# European Metrology Programme for Innovation and Research (EMPIR)

## Work Plan 2014

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## Introduction

The Union's participation in EMPIR, is to support the provision of appropriate, integrated and fit-forpurpose metrology solutions and the creation of an integrated European Metrology Research system with critical mass and active engagement at regional, national, European and international level that would not be sufficiently achieved by the Member States alone<sup>1</sup>. The scale and complexity of metrology requirements calls for investments that go beyond the core research budgets of the NMIs and their DIs. The excellence required for research and the development of cutting-edge metrology solutions is spread across national borders and requires coordination by integrating national efforts into a consistent European approach, by bringing together compartmentalised national research programmes, by helping design common research and funding strategies across national borders, and by achieving the critical mass of actors and investments required.

This first EMPIR work plan presents actions foreseen for implementation in 2014 and, on an indicative basis, in 2015. The actions comprise calls for topics (called Targeted Programmes, "TPs") that were already addressed in predecessor programmes. Launching TPs in three year intervals allows running projects which are funded from the predecessor call in the TP to consider a submission for a successor project. This option provides projects with a longer-term perspective a chance for realisation. Being the successor programme of the European Metrology Research Programme (EMRP), some of the topics have been addressed in previous years while others are newly introduced with EMPIR.

The EMPIR work plan comes along with General Annexes that closely resemble the General Annexes to the Horizon 2020 work programmes, though with necessary adaptations (mostly deletions of contents that are not relevant for EMPIR). By nature, the General Annexes provide long-term orientations for EMPIR while specific call provisions are presented in the main EMPIR work plan.

The unique implementation processes for EMPIR - which are distinct from Horizon 2020 - foresee that most calls for proposals "mature" in intervals. The general call topic is decided upon way earlier than the concrete details for the selected research topics. The understanding of the EMPIR call implementation is of great importance; hence, a short presentation is given in the following:

#### **EMPIR** implementation

The EURAMET General Assembly decided, supported by the European Commission in their EMPIR proposal<sup>2</sup>, that the implementation of EMPIR shall make strongest references to the European Metrology Research Programme (EMRP). Consequently, the EMPIR implementation pursues major parts of the EMRP implementation which is now - after five EMRP call cycles - well introduced in the European metrology community:

- Most, but not all calls for <u>targeted programmes</u> (TP)<sup>3</sup> under the European Metrology Programme for Innovation and Research (EMPIR) will be implemented in two stages: a stakeholder consultation and a call for proposals.
- The first "<u>Potential Research Topic (PRT)</u>" stage invites interested stakeholders and this comprises a huge variety of representatives from science, industry and other stakeholders to propose relevant research actions under a more general TP. Thus, the PRT stage is a bottom-up driven identification process for potential metrology research needs. <u>PRT consultations</u> are typically launched at the beginning of the year and open for about 6 weeks, with a deadline in

<sup>&</sup>lt;sup>1</sup> DECISION No 555/2014/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 May 2014 on the participation of the Union in a European Metrology Programme for Innovation and Research (EMPIR) jointly undertaken by several Member States

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:JOL\_2014\_169\_R\_0003&from=EN

<sup>&</sup>lt;sup>2</sup> Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the

participation of the Union in a European Metrology Programme for Innovation and Research jointly undertaken by several Member States", COM(2013) 497 final (12.07.2013)

<sup>&</sup>lt;sup>3</sup> TPs comprise calls as fundamental metrology research, metrology research related to the international system of units, metrology research for grand challenges (health, energy, and environment), metrology research for industry, etc.

March. A PRT consultation is not to be compared to a first stage of a two-stage call implementation under Horizon 2020: The outcome of this first consultation is not binding in any way.

- An <u>EMPIR Sub-Committee<sup>4</sup></u> sifts the outcome of the PRT consultation and compiles a list of "<u>Selected Research Topics (SRT</u>)". This process may involve interventions, e.g. the merging of two or more PRTs into one SRT, changing/adapting certain aspects of the proposal or even the decision, to either consider the proposed topics to full extent (without any change), or to not consider it at all.
- The <u>EMPIR Committee</u> decides on the proposed list of SRTs as prepared by the EMPIR Sub-Committees. With its adoption this list constitutes stage 2 of an EMPIR call. The decision of the EMPIR Committee may again involve (expectedly minor) changes of the SRT list.<sup>5</sup>
- Following the decision, calls are launched with duration typically over the whole summer period. Partnering events that support consortia building are organised at the beginning; the deadline is set in October.
- The majority of proposals submitted to TP calls will be evaluated at a Review Conference where the co-ordinators of all submitted proposals present the proposed work by means of project posters and evaluators can clarify any open issues in direct dialogue. At the end of the conference, reviewers agree on evaluation results for any proposal, thus establishing a ranking list for all proposals submitted to one TP. The Review Conference process was a key feature of the EMRP, refined over many call cycles with the assistance of the independent observers appointed by the Commission. The evaluators are appointed on similar terms and conditions as used in H2020 ensuring their independence. They receive the proposals to review prior to the Review Conference, but they do not submit individual evaluation reports, instead they meet a representative of the proposers at a poster and seek clarification about any part of the proposal they need. The evaluators assigned to each proposal then meet together to compare their individual assessments and formulate a set of formal questions to be asked to the representative. The questions are then put to the representative by the evaluators and answers recorded. The evaluators then meet again to complete a joint evaluation report, recording comments and marks against the evaluation criteria. The procedures ensure equal treatment of proposals by timetabling the interactions between the evaluators and proposers - ensuring equal opportunity for debate, and close monitoring of the process by the facilitators, Programme Manager and Independent Observer.
- For a number of new calls under EMPIR, e.g. the Targeted Programme Research Potential and the Support for Impact actions, evaluation without a discussion between evaluators and proposers is introduced.
- On the basis of the evaluation results, the <u>EMPIR Committee</u> decides on the funding list, i.e. the proposals selected for preparation of the grant agreement. It does not change the order of the ranked list, merely decides where the line is drawn that separates those to be funded from those not selected for funding.

