

5.1.6	At least 15 conference presentations by JRP-Consortium members	<b>JV</b> , all JRP-Partners	Presentations	Nov 2015 May 2017	
5.1.7	Submission of a least 11 scientific publications in peer-reviewed journals	<b>JV</b> , all JRP-Partners	Papers	Nov 2015 May 2017	
5.1.8	Input to at least 12 technical and/or standardisation committees	<b>JV</b> , all JRP-Partners	Meetings	May 2017	
5.1.9	Proposal to create a new ISO working group with letters of support from at least five national normalisation institutes sent to the ISO organisation	<b>VSL</b> , JV	Document	Nov 2014	
5.1.10	First draft and subsequent drafts of the new ISO standard on LNG flow meters	<b>JV</b> , VSL, Shell	Document	Nov 2015, May 2016, Nov 2016, May 2017	
5.1.11 (REG(TUBS) D13)	NWIP for MN calculations submitted to a relevant ISO committee	<b>VSL</b> , NPL, PTB, REG(TUBS), Shell	Document	May 2016	
5.1.12 (REG(TUBS) D14)	ISO technical report drafted for MN calculations	<b>VSL</b> , NPL, REG(TUBS), PTB, Shell	Document	May 2016	
5.2.1	Two, 1-day training courses organised on the basics of metrology, traceability and the LNG custody transfer measurements methods as part of the JRP	<b>VSL</b> , JV, NPL, PTB	Training	May 2016, May 2017	
5.2.2 (JRP(TUBS) D15)	Training course on the determination of the Methane Number	<b>REG(TUBS)</b>	Training	May 2016	
5.3.1	Exploitation plan for ENG60	<b>JV</b> , all JRP-Partners	Exploitation plan	Nov 2014	

## **C6 WP6: JRP Management and Coordination**

*(VSL, all JRP-Partners, REG(RUB), REG(TUBS))*

Start month: Jun 2014, end month: May 2017

The aim of this work package is to manage the joint research project in an effective and efficient manner. The following management levels will be involved:

- **Task leaders** are responsible for delivering the Task and to manage the budget, quality and planning of the deliverables within their Task and for coordinating the efforts of the JRP-Partners in the Task.
- **WP leaders** are responsible for coordinating the Tasks within their work package, to monitor and report the overall work package progress to the JRP-Coordinator.
- The **JRP-Coordinator** is responsible for coordinating the knowledge progress of all work packages, to manage the interdependencies between work packages and Tasks, to respond to questions from JRP-Partners, preparing technical progress and financial reports to the EMRP-MSU, representing the JRP-Consortium and managing the JRP's stakeholders.

## **C6.a Description of Work**

### **Task 6.1: JRP and REG management (VSL, all JRP-Partners, REG(RUB), REG(TUBS))**

(Start Jun 2014, end May 2017)

The project management will be overseen by the JRP-Coordinator (VSL, Oswin Kerkhof). The JRP-Coordinator is an experienced project manager with a track record in multi-disciplinary research. He was also the JRP-Coordinator for the preceding JRP ENG03 Metrology for LNG. A project management board will also be established consisting of the JRP-Coordinator and WP leaders.

The progress of the project will be monitored against the Gantt chart and the due deliverables. The monitoring will be carried out by organising regular teleconference meetings, email communication and progress meetings. The work plan for the JRP will be updated regularly based on progress reported by all JRP-Participants and made available to them.

### **Task 6.2: Project meetings (VSL, all JRP-Partners, REG(RUB), REG(TUBS))**

(Start Jun 2014, end May 2017)

Description of activities:

- JRP Meetings will take place to discuss the project progress, the planning of the forthcoming 12 months and to make decisions regarding any changes to the JRP work plan.
- There will be four JRP meetings, including the kick-off meeting and final meeting. The meetings will be held either at the premises of one of the JRP-Partners or at an alternative suitable location. The first JRP meeting will be held after 12 months and combined with the first JRP workshop.
- In between the JRP meetings there will be conference calls organised between the JRP-Partners to discuss the progress and planning.
- The dates for the JRP meetings and conference call meetings will be fixed during the kick-off meeting and confirmed at least three months before the actual date to ensure that all invitees are available and well prepared.

