tasks in accordance with the Consortium Work Plan and shall bear sole responsibility for ensuring that its acts within the Consortium Work Plan do not knowingly infringe Third Party property rights.

9.2.2 Scope of Access Rights

Any Access Rights granted expressly exclude any rights to sublicense unless expressly stated otherwise.

9.2.3 Free access rights

Access Rights shall be free of any administrative transfer costs.

9.2.4 Non-exclusive Access Rights

Access Rights are granted on a non-exclusive basis.

9.2.5 Purpose

Results and Background shall be used only for the purposes for which Access Rights to it have been granted.

9.2.6 Procedure for requesting Access Rights

Requests to exercise access rights and the waiver of access rights must be in writing. The granting of Access Rights may be made conditional on the acceptance of specific conditions aimed at ensuring that these rights will be used only for the intended purpose and that appropriate confidentiality obligations are in place.

9.2.7 Additional prerequisite for requesting Access Rights

The requesting Party must show that the Access Rights are Needed.

9.3 Access Rights for implementation

Access Rights to Results and Background Needed for the performance of the own work of a Party under the Consortium Work Plan shall be granted on a royalty-free basis, unless otherwise agreed for Background in Attachment 1.

Such Access Rights shall also be granted to Affiliated Entities implementing tasks under the Consortium Work Plan.

9.4 Access Rights for Exploitation

9.4.1 Access Rights to Results

Access Rights to Results if Needed for Exploitation of a Party's own Results shall be granted on Fair and Reasonable conditions.

Access Rights to Results for internal research activities shall be granted on a royalty-free basis.

9.4.2 Access Rights to Background

Access Rights to Background if Needed for Exploitation of a Party's own Results, including for research on behalf of a Third Party, shall be granted on Fair and Reasonable conditions.

9.4.3 Time limit for requests for Access Rights

A request for Access Rights may be made up to twelve months after the end of the Consortium Work Plan or, in the case of Section 9.7.2.1.2, after the termination of the requesting Party's participation in the Consortium Work Plan.

9.5 Access Rights to entities under the same control

Entities under the same control have Access Rights under the conditions of the Grant Agreement Article 16.4 and its Annex 5, Section "Access rights to results and background, sub-section Access rights for entities under the same control".

Such Access Rights must be requested by the entity under the same control from the Party that holds the Background or Results. Alternatively, the Party granting the Access Rights may individually agree with the Party requesting the Access Rights to have the Access Rights include the right to sublicense to the latter's entity under the same control listed. Access Rights to an entity under the same control shall be granted on Fair and Reasonable conditions and upon written bilateral agreement.

Entities under the same control which obtain Access Rights in return fulfil all confidentiality obligations accepted by the Parties under the Grant Agreement or this Consortium Agreement as if such entities were Parties.

Access Rights may be refused to entities under the same control if such granting is contrary to the legitimate interests of the Party which owns the Background or the Results.

Access Rights granted to any entity under the same control are subject to the continuation of the Access Rights of the Party with whom it is under the same control, and shall automatically terminate upon termination of the Access Rights granted to such Party.

Upon cessation of the status as an entity under the same control, any Access Rights granted to such former entity under the same control shall lapse.

Further arrangements with entities under the same control may be negotiated in separate agreements.

9.6 Additional Access Rights

9.6.1 In addition to the Access Right mentioned under 9.3 Affiliated Entities shall enjoy all other Access Rights as Parties. However, Access Rights may be refused to Affiliated Entities, provided this does not prevent the Affiliated Entity from implementing its tasks.

9.6.2 Insofar as subcontractors do require Access Rights to fulfil their obligations towards the Party to which they are related, the respective Party shall submit a written request to the other Party/Parties concerned. The Party/Parties concerned shall decide if and to which extent Access Rights shall be granted.

9.6.3 Affiliated Entities and subcontractors who subject to 9.6.1 and 9.6.2 obtain Access Rights must fulfil all confidentiality and other obligations accepted by the Parties under the Grant Agreement or this Consortium Agreement as if such Affiliated Entities and subcontractors were Parties.

9.6.4 For the avoidance of doubt any grant of Access Rights not covered by the Grant Agreement or this Consortium Agreement shall be at the absolute discretion of the owning Party and subject to such terms and conditions as may be agreed between the owning and receiving Parties.

9.7 Access Rights for Parties entering or leaving the Consortium

9.7.1 New Parties entering the Consortium

As regards Results developed before the accession of the new Party, the new Party will be granted Access Rights on the conditions applying for Access Rights to Background

9.7.2 Parties leaving the Consortium

9.7.2.1 Access Rights granted to a leaving Party

9.7.2.1.1 Defaulting Party

Access Rights granted to a Defaulting Party and such Party's right to request Access Rights shall cease immediately upon receipt by the Defaulting Party of the formal notice of the decision of the General Assembly to terminate its participation in the Consortium.

9.7.2.1.2 Non-defaulting Party

A non-defaulting Party leaving voluntarily and with the other Parties' consent shall have Access Rights to the Results developed until the date of the termination of its participation. It may request Access Rights within the period of time specified in Section 9.4.3.

9.7.2.2 Access Rights to be granted by any leaving Party

Any Party leaving the Consortium Work Plan shall continue to grant Access Rights pursuant to the Grant Agreement and this Consortium Agreement as if it had remained a Party for the whole duration of the Consortium Work Plan.

9.8 Specific provisions for Access Rights to Software

9.8.1 Definitions relating to Software

"Application Programming Interface"

means the application programming interface materials and related documentation containing all data and information to allow skilled Software developers to create Software interfaces that interface or interact with other specified Software.

"Controlled Licence Terms" means terms in any licence that require that the use, copying, modification and/or distribution of Software or another work ("Work") and/or of any work that is a modified version of or is a derivative work of such Work (in each case, "Derivative Work") be subject, in whole or in part, to one or more of the following:

- (where the Work or Derivative Work is Software) that the Source Code or other formats preferred for modification be made available as of right to any third party on request, whether royalty-free or not;
- that permission to create modified versions or derivative works of the Work or Derivative Work be granted to any third party;
- that a royalty-free licence relating to the Work or Derivative Work be granted to any third party.

For the avoidance of doubt, any Software licence that merely permits (but does not require any of) the things mentioned in the indents above is not a Controlled Licence (and so is an Uncontrolled Licence).

"Object Code" means software in machine-readable, compiled and/or executable form including, but not limited to, byte code form and in form of machine-readable libraries used for linking procedures and functions to other software.

"Software Documentation" means software information, being technical information used, or useful in, or relating to the design, development, use or maintenance of any version of a software programme.

“Source Code” means software in human readable form normally used to make modifications to it including, but not limited to, comments and procedural code such as job control language and scripts to control compilation and installation.

9.8.2. General principles for Software

For the avoidance of doubt, the general provisions for Access Rights provided for in this Section 9 are applicable also to Software as far as not modified by this Section 9.8.

Parties' Access Rights to Software do not include any right to receive Source Code or Object Code ported to a certain hardware platform or any right to receive Source Code, Object Code or respective Software Documentation in any particular form or detail, but only as available from the Party granting the Access Rights.

The intended introduction of Intellectual Property (including, but not limited to Software) under Controlled Licence Terms in the Project requires the approval of the General Assembly to implement such introduction into the Consortium Plan.

9.8.3. Access to Software

Access Rights to Software which is Results shall comprise:

- Access to the Object Code; and,
- where normal use of such an Object Code requires an Application Programming Interface (hereafter API), Access to the Object Code and such an API; and,
- if a Party can show that the execution of its tasks under the Project or the Exploitation of its own Results is technically or legally impossible without Access to the Source Code, Access to the Source Code to the extent necessary.

Background shall only be provided in Object Code unless otherwise agreed between the Parties concerned.

9.8.4. Software licence and sublicensing rights

9.8.4.1 Object Code

9.8.4.1.1 Results - Rights of a Party

Where a Party has Access Rights to Object Code and/or API which is Results for Exploitation, such Access shall, in addition to the access for Exploitation foreseen in Section 9.4, as far as Needed for the Exploitation of the Party's own Results, comprise the right:

- to make an unlimited number of copies of Object Code and API; and
- to distribute, make available, market, sell and offer for sale such Object Code and API alone or as part of or in connection with products or services of the Party having the Access Rights;
- provided however that any product, process or service has been developed by the Party having the Access Rights in accordance with its rights to exploit Object Code and API for its own Results.

If it is intended to use the services of a third party for the purposes of this Section 9.8.4.1.1, the Parties concerned shall agree on the terms thereof with due observance of the interests of the Party granting the Access Rights as set out in Section 9.2 of this Consortium Agreement.

9.8.4.1.2 Results - Rights to grant sublicenses to end-users

In addition, Access Rights to Object Code shall, as far as Needed for the Exploitation of the Party's own Results, comprise the right to grant in the normal course of the relevant trade to end-user customers buying/using the product/services, a sublicense to the extent as necessary for the normal use of the relevant product or service to use the Object Code alone or as part of or in connection with or integrated into products and services of the Party having the Access Rights and, as far as technically essential:

- to maintain such product/service;
- to create for its own end-use interacting interoperable software in accordance with the Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs

9.8.4.1.3 Background

For the avoidance of doubt, where a Party has Access Rights to Object Code and/or API which is Background for Exploitation, Access Rights exclude the right to sublicense. Such sublicensing rights may, however, be negotiated between the Parties.

9.8.4.2: Source Code

9.8.4.2.1 Results - Rights of a Party

Where, in accordance with Section 9.8.3, a Party has Access Rights to Source Code which is Results for Exploitation, Access Rights to such Source Code, as far as Needed for the Exploitation of the Party's own Results, shall comprise a worldwide right to use, to make copies, to modify, to develop, to adapt Source Code for research, to create/market a product/process and to create/provide a service.

If it is intended to use the services of a third party for the purposes of this Section 9.8.4.2.1, the Parties shall agree on the terms thereof, with due observance of the interests of the Party granting the Access Rights as set out in Section 9.2 of this Consortium Agreement.

9.8.4.2.2 Results – Rights to grant sublicenses to end-users

In addition, Access Rights, as far as Needed for the Exploitation of the Party's own Results, shall comprise the right to sublicense such Source Code, but solely for purpose of adaptation, error correction, maintenance and/or support of the Software. Further sublicensing of Source Code is explicitly excluded.

9.8.4.2.3 Background

For the avoidance of doubt, where a Party has Access Rights to Source Code which is Background for Exploitation, Access Rights exclude the right to sublicense. Such sublicensing rights may, however, be negotiated between the Parties.

9.8.5 Specific formalities

Each sublicense granted according to the provisions of Section 9.8.4 shall be made by a traceable agreement specifying and protecting the proprietary rights of the Party or Parties concerned.

9.9 Access rights to a Party's Infrastructure

9.9.1 Ownership

Each Party shall remain owner of its infrastructure. No Party is obliged to replace its infrastructure unless agreed otherwise between the Parties.

9.9.2 Access rights

Access rights to a Party's Infrastructure Needed for the performance of the own work of a Party under the Consortium Work Plan shall be granted on a royalty-free basis.

Section 10: Non-disclosure of information

10.1 All information in whatever form or mode of communication, which is disclosed by a Party (the "Disclosing Party") to any other Party (the "Recipient") in connection with the Consortium Work Plan during its implementation and which has been explicitly marked as "confidential" at the time of disclosure, or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within 15 calendar days from oral disclosure at the latest as confidential information by the Disclosing Party, is "Confidential Information".

10.2 The Recipients hereby undertake in addition and without prejudice to any commitment of non-disclosure under the Grant Agreement, for a period of 5 years after the end of the Consortium Work Plan:

- not to use Confidential Information otherwise than for the purpose for which it was disclosed; - not to disclose Confidential Information without the prior written consent by the Disclosing Party;
- to ensure that internal distribution of Confidential Information by a Recipient shall take place on a strict need-to-know basis; and
- to return to the Disclosing Party, or destroy, on request all Confidential Information that has been disclosed to the Recipients including all copies thereof and to delete all information stored in a machine readable form to the extent practically possible. The Recipients may keep a copy to the extent it is required to keep, archive or store such Confidential Information because of compliance with applicable laws and regulations or for the proof of on-going obligations provided that the Recipient comply with the confidentiality obligations herein contained with respect to such copy for as long as the copy is retained.

10.3 The Recipients shall be responsible for the fulfilment of the above obligations on the part of their employees or third parties involved in the Consortium Work Plan and shall ensure that they remain so obliged, as far as legally possible, during and after the end of the Consortium Work Plan and/or after the termination of the contractual relationship with the employee or Third Party.

10.4 The above shall not apply for disclosure or use of Confidential Information, if and in so far as the Recipient can show that:

- the Confidential Information has become or becomes publicly available by means other than a breach of the Recipient's confidentiality obligations;
- the Disclosing Party subsequently informs the Recipient that the Confidential Information is no longer confidential;
- the Confidential Information is communicated to the Recipient without any obligation of confidentiality by a Third Party who is to the best knowledge of the Recipient in lawful possession thereof and under no obligation of confidentiality to the Disclosing Party;
- the disclosure or communication of the Confidential Information is foreseen by provisions of the Grant Agreement;

- the Confidential Information, at any time, was developed by the Recipient completely independently of any such disclosure by the Disclosing Party;
- the Confidential Information was already known to the Recipient prior to disclosure; or
- the disclosure of the Confidential Information is in compliance with mandatory applicable laws or regulations or with a court or administrative order.