In distinction to the EMRP, EMPIR's broader scope is represented by more activity areas. For the resulting types of actions the EMRP implementation rules will be further developed and adapted where required, in line with the EMPIR co-decision and the Horizon 2020 rules for participation<sup>6</sup>, with all details indicated in this and forthcoming EMPIR work plans. A noteworthy novelty under the EMPIR is the introduction of the coordination and support action as an action type, as the EMRP solely called for research and innovation actions.

#### EMPIR consultation and orientation

<sup>&</sup>lt;sup>4</sup> Currently, two EMPIR Sub-Committees exist. The EMPIR Sub-Committee Research is responsible for research related PRT stages, the EMPIR Sub-Committee Capacity Building signs responsible for Capacity Building activities.

<sup>&</sup>lt;sup>5</sup> It is proposed that the EC approves the EMPIR work plan for the current and the forthcoming year between the meetings of the EMPIR Sub-Committees and the full EMPIR Committee.

<sup>&</sup>lt;sup>6</sup> see REGULATION (EU) No 1290/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 laying down the rules for participation and dissemination in "Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)" and repealing Regulation (EC) No 1906/2006, Official Journal of the European Union, L 347/81, 20.12.2013

As described above, stage 1 of an EMPIR call has an inherently built-in consultation and orientation process for the scope of a call for proposals including stakeholder participation. On top of this, there are a number of EURAMET bodies and external organisations that are consulted or give orientation for the EMPIR programme. EURAMET's General Assembly is responsible for the overall EURAMET strategy and the extent to which EMPIR shall contribute. EURAMET's Board of Directors (BoD) has accordingly initiated the development of the EURAMET strategic research agenda (SRA). This process includes liaising with high-level stakeholders and international organisations through members of the BoD, newly created task groups for energy, environment and health and the secretariat. All 12 EURAMET Technical Committees remain a very important source for the identification of potential research topics as they gather NMI and DI representatives with vast research competencies. EURAMET's Research Council which is composed of outstanding representatives of science, industry and relevant stakeholders is consulted as well. More specifically, the strategic cooperation with CEN/CENELEC and other standardisation developing organisations is continued with the regular invitation to them to identify pressing standardisation related metrology research demands - prior to the launch of the PRT stage. A forthcoming partnership between EURAMET and the STAIR (Standards in Innovation and Research) working group of CEN/CENELEC aims to support standardisation related metrology research actions under EMPIR. Likewise cooperation agreements are sought with all major standardisation developing organisations and other relevant stakeholder organisations.

## 1. EMPIR calls for proposals in 2014

The following table provides the overview of the EMPIR 2014 calls including the timing of the call and the budgets. The Total EU Contribution to projects selected in 2014 will not exceed 24.72 M€ but the distribution between TPs may vary depending on the final selection.

Call	2014 call durations (opening and deadline)	Draft call budget in M€*	Estimated EU contribution in M€
TP Metrology for Industry	PRT: 3 February -18 March SRT: 24 June – 9 October	43.50	22.89
TP Research Potential	PRT: 10 February – 25 March SRT: 24 June – 9 October	3.00	1.39
Support for Impact	25 August – 30 September	1.00	0.44
Total		47.50	24.72

\* This column presents a "project full costs view" as used under FP7 and the EMRP. This view of presenting the call budget is still required for EMPIR in order to track the member states' contribution to the EMPIR programme.

## 1.1 Targeted Programme Metrology for Industry

The TP Metrology for Industry call will be implemented in two stages, with distinct Potential Research Topic (PRT) and Selected Research Topic (SRT) stages. *Type of action:* Research and Innovation Actions

### TP Metrology for Industry Call: Stage 1 - Potential Research Topics

The call for PRTs was open from 3 February to 18 March. The following call scope was published:

<u>Scope</u>: The overall strategic aim of the Targeted Programme (TP) "Metrology for Industry (2014)" is to develop measurement methods and techniques for industrial applications. It is aimed at driving innovation in industrial production and facilitating new or significantly improved products through exploiting knowledge in the European measurement institutes. The innovations shall improve the competitiveness of European industry and shall lead to increased economic turn-over.

Documented industrial needs, such as provided through the references included in the Proposed Research Topics will be of key importance. EURAMET encourages proposals from industry and expects their active participation in projects. In addition to the development of technologies and methods, contributions to standardisation shall be investigated as a potential part of the projects. EURAMET wishes to generate benefit for industry whilst exploiting the unique capabilities of its member National Metrology Institutes and Designated Institutes. This TP will enable and promote collaborative research in the most demanding fields of industrial metrology going beyond the state of the art. As with all other TP's under EMPIR, this TP shall strengthen the mutual cooperation of European NMIs, leading to coordinated European metrology infrastructures where appropriate.

#### TP Metrology for Industry Call: Stage 2 - Selected Research Topics

The following list of 33 Selected Research Topics was elaborated by the EMPIR Sub-Committee (Research) and was approved by the EMPIR Committee at its 5/6 June 2014 meeting. This list was published as the stage 2 call for proposals on 24 June 2014 with a deadline of 9 October 2014. Additional information for each individual SRT was published with the call in the form of a brief specification and detailed objectives.

REF	Title
SRT-i01	Advanced 3D chemical metrology for innovative technologies
SRT-i02	Metrology for industrial pure water applications
SRT-i03	Metrology for innovation in pharmaceutical formulation and manufacturing
SRT-i04	Metrology for innovative nanoparticles
SRT-i05	Metrology for additive manufacturing production assurance
SRT-i06	Dimensional metrology of high-aspect-ratio micro-nozzles
SRT-i07	Vision based dimensional metrology
SRT-i08	Metrology for highly-parallel manufacturing
SRT-i09	Reference nanodimensional metrology for nanomanufacturing
SRT-i10	Traceable asphere and freeform metrology
SRT-i11	Electromobility drive technology
SRT-i12	High frequency and dynamic measurements of functional materials
SRT-i13	Metrology for 5G communications
SRT-i14	Metrology for the electrical power industry
SRT-i15	Metrology for graphene characterisation
SRT-i16	Metrology for magnetoresistive sensor applications
SRT-i17	Microwave measurements for planar circuits and components
SRT-i18	Improved gas flowmetering at industrial conditions
SRT-i19	Metrology for small- and midscale flow devices
SRT-i20	Metrology for length-scale engineering
SRT-i21	Metrology for manufacturing 3D stacked integrated circuits
SRT-i22	Metrology for the photonics industry - optical fibres, waveguides and applications
SRT-i23	Reliable micro mechanical test data for modelling advanced materials
SRT-i24	Optical metrology solutions for next generation lithography
SRT-i25	Industrial standards in the intermediate pressure-to-vacuum range
SRT-i26	Torque measurement in the MN m range
SRT-i27	Improved measurement technology for optically complex materials
SRT-i28	Optical metrology for quantum enhanced secure telecommunication
SRT-i29	Industrial high temperature measurement: quantitative thermal imaging

