ROSIN Agreement

for

Focused Technical Project No. NNNN (for financial support to third parties)

This Agreement for providing financial support for Focused Technical Project (FTP) under the ROSIN project by Technische Universiteit Delft hereinafter referred to as the "**Agreement**", is entered into by and between:

1. Technische Universiteit Delft, (hereinafter referred to as: "TU Delft"), 27364265, established in STEVINWEG 1, DELFT 2628 CN, Netherlands, VAT number NL001569569B01, legally represented for the purposes of signing the Agreement by Prof. Dr. T.S. Baller

And

2. the FTP Champion'

[FTP Champion details]

and the following other beneficiaries:

- 3. [FTP Participant(s) legally represented by and
- 4. Performer(s) legally represented by details]

The parties 2, 3 and 4 hereinafter referred to individually or collectively as 'Beneficiary' or 'Beneficiaries',

TU Delft and the Beneficiaries will hereinafter individually or collectively referred to as 'Party' or 'Parties'.

Whereas TU Delft has entered into a Grant Agreement and Consortium Agreement as from 1 January 2017 ("GA" and "CA"), establishing the project "ROS-Industrial quality-assured robot software components" ("ROSIN"), and setting out the terms and conditions, and rights and obligations, applicable to the grant by the European Commission and between and amongst the ROSIN Partners;

Whereas the European Commission has agreed that specific FTP projects may be performed by third parties in so called Focused Technology Projects ("FTPs");

Whereas the Beneficiaries have entered into a proposal called [FTP NAME], attached as Annex I to the Agreement;

Whereas the Beneficiaries are aware that for fulfilment of the GA, TU Delft is co-dependent on the performance of the Beneficiaries.

Whereas the TU Delft is willing to provide financial support under the funding received from the European Commission to the Beneficiaries for [FTP NAME] carried out by the Beneficiaries. Beneficiaries are willing to receive such funding for milestone one under the terms and conditions of GA and the terms and conditions of this Agreement;

The parties referred to above have agreed to enter into the Agreement under the terms and conditions below.

By signing the Agreement, the Beneficiaries accept the grant and agree to implement it under their own responsibility and in accordance with the Agreement, with all the obligations and conditions it sets out.

The Agreement is composed of:

Definitions

Terms and Conditions

Annex I FTP description (FTP proposal)

Annex II Payments

Annex III Funding

Annex IV Special Conditions - includes an excerpt of GA Annex I and Articles 6 and 15, 18, 22, 23 35, 36, 38 39 and 46 of the GA,

Annex V Acknowledgment

Annex VI Milestone 1 Report, Quality and Quality Assurance Self Evaluation

Now therefore it has been agreed as follows:

1 DEFINITIONS

- 1.1 **Background** shall mean any IP, other than results, resulting from work done prior to the start or independently of the performance of the FTP.
- 1.2 **FTP** means an innovation, research or education activity that supports the objectives of the ROSIN Project, partially funded by the European Commission under the framework of the GA, eventually in co-operation with other entities.
- 1.3 **Grant** means the financial support to be given to the Beneficiaries in accordance with the terms and conditions of article 8 of the GA and the terms and conditions of this Agreement and the description of the FTP in Annex I.
- 1.4 **GA** means the Grant Agreement relevant to ROSIN dated Nov 3 2016 with reference number **732287.**
- 1.5 **Beneficiaries** refers to: [List the Beneficiaries]
- 1.6 **FTP Champion** refers to the entity leading the FTP, who submitted the FTP proposal.
- 1.7 **FTP Participants** refers to all the Beneficiaries that will contribute

- financially for the remaining milestones besides milestone 1 to the completion of the FTP work, which includes the Champion.
- 1.8 **FTP Performers** refers to all the Beneficiaries that will perform the FTP work.
- 1.9 **Results** shall mean IP resulting from work done during and as part of the objective(s) of the FTP

2. TERMS AND CONDITIONS

- 2.1 The Beneficiaries will take part in the following FTP: [FTP name] as further defined in Annex I to this Agreement and in accordance with the state of the art.
- 2.2 The FTP Performers shall carry out the tasks according Annex I starting at the earliest practicable date, but in no event later than six months upon signature of agreement.
- 2.3 Within 14 days after reaching the first milestone the FTP Performer will submit and ask for approval on the Milestone 1 Report including the Quality and Quality Assurance Self Evaluation (Annex VI). Further the FTP Performers shall report to TU Delft and the FTP Participants on the activities' progress in regular intervals as reasonably requested. Such reports shall contain detailed information on the results generated by the FTP Performers (if any). Specifically, FTP Performers shall provide a summary report after each milestone, providing evidence that the milestone was reached, as defined in Annex I.
- 2.4 The FTP Participants, or, if applicable the Performers directly, shall inform TU Delft on their agreement with each FTP Performers' report described in section 2.3

GA requirements: Art 18-20 Reports and Deliverables: The FTP Participants, or, if applicable the Performers directly, agree to submit progress reports to TU Delft if needed to enable TU Delft to include all contents directly into the project reporting, and to identify work performed and resources deployed by the FTP Performers.

The contents and format of the various reports required, and the publication and approval procedures, are set out in Art. 18- 20 of the Grant Agreement

TU Delft shall in any event be entitled to include the main issues regarding the FTP according to Annex I in its reporting towards the European Commission and third parties. For that matter, the Beneficiaries grant a worldwide, perpetual and royalty free publication license to TU Delft

In case TU Delft wishes to include in a dissemination activity a Beneficiary's Results (which are not yet publically available), and as

- the case may be, its Background that is included in the respective Result(s) and it cannot be removed without losing its informative value, it needs to inform the respective Beneficiary hereof within 21 calendar days
- 2.5 TU Delft and FTP Participants are obliged to transfer the financial contributions to the FTP Champion as described in Annex II.
- 2.6 The FTP Champion shall pay the FTP Performers as described in Annex II. These payments shall be made as specified in Annex II, provided that the conditions listed in sections 2.1, 2.2, 2.3 and 2.4 are met by the Beneficiaries.
- 2.7 The Beneficiaries shall adhere in the execution of this Agreement to all applicable laws, rules and regulations, including, but not limited to safety, security, welfare, social security, public procurement and fiscal laws, rules and regulations. Especially, the Beneficiaries shall not be entitled to act or to make legally binding declarations on behalf of TU Delft. The Beneficiaries shall indemnify TU Delft from any third party's claim resulting from a breach of these obligations.
- 2.8 The liability of TU Delft under this Agreement shall in any case be limited to the amount of the financial support under milestone 1 and TU Delft shall not in any case be liable for any indirect or consequential damages. This limitation of liability shall not apply in cases of willful intent.
- 2.9 The Beneficiaries shall fully and exclusively bear the risks in connection with the FTPs for which financial support is granted by TU Delft. The Beneficiaries shall indemnify TU Delft for all damages, penalties, costs and expenses which TU Delft as a result thereof would incur or have to pay to the European Commission or any third parties with respect to such FTPs financially supported and/or for any damage in general which TU Delft incurs as a result thereof. In addition, should the European Commission, in accordance with the GA, have a right to recovery regarding the Grant under this Agreement, the Beneficiaries shall pay the sums in question in the terms and the date specified by TU Delft, in execution of any request formulated by the European Commission or TU Delft. Moreover, the Beneficiaries shall indemnify and hold TU Delft, their respective officers, directors, employees and agents harmless from and against all repayments, loss, liability, costs, charges, claims or damages that result from or arising out of any such recovery action. With regard to claims of third parties using the results of the FTP at hand, the Beneficiaries represent and warrant to TU Delft that the deliverables under this agreement shall be fit for use.
- 2.10 The Beneficiaries are and will remain an independent party and are not and will not be an agent of TU Delft. The Beneficiaries will conduct all of its operations on its own behalf and for its own account. The Beneficiaries have no power or authority to act for TU Delft for any purpose and the Beneficiaries will not, on behalf of, or in the name of TU Delft, either enter into any contract, undertaking

- or agreement of any sort or make any promise, warranty or representation or any other matter. The Beneficiaries agree to refrain from any attempt to assume or create obligations for, or to act in any other manner as agent or on account of on behalf of TU Delft.
- 2.11 The Beneficiaries agree with regard to ROSIN to refrain from any attempt to contact the European Commission without the prior written consent and intermediation of TU Delft.
- 2.12 In case of doubts regarding the quality or quantity work of Performers (including actual hours spent on the work), TU Delft or the auditors of TU Delft are entitled to request for additional information from Participants or Performers. Participants or Performers will provide such information to TU Delft or auditors of TU Delft within two weeks as from the date of the request. The Participants and Performers will keep such accurate books as necessary to provide TU Delft the necessary information upon request, such as timesheets.
- 2.13 The Beneficiaries agree to collaborate with other entities performing another ROSIN FTP that is related to the beneficiaries' FTP and whose results and objective(s) present similarities and/or overlap, upon request from ROSIN. This collaboration may consist of:
 - Early sharing of results between the Beneficiaries and the other entities.
 - At least one meeting via teleconference, to discuss the nature of both projects, their potential overlap and joint actions.
 - Reasonable modifications to Annex I of this agreement to adapt the planned activities to any potential joint activity that results in a minor modification of the scope of the FTP, as long as this modification does not affect the FTP budget and its nature remains within the reach of the applicants' skills.