### **Task 6.3: Project reporting (VSL, all JRP-Partners, REG(RUB), REG(TUBS))**

(Start Jun 2014, end May 2017)

Description of activities:

Formal reporting will be in line with EURAMET requirements and timescales. All reports (interim, periodic, financial and publishable) will be submitted in accordance with the JRP Reporting Guidelines.

One month after the signature of the JRP-Contract a Publishable JRP Summary will be produced.

Interim Progress Reports will be provided at months 6, 12, 24, 30 (+ 45 days). Each WP leader will provide a summary of the status of their WP showing progress against the original schedule, indicating, if appropriate, where corrective actions may be necessary. These summaries will also include input from the RGs as appropriate. The JRP-Coordinator will combine all the summary progress reports from each WP into the Interim Progress Report. All JRP-Partners and RGs will provide input to the updated JRP Impact Report and the JRP-Coordinator will provide this, along with the Interim Progress Report and an updated Publishable JRP Summary to EURAMET.

Periodic reports will be provided at months 18 and 36 (+ 60 days). These will be compiled and prepared by the JRP-Coordinator, based on input from all JRP-Partners and RGs. These reports will include a detailed summary of the results achieved, the problems encountered and the solutions found, plus the impact and dissemination activities carried out. The WP leaders will also prepare a WP periodic report summarising the progress achieved in their WPs. Full financial reporting and associated audit reports will be supplied by the funded JRP-Partners at 18 and 36 months (+ 60 days) as required by EURAMET. All JRP-Partners and RGs will provide input to the updated JRP Impact Report. The JRP-Coordinator will provide the Periodic Progress report, financial reporting, updated JRP Impact Report and updated Publishable JRP Summary to EURAMET.

The Final Publishable Report will be prepared by the JRP-Coordinator at May 2017 (+ 60 days) based on input from all JRP-Partners and RGs, and will contain the final results, conclusions, impact. The

JRP-Coordinator will also provide a completed JRP Reporting Questionnaire based on input from all JRP-Partners and RGs.

### C6.b Labour Resources for WP6

	1- VSL	2- CESAME	3- CMI	4- FORCE	5- INRIM	6- JV	7- NPL	8- PTB	9- SP	10- Shell	11- REG(RUB)	12- REG(TUBS)	TOTAL
WP6	8.0	0.5	0.5	1.5	0.5	1.5	1.0	1.5	0.5	0.5	0.5	0.5	17.0

### C6.c Summary of Deliverables for WP6

Deliverable number	Deliverable description	Participants (Lead in bold)	Deliverable type	Delivery date	Dependent on
6.3.1	Publishable JRP summary	<b>VSL</b> , all JRP-Partners	Contract report	+30 days after "entry into force" of JRP-Contract	
6.3.2	Interim Progress Report Updated JRP Impact Report Updated Publishable JRP summary	<b>VSL</b> , all JRP-Partners	Contract report	Nov 2014, May 2015, May 2016, Nov 2016 All + 45 days	
6.3.3	First periodic report including Periodic Progress Report and financial reports Updated JRP Impact Report Updated Publishable JRP Summary	<b>VSL</b> , all JRP-Partners	Contract report	Nov 2015 + 60 days	
6.3.4	Second periodic report including Periodic Progress Report and financial reports Updated JRP Impact Report Updated Publishable JRP Summary	<b>VSL</b> , all JRP-Partners	Contract report	May 2017 + 60 days	
6.3.5	Final Publishable Report JRP Reporting Questionnaire	<b>VSL</b> , all JRP-Partners	Contract report	May 2017 + 60 days	