10.5 The Recipient shall apply the same degree of care with regard to the Confidential Information disclosed within the scope of the Consortium Work Plan as with its own confidential and/or proprietary information, but in no case less than reasonable care.

10.6 Each Party shall promptly advise the other Party in writing of any unauthorised disclosure, misappropriation or misuse of Confidential Information after it becomes aware of such unauthorised disclosure, misappropriation or misuse.

10.7 If any Party becomes aware that it will be required, or is likely to be required, to disclose Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, it shall, to the extent it is lawfully able to do so, notify the Disclosing Party.

Section 11: Mobility of staff

11.1 The implementation of the Consortium Work Plan requires mobility of staff. The provisions in this section will apply mutatis mutandis also to personnel employed by Third Parties.

11.2 All staff shall in any case remain in the employment of the sending Party, which shall continue to pay their salaries and related contributions and benefits (see 6.5.4 above)

11.3 Except as otherwise stated and subject to applicable domestic regulations, the procedures and terms for the mobility of personnel by the employing Parties shall be governed by the Rules for Missions and Secondments approved by the General Assembly.

11.4 The personnel costs (i.e. salaries, fees and superannuation together with other applicable social security charges) of the staff on travel or seconded under the terms of this Agreement shall be reimbursed in compliance with Section 7 and Attachment 4.

11.5 Staff on travel or seconded under the terms of this Agreement shall be paid subsistence allowance and travel according to the provisions of the employer's usual practices on travel. For secondment of staff covered by the applicable Commission Decision authorizing the use of unit costs for the Fusion programme co-fund actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025), allowances according to the Commission Decision shall be paid. The associated payments shall be borne by the sending Party and reimbursed to the sending Party according to the Internal Funding Rules set out in Attachment 4.

Section 12 Safety, Permits, Licences and Export Control

12.1 The Parties shall be responsible for the installation and the operation of their plants in which the work required by the Consortium Work Plan is carried out, and shall ensure observance of appropriate national statutory provisions regarding protection and safety.

12.2 Each Party shall take the steps necessary to obtain all permits and licences provided for in the laws and regulations in force and required for the implementation of Consortium Work Plan Tasks in its establishments.

- 12.3** Each Partner shall comply with applicable national and international laws and regulations, in particular the applicable export control regulations and sanction programs. To facilitate each Partners' compliance with applicable export control regulations, if any of the commodities, software, technology, data or information provided by the disclosing Partner are classified or listed as subject to export or re-export restrictions, in the context of applicable export regulations, the disclosing Partner shall inform in writing of such export control classification identification.
- 12.3.1** Each Partner shall implement effective measures to ensure compliance with the applicable anti-terrorism regulations as well as with any applicable sanctions lists and to ensure that their respective employees, subcontractors and other partners, involved in this Agreement, are not companies, organizations or persons listed on the respective lists.
- 12.3.2** Each Partner shall neither use the commodities, software, technology, data or information furnished to it by the disclosing Partner directly or indirectly for weapons of mass destruction (nuclear, biological or chemical) and carriers thereof.
- 12.3.3** Export of commodities, software, technology, technical data or information about such commodities or data may be prohibited by law or depend on governmental authorization. If the government of either Partner denies, fails to grant, or revokes any import or export authorizations necessary for the performance of this Agreement, that Partner shall immediately notify the other Partner and neither Partner shall be responsible for performance or payment under this Agreement for directly or indirectly affected activities.
- 12.3.4** The Partners shall not be obligated to fulfil this agreement if such fulfilment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes or other sanctions.

Section 13: Miscellaneous

13.1 Attachments, inconsistencies and severability

This Consortium Agreement consists of this core text and the following attachments:

Attachment 1: Background included

Attachment 2: Accession document

Attachment 3: Organisational chart

Attachment 4: Internal Funding Rules

Attachment 5: List of Third Parties for simplified transfer according to Section 8.3.2

In case the terms of this Consortium Agreement are in conflict with the terms of the Grant Agreement, the terms of the latter shall prevail. .

In case of conflicts between the attachments and the core text of this Consortium Agreement, the latter shall prevail.

Should any provision of this Consortium Agreement become invalid, illegal or unenforceable, it shall not affect the validity of the remaining provisions of this Consortium Agreement. In such a case, the Parties concerned shall be entitled to request that a valid and practicable provision be negotiated which fulfils the purpose of the original provision.

13.2 No representation, partnership or agency

Except as otherwise provided in Section 6.4.2.3 no Party shall be entitled to act or to make legally binding declarations on behalf of any other Party or of the Consortium.

Nothing in this Consortium Agreement shall be deemed to constitute a joint venture, agency, partnership, interest grouping or any other kind of formal business grouping or entity between the Parties.

The Parties agree to take particular care to ensure, that the Consortium as such does not involve itself in legal affairs, which will implicate the construction of a legal body. For the same reason no company organ competent to act as representative of the Consortium in legal dealings is established.

If one or several Consortium Member(s) and/or their Third Parties, and/or Affiliated Entities wish to enter into multilateral international collaborations for the implementation of the Consortium Work Plan, the negotiation and drafting of such multilateral agreements shall be supported and coordinated by the Programme Manager.

Following the approval of such drafts by

a.) the General Assembly

and

b.) the Consortium Members involved

the entities involved can sign the agreement. For this they may decide to give *specific* power of attorney to the Programme Manager in order to simplify the signature process.

13.3 Notices and other communication

Any notice to be given under this Consortium Agreement shall be in writing to the addresses and recipients as listed in the most current address list kept by the Coordinator.

Formal notices:

If it is required in this Consortium Agreement (Sections 4.2, 9.7.2.1.1) that a formal notice, consent or approval shall be given, such notice shall be signed by an authorised Representative of a Party and shall either be served personally or sent by mail with recorded delivery or telefax with receipt acknowledgement.

Other communication:

Other communication between the Parties may also be effected by other means such as e-mail with acknowledgement of receipt, which fulfils the conditions of written form.

Any change of persons or contact details shall be notified immediately by the respective Party to the Coordinator. The address list shall be accessible to all Parties.

13.4. Management of access to electronic system exchange

During and for the implementation of the Consortium Work Plan, each Party shall:

- carry out all the tasks required to have access and to use the electronic exchange system such as but not limited to its registration into the Electronic Exchange System and the identification of the LEAR, F-SIGN, L-SIGN and all other roles defined in the Terms and conditions of use of the Electronic Exchange System,
- use the Electronic Exchange System where mandatory, especially for transmitting all documents required for the Fusion Programme,
- inform the Coordinator of the designation and the change of its Participant Contact.

The Coordinator shall designate the Participant Contact of each Party in accordance with their designation communicated to the Coordinator.

13.5 Assignment and amendments

Other than as set out in Section 8.3, no rights or obligations of the Parties arising from this Consortium Agreement may be assigned or transferred, in whole or in part, to any Third Party without the other Parties' prior formal approval.

Amendments and modifications to the text of this Consortium Agreement not explicitly listed in Section 6.2.6.1 require a separate written agreement to be signed between all Parties.

The General Assembly may by decision as set out in 6.2.6.1:

- Withdraw from Attachment 1 Background included and add to the Background excluded;
- Modify the organisational chart at Attachment 3;
- Modify the Funding Rules at Attachment 4.
- Add to Attachment (5) "List of Third Parties for simplified transfer according to Section 8.3.2".

Amendments and modifications to the text of this Consortium Agreement not explicitly listed above require a separate written agreement to be signed between all Parties.

13.6 Mandatory national law

Nothing in this Consortium Agreement shall be deemed to require a Party to breach any mandatory statutory law under which the Party is operating.

13.7 Language

This Consortium Agreement is drawn up in English, which language shall govern all documents, notices, meetings, arbitral proceedings and processes relative thereto.

13.8 Applicable law

This Consortium Agreement shall be construed in accordance with and governed by the laws of Belgium excluding its conflict of law provisions.

13.9 Settlement of disputes

The Parties shall endeavour to settle amicably disputes that might arise concerning this Agreement. The Chairperson of the General Assembly may take any measure to internally settle disputes.

Should any dispute between the Parties concerning the interpretation or application of this Consortium which is not settled amicably, shall at the request of any party to the dispute and with the agreement of all other involved parties, be submitted to arbitration procedure. In this case, the dispute shall be settled according to the rules of the Belgian Centre for Arbitration and Mediation (CEPANI). In cases where arbitration is not possible, the parties shall endeavour to agree a mutually acceptable process for resolving the dispute. If this fails, sole competent courts will be the courts of Brussels.

The place of arbitration procedure shall be Brussels.

Section 14: Signatures

AS WITNESS:

The Parties have caused this Consortium Agreement to be duly signed by the undersigned authorised representatives in separate signature pages the day and year first above written.

SIGNATURE PAGE

For **Max-Planck-Gesellschaft e.V.**, represented by **Max-Planck Institut für Plasmaphysik, Germany**

Date and place: _____

Signature: _____

Name of the representative: _____

Managing DirectorScientific Director

Title of the representative: _____

Max-Planck-Institute for PlasmaphysicsMax-Planck-Institute for Plasmaphysics

Address: _____

**Max-Planck-Institut
für Plasmaphysik**Boltzmannstraße 2
D 85748 Garching bei München

SIGNATURE PAGE

For **Agenzia nazionale per le nuove tecnologie l'energia e lo sviluppo economico sostenibile (ENEA), Italia**

Date and place: 22/06/2021, Frascati (Rome)

Signature: [REDACTED]

Name of the representative: [REDACTED]

Title of the representative: Director of Fusion and Technology for Nuclear Safety and Security Dept.

Address: Frascati Research Centre -- via Enrico Fermi, 45 - 00044 Frascati (Rome)

SIGNATURE PAGE

For **Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT), Spain**

Date and place: _____

Signature: _____

Name of the representative: _____

Title of the representative: Director General

Address: Avenida Complutense 40 (28040 Madrid) Spain



SIGNATURE PAGE

For **UNIVERZITA KOMENSKÉHO V BRATISLAVE, Slovakia**Date and place: 3 JUNE 2014 BRATISLAVA

Signature: _____

Name of the representative: _____

Title of the representative: _____ Rector

Address: Šafárikovo námestie 6, 814 99 Bratislava, Slovakia

SIGNATURE PAGE

For **Commissariat à l'énergie atomique et aux énergies alternatives (CEA), France**Date and place: 16 Jui. 2021

Signature: _____

Name of the representative: _____

Title of the representative: Administrateur Général

Address: _____

**Commissariat à l'énergie atomique
et aux énergies alternatives**
L'Administrateur Général
Bât. Siège - 447 - Saclay - pc 200
91191 GIF-SUR-YVETTE CEDEX

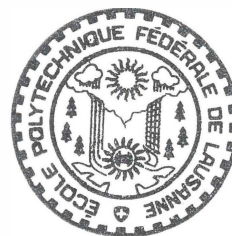
SIGNATURE PAGE

For **Dublin City University (DCU), Ireland**Date and place: 30 June 2021, Dublin, Ireland 

Signature: _____

Name of the representative:  _____Title of the representative: Professor, Head of EUROfusion Research UnitAddress: Dublin City University, Collins Avenue, Dublin 9, Ireland

SIGNATURE PAGE

For **Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland**Date and place: Lausanne, 9.06.21Signature: [REDACTED]Name of the representative: [REDACTED]Title of the representative: DIRECTOR, SWISS PLASMA CENTERAddress: STATION 13, 1015 LAUSANNE (CH)

SIGNATURE PAGE

For **Ecole Royale Militaire, Koninklijke Militaire School. Laboratoire de Physique des Plasmas, Laboratorium voor Plasmafysica (LPP-ERM-KMS), Belgium**

Date and place: Brussels,

Signature: _____

Name of the representative: _____

Title of the representative: Director of the Laboratory for Plasma Physics

Address: Avenue de la Renaissance 30, 1000 BRUSSELS, BELGIUM

Patrimoine de l'Ecole Royale Militaire/EURATOM
Laboratoire de Physique des Plasmas
Avenue de la Renaissance 30
BE-1000 BRUXELLES
TVA BE 0209 460 513

SIGNATURE PAGE

For **Forschungszentrum Jülich GmbH**, *represented by its Board of Directors*, for:
Institute of Energy and Climate Research - Plasma Physics IEK-4, established at
Wilhelm-Johnen-Straße, 52428 Jülich, Germany

16. 8. 2021



Vice-Chairman

16. 8. 2021



Deputy Director of the Institute of
Energy and Climate Research -
Plasma Physics (IEK-4)

SIGNATURE PAGE

For **National Science Center "Kharkov Institute of Physics and Technology" (KIPT),
Ukraine**