3. APPLICABLE REQUIREMENTS ARISING OUT OF THE EMBEDDED LEGAL FRAMEWORK: CONDITIONS FROM THE GA

TU Delft receives funding from the European Commission and some of the obligations of TU Delft under the GA have to be imposed on the Beneficiaries by TU Delft. The Beneficiaries acknowledge and agree that these obligations will be fully applicable to it and shall do everything that is necessary in order to enable TU Delft to comply with these obligations. In particular, the Beneficiaries acknowledge and agree that the European Commission, the European Court of Auditors (ECA) and the European Anti-fraud Office (OLAF) can exercise their rights under Articles 22 and 23 of the GA towards the Beneficiaries. The Beneficiaries acknowledge and agree that obligations of TU Delft under Articles 35, 36, 38 and 46 of the GA

also apply to the Beneficiaries. Annex IV Special Conditions includes the Articles 35, 36, 38 and 46 of the GA.

4. INTELLECTUAL PROPERTY RIGHTS POLICY

Parties acknowledge that the aimed results will have an open source nature. The Beneficiaries acknowledge the terms of the Intellectual Property Rights Policy included in the GA (Articles 23a to and including 28 of the GA). The Beneficiaries agree that it will apply such terms to the FTP to which it takes part under this Agreement in a manner to ensure that TU Delft will always be able to comply with such terms towards the European Commission, the Consortium Partners or any other relevant third party, even if such compliance would imply that the Beneficiaries needs to transfer all intellectual property rights to TU Delft. TU Delft and [FTP Partner] may enter into further specific agreements for this purpose.

Should the Beneficiaries wish to use (and keep protected) any Background IP it is entitled to, it shall do so only with prior written consent of TU Delft. Any such Background IP shall be listed on an inclusion list and fixed as Annex to this Agreement.

The Beneficiaries acknowledge that the following types of license may apply to the results: Apache 2.0 (preferred) or BSD license

The Beneficiaries will acknowledge the support of the ROSIN project and the European Commission for the results obtained in any reasonable way requested by the TU Delft, for example by including such acknowledgement see Annex V in a text attached to the results open-sourced in a suitable manner (such as in a readme-file).

5. CONFIDENTIALITY

The Parties shall keep in confidence for the duration and for a period of four years after the end of the ROSIN Project any ROSIN and FTP Partner's technical or business information which was declared and marked as confidential, and shall not disclose such information to third parties without the prior written consent of the respective Partner. This obligation shall not apply to any information, which is:

 orally provided and not confirmed in writing as being confidential within three (3) days from the moment the information was provided;

- proven to have been known to the receiving Party prior to the time of its receipt pursuant to this Agreement; or
- in the public domain at the time of disclosure to the receiving Party or thereafter enters the public domain without breach of the terms of this Agreement; or
- lawfully acquired by the receiving Party from an independent source having a bona fide right to disclose the same; or
- independently developed by an employee of the receiving Party who has not had access to any of the Confidential Information of the other Party.

6. TERMINATION

Each Party can terminate this Agreement with immediate effect through written notice to the other Party:

- 6.1 if the other Party is in breach of any of its material obligations under this Agreement, which breach is not remediable, or, if remediable, has not been remedied within thirty (30) days after written notice to that effect from the party not in breach,
- 6.2 if the other Party is declared bankrupt, is being wound up, is having its affairs administered by the courts, has entered into an arrangement with its creditors, has suspended business activities, or is the subject of any other similar proceeding concerning those matters, or
- 6.3 if the other Party is subject to an Event of Force Majeure, which prevents the other Party from correct performance of its obligations hereunder and such circumstances have lasted, or can reasonably be expected to last more than 3 months

7. CONCLUDING CONDITIONS

- 7.1 Ancillary agreements, amendments, additions hereto shall be made in writing. This applies also if the requirement of the written form shall be waived.
- 7.2 Any subcontract by the Beneficiaries concerning some of its tasks under this Agreement requires the prior written consent of TU Delft and does not affect its own obligations resulting from this Agreement. The Beneficiaries shall secure that the subcontractor will comply with all obligations especially coming from the GA, and with regard to confidentiality resulting from this Agreement and that the results attained by the subcontractor will be available in accordance with Section 4.
- 7.3 If any provision of this Agreement is determined to be illegal or in conflict with the applicable law, the validity of the remaining provisions shall not be affected. The ineffective provision shall be replaced by an effective provision that is economically equivalent. The same shall apply in case of a gap.
- 7.4 Each Party warrants that it is duly authorized and empowered to execute, deliver and perform this Agreement, its representative is entitled to sign this Agreement and that such actions do not conflict with or violate any provision of law, regulation, policy, contract or other instrument to which it is a Party or by which it is bound and that this Agreement constitutes a valid and binding obligation of it enforceable in accordance with its terms.
- 7.5 This Agreement will come into force on the date of the last signature and will have the same duration as the GA. Should the duration of the GA changed, this Agreement will be amended accordingly.
- 7.6 This Agreement shall be governed by and construed in accordance with the laws of the Netherlands.
- 7.7 Any disagreement or dispute which may arise in connection with this Agreement and which the Parties are unable to settle by mutual agreement will be brought before the courts of the Hague, the Netherlands.

Done in two original exemplars,	•
Technische Universiteit Delft:	[FTPP Participant(s) and Performer(s)]
Date:	Date:

Annex I

FTP description

Annex II To ROSIN AGREEMENT for Focused Technology Project

(for financial support to third parties) total ROSIN contribution to FTP (milestone 1): Payment to Champion

Payments

Party	Date	Payment
ROSIN Consortium		EUR XXXXX 60% at signature of the agreement 40% at completion of Milestone 1
[FTP Performer 1]		
(add as many rows for FTP Performers as needed)		

TU Delft will pay to FTP champion 60% [EUR xxxx] from the overall lump sum [EUR xxxx] upon signature of this agreement and 40% [EUR xxxx] upon completion of milestone 1.

If applicable, the FTP champion shall re-distribute the entire payment to the performer(s) as described in the FTP budget in Annex I.

The FTP champion shall request the payment(s) by sending an invoice mentioning the following address:

TU Delft Valorisation Centre to Helma van den Bos SSC-Finance Accounts Payable PO BOX 5024 2600 GA Delft The Netherlands

Reference: Y90167 (ROSIN)

Details of the beneficiary

Full name
Full address
Full address
Postal code
Town
Country
Name contact person bank
Telephone number
E-mailaddress
VAT Number
Chamber of Commerce number
Invoice number
:

Details about the bank

Name of the bank
Address if the bank
Town / City of the branch
Country of the branch
(Bank) account number of
Beneficiary Bankcode
Branchcode
SWIFT / BIC code
IBAN
:

Annex III To AGREEMENT for

Focused Technology Project (for financial support to third parties) For milestone 2,3,: payment by Participants

Funding

Party	Authorised Signature	Date	Contribution
[FTP Participant 1]			EUR XXXXX YY% at completion of Milestone 1 ZZ% at completion of Milestone N
(add as many rows for FTP Participants as needed)			

Annex IV Special Conditions

Extract from the Description of Action regarding the Focused Technical Projects (FTPs)

1.3.3 Economic concepts underpinning the FTP approach (WP2) 1.3.3.1 Why we require full user investments in FTPs

We aim to foster community-driven projects ("Focused Technical Projects") by pre-financing the first milestone. The full remaining project cost should be paid by a collaborating group of industrial users (the participants). The EU funds serve to kick-start the project.

We have chosen this approach because it best serves our ultimate goal: the creation of a large, self-sustaining, active community around ROS-Industrial. To reach this goal, industrial commitment is key, and industrial commitment is obtained through industrial *investment*. Perhaps counterintuitively, industrial commitment is *low* (or even absent) if a novel technology is supplied *free* or at low cost, an effect that we want to avoid. The investment-commitment effect has two causes.

First, organizational commitment¹ increases with the investment that has been made due to a behavioural effect of the members within the organization. In addition to the obvious effect that an earlier investment results in more knowledge about a new technology and therefore a better view on its usability, there is also a more psychological effect. Based on theories of behavioural science, it is well known that organizational decision making is not a purely rational process, but is influenced by (desired consistency with) previous actions; having invested in something before is a good reason to continue investing in it². Although this effect may cause bad organizational decisions³ in extreme situations, we argue that it's the same underlying principle which caused the success of Linux and will also lead to wide adoption and continued growth of the ROS-Industrial community.

