Project Application Form
Under the Recovery and Resilience Facility

1. Project name

Development of National System 112 and creation of a new system for acceptance of emergency communications and resource management at the emergency response organizations , based on a single platform, in order to improve the service – Single European Number 112 on the territory of the Republic of Bulgaria.

2. Description of the project (objectives, main activities)

The main aim of the project is to provide a quality Single European Number 112 (SEN 112) service to assist citizens in need of assistance and increase the scope of the service provided in accordance with the progress and development of technology by creating a developing unified communication information platform, guarantor of security and trust.

Among the main tasks is the construction of next generation communication centers (Next Generation 112 – NG 112), connected in an electronic communications network with Packet Switching (PS), providing broadband information exchange in the network of the National System 112 (NS 112) – video, data, voice, and real time text and upgrading systems with new and modern services.

The project envisages the purchase of new – 1012 stationary and 830 mobile workstations. The unified platform that will be built under the project includes: software platform National system 112, communication, network and information infrastructure, licenses and integrations and will serve a total of 4081 workstations. In the Unified platform will be included not only the newly purchased 1,842 stationary and mobile workstations but also 2,239 existing workstations in the National System 112 and the Emergency Response Organizations.

The project is in line with the provisions of the European Electronic Communications Code.

Activities on the project:

I. Replacement of the operating system (delivery, installation):

1. National System 112 software platform and licenses

Delivery of software and licenses, as well as implementation of a single, integrated software platform of the next generation 112 according to internationally recognized standards in the EU and the European Emergency Number Association (EENA). The implementation of the software platform will include delivery, installation, configuration, adaptation, implementation, testing, and commissioning activities, which will be implemented with the full amount of necessary licenses for all users, which will be achieved after the implementation of the following activities:

- Centralized PSAPs (Public Safety Answering Points), built according to the NG 112 standard and using unified hardware and software resources;
- Consolidation of the so-called Command & Control functionality;
- Advanced Mobile Location (AML);

- eCall (EU-Standard);
- Communication Records;
- Automatic call distribution (ACD);
- Computer resource dispatching (CAD);
- Anti-congestion mechanism (key in implementing comprehensive, national 112 systems);
- Integration with active directory and implementation of Single Sign-On;
- Integrated incident management;
- Integrated resource management;
- Delivery, installation and configuration of workplace management software;
- Development of API or SDK for integration with future systems.

2. Medical module, upgrade, and integration

- Integration of the "Emergency Medical Information System" (EMIS) of the Ministry of Health with the software platform of NG 112 in order to ensure interoperability – real time information exchange;
- Upgrade with modern functionalities.

3. Unified communication and network infrastructure

- Providing a unified communication infrastructure – a hybrid IP/TDM communication platform for audio, video and real time text. The unified communication infrastructure will provide communication connectivity between the Public Safety Answering Points, the dispatchers, and mobile teams of the emergency services, hospitals, and others.

4. Information infrastructure – hardware and system software for main and backup data centers and recording system for objective control

- Delivery, installation, configuration, testing, and commissioning of hardware for main and backup data centers – server cabinets; server systems for: application servers, database servers, backup servers and libraries, voice record servers, and others; data storage systems (storages) and specialized storage for video files and photos (unstructured data), UPS devices and backup power;
- Delivery, licenses, installation, configuration, testing and commissioning of software: system (Operation System), backup software, recording system software (encrypted recording system, archiving and playback of audio, video, and photos) and others;
- Delivery, installation, and configuration of application software servers and configuration of virtualization software;
- Delivery, installation and configuration of database management software.

5. Workstations – stationary – 1012.

II. Improving new functionalities and completion of the platform with the activities under item I for all Emergency Response Organizations (EROs). Workstations – mobile 830. Integration with Integrated Automated Security System (IASS), Radio-communication system TETRA (TETRA), Geographic Information System (GIS), and systems of the

Ministry of Health. Finishing activities in the architectural and construction part for data centers:

1. Upgrading of new functionalities and completion of the platform with the activities under item I. for all EROs.

    - National System 112 software platform and licenses;
    - Medical module, upgrading, and integration with the National Health Information System (NHIS);
    - Unified communication and network infrastructure;
    - Information infrastructure – hardware and system software for main and backup data centers and recording system for objective control.