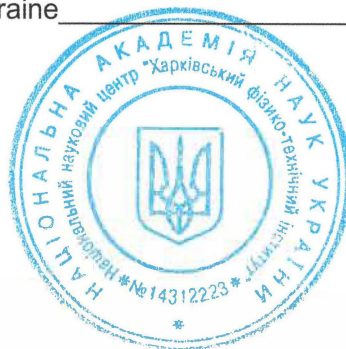
Date and place: ____28.05.2021____

Signature: _____

Name of the representative: _____

Title of the representative: _____Deputy Director General_____

Address: ____Akademichna str. 1, 61108 Kharkiv, Ukraine_____



SIGNATURE PAGE

For **Institute of Atomic Physics, Romania**Date and place: 28.06.2021 Magurele, Ilfov, Romania

Signature: _____

Name of the representative: _____

Title of the representative: Director GeneralAddress: 407 Atomistilor St. Magurele 077125, Ilfov, Romania

SIGNATURE PAGE

For **Institute of Plasma Physics v. v. i. (IPP.CR), Czech Republic**

Date and place: _____ 14/06/2021 _____

Signature: _____

Name of the representative: _____ Radomír Pánek _____

Title of the representative: _____ Director _____

Address: _____ Za Slovankou 3, Prague, 18200, CZECH REPUBLIC _____

SIGNATURE PAGE

For Instytut Fizyki Plazmy i Laserowej Mikrosyntezy im. Sylwestra Kaliskiego (IPPLM),
Poland

Date and place: 27.05.2021, WARSAW, POLAND

Signature: [REDACTED]

Name of the representative: [REDACTED]

Title of the representative: IPPLM DIRECTOR

Address: 23 HERY STREET, 01-497 WARSAW, POLAND



SIGNATURE PAGE

For Institute for Nuclear Research and Nuclear Energy, Bulgaria

Date and place: 07-June 2021

Signature: _____

Name of the representative: _____

Title of the representative: Assoc. Prof. Dr. DIRECTOR

Address: INRNE-BAS Boul. "Tzarigradsko Chaussee" №2
BG-1784 Sofia, BULGARIA

SIGNATURE PAGE

For **Instituto Superior Técnico (IST), Portugal**Date and place: Lisbon, 06th june 2021

Signature: _____

Name of the representative: _____


Title of the representative: PresidentAddress: Avenida Rovisco Pais, 1 1049-001 Lisbon

INICO LISBOA

SIGNATURE PAGE

For **JOŽEF STEFAN INSTITUTE (JSI), Slovenia**

Date and place: 27. 5. 2021

 Institut
"Jožef Stefan"
Ljubljana, Slovenija

13

Signature: _____

Name of the representative: _____

Title of the representative: Director

Address: Jamova cesta 39, 1000 Ljubljana, Slovenia

SIGNATURE PAGE

For **Karlsruher Institut für Technologie (KIT)**, GermanyDate and place: Karlsruhe, 16.6.2021

Signature: _____

Name of the representative: _____

Legal Affairs

Legal Affairs

Title of the representative: _____

Address: _____



Karlsruher Institut für Technologie
Campus Nord
Postfach 3640, 76021 Karlsruhe

SIGNATURE PAGE

For **Lithuanian Energy Institute, Lithuania**Date and place: 2021-06-18, Kaunas

Signature: _____

Name of the representative: _____

Title of the representative: _____

Address: BRESLAUJOS g. 3, LT-44403 KAUNAS, LITHUANIA

SIGNATURE PAGE

For **National Centre for Scientific Research "Demokritos"** (NCSR), Greece

Date and place: _____

Signature: _____

Name of the representative: _____

Title of the representative: _____

Address: _____

**Evangelos Karkaletsis****Vice President of
N.C.S.R. "DEMOKRITOS"**



EUROfusion

SIGNATURE PAGE

For Ruđer Bošković Institute (RBI), Croatia

Date and place: Zagreb, 02.07.2021

Signature: _____

Name of the representative: _____

Title of the representative: Director

Address: Bijenička cesta 54, 10000 Zagreb, Croatia



SIGNATURE PAGE**For Österreichische Akademie der Wissenschaften (ÖAW), Austria**Date and place: 24. June 2021, WIENSignature: [REDACTED]Name of the representative: [REDACTED] MSc (interim.)Title of the representative: Director Institute & Infrastructure (interim.)Address: 1010 VIENNA, DR. IGNAZ SEIPER-PLATZ 2

SIGNATURE PAGE

For **Stichting Nederlandse Wetenschappelijk Onderzoek instituten (DIFFER), The Netherlands**

Date and place: _____

Signature: _____

Name of the representative: _____

Title of the representative: _____ President Executive Board Netherlands Foundation of Scientific
Research Institutes

Address: _____ Winthontlaan 2, 3526 KV Utrecht

SIGNATURE PAGE

For **Swedish Research Council (VR), Sweden**Date and place: 21-06-2021 Stockholm

Signature: _____

Name of the representative: _____

Title of the representative: Director GeneralAddress: Västra Järnvägsgatan 3

SIGNATURE PAGE

For Technical University of Denmark (DTU), Department of Physics, Denmark

Date and place: 18.5.2021, Birkerød

Signature: _____

Name of the representative: _____

Title of the representative: Head of Department, DTU Physics

Address: Department of Physics
Building 311
Technical University of Denmark
DK-2800 Kgs. Lyngby, Denmark



EUROfusion

SIGNATURE PAGE

For Institute of Solid State Physics, University of Latvia (ISSP-UL), Latvia

Date and place: 26.05.2021, RIGA, LATVIA

Signature: _____

Name of the representative: _____

Title of the representative: DIRECTOR

Address: KENGARAGA 3, RIGA, LATVIA LV-1063

SIGNATURE PAGE

For **University of Malta, Malta**Date and place: 11/6/2021 Msida MaltaSignature: [REDACTED]Name of the representative: Professor [REDACTED]Title of the representative: RektorAddress: MSIDA MALTA

SIGNATURE PAGE

For **University of Tartu, Estonia**

Date and place: 28.05.2021, Tartu

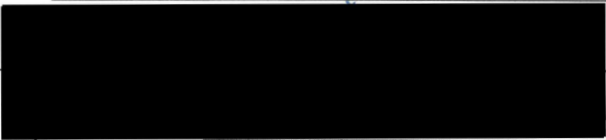
Signature: _____

Name of the representative: _____

Title of the representative: Head of Grant Office

Address: Ülikooli 18, 50090 Tartu, Estonia

SIGNATURE PAGE

For **VTT – TECHNICAL RESEARCH CENTRE OF FINLAND, Finland**Date and place: 2.6.2021 ESPOOSignature: Name of the Title of the representative: EXECUTIVE VICE PRESIDENTAddress: P.O. Box 1000, FI-02044 ESPOO FINLAND



SIGNATURE PAGE

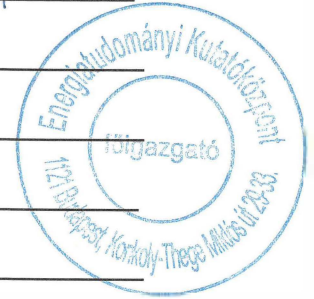
For **Centre for Energy Research (EK-CER), Hungary**Date and place: _____ Budapest 2021/06/03

Signature: _____

Name of the representative: _____

Title of the representative: _____ DIRECTOR GENERAL

Address: _____



SIGNATURE PAGE

For **United Kingdom Atomic Energy Authority, United Kingdom**Date and place: CULHAM, UK, 24 JUNE 2021Signature: [REDACTED]Name of the representative: [REDACTED]Title of the representative: CEOAddress: CULHAM SCIENCE CENTRE, ABINGDON, OX14 3DB, UK

[Attachment 1 - Background included]

'Background' means any data, know-how or information — whatever its form or nature (tangible or intangible), including any rights such as intellectual property rights — that is:

- (a) held by the beneficiaries before they acceded to the Grant Agreement and
- (b) needed to implement the action or exploit the results.

If background is subject to rights of a Third Party, the beneficiary concerned must ensure that it is able to comply with its obligations under the Agreement.

MPG

PARTY Max-Planck Institut für Plasmaphysik (MPG).

As to **Max-Planck Institut für Plasmaphysik**, it is agreed between the parties that, to the best of their knowledge

The following background is hereby identified and agreed upon for the Programme. Specific limitations and/or conditions, shall be as mentioned hereunder

1. All information that has been generated in the course of implementing the Contract of Association, EFDA, and the first funding period of EUROfusion.

With regard to the information generated hereunder the specific conditions mentioned below shall apply

Describe Background	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for exploitation
All results (data, know-how or information) that have been generated in the course of implementing contracts with F4E or ITER or other contracts that were 100 percent externally funded	Limitations and / or conditions according to these contracts.	
Licensed intellectual property rights: “Programmierbarer Pulsgenerator” (programmable pulse generator) “PID-Regler” “A high current rf driven source negative hydrogen ions”	Exclusive license has been granted – use only with permission of the licensee. Exclusive license (manufacture and distribution) has been granted – in individual cases consultation with licensee required. Non-exclusive licence has been granted – for the use of inventions, improvements and modifications of licensee which are not within the framework of the ITER project a permission of licensee is required.	Exclusive license has been granted – use only with permission of the licensee. Exclusive license (manufacture and distribution) has been granted – in individual cases consultation with licensee required. Non-exclusive licence has been granted – for the use of inventions, improvements and modifications of licensee which are not within the framework of the ITER project a permission of licensee is required.

<p>Specific data analysis tools, that are subject to an agreement with Seed eScience (England)</p> <p>“ASDEX pressure gauges”</p>	<p>Use only with permission of Seed eScience.</p> <p>Exclusive license has been granted – use only with permission of the licensee</p>	<p>Use only with permission of Seed eScience.</p> <p>Exclusive license has been granted – use only with permission of the licensee</p>
<p>In general,</p>	<p>Background described and listed is excluded from Access Rights in the following cases, even if not specifically mentioned in this column:</p> <ul style="list-style-type: none"> - Background that is covered under specific research agreements, grants/grant agreements and confidentiality agreements, which do not allow Access Rights at all or only after approval, - All other Background to which IPP, due to third party rights, is not able to grant Access Rights, - Background of which IPP is only co-owner, - Background on current patent applications. 	<p>Background described and listed is excluded from Access Rights in the following cases, even if not specifically mentioned in this column:</p> <ul style="list-style-type: none"> - Background that is covered under specific research agreements, grants/grant agreements and confidentiality agreements, which do not allow Access Rights at all or only after approval, - All other Background to which IPP, due to third party rights, is not able to grant Access Rights, - Background of which IPP is only co-owner, - Background on current patent applications.

Background needed to implement the action or exploit the results which is held by Linked Third Party GSI	Limitations:	Limitations:
a) Existing simulation codes (Ralef) used for the interaction of lasers with matter and ions and the knowhow on the exploitation of	- any and all Background of GSI not generated by its researchers and/or research unit(s) directly involved in carrying out the project EUROfusion; and/or	- any and all Background of GSI not generated by its researchers and/or research unit(s) directly involved in carrying out the project EUROfusion; and/or
b) Concept for the measurement of the energy loss in plasma as it was developed in the past for other experiments	- any and all Background that is generated by its researchers and/or research unit(s) over the duration of the Project but out of the scope thereof; and/or	- any and all Background that is generated by its researchers and/or research unit(s) over the duration of the Project but out of the scope thereof; and/or
c) Experimental equipment existing for the experimental areas of Z6 and PHELIX building	- any and all Background for which GSI, owing to third party rights - including its employees - (e. g. due to confidentiality agreements, licensing agreements, or restriction by terms and conditions or obligation of sponsors/third party funding) is not able to grant Access Rights or for which GSI needs to obtain prior approval of third parties in order to grant such Access Rights; and/or - any and all Background which forms the subject of granted patents and/or patent applications.	- any and all Background for which GSI, owing to third party rights - including its employees - (e. g. due to confidentiality agreements, licensing agreements, or restriction by terms and conditions or obligation of sponsors/third party funding) is not able to grant Access Rights or for which GSI needs to obtain prior approval of third parties in order to grant such Access Rights; and/or - any and all Background which forms the subject of granted patents and/or patent applications.

Max-Planck Institut für Plasmaphysik. - LTP GSI

As to **Max-Planck Institut für Plasmaphysik**, it is agreed between the parties that, to the best of their knowledge

The following background is hereby identified and agreed upon for the Programme. Specific limitations and/or conditions, shall be as mentioned hereunder

1. All information that has been generated in the course of implementing the Contract of Association, EFDA, and the first funding period of EUROfusion.