List of Selected Research Topics for TP Metrology for Industry:

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SRT-i30	Enhancing process efficiency through improved temperature measurement
SRT-i31	Metrology for humidity at high temperatures and transient conditions
SRT-i32	Next generation time and frequency dissemination through optical fibres
SRT-i33	Reliable diagnostic methods for enhanced traction batteries

Eligibility and admissibility conditions:

For this call, the general eligibility and admissibility conditions under the EMPIR programme (see General Annexes to this work plan) will be applied.

## 1.2 Targeted Programme Research Potential

The TP Research Potential call will be implemented in two stages, with distinct PRT and SRT stages. *Type of action:* Research and Innovation Actions

### **TP Research Potential Call: Stage 1 - Potential Research Topics:**

The call for PRTs was open from 10 February to 25 March 2014. The following call scope was published:

<u>Scope</u>: In order to respond to an existing capability gap in emerging EURAMET member countries and regions, Capacity Building instruments have been included within EMPIR. The overall strategic aim of the metrology capacity-building activities on different technological levels is to achieve a balanced and integrated metrology system in the participating states, enabling them to develop their scientific and technical capabilities in metrology. Competitive metrology capabilities affect all other aspects of the technical quality infrastructure of the participating NMIs and DIs, therefore directly contributing to increased European economic welfare.

Research Potential Projects (RPOTs) are a Capacity Building instrument for the development of the potential for metrology research of the participating organisations which will subsequently provide input to other aspects of technology transfer, innovation and all other aspects of research. The needs identified within the Potential Research Topics (PRTs) should recognise that RPOTs will be demand oriented, will have a European dimension and critical mass, will focus on EURAMET's internal infrastructure and expertise to provide appropriate internal knowledge transfer to emerging members, will be based on horizontal collaboration for the development of new metrological infrastructures in a coordinated way ("smart specialisation") and will need to demonstrate significant impact to the entire quality infrastructure. RPOTs should include some research and development activities and in this respect they differ from the technical assistance nature of cooperation, however they do not need to address fundamental scientific challenges. An important element of RPOTs is the collaboration between NMIs/DIs that are less experienced in a relevant field with NMIs/DIs with greater experience, with the aim of establishing and developing metrology capabilities and the potential for metrology research.

#### **TP Research Potential Call: Stage 2 - Selected Research Topics:**

A list of 6 Selected Research Topics was elaborated by the EMPIR Sub-Committee (Capacity Building) and a further 3 were added by the EMPIR Committee at its 5/6 June 2014 meeting before approving the full list of 9. This list was published as the call for proposals 24 June 2014 with a deadline on 9 October 2014. Additional information for each individual SRT was published with the call in the form of a brief specification and detailed objectives.

List of Selected Research Topics for TP Research Potential

REF	Title
SRT-r01	Towards the propagation of ac quantum voltage standards
SRT-r02	Traceable calibration of dynamic weighing instruments
SRT-r03	Absorbed dose in water and air

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SRT-r04	Traceability for thermometry
SRT-r05	Development of research potential in nanometrology
SRT-r06	Developing metrology research potential in [country]
SRT-r07	Traceability for time and frequency
SRT-r08	Matrix reference materials for environmental analysis
SRT-r09	Traceability for humidity

Eligibility and admissibility conditions:

For this call, the general eligibility and admissibility conditions under the EMPIR programme (see General Annexes to this work plan) will be applied.

## 1.3 Support for Impact

In order to contribute to the achievement of objectives from the European Metrology Research programmes (iMERA-Plus, EMRP, and EMPIR<sup>7</sup>), a new instrument is introduced for EMPIR under the name "Support for Impact".

<u>Scope</u>: Joint research projects (JRPs) were the main instrument under the iMERA-Plus and the EMRP programmes and they will continue to be of major importance under the EMPIR programme. However, the JRPs have a clear focus on research, and a parallel, direct transfer of the results into application within the 36 months lifetime is not realistic in many cases.

In order to better exploit the scientific and technological achievements of the JRPs, and facilitate stakeholder uptake of the results, the new instrument "Support for Impact" is introduced. Expected project outputs under this call for proposals can be described by following (non-exclusive) examples:

- a contribution to a documentary standard is approved by a Technical Committee/Working Group of a European or international Standard Developing Organisation
- a contribution to a regulatory process is approved by an European/international regulatory body
- one or more potential commercial beneficiaries approve the feasibility for the transfer of technology that was developed in a JRP.

<u>Type of action</u>: "Support for Impact" actions are coordination and support actions. Under this instrument, research and development activities are not eligible. The clear focus is on dissemination and exploitation activities. A key requirement is that there will be an external request for the work from an organisation ready to take up the outputs of the project and move them on to impact outside the metrology community. E.g. a Standards Developing Organisation ready to pilot a new measurement technique if the right technology transfer activities occur. Without such a willing recipient expressing support for the proposal and identifying the actions they will take with the outputs of the project, the proposal would have no evidence of the route to impact.

