



Innovation and Networks Executive Agency

Department C - Connecting Europe Facility (CEF)

AMENDMENT N° 2 TO AGREEMENT No INEA/CEF/ICT/A2016/1171568

The **Innovation and Networks Executive Agency (INEA)** ("the Agency"), under the powers delegated by the European Commission ("the Commission"), represented for the purposes of signature of this amendment by the Head of Department C of the Agency, Andreas Boschen,

on the one part,

and

1. National Revenue Agency (NRA)

Public law body

Registration No 131063188

Knyaz Alexander Dondukov Blvd. 52

1000 Sofia

Bulgaria

VAT No BG131063188,

hereinafter referred to as "the coordinator", represented for the purposes of signature of this amendment by Director General, Galya Dimitrova

and the following other beneficiaries:

2. National Social Security Institute - established in Bulgaria

3. Agency for Social Assistance - established in Bulgaria

4. National Health Insurance Fund - established in Bulgaria

duly represented by the coordinator by virtue of the mandates included in Annex IV of the above-mentioned grant agreement for the signature of this amendment,

hereinafter referred to collectively as "the beneficiaries", and individually as "beneficiary" for the purposes of this amendment where a provision applies without distinction between the coordinator or another beneficiary,

on the other part,

Having regard to the above-mentioned grant agreement concluded between the Agency and the coordinator on 28/02/2017 as amended on 06/09/2018,

Whereas:

- (1) The coordinator has requested the Agency on 01/04/2019 to amend the above-mentioned grant agreement for the following reason(s): - further delays in the public procurement procedures conducted by the beneficiaries prevented the Action to be completed according to the schedule of the Amendment no 1;
- need to secure additional IT infrastructure equipment under activity 1.
- (2) The measures provided for in this amendment do not affect the award of the Union financial aid.

HAVE AGREED AS FOLLOWS:

Article 1

- (1) Article 2.2 is replaced by the following article:

"2.2 The action shall run from 03/10/2016 ("the starting date") until 27/11/2019 ("the completion date")."

(2) Annex I shall read as follows:

"ANNEX I DESCRIPTION OF THE ACTION

ARTICLE I.1 – SCOPE AND OBJECTIVES OF THE ACTION

The Action will contribute to the development of the systems of the Bulgarian contact points exchanging social security information, which will allow for electronic exchanges of social security data. Consequently, Bulgaria will become prepared to be connected to the European Electronic Exchange of Social Security Information (EESSI) Core platform.

The Action has the following specific objectives:

1. Transition to effective exchange of electronic data and gradual replacement of the paper procedures – by further development of the national systems (development of horizontal data exchange modules between the National Access Points (APs) to accomplish the preparation of structured electronic documents and to significantly shorten the response time);
2. Significant increase of the efficiency of social security coordination between Bulgaria and the EU – by installation of the Reference Implementation of National Application (RINA);
3. Compliance with the provisions and the deadlines specified by Regulations (EC) 883/2004 and 987/2009 - by facilitating electronic exchange of social security information between Bulgaria and other EU countries.

To deliver on the objectives of the Action, the following activities will be carried out:

1. procurement of required hardware and software licenses;
2. installation and configuration of RINA;
3. further development of the existing national platforms and applications; and
4. training of IT support teams and users.

ARTICLE I.2 – LOCATION OF THE ACTION

I.2.1 Member State(s): Bulgaria.

I.2.2 EEA country(ies): not applicable.

I.2.3 Third country(ies): not applicable.

ARTICLE I.3 – ACTIVITIES

I.3.1 Activities timetable

Activity number	Activity title	Indicative start date	Indicative end date	Milestone number
1	Supply and installation of hardware and software at NRA and NHIF	03/12/2016	27/11/2019	1, 2
2	Deployment of National Access Points	03/10/2016	03/07/2019	3, 10

	(NAP) and RINA at NRA, ASA, NHIF			
3	Development of modules for communication and data exchange between the National Access Points and NRA, ASA, NHIF, NSSI	03/10/2016	27/11/2019	1, 4, 9, 10
4	Project coordination and management by NRA	03/10/2016	27/11/2019	5, 6, 11
5	Development of SED data management module	03/10/2016	27/11/2019	7, 8, 10
6	Deployment of software modules for integration between the NSSI national application and the access point (AP) /RINA	03/10/2016	27/11/2019	9, 10, 11
7	Upgrade of the NSSI system with modules for storing SED/NED (non-structured electronic documents) and with modules for managing access rights to SED	03/10/2016	27/11/2019	9, 10
8	Internal coordination of project activities at ASA, NHIF, NSSI	03/10/2016	27/11/2019	5, 6, 11

I.3.2 Activities description

Activity 1: Supply and installation of hardware and software at NRA and NHIF

The activity will consist of two tasks:

- 1) Supply and installation of hardware at NRA;
- 2) Supply of software (licenses) for NRA;
- 3) Supply and installation of hardware at NHIF.