With regard to the information generated hereunder the specific conditions mentioned below shall apply

Describe Background	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for exploitation
All results (data, know-how or information) that have been generated in the course of implementing contracts with F4E or ITER or other contracts that were 100 percent externally funded	Limitations and / or conditions according to these contracts.	
Licensed intellectual property rights: “Programmierbarer Pulsgenerator” (programmable pulse generator) “PID-Regler” “A high current rf driven source negative hydrogen ions” Specific data analysis tools , that are subject to an agreement with Seed eScience (England) “ASDEX pressure gauges”	Exclusive license has been granted – use only with permission of the licensee. Exclusive license (manufacture and distribution) has been granted – in individual cases consultation with licensee required. Non-exclusive licence has been granted – for the use of inventions, improvements and modifications of licensee which are not within the framework of the ITER project a permission of licensee is required. Use only with permission of Seed eScience. Exclusive license has been granted – use only with permission of the licensee	Exclusive license has been granted – use only with permission of the licensee. Exclusive license (manufacture and distribution) has been granted – in individual cases consultation with licensee required. Non-exclusive licence has been granted – for the use of inventions, improvements and modifications of licensee which are not within the framework of the ITER project a permission of licensee is required. Use only with permission of Seed eScience. Exclusive license has been granted – use only with permission of the licensee

In general,	<p>Background described and listed is excluded from Access Rights in the following cases, even if not specifically mentioned in this column:</p> <ul style="list-style-type: none"> - Background that is covered under specific research agreements, grants/grant agreements and confidentiality agreements, which do not allow Access Rights at all or only after approval, - All other Background to which IPP, due to third party rights, is not able to grant Access Rights, - Background of which IPP is only co-owner, - Background on current patent applications. 	<p>Background described and listed is excluded from Access Rights in the following cases, even if not specifically mentioned in this column:</p> <ul style="list-style-type: none"> - Background that is covered under specific research agreements, grants/grant agreements and confidentiality agreements, which do not allow Access Rights at all or only after approval, - All other Background to which IPP, due to third party rights, is not able to grant Access Rights, - Background of which IPP is only co-owner, - Background on current patent applications.
Background regarding GSI:		
No data, know-how or information of GSI shall be needed by another Party for implementation of the Project (Article 25.2 Grant Agreement) or Exploitation of that other Party's Results (Article 25.3 Grant Agreement)	<p>Limitations:</p> <ul style="list-style-type: none"> - any and all Background of GSI not generated by its researchers and/or research unit(s) directly involved in carrying out the project EUROfusion; and/or - any and all Background that is generated by its researchers and/or research unit(s) over the duration of the Project but out of the scope thereof; and/or - any and all Background for which GSI, owing to third party rights - including its employees - (e. g. due to confidentiality agreements, licensing agreements, or restriction by terms and conditions or obligation of 	<ul style="list-style-type: none"> - any and all Background of GSI not generated by its researchers and/or research unit(s) directly involved in carrying out the project EUROfusion; and/or - any and all Background that is generated by its researchers and/or research unit(s) over the duration of the Project but out of the scope thereof; and/or - any and all Background for which GSI, owing to third party rights - including its employees - (e. g. due to confidentiality agreements, licensing agreements, or restriction by terms and conditions or

	<p>sponsors/third party funding) is not able to grant Access Rights or for which GSI needs to obtain prior approval of third parties in order to grant such Access Rights; and/or</p> <p>- any and all Background which forms the subject of granted patents and/or patent applications.</p>	<p>obligation of sponsors/third party funding) is not able to grant Access Rights or for which GSI needs to obtain prior approval of third parties in order to grant such Access Rights; and/or</p> <p>- any and all Background which forms the subject of granted patents and/or patent applications.</p>
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FZJ

PARTY Forschungszentrum Jülich GmbH, Germany (FZJ)

As to FZJ it is agreed between the Parties that, to the best of their knowledge,

The following Background is hereby identified and agreed upon for the Project.

Describe Background:

1) Materials for Fusion Applications:

- a) Procedures for production, alloy composition & methodology pertaining to self-passivating alloys [1 and references therein];
- b) Procedures for production of Wf/W production via powder metallurgy. Including methods for interface production – Sintering Procedures (SPS, FAST, HIP) [1 and references therein];
- c) Procedures for production of Wf/W production via chemical vapour deposition and associated processes in the CVD Device (WILMA) [1 and references therein];
- d) Procedures for production and Design Functionally Graded Materials between Tungsten and Steel. Including Sintering Methods. Joining methods and EDS (Electro Discharge Sintering) [1 and references therein];
- e) Methodology and Production for Fibre Based PFCs e.g. μ -structured Tungsten [1 and references therein, 2];
- f) Methodology of fibre based joints, their production and underlying concepts for joining tungsten, steel, copper [1 and references therein];
- g) Concept for permeation barriers including the concept of low activation oxide ceramics application;

According to the following references:

[1] <https://doi.org/10.1016/j.surfcoat.2019.06.065>

[2] <https://www.sciencedirect.com/science/article/pii/S235217912030065X>

Specific limitations and/or conditions for implementation: none

Specific limitations and/or conditions for Exploitation: none

2) Development of Optical Diagnostics for Fusion Plasmas:

- a) Method for in-situ determining the reflectivity of an optical mirror during a cleaning process [3, 4];

According to the following references:

[3] [44th EPS Conference on Plasma Physics 41F \(2017\) O2.304](#)

[4] Patents WO2017144034A1 (Germany), EP3420345A1 (Europe) and US2019064075A1 (USA)

b) Concept for the actuator of a shutter for port plugs, avoiding sliding contacts in vacuum [5, 6];

According to the following references:

[5] <https://doi.org/10.1016/j.fusengdes.2013.02.012>

[6] Patents WO2012034551A2 (Germany); EP2616692A2 (Europe)

3. Atomic data for CXRS and BES [9]

According to the following reference:

[9] <https://doi.org/10.1088/0953-4075/43/1/011002>

Specific limitations and/or conditions for implementation: none

Specific limitations and/or conditions for Exploitation: none.

ENEA

PARTY (ENEA)

As to ENEA, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for exploitation
Patent Device per recovering tritium from gas mixtures		To be decided case by case
Patent "Membrane reactor for the treatment of gases containing tritium" Domanda di Brevetto Internazionale European Patent Grant EP 2582618 dated 14.05.2014		To be decided case by case
Patent "Process for the detritiation of soft housekeeping waste and plant thereof European Patent Grant EP 2586034 dated 25.03.2015		To be decided case by case
"Processo a supporto poroso per l'estrazione di idrogeno ed isotopi da metalli liquidi, e relativo apparato", Process for extracting hydrogen isotopes from liquid metals by means of porous media, and apparatus therefor, Italian Patent Grant n. 102018000003185 dated 23.03.2020		To be decided case by case
Sistema di scansione elicoidale per Plasma Facing Units / Helical Scanning System for Plasma Facing Units, Italian Patent Grant n.102016000079968	To be decided case by case	To be decided case by case

Specific technology used in LIFUS5 facility to trigger the water injection in PbLi alloy		To be decided case by case
Specific measurement techniques and evaluation methods of interaction between water and PbLi alloy		To be decided case by case
Specific measure of Hydrogen isotopes concentration in the PbLi alloy		To be decided case by case
Specific knowledge of mass transfer processes in non-isothermal PbLi alloy		To be decided case by case
Detailed chemical composition and thermo-mechanical treatments to obtain fine secondary segregation in high creep resistant steels		To be decided case by case
Advanced-D1S three-dimensional code for shutdown dose rate calculations	To be defined case by case	To be decided case by case
In-depth design knowledge of Tritium Extraction Systems for helium circuits and PbLi loops, gained in several years of design activities at ENEA-Brasimone Research Center.		To be decided case by case
Specific background in the design modeling and the experimental qualification of Gas Liquid Contactor technology (gained through several testing campaigns on TRIEX facility).		To be decided case by case
Background in the design, customization, experimental qualification and fabrication of Tritium sensors for Tritium measurement in gas phase.		To be decided case by case
In-depth design knowledge of Tritium Removal Systems based on ZrCo getter beds technology.		To be decided case by case
Background in the design of Tritium Accountancy Systems (TAS)		To be decided case by case

Background in the design of neutronic measurements systems (Neutron Activation System - NAS)		To be decided case by case
In-depth design knowledge of purification technologies (reducing beds, heated getters oxidizers, adsorption columns) for pressurized helium as coolant of fusion reactor breeding blankets.		To be decided case by case
Specific development of very high melting protective coatings through Detonation Gun	To be decided case by case	To be decided case by case
Original device, technology and applicative development of ALD (Atomic Layer Deposition) for tritium permeation barriers		No access for exploitation
Applicative development of PLD (Pulsed Laser Deposition) for tritium permeation barriers		To be decided case by case
Know-how on PbLi corrosion of steels, mass transfer and impurities removal		To be decided case by case
Specific development of Hydrogen sensors		To be decided case by case
Original device, technology and applicative development to perform mechanical tests of steel specimens within liquid metal environment		To be decided case by case
Detailed chemical composition and thermo-mechanical treatments to get RAFM steel resisting to neutron irradiation embrittlement		To be decided case by case
Know-how on the high-power bolometric load and absorber coatings: in particular (1) the patent "Bolometric device with receiving cavity for measuring the power of a beam of high frequency microwaves and process for coating the internal surface		To be decided case by case

of said cavity" (N° PCT/EP2006/050605 01/02/2006) valid in US; (2) the Cr ₂ O ₃ based coating.		
European Patent "Catalyst support material in Ni3Al for catalytic converters and the like for use at high temperature", Patent number: IT1.263.003, 23.07.96	To be decided case by case	No access for exploitation
Patent "Process for the production of a Titanium alloy-base, Titanium carbide strengthened composite, and strengthened composite thereby obtained", PCT/IT02/00358, date 03.06.05, US-Patent Application No: 2005/0008,524. Jan 13, 2005, and WO 2002/101104.	To be decided case by case	No access for exploitation
Patent "Nickel-based superalloy, mechanical component made of the above mentioned super alloy, piece of turbomachinery which includes the above mentioned component and related methods " US-Patent: 2011/0165,012, JULY 7, 2011	To be decided case by case	No access for exploitation
Steel production: In-depth knowledge of the different fabrication process of nuclear steels Understanding major issues associated to the different fabrication process of nuclear steels Understanding the limitations of each fabrication process of nuclear steels Understanding the impact of the steps given in the fabrication process on the	To be decided case by case	No access for exploitation

physical and mechanical properties of the final product		
Physical and Mechanical properties assessment: In-depth knowledge of the techniques for mechanical characterisation of the steels In-depth knowledge of the techniques for physical characterisation of the steels Understanding the limitation and the meaning of the data obtained by the different techniques Data base creation	To be decided case by case	No access for exploitation
Microstructure analysis In-depth knowledge of the techniques for microstructural characterisation of the steels Understanding the limitation and the meaning of the data obtained by the different techniques	To be decided case by case	No access for exploitation
Using experimental data was found a method to predict the IVVS optical radar viewing and measurement accuracy in different condition of use (materials, inclination angles, distance) all was modeled with mathematical quality function.	To be decided case by case	To be decided case by case
An algorithmic method was developed and tested to recover vibration effects of the probe in images taken by IVVS. The algorithm, which use a single axis accelerometer information work in post processing recovering vibration effects which affect the images. Although tested with a single axis the method is extensible to a tri-axial vibrating sensor.	To be decided case by case	To be decided case by case

A method has been developed and implemented for the test of a piezo-ceramic motor under high magnetic field (up 10 T). The experimental knowledge of the behavior of the piezo-ceramic technology under high magnetic field has been acquired.	To be decided case by case	To be decided case by case
A method has been developed and implemented for the test of a piezo-ceramic motor under high Gamma flux and dose (up 5 MGy). The experimental knowledge of the behavior of the piezo-ceramic technology under Gamma flux and dose has been acquired.	To be decided case by case	To be decided case by case
A method has been developed and implemented for the test of a piezo-ceramic motor under high Neutro flux and dose (up $2.7 \cdot 10^{17} \text{n/cm}^2$). The experimental knowledge of the behavior of the piezo-ceramic technology under Neutron flux and dose has been acquired.	To be decided case by case	To be decided case by case
Fusion Component Failure Rate database - The data collection on statistical data to use in probabilistic analyses related to fusion plants.	To be decided case by case	To be decided case by case
Specific knowledge on the operation of the Frascati Neutron Generator	To be decided case by case	To be decided case by case
Specific knowledge on the development of Self Powered Neutron Detectors for fast neutrons	To be decided case by case	To be decided case by case
Specific knowledge on the development of diamond detectors for neutron detection	To be decided case by case	To be decided case by case
ACPsourceETL: computational tool for the	To be decided case by case	To be decided case by case

generation of the Activated Corrosion Products 3D gamma source for MCNP simulations.		
A joining technique has been developed to join by diffusion bonding the interlayer of W monoblocks made of CuCrZr alloy instead of pure copper. Patent pending		To be decided case by case
A computational optimization method for the determination of the graded functional interlayer composition for plasma facing components	To be decided case by case	To be decided case by case
Oven for the diffusion bonding process that exploits the Joule effect heating limiting the time and favoring the diffusion process.	To be decided case by case	To be decided case by case
UT scan system from inside tubes with helical path and acquisition devices mounted on the rotation shaft of the probe without the use of sliding or rotating contacts.	To be decided case by case	To be decided case by case

This represents the status at the time of signature of this Consortium Agreement.