#### Eligibility and admissibility conditions and further expectations for projects:

In addition to the general eligibility and admissibility conditions under the EMPIR programme (see General Annexes to this work plan), a <u>specific eligibility condition</u> for "Support for Impact" actions is a clear reference of the proposed support activities to earlier research activities performed in a JRP funded under the iMERA-Plus, the EMRP, and in the future, the

<sup>&</sup>lt;sup>7</sup> EMPIR Specific and Operational objectives are stated in "COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT, accompanying the document "Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the participation of the Union in a European Metrology Programme for Innovation and Research jointly undertaken by several Member States", SWD(2013) 249 final, 12 July 2013, pages 18 and 19

EMPIR programmes. This requirement is justified by the aim to support the further generation of impact from research projects funded by the programme and its predecessors. (For the 2014 Call the EMRP projects will be restricted to those selected in 2009 or 2010, any later project will still be running and any work proposed could be funded by a change to the existing contract rather than the funding of a new project). Activities with no such reference will be considered ineligible. An individual "Support for Impact" project can have from one up to five project partners. The consortium size is limited as the projects are intended to be concentrated on a single output delivered by a focussed team. More complicated needs should be proposed as separate SIPs. The project duration must not exceed three years, but can be shorter. The projects shall have an average size (eligible costs) of 100 k any individual project must not exceed 150 k  $\in$ 

## 1.4 Specific call evaluation criteria, scoring and threshold

The general criteria, scoring and threshold are described in the EMPIR General Annex E. Weightings for the criteria for individual calls are given in the following table:

Call/Evaluation criteria weighting	Excellence	Impact	Implementation
TP Metrology for Industry	1.25	1.75	1
TP Research Potential	1.25	1.5	1.25
Support for impact	1	2	1

<u>Evaluation procedure</u>: The procedure for setting a priority order for proposals with the same score is given in EMPIR General Annex E.

## 2. EMPIR call for proposals in 2015

The following EMPIR calls for implementation in 2015, were approved by the EMPIR Committee during its meeting in June 2014:

Call	Call implementation	Type of Action
TP Metrology for Health	Two stages: PRT and SRT	Research and Innovation Action
TP Metrology for SI Broader Scope	Two stages: PRT and SRT	Research and Innovation Action
TP Metrology Research for pre- and co-normative standardisation	Two stages: PRT and SRT	Research and Innovation Action
TP Research Potential	Two stages: PRT and SRT	Research and Innovation Action
Support for Impact	One stage	Co-ordination and Support Action

All calls shall have a total budget of 76.00 M $\in$  (project full costs view) with an expected EU contribution of 39.48 M $\in$  The implementation dates and the individual call budgets will become available during 2014.<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> The budget amounts are indicative and will be subject to a separate financing decision to cover the amounts to be allocated for 2015.

## 2.1 Targeted Programme Metrology for Health

The TP Metrology for Health was addressed under the iMERA-Plus<sup>9</sup> and under the EMRP in 2011<sup>10</sup>. For the EMPIR call in 2015, following call scope was approved by the EMPIR Committee in August 2014:

<u>Scope</u>: The overall strategic aim of the Targeted Programme (TP) "Metrology for Health" (TP Health) under the EMPIR Call 2015 is to support – through metrological research and development – the more reliable and efficient exploitation of diagnostic and therapeutic techniques and new approaches to health, such as person-centred care, to improve healthcare and patient protection, addressing the entire human condition and not only the disease, to limit costs and foster the competitiveness of related European industries and services.

Metrology for healthcare is a horizontal underpinning activity providing innovation and confidence in the development, testing and application of new technologies for patient diagnostics, therapy and measuring the quality of health care services that improve reliability and comparability of results which reduce patient risk and add patient value. In order to provide a consistent basis for the assessment of these properties it is necessary to define measurands that properly describe the relevant biological effects that allow traceability to appropriate standards.

TP Health addresses metrology needs for the health sector, such as:

- Measurements and testing techniques to support reliability and traceability of medical and clinical data, allowing the comparability of predictive, diagnostic and treatment information.
- Improved measurement and imaging at the molecular and cellular level to support innovation in e.g. Bio/pharmaceuticals, advanced therapies, medical devices and technologies, engineered/synthetic biology and targeted drug delivery.
- Quantitative diagnostics including biomarkers, imaging and multimodal measurement processes supporting the development of patient care, preventative and personalized medicine and screening including point of care testing, nano-medicine and e-medicine.
- To support innovation to deliver real-time, non/minimally invasive measurements, personalised and modern therapies to improve quality, reliability and comparability of measurements to ensure safety, efficacy of treatments and improved quality of life.
- Metrology in support of health protection of citizens. Including innovative measurements supporting, for example, food safety, radiation protection, antibiotic resistance, infectious disease diagnostics and monitoring.
- Data Analysis for healthcare, e.g. "normal/pathological" patient reference datasets, applying metrological approaches to health related metadata, "big data" and clinical trial data.

The priority areas for research reflect those of the Horizon 2020 Programme to address major health-related societal challenges. EURAMET wishes to focus on the most pressing challenges whilst exploiting the unique capabilities of the National Measurement Institutes (NMIs) and Designated Institutes (DIs). This call will be followed by another call in 2018. Both calls together provide the opportunity to consider and propose longer-term and larger-scale approaches that are beyond the capabilities of single NMIs and DIs and, leading to coordinated European metrology infrastructures where appropriate. To enhance the impact of the R&D work, the involvement of the user community such as medical practitioners, industry, regulators etc., as well as patient interest groups, is strongly recommended. If appropriate, proposed topics should address specific documented demands of European and international Standards Developing Organisations for metrological research related to the health field.

<sup>&</sup>lt;sup>9</sup> see <u>http://www.euramet.org/index.php?id=imera-plus</u>

<sup>&</sup>lt;sup>10</sup> see <u>http://www.euramet.org/index.php?id=emrp\_call\_2011#c10258</u>

## 2.2 Targeted Programme Metrology for SI Broader Scope

The TP Metrology for SI Broader Scope was addressed under the iMERA-Plus and twice under the EMRP in 2011<sup>11</sup> and 2012<sup>12</sup>. The following scope was approved by the EMPIR Committee in June 2014.

<u>Scope</u>: The Targeted Programme (TP) "SI Broader Scope III" under the EMPIR Call 2015 is part of a sequence of calls for metrology R&D underpinning the development of the European metrology capabilities in the National Metrology Institutes (NMIs) and Designated Institutes (DIs). The call implements the long-term strategy of EURAMET to develop a joint, coherent and efficient European metrology landscape at internationally competitive level by 2025.