2. Workstations – mobile – 830.
3. Integration with IASS, TETRA, GIS, and systems of the Ministry of Health.

    - Integration with software(s) for Traffic Management and Analysis in large settlements;
    - Integration with GIS of the Ministry of Interior;
    - Integration with video systems – Integrated Automated Security System (IASS);
    - Integration with the TETRA system of the Ministry of Interior. TETRA will be integrated into NG 112 and will be used for voice communication with the teams of emergency medical teams, police, fire teams, mountain rescue service, maritime administration and others.

4. Finishing activities under item III.

III. Architectural and construction part for data centers and furnishing of working halls:

- Architectural and construction part for at least two data centers, managed by Ministry of Interior, such as reconstruction and renovation;
- Architectural and construction part for at least four working halls in PSAPs 112, as reconstruction and renovation;
- Furnishing of new type of workplaces, in accordance with the functionalities of the system and with the conditions for ergonomics, safe and healthy working conditions, etc.

IV. Training:

Training for work with Next Generation 112 platform and the Emergency Medical Information System of operators, coordinators and administrators in PSAPs, dispatchers and teams of EROs.

V. Technical support:

- System maintenance (full) for 3 years in 24/7/365 mode;
- Ensuring complete maintenance of a unified communication infrastructure with reliability 0.999999 (maximum allowable time for non-functioning of the service – 0.52 minutes for 365 consecutive days);
- Providing complete support of the NG 112 platform and UCITS with reliability of 0.9999 (maximum allowable time for non-functioning of the service – 52 minutes for 365

consecutive days). Support covers all hardware and software components of the communication, network and information infrastructure, stationary and mobile workstations in 24/7/365 mode and their connectivity and joint continuous operation.

3. Beneficiary

The beneficiary will be the Ministry of Interior and the Ministry of Health.
Leading structures and partners:

- **Leading structures** – Directorate "Communication and Information Systems" – Ministry of Interior and "National System 112" Directorate – Ministry of Interior.
- **Partners –** Ministry of Interior (General Directorate Fire Safety and Civil Protection, General Directorate National Police and Regional Directorates of Interior), Ministry of Health, national emergency response organizations according to Art. 19 of the Act on the National Emergency Call System Employing the Single European Number "112", regional and municipal centers, etc.

4. Time schedule for project Implementation, including activities, stages[1].

Activity	Months																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Preparation and implementation of a public procurement procedure	X	X	X	X	X	X	X																			
Activity 1 Replacement of the working system (delivery, installation)								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Activity 2 Improving new functionalities and completion of the platform with the activities under item I for all EROs. Workstations - mobile 830. Integration with IASS, TETRA, GIS, and systems of the Ministry of Health. Finishing activities in the architectural and construction part for data centers								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 3 Architectural and construction part for data centers and furnishing of working halls								X	X	X	X	X	X													
Activity 4 Training																			X	X	X					
Activity 5 Technical support																										

Activity	Months

[1] The schedule will be relevant for setting intermediate targets under the Recovery and Resilience Plan. It is directly related to the release of tranches of financial support from the Recovery and Resilience Fund.

	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Preparation and implementation of a public procurement procedure																										
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Activity 3 Architectural and construction part for data centers and furnishing of working halls																										
Activity 4 Training							X	X	X																	
Activity 5 Technical support										X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Activity	Months																		
	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
Preparation and implementation of a public procurement procedure																			
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Activity 3 Architectural and construction part for data centers and furnishing of working halls																			
Activity 4 Training																			
Activity 5 Technical support	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

4.1. When can the project implementation start at the earliest after its approval?

The project is ready for implementation immediately after its approval for funding.

5. Indicative financial resource by activity, including sources of financing (national budget, European funding, private funding, IFIs)

Total for the whole project: European funding of 56 700 000 leva with VAT .