The first task will include the following stages:

1. Drafting specifications for the hardware;
2. Conducting a public procurement procedure for the selection of the described hardware. NRA will select separate contractors: one for the procurement of software/licenses and another one for the procurement of hardware;
3. Supply, installation and integration in the existing NRA infrastructure of the acquired hardware equipment – the activity will be implemented by the selected hardware contractor and NRA IT team. Supply of hardware will be implemented by the contractor, whereas its installation and integration will be performed jointly by teams of the contractor and the NRA IT team. Additionally, NRA IT team will be trained in the course of the two processes /i.e. installation and integration/.

The following hardware will be required:

- three blade servers, on which by means of virtualization all listed application servers will be located;
- three database servers – two for the production environment operating in a cluster and one for the testing environment;
- an extension of NRA's available share disk resources by 15 TB.

NRA will provide for the operation systems of the servers, blade chassis for the purchased

three blades, as well as for the communication interconnection of the equipment supplied.

The second task will include the following stages:

1. Carrying out a procedure for selecting a contractor according to the provisions of the national legislation for the supply of software and licenses;
2. Supply of software and licenses for virtualization of the electronic exchange of information related to RINA. The installation will be performed by the contractor within the period of implementation of Activity 3 and a NRA IT team will monitor the installation.

NRA will use open source and commercial software and licenses available at NRA for the purposes of the operation of RINA in the national domain. The software and licenses supplied under this activity will be installed on the equipment delivered under Activity 1 by the contractor of Activity 2.

The third task will include the following stages:

1. Drafting specifications for the hardware;
2. Conducting a public procurement procedure for the selection of the specified hardware;
3. Supply and installation of a dedicated cluster with the acquired hardware equipment: the task will be performed by the selected hardware contractor and NHIF IT team. Supplied hardware will be implemented by the contractor, whereas its installation and integration will be performed jointly by teams of the contractor and the NHIF IT team. Additionally, NHIF IT team will be trained how to maintain the delivered equipment.

The following hardware will be required:

- two high performance servers for organizing high performance and high availability cluster, on which by means of virtualization all listed application servers will be located;
- two storages and two SAN switches for organizing high performance and high availability of disk arrays.

NHIF will provide the operation systems of the servers, as well as the communication interconnection of the equipment supplied.

Activity 2: Deployment of National Access Points (NAP) and RINA at NRA, ASA, NHIF

This activity will consist of the following tasks:

- 1) Selection of a contractor according to the provisions of the national legislation. The selection of a contractor for activities 2 and 3 will be done under a common selection procedure (the activities are closely interconnected). However, separate contractors will be selected for each of the consortium partners.
- 2) Installation of the software of NAP according to the specifications and the recommendations of the European Commission (EC) and integration within the infrastructure of the three organisations. The contractor will install the NAP software related to production, test and development environments. Then he/ she will configure the NAP software so that it works with RINA, the other access points and, if required, with a central exchange point.
- 3) Installation of RINA in accordance with the specifications and the recommendations of the EC. Within this task an analysis of the business processes and the IT infrastructure of the three organisations will be performed. RINA will be installed in production, test and development environments. Then it will be configured to work with the systems of the three organisations, and if required to connect with the NAP for the purpose of the exchanges under EESSI. Finally, RINA will be integrated with the services developed under Activity 3.
- 4) Tests and acceptance of the installation of RINA in cooperation with the contractor. Additionally, tests of the exchanges of data through the installed RINA will be performed.
- 5) Training for the IT team at all three organisations:

IT officials (15 from NRA, 5 from ASA and 5 from NHIF) will be trained in the administration, installation and configuration of software tools used by NAP and RINA. This training will last 3 to 5 working days.