CEA

PARTY (CEA)

As to CEA, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Consortium Work Plan 2021 - 2025 ~~Project~~. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe background	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for Exploitation
<ul style="list-style-type: none"> - METIS code : fast integrated modelling code - NEMO, SPOT, EVE, C3P0, LUKE : Heating and Current Drive source codes 	<p>Access to the source code via GIT repositories hosted by ITER Organization, a detailed licence is stored there and deemed to be accepted upon downloading of the software.</p> <p>A CEA reference on the software has to be included in every publication for which the software is used.</p>	<p>Access to the source code via GIT repositories hosted by ITER Organization, a detailed licence is stored there and deemed to be accepted upon downloading of the software.</p>
<ul style="list-style-type: none"> - SOLEDGE2D, SOLEDGE3X, TOKAM3X, STYX : 2D and 3D edge plasma transport and fluid turbulence solvers 	<p>Software co-owned with third parties: accessible under specific licence agreement.</p>	
<ul style="list-style-type: none"> - CRONOS code : integrated modelling code - SYCOMORE code : system code for reactor design 	<p>Accessible to EUROfusion partners upon demand to CEA – specific licences will be issued on a case-by-case basis.</p>	<p>Accessible to EUROfusion partners upon demand to CEA – specific licences will be issued on a case-by-case basis.</p>
<ul style="list-style-type: none"> - GYSELA : 5D gyrokinetic code - TERESA : 4D gyrokinetic code (reduced version of GYSELA) - QUALIKIZ : first-principles based fast core transport model - ALOHA : LH antenna electromagnetic solver 	<p>Open Source licences</p>	<p>Open Source licences</p>
<p>ThermaVIP software platform to manage the acquisition and analysis of the IR/visible diagnostics. The last version is v3.4.6</p>	<p>Right of use upon demand to the CEA. This right does not include a right of modification unless otherwise agreed. A CEA reference on the software has to be included</p>	<p>Right of use for R&D purpose in the fusion domain. For commercial exploitation, specific licences will be issued on a case-by-case basis.</p>

	in every publication for which the software is used.	
PFCflux software to compute heating flux induced by plasma-wall interaction through an optical model based. A 3D modeling of plasma and wall components enables to simulate component misalignment and periodic plasma effect (eg ripple). A Python library is used to import experience parameters easily. The last software version is v2.12 (C++/Python).	Right of use upon demand to the CEA. This right does not include a right of modification unless otherwise agreed. A CEA reference on the software has to be included in every publication for which the software is used.	Right of use for R&D purpose in the fusion domain. For commercial exploitation, specific licences will be issued on a case-by-case basis.
MIHMS software to simulate the diffusion and trapping of Hydrogen isotopes as well as degassing flow of surfaces. It is 1D code which can use some models not used by FESTIM such as multi-trapping. (Fortran 90).	Right of use upon demand to the CEA. This right does not include a right of modification unless otherwise agreed. A CEA reference on the software has to be included in every publication for which the software is used.	Right of use for R&D purpose in the fusion domain. For commercial exploitation, specific licences will be issued on a case-by-case basis.
FESTIM software to simulate the diffusion and trapping of Hydrogen isotopes as well as heat transfer in 1/2/3D multi-material domains, which allows to simulate laboratories experiments as well as PFCs in realistic tokamak environment. The last version software is 0.5.1 (C++/Python)	Right of use upon demand to the CEA. This right does not include a right of modification unless otherwise agreed. A CEA reference on the software has to be included in every publication for which the software is used.	Right of use for R&D purpose in the fusion domain. For commercial exploitation, specific licences will be issued on a case-by-case basis.
Eurofer and RAFM steels database	The relational database structure and runtime solution, where properties of Reduced Activation Ferritic/martensitic steels are entered, is intellectual properties of CEA developed under contract with F4E. The software cannot be distributed unless an agreement exists between CEA and the requesting party. The actual data used in the databases are from the	Restrictions of limits, including those imposed by the rights of F4E, may apply.

	laboratories. Practically all the Eurofer steel data have been obtained under the EURATOM fusion contracts. As such they are first use going to the laboratory who has generated them.	
TRIPOLI-4 Monte Carlo code for neutronic analyses	<p>TRIPOLI-4 version 8.1 and version 9S are delivered by the NEA DB. These code licenses are single-establishment, single-user and CEA does not request any fee for them.</p> <p>For versions that are not distributed by the NEA DB, distribution may be directly done by CEA, provided that an agreement exists between CEA and the requesting party.</p> <p>The licenses cover the evaluation of the code, teaching and R&D activities, including ITER, DEMO and related programs (being understood as R&D).</p> <p>The source code is NOT delivered on a standard basis, as from CEA IP protected policy and QA program.</p> <p>Any third party willing to have access to the source code shall contact CEA.</p> <p>Nuclear data files are outside the scope of this statement.</p>	<p>New functionalities implemented under the scope of the contract can be delivered only as an executable version of the code.</p> <p>Test cases of new functionalities implemented under the scope of the contract can be delivered on demand.</p>
Manufacturing Techniques	Know-how and welding process specifications acquired in the development of manufacturing techniques for the ITER-TBMs are intellectual properties of F4E and cannot in any case be distributed by CEA.	Know-how and welding process specifications acquired in the development of manufacturing techniques for the ITER-TBMs are intellectual properties of F4E and cannot in any case be distributed by CEA.
RCC-MRx code	RCC-MRx rules could be used by anyone owning the code. RCC-MRx code is not property of CEA. CEA is not	RCC-MRx rules could be used by anyone owning the code. RCC-MRx code is not property of CEA. CEA is not

	allowed to distribute the code or any publication related to the development.	allowed to distribute the code or any publication related to the development.
CEA Simcryogenics library: this library developed at CEA aims at generating model-based control schemes for cryogenic plants and cryo-distributions that are subject to high disturbances (such as the pulsed heat loads in fusion reactors or particle accelerators).	Full version of Simcryogenics library provided only to the first-rank partners. The source code is not delivered on a standard basis as from CEA IP protection policy. The licenses cover the evaluation of the library, training and R&D activities of JT-60SA, ITER, DEMO and related programs (being understood as R&D).	The new functionalities of Simcryogenics library under the scope of contract can be delivered only encrypted (no access to the code source).
Advanced control of cryogenic systems: CEA has a background in advanced control of cryogenic systems for large-scale scientific research infrastructures. Patent EP2615394A1, US20130180275A1 "Procédé de commande d'un dispositif de compression d'un fluide caloporteur d'une machine cryogénique" Patent WO2010109091A1 "Système cryogénique pour le refroidissement d'un consommateur présentant une charge thermique variable dans le temps"	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable.	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable.
Pellet injection system : CEA has relevant expertise in pellet formation, acceleration and injection from modeling to system operation. This includes pellet formation with in-situ condensation and extrusion technologies and pellet acceleration with single and two-stage gas guns.	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable.	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable.

Patent EP2682695 – Device and method for extruding a solid body		
<p>Cryogenic instrumentation: CEA has developed specific instrumentation for temperature control and measurements up to 1 kHz for cryogenic devices using the developed CABTR (Centrale d'Acquisition Basse Température Rapide) and FlexCryo (Flexible Cryogenics for temperature control and measurements)</p> <p>Patent FR3016036 - Method for managing a supply of current or voltage of a resistive temperature sensor arranged inside a cryogenic enclosure</p>	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable
Design and production of cryogenic devices for research infrastructures: CEA has a long experience, specific knowhow and knowledge in development, design and operation of cryogenic devices for more than 50 years.		
<p>Numerical codes for beam dynamics simulations (TraceWin, Partran, Toutatis)</p> <p>Specific expertise in design, realization and operation of superconducting accelerators: Superconducting RF cavities (design, fabrication), cavity preparation (chemical process including frequency adjustment, treatments), biased RF power couplers (design, fabrication), frequency tuners (Saclay type tuners), fully equipped cryomodules (design)</p> <p>Design, fabrication and operation of high intensity</p>	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable.	Access under fair and reasonable conditions, respecting the EUROfusion Grant Agreement and Broader Approach clauses when applicable.

<p>Injectors: components designed and fabricated in the frame of IPHI on which are based the IFMIF/EVEDA and DONES injectors' designs</p> <p>Design and fabrication of ionization profile monitor developed in the frame of IFMIF-EVEDA on which is based the DONES design</p> <p>And potentially: Design and fabrication of beam neutron loss monitors using Micromegas detectors and associated front-end electronic (rise-time < 1ns, very low noise, transport of signals over 50 m)</p>		
<p>All results (data, know-how or information) that have been generated in the course of implementing contracts with F4E or ITER or other contracts that were 100 percent externally funded</p>	<p>Limitations and / or conditions according to these contracts.</p>	

This represents the status at the time of signature of this Consortium Agreement.

EPFL

PARTY : Ecole polytechnique fédérale de Lausanne (EPFL)

As to EPFL, it is agreed between the Parties that, to the best of their knowledge, the following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

1. Information that has been generated in the course of implementing the Contract of Association, the EFDA and the H2020 EUROfusion grant 633053.

Specific limitations and/or conditions for implementation and exploitation:

Access to EPFL software is granted provided that the user signs a User Agreement with EPFL.

Modalities of access to background that is co-owned by EPFL will have to be agreed with the other owners as well.

2. Information that has been generated in the course of implementing contracts other than those mentioned under the previous point. This includes in particular contracts signed with ITER organization and Fusion for Energy.

Specific limitations and/or conditions for implementation and exploitation: Limitations and/or conditions according to these contracts

This represents the status at the time of signature of this Consortium Agreement.

CIEMAT

PARTY (CIEMAT_Ceit-BRTA)

As to CIEMAT_Ceit-BRTA it is agreed between the Parties that, to the best of their knowledge,,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions shall be as mentioned hereunder:

Describe Background:

ODS STARS

- STARS route: gas atomization of metallic powders already containing all the ODS phase precursors but the oxygen, avoiding the need for Mechanical Alloying (MA) to introduce for example yttrium, titanium, zirconium or hafnium in the prealloyed powder.
- Surface oxidation of powder to oxidize the surface and tailor the oxygen concentration. Process valid for powders with different concentrations of the oxide formers and particle size distribution
- Combination of parameters of HIP, rolling and heat treatments to develop Y-Ti-O nanoparticles

Additive Manufacturing of CuCrZr

- Atomization (with gas) CuCrZr spherical powder with controlled composition
- Heat treatment of powder to reduce the oxygen concentration down to very low values (<50 ppm).
- Heat treatments on CuCrZr parts fabricated by Electron Beam Melting (EBM) to increase thermal conductivity and hardness without affecting the microstructure
- Fabrication parameters and composition of the self-passivating W-based alloys of the systems W-Cr-Y and W-Cr-Y-Zr
- Main properties of W-based alloys of the systems W-Cr-Y and W-Cr-Y-Zr: thermal conductivity and CTE, mechanical properties, thermal shock and high heat flux resistance, oxidation behaviour
- Thermal stability of the microstructure of alloys of the systems W-Cr-Y and W-Cr-Y-Zr between 605 and 1000°C
- Joining by diffusion bonding via HIP of W-based alloys of the system W-Cr-Y to ferritic-martensitic steel and corresponding HIP parameters
- Temperature range and strain rate where W-Cr-Y and W-Cr-Y-Zr exhibit superplasticity.

Specific limitations and/or conditions for implementation:

No access right to the described background will be needed for the implementation of the Project.

ODS STARS: any partner interested in the ODS powder developed by Ceit would receive the material and a detailed characterization of it. Since Ceit is currently doing a preliminary assessment of the patentability of the methods to atomize and oxidize the powders to produce ODS steels (and alloys in general) through the STARS route, this beneficiary will not provide information about the process parameters during atomization or oxidation.

Additive Manufacturing of CuCrZr: since another institution (AIDIMME) performs the EBM process, Ceit cannot guarantee access to the process parameters.

Specific limitations and/or conditions for Exploitation:

Access Rights to Results and /or Background if Needed for Exploitation of a Party's own Results shall be granted on Fair and Reasonable conditions.

Additive Manufacturing of CuCrZr: access Rights to Results and /or Background if Needed for Exploitation of a Party's own Results shall be granted on Fair and Reasonable conditions, including in the negotiation also the not currently taking part in the FP9-EUROfusion programme (AIDIMME)

This represents the status at the time of signature of this Consortium Agreement.

DIFFER**PARTY: DIFFER**

As to DIFFER, it is agreed between the Parties that, to the best of their knowledge:

No data, know-how or information of DIFFER shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

LPP-ERM-KMS**PIC 999831575 ECOLE ROYALE MILITAIRE - KONINKLIJKE MILITAIRE SCHOOL - LPP-ERM-KMS**

As to ECOLE ROYALE MILITAIRE - KONINKLIJKE MILITAIRE SCHOOL - LPP-ERM-KMS it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of ECOLE ROYALE MILITAIRE - KONINKLIJKE MILITAIRE SCHOOL - LPP-ERM-KMS shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

PIC 999980664 UNIVERSITE CATHOLIQUE DE LOUVAIN

As to UNIVERSITE CATHOLIQUE DE LOUVAIN it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of UNIVERSITE CATHOLIQUE DE LOUVAIN shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

PIC 999986775 STUDIECENTRUM VOOR KERNENERGIE / CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE – SCK-CEN

As to STUDIECENTRUM VOOR KERNENERGIE / CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE – SCK-CEN it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of ECOLE ROYALE MILITAIRE - KONINKLIJKE MILITAIRE SCHOOL - LPP-ERM-KMS shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

PIC 999991334 KATHOLIEKE UNIVERSITEIT LEUVEN – KULEUVEN

As to KATHOLIEKE UNIVERSITEIT LEUVEN – KULEUVEN it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of to KATHOLIEKE UNIVERSITEIT LEUVEN – KULEUVEN shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

PIC 999986290 UNIVERSITE LIBRE DE BRUXELLES

As to UNIVERSITE LIBRE DE BRUXELLES it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of UNIVERSITE LIBRE DE BRUXELLES shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

PIC 999986775 STUDIECENTRUM VOOR KERNENERGIE / CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE – SCK-CEN

As to STUDIECENTRUM VOOR KERNENERGIE / CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE – SCK-CEN it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of STUDIECENTRUM VOOR KERNENERGIE / CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE – SCK-CEN shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

PIC 999986096 UNIVERSITEIT GENT

As to Ghent University, it is agreed between the Parties that, to the best of their knowledge, the following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background: Mathematical methods for pattern recognition and probabilistic modeling, based on techniques outlined in the following non-limitative list of publications:

- [REDACTED], Rev. Sci. Instrum., vol. 89, no. 8, art. no. 10F103, 2018
- [REDACTED], and JET Contributors, Rev. Sci. Instrum., vol. 87, no. 11, art. no. 11D404, 2016
- [REDACTED] Entropy, vol. 17, no. 7, pp. 4602-4626, 2015

Specific limitations and/or conditions for implementation: n.a.