**C7 SUMMARY LIST OF ALL DELIVERABLES**

<b>Deliverable number</b>	<b>Deliverable description</b>	<b>Participants (Lead in bold)</b>	<b>Deliverable type</b>	<b>Delivery date</b>	<b>Dependent on</b>
1.1.1	Functional design specification document for the mid-scale LNG flow standard	<b>VSL</b> , CMI, Shell	Document	Jun 2014	
1.1.2	HAZOP study report and preliminary QRA for the mid-scale LNG flow standard	<b>VSL</b> , SP	Report	Aug 2014	D1.1.1
1.1.3	Metrological design rules for detail engineering for the mid-scale LNG flow standard	<b>VSL</b> , FORCE, CMI	Document	Aug 2014	D1.1.1
1.1.4	Process and Instrumentation Diagram for the mid-scale LNG flow standard	<b>VSL</b> , FORCE, Shell	Technical drawing	Jul 2014	D1.1.1
1.1.5	Control Systems Functional Specification, equipment list and specifications for the mid-scale LNG flow standard	<b>VSL</b> , FORCE	Documents	Aug 2014	D1.1.1 to D1.1.4
1.1.6	Data acquisition architecture and functional design specification for software for the mid-scale LNG flow standard	<b>FORCE</b> , VSL	Document	Aug 2014	D1.1.4, D1.1.5
1.1.7	Facility Plot Plan and Equipment Layout Diagrams for the mid-scale LNG flow standard	<b>VSL</b>	Technical drawing	Aug 2014	
1.1.8	Detail engineering package with iso, piping, hookup, 3D drawings for the mid-scale LNG flow standard	<b>VSL</b> , FORCE, SP	Documents	Dec 2014	D1.1.1 to D1.1.7
1.1.9	Final equipment list for the mid-scale LNG flow standard	<b>VSL</b> , FORCE, SP	List	Dec 2014	D1.1.5
1.1.10	Final HAZOP study report and final QRA for the mid-scale LNG flow standard	<b>VSL</b> , SP, Shell	Report	Dec 2014	D1.1.2
1.1.11	Go-no-go decision (location + investment) on the mid-scale LNG flow standard	<b>VSL</b> , Shell	Document	Jan 2015	D1.1.8 to D1.1.10
1.1.12	Purchase orders for equipment placed for the mid-scale LNG flow standard	<b>VSL</b>	Document	Feb 2015	D1.1.8, D1.1.9
1.1.13	Confirmation that VSL, FORCE and SP have overseen the construction of the skid	<b>VSL</b> , FORCE, SP	Email	Apr 2015	D1.1.8 D1.1.9
1.1.14	Software for the mid-scale LNG flow standard	<b>FORCE</b> , VSL	Software	May 2015	D1.1.6
1.1.15	Report on factory acceptance test and water functionality test report for the mid-scale LNG flow standard	<b>SP</b> , FORCE, VSL	Report	Jun 2015	
1.1.16	Safety documentation package including the QRA, explosion safety document and certificates according to applicable European directives for the mid-scale LNG flow standard	<b>SP</b> , VSL	Documents	Jun 2015	D1.1.10