6) Training for end users of the system at the three organisations:

Training in the NAP and RINA user functionalities will be provided to end users (25 officials NRA, 5 from ASA and 30 NHIF) having business functions. This training will last 2 to 5 working days.

As a result of this activity, RINA and NAP in the production, test and development environments will be installed. During all the tasks the required documents will be compiled.

Activity 3: Development of modules for communication and data exchange between the National Access Points and NRA, ASA, NHIF, NSSI

The activity will include the following tasks:

1) Selection of a contractor according to the provisions of the national legislation. The selection of a contractor for activities 2 and 3 will be done under a common selection procedure (the activities are closely interconnected). However, separate contractors will be selected for each of the consortium partners.

2) Preparation of data and information systems for the exchanges among the access points in Bulgaria. It will include:

- analysis of the information, which needs to be uploaded in RINA for the purposes of compiling the EESSI documents falling within the competence of the four organisations;
- analysis of the information and the four information systems, which will allow for the exchanges among the access points and for compiling of the EESSI documents;
- drafting a specification of data required for the exchanges between the access points.

3) Development and implementation of interfaces in the form of communication services and data exchange between the national access points and to upload data into RINA for the purposes of compiling the EESSI documents falling within the competence of the four organisations

4) Training of IT officials (10 from NRA, 5 from NSSI, 5 from ASA) in the technologies, methods and tools for development of interfaces for data exchanges between the national access points and the reporting part. Another training will be devoted to installation, configuring and administration of interfaces for data exchanges between the national access points and the reporting part (5 IT officials from NRA, 5 from NSSI and 5 from NHIF). Each training session will last 3 days.

Activity 4: Project coordination and management by NRA

The activity will include the following tasks:

1) Monitor the implementation of the Action to ensure all activities are carried out as planned, within the estimated budget and within the deadlines;

2) Be the intermediary for all communications between the beneficiaries and the Agency as specified in the Grant Agreement;

3) Keep track and immediately inform the Agency of any change in the name, address, legal representative as well as in the legal, financial, technical, organisational or ownership situation of any of the beneficiaries or of its affiliated entities, or to any event likely to affect or delay the implementation of the Action;

4) Supply all documents and information to the Agency which shall be submitted by the project coordinator according to the Agreement;

- 5) Make arrangements for timely and quality reporting as per the Agreement, including technical reports, financial statements, etc.;
- 6) Keep constant communication with the other beneficiaries and take appropriate measures for quality change and risk management;
- 7) Provide all the necessary documents in the event of checks and audits;
- 8) Where necessary provide translation and/or interpretation to facilitate the communication within the project.

Activity 5: Development of SED data management module

Within this activity a software solution will be developed that automates the processes of working with SED/NED in NHIF.

The following functionalities will be required:

- Retrieving from the information systems of NHIF the data needed for SED / NED;
- Storage of SED / NED for further reference;
- Reporting on operational and managerial activities concerning SED / NED;
- Information Security Management - data administration and user access management, backup, disaster recovery, etc.

The activity will be carried out according to the following tasks:

- 1) Selection of a contractor according to the provisions of the national legislation. NHIF will select a single contractor for the implementation of its respective sections of activities 2 and 3, as well as activity 5 (the activities are closely interconnected).
- 2) Analysis of requirements and preparation of specification that meets the requirements of the applicable EC regulations, national legislation and work processes in the NHIF. Identification of constraints arising from infrastructure and organizational framework.
- 3) Develop system design documents that contain:
 - Model of business processes;
 - Use cases model;
 - Model of the user interface;
 - Data Model - logical and physical;
 - Software architecture and component model with interfaces for communication between the components and/or external systems;
 - Test model.
- 4) Software development of the solution.
- 5) Documentation of the software solution. Preparation of manuals for installation, administration and use of the module.
- 6) Testing the NHIF module according to the test model of the system design.
- 7) Preparation of an environment within the information infrastructure of the National Health Insurance Fund for the deployment of the module - installing and configuring basic / system software and providing network connectivity with the NHIF systems. A production and test environment will be created within the infrastructure of the NHIF. Deployment of the module in the information infrastructure of NHIF.
- 8) Training of:
 - 3 IT employees in administration, installation and configuration of the NHIF SED data management module. The training will last at least 3 working days but not more than 5 working days.
 - 30 key users from NHIF central and regional units to work with the consumer functionality of the module, including “train the trainer” course. Course duration: two days.