The justification for the proposed indicative budget is available here. Обосновка-индикативен-бюджет-NG 11

5.1. Indicative allocation of the financial resource, depending on the type of expense

Architectural and construction part for data centers and furnishing of working halls	9,75 %
Unified communication and network infrastructure	13,20 %
National System 112 software platform and licenses	26,21 %
Hardware and licenses for the software in data centers (main and backup)	10,46 %
Workstations (stationary and mobile)	9,75 %
Integration with IASS, TETRA, GIS and systems of the Ministry of Health	9,29 %
Labor	1,27 %
Technical support	20,08 %

6. Indicators

6.1. Result indicator/s

1. **Equipment of the PSAPs and dispatch centers of the EROs with stationary workstations**

   - Initial value – 250 [2nd half of 2021]
   - Final value – 1012 [2nd half of 2022]

2. **Established national system for next generation emergency communications**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [2nd half of 2022]

3. **Access of mobile response units – emergency medical teams, police, fire teams, mountain rescue service, maritime administration, etc. to the information and communication infrastructure of the National System 112**

   - Initial value – 0 [2nd half of 2022]
   - Intermediate value – 300 [1st half of 2023].
   - Final value – 830 [2nd half of 2023]

4. **Developed interface between the Radio-communication system TETRA of the Ministry of Interior and the National System 112 by all participants in the process of servicing emergency communications**
   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [2nd half of 2022]

5. **Built interface between the National System 112 and the built Integrated Automated Security System (IASS) of the Ministry of Interior**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [2nd half of 2022]

6. **Reconstructed and renovated two data centers, managed by the Ministry of Interior**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 2 [2nd half of 2022]

7. **Reconstructed and renovated four working halls in PSAPs**

   - Initial value – 0 % [2nd half of 2021]
   - Intermediate value – 90 % [2nd half of 2022]
   - Final value – 100 % [1st half of 2023]

8. **Furnished workplaces of a new type, compliant with the functionalities of the system and with the conditions for ergonomics, safe and healthy working conditions, etc.**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 80 [2nd half of 2022]

9. **Conducted 5 types of training for 700 employees by groups – operators, coordinators and administrators in PSAPs, dispatchers and teams of the Emergency Response Organizations**

   - Initial value – 0 [1st half of 2022]
   - Final value – 5 [2nd half of 2022]

6.2. Effect indicator/s

1. **Implemented system for IP communication with 112, including video, audio and real time text**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [2nd half of 2022]

2. **Developed system for computer control of the responding units – emergency medical teams, police, fire teams, mountain rescue service, maritime administration, etc.**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [1st half of 2023]

3. **Introduced function for automatic tracking of the location and condition of the forces and means of response (ambulances assigned for a given incident)**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [1st half of 2023]

4. **Established broadband IP communication and logical connection of National System 112 with the Traffic Management Centers in order to transmit video information to EEN 112 from the road cameras**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [2nd half of 2022]

5. **Created opportunity for cross-border communication with PSAPs outside the country and integration with GIS of the Ministry of Interior**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [1st half of 2023]

6. **Implemented connectivity and exchange of information with the traffic control centers, including an exchange of video information to 112 of the road cameras and camera management based on information about a traffic accident and from 112 to the traffic control centers received on other information channels**

   - Initial value – 0 [2nd half of 2021]
   - Final value – 1 [2nd half of 2023]

7. Does the project require the opening of a procedure pursuant to the Public Procurement Act (PPA)?

Yes.

The public procurement for the implementation of the project will be awarded under the Public Procurement Act – 1 open procedure.

Contracting authority of the public procurement will be the Ministry of Interior and the Ministry of Health, and the respective structures will also be beneficiaries.

7.1. If a procedure under the Public Procurement Act is required, what part of the activities and financial resources will be subject of the public procurement?

99 %

7.2. If a procedure under the Public Procurement Act is required, what is the indicative schedule for its implementation?