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1.1.17	Confirmation that SP and VSL have overseen the construction of the on-site skid	<b>SP, VSL</b>	Email	Aug 2015	D1.1.13
1.1.18	Commissioning and functionality test reports based on LNG operation for the mid-scale LNG flow standard	<b>SP, FORCE, VSL</b>	Reports	Oct 2015	D1.1.15
1.2.1	Final design and detailed engineering drawings of 200 m <sup>3</sup> /h for the upgraded mid-scale LNG flow standard	<b>VSL, FORCE, SP, Shell</b>	Documents	Nov 2015	D1.1.18
1.2.2	Commissioning and site acceptance report for the upgraded mid-scale LNG flow standard	<b>SP, FORCE, VSL</b>	Report	Apr 2016	D1.2.1
1.2.3	Report on analysed results of the validation with a targeted uncertainty of 0.15 % on mass flow for the upgraded mid-scale LNG flow standard	<b>VSL, SP, CMI, FORCE, Shell</b>	Report	Sep 2016	D1.2.2
1.2.4	Confirmation of the integration of a commercial sampler, vaporiser and GC in the upgraded mid-scale LNG flow standard D1.2.2 and comparison with the LNG composition reference standard developed in D2.1.4 integrated into D1.2.2	<b>VSL, FORCE, SP</b>	Email	Apr 2016	D1.2.2, D2.1.4
1.2.5	Uncertainty budget for the LNG volume flow calibrations up to 200 m <sup>3</sup> /h with a targeted uncertainty of 0.2 % for the integrated mid-scale LNG flow standard D1.2.4	<b>VSL, FORCE, SP</b>	Uncertainty budget	Aug 2016	D1.2.4
1.3.1	Report on the experimental validation of extrapolation models for at least 2 types of mass flow meters and 2 types of volume flow meters	<b>VSL, FORCE, SP</b>	Report	Nov 2016	
1.3.2	Updated economic calibration procedure	<b>FORCE, VSL, SP</b>	Procedure	Jan 2017	D1.3.1
1.4.1	Cryogenic LDV standard prepared	<b>CESAME</b>	Device	Nov 2014	
1.4.2	Report on the air based experiments with the LDV standard	<b>CESAME</b>	Report	May 2015	D1.4.1
1.4.3	Report on the LN2 tests with the LDV standard	<b>CESAME</b>	Report	Jan 2016	D1.4.1, D1.4.2
1.4.4	Report on the flow simulations with the geometry of the LDV standard	<b>CESAME, CMI</b>	Report	May 2016	D1.4.1
1.4.5	Particle size characterisation of the LNG and its dependence on source	<b>CESAME</b>	Dataset	May 2016	D1.4.1
1.4.6	Confirmation of the completion of the LNG tests for validating the LDV standard	<b>CESAME, VSL</b>	Email	Feb 2017	D1.4.1 D1.4.2
1.4.7	Report uncertainty calculations for the LDV standard	<b>CESAME, JV</b>	Report	Mar 2017	D1.4.1 D1.4.2, D1.4.6

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2.1.1	Definition of a set of LNG mixtures to be used in the validation of a reference standard for validating/qualifying LNG sampling and composition measurement systems	<b>VSL</b> , Shell	Document	Jul 2014	
2.1.2	Basic design of a system for measuring representative LNG composition	<b>VSL</b> , SP, NPL, Shell	Design	Oct 2014	D2.1.1, D5.1.1
2.1.3	Report on detailed design report for the LNG composition reference standard	<b>VSL</b> , SP, NPL, Shell	Report	Jan 2015	D2.1.2
2.1.4	LNG composition reference standard constructed	<b>VSL</b>	Facility	Aug 2015	D2.1.3,
2.1.5	Certified LNG gas mixtures validated	<b>VSL</b> , NPL, SP	Samples	Sep 2015	D2.1.1
2.1.6	Report on the laboratory and 'in-field' validation of the LNG composition reference standard	<b>VSL</b> , NPL, SP	Report	Jun 2016	D1.2.4, D2.1.2, D2.1.3, D2.1.4, D2.1.5, D2.3.4, D2.3.6
2.1.7	Uncertainty budget for the LNG composition reference standard	<b>VSL</b> , NPL, SP	Uncertainty budget	Jul 2016	D2.1.6
2.1.8	Report on the validation of a reference standard for validating/qualifying LNG sampling and composition measurement systems	<b>VSL</b> , NPL, SP, Shell	Report	Nov 2016	D2.1.1 to D2.1.7
2.2.1	Report on the sampling points for LNG sampling	<b>SP</b>	Report	Aug 2014	D5.1.1
2.2.2	Design of sampling line system for LNG sampling	<b>SP</b> , CMI	Design	Mar 2015	D2.2.1
2.2.3	Sampling line system for LNG sampling manufactured	<b>SP</b>	Devices	Nov 2015	D2.2.2
2.2.4	LNG sampling results from the sampling line system for LNG sampling	<b>SP</b>	Datasets	Jul 2016	D2.2.3
2.2.5	Report on the construction and performance of the sampling line system for LNG sampling	<b>SP</b>	Report	Jan 2017	D2.2.1 to D2.2.4
2.3.1	Report on current designs of Raman LNG measurement cells and the use of Raman spectroscopy systems to measure LNG composition	<b>NPL</b>	Report	Jul 2014	
2.3.2 (REG(RUB) D1)	Design of the liquefier/measurement cell for the Raman spectroscopy measurement of LNG composition	<b>NPL</b> , REG(RUB)	Design	Dec 2014	D2.3.1
2.3.3	Simulation of the LNG cooling/heating and the phase changes associated with the design D2.3.2	<b>CMI</b>	Datasets	Feb 2015	D2.3.2
2.3.4	Liquefier/ measurement cell for the Raman spectroscopy measurement of LNG composition	<b>NPL</b>	Equipment	Aug 2015	D2.3.2, D2.3.3