Second, if a company can obtain a technology for free, so can the competition, and therefore it gives no competitive edge. This prevents companies from investing in (the application of) new free technologies when they are still relatively unknown. Obviously, once a free technology such as ROS-Industrial is ubiquitously used, then companies *must* invest in it in order not to lose customers to the competition. So, here we see a clear difference in attitude *before* and *after* establishing a large user base, and the ROSIN project is meant to make this breakthrough. After the project, companies will be forced by competitive pressure to deliver highly intelligent robot systems at relatively low cost by also using ROS-Industrial open-source software components, and this is exactly the ultimate impact that ROSIN aims for.

One could raise the question whether our lean approach will work: will industrial users be pursuaded to start up an FTP if the "only" extra benefit is ROSIN's pre-financing contribution? We argue that the answer is *yes*, based on the fact that several FTPs have already been started

¹ Shapira, Zur. Organizational decision making. Cambridge University Press, 2002.

² Brown, Randall B. "Organizational commitment: Clarifying the concept and simplifying the existing construct typology." Journal of Vocational Behavior 49.3 (1996): 230-251.

³ Arkes, Hal R., and Catherine Blumer. "The psychology of sunk cost." Organizational behavior and human decision processes 35.1 (1985): 124-140.

and completed, and that in each case the pre-financing deadlock was the main cause for delays. The ROS-Industrial Consortium leaders will initially have to actively bring users together and help set up and coordinate the FTPs, so we have reserved budget for this in WP2.

1.3.3.2 How FTPs are organized

The following is a brief overview of the general FTP process, taken and modified from the ROS-Industrial website. FTPs enable collaborating users to create new ROS-I capabilities through cost-shared research and development. Characteristics of FTPs include:

- The scope of work is created by an *FTP Champion* who initiates the FTP
- The scope of work should have near-term utility for the group members
- FTPs are the primary means by which new capabilities are added to ROS-I
- FTPs facilitate technology transfer between users (participants) and developers (performers)
- The primary purpose for an FTP is to share the cost of developing commonly needed infrastructure, which each participant will then use to pursue its specific goal (typically related to its area of business and/or its core specialization)

How is an FTP initiated?

An FTP begins when the user with the highest need for the FTP result (the *FTP Champion*) initiates a proposal by defining the requirements for a project. In consultation with participants and performers, the Champion will create a quad chart that captures essential data for the project including a conceptual illustration, scope of work outline, cost, and schedule information.

Who performs the work?

The FTP applicant can receive guidance to select performers from the ROS-Industrial community to perform the work for their FTP. As a general rule, performers should be selected to maximize the cost/schedule efficiency of the project. An FTP participant may also wish to be involved with software development/testing for rapid technology transfer once the FTP is complete. The FTP applicant can receive guidance from ROSIN to select the performer.

What about intellectual property?

ROS-Industrial is an open-source project. . By default, all data will be made public unless the FTP participants request to delay its release. Information that may be withheld includes:

- Release of source code may be delayed typically 6-12 months (max two years) after the start of an FTP.
- The following data may remain confidential to the FTP group indefinitely:
 - Detailed Requirements
 - o Documentation
 - o Proprietary 3D Models
 - o Pictures
 - o Live demos
 - o Demo video

How are costs shared?

Labour costs for an FTP are divided among participants and ROSIN. In-kind contributions of labour must be approved unanimously by the FTP group (FTP performers and participants). Equipment needed for development or demonstrations is generally loaned to the group by the participants or by the performers. Though this may involve additional effort or expense for the

participants, the outcome is most beneficial to the one who provides the equipment, since no additional adaptation is required to utilize the outcome.

1.3.4 Methods for FTPs and new education activities (WP2)

The ROSIN project will reserve the considerable budget of €3,5M to cascade Financial Support to Third Parties for execution of smaller development projects which we call Focused Technical Projects (FTPs) and a budget of €300K, to be cascaded as Financial Support to Third Parties (FSTP), for partially financing the initial investment in new ROS related education activities.

It is essential (1) that there are clear rules and transparent evaluation procedures, and (2) that the funds have a strong multiplier effect on community engagement. To explain the proposed procedure, it is easiest to first illustrate the various steps in the procedure and subsequently detail how complete transparency is achieved.

A new FTP proposal or education plan will typically emerge from interactions during one of the many symposia, meetings, conferences, and training sessions which we will organize in the Dissemination & Exploitation Workpackage (WP5). The procedure is described here, followed by a flowchart.

1.3.4.1 FTP procedure

Step 1: preparation of an FTP project plan

One or more *participant* based in a country eligible for H2020 funding, i.e., companies or institutes that will benefit from a new development, decide that they need a certain new feature, component, or demonstration. They will only focus on *real* needs, because the participants will commit to funding the total development cost of the entire FTP. This ensures *market pull* rather than *technology push* for new innovations. It is financially interesting for the participants to do this, because they fund part, but benefit from the whole, typically keeping the rest of the community at a distance by delaying open-source publication usually by 6–12 months and maximally 24 months. The development work will be done by whoever the participant decide to be the best candidate(s), which can be inside or outside their own organizations.

A number of FTPs have already been successfully completed, so we have clear evidence that it works. However, there is one key bottleneck seriously delaying the initiation of new FTPs, and that is the familiar stalemate: participants typically want to pay for a milestone *after* successfully achieving it, whereas developers typically need to secure the funds before initiating the work on that milestone. Exactly this problem will be alleviated with the proposed funding scheme.

Step 2: Application for funding from ROSIN project

The participants and performers together submit the FTP plan to the ROSIN GA (composition detailed in management paragraph), and request ROSIN to fund the first milestone. Typically, an FTP will have one or two entities involved, an expected duration of 12 months, three milestones and a budget of around €50K to €100K. Larger and smaller FTPs are equally eligible, as long as the requested financial support provided by ROSIN comprises 33%or less of the total FTP cost and a maximum amount of €100K, with the involved organizations committing to finance the remaining share.

There are two distinct roles in any FTP:

• the (industrial) participants (i.e., the users of the technology), one of whom is the

- champion, i.e. the main driving force behind the FTP (bearing at least 60% of the total project costs, and
- the performers (i.e., the developers), who are those that can most cost-effectively do the software development work.

Any organization, worldwide, is eligible for any role in an FTP. However, to receive ROSIN seed funding for the FTP, the project champion must be an organisation based in a country eligible for H2020 funding, and moreover only the development cost made by performers based in a country eligible for H2020 funding can receive ROSIN seed funding. Note that ROSIN members are not eligible (since they are not third parties by definition).

There is no requirement for the number of (industrial) participants and performers; the open-source distribution of the software through the ROSIN dissemination activities will ensure European-wide spread and usage of the results.

Generally, an FTP has 1–5 participants and 1–4 performers. In perhaps 50% of the cases, a (industrial) participant will also act as a performer for a part of the development work. This is to be welcomed (as it helps to give ROS-Industrial a foothold inside the participant's companies),

What is the relationship between participants and performers?

The participants will have complete access to all of the software and documentation resulting from the FTP. The performers publish the software under Apache 2.0 copyright licence. This licence regulates rights and obligations and protections of any user of the software and of the authors.

Which type of persons or category of persons can receive seed funding?

All organisations based in a country eligible for H2020 funding can act as performers and performers can receive Financial Support to Third Parties to execute an FTP. Only man-hours of technical software developers (e.g. technicians, PhD, PostDocs) are considered as eligible costs for a FTP project. Project management, financial and legal administration are not considered as eligible activities for FSTP. Furthermore, purchase of hardware, consumables, travel and subsistence costs and dissemination activities are not considered as eligible costs for FSTP.

What activities can be funded?

Development of *ROS-Industrial software components*, resulting in new or significantly extended software libraries or packages. While the ultimate, tangible result will be a software technology and related assets, the funded activities leading to it can specifically be:

- extensions to the ROS-Industrial technology stack, for instance drivers for unsupported hardware, communication protocols, etc
- extensions to the ROS-Industrial functional capabilities, for instance template applications for industrial tasks (e.g., a palletizing app)

The constraint on the creation (or significant extension) of a software component as the ultimate result ensures that each FTP will grow the platform along at least one of such two axes. ROSIN dissemination activities by ROSIN members within the context of the project will in parallel ensure that the relevant audiences become aware of such results.

The project work should include, where necessary, standardization documents, software documentation and tutorials, and quality test results or other forms of quality assurance as mandated by the General Assembly (GA) However, as stated the main output is the new or significantly extended (set of) software component(s). Financial support is limited to software development activities, excluding dissemination activities, travel budget, purchase of robots or

other materials, licenses, and all other activities which are not purely software related development.

When to apply?

ROSIN will organize the FTP funding as a Continuously Open Call with distinct deadlines for evaluation of submitted proposals, 4 times per year. The Open Call will be closed when the € 3,5M financial support to third parties has been allocated. The granting will be on a first in/first serve basis.

There is no limit to the number of re-submissions if an FTP proposal is deemed ineligible; the GA will provide feedback to unsuccessful proposals until they reach all eligibility criteria.