- 3 months for preparation of tender documentation;
- 3 months for publishing and conducting a tender procedure;
- 1 month for conclusion of the public procurement contract with the selected contractors;
- 64 months for implementation of the contract under Public Procurement.
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8. Demarcation and complementarity

8.1. If similar projects have been implemented (regardless of their source of funding), describe how this project builds on/complements what has been achieved with previous

projects.

The existing National System 112 has six PSAPs for receiving calls, one for each economic region. All PSAPs are connected and in the absence of a free operator in a PSAP, the call is diverted to another PSAP. If one of the PSAP cannot be accessed (does not answer the call) due to a fault, then calls to this center are redirected automatically to another.

The organization of work of the National System 112 allows each PSAP to receive calls from any geographical point of the country, including outside the respective economic region. The classification of cases is made according to a pre-approved classifier as each type of incident corresponds to a unique code. Having received a call, PSAP refers the incident to the dispatch center of the relevant regional emergency response organization and, if necessary, set up a conference call. There is a cross-link between 112 telephone centrals and emergency services. The dispatch of forces and means of response is carried out by the EROs, which generally use their related communication and information systems. Initially, each call is automatically routed to the PSAP on a territorial basis to an operator who speaks the language of the caller and serves the relevant economic region. In the absence of a free operator speaking the relevant language, the call is redirected to another PSAP, where one is available. In the absence of a free operator in PSAP serving a respective area, the call is automatically redirected to another PSAP, where there is one.

The implementation of this project will provide a quality European EEN112 service to provide assistance to citizens in need of help and increase the scope of the service provided in accordance with the development of technology, by creating an evolving unified communication and information platform, guaranteeing citizens' security and trust in EEN112.

The construction of next generation emergency communication centers , connected in an electronic communications network with Packet Switching, will provide a broadband exchange of information in the network of the National System 112 (video, data and real time text) as well as upgrade the systems with new and modern services.

Processes and procedures will be improved with opportunities for fast and structured exchange of contextual and situational data transmitted in real-time through all possible channels – voice, video and real time text. This will help organizations to cooperate more effectively and reduce the response time of the responding organs.

8.2. If similar projects are envisaged to be implemented under the Partnership Agreement programs, the centrally managed facilities of EU or the Just Transition Fund, outline the demarcation with this project.

No similar projects are foreseen for this project under the Partnership Agreement programs, the EU's centrally managed instruments, or the Just Transition Fund.

Demarcation and complementarity with funds/instruments in the field of Internal Affairs

The demarcation regarding the support under the Funds in the field of "Internal Affairs" and the Mechanism for Recovery and Resilience will be provided through the different scope and focus of activities/costs/funded/expected to be funded given the specific objectives of the respective tools.

The projects and activities funded under Internal Security Fund (ISF) 2014 – 2020 are aimed to ensure effective border control at the EU's external borders and at preventing and combating cross-border, serious, and organized crime, including terrorism, and increasing the capacity for effective management of security risks and crises.

For the next programming period, support is expected to continue for activities in the field of effective management of external border control (under the Instrument for Financial Assistance for Border Management and Visas 2021 – 2027) and to increase the exchange of information, cross-border operational cooperation and capacity building in the fight against and prevention of serious and organized crime, including terrorism (under the Internal Security Fund 2021 – 2027).

The project proposed for funding under the Mechanism for Recovery and Sustainability aims to build a new system for emergency communications and resource management of emergency services, based on a single platform built according to the standard NG 112. The implementation of the planned activities will provide the necessary conditions for the work of the emergency response services and local authorities in the efforts to provide adequate protection of the population and effectiveness in combating crime for the competent structures of the Ministry of Interior and local government, as well as prevention and protection from disasters and accidents.

The scope and implementation of the activities included in the proposed project go beyond the areas of support of the Funds in the area of Internal Affairs.

Ensuring complementarity, demarcation, and non-admission of double funding in terms of support provided under the Internal Affairs Funds will be achieved through the established mechanisms for coordination with other EU-funded programs and instruments.

9. Does the project directly contribute to the implementation of any of the Council's Specific Recommendations addressed to Bulgaria in the framework of the European Semester in the period 2017-2020? Please describe how.