Activity 6: Deployment of software modules for integration between the NSSI national application and the access point (AP) /RINA

NSSI will select a separate contractor for the implementation of the activity in accordance with the provisions of the national legislation. Contractor/s for activities 6 and 7 will be selected under a common selection procedure (the activities are closely interconnected).

The software modules will include all functionalities that are needed for sending and receiving SEDs via AP - NSSI. Also monitoring of the messages' status needs to be included. Using specific functionality, described in the EESSI Architecture pack, there are certain possibilities for connection. At the same time, because of NSSI AP role, some of the competent institutions behind the AP will be able to use the RINA functionality. In these scenarios, there is a possibility for many RINA installations, as well as the NSSI internal system, connected to the AP/RINA. The goal is to be able to follow the SEDs and to redirect them in case of needs or for even distribution.

Additionally, relevant training for IT staff will be organized.

By the end of the Action the Bulgarian EESSI system will need to have passed the conformance testing provided by the EESSI Core Service Platform or by a well-recognized conformance/interoperability testing organization. Changes to the source code to address possible non-conformance issues will be made. This task may require participation of all partner organizations.

Activity 7: Upgrade of the NSSI system with modules for storing SED/NED (non-structured electronic documents) and with modules for managing access rights to SED

NSSI will select a separate contractor for the implementation of the activity in accordance with the provisions of the national legislation. Contractor/s for activities 6 and 7 will be selected under a common selection procedure (the activities are closely interconnected).

This activity will be implemented via two tasks:

- 1) Upgrade of the NSSI system with modules for storing SED/NED (non-structured electronic documents);
- 2) Upgrade of the NSSI system with modules for managing access rights to SED of NSSI officers.

As far as the first task is concerned, NSSI has developed a prototype system for the treatment of structured electronic documents (SED) and attached not structured electronic documents (NED) based on a portal solution. In order to make use of this internal application the following will be necessary:

1. Develop the other SED in R, U, R, S, (H) series that are in the NSSI scope, regarding XSD schemas provided by the EESSI project to integrate data entry with the NSSI core systems;
2. Ensure compatibility and upgrade to the latest version of the SEDs and XSDs;
3. Provide design and re-design of the database prototype as required by the architecture and the updated SEDs XSDs;
4. Provide design for the GUI for the data entry, regarding the new XSDs provided by the EC;
5. Provide connectivity of the internal NSSI applications software in terms of optimizing the functionality at work, and having a single working environment;
6. Provide efficient way for visualization, regarding the clerk roles and separation of the data for different roles;
7. Reorganize and prepare the data through data transformation services (BI scenarios);

8. Data Validation – preliminary data validation, during the data transformation, formal data validation before sending the data to the EESSI ECO international part;
9. Describe the business processes and be able to use reverse engineering;
10. Install the solution on test and production infrastructure;
11. Train the IT staff – administering and support the system and training for developers for the source codes of the system;
12. Train the clerks involved in the SED processing for EESSI.

With regard to the second task, some of the data in the SEDs are sensitive and they have to be recognized by the local IT system. This task will cover the work on sensitive data; also authentication and authorization mechanism will be prepared. The EESSI security requirements have to be valid in the internal environment. Within the task user guides and EESSI local system security integration will be provided. Also documentation and system regarding the ISO 27001 requirements will be prepared. Additionally, relevant training for business and IT staff will be organized.

Activity 8: Internal coordination of project activities at ASA, NHIF, NSSI

The objective of the activity is to facilitate the fulfilment of all obligations and the role of the beneficiary, including:

- 1) Inform the coordinator without delay of any change likely to affect or delay the implementation of the action of which the beneficiary is aware or any other risks that may occur;
- 2) Inform the coordinator of any change in the legal, financial, technical, organisational or ownership situation or of its affiliated entities and of any change in its name, address or legal representative of the beneficiary;
- 3) Provide the coordinator with:
 - all the data needed to draw up the reports, financial statements and other documents provided for in the Grant Agreement,
 - all the necessary documents in the event of audits, checks or evaluation.
- 4) In case any changes need to be introduced in the project regarding the time, scope and pricing of the activities of the beneficiary provide the coordinator with complete information in order to carry out amendment procedure and get Agency's approval before any changes in the project scope are introduced;
- 5) Provide the coordinator with regular reports on the progress of the project.