The related iMERA-Plus Call 2007, TP "SI Fundamental", concentrated on the measurement of constants of nature and basic measurement principles to support the envisaged redefinition of the SI base units, as requested by the General Conference on Weights and Measures (CGPM) under the Metre Convention. Under the EMRP, the TP SI Broader Scope of 2011 and 2012 went a step beyond and prepared the implementation of the redefinition, which is likely to take place in the next few years, and support developments of practical realisations ("mise en pratique") of the redefined base units and affected derived units.

The call 2015, which will be followed by another call in 2018, will build on the achievements of the first two calls. Both calls together provide the opportunity to consider and propose longer-term and larger-scale approaches bringing the European measurement capabilities in the internationally leading position.

Proposals will be preferred which aim at the development of a joint, sustainable, and coordinated European landscape of metrology capabilities. The impact criterion of the proposal selection process will reflect this objective.

The call comprises the development of new advanced techniques for providing traceability of measurement results to the users of metrology services. All technological disciplines may be addressed, if stakeholder needs are documented or can be convincingly anticipated.

To enhance the impact of the R&D work and to include world leading expertise, the involvement of the larger community such as the metrology R&D resources outside Europe, as appropriate, is expected.

## 2.3 Targeted Programme Metrology Research for Pre- and conormative projects

Metrology Research for pre- and co-normative projects are newly introduced under EMPIR. For the 1st PRT call in 2015, the following scope was approved by the EMPIR Committee in August 2014:

<u>Scope</u>: The overall strategic aim of the Targeted Programme (TP) "Pre- and co-normative research (2015)" is to develop metrological methods and techniques required for standardisation. Proposed topics should address one of the following three strands:

1) Specific documented demands of European and international Standards Developing Organisations (SDOs) for metrological research in any area.

Proposals may address the development of traceable measurement methods or the provision of validated data sets, which are required for documentary standards. The demand for the research shall be demonstrated by clear reference to the measurement needs within strategic documents published by the SDO (Technical Committee(s) (TCs) or Working Group(s),

<sup>&</sup>lt;sup>11</sup> see <u>http://www.euramet.org/index.php?id=emrp\_call\_2011#c10259</u>

<sup>&</sup>lt;sup>12</sup> see http://www.euramet.org/index.php?id=emrp\_call\_2012#c11206

(WGs), (e.g. in the Business Plans or Work Programmes) or by a letter signed by the convenor of the respective TC/WG.

Proposals in this strand are expected to be mostly "co-normative" in nature, i.e. addressing actual standardisation development work. It is expected that projects selected for funding will have fewer partners and lower eligible costs than Joint Research Projects selected under other TP calls (e.g. industry, health, energy or environment).

## 2) Metrological research for health-related standardisation work addressing documented demands of SDOs.

Selected projects under this strand will enhance the impact of the parallel TP Health call by focussing on research for health related standardisation work. Proposals can be linked to work from previous Joint Research Projects funded under the Health 2007 and 2011 calls for a comprehensive exploitation of the research results in standardisation. As under strand 1 of this call, the demand for the research shall be demonstrated by reference to strategic documents published by the SDO or by supporting letters from TC/WG convenors.

*3) Identified standardisation needs for metrological research with a potential for high impact* Proposals in this strand should address "grand challenge standardisation" and strategic priorities for European standardisation, e.g. as identified by the European Union<sup>13</sup> or as supported by European and international SDOs, e.g. by letters of support.

Proposals are expected to group different metrological R&D needs under a comprehensive theme or field such as smart grids, the Internet of Things, climate change and resource efficient Europe, etc. The potential higher impact is expected to be achieved by addressing standardisation work of several Technical Committees of possibly more than one SDO.

It is expected that the projects selected for funding will be similar in size and budget compared to Joint Research Projects selected under other TP calls (e.g. industry, health, energy or environment).

For all three strands, EURAMET encourages proposals that include representatives from industry, regulators and standardisation bodies for their active participation in the projects, specifically to ensure that the project outputs are acknowledged by the SDO TC/WG.

EURAMET wishes to generate benefit for European and international SDOs whilst exploiting the unique capabilities of its member National Metrology Institutes and Designated Institutes. This TP will enable and promote collaborative research going beyond the state of the art. As with all other TP's under EMPIR, this TP shall strengthen the mutual cooperation of European NMIs, leading to coordinated European metrology infrastructures where appropriate.

## 2.4 Targeted Programme Research Potential

As firstly implemented in 2014, TP Research Potential is foreseen for implementation in 2015 as well. According to the experience gained with the first time implementation in 2014, adaptations to the PRT call scope and other implementation processes may be proposed.

## 2.5 Support for Impact

Firstly implemented in 2014, "Support for Impact" actions are foreseen for implementation in 2015 as well. According to the experience gained with the first time implementation in 2014, adaptations to the call scope and other implementation processes may be proposed.

<sup>&</sup>lt;sup>13</sup> See the annual Union work programme for European standardisation (published in July 2013) at: http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/index\_en.htm

## 3. Supporting activities for the programme implementation

Several supporting activities regarding the implementation of the EMPIR programme are foreseen which can be grouped under following titles: Information and dissemination, consortia building, and capacity building. These activities will be implemented by EURAMET e.V. and financed from the programme administration budget. The implementation budget for 2014 is 468.7 k $\in$  The following list provides an indicative overview of the activities beyond the routine project selection processes:

#### Information, awareness, dissemination and exploitation

EURAMET e.V. maintains certain core activities to provide information on EMPIR and answer any questions, comprising a <u>Helpdesk</u> service, the EMPIR website with a range of information that is maintained and regularly updated, e.g. status information on all funded individual projects. In addition, it attends specific <u>events</u> at which presentations are given on EMPIR and its participation opportunities and conditions in order to raise awareness also among non EURAMET e.V. member organisations. EURAMET conducts <u>training sessions</u> to instruct potential consortium members and administrative staff of NMI/DI and other entities on the requirements for participating in the EMPIR programme.

#### Consortia building

<u>Partnering events</u> are organised for every two stage call under EMPIR. These events are organised shortly after the official launch date of a call - announced via the EMPIR website - and are hosted by EURAMET e.V. member organisations. In addition, a web-based facility ("Connections") is operated to support the building of consortia. For the 2014 EMPIR calls, three partnering events are planned at the beginning of July 2014: Two for TP Industry at PTB, Berlin, on 1/4 July and at NPL, London-Teddington, on 7/8 July 2014 and one for TP Research Potential at BEV, Vienna on 30 June and 1 July 2014.