What part of the FTP activities take place within the ROSIN project and what is actually taking place outside ROSIN project or after the project?

After completion of Milestone 1 for each FTP, ROSIN has no further role. It is up to the participants and the performers mediated by RIC-EU management to complete the remaining milestones. ROSIN however will monitor progress since ROSIN FSTP can only be considered a success if the entire FTP will be completed. If an FTP does not reach completion, ROSIN will adjust its evaluation procedure regarding the realistic feasibility (criterion 3), and might also decide to exclude the defaulting parties (participants or performers) of ROSIN funding for future FTPs.

Step 4: Funding and execution of the FTP

After positive evaluation, ROSIN will transfer 60% of the development costs for the first milestone to the FTP champion. The evaluation and money transfer will be executed swiftly since the ultimate goal is to speed up initiation of new FTPs. The developers will then start working towards the first milestone. After successful completion of milestone 1, ROSIN will transfer the remaining 40% funding. The industrial partner will now take over the financial support by transferring 60% upfront payment for milestone 2.

What is the maximum funding one performer can receive?

For ROS-Industrial in general, and for FTPs in particular, the essence is component-based development. It makes no sense to spend massive effort to build one monolithic application. Rather, each FTP should result in re-usable components or architectures. Therefore, the scope of an FTP should be focused, and thus we set the maximum amount of ROSIN FSTP per FTP at $\[\in 100.000, - \]$. In case an FTP is executed with only one performer, then the maximum obtainable ROSIN FSTP per organization is also $\[\in 100.000, - \]$. When distributed over more performers, their respective budgets are smaller keeping the total sum of ROSIN FSTP at $\[\in 100.000, - \]$.

If an organization participates in multiple FTP, then the total sum of all ROSIN FSTP may not exceed € 250.000,- for each third party for the duration of the ROSIN FTP programme.

Please note that with funding 50 FTPs (see task 2.2) the average budget for each FTP will be € 70.000 (limited to M1) in order to realise € 3.5M financial support to third parties.

How is the height of the cost determined?

Financial support to third parties is limited to personnel cost and granted in the form of a *lump-sum*, based on an estimate provided by the performer in the FTP proposal and accepted by the GA as well as the participants. The lump-sum will be transferred in two parts:

- 60% upfront payment of the budget till milestone 1,
- 40% payment after completion of milestone 1 as agreed by all parties (participants, performers, and GA)

Milestone 1 is the Go/No Go control point in the project after which the industrial partner(s) of the FTP will take over the financial support of the remaining development and implementation part of the project such that the lump-sum represents at most 33% of the total project costs. Though the ROSIN consortium does not have any financial contribution to the remaining part of the FTP, the project members are obliged to report their progress after each milestone till the project is finished or terminated. The ROSIN consortium should be able to write a final report including all results achieved with FTP till the end of the ROSIN project. During the duration of the project, an application portfolio of results developed thanks to ROSIN funding will also be maintained as part of the dissemination activities.

Step 5: Monitoring and completion of the FTP

The progress of an FTP will be monitored by *three different entities*, all requiring the same concise progress report:

- The <u>ROSIN General Assembly</u> monitors that funding is not misused. In case of clear
 and apparent misuse, funds can be reclaimed, although this will entail legal action
 which is not expected to be necessary.
- The **Participant** monitors whether the milestones are successfully achieved, and is obliged to pay the performer after each successfully reached milestone.
- The **ROS-Industrial Consortium Europe** monitors overall progress and especially the correct settlement for the final milestone.

To keep the process lean, we aim to leverage online collaboration tools both among the monitoring boards and with the FTP applicants.

How and when should FTP progress be reported?

The developed code should be available at an online software repository (GitHub) and accessible by the GA. The FTP performers will write a summary report after each milestone, providing evidence to both the GA and the participants that the milestone was reached as agreed. Technical staff from ROSIN members, appointed by the GA, will perform the technical audit to double check the results as reported by the performers. The summary report by the performers, together with the results of the technical audit, will constitute the progress report then submitted to the EC.

Who verifies that milestones are successfully completed?

The performers create a report with argumentation that a milestone is completed. The participants (led by the champion) decide whether or not they agree. Upon their agreement, the GA verifies this decision, to guard that the participant-performer interaction occurs with integrity, which is relevant primarily for the first milestone.

How to deal with disputes over milestones reached or not?

The GA will attempt to mediate in such disputes. Eventually the milestone is reached only if the participant(s) and GA agree to that.

What happens if performers do not reach milestone 1?

A detailed report must be delivered by the defaulting parties, which must be analysed by the GA. The defaulting parties must deliver proof of effort. As a direct consequence, they will not receive the final 40% of FSTP, and in case of gross neglect or wilful act the initial payment of 60% can be reclaimed. An article to that effect will be present in the contract between the third parties and ROSIN.

Which parties transfer payments at which moments to whom?

After declaring an FTP proposal eligible, the following flow of payments is expected:

• Immediate transfer of 60% of development cost of first milestone from ROSIN project coordinator to FTP champion.

After completion of first milestone:

- the ROSIN project coordinator transfers the remaining 40% to the FTP champion
- the participant(s) transfer 60% of the cost for milestone 2 to the FTP champion.

After completion of the second, third, etc. milestone:

- The participant(s) transfer the remaining 40% of the completed milestone cost to the champion.
- The participant(s) transfer 60% of the cost for the next milestone to the champion.

The champion shall redistribute the payments to the performer(s) according to the FTP budget.

Note that in some FTPs, a participant can also take the role of performer. In that case, the ROSIN seed funding remains the same as explained above.

Reporting of evaluation results

Shortly after each evaluation round (4 times per year), ROSIN will publish a public summary report of the evaluation results on the project website within 30 days of the end of evaluation, after FTP proposers have received individual feedback. This report comprises an account of the call, its evaluation and its results, including dates of call, how it was published, dates of evaluation, number of proposals received, number of proposals funded, as well as a list of all selected proposers and their funding amounts.

Additional documentation of FTP call process

Additionally to the summary report, ROSIN will keep internal records on the evaluation as audit trail in case of e.g. contestations by proposers, audits, or checks by the commission. These records comprise as a minimum:

- A listing of proposals received, identifying the proposing organisations involved (name and address).
- All received proposals
- All communications with applicants before call closure and during evaluation
- The names and affiliations of the experts involved in the evaluation;
- For each proposal a copy of the filled forms used in the evaluation;
- A record of all incidents which occurred during the evaluation (e.g. how conflict of
 interest were handled if they were detected during the evaluation process) and any
 deviation from standard procedure.

Articles 6, 15, 18 22, 23 35, 36, 38 39 and 46 of the Grant Agreement

ARTICLE 6 — ELIGIBLE AND INELIGIBLE COSTS

6.1 General conditions for costs to be eligible

'Eligible costs' are costs that meet the following criteria:

(a) for actual costs:

- (i) they must be actually incurred by the beneficiary;
- (ii) they must be incurred in the period set out in Article 3, with the exception of costs relating to the submission of the periodic report for the last reporting period and the final report (see Article 20);
- (iii) they must be indicated in the estimated budget set out in Annex 2;
- (iv) they must be incurred in connection with the action as described in Annex 1 and necessary for its implementation;
- (v) they must be identifiable and verifiable, in particular recorded in the beneficiary's accounts in accordance with the accounting standards applicable in the country where the beneficiary is established and with the beneficiary's usual cost accounting practices;
- (vi) they must comply with the applicable national law on taxes, labour and social security, and
- (vii) they must be reasonable, justified and must comply with the principle of sound financial management, in particular regarding economy and efficiency;

(b) for unit costs:

(i) they must be calculated as follows:

{amounts per unit set out in Annex 2a or calculated by the beneficiary in accordance with its usual cost accounting practices (see Article 6.2, Point A)

multiplied by
the number of actual units};

- (ii) the number of actual units must comply with the following conditions:
 - the units must be actually used or produced in the period set out in Article 3;
 - the units must be necessary for implementing the action or produced by it, and
 - the number of units must be identifiable and verifiable, in particular supported by records and documentation (see Article 18);

(c) for flat-rate costs:

- (i) they must be calculated by applying the flat-rate set out in Annex 2, and
- (ii) the costs (actual costs or unit costs) to which the flat-rate is applied must comply with the conditions for eligibility set out in this Article.

6.2 Specific conditions for costs to be eligible

Costs are eligible if they comply with the general conditions (see above) and the specific conditions set out below for each of the following budget categories:

- direct personnel costs;
- B. direct costs of subcontracting;
- C. direct costs of providing financial support to third parties;
- D. other direct costs;
- E. indirect costs:
- F. not applicable.

'Direct costs' are costs that are directly linked to the action implementation and can therefore be attributed to it directly. They must not include any indirect costs (see Point E below).

'Indirect costs' are costs that are not directly linked to the action implementation and therefore cannot be attributed directly to it.