ARTICLE I.4 – MILESTONES AND MEANS OF VERIFICATION

Milestone number	Milestone description	Indicative completion date	Means of verification
1	Contractor(s) have been selected for the activities	02/08/2019	Signed contract(s) with a contractor(s) for the implementation of the activities
2	Hardware has been installed and integrated. Software licenses have been supplied and the software installed	27/10/2019	Signed protocols confirming the operation of the devices. Software

			installation protocol (licenses)
3	National AP and RINA tested and accepted at all organisations	03/07/2019	Signed acceptance protocols
4	Interfaces for communication and data exchange between the national APs have been developed and deployed. Software for NSSI has been developed and installed	27/11/2019	Acceptance protocol(s) signed
5	Annual Report 2017 has been drafted and presented to the beneficiaries	28/02/2018	Written confirmation of a sent report
6	Work on Final Report and Financial Statements has started	27/11/2019	Draft of the report and financial statements
7	Documentation containing the system design for the realization of the SED data management module has been completed	15/04/2019	Acceptance protocol
8	Installation of the SED data management module has been successfully performed and tested	27/11/2019	Acceptance protocol
9	Software for NSSI has been developed and installed	27/11/2019	Acceptance protocols
10	Completed trainings of IT team and business users at all organisations	03/07/2019	List of the trainings conducted in all organisations, their programme and signed lists of participants
11	EESSI system in Bulgaria has passed the conformance test provided by the EESSI Core Service Platform in line with the latest conformance testing procedure	27/11/2019	Conformance test report

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(3) Table 2 of Annex III "Estimated budget of the Action" is replaced by the following table:

Table 2: Indicative breakdown per beneficiary of estimated eligible costs of the action (EUR)

	Direct eligible costs				Indirect eligible costs	Total eligible costs	Estimated CEF contribution
	Personnel costs	Subcontracting costs	Other costs	Total			
Activity 1	13,093	150,020	0	163,113	917	164,030	123,022
NRA	7,038	99,000	0	106,038	493	106,531	79,898
NHIF	6,055	51,020	0	57,075	424	57,499	43,124
Activity 2	39,642	119,146	0	158,788	2,775	161,563	121,172
NRA	15,908	53,589	0	69,497	1,114	70,611	52,958
ASA	13,735	44,358	0	58,093	961	59,054	44,291
NHIF	9,999	21,199	0	31,198	700	31,898	23,923
Activity 3	44,851	265,556	0	310,407	3,140	313,547	235,160
NRA	14,307	69,230	0	83,537	1,001	84,538	63,404
NSSI	2,232	20,000	0	22,232	156	22,388	16,791
ASA	18,313	127,179	0	145,492	1,282	146,774	110,080
NHIF	9,999	49,147	0	59,146	700	59,846	44,884
Activity 4	20,602	0	0	20,602	1,442	22,044	16,533
NRA	20,602	0	0	20,602	1,442	22,044	16,533
Activity 5	9,999	82,222	0	92,221	700	92,921	69,691
NHIF	9,999	82,222	0	92,221	700	92,921	69,691
Activity 6	3,348	40,000	0	43,348	234	43,582	32,687
NSSI	3,348	40,000	0	43,348	234	43,582	32,687
Activity 7	13,392	150,000	0	163,392	937	164,329	123,247

NSSI	13,392	150,000	0	163,392	937	164,329	123,247
Activity 8	18,543	0	0	18,543	1,298	19,841	14,881
NSSI	6,181	0	0	6,181	433	6,614	4,960
ASA	6,181	0	0	6,181	433	6,614	4,960
NHIF	6,181	0	0	6,181	433	6,614	4,960
TOTAL	163,470	806,944	0	970,414	11,443	981,857	736,393
NRA	57,855	221,819	0	279,674	4,050	283,724	212,793
NSSI	25,153	210,000	0	235,153	1,761	236,914	177,685
ASA	38,229	171,537	0	209,766	2,676	212,442	159,332
NHIF	42,233	203,588	0	245,821	2,956	248,777	186,583

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Article 2

All the other provisions of the grant agreement shall remain unchanged.

Article 3

The present amendment shall form an integral part of the grant agreement and it shall enter into force on the date on which it is signed by the last party. It shall take effect on 03/07/2019.

SIGNATURES

For the beneficiary National Revenue
Agency
Galya Dimitrova

For the Agency
Andreas Boschen

Done at Sofia, on

Done at Brussels, on

In duplicate in English.