Consortia building is also supported - as under the EMRP - by representatives of EURAMET member organisations - nominated by the EMPIR Committee:

- The "guardian" is a member of the EMPIR Committee who oversees the implementation of the call from pre-announcement phases to the end of the projects, incl. attendance at the project mid-term review meetings. The guardian reports to the EMPIR Committee on several occasions.
- The "facilitator" is a member of a EURAMET e.V. member organisation and experienced in the implementation of research projects. As such, it is the person that potential proposers contact for any specific issues at the proposal phase. This person cooperates closely with the guardian. Contact details for both, guardian and facilitator persons are indicated on the EMPIR call websites.

#### Capacity Building

Capacity building activities in metrology aim to achieve a balanced and integrated metrology system by supporting member states with incomplete or emerging metrology systems to decrease the gap to established metrology systems. Capacity building is a precondition to assist developing NMIs and DIs to build scientific capacities in alignment with their national economic requirements and strategies and create an enabling environment for research. As a result of capacity building activities EURAMET member organisations will be able to meaningfully participate in future EMPIR actions.

Under EMPIR, capacity building is mostly related to technical but also managerial and awareness raising skills of staff members. The investment into instrumentation, equipment and buildings is not covered by EMPIR.

In the field of metrology, the most accepted proof of a "readiness level" is the successful conduction of a key comparison; the according documentation clearly describes the capabilities of the institution having performed the comparison. However, capacity building comprise more activities and on different levels, e.g.

- hand-on trainings on specific measurement procedures and improvement of traceability and uncertainty,
- training on interlaboratory comparisons and proficiency testing,
- training on metrological infrastructure, NMI management and implementation of relevant EU legislation,

- training in preparation for participation in (EMPIR) projects,
- training, events and preparation of materials on awareness raising
- short mobility grants (i.e. attached to performance of measurements in scope of an intercomparison, or similar).

EURAMET entrusts mainly (but not exclusively) following bodies/persons with the implementation of capacity building activities: EURAMET's Focus Group on Facilitation national Metrology Infrastructure Development, a sub group of the EURAMET Technical Committee Interdisciplinary Metrology, plays an important role to develop (i.e. identify, discuss and propose) the list of activities which are considered best for the purpose of capacity building. Certain central support actions will be coordinated by the EURAMET secretariat aiming to support horizontal needs identified by members, like knowledge transfer tools on metrology or training on automation of laboratory instrumentation and procedures. The EURAMET Capacity Building Officer is responsible to manage the implementation of a distinct capacity building work plan. An annual action plan is drafted during the Focus group annual meeting in autumn and forwarded for approval at the autumn meeting of the EMPIR Committee.

## **EMPIR General Annexes**

## A. List of countries, and applicable rules for funding

Two types of organisation are eligible for funding, with different funding arrangements, others may be unfunded partners:

- <u>Internal Funded Partners: The EURAMET</u> National Metrology Institutes (NMIs) and Designated Institutes (DIs), from EMPIR participating states that have made a financial commitment to the Programme (and therefore accepted joint liability for the whole programme), can participate in projects as "Internal Funded Partners"<sup>14</sup>. Internal funded partners will receive a lower rate for indirect costs than external funded partners as a consequence of the funding they receive from their national sources
- <u>External Funded Partners</u>: All other legal entities can be External Funded Partners if they are established in the countries and territories listed in General Annex A to the Horizon 2020 work Programme<sup>15,16</sup>. International European interest organisations<sup>17</sup> will be eligible to receive funding from EMPIR as <u>External Funded Partners</u>.
- <u>Unfunded partners</u>: Legal entities that are not eligible to be Internal Funded Partners or External Funded Partners may participate in EMPIR Projects as Unfunded Partners. Unfunded partners deliver work necessary for the completion of the project, they submit their estimated costs as part of the proposal, and sign the Grant Agreement, but receive no funding from EURAMET. Legal entities that are eligible to be Internal Funded Partners or External Funded Partners may choose to participate in EMPIR Projects as Unfunded Partners and EURAMET would consider this as particularly appropriate where an industrial partner would receive a significant benefit from its participation.

In addition, legal entities established in countries not listed in General Annex A to the Horizon 2020 work Programme, and international organisations will be eligible for funding:

- when funding for such participation is provided for under a bilateral scientific and technological agreement or any other arrangement between the Union and an international organisation or a third country ;

- when EURAMET e.V. deems participation of the entity essential for carrying out the action funded from EMPIR

<sup>&</sup>lt;sup>14</sup> Legal entities which are "Designated Institutes" in a specific area will be considered as "DIs" when they participate in the technical area in which they are designated, they will not be eligible to the standard flat rate for indirect costs but only to the reduced flat rate. The same legal entity may participate in an action as a "DI" through its designated department for the area of expertise(and receive 5% indirect costs), while in <u>another</u> action it may participate through another department as an "other beneficiary" (thus receiving 25% indirect costs usual flat rate ).

<sup>&</sup>lt;sup>15</sup> http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014\_2015/annexes/h2020-wp1415-annex-ga\_en.pdf

<sup>&</sup>lt;sup>16</sup> Legal entities which are "Designated Institutes" in a specific area will be considered "other legal entities" when they participate outside of their technical area and will be eligible for the standard flat rate for indirect costs. In case a legal entity which is a "Designated institute" in a specific area participate with departments which are both within and outside their technical area within the same action, the legal entity will be considered as a "DI" and it will not be eligible to the standard flat rate for indirect costs but only to the reduced flat rate for indirect costs.

<sup>&</sup>lt;sup>17</sup> These are international organisations, the majority of whose members are Member States or associated countries, and whose principal objective is to promote scientific and technological cooperation in Europe.

# B. Standard admissibility conditions for grant proposals, and related requirements

1. To be considered admissible, a proposal must be:

- (a) Submitted following the instructions given on <u>http://msu.euramet.org/</u> before the deadline given in the call conditions;
- (b) Readable, accessible and printable.
- (c) In English.