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2.3.5	LNG calibration standards for D2.3.4	<b>NPL</b>	Calibration standards	Nov 2015	D2.3.4
2.3.6	Initial validation of D2.3.4	<b>NPL</b>	Datasets	Mar 2016	D2.3.4, D2.3.5
2.3.7	Test results from D2.3.4 using an industrial Raman spectrometer	<b>NPL, Shell</b>	Datasets	Apr 2016	D2.3.4
2.3.8	Report on the validation of D2.3.4 at a commercial LNG site	<b>NPL, VSL, Shell</b>	Report	Apr 2016	D2.3.4
2.3.9	Report on the validation of a Raman spectroscopy system for performing measurements of LNG composition	<b>NPL, VSL</b>	Report	Jan 2017	D2.3.1 to D2.3.8
2.4.1	Samples of LNG taken from storage facility	<b>SP</b>	Samples	Nov 2014, May 2015, Jan 2016	D5.1.1
2.4.2	Analysis of the LNG samples D2.4.1 using GC/TCD and GC/FID	<b>SP</b>	Datasets	May 2016	D2.4.1
2.4.3	Report on the long-term storage and ageing effects on LNG	<b>SP</b>	Report	Jul 2016	D2.4.2
3.1.1 (REG(TUBS) D1)	Literature review on the correlation between the MN and LNG composition	<b>VSL, NPL, PTB, REG(TUBS), Shell</b>	Document	Jul 2014	
3.1.2 (REG(TUBS) D2)	Algorithm for the MN calculation from the LNG composition	<b>NPL, VSL, PTB, REG(TUBS)</b>	Algorithm	Sep 2014	D3.1.1
3.2.1 (REG(TUBS) D3)	Validation protocol for the calculation of the MN from the LNG composition	<b>VSL, NPL, PTB, REG(TUBS)</b>	Protocol	Sep 2014	D3.1.2
3.2.2 (REG(TUBS) D4)	Set of at least 4 characterised gas mixtures with traceable composition	<b>VSL, NPL, PTB, REG(TUBS)</b>	Samples	Nov 2014, May 2015	D3.2.1
3.3.1 (REG(TUBS) D5)	Service methane number as a function of gas composition for test engine A for well-defined LNG samples over a complete operating range	<b>REG(TUBS)</b>	Datasets	May 2015	D3.2.1, D3.2.2
3.3.2 (REG(TUBS) D6)	Service methane number as a function of gas composition for test engine B for well-defined LNG samples over a complete operating range	<b>REG(TUBS)</b>	Datasets	Sep 2015	D3.2.1, D3.2.2
3.3.3	Ignition delay measurements using an RCM for well-defined LNG samples	<b>PTB</b>	Datasets	Nov 2015	D3.2.1, D3.2.2
3.3.4 (REG(TUBS) D7)	Report on the determination of knocking resistance for characterised LNG samples using SI engine and RCM techniques	<b>PTB, REG(TUBS)</b>	Report	May 2016	D3.3.1 to D3.3.3
3.4.1 (REG(TUBS) D8)	Updated model for the calculation of the MN from the LNG composition	<b>NPL, VSL, PTB, SP, REG(TUBS), Shell</b>	Model	Nov 2015	D3.1.1, D3.1.2, D3.3.1 to D3.3.3
3.4.2 (REG(TUBS) D9)	Measurement uncertainty for the calculation of the MN from the LNG composition	<b>NPL, VSL, PTB, SP, REG(TUBS), Shell</b>	Uncertainty budget	Jan 2016	D3.4.1