A. Direct personnel costs

Types of eligible personnel costs

A.1 Personnel costs are eligible, if they are related to personnel working for the beneficiary under an employment contract (or equivalent appointing act) and assigned to the action ('costs for employees (or equivalent)'). They must be limited to salaries (including during parental leave), social security contributions, taxes and other costs included in the remuneration, if they arise from national law or the employment contract (or equivalent appointing act). Beneficiaries that are non-profit legal entities¹ may also declare as personnel costs **additional remuneration** for personnel assigned to the action (including payments on the basis of supplementary contracts regardless of their nature), if:

- (a) it is part of the beneficiary's usual remuneration practices and is paid in a consistent manner whenever the same kind of work or expertise is required;
- (b) the criteria used to calculate the supplementary payments are objective and generally applied by the beneficiary, regardless of the source of funding used.

Additional remuneration for personnel assigned to the action is eligible up to the following amount:

- (a) if the person works full time and exclusively on the action during the full year: up to EUR 8 000;
- (b) if the person works exclusively on the action but not full-time or not for the full year: up to the corresponding pro-rata amount of EUR 8 000, or
- (c) if the person does not work exclusively on the action: up to a pro-rata amount calculated as follows:

```
{{EUR 8 000 divided by the number of annual productive hours (see below)}, multiplied by the number of hours that the person has worked on the action during the year}.
```

- A.2 The costs for natural persons working under a direct contract with the beneficiary other than an employment contract are eligible personnel costs, if:
 - (a) the person works under the beneficiary's instructions and, unless otherwise agreed with the beneficiary, on the beneficiary's premises;
 - (b) the result of the work carried out belongs to the beneficiary, and
 - (c) the costs are not significantly different from those for personnel performing similar tasks under an employment contract with the beneficiary.
- A.3 The costs of personnel seconded by a third party against payment are eligible personnel costs, if the conditions in Article 11.1 are met.
- A.4 Costs of owners of beneficiaries that are small and medium-sized enterprises ('SME owners') who are working on the action and who do not receive a salary are eligible personnel costs, if they correspond to the amount per unit set out in Annex 2a multiplied by the number of actual hours worked on the action.
- A.5 Costs of 'beneficiaries that are natural persons' not receiving a salary are eligible personnel costs, if they correspond to the amount per unit set out in Annex 2a multiplied by the number of actual hours worked on the action.

Calculation

Personnel costs must be calculated by the beneficiaries as follows:

```
{{hourly rate multiplied by the number of actual hours worked on the action}, plus for non-profit legal entities: additional remuneration to personnel assigned to the action under the conditions set out above (Point A.1)}.
```

The number of actual hours declared for a person must be identifiable and verifiable (see Article 18).

The total number of hours declared in EU or Euratom grants, for a person for a year, cannot be higher than the annual productive hours used for the calculations of the hourly rate. Therefore, the maximum number of hours that can be declared for the grant is:

```
{the number of annual productive hours for the year (see below)
minus
total number of hours declared by the beneficiary for that person in that year for other EU or Euratom
grants}.
```

The 'hourly rate' is one of the following:

(a) for personnel costs declared as actual costs: the hourly rate is calculated per full financial year, as follows:

```
{actual annual personnel costs (excluding additional remuneration) for the person divided by number of annual productive hours}.
```

using the personnel costs and the number of productive hours for each full financial year covered by the reporting period concerned. If a financial year is not closed at the end of the reporting period, the beneficiaries must use the hourly rate of the last closed financial year available.

For the 'number of annual productive hours', the beneficiaries may choose one of the following:

- (i) 'fixed number of hours': 1 720 hours for persons working full time (or corresponding prorata for persons not working full time);
- (ii) 'individual annual productive hours': the total number of hours worked by the person in the year for the beneficiary, calculated as follows:

```
{annual workable hours of the person (according to the employment contract, applicable collective labour agreement or national law)

plus

overtime worked

minus
```

absences (such as sick leave and special leave)}.

'Annual workable hours' means the period during which the personnel must be working, at the employer's disposal and carrying out his/her activity or duties under the employment contract, applicable collective labour agreement or national working time legislation.

If the contract (or applicable collective labour agreement or national working time legislation) does not allow to determine the annual workable hours, this option cannot be used;

(iii) 'standard annual productive hours': the 'standard number of annual hours' generally applied by the beneficiary for its personnel in accordance with its usual cost accounting practices. This number must be at least 90% of the 'standard annual workable hours'.

If there is no applicable reference for the standard annual workable hours, this option cannot be used.

For all options, the actual time spent on **parental leave** by a person assigned to the action may be deducted from the number of annual productive hours.

As an alternative, beneficiaries may calculate the hourly rate per month, as follows:

{actual monthly personnel cost (excluding additional remuneration) for the person divided by

{number of annual productive hours / 12}}

using the personnel costs for each month and (one twelfth of) the annual productive hours calculated according to either option (i) or (iii) above, i.e.:

- fixed number of hours or
- standard annual productive hours.

Time spent on **parental leave** may not be deducted when calculating the hourly rate per month. However, beneficiaries may declare personnel costs incurred in periods of parental leave in proportion to the time the person worked on the action in that financial year.

If parts of a basic remuneration are generated over a period longer than a month, the beneficiaries may include only the share which is generated in the month (irrespective of the amount actually paid for that month).

Each beneficiary must use only one option (per full financial year or per month) for each full financial year;

- (b) for personnel costs declared on the basis of unit costs: the hourly rate is one of the following:
 - (i) for SME owners or beneficiaries that are natural persons: the hourly rate set out in Annex 2a (see Points A.4 and A.5 above), or
 - (ii) for personnel costs declared on the basis of the beneficiary's usual cost accounting practices: the hourly rate calculated by the beneficiary in accordance with its usual cost accounting practices, if:
 - the cost accounting practices used are applied in a consistent manner, based on objective criteria, regardless of the source of funding;
 - the hourly rate is calculated using the actual personnel costs recorded in the beneficiary's accounts, excluding any ineligible cost or costs included in other budget categories.

The actual personnel costs may be adjusted by the beneficiary on the basis of budgeted or estimated elements. Those elements must be relevant for calculating the personnel costs, reasonable and correspond to objective and verifiable information;

and

- the hourly rate is calculated using the number of annual productive hours (see above).

- B. Direct costs of subcontracting (including related duties, taxes and charges such as non-deductible value added tax (VAT) paid by the beneficiary) are eligible if the conditions in Article 13.1.1 are met.
- C. Direct costs of providing financial support to third parties
- C.1 Direct costs of providing financial support are eligible if the conditions set out in Article 15.1.1 are met.

D. Other direct costs

- D.1 Travel costs and related subsistence allowances (including related duties, taxes and charges such as non-deductible value added tax (VAT) paid by the beneficiary) are eligible if they are in line with the beneficiary's usual practices on travel.
- D.2 The depreciation costs of equipment, infrastructure or other assets (new or second-hand) as recorded in the beneficiary's accounts are eligible, if they were purchased in accordance with Article 10.1.1 and written off in accordance with international accounting standards and the beneficiary's usual accounting practices.

The **costs of renting or leasing** equipment, infrastructure or other assets (including related duties, taxes and charges such as non-deductible value added tax (VAT) paid by the beneficiary) are also eligible, if they do not exceed the depreciation costs of similar equipment, infrastructure or assets and do not include any financing fees.

The costs of equipment, infrastructure or other assets **contributed in-kind against payment** are eligible, if they do not exceed the depreciation costs of similar equipment, infrastructure or assets, do not include any financing fees and if the conditions in Article 11.1 are met.

The only portion of the costs that will be taken into account is that which corresponds to the duration of the action and rate of actual use for the purposes of the action.

- D.3 Costs of other goods and services (including related duties, taxes and charges such as non-deductible value added tax (VAT) paid by the beneficiary) are eligible, if they are:
 - (a) purchased specifically for the action and in accordance with Article 10.1.1 or
 - (b) contributed in kind against payment and in accordance with Article 11.1.

Such goods and services include, for instance, consumables and supplies, dissemination (including open access), protection of results, certificates on the financial statements (if they are required by the Agreement), certificates on the methodology, translations and publications.

- D.4 Capitalised and operating costs of 'large research infrastructure', directly used for the action are eligible, if:
 - (a) the value of the large research infrastructure represents at least 75% of the total fixed assets (at historical value in its last closed balance sheet before the date of the signature of the Agreement or as determined on the basis of the rental and leasing costs of the research infrastructure³);
 - (b) the beneficiary's methodology for declaring the costs for large research infrastructure has been positively assessed by the Commission ('ex-ante assessment');
 - (c) the beneficiary declares as direct eligible costs only the portion which corresponds to the duration of the action and the rate of actual use for the purposes of the action, and
 - (d) they comply with the conditions as further detailed in the annotations to the H2020 grant agreements.