The project directly contributes to the implementation of some of the Council's recommendations addressed to Bulgaria in the framework of the European Semester in the period 2017 – 2020, as the implementation and functioning of the National System 112 provide the necessary conditions for emergency services and the local government in the efforts to provide adequate protection of the population and efficiency in the fight against crime for the competent structures of the Ministry of Interior and the local government, as well as the prevention and protection from disasters and accidents.

At the same time, the project is directly related to measures in order to deal effectively with the COVID-19 pandemic, ensuring a timely response by the competent authorities.

The project for the development of a unified information platform of the National System 112 will facilitate the work of the emergency medical care teams. The platform will immediately be able to locate the nearest and/or most appropriately equipped ambulances to service the incident, and on the other hand the most appropriate medical institution that has the capacity to take the case. In the meantime, video communication between ambulance crews and hospital teams will be possible. This would shorten the response time to a great extent and lead to the saving of human lives.

What is envisaged in the project corresponds to the recommendation under item 4 "To minimize the administrative burden for enterprises by improving the efficiency of public administration and strengthening e-government" according to the project of Council Recommendation on the National Reform Program of Bulgaria for 2020 and containing an opinion of the Council on the convergence program of Bulgaria for 2020. This project corresponds to the recital under item 24 of the project of Council Recommendation, according to which Bulgaria lags in the provision of electronic services and their use by citizens and businesses should be encouraged.

Public confidence in the institutions will also increase in ensuring the prevention and protection of the population, which is an important condition for maintaining the viability of the economy in the conditions of the COVID-19 pandemic.

10. Does the project contribute to the implementation of a reform in a given sector? Please describe how.

The project will significantly increase and modernize the security sector and the operational activity of employees inside and outside the Ministry of Interior – the competent structures in the central and local government.

For this reason, the reduction of crime and the taking of specific precautionary actions in the protection of life, health, and property of the population is extremely important for the growth and

sustainable development of the country.

In addition, it increases digitalization and the ability to upgrade to current technological innovation solutions, as well as impact on environmental efficiency and environmental protection policy.

The digitalization of the information visualized on the geographical environment will modernize the security sector and the operational activity in the Ministry of Interior, as well as will further develop the interaction between the Ministry of Interior, the Ministry of Health, the regional and municipal centers.

11. Does the project contribute to the development of any aspect of sustainable economic development? Please describe how.

The creation and implementation of a single, integrated software platform for Next Generation 112 according to internationally recognized standards in the EU and the European Emergency Number Association, together with parallel efforts for increasing the level of prevention and rapid response of competent authorities for detection and prevention of disasters and crises affecting people's lives, health, property, and material values will significantly ensure a higher quality of life and support sustainable economic development.

12. Does the project contribute to the implementation of the objectives of the National Development Program BULGARIA 2030? Please describe how.

The implementation of the project contributes to the implementation of the objectives of the National Development Program BULGARIA 2030, both directly related to the main axes of development, respectively the priorities and objectives related to them, and by indirectly supporting the implementation of other objectives set in the program. An important condition for the successful implementation of the set goals is ensuring public order and protection of the population. For the proper functioning of the responding units, it is of crucial importance to build centers for emergency communications of the next generation (NG112), connected in an electronic communications network with Packet Switching, providing broadband information exchange in the network of National System (video, data and real time text) and upgrading systems with new and modern services.

Priority 8 “Digital Connectivity”, Development Axis 3, Objective 11 for Sustainable Development Transforming cities and towns into inclusive, safe, adaptable, and sustainable places to live, and

Priority 8 “Digital Connectivity”, Development Axis 3 “Connected and Integrated Bulgaria”, indicator Pillar “Connectivity”.

13. Does the project contribute to the implementation of the objectives and priorities set out in the National Integrated Energy and Climate Plan? If yes, please describe how.

The implementation of the project will reduce the response time and sending responding units to the scene of the incident after a signal to 112 for accidents and emergencies in the gas and electricity network, which in turn will increase the prevention and protection of gas and electricity transmission infrastructure, preventing the air, environmental and water pollution as a global risk to human life, health, and property.