Specific limitations and/or conditions for Exploitation: n.a.

This represents the status at the time of signature of this Consortium Agreement.

VR

PARTY: Swedish Research Council (Vetenskapsrådet – VR)

As to [the Affiliated Entities Royal Institute of Technology – KTH, Uppsala University – UU, Chalmers University of Technology, Lunds University and RISE)], it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

All information that has been generated in the course of implementing the Contract of Association and the EFDA.

With regard to the information generated hereunder the specific conditions mentioned below shall apply:

Describe Background	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for exploitation
Fortran/C/shell/matlab code named SELFO; self-consistent code for ICRF heating (KTH, Alfvénlab)	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation is limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.
Fortran code named SELFO-light; self-consistent code for ICRF heating (KTH, Alfvénlab)	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation is limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.
Fortran/C code called FIDO; Monte Carlo code for ICRF heating (KTH, Alfvénlab)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
Fortran code called RFOF; Monte Carlo code for ICRF interactions in orbit following codes (KTH, Alfvénlab)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
Fortran code called FP1D; simple Fokker-Planck code for ICRF and NBI heating (KTH, Alfvénlab)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
Fortran code called NBIsim; Simple	Access to the code is granted provided that the	Access to the code is granted provided that the

Fokker-Planck code for NBI and alpha heating. (KTH, Alfvénlab)	user signs an Agreement of Use with the authors.	user signs an Agreement of Use with the authors.
Fortran code called Nuclearsim; model for alpha sources. (KTH, Alfvénlab)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
Fortran code library called imp5tool. (KTH, Alfvénlab)	Access to the codes is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.	Access to the library is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.
IDL code named HRTSfit for the data analysis and fit of the experimental profiles of Thomson Scattering data. (KTH)	Access to the code is granted provided that the user cites the paper [L. Frassinetti et al, Rev. Sc. Instr. 83, 013506 (2012)] if the analysis is used in scientific publications.	Access to the code is granted provided that the user cites the paper [L. Frassinetti et al, Rev. Sc. Instr. 83, 013506 (2012)] if the analysis is used in scientific publications.
Fortran/Python Code package called LINE2. Calculates solid angles along a specified LOS. (UU, Neutron diagnostics)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
C++/Python Code package called NES. For analysis of fusion neutron spectrometer data. (UU, Neutron diagnostics)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
Fortran/Python Code package called DRESS. For calculating spectra of fusion products. (UU, Neutron diagnostics)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
Fortran code package named TCI (Transport code interfaces) (Chalmers, SEE)	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation is limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.
Fortran code package named WEILAND – for anomalous drift wave transport (Chalmers, SEE)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
Fortran code package named EDWM – for anomalous drift wave transport (Chalmers, SEE)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.

Matlab Fokker-Planck solver called CODE to calculate the distribution of electrons in the presence of an induced electric field (such as runaways). (Chalmers, Physics)	Access to the codes is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.	Access to the codes is granted provided that the user signs an Agreement of Use with the authors. The use, distribution and exploitation is limited by an agreement with a third party.
Matlab code called SYRUP to calculate synchrotron radiation for given runaway distribution. (Chalmers, Physics)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
Matlab code called GO to calculate the self-consistent evolution of a runaway beam in the presence of impurities, including various runaway generation methods and detailed atomic physics. (Chalmers, Physics)	Access to the code is granted provided that the user signs an Agreement of Use with the author.	Access to the code is granted provided that the user signs an Agreement of Use with the author.
C++ code named SOFT for the simulation of synchrotron radiation from relativistic electrons (Chalmers, Physics)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
C++ code named DREAM for the self-consistent simulation of runaway electrons and background plasma in tokamaks (Chalmers, Physics)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
C codes named "SPCM_Card_Acquisition" and "ODA": data acquisition and analysis for the MAST neutron camera diagnostic (UU, Neutron diagnostics)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
Octave scripts LOS_Collimators, LINE2_x_TRANSP and linked scripts: codes for the evaluation of data from the MAST neutron camera (UU, Neutron diagnostics)	Access to the codes is not granted. Implementation of the code output is granted provided that the user signs an Agreement of Implementation with the authors.	Access to the code is not granted. Exploitation of the code output is granted provided that the user signs an Agreement of Exploitation with the authors.
C code "MCNC": neutral transport code. (UU, Neutron diagnostics)	Access to the code is granted provided that the user signs an Agreement of Use with the authors.	Access to the code is granted provided that the user signs an Agreement of Use with the authors.
Fortran code for solving convection-diffusion equation for the	Access to the code is granted provided that the user signs an Agreement of	Access to the code is granted provided that the user signs an Agreement of

temperature (including phase change) coupled to shallow water fluid equations in conservative form, with use of AMReX [1] open source framework for massively parallel block-structured adaptive mesh refinement and use of Poisson solvers for bulk current module [1] Zhang et al., (2019) Journal of Open Source Software, 4(37), 1370 (KTH)	Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.	Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.
MATLAB/COMSOL code called FEMIC (KTH)	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.
Fortran code called ets-core; model for alpha sources.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.
Fortran code called hcd2core-sources; a mapping tool for IDSs.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.
Fortran code called core-sources-combiner; a mapping tool for IDSs.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.	Access to the code is granted provided that the user signs an Agreement of Use with the authors. The access, use, distribution and exploitation are limited by an agreement with a third party.
RISE, Research Institutes of Sweden as a new Affiliated Entity in the EUROfusion research program will use all necessary resources within the two areas ENS and DIV, were RISE have an involvement. Resources include laboratories and various equipments with	RISE do not foresee any limitations in sharing results other than those specified in licensed agreements	RISE do not foresee any limitations in sharing results other than those specified in licensed agreements

embedded software. The resources also include a number of software packages licensed to RISE		
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IPPLM

PARTY Instytut Fizyki Plazmy i Laserowej Mikrosyntezy im. Sylwestra Kaliskiego (IPPLM),
Poland

As to IPPLM, it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of IPPLM shall be Needed by another Party for
implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

VTT

PARTY: VTT Technical Research Centre Of Finland Ltd

As to VTT, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for Exploitation
VTT's IPR in the field of silicon photonics includes inventions, patent applications and patents.	It is foreseen that VTT will do all of the design, fabrication and testing of the SOI PICs in the Project, except for the packaging of some SOI PIC chips provided by VTT, and the testing of the packaged PICs.	If any of VTT's silicon photonics Background is needed for Exploitation, then a separate written agreement is needed to agree on the licensing terms of such Background. There is no royalty-free access to VTT's Background.
The fast-ion Monte Carlo suite-of-codes ASCOT for fusion reactor studies.	The code can be used free of charge by licenced organisations for implementation.	The code can be used free of charge by licenced organisations for non-commercial research and educational purposes.
Apros® is a registered trademark of VTT and Fortum. All Apros products and plugins within the Apros Product Specification are declared as background intellectual property. Apros® is a software product for the analysis and dynamic simulation of power plants, process plants and energy systems. It is an integrated modelling environment for process & piping, instrumentation & control and electrical systems. The key uses include safety analysis, engineering support,	Apros can be acquired on a specific license for non-commercial use. The source code of Apros is not available. Apros license agreement and maintenance terms are applied in Apros deliveries.	Apros can be acquired on a commercial basis. The source code of Apros is not available. Apros license agreement and maintenance terms are applied in Apros deliveries.

automation testing, operator training, what-if analysis etc. Within EUROfusion Apros is used for dynamic analyses related to Balance-of-Plant systems.		
The Serpent Monte Carlo reactor physics burnup calculation code.	The right to use Serpent 2 is subject to VTT license terms.	The right to use Serpent 2 is subject to VTT license terms. For commercial purposes, a commercial licence must be purchased.
The full-f gyrokinetic particle-in-cell code ELMFIRE for neoclassical and turbulence studies.	The code can be used free of charge by licenced organisations for implementation.	The code can be used free of charge by licenced organisations for non-commercial research and educational purposes.
VTT ProperTune® software tools, solver & scripts for materials modelling.	VTT will not disclose existing source code and functionality to the consortium participants but will grant free access to object code to those Parties who need Access for the purposes of implementation of their tasks under the Agreement upon request.	Models will be licensed in object code and the interfaces information required under fair and reasonable conditions to those Parties who need access for the exploitation of their results.

IST

PARTY (IST)

As to IST, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background: **Compact coherent fast frequency sweeping RF back-end developed at IPFN-IST** using commercial Monolithic Microwave Integrated Circuits (MMIC). The backend alone covers the NATO J-Band (10 GHz to 20 GHz) and is designed to drive external full band frequency multipliers, resulting in an ultra-wideband coverage of up to 140 GHz. The signals are generated by a DDS, which allows full control of the signal's frequency and phase, both with very high precision and resolution.

Specific limitations and/or conditions for implementation: The device cannot be reproduced without previous agreement.

Specific limitations and/or conditions for Exploitation: The device cannot be used without previous agreement.

This represents the status at the time of signature of this Consortium Agreement.

Describe Background: **Instituto de Plasmas e Fusão Nuclear (IPFN) of Instituto Superior Técnico (IST) has developed the REFMULx family of reflectometry simulation codes.** These include:

- REFMUL: A 2D O-mode simulation code.
- REFMULX/REFMULXp: 2D X-mode simulation codes (serial/parallel).
- REFMULF: A 2D Full polarization code that treats all components of E and B of the wave and supports a generic external magnetic field B0. REFMULF extends the capabilities of available 2D codes with the inclusion of O/X mode coupling, Faraday rotation, Cotton-Moutton effect, for instance.
- REFMUL3: A 3D parallel code with all field components included. It has a parallel hybrid implementation (OpenMP+MPI) with 3D domain decomposition and a XMDF/HDF5 parallel compressed binary output (big data output), with checkpoints and restart file capabilities.

Specific limitations and/or conditions for implementation: The source code is protected and not publically available.

Specific limitations and/or conditions for Exploitation: Binaries are available under agreement of collaboration.

This represents the status at the time of signature of this Consortium Agreement.

ÖAW

PARTY (Austrian Academy of Sciences)

As to Austrian Academy of Sciences, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Knowledge generated during the participation in EUROfusion and its predecessor programme:

Describe Background:

HPI2 code: The CEA (France) and ÖAW (Austrian Academy of Sciences) have the ownership of all intellectual property rights pertaining to the aforementioned HPI2 code and its related documentation associated needed to implement the program.

HPI2 (for Hydrogen Pellet Injection #2) is a first principle code that calculates the source of particles associated with the injection of a cryogenic hydrogen pellet in a thermonuclear plasma. It is valid for any magnetic and plasma configurations - computes the pellet ablation taking into account thermal ions and electrons and the suprathreshold particles generated by the plasma heating systems.

Specific limitations and/or conditions for implementation:

For its use a free of charge, non-exclusive and non-transferable user license can be granted. The code is needed to implement the program (means any simulation using the software).

Specific limitations and/or conditions for Exploitation:

The licensee has to state in his publications that these studies were carried out through use of the software and expressly mention its reference publications and its version number.

Describe Background:

BIT1-ITM computer code: Kinetic particle-in-cell code for fusion plasma simulation.

The BIT1 code includes a number of world-wide unique features. It is not a free-source code – it belongs to PD. Dr. [REDACTED] and ÖAW (Austrian Academy of Sciences). Therefore, any unauthorised transfer of the code, or any part of it, to a third party is not allowed. If simulation results are published, please cite one of the references given in the code manual.

Specific limitations and/or conditions for implementation:

Any unauthorised transfer of the code, or any part of it, to a third party is not allowed. A royalty-free license can be granted.

Specific limitations and/or conditions for Exploitation:

If simulation results are published, the corresponding reference has to be given.

Describe Background:

Code NEO: The TU Graz in Austria has the ownership. The code is freely available and part of the stellarator optimization package. It is used for neoclassical transport computations.

Specific limitations and/or conditions for implementation:

For its use a free of charge user license can be granted.

Specific limitations and/or conditions for implementation:

The licensee has to state in his publications that these studies were carried out through use of the software.