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3.4.3	Report on the validation of a calculation for the MN from the LNG composition and the correlation of the MN to the LNG composition	<b>VSL</b> , NPL, PTB	Report	Sep 2016	D3.3.4, D3.4.1, D3.4.2
4.1.1 (REG(RUB) D2)	Report on current methods for dealing with low-temperature dependence and the size of the force transmission error in LNG density measurements	<b>REG(RUB)</b> , VSL	Report	Nov 2014	
4.1.2 (REG(RUB) D3)	LNG density measurements for at least 4 LNG compositions using the LNG densimeter from JRP ENG03	<b>REG(RUB)</b> , VSL, NPL	Datasets	May 2015 Oct 2015	D4.1.1
4.1.3 (REG(RUB) D4)	Report on the results of the LNG density measurements in D4.1.2 including the uncertainty for the measurements	<b>REG(RUB)</b> , VSL, NPL	Report	Dec 2015	D4.1.2
4.2.1 (REG(RUB) D5)	Selection of the EoS for improvement for calculation of the saturated liquid density of LNG	<b>REG(RUB)</b> , VSL	List	Dec 2015	D4.1.2
4.2.2 (REG(RUB) D6)	Report on the improvements of the selected EoS for calculation of the saturated liquid density of LNG	<b>REG(RUB)</b> , VSL	Report	Jan 2016	D4.2.1
4.2.3 (REG(RUB) D7)	Specifications for the software tool for LNG-density calculations	<b>REG(RUB)</b> , VSL	Document	Jan 2016	D4.2.1
4.2.4 REG(RUB) D8)	Validated software tool for LNG-density calculations	<b>REG(RUB)</b> , VSL	Software	Feb 2016	D4.1.2, D4.2.3
4.3.1	Design for a new SoS sensor for simultaneously determining the density and SoS of LNG samples in liquid phase at different cryogenic temperatures	<b>INRIM</b>	Design	Nov 2014	
4.3.2	SoS sensor based on the design in D4.3.1 constructed	<b>INRIM</b>	Device	May 2015	D4.3.1
4.3.3	Cryostat suitable for use with the SoS sensor D4.3.2	<b>INRIM</b>	Device	Nov 2015	D4.3.1, D4.3.2
4.3.4	Validation of the SoS sensor D4.3.2 at non-cryogenic temperatures with pure liquids	<b>INRIM</b>	Datasets	Jan 2016	D4.3.2
4.3.5	Validation of the SoS sensor D4.3.2 at cryogenic temperatures with pure fluids	<b>INRIM</b>	Datasets	Jul 2016	D4.3.2, D4.3.3
4.3.6	Uncertainty analysis of the SoS sensor for simultaneously determining the density and SoS of LNG samples in liquid phase at different cryogenic temperatures	<b>INRIM</b>	Uncertainty budget	Nov 2016	D4.3.5
4.3.7	Measurements of density and SoS of LNG samples in liquid phase at different cryogenic temperatures using the SoS sensor	<b>INRIM</b>	Datasets	Feb 2017	D4.1.2, D4.3.2, D4.3.3
4.4.1	Identification of current data used in enthalpy and calorific value calculations	<b>PTB</b>	List	May 2015	



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4.4.2	Report on the relevant physical quantities and current data used in enthalpy and calorific value calculations	<b>PTB</b>	Report	May 2016	D4.4.1
4.4.3	Guideline on the traceability of energy and enthalpy calculations	<b>PTB</b>	Guide	Nov 2016	D4.4.2
5.1.1	JRP Advisory Group established and yearly meetings organised	<b>VSL</b> , all JRP-Partners	Meetings	Jun 2014, May 2015, May 2016, May 2017	
5.1.2	Project website created and updated at least every 6 months	<b>JV</b> , all JRP-Partners	Website	Aug 2014, Feb 2015, Aug 2015, Feb 2016, Aug 2016, Feb 2017, May 2017	
5.1.3	1-day JRP Workshop organised by FORCE (target at least 50 attendants)	<b>FORCE</b> , all JRP-Partners	Workshop	May 2015	
5.1.4	1-day JRP Workshop organised by NPL (target at least 50 attendants)	<b>NPL</b> , all JRP-Partners	Workshop	May 2016	
5.1.5	2-day JRP Conference organised by VSL (target at least 100 attendants)	<b>VSL</b> , all JRP-Partners	Workshop	May 2017	
5.1.6	At least 15 conference presentations by JRP-Consortium members	<b>JV</b> , all JRP-Partners	Presentations	Nov 2015 May 2017	
5.1.7	Submission of a least 11 scientific publications in peer-reviewed journals	<b>JV</b> , all JRP-Partners	Papers	Nov 2015, May 2017	
5.1.8	Input to at least 12 technical and/or standardisation committees	<b>JV</b> , all JRP-Partners	Meetings	May 2017	
5.1.9	Proposal to create a new ISO working group with letters of support from at least five national normalisation institutes sent to the ISO organisation	<b>VSL</b> , JV	Document	Nov 2014	
5.1.10	First draft and subsequent drafts of the new ISO standard on LNG flow meters	<b>JV</b> , VSL, Shell	Document	Nov 2015, May 2016, Nov 2016, May 2017	
5.1.11 (REG(TUBS) D13)	NWIP for MN calculations submitted to a relevant ISO committee	<b>VSL</b> , NPL, PTB, REG(TUBS), Shell	Document	May 2016	
5.1.12 (REG(TUBS) D14)	ISO technical report drafted for MN calculations	<b>VSL</b> , NPL, REG(TUBS), PTB Shell	Document	May 2016	
5.2.1	Two, 1-day training courses organised on the basics of metrology, traceability and the LNG custody transfer measurements methods as part of the JRP	<b>VSL</b> , JV, NPL, PTB	Training	May 2016, May 2017	
5.2.2 (JRP(TUBS) D15)	Training course on the determination of the Methane Number	<b>REG(TUBS)</b>	Training	May 2016	

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5.3.1	Exploitation plan for ENG60	<b>JV</b> , all JRP-Partners	Exploitation plan	Nov 2014	
6.3.1	Publishable JRP summary	<b>VSL</b> , all JRP-Partners	Contract report	+30 days after "entry into force" of JRP-Contract	
6.3.2	Interim Progress Report Updated JRP Impact Report Updated Publishable JRP summary	<b>VSL</b> , all JRP-Partners	Contract report	Nov 2014, May 2015, May 2016, Nov 2016 All + 45 days	
6.3.3	First periodic report including Periodic Progress Report and financial reports Updated JRP Impact Report Updated Publishable JRP Summary	<b>VSL</b> , all JRP-Partners	Contract report	Nov 2015 + 60 days	
6.3.4	Second periodic report including Periodic Progress Report and financial reports Updated JRP Impact Report Updated Publishable JRP Summary	<b>VSL</b> , all JRP-Partners	Contract report	May 2017 + 60 days	
6.3.5	Final Publishable Report JRP Reporting Questionnaire	<b>VSL</b> , all JRP-Partners	Contract report	May 2017 + 60 days	