E. Indirect costs

Indirect costs are eligible if they are declared on the basis of the flat-rate of 25% of the eligible direct costs (see Article 5.2 and Points A to D above), from which are excluded:

- (a) costs of subcontracting and
- (b) costs of in-kind contributions provided by third parties which are not used on the beneficiary's premises and
- (c) costs of providing financial support to third parties;
- (d) not applicable.

Beneficiaries receiving an operating grant⁴ financed by the EU or Euratom budget cannot declare indirect costs for the period covered by the operating grant.

F. Specific cost category(ies)

Not applicable

6.3 Conditions for costs of linked third parties to be eligible

Not applicable

6.4 Conditions for in-kind contributions provided by third parties free of charge to be eligible

In-kind contributions provided free of charge are eligible direct costs (for the beneficiary), if the costs incurred by the third party fulfil — *mutatis mutandis* — the general and specific conditions for eligibility set out in this Article (Article 6.1 and 6.2) and Article 12.1.

6.5 Ineligible costs

'Ineligible costs' are:

- (a) costs that do not comply with the conditions set out above (Article 6.1 to 6.4), in particular:
 - (i) costs related to return on capital;
 - (ii) debt and debt service charges;
 - (iii) provisions for future losses or debts;
 - (iv) interest owed;
 - (v) doubtful debts;
 - (vi) currency exchange losses;
 - (vii) bank costs charged by the beneficiary's bank for transfers from the Commission;
 - (viii) excessive or reckless expenditure;
 - (ix) deductible VAT;
 - (x) costs incurred during suspension of the implementation of the action (see Article 49);
- (b) costs declared under another EU or Euratom grant (including grants awarded by a Member State and financed by the EU or Euratom budget and grants awarded by bodies other than the Commission for the purpose of implementing the EU or Euratom budget); in particular, indirect costs if the beneficiary is already receiving an operating grant financed by the EU or Euratom budget in the same period.

6.6 Consequences of declaration of ineligible costs

Declared costs that are ineligible will be rejected (see Article 42).

This may also lead to any of the other measures described in Chapter 6.

functioning of a body which pursues an aim of general EU interest or has an objective forming part of and supporting an EU policy.

ARTICLE 15 — FINANCIAL SUPPORT TO THIRD PARTIES

15.1 Rules for providing financial support to third parties

15.1.1 The beneficiaries must provide financial support in accordance with the conditions set out in Annex 1.

At a minimum, these conditions must include:

- (a) the maximum amount of financial support for each third party.
 - The maximum amount may not exceed EUR 60 000 for each third party, unless it is necessary to achieve the objectives of the action as described in Annex 1;
- (b) the criteria for calculating the exact amount of the financial support;
- (c) the different types of activity that qualify for financial support, on the basis of a closed list;
- (d) the persons or categories of persons that may receive financial support, and
- (e) the criteria for giving financial support.

The beneficiaries must ensure that the Commission, the European Court of Auditors (ECA) and the European Anti-Fraud Office (OLAF) can exercise their rights under Articles 22 and 23 also towards the third parties receiving financial support.

15.1.2 The beneficiaries must ensure that their obligations under Articles 35, 36, 38 and 46 also apply to the third parties receiving financial support.

15.2 Financial support in the form of prizes

Not applicable

15.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under Articles 15.1.1 or 15.2.1, the costs related to the financial support or prize will be ineligible (see Article 6) and will be rejected (see Article 42).

If a beneficiary breaches any of its obligations under Articles 15.1.2 or 15.2.2, the grant may be reduced (see Article 43).

Such breaches may also lead to any of the other measures described in Chapter 6.

ARTICLE 18 — KEEPING RECORDS — SUPPORTING DOCUMENTATION

18.1 Obligation to keep records and other supporting documentation

The beneficiaries must — for a period of five years after the payment of the balance — keep records and other supporting documentation in order to prove the proper implementation of the action and the costs they declare as eligible.

They must make them available upon request (see Article 17) or in the context of checks, reviews, audits or investigations (see Article 22).

If there are on-going checks, reviews, audits, investigations, litigation or other pursuits of claims under the Agreement (including the extension of findings; see Articles 22), the beneficiaries must keep the records and other supporting documentation until the end of these procedures.

The beneficiaries must keep the original documents. Digital and digitalised documents are considered originals if they are authorised by the applicable national law. The Commission may accept non-original documents if it considers that they offer a comparable level of assurance.

18.1.1 Records and other supporting documentation on the scientific and technical implementation

The beneficiaries must keep records and other supporting documentation on scientific and technical implementation of the action in line with the accepted standards in the respective field.

18.1.2 Records and other documentation to support the costs declared

The beneficiaries must keep the records and documentation supporting the costs declared, in particular the following:

(a) for actual costs: adequate records and other supporting documentation to prove the costs declared, such as contracts, subcontracts, invoices and accounting records. In addition, the

beneficiaries' usual cost accounting practices and internal control procedures must enable direct reconciliation between the amounts declared, the amounts recorded in their accounts and the amounts stated in the supporting documentation;

(b) for unit costs: adequate records and other supporting documentation to prove the number of units declared. Beneficiaries do not need to identify the actual eligible costs covered or to keep or provide supporting documentation (such as accounting statements) to prove the amount per unit.

In addition, for direct personnel costs declared as unit costs calculated in accordance with the beneficiary's usual cost accounting practices, the beneficiaries must keep adequate records and documentation to prove that the cost accounting practices used comply with the conditions set out in Article 6.2, Point A.

The beneficiaries may submit to the Commission, for approval, a certificate (drawn up in accordance with Annex 6) stating that their usual cost accounting practices comply with these conditions ('certificate on the methodology'). If the certificate is approved, costs declared in line with this methodology will not be challenged subsequently, unless the beneficiaries have concealed information for the purpose of the approval.

(c) for flat-rate costs: adequate records and other supporting documentation to prove the eligibility of the costs to which the flat-rate is applied. The beneficiaries do not need to identify the costs covered or provide supporting documentation (such as accounting statements) to prove the amount declared at a flat-rate.

In addition, for **personnel costs** (declared as actual costs or on the basis of unit costs), the beneficiaries must keep **time records** for the number of hours declared. The time records must be in writing and approved by the persons working on the action and their supervisors, at least monthly. In the absence of reliable time records of the hours worked on the action, the Commission may accept alternative evidence supporting the number of hours declared, if it considers that it offers an adequate level of assurance.

As an exception, for **persons working exclusively on the action**, there is no need to keep time records, if the beneficiary signs a **declaration** confirming that the persons concerned have worked exclusively on the action.

18.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, costs insufficiently substantiated will be ineligible (see Article 6) and will be rejected (see Article 42), and the grant may be reduced (see Article 43).

Such breaches may also lead to any of the other measures described in Chapter 6.

ARTICLE 22 — CHECKS, REVIEWS, AUDITS AND INVESTIGATIONS — EXTENSION OF FINDINGS

22.1 Checks, reviews and audits by the Commission

22.1.1 Right to carry out checks

The Commission will — during the implementation of the action or afterwards — check the proper implementation of the action and compliance with the obligations under the Agreement, including assessing deliverables and reports.

For this purpose the Commission may be assisted by external persons or bodies.

The Commission may also request additional information in accordance with Article 17. The Commission may request beneficiaries to provide such information to it directly.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

22.1.2 Right to carry out reviews

The Commission may — during the implementation of the action or afterwards — carry out reviews on the proper implementation of the action (including assessment of deliverables and reports), compliance with the obligations under the Agreement and continued scientific or technological relevance of the action.

Reviews may be started **up to two years after the payment of the balance**. They will be formally notified to the coordinator or beneficiary concerned and will be considered to have started on the date of the formal notification.

If the review is carried out on a third party (see Articles 10 to 16), the beneficiary concerned must inform the third party.

The Commission may carry out reviews directly (using its own staff) or indirectly (using external persons or bodies appointed to do so). It will inform the coordinator or beneficiary concerned of the

identity of the external persons or bodies. They have the right to object to the appointment on grounds of commercial confidentiality.

The coordinator or beneficiary concerned must provide — within the deadline requested — any information and data in addition to deliverables and reports already submitted (including information on the use of resources). The Commission may request beneficiaries to provide such information to it directly.

The coordinator or beneficiary concerned may be requested to participate in meetings, including with external experts.

For **on-the-spot** reviews, the beneficiaries must allow access to their sites and premises, including to external persons or bodies, and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the review findings, a 'review report' will be drawn up.

The Commission will formally notify the review report to the coordinator or beneficiary concerned, which has 30 days to formally notify observations ('contradictory review procedure').

Reviews (including review reports) are in the language of the Agreement.

22.1.3 Right to carry out audits

The Commission may — during the implementation of the action or afterwards — carry out audits on the proper implementation of the action and compliance with the obligations under the Agreement.

Audits may be started **up to two years after the payment of the balance**. They will be formally notified to the coordinator or beneficiary concerned and will be considered to have started on the date of the formal notification.

If the audit is carried out on a third party (see Articles 10 to 16), the beneficiary concerned must inform the third party.