This represents the status at the time of signature of this Consortium Agreement.

IPP.CR

PARTY IPP.CR

As to IPP.CR, it is agreed between the Parties that, to the best of their knowledge

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background:

All data, know-how and information that has been generated in the course of implementing contracts with F4E or ITER

Specific limitations and/or conditions for implementation:

Limitations and / or conditions according to these contracts

Specific limitations and/or conditions for Exploitation:

Limitations and / or conditions according to these contracts

This represents the status at the time of signature of this Consortium Agreement.

NCSR

PARTY NCSR

As to NCSR, it is agreed between the Parties that, to the best of their knowledge

No data, know-how or information of NCSR shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

JSI**PARTY: JSI**

As to JSI, it is agreed between the Parties that, to the best of their knowledge

No data, know-how or information of JSI shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

DTU

PARTY DTU, Denmark

As to DTU, Technical University of Denmark it is agreed between the Parties that, to the best of their knowledge,

the following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background:

FELTOR is a scientific code project that consists of both a numerical library and a collection of physical simulation codes built on top of it. Our specialties are “discontinuous Galerkin methods on structured grids” and their application to (gyro)-fluid equations in two and three dimensions.

FELTOR has been developed by [REDACTED] DTU, and [REDACTED] who both have held the license for it.

Specific limitations and/or conditions for implementation:

Copyright (c) 2016 [REDACTED]
<https://github.com/feltor-dev/feltor/blob/master/LICENSE>

Specific limitations and/or conditions for Exploitation:

Permission is granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction

This represents the status at the time of signature of this Consortium Agreement.

IAP

PARTY IAP

As to IAP, it is agreed between the Parties that, to the best of their knowledge

No data, know-how or information of IAP shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

EK-CER**PARTY EK-CER**

As to EK-CER, it is agreed between the Parties that, to the best of their knowledge

No data, know-how or information of Atomic Energy Research Institute Centre for Energy Research shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement

KIPT**PARTY KIPT**

As to KIPT, it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of KIPT shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

CU**PARTY Comenius University (CU)**

As to CU, it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of CU shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

ISSP-UL

PARTY (Institute of Solid State Physics – ISSP UL)

As to Institute of Solid State Physics – ISSP UL, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions, shall be as mentioned hereunder:

Describe Background: Patent no. PCT/LV2020/050006 (Electromagnetic Pump)

Specific limitations and/or conditions for implementation: to be used for design of the EMP for the main Li loop in Task ENS-5.9.1-T006 ISSP-UL Contribution to Lithium Systems area

Specific limitations and/or conditions for Exploitation: to be used for Manufacturing of a prototype of the EMP for the main Li loop in Task ENS-5.9.1-T006 ISSP-UL Contribution to Lithium Systems area

This represents the status at the time of signature of this Consortium Agreement.

UT**PARTY** (University of Tartu)

As to University of Tartu, it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of University of Tartu shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

RBI**PARTY** Ruđer Bošković Institute

As to Ruđer Bošković Institute, it is agreed between the Parties that, to the best of their knowledge

No data, know-how or information of Ruđer Bošković Institute shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

INRNE**PARTY INRNE**

As to INRNE it is agreed between the Parties that, to the best of their knowledge,

No data, know-how or information of INRNE shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

LEI**PARTY** Lithuanian Energy Institute

As to Lithuanian Energy Institute, it is agreed between the Parties that, to the best of their knowledge, no data, know-how or information of Lithuanian Energy Institute shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

UM**PARTY** (University of Malta)

As to [University of Malta], it is agreed between the Parties that, to the best of their knowledge no data, know-how or information of [University of Malta] shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement.

UKAEA

PARTY (UKAEA)

As to UKAEA, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions shall be as mentioned hereunder:

All Background held by UKAEA to the extent that UKAEA generated or acquired access rights in that Background in the course of its carrying out activities under: the Contract of Association and the EFDA; the European Commission Grant Agreement no 633053; and the JET Operating Contract effective from 1 January 2014 as amended.

This represents the status at the time of signature of this Consortium Agreement.

Specific limitations and/or conditions:

Background Description	Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for exploitation
SOFTWARE: FISPACT-II Nuclear inventory simulation code for prediction of change in materials from neutron damage	Proprietary and commercial code belonging to UKAEA. Only required results or object code (if necessary) can be released.	Licence terms to be agreed
SOFTWARE: MCR2S Shutdown dose rate prediction tool, works with FISPACT-II to predict gamma dose rate	Proprietary and commercial code belonging to UKAEA. Only required results or object code (if necessary) can be released.	Licence terms to be agreed
SOFTWARE: CorteX communication and control framework for integration of robotic systems, subject to patent applications: EP21157352.2 WO2019002834A1	Proprietary and commercial code belonging to UKAEA. Only required results or relevant object code (if necessary) can be released.	Licence terms to be agreed
SOFTWARE: TARM - specific control system developed within CorteX	Proprietary and commercial code belonging to UKAEA. Only required results or relevant object code (if necessary) can be released.	Licence terms to be agreed

This represents the status at the time of signature of this Consortium Agreement.

KIT

PARTY Karlsruher Institut für Technologie (KIT)

As to KIT, it is agreed between the Parties that, to the best of their knowledge,

The following background is hereby identified and agreed upon for the Project. Specific limitations and/or conditions shall be as mentioned hereunder:

Background Description	Specific limitations / conditions for implementation of the Programme	Specific limitations / conditions for exploitation of own Results
All Background listed below	<p>In general, Background described and listed is excluded from Access Rights in the following cases, even if not specifically mentioned in this column:</p> <ul style="list-style-type: none"> - Background that is covered under specific research agreements, grants/grant agreements and confidentiality agreements, which do not allow Access Rights at all or only after approval; - All other background to which KIT, due to third party rights, is not able to grant Access Rights; - Background of which KIT is only co-owner; - Background on current patent applications. 	<p>In general, Background described and listed is excluded from Access Rights in the following cases, even if not specifically mentioned in this column:</p> <ul style="list-style-type: none"> - Background that is covered under specific research agreements, grants/grant agreements and confidentiality agreements, which do not allow Access Rights at all or only after approval; - All other background to which KIT, due to third party rights, is not able to grant Access Rights; - Background of which KIT is only co-owner; - Background on current patent applications.
KIT's results obtained under EUROfusion FP8 (Horizon 2020), as uploaded on EUROfusion IDM (deliverables, reports, etc.)	<ul style="list-style-type: none"> - Access under fair and reasonable conditions and - subject to approval by co-owners (if FP8 Foreground is co-owned by third parties) 	<ul style="list-style-type: none"> - subject to approval by co-owners (if FP8 Foreground is co-owned by third parties)
In-house developed user material subroutine UMAT_RAFM for ABAQUS: The user material subroutine UMAT_RAFM is the implementation of the coupled deformation damage model developed by Aktaa & Schmitt for EUROFER (published in Fusion Engineering and Design 2006) in the commercial finite element code ABAQUS.	Use by KIT only.	
Innovative radioprotection material, applicable to the IFMIF-DONES test cell. Patent pending	<p>Patent pending (no access beforehand)</p> <p>Includes manufacturing technology that is proprietary to industrial partners</p>	<p>Patent pending (no access beforehand)</p> <p>Includes manufacturing technology that is proprietary to industrial partners</p>

Know how in the fabrication of parts via 3d printing with electron beam melting (EBM). This includes for example process parameter for printing, powder specifications, powder handling all machine parameter	Use subject to confidentiality agreement No royalty-free access	Use subject to confidentiality agreement
Know how in the fabrication of parts via 3d printing with Fused Filament Fabrication (FFF). This includes for example process parameter for feedstock preparation, powder specifications, powder handling, process parameter for printing of parts, debinding and sintering.	Use subject to confidentiality agreement No royalty-free access	Use subject to confidentiality agreement
Know how in the fabrication of parts via Powder Injection Molding (PIM). This includes for example process parameter for feedstock preparation, powder specifications, powder handling, injection molding of parts, debinding and sintering.	Use subject to confidentiality agreement No royalty-free access	Use subject to confidentiality agreement
Detailed know-how on vacuum pumping technologies for nuclear fusion applications	No royalty-free access.	Limitations and confidentiality obligations resulting from EFDA contracts.
Detailed know-how on fuel cycle technologies for nuclear fusion applications	No royalty-free access.	Limitations and confidentiality obligations resulting from EFDA contracts.
Detailed know-how in advanced methods and computational algorithms to solve the Boltzmann equation and calculate pressure and temperature driven rarefied gas flows in a wide range of the Knudsen number.	No royalty-free access.	
Detailed know-how and database for outgassing of materials under vacuum.	No royalty-free access.	
Patents: - EP 18 185 454.8 'METHOD AND DEVICE FOR ENRICHING OR DEPLETING AT LEAST ONE HYDROGEN ISOTOPE IN A GAS STREAM' - PCT/EP2014/002342 'METHOD AND DEVICE FOR THE CONTINUOUS RE-PROCESSING OF	No royalty free access.	

EXHAUST GAS OF A FUSION REACTOR		
MATLAB/SIMULINK modules developed for HCPB Balance of Plant (BoP) Indirect Coupled Design (ICD) Intermediate Heat Transfer System (IHTS) and Power Conversion System (PCS).	<ul style="list-style-type: none"> - Access under fair and reasonable conditions and - subject to approval by co-owners (when the Foreground is co-owned by third parties) 	<ul style="list-style-type: none"> - subject to approval by co-owners (when the Foreground is co-owned by third parties)
<p>Additive Manufacturing technology application for nuclear fusion developments:</p> <ul style="list-style-type: none"> - EP 3 284 996 B1, Multi-walled pipe component and method and method for producing the same - DE 10 2017 118 065 A1 2019.02.14, Generative Fertigungsanlage und Verfahren zur Herstellung von Bauteilen mittels dieser generativen Fertigungsanlage - EM20043: Verfahren zur Herstellung von innenstrukturierten Rohren (patent pending) 	<p>No royalty free access.</p> <p>Patent pending, no access beforehand</p>	<p>Patent pending, no access beforehand</p>
Technology covering the system, components design and detailed construction of the KIT 2 MW 170 GHz CW gyrotron for ITER, particularly including MIG, beam tunnel, uptaper, launcher, quasi-optical system and collector including beam sweeping systems.	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p> <p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>Limitations resulting from export control.</p> <p>No royalty-free access.</p>	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p> <p>Limitations and confidentiality obligations for proprietary technologies of industrial partner</p> <p>Limitations resulting from export control.</p>
<p>Patent related to "corrugated beam tunnel" technology for gyrotrons</p> <p>EU Patent EP 2454748</p>	<p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>No royalty-free access.</p>	<p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p>
<p>Joint IPP/KIT patent related to "transverse beam sweeping" inside gyrotron collector</p> <p>US Patent US 8,004,197 B2. EU Patent EP 2 150 965 B1.</p>	<p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>No royalty-free access.</p>	<p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p>
Technology covering specific gyrotron components designs, particularly the design of advanced inverse coaxial-cavity MIG, alternative beam tunnels, launcher/quasi-optical system	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p>	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p>

and multi-staged depressed collector technology. It includes specific methods for sweeping of the magnetic field. The technologies were only partly funded by EUROfusion.	<p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>Limitations resulting from export control.</p> <p>No royalty-free access</p>	<p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>Limitations resulting from export control.</p>
Inverse Magnetron Injection Gun (iMIG) Technology for coaxial-cavity gyrotron	<p>KIT proprietary know how;</p> <p>No royalty-free access</p>	KIT proprietary know how
Technology covering the design and construction of modular-type megawatt class short pulse and longer pulse gyrotron pre-prototypes, particularly detailed construction of interconnects, components designs and cooling technologies.	<p>Includes KIT proprietary know-how</p> <p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>Limitations resulting from export control.</p> <p>No royalty-free access</p>	<p>Includes KIT proprietary know-how</p> <p>Limitations and confidentiality obligations for proprietary technologies of industrial partner.</p> <p>Limitations resulting from export control.</p>
Test and operation strategies with regard to megawatt-class gyrotron verification including strategies for conditioning and start-up of gyrotrons.	<p>KIT proprietary know how;</p> <p>No royalty-free access</p>	KIT proprietary know how;
Gyrotron teststand technology considering the KIT teststand including the "original" and the "new" gyrotron teststand "FULGOR". The background information includes design and implementation of key components (HV PS, measurements systems) and control system strategy.	<p>Limitations and confidentiality obligations for proprietary technologies of industrial and university partners.</p> <p>No royalty-free access</p>	<p>Limitations and confidentiality obligations for proprietary technologies of industrial and university partners.</p> <p>d</p>
Design and tools for gyrotron teststand control system	<p>KIT proprietary know how</p> <p>No royalty-free access</p>	KIT proprietary know how
Measurements technology for gyrotron quasi-optical systems including gyrotron launcher and quasi-optical mirror system, particularly the generation of higher-order modes, the HW and SW tools for manual and automatic measurements and the measurements system.	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p> <p>No royalty-free access</p>	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p>
Simulation tools for the analysis and synthesis of gyrotron components, namely SELF/EURIDICE, ARIADNE, ESRAY/ESPIC/EMPIC, TWLDO and KARLESSS. Codes are covering methods for electron beam – RF field interaction,	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p> <p>Limitations resulting from export control.</p>	<p>Limitations and confidentiality obligations resulting from EFDA, F4E and ITER contracts.</p> <p>Limitations resulting from export control.</p>