(EURAMET does not have the capacity to receive proposals in languages other than English and have them translated.)

2. Incomplete proposals may be considered inadmissible. This includes the requested administrative data, the proposal description, and any supporting documents specified in the call. The following information will be required to be included in the proposal documentation to determine the operational capacity of proposed participants:

- A curriculum vitae or description of the profile of the persons who will be primarily responsible for carrying out the proposed research and/or innovation activities;
- A list of up to five relevant publications, and/or products, services (including widely-used datasets or software), or other achievements relevant to the call content;
- A list of up to five relevant previous projects or activities, connected to the subject of this proposal;
- A description of any significant infrastructure and/or any major items of technical equipment, relevant to the proposed work;
- A description of any third parties that are not represented as project partners, but who will nonetheless be contributing towards the work (e.g. providing facilities, computing resources)

3. Proposals shall include a draft plan for the exploitation and dissemination of the results, unless otherwise specified in the call conditions. The draft plan is not required for submissions at the first stage of a two-stage process.

4. Page limits will apply to proposals. The limits will be clearly set out in the instructions given on <u>http://msu.euramet.org/</u>. Expert evaluators will be instructed to disregard any excess pages.

## C. Standard eligibility criteria

All proposals must conform to the conditions set out in the Horizon 2020 Rules for Participation.

Furthermore in this work plan, the following conditions apply unless they are supplemented or modified in the call conditions.

A proposal will only be considered eligible if:

- (a) its content corresponds, wholly or in part, to the topic description against which it is submitted, in the relevant work plan and any Selected Research Topic published at Stage 2 of a two-stage process;
- (b) it complies with the eligibility conditions set out below, depending on the type of action.

	Minimum Eligibility conditions <sup>18 19</sup>
Research &	Three legal entities eligible as Internal Funded Partners. Each of the three shall
innovation	originate in an EMPIR supporting state, but be established in a different Member
action	State or associated country. All three legal entities shall be independent of each
	other. One of the Internal Funded Partners must act as the coordinator.
Coordination	One legal entity, eligible as an Internal Funded Partner, established in an EMPIR
& support	supporting Member State or associated country. An Internal Funded Partners must
action	act as the coordinator.

The requirement for coordinators to be Internal Funded Partners stems from the objective of the programme (as outlined in the Decision) to support the creation of an integrated European Metrology Research system with critical mass, through the alignment of the national metrology research agendas and work mainly carried out by the EURAMET NMIs and DIs.

<sup>&</sup>lt;sup>18</sup> Some entities from third countries are covered by the Council sanctions in place and are not eligible to participate in Union programmes. Please see: the consolidated list of persons, groups and entities subject to EU financial sanctions, available at <u>http://eeas.europa.eu/cfsp/sanctions/consol-list\_en.htm</u>.

<sup>&</sup>lt;sup>19</sup> For Crimean entities, rules are defined in Annex C of the H2020 Work Programme for 2014-2015. See Commission Guidelines on the eligibility of Israeli entities and their activities in the territories occupied by Israel since June 1967 for grants, prizes and financial instruments funded by the EU from 2014 onwards (OJ C 205 of 19.7.2013, pp. 9-11).

## D. Types of action: specific provisions and funding rates

The work plan clearly specifies the type of action for each call. Under EMPIR, the following types of actions are considered:

#### **Research and innovation actions**

*Description:* Action primarily consisting of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment. Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

*Funding rate:* External Funded Partners will receive 100% of their direct eligible costs plus a contribution to their indirect costs calculated as 25% of their total direct eligible costs excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the third parties. Internal Funded Partners will receive 100% of their direct eligible costs plus a contribution to their indirect costs calculated as 5% of their total direct eligible costs excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are how their indirect costs calculated as 5% of their total direct eligible costs excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the third parties.

#### **Coordination and support actions**

*Description:* Actions consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of strategic planning, networking and coordination between programmes in different countries.

*Funding rate:* External Funded Partners will receive 100% of their direct eligible costs plus a contribution to their indirect costs calculated as 25% of their total direct eligible costs excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the third parties. Internal Funded Partners will receive 100% of their direct eligible costs plus a contribution to their indirect costs calculated as 5% of their total direct eligible costs excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are how their indirect costs calculated as 5% of their total direct eligible costs excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the third parties.

## E. Evaluation

#### **Selection Criteria**

a) *Financial capacity:* In line with the Financial Regulation and the H2020 Rules for Participation. EURAMET will maintain a list of its members able to coordinate projects where it has either verified the financial capacity of the relevant legal entity or confirmed that such verification is not required by the Horizon 2020 Rules for Participation. Proposers may refer to this list before submitting a proposal.
b) *Operational capacity:* As a distinct operation, carried out during the evaluation of the award criterion 'Quality and efficiency of the implementation', experts will indicate whether the participants meet the selection criterion related to operational capacity, to carry out the proposed work, based on the competence and experience of the individual participant(s).

#### Award criteria

Experts will evaluate on the basis of the criteria 'excellence', 'impact' and 'quality and efficiency of the implementation'. The aspects to be considered in each case depend on the types of action as set out in the table below, unless stated otherwise in the call conditions.

Type of action	Excellence	Impact	Quality and efficiency of
	The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme.	The extent to which the outputs of the project should contribute at the European and/or International level to:	the implementation The following aspects will be taken into account:
All types of action	Clarity and pertinence of the objectives; Credibility of the proposed approach.	The expected impacts listed in the work plans under the relevant topic and any further documentation published at Stage 2 of a two stage process.	Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources; Complementarity of the participants within the consortium (when relevant); Appropriateness of the management structures and procedures, including risk and innovation management.
Research and innovation	Soundness of the concept, including trans- disciplinary considerations, where relevant; Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches)	Enhancing innovation capacity and integration of new knowledge; Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets; and, where relevant, by delivering such innovations to the markets; Any other environmental and socially important impacts (not already covered above); Effectiveness of the proposed measures to	Quality of the proposed consortium. Clarity of the description of deliverables, integration of resources and use of common resources

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		exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant. Under EMPIR, this criterion is evaluated specifically to the relevant stakeholders as identified in the call scope, i.e. the level to which • their needs are explained and addressed,	
		<ul> <li>they are actively engaged</li> <li>they are able to access the project's results</li> </ul>	
Coordination & support actions	Soundness of the concept; Quality of the proposed coordination and/or support measures.	Effectiveness of the proposed measures to exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant.	