The Commission may carry out audits directly (using its own staff) or indirectly (using external persons or bodies appointed to do so). It will inform the coordinator or beneficiary concerned of the identity of the external persons or bodies. They have the right to object to the appointment on grounds of commercial confidentiality.

The coordinator or beneficiary concerned must provide — within the deadline requested — any information (including complete accounts, individual salary statements or other personal data) to verify compliance with the Agreement. The Commission may request beneficiaries to provide such information to it directly.

For **on-the-spot** audits, the beneficiaries must allow access to their sites and premises, including to external persons or bodies, and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format.

On the basis of the audit findings, a 'draft audit report' will be drawn up.

The Commission will formally notify the draft audit report to the coordinator or beneficiary concerned, which has 30 days to formally notify observations ('contradictory audit procedure'). This period may be extended by the Commission in justified cases.

The 'final audit report' will take into account observations by the coordinator or beneficiary concerned. The report will be formally notified to it.

Audits (including audit reports) are in the language of the Agreement.

The Commission may also access the beneficiaries' statutory records for the periodical assessment of unit costs or flat-rate amounts.

22.2 Investigations by the European Anti-Fraud Office (OLAF)

Under Regulations No 883/2013¹⁴ and No 2185/96¹⁵ (and in accordance with their provisions and procedures), the European Anti-Fraud Office (OLAF) may — at any moment during implementation of the action or afterwards — carry out investigations, including on-the-spot checks and inspections, to establish whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the EU.

22.3 Checks and audits by the European Court of Auditors (ECA)

Under Article 287 of the Treaty on the Functioning of the European Union (TFEU) and Article 161 of the Financial Regulation No 966/2012¹⁶, the European Court of Auditors (ECA) may — at any moment during implementation of the action or afterwards — carry out audits.

The ECA has the right of access for the purpose of checks and audits.

22.4 Checks, reviews, audits and investigations for international organisations

Not applicable

22.5 Consequences of findings in checks, reviews, audits and investigations — Extension of findings

22.5.1 Findings in this grant

Findings in checks, reviews, audits or investigations carried out in the context of this grant may lead to the rejection of ineligible costs (see Article 42), reduction of the grant (see Article 43), recovery of undue amounts (see Article 44) or to any of the other measures described in Chapter 6.

Rejection of costs or reduction of the grant after the payment of the balance will lead to a revised final grant amount (see Article 5.4).

Findings in checks, reviews, audits or investigations may lead to a request for amendment for the modification of Annex 1 (see Article 55).

Checks, reviews, audits or investigations that find systemic or recurrent errors, irregularities, fraud or breach of obligations may also lead to consequences in other EU or Euratom grants awarded under similar conditions ('extension of findings from this grant to other grants').

Moreover, findings arising from an OLAF investigation may lead to criminal prosecution under national law.

22.5.2 Findings in other grants

The Commission may extend findings from other grants to this grant ('extension of findings from other grants to this grant'), if:

- (a) the beneficiary concerned is found, in other EU or Euratom grants awarded under similar conditions, to have committed systemic or recurrent errors, irregularities, fraud or breach of obligations that have a material impact on this grant and
- (b) those findings are formally notified to the beneficiary concerned together with the list of grants affected by the findings — no later than two years after the payment of the balance of this grant.

The extension of findings may lead to the rejection of costs (see Article 42), reduction of the grant (see Article 43), recovery of undue amounts (see Article 44), suspension of payments (see Article 48), suspension of the action implementation (see Article 49) or termination (see Article 50).

22.5.3 Procedure

The Commission will formally notify the beneficiary concerned the systemic or recurrent errors and its intention to extend these audit findings, together with the list of grants affected.

- 22.5.3.1 If the findings concern eligibility of costs: the formal notification will include:
 - (a) an invitation to submit observations on the list of grants affected by the findings;
 - (b) the request to submit revised financial statements for all grants affected;
 - (c) the **correction rate for extrapolation** established by the Commission on the basis of the systemic or recurrent errors, to calculate the amounts to be rejected if the beneficiary concerned:
 - (i) considers that the submission of revised financial statements is not possible or practicable or
 - (ii) does not submit revised financial statements.

The beneficiary concerned has 90 days from receiving notification to submit observations, revised financial statements or to propose a duly substantiated **alternative correction method**. This period may be extended by the Commission in justified cases.

The Commission may then start a rejection procedure in accordance with Article 42, on the basis of:

the revised financial statements, if approved;

the proposed alternative correction method, if accepted

or

the initially notified correction rate for extrapolation, if it does not receive any observations
or revised financial statements, does not accept the observations or the proposed alternative
correction method or does not approve the revised financial statements.

22.5.3.2 If the findings concern substantial errors, irregularities or fraud or serious breach of obligations: the formal notification will include:

- (a) an invitation to submit observations on the list of grants affected by the findings and
- (b) the flat-rate the Commission intends to apply according to the principle of proportionality.

The beneficiary concerned has 90 days from receiving notification to submit observations or to propose a duly substantiated alternative flat-rate.

The Commission may then start a reduction procedure in accordance with Article 43, on the basis of:

the proposed alternative flat-rate, if accepted

or

 the initially notified flat-rate, if it does not receive any observations or does not accept the observations or the proposed alternative flat-rate.

22.6 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, any insufficiently substantiated costs will be ineligible (see Article 6) and will be rejected (see Article 42).

Such breaches may also lead to any of the other measures described in Chapter 6.

ARTICLE 23 — EVALUATION OF THE IMPACT OF THE ACTION

23.1 Right to evaluate the impact of the action

The Commission may carry out interim and final evaluations of the impact of the action measured against the objective of the EU programme.

Evaluations may be started during implementation of the action and up to five years after the payment of the balance. The evaluation is considered to start on the date of the formal notification to the coordinator or beneficiaries.

The Commission may make these evaluations directly (using its own staff) or indirectly (using external bodies or persons it has authorised to do so).

The coordinator or beneficiaries must provide any information relevant to evaluate the impact of the action, including information in electronic format.

23.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the Commission may apply the measures described in Chapter 6.

ARTICLE 23a — MANAGEMENT OF INTELLECTUAL PROPERTY

23a.1 Obligation to take measures to implement the Commission Recommendation on the management of intellectual property in knowledge transfer activities

Beneficiaries that are universities or other public research organisations must take measures to implement the principles set out in Points 1 and 2 of the Code of Practice annexed to the Commission Recommendation on the management of intellectual property in knowledge transfer activities¹⁷.

This does not change the obligations set out in Subsections 2 and 3 of this Section.

The beneficiaries must ensure that researchers and third parties involved in the action are aware of them.

23a.2 Consequences of non-compliance

If a beneficiary breaches its obligations under this Article, the Commission may apply any of the measures described in Chapter 6.

ARTICLE 35 — CONFLICT OF INTERESTS

35.1 Obligation to avoid a conflict of interests

The beneficiaries must take all measures to prevent any situation where the impartial and objective implementation of the action is compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest ('conflict of interests').

They must formally notify to the Commission without delay any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation.

The Commission may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

35.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43) and the Agreement or participation of the beneficiary may be terminated (see Article 50).

Such breaches may also lead to any of the other measures described in Chapter 6.

ARTICLE 36 — CONFIDENTIALITY

36.1 General obligation to maintain confidentiality

During implementation of the action and for four years after the period set out in Article 3, the parties must keep confidential any data, documents or other material (in any form) that is identified as confidential at the time it is disclosed ('confidential information').

If a beneficiary requests, the Commission may agree to keep such information confidential for an additional period beyond the initial four years.

If information has been identified as confidential only orally, it will be considered to be confidential only if this is confirmed in writing within 15 days of the oral disclosure.

Unless otherwise agreed between the parties, they may use confidential information only to implement the Agreement.

The beneficiaries may disclose confidential information to their personnel or third parties involved in the action only if they:

- (a) need to know to implement the Agreement and
- (b) are bound by an obligation of confidentiality.

This does not change the security obligations in Article 37, which still apply.

The Commission may disclose confidential information to its staff, other EU institutions and bodies. It may disclose confidential information to third parties, if:

- (a) this is necessary to implement the Agreement or safeguard the EU's financial interests and
- (b) the recipients of the information are bound by an obligation of confidentiality.

Under the conditions set out in Article 4 of the Rules for Participation Regulation No 1290/2013²³, the Commission must moreover make available information on the results to other EU institutions, bodies, offices or agencies as well as Member States or associated countries.

The confidentiality obligations no longer apply if:

- (a) the disclosing party agrees to release the other party;
- (b) the information was already known by the recipient or is given to him without obligation of confidentiality by a third party that was not bound by any obligation of confidentiality;
- (c) the recipient proves that the information was developed without the use of confidential information;
- (d) the information becomes generally and publicly available, without breaching any confidentiality obligation, or
- (e) the disclosure of the information is required by EU or national law.

36.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43).

Such breaches may also lead to any of the other measures described in Chapter 6.