electrostatic and electromagnetic simulation.	Limitations and confidentiality obligations for proprietary technologies of collaboration partners. No royalty-free access	Limitations and confidentiality obligations for proprietary technologies of collaboration partners.
Software code KIT-DEM: Calculation of thermomechanical properties of pebble beds by the Discrete-Element-Method (DEM): creation of densely packed random virtual particle assemblies of spherical and non-spherical (multisphere) shape, simulation of uniaxial and triaxial mechanical compaction of pebble beds, calculation of the effective thermal conductivity of a pebble in the presence of a stagnant purge gas accounting for the gas pressure in the form of the Smoluchowski effect.	- Access under fair and reasonable conditions and subject to approval by co-owners (if the Foreground is co-owned by third parties)	- subject to approval by co-owners (if the Foreground is co-owned by third parties)
Neutronics workflow based on CAD-geometry, Monte Carlo transport and variance reduction tools <ul style="list-style-type: none"> - In-house tools for CAD geometry manipulation, simplification and decomposition linked to McCAD (KIT) and ANSYS Spaceclaim. - On-the-fly variance reduction approach for local/global MC simulations. In-house tools for post-processing of radiation transport geometry and results.	- Access under fair and reasonable conditions and subject to approval by co-owners (if the Foreground is co-owned by third parties)	- subject to approval by co-owners (if the Foreground is co-owned by third parties)
Know How in the joining and brazing technology of ECRH CVD diamond windows	Proprietary know-how Restrictions through confidentiality agreements with industry Use outside of Germany subject to approval by the Federal Ministry of Education and Research No royalty-free access.	Proprietary know-how Restrictions through confidentiality agreements with industry Use outside of Germany subject to approval by the Federal Ministry of Education and Research
Know How in the qualification of the dielectric diamond properties – Loss tangent qualification	Proprietary know-how Restrictions through confidentiality	Proprietary know-how Restrictions through confidentiality

<p>system & evaluation software (HFM SPHERICAL, HFM-HEMI)</p> <ul style="list-style-type: none"> - The special arrangement (double spherical and hemi-spherical resonators in FABRY-PEROT configuration) in these measurement setups - The software packages HFM-SPHERICAL and HFM-HEMI 	<p>No royalty-free access</p>	
<p>Soldering of HTS tapes to form high current strands:</p> <ul style="list-style-type: none"> • DE 102015010636.8 / EP 16757151.2; • DE 102015010634.1 / EP 16756585.2; • DE 102015010676.7 / EP 16756943.3-1212 <p>and all Know-how and knowledge related to these three patents / patent applications.</p>	<p>Proprietary know-how and knowledge protected by patents.</p> <p>Access is restricted by existing license agreement with industry and can only be granted subject to confidentiality agreement as well as license agreement / approval by licensee, including involvement of commercial providers.</p>	<p>Proprietary know-how and knowledge protected by patents</p> <p>Access is restricted by existing license agreement with industry and can only be granted subject to confidentiality agreement as well as license agreement / approval by licensee.</p>

This represents the status at the time of signature of this Consortium Agreement.

DCU

PARTY Dublin City University (DCU)

As to DCU, it is agreed between the Parties that, to the best of their knowledge

No data, know-how or information of DCU shall be Needed by another Party for implementation of the Project or Exploitation of that other Party's Results.

This represents the status at the time of signature of this Consortium Agreement

[Attachment 2 - Accession document]

ACCESSION

of a new Party to [Acronym of the Programme] Consortium Agreement, version

[... , YYYY-MM-DD]

[OFFICIAL NAME OF THE NEW PARTY AS IDENTIFIED IN THE Grant Agreement]

hereby consents to become a Party to the Consortium Agreement identified above and accepts all the rights and obligations of a Party starting [date].

[OFFICIAL NAME OF THE COORDINATOR AS IDENTIFIED IN THE Grant Agreement]

hereby certifies that the Consortium has accepted in the meeting held on [date] the accession of [the name of the new Party] to the Consortium starting [date], that it shall have [number] Votes in the General Assembly, and that its participation in the Bureau shall be as an additional [large/medium/small size] Party.

This Accession document has been done in 2 originals to be duly signed by the undersigned authorised representatives.

[Date and Place]

[INSERT NAME OF THE NEW PARTY]

Signature(s)

Name(s)

Title(s)

[Date and Place]

[INSERT NAME OF THE COORDINATOR]

Signature(s)

Name(s)

Title(s)

[Attachment 3 – Organisational Chart]

The **simplified** organizational chart below shows the **main internal entities** of the EUROfusion Consortium.

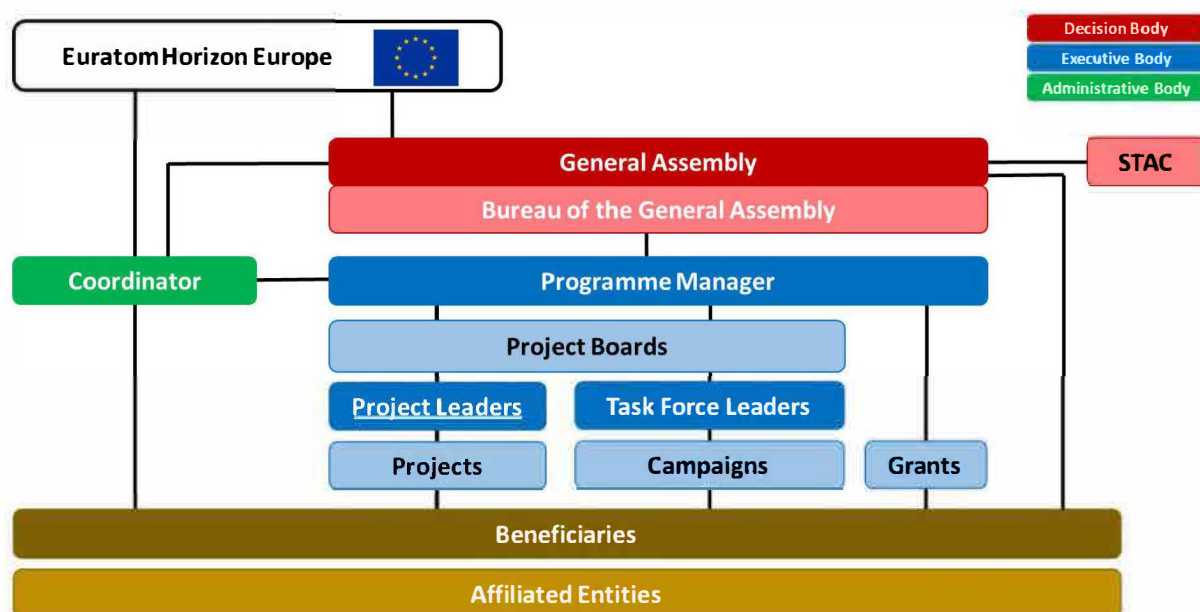


Fig. 1 Overall organigram of the main structures in the EUROfusion Consortium

Details of the organisational structure, governance, including the specific DEMO governance, and procedures for implementation of activities are described in the Consortium Work Plan (Annex I Part B of the Grant Agreement).

[Attachment 4 – Internal Funding Rules]

This Attachment contains the Internal Funding Rules adopted by the EUROfusion Consortium under *Horizon Europe*. The rules are addressed below in accordance with the cost categories as indicated in the *Horizon Europe* Model Grant Agreement and are **effective from the start date of the EUROfusion Grant Agreement under *Horizon Europe***.

Direct costs

A. Personnel costs

- **GA Article 6.2 A.1:** Employment costs of employees (or equivalent) of the Beneficiaries and their Affiliated Entities
- **GA Article 6.2 A.2:** Costs for natural persons working under a direct contract other than under an employment contract
- **GA Article 6.2 A.3:** Costs of personnel made available by a third party against payment
- **GA Article 6.2.A.4:** Costs of SME owners

The internal funding of eligible costs will be at a rate of **50%** unless listed below.

Personnel	Funding rate
Project Leader / Task Force Leader / Project Support Officer	70%
Advanced Computing Hubs	70%
JET Data Centre	70%
Work Package Design-assist Activities (WPDES)	70%
Students and Trainees in WP Training and Education (WPTRED)	70%
Industry Affiliated Entity	100%
Programme Management Unit / DEMO Central Team	100%
Coordinator Unit	100%
PMU Host Support	100%
Accompanying Research	0%
Operation of facilities:	
- Standard	40%
- Technology Hubs and Linear Machines	70%
- Irradiation	70%
- Tokamaks and Stellarator	80%
- JET	44%
Accompanying Research	0%

B. Subcontracting costs

- **GA Article 6.2 B:** The cost of subcontractors engaged in the implementation of specific tasks within the action. The tasks to be subcontracted and the estimated cost for each subcontract must be set out in Annex 1 of the Grant Agreement

The internal funding of eligible costs will be at a rate of **40%** unless listed below.

Subcontracting	Funding rate
Industry ¹	100%
Subcontracts for irradiation tasks ²	100%

Note: indirect costs do NOT apply

C. Purchase costs

- **GA Article 6.2 C.1:** Travel and subsistence for missions -
- **GA Article 6.2 C.2:** Purchases of equipment, infrastructure or other assets used for the action are to be declared as depreciation costs as calculated in accordance with international accounting standards and with the Beneficiary's usual accounting practices. If OPTION depreciation + full cost for listed equipment at grant level is selected: for the listed equipment, infrastructure or other assets purchased specifically for the action costs may exceptionally be declared as full capitalised costs.
- **GA Article 6.2 C.3:** The incurred costs of other goods, works and services purchased for use in the action, including raw materials, scientific and technical services and consumables

C.1: Travel and subsistence

Travel and subsistence	Funding rate
Travel costs and national subsistence allowance	70%
Travel costs and subsistence allowance PMU / DCT according to national rules of the host organisation (Host Support)	100%
Accompanying Research	0%

C.2 / C.3: Equipment, infrastructure or other assets / Other goods, works and services

The internal funding of eligible costs will be at a rate of **40%** unless listed below.

Equipment / Other goods, works and services	Funding rate
---	--------------

¹ Subcontracts to industry working on tasks identified in the Work Plan

² Subcontracts for irradiation tasks identified in the Work Plan

New investments ³	50%
High Performance Computer ⁴	70%
JET Data Centre	70%
Italian Divertor Tokamak Test ⁵	100%
PMU / DCT Host Support	100%
Accompanying Research	0%
Operation of facilities:	
- Standard	40%
- Technology Hubs and Linear Machines	70%
- Irradiation	70%
- Tokamaks and Stellarator	80%
- JET	44%
Accompanying Research	0%

D. Other cost categories

- **GA Article 6.2 D.1:** Financial support to third parties. Note: indirect costs do NOT apply
- **GA Article 6.2 D.2:** Internally invoiced goods and services provided within the Beneficiary directly for the action and which the Beneficiary values on the basis of usual accounting practices
- **GA Article 6.2 D.6:** Unit costs for mobility of staff. Note: indirect costs do NOT apply

D.1: Financial Support to third parties

Financial Support	Funding rate
Granted by FuseNet to Masters students	100%

D.2: Internally invoiced goods and services. Note: indirect costs do NOT apply

The funding rates indicated under **Equipment / Other goods, works and services** apply

D.6: Unit costs for mobility of personnel. Note: indirect costs do NOT apply

Mobility	Funding rate
Unit costs for mobility of personnel	100%

³ Listed in the Grant Agreement and for which full capitalized costs can be reported

⁴ To be applied for the new HPC post-Marconi Fusion

⁵ Listed in the Grant Agreement and for which full capitalized costs can be reported

Unit costs only apply to secondments of at least three months duration. The mobility allowance shall be paid in accordance with the Directorate-General Research and Innovation Decision (2021)184114 of 15 March 2021 authorizing the use of unit costs for mobility in co-fund actions under the Research and Training Programme of the European Atomic Energy Commission (2021-2025).

Indirect costs

Indirect costs will be reimbursed at the flat rate of 25% of the eligible direct cost reported. The funding rates adopted by the Consortium apply by analogy to those indirect costs, subject to the exclusions provided for by the Grant Agreement, i.e subcontracting, financial support to third parties and unit costs for mobility of staff.

Ineligible costs that cannot be charged under the action but to be reimbursed internally

The Coordinator will get reimbursed at a rate of 100% all costs occurring by a framework contract with the European Southern Observatory (ESO) for granting access to the European School in Munich (ESM) for the children of the staff seconded to the PMU Garching attending primary and secondary school.

In addition, the Coordinator will get funded at a rate of 100% all costs incurred through mandatory negative interest, charged on deposits on the EUROfusion bank accounts held by MPG (IPP).

In the case of costs related to subcontracts or contracts for the purchase of goods, works and services incurred for the PMU host support that are found to be ineligible, they shall be covered at a rate of 100%.

[Attachment 5 - List of Third Parties for simplified transfer according to Section 8.3.2]