#### <u>Note</u>

Unless otherwise specified in the call conditions:

(a) Evaluation scores will be awarded for the criteria, and not for the different aspects listed in the above table. Each criterion will be scored out of 5. The threshold for individual criteria will be 3. The overall threshold, applying to the sum of the three individual scores, will be 10.

(b) Individual criteria may be given more weight as indicated in the EMPIR work plan.

#### Priority order for proposals with the same score

As part of the evaluation by independent experts, they will meet and agree a final ranked list for each TP. The ranked list will follow the scores determined prior to that meeting and the EMPIR Committee will have set weightings for the evaluation criteria designed to minimise the chance of proposals receiving the same total weighted score. If two or more projects do receive the same score close to the budget line, then the evaluators will attempt to separate them in the ranked list through discussion and a vote. If the evaluators decide not to separate the ties then the EMPIR Committee will treat the tied projects

- first by giving more weight to the evaluation criteria with the largest weight for that TP,
- then by selecting projects that allow the target external participation for the TP to be met most closely
- and finally, selecting projects that allow the overall target external participation for the programme as a whole to be met most closely.

The target external participation for each TP, for the life of the programme, is given in Annex G.

## F. Budget flexibility

Budgetary figures given in this work plan are indicative. Unless otherwise stated, final budgets may vary following the evaluation of proposals or decisions of the EMPIR Committee.

The total EU funding over all Calls in the year is fixed. Whenever proposers decide to reduce their EU requested amount, more projects could be funded by allowing the reserve national funding commitments to be used while limiting the EU contribution for the year to the agreed budget.

## G. Lifetime plan for calls

The following table indicates the current expectation of calls over the life of the programme and the estimation for external participation in each TP. In the table, the estimated % for non NMI/DIs does not in any way restrict participation of any entity.

Year	Call	Total M€	Estimated % for non NMI/DIs
2014	2014-1 Industry JRPs	22.89	30%
	2104-2 Research Potential JRPs	1.39	10%
	2014-3 SIPs	0.44	0%
2015	2015-1 Health JRPs	20.16	35%
	2015-2 SI JRPs	11.83	20%
	2015-3 Pre-normative JRPs	4.74	30%
	2015-4 Research Potential JRPs	2.32	10%
	2015-5 SIPs	0.44	0%
2016	2016-1 ENV JRPs	20.43	35%
	2016-2 ENG JRPs	20.43	35%
	2016-3 Pre-normative JRPs	4.87	30%
	2016-4 Research potential JRPs	2.32	10%
	2016-5 SIPs	0.44	0%
2017	2017-1 Fundamental JRPs	15.81	40%
	2017-2 Industry JRPs	24.74	30%
	2017-3 Pre-normative JRPs	4.87	30%
	2017-4 Research Potential JRPs	2.32	10%
	2017-5 SIPs	0.44	0%
2018	2018-1 SI JRPs	20.70	20%
	2018-2 Health JRPs	20.70	35%
	2018-3 Pre-normative JRPs	4.87	30%
	2018-4 SIPs	0.44	0%
2019	2019-1 ENV JRPs	20.43	35%
	2019-2 ENG JRPs	20.43	35%
	2019-3 Pre-normative JRPs	4.87	30%
	2019-4 to-be-defined JRPs	2.19	0%
	2019-5 SIPs	0.44	0%
2020	2020-1 Industry JRPs	14.47	30%
	2020-2 Fundamental JRPs	15.43	39%
	2020-3 Pre-normative JRPs	5.00	30%
	2020-4 to-be-defined JRPs	8.75	0%
	2020-5 SIPs	0.44	0%
	Total	300.00	

## H. National Commitments

The following table indicates the current commitment by the participating states over the life of the programme. The timetable for the payment of the cash contribution will be fixed by the EMPIR Committee, the remaining in-kind annual contributions will depend on the results of the calls.

Country	Core Commitment	Reserve Commitment	Available as cash contribution for the administration
Austria	€ 840 000	€ 420 000	€ 84 000
Belgium	€ 1 200 000	€ 600 000	€ 120 000
Bosnia and Herzegovina	€ 920 000	€ 460 000	€ 92 000
Bulgaria	€ 840 000	€ 420 000	€ 84 000
Croatia	€ 700 000	€ 350 000	€ 70 000
Czech Republic	€ 8 600 000	€ 4 300 000	€ 860 000
Denmark	€ 4 750 000	€ 2 375 000	€ 475 000
Estonia	€ 910 000	€ 455 000	€ 91 000
Finland	€ 12 000 000	€6000000	€ 1 200 000
France	€ 27 000 000	€ 13 500 000	€ 2 700 000
Germany	€ 88 000 000	€ 44 000 000	€ 8 800 000
Greece	€ 0	€ 0	€ 0
Hungary	€1050000	€ 525 000	€ 105 000
Ireland	€ 600 000	€ 300 000	€ 60 000
Italy	€ 24 000 000	€ 12 000 000	€ 2 400 000
Netherlands	€ 16 500 000	€ 8 250 000	€ 1 650 000
Norway	€ 3 750 000	€1875000	€ 375 000
Poland	€ 2 500 000	€ 1 250 000	€ 250 000
Portugal	€ 840 000	€ 420 000	€ 84 000
Romania	€ 2 000 000	€ 1 000 000	€ 200 000
Serbia	€ 700 000	€ 350 000	€ 70 000
Slovakia	€ 200 000	€ 100 000	€ 20 000
Slovenia	€ 2 249 333	€ 1 124 667	€ 224 933
Spain	€ 6 000 000	€ 3 000 000	€ 600 000
Sweden	€ 5 131 000	€ 2 565 500	€ 513 100
Turkey	€ 12 000 000	€ 6 000 000	€ 1 200 000
United Kingdom	€ 83 000 000	€ 41 500 000	€ 8 300 000
TOTAL	€ 306 280 333	€ 153 140 167	€ 30 628 033