ARTICLE 38 — PROMOTING THE ACTION — VISIBILITY OF EU FUNDING

38.1 Communication activities by beneficiaries

38.1.1 Obligation to promote the action and its results

The beneficiaries must promote the action and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner.

This does not change the dissemination obligations in Article 29, the confidentiality obligations in Article 36 or the security obligations in Article 37, all of which still apply.

Before engaging in a communication activity expected to have a major media impact, the beneficiaries must inform the Commission (see Article 52).

38.1.2 Information on EU funding — Obligation and right to use the EU emblem

Unless the Commission requests or agrees otherwise or unless it is impossible, any communication activity related to the action (including in electronic form, via social media, etc.) and any infrastructure, equipment and major results funded by the grant must:

- (a) display the EU emblem and
- (b) include the following text:

For communication activities: "This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 732287".

For infrastructure, equipment and major results: "This [infrastructure] [equipment] [insert type of result] is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 732287".

When displayed together with another logo, the EU emblem must have appropriate prominence.

For the purposes of their obligations under this Article, the beneficiaries may use the EU emblem without first obtaining approval from the Commission.

This does not, however, give them the right to exclusive use.

Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

38.1.3 Disclaimer excluding Commission responsibility

Any communication activity related to the action must indicate that it reflects only the author's view and that the Commission is not responsible for any use that may be made of the information it contains.

38.2 Communication activities by the Commission

38.2.1 Right to use beneficiaries' materials, documents or information

The Commission may use, for its communication and publicising activities, information relating to the action, documents notably summaries for publication and public deliverables as well as any other material, such as pictures or audio-visual material received from any beneficiary (including in electronic form).

This does not change the confidentiality obligations in Article 36 and the security obligations in Article 37, all of which still apply.

If the Commission's use of these materials, documents or information would risk compromising legitimate interests, the beneficiary concerned may request the Commission not to use it (see Article 52).

The right to use a beneficiary's materials, documents and information includes:

 (a) use for its own purposes (in particular, making them available to persons working for the Commission or any other EU institution, body, office or agency or body or institutions in EU Member States; and copying or reproducing them in whole or in part, in unlimited numbers);

- (b) distribution to the public (in particular, publication as hard copies and in electronic or digital format, publication on the internet, as a downloadable or non-downloadable file, broadcasting by any channel, public display or presentation, communicating through press information services, or inclusion in widely accessible databases or indexes);
- (c) editing or redrafting for communication and publicising activities (including shortening, summarising, inserting other elements (such as meta-data, legends, other graphic, visual, audio or text elements), extracting parts (e.g. audio or video files), dividing into parts, use in a compilation);
- (d) translation;
- (e) giving access in response to individual requests under Regulation No 1049/2001²⁵, without the right to reproduce or exploit;
- (f) storage in paper, electronic or other form;
- (g) archiving, in line with applicable document-management rules, and
- (h) the right to authorise third parties to act on its behalf or sub-license the modes of use set out in Points (b), (c), (d) and (f) to third parties if needed for the communication and publicising activities of the Commission.

If the right of use is subject to rights of a third party (including personnel of the beneficiary), the beneficiary must ensure that it complies with its obligations under this Agreement (in particular, by obtaining the necessary approval from the third parties concerned).

Where applicable (and if provided by the beneficiaries), the Commission will insert the following information:

"© – [year] – [name of the copyright owner]. All rights reserved. Licensed to the European Union (EU) under conditions."

38.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43).

Such breaches may also lead to any of the other measures described in Chapter 6.

ARTICLE 39 — PROCESSING OF PERSONAL DATA

39.1 Processing of personal data by the Commission

Any personal data under the Agreement will be processed by the Commission under Regulation No 45/2001²⁶ and according to the 'notifications of the processing operations' to the Data Protection Officer (DPO) of the Commission (publicly accessible in the DPO register).

Such data will be processed by the 'data controller' of the Commission for the purposes of implementing, managing and monitoring the Agreement or protecting the financial interests of the EU or Euratom (including checks, reviews, audits and investigations; see Article 22).

The persons whose personal data are processed have the right to access and correct their own personal data. For this purpose, they must send any queries about the processing of their personal data to the data controller, via the contact point indicated in the privacy statement(s) that are published on the Commission websites.

They also have the right to have recourse at any time to the European Data Protection Supervisor (EDPS).

39.2 Processing of personal data by the beneficiaries

The beneficiaries must process personal data under the Agreement in compliance with applicable EU and national law on data protection (including authorisations or notification requirements).

The beneficiaries may grant their personnel access only to data that is strictly necessary for implementing, managing and monitoring the Agreement.

The beneficiaries must inform the personnel whose personal data are collected and processed by the Commission. For this purpose, they must provide them with the privacy statement(s) (see above), before transmitting their data to the Commission.

39.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under Article 39.2, the Commission may apply any of the measures described in Chapter 6.

ARTICLE 46 — LIABILITY FOR DAMAGES

46.1 Liability of the Commission

The Commission cannot be held liable for any damage caused to the beneficiaries or to third parties as a consequence of implementing the Agreement, including for gross negligence.

The Commission cannot be held liable for any damage caused by any of the beneficiaries or third parties involved in the action, as a consequence of implementing the Agreement.

46.2 Liability of the beneficiaries

Except in case of force majeure (see Article 51), the beneficiaries must compensate the Commission for any damage it sustains as a result of the implementation of the action or because the action was not implemented in full compliance with the Agreement.

Annex V Acknowledgment

'This FTP has received funding from the European Union's Horizon 2020 research and innovation programme under the project ROSIN with the grant agreement No 732287'.

Annex VI Milestone 1 Reporting



ROS-Industrial quality-assured robot software components - ROSIN

FTP [insert_title] Milestone 1 Report

Contract Agreement No.	
Start date of FTP	
Duration of the FTP	
Dissemination Level	PU
Status	
Submission Date	
Author	



Public Summary

Provide a summary of the work developed for Milestone 1 of the Focused technical project, explicitly mentioning any open source outcomes i.e. software packages, documentation or other artifacts. This summary might be used by ROSIN for dissemination purposes.

General Reporting

Complete the following table with all the objectives stated for Milestone 1 of your Focused technical Project:

Objective from the funding application	Fulfillment [y/n]	Brief explanation	Link to public resource re. Objective [repo, issue, wiki, etc]
[include as many rows as objectives]			

Explain any deviations from the FTP plan

Include explanations for tasks not fully implemented, critical objectives not fully achieved and/or not being on schedule. Explain also the impact on other tasks on the available resources and the planning. E.g. if you are delayed, provide mitigation measures.

Plan for the rest of the FTP (M2, M3,)

Detail the updated plan to address the tasks in the Contract Agreement

Quality and Quality Assurance Self Evaluation

An account of quality assurance measures undertaken in the project. Answer the following questions as/if appropriate for your Focused Technical Project.

There is no strict minimum requirement on how the QA survey is filled in for each point, but the entire questionnaire response has to paint a convincing reasonable picture that the project has a good QA strategy. You are welcome to engage with ROSIN QA experts on how this could be achieved.

	Yes	No
Are you using unit testing? To what extend? What tools? Explain below.		
[explain here]		
Do you use coverage information? Can you report it here?		
[explain here]		
Are you using continuous integration?		
Build Farm?		
[explain here]		
Have you released your package to the buildfarm?		
Are you planning on it?		
Have you performed a pre-release test? http://wiki.ros.org/bloom/Tutorials/PrereleaseTest		
[explain here]		
Are you using code scanners? What coding standards do you follow? Are they automatically enforced?		
[explain here]		
Are you using the proper ROS conventions? • ROS package naming REP 144 https://github.com/ros-infrastructure/rep/blob/master/rep-0144.rst • Following ROS conventions		

http://wiki.ros.org/ROS/Patterns/Conventions	
Are you aware of the ROS C++ and Python style guides? • http://wiki.ros.org/CppStyleGuide • http://wiki.ros.org/PyStyleGuide Explain how you follow them or why not (if it is the case)	
[explain here]	
Did you add the license information to your files? Which license?	
[explain here]	
Have you checked potential conflicts regarding licensing and third party libraries that might be used?	
[explain here]	
Have you generated documentation?	
Behaviour	
• API	
Tutorials	
• other	
[explain here]	
Do you use a version control system as part of your development process? • Which one? Is it public or private? Include here a link and access information for ROSIN	
[explain here]	
Do you apply any branching workflow model? Which one?	
[explain here]	
Do you use any bug/ticket tracking system as part of your development process? Which one?	

[explain here]				
What other measures regarding stability, reliability, usability are you taking?				
[explain here]				
Do you acknowledge ROSIN in your code/documentation? Provide a link to the acknowledgement				
[explain here]				
Do you have a maintainer for your contribution(s)? Explain briefly your maintenance plan				
[explain here]				
Explain here any additional quality-related issues and practices you may have in place not covered by the previous questions, i.e. Peer Review/Inspection, Code Ownership, etc.				
[